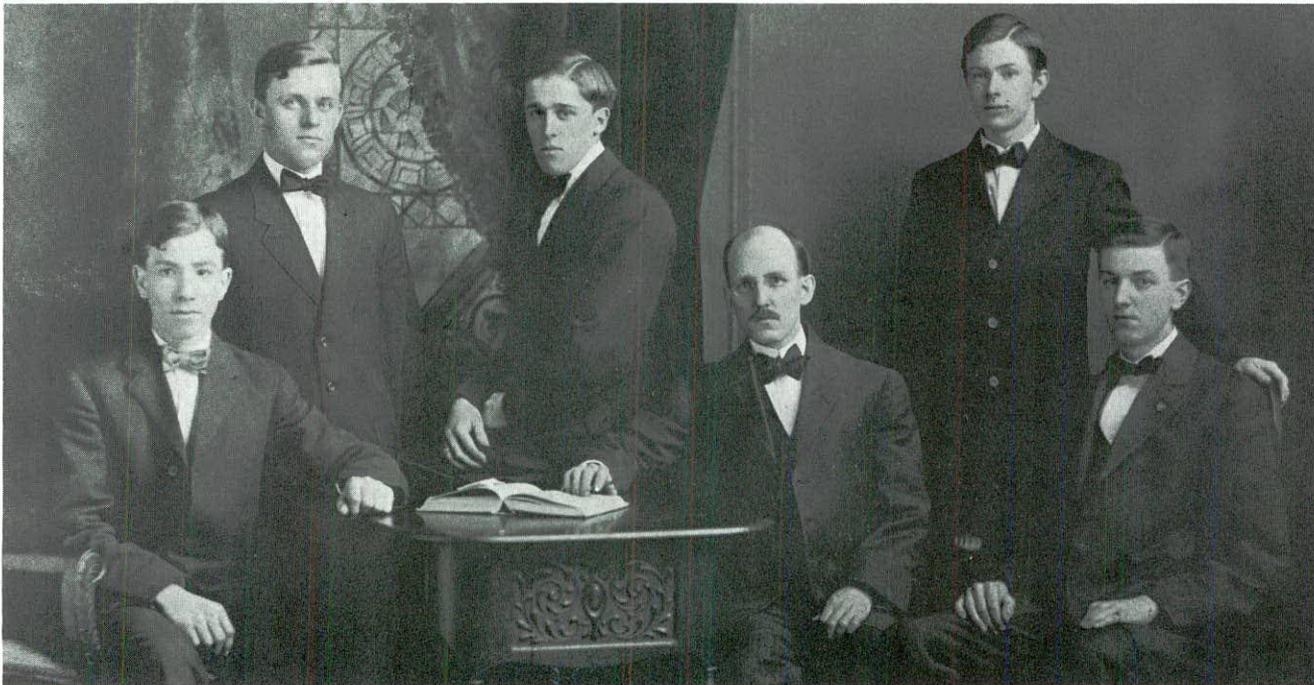




Diamond Jubilee

Seventy Five Years

1909-1984



First AES Executive Committee (1910). Only identifiable individual is George Hogaboom (fourth from left), second Society president. Can anyone help with the others?

## Collated by Rodney Leeds Foreword

Seventy-five years in the life of the American Electroplaters' Society embraces so vast an amount of activity by individual members, officers, boards, sections, committees, branches and regionals that, to present a complete history of the Society, a monumental publication—far beyond the scope of this treatise—would be required.

The first 50 years were related at the Golden Anniversary in 1959 by John P. Nichols, and published in *Plating* (June 1959) and as a separate pamphlet, titled *Milestones of AES*. A significant portion of that material is now republished with some rearranging, updating and additions.

No attempt is made to include the fascinating history of the surface finishing industry for the 75-year period.

Looking back three-quarters of a century, the life span of the American Electroplaters' Society brings vividly into focus a host of individuals whose vision, selfless contribution and labor have brought the organization to its present state of greatness.

On March 6, 1909, when the salary of foremen platers was on the order of \$27.50 weekly, Charles H. Proctor, a farsighted New Jersey plating and foundry supervisor, achieved his cherished dream by inspiring a meeting of some two dozen foremen platers at the old Hotel Chelsea in New York, NY, for the purpose of creating a non-profit association to advance the science of electroplating, metal finishing and allied processes.

Friday, March 19, the same pioneering group, with some enthusiastic additions, met again, this time at the Big Apple's historic Astor House, for further consideration and action. Out of their thinking and planning, the National Electro-Platers Association of the United States and Canada (NEPA) came into formal being at an organizational meeting held at the Chelsea Hotel, Saturday, April 10. There, the infant association's Constitution and Bylaws were approved by 60 charter members, and founder Charles H. Proctor was elected NEPA's first president, with Benjamin W. Gilchrist,

secretary; Nathan S. Emery, treasurer; George B. Hogaboom, librarian. Among the founding members who were to be prominent for many years in the industry were: Harry C. Bernard, Royal F. Clark, Frederick C. Clement, Edward W.T. Faint, Palmer H. Langdon, Frederick F. Pierdon, William Schneider, Horace H. Smith, Justus A. Stremel and Thomas A. Trumbour.

NEPA became incorporated as a New York non-profit educational association on October 18, 1909. The principal reasons for incorporation were fourfold: (1) to advance and disseminate "knowledge concerning the art of electro-deposition of metals," (2) to maintain a laboratory equipped for research work, (3) to conduct meetings for the purpose of presenting papers on appropriate technical and scientific subjects, and (4) to publish technical literature.

Within 3 months, NEPA had conducted its first Annual Banquet at the Old Marlborough Hotel in New York. This was the forerunner of today's Annual Technical Conference, SUR/FIN.

The organization had three classes of membership. "Active Members" had to be foremen electroplaters or electrochemists. "Associate Members" were employees of supply houses. "Honorary Members" were described as men of knowledge preeminently valuable to the association. It had a board of trustees consisting of five members, three of whom had to be electroplaters. There were 17 officers; a president, 10 regional vice presidents, a recording secretary, a corresponding and financial secretary, a treasurer, a librarian, a sergeant-at-arms and an assistant sergeant-at-arms.

The association met monthly on the first Saturday. Annual dues for active members were \$5—but just \$3 for associate members. The president could grant a charter to any applying body of foremen electroplaters and electrochemists if the application was approved by two-thirds of NEPA's members.

On September 10, 1910, the first branch was formed in Philadelphia by charter member F.C. Clement of the Victor Talking Machine Company.

### The First Journal

Needing a medium of its own through which to further the knowledge of its members, NEPA inaugurated a quarterly magazine in June 1910 titled *Quarterly Review*, progenitor of *Monthly Review*, *Plating*, and today's *Plating and Surface Finishing*. The original print order was for 500 copies.

Though NEPA's headquarters was then located in New York and its members met at 309 W. 23rd St., its first editorial office was in the Jersey City home of the *Quarterly Review's* first editor, August G. Hoffman. George B. Hogaboom assumed the editorship in March 1911. Under his guidance—and aided by such associate editors as Adolph Wahl, Amos G. Reeve, Royal F. Clark, John E. Grant, Frederick C. Clement and Charles H. Proctor—the quarterly made rapid headway. That same year a new branch was formed in Rochester, NY.

### First Exposition

The year 1912 saw NEPA, now with 144 active members, make even greater progress. It became international by the formation of the Toronto Branch in Canada. Walter S. Barrow, who was to become the fourth president of AES, was the principal organizer of the Toronto Branch and was its first president. Among the 24 charter members were W.W. Wells Sr. and Jr. The Wells name is still prominent in the Society in its 75th year. Branches were also chartered in Indianapolis, Detroit, Chicago and St. Louis.

NEPA's third banquet not only was by far its largest but also featured (quoting *Quarterly Review*) the "first exhibition of electroplating apparatus and finishes in the United States." Held in New York, Saturday, February 10, 1912, as the afternoon phase of that Third Annual Banquet, "the informal exhibit—worked up only 10 days before the banquet—met with such willing responses from manufacturers of electroplating supplies," said the *Review*, "that nothing short of a full-fledged exhibition will satisfy the demands for next year."

The Egyptian Lacquer Manufacturing Company of New York provided badges for the day. "The buttons," *Quarterly Review* reported, "were consecutively numbered, and as

each guest arrived, the Reception Committee had him register, then presented him with a badge. On one of the walls of the room was a bulletin headed 'Introduce Yourself,' and opposite the corresponding number of each badge was the name and address of each guest. This feature added much to the pleasure of the day, and through it, many old friendships were renewed, and men known to the trade by name only became acquainted with their fellow-platers." The exhibitors' list ran the gamut of that era's progressive and growing source of supply. Some are with us in 1984.

That same 1912 winter evening, 182 NEPA members and guests, males all, convened at the banquet itself compared with 130 the prior year. "The hall," according to *Quarterly Review*, "was beautifully decorated, and multi-colored carnations were scattered over the tables. Elegant engraved menu cards upon which the emblem of the Association was embossed in gold were the gift of the Celluloid Zapon Company."

President Charles H. Proctor, NEPA's founding father, was toastmaster. Among technical papers presented at that evening's meeting was "Galvanizing" by Louis Pothoff, president of the United States Electro-Galvanizing Company of Brooklyn, NY. "It was illustrated by many stereoptical views made especially for the occasion."

From the Eureka Pneumatic Spray Company each guest received an ash tray finished in old ivory. The same source presented President Proctor with a large statue of Venus de Milo finished in verde antique. Philadelphia Branch President Clement was honored with a pair of Bonheur models of the lion and lioness—finished in black with verde relief—and a 20-inch statue of "The Athlete" was given to the newly organized Indianapolis Branch.

### From NEPA to AES

But 1913 was an even more eventful year for burgeoning NEPA. It reorganized on June 1 as the American Electroplaters' Society, with a membership of over 350. With the creation in 1913 of the Newark, Milwaukee, Dayton, Cincinnati and Buffalo Branches, the Society had issued 13 charters.



Ribbon for 1912 banquet of National Electroplaters Association of United States and Canada, forerunner of AES.

### The Annual Conference, SUR/FIN

The Annual Technical Conference, AES SUR/FIN, serves multiple purposes. It provides for the presentation of a technical program, annual meeting of the Council of Delegates and an industrial exhibit.

More than 10 years ago, the term Annual Convention was changed to Technical Conference. The Industrial Finishing Exposition has become the Exhibit of Surface Finishing. All included under the catchy nomenclature, SUR/FIN.

The Council of Delegates holds its annual meeting to elect the officers and directors of the Society, receive reports, and conduct such other business within its jurisdiction. Boards, committees, sections and regionals hold meetings. Plant tours are provided.

These annual affairs are hosted by branches or regionals, and are held in the larger cities in the U.S. and Canada. The technical program has grown to as many as 14 sessions, presenting some 80 papers. A wide variety of subjects are covered, serving the interests of all segments of the industry. More than a hundred suppliers occupy booths to exhibit their processes and products.

Social functions fill the few off hours. A day or afternoon outing is usually part of the program. Special affairs and entertainment are arranged for the ladies, guests and youngsters. The Metal Finishing Suppliers' Association (MFSA) hosts an evening of pleasure and a cocktail party before the annual banquet.

To effect its transition, AES conducted its First Annual Convention on June 1, 1913, in New York, with founder Charles H. Proctor presiding. At that initial Annual Meeting of the Supreme Society, AES inducted its first national officers: George B. Hogaboom (New York), president; Col. J.H. Hansjosten (Chicago), first vice president; W.S. Barrows (Toronto), second vice president; John J. Schultz (Detroit), treasurer; and H.E. Willmore (Chicago), editor.

"The object of this Society," stated Article I, Section 2, of the new Constitution, "shall be the improvement and dissemination of knowledge concerning the art of electrodeposition in all its branches. All laws and rules must be so formed that the Society will promote no other object than the education of its members in all the principles of electrodeposition and coloring of metals."

The AES governing council was the Supreme Society (which continued until 1963), composed of three active members from each "Branch Society." According to the Constitution, the Supreme Society was "the Supreme Court of the entire Society" and its decisions were final.

Leadership, as previously mentioned, was then composed of the national president, first and second vice presidents, a secretary-treasurer, and an editor. These plus the immediate past president composed the Executive Board. The principal office was located in New York and the Society was a state non-profit corporation. The AES was required by its Constitution to maintain a publication.

As in NEPA, the membership classifications of AES were active members, associate members and honorary members. The Society's fiscal year commenced on June 1. Dues for members of "Branch Societies" were \$5 a year per person. Each "Branch Society" had to pay a 35 percent per

capita tax for the maintenance of the Supreme Society, payable annually in four quarterly installments.

Though today's AES Constitution and Bylaws are modern instruments kept apace of changed times and needs, it is nevertheless amazing that so many of today's AES policies stem basically from the principles enunciated in that pioneering instrument framed by founding fathers so long ago.

The first issue of *Quarterly Review* in 1910 contained 28 pages with such technical articles as: "The Art of Decorating Metals with Pigments and the Production of Antiques" (Charles H. Proctor), "The Care of Lacquers" (W.A. Jones), "The Production of Matte Gold Finish" (Royal F. Clark), "The Electrical Side of Electroplating" (William Voss), "Water-Dip Lacquers and Their Use" (C. DeBraun), "Roman Color on Gold Jewelry" (Charles A. Stiehle), "The Rose Gold Finish" (Justus A. Stremel) and "The Green Gold Finishes" (August G. Hoffmann).

The June/July/August issue of *Quarterly Review* was the first under the aegis of AES. Grown to 48 pages and edited by Samuel R. Taylor, with the national president and all branch presidents as associate editors, it now featured a broader technical editorial scope with three articles on copper and brass plating, one on cleaning stove parts, one on acid zinc plating and several on general topics.

During these early days of AES, electroplaters closely guarded their knowledge and processes. An editorial in that same issue stated: "Narrow-mindedness and secrecy among the members themselves is to be frowned upon. No one should have joined the Society whose intention it was to have absorbed all the benefits to be had and give none in return. Let us be liberal in our knowledge to one another."

## Electroplating Courses

The AES Intensive Training Course is based on a selected group of 27 of the Illustrated Lectures. The 4½-day course provides basic knowledge of electroplating and finishing practices, which include the fundamental aspects of chemistry, electrochemistry and electricity. The course was conceived by Dr. Donald A. Swalheim, and was first given in Philadelphia in October 1972, with 46 students. Over 2000 students have taken the course. Eleven courses were given in 1983, including those in Singapore and South Africa. AES has been fortunate to have such skilled instructors as Dr. Samuel Heiman, Richard G. Baker, Lawrence J. Durney, Morton Schwartz, and Fred Pearlstein, in addition to Dr. Swalheim.

The correspondence course covers the same ground as the Intensive Training Course.

The new one-day Short Courses will cover many subjects. At Diamond Jubilee time, courses include: Gold Plating for Electronic Applications, Plating Through-Holes for Printed

Circuits, Solving Surface Finishing Problems. Then there is the 2½-day course, Environmental Compliance & Control, first given in 1980. A new Intensive Training Course in Surface Finishing for Electronics will debut this October.

Several branches conduct electro-

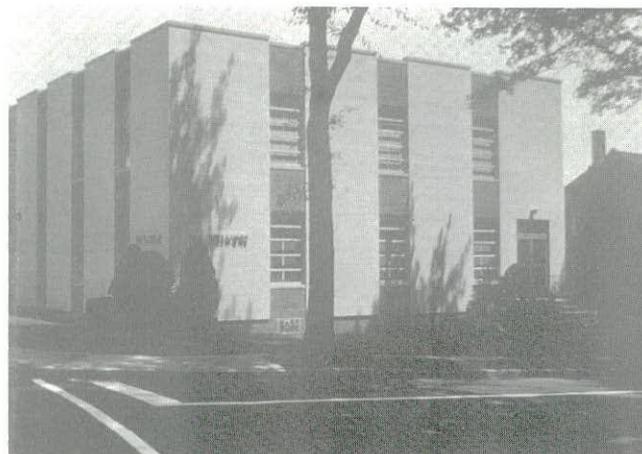
plating courses and have done so for many years. Among these are Buffalo, Chicago, Cleveland, Dallas/Ft. Worth, Denver, Indianapolis, Los Angeles, Montreal, Milwaukee, Newark, New Haven, New York, Philadelphia, Providence-Attleboro, St. Louis, Rockford and Toronto.

Dr. Donald Swalheim (left) with Earl Winters.

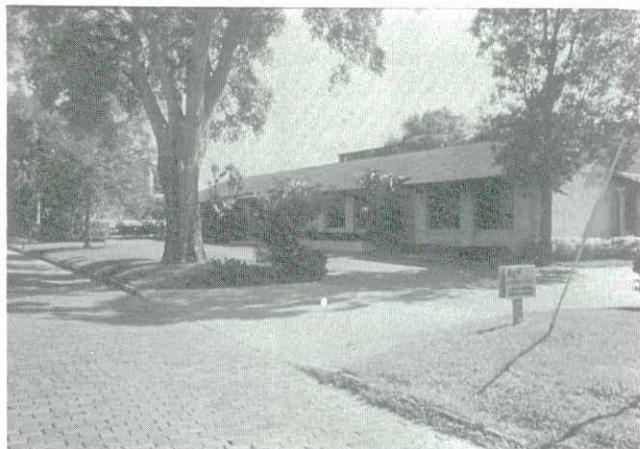
## Evolution of AES Headquarters



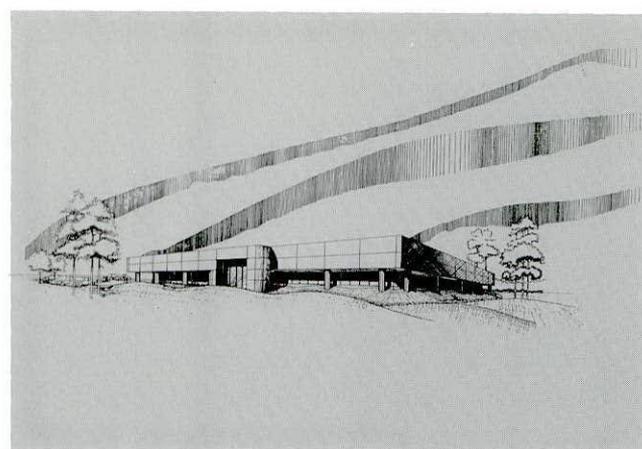
Broad St. location in Newark, 1952.



Moved to Melmore Gardens, E. Orange, NJ, in 1967.



Current facility in Winter Park, FL, was occupied in August 1976.



Artist's rendering of building to be occupied in Central Florida Research Park, Orlando, this September.

Growing membership and the Society's ambition to further technical knowledge resulted in increasing the frequency and thus usefulness of the official journal. In June 1914, the quarterly publication became *Monthly Review*. It was enlarged and was edited by H.E. Willmore.

In the December 1914 *Monthly Review*, the editor devoted considerable space to the role of the supply house. Here is a portion of his comments: The supply house "has been asked to be a veritable encyclopedia of information, and has been used as an employment bureau and in many ways has accomplished a great deal of good. It should, and I believe does, welcome the new conditions with acclaim, as all of the features which the Society cultivates tend to make these tasks easier in the future. The education of the plater will fit him to understand many things which have heretofore seemed mysterious to him and of which he has always been more or less skeptical and hence the selling of honest goods will become an easier problem."

By 1918, at the end of World War I, AES had increased its number of branches to 18—the additions being Cleveland and Bridgeport (1914), Toledo (1915), Syracuse and Providence (1916), and Grand Rapids (1918). Meanwhile, the Buffalo Branch, born in 1913, was terminated.

Within another year, the AES had chartered still another branch, Pittsburgh, and the Providence Branch had expanded by adding Attleboro, becoming today's Providence-Attleboro Branch. Membership was some 800 at year-end 1919.

At the Annual Banquet of the thriving Chicago Branch,

President Walter J. Fraine described the progress of that decade:

"We can look back over the past 10 years and can contrast the conditions prevailing at that time with those of the present. Every one of us realizes that an immense improvement has taken place in processes and methods, and it has largely been accomplished by the thought and work of the members of this Society. Every new process, method and material used has been placed at the disposal of all of our members through the papers of our Branch Societies and our Annual Conventions, adding to our knowledge and usefulness, and raising the standards of electroplating from an empirical art to a profession."

Despite the depression of 1920-21, the AES continued its progress. In 1920, it chartered a Reading, PA, Branch, and in 1921 added branches in Boston, Waterbury and Connecticut Valley (now Hartford). In that same year, it also launched a second Canadian branch, Montreal. Now there were 24.

### Research Introduced

In 1919, the National Bureau of Standards embarked upon expanded research in cooperation with private industry. The AES was among the earliest to enter into cooperative relationship with the bureau on important research to advance the science of electroplating and metal finishing. The bureau provided the equipment, space, supervision, and marshaled, tabulated and made the resultant data available to all concerned. The AES furnished the funds for man-

# METAL FINISHERS EXPOSITION

The first of its kind—a sure indication that the AES is a progressive organization especially the

## The Dayton Branch



### OBJECT :

To tell the world how art and science combined to produce the beautiful finishes on metal that are seen and admired in every home. For further information see page 3, 23-26.

**APRIL 9-14, 1923**

**MEMORIAL HALL, DAYTON, OHIO**

Promotion for Dayton Branch meeting in 1923.

power (one research fellow to start, more later). Dr. William Blum was the program's spark from origin. The Bridgeport Branch was the first to contribute to the AES research fund.

In order to provide efficient collaboration with the bureau and Dr. Blum and to establish sound AES direction and coordination over its program, including fund-raising, the AES established its first Research Committee in 1923. In 1925, it called for financial contributions not only from its branches but also from some 1600 American and Canadian manufacturers. The amount sought was \$50 apiece per year. As of May 1926, it had collected \$2450.

Among the first organizations to contribute to that first general research fund were: Bell Telephone Laboratories, Felt & Tarrant Co., Oneida Community Company, Ltd., General Motors Corporation, Crown Rheostat & Supply Co., International Nickel Co., American Zinc Institute, General Electric Company, G.J. Nikolas & Co., Canada Cycle & Motor Co., Wyandotte Chemical Co., Frederick B. Stevens Co., George A. Stutz Mfg. Co., Westinghouse Electric Co., The Meaker Company, and Hanson-Van Winkle-Munning Co. It is interesting to note that many of these same donors have continuously contributed to AES research to the present time.

### The Twenties and Thirties

In 1919, Mrs. Esther Zalia Jencks Gailey became the first woman to be granted AES membership. She was made an honorary member and to the present time is the only woman to hold that designation. She was with the National Bureau of Standards.

The *Monthly Review's* first pictorial illustration, a half-tone of a group photo from the AES 10th Annual Convention, Cincinnati, was published in 1922. It was there that the Constitution and Bylaws, as rewritten by an appointed committee of past presidents, was adopted by the Supreme Society, thereby keeping AES laws apace with the times.

At the 12th Annual Convention, held in Milwaukee in 1924, a hotel room with bath was \$3.50 a day, and the convention registration fee was \$6. That year, the Society created the Founders Gold Medal to recognize, "the best paper or progress showing a distinct improvement over what was then known in commercial practice." It also launched three prizes (Gold, Silver and Bronze Certificates) to honor top product exhibits. In 1925, AES journeyed to Montreal for its 13th Annual Convention, the first held outside the borders of the U.S.

Though membership grew, no additional branches were chartered after 1921 until 1929. Two were lost with the termination of Syracuse in 1924 and the dissolution of Reading in 1926.

AES spanned the continent in mid-year 1929 by founding the Los Angeles Branch, with 31 charter members. That same year, Worcester (terminated 1933, rechartered 1965) and Baltimore-Washington were chartered. The latter was organized by William F. Chase of the Agate Lacquer Company and New York Branch; Frederick F. Pierdon, its first president, a founder of the AES and of the ART Metal Finishing Company; Dr. William Blum of the National Bureau of Standards; and Thomas F. Slattery of the U.S. Bureau of Engraving and Printing who was soon to become national president of AES.

At fiscal year-end that May 31, 1929, the AES audit statement showed receipts of \$3350.30 and disbursements of \$3133.89 with total cash on hand amounting to \$2642.05 consisting of a savings account of \$2004.11 and a checking account of \$637.94.

As AES completed two decades of operation in 1929, it was composed of 25 branches, two in Canada. It had some 1500 members compared with 800 in 1919. It was solvent. It was rendering service to its industry, to its members, to the public. It had prospects, but ahead lay acute business problems.

The depression years 1929-1933 were difficult for AES and its members. The Indianapolis and Worcester Branches fell by the wayside in 1933. Branch resignations and suspensions swelled, and there were few elections or reinstatements. The Society's financial situation became such that, by late 1932, the Supreme Society, at the Philadelphia Convention that June, ordered that *Monthly Review* return to its *Quarterly Review* status for 1 year as a major economy. The AES technical staff in the Research Section of the National Bureau of Standards was reduced from six to four. In order to ease the financial load, the official journal, when it came back as *Monthly Review* in September 1933, carried advertising for the first time.

In that September issue, the following appeared in the editorial columns: "There seems to be a change taking place all around us. In our industrial life, we are faced with changes that would have seemed impossible a few months ago. The plating business must keep up with the new order of things. We have, in the September issue, taken a step forward which should help us financially. . . . Let us broaden our vision and include in our membership all who make plating their means of livelihood. . . . Our task is to bring these various groups under one head. . . ."

*Monthly Review's* first advertisers were MacDermid, Inc., United Chromium, Inc. (M&T Chemicals Inc. today), Frederick B. Stevens, Inc., American Brass Co. (Anaconda Copper), The Matchless Metal Polish Co., and E. Wambaugh Co. In its October 1933 issue, the publication opened its columns to classified advertisements at 10 cents per line, six words to the line. In that same issue, it carried, for the first time, the advertising of Crown Rheostat & Supply Co., The Abbott Ball Co., Maas & Waldstein Co., Ault & Wiborg, The Zapon Co., and the H.V. Walker Co.

The very first use of color in *Monthly Review* occurred in December 1937 when The Bruce Products Corp. used orange in its two-page advertisement. The first consistent color user, however, was the Hanson-Van Winkle-Munning Co., whose first color spread in the September 1939 issue introduced a practice that the company followed constantly throughout the years of *Monthly Review*.

Only two new branches were chartered during the depression years: the second Pacific Coast entry, San Francisco, and a branch in Anderson, IN, that disbanded in 1938. From 1930 to 1936, no new branches were added, although the Society did sponsor its first membership drive. T.F. Slattery, AES president in 1935, summed up the Society's position on membership very nicely.

"Heretofore," he said, "we have been inclined to sit back and wait for prospective members to come to us. Now, with industry on the upgrade, and assistant foremen eligible for membership, we owe it to the science and industry with which we are affiliated to contact every potential member in the U.S. and Canada. . . . This will make it possible for these fellow artisans to meet with us for the discussion of mutual problems, education, research, helping themselves and at the same time adding to our strength."

The subsequent economic recovery brought new expansion activity. The Springfield, MA, Branch entered the AES in 1936 together with Binghamton-Elmira, NY, which became Binghamton-Syracuse in 1939 and Syracuse in 1943. The New Haven and Buffalo entries were born in 1938.

In appraising electroplating advancements to 1938, George Hogaboom had this to say: "It was not until about 1918 that some attention was given to the need of a better understanding of the principles of electrodeposition of metals. . . . It is due today to electroplating that books are universally available. . . . Paper currency is printed from plates made by

electrodeposition of iron. . . our metal coins are embossed in dies that have been chromium plated by methods developed long after 1918. . . the general public has become, within the last 10 years, 'electroplating conscious.' . . . Progress can be no better illustrated than to note the increase of nickel for plating in the past 20 years. . . . Previous to 1920, about 500,000 lb of nickel were consumed as salts and anodes. In 1937, some 11.5 million lb were used in electroplating. . . ."

Streamlining of the AES award system was a priority task at the Society's 30th Anniversary Meeting in 1939. It recognized and honored individual and branch achievements with five chief awards:

1. The Founders Gold Medal was issued for the best paper by an active member on electroplating or allied subjects.
2. The AES Gold Medal was issued for the paper adjudged best by the Awards Committee prepared by an AES member, whether active or associate.
3. The Proctor Memorial Award was given for the best paper entered into competition by anyone, member or non-member.
4. The Sam Huenerfauth Award was presented for the best branch paper. Any branch winning three times kept the silver cup.
5. The Metal Industry Cup was provided for the best branch exhibit. In addition, there were individual exhibit awards.

### Entering the 1940s

As business recovery gained ground and as earning and spending power grew, AES resignations and suspensions dropped while applications, elections and reinstatements rose. On the technical side, Mr. Hogaboom ventured, "There has never been such definite progress toward the goal of the AES. . . . The completion of the work and the report of the research on 'The Prospective Value of Electroplated Coatings on Steel' has made history."

As AES celebrated its three-decade birth year in 1939, it had not only recouped its substantial losses of the depression period but also made quantitative and qualitative headway. Compared with about 1500 members in 1929, it had some 1900 members in 1939. During the same period, the number of branches grew from 25 to 28.



**Charles H. Proctor, father of the American Electroplaters' Society.**

### Branch Secretaries

Branch secretaries play a key role in the operation of the Society. They form the principal line of communication between Headquarters and the branches. Many have served for very long periods of time. The record holder appears to be 40-year member I. William Marcovitch, secretary of the Philadelphia Branch for 36 years. Mr. Marcovitch was a member of the AES Board of Directors from 1971 to 1973.

Many past and present, with long periods of service, include: George Haas, Bridgeport; Charles R. Fotheringham,

Buffalo; Pedro Hidalgo Rivera, AMTEG; Joseph Calentone, Capitol District; R.W. Boos, Central Michigan; David Kaplan, Cincinnati; Paul B. Croly, Detroit; Stanley Platoz, Hartford; Ian W. Rose, Melbourne; Ward W. Kelly, St. Louis; Henry L. Heissfeld, Springfield; James R. Kennedy, Waterbury; Stan Scislawski, Western Ontario; Robert Horrocks, Newark; Harold Simon, Central Iowa; Joseph J. Werbicki Jr., Providence-Attleboro; Henry Bornitzke, Milwaukee; Paul Glab, Chicago; Joseph Rembecki and Michael Murphy, New York.

To expand to a targeted 2600 members by 1941, AES inaugurated its annual branch membership promotional competition in 1940 that has continued to recognize accomplishment through the years. To the winning branch, annually, in that era went the handsome AES Membership Trophy. Also of note: AES launched its first regional meeting in 1939. The group was composed of five branches—Bridgeport, Hartford, New Haven, Springfield and Waterbury—that initiated the yearly New England Regional Conference. By year-end 1940, AES had assimilated its 29th branch, Indianapolis, which succeeded the Hoosier capital's depression casualty of 1933.

In the early thirties, the AES as an educational Society had no part in the codification of industry negotiated under the government's National Recovery Act (NRA). It shared nonetheless in the movement for higher quality. An example of member sentiment was stated in the *Monthly Review* by Frederick F. Pierdon of the Baltimore-Washington Branch: "Even though the AES is not in a position to officially discuss such questions as wages and hours, it is the logical organization to propose standards of quality that may be incorporated into Codes. It is important, therefore, that all members of the AES become familiar with the plans of the NRA."

National associations and societies had received great impetus under the NRA. Still composed principally of foremen platers, chemists and engineers, AES concentrated on defense and war service within its power. And when World War II came, zinc, nickel, cadmium, copper, chromium and other critical materials of the Victory Program were there with it, though this era of short supply brought substitution, simplification, conservation and standardization. In its Annual Meeting program on December 6, 1942, the Detroit Branch had this to say:

"The function of the AES is going to be to keep interest in plating alive throughout the period of curtailment; to see that interest in plating does not cease; to see that plating is specified where it is of advantage to war; and that if it is possible to do some decorative plating without impairing the war effort, that this be permitted. It will be its function to see that an adequate body of men are kept acquainted with plating so that when the war is over, they will be able to make the world a better place in which to live. The Society has a great duty to perform during a discouraging period, but it will not fail."

As stated previously, AES started the war period pursuing a membership expansion goal of 2600. By autumn 1945 there were 4000 members. A branch in Lancaster, PA, was added

*Wartime Finishes Must Be* **TOUGH**



# JETAL

**— THE HARDEST AND MOST PENETRATING BLACK OXIDE FINISH FOR IRON AND STEEL**

Outstanding for its resistance to abrasion and rust, JETAL protects more and more wartime products. As a substitute for nickel, zinc, cadmium and tin plating, it is performing a vital service.

JETAL'S dense black . . . deep-penetrating, non-reflective, rust-resistant . . . is a part of the metal itself. It will not chip, scale or peel . . . does not change dimensions or surface textures. Applied by simple immersion, JETAL requires no elaborate equipment, no electric current. It is the original, patented black oxide process, unexcelled in durability, speed, economy.

**— TOUGHEST BY TEST —**

*Comparative abrasion tests conducted under identical conditions, using a modern testing machine, prove that JETAL has at least 50% more abrasion resistance than its nearest competitor — as much as 230% by changes in procedure. Reports of these tests are available upon request.*

**IMMEDIATE DELIVERY ANY QUANTITY**

Ask our research staff to help you with your protective-coating problems. Consultation service without obligation. Samples JETALized without charge.

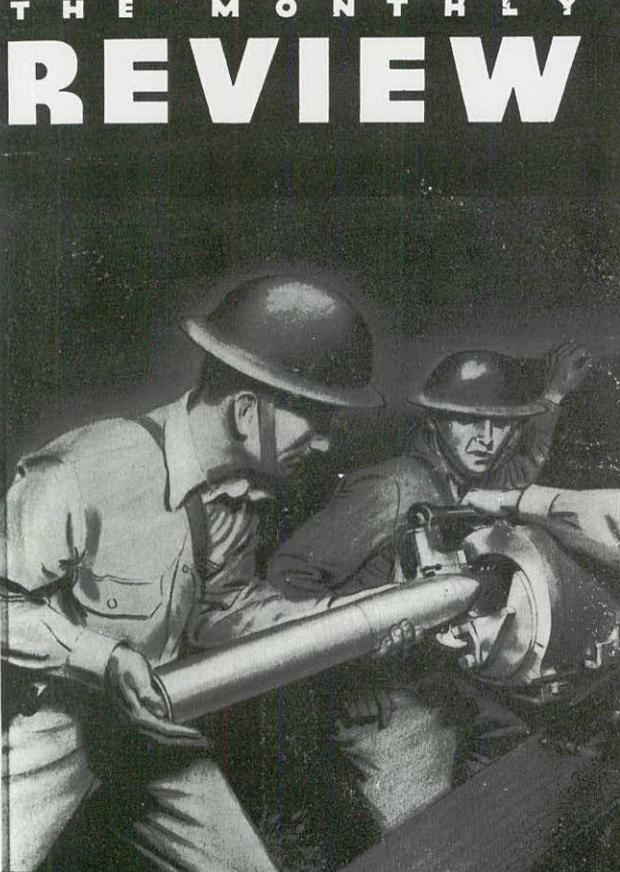


**ALROSE CHEMICAL COMPANY**  
Providence, R. I. Tel. Williams 3000



Typical advertisement appearing in early 1940s issues of "Monthly Review," later to become "Plating and Surface Finishing."

THE MONTHLY  
**REVIEW**




Cover of January 1943 "Monthly Review" stressed war involvement, to which the plating industry made great contributions.



Annual AES Convention banquet at Hotel Statler in Boston, June 12, 1941.

in 1943, and another in Jackson-Lansing, MI (today's Central Michigan Branch), was chartered in 1944. AES also took a major step forward by chartering the Australia Branch in Sydney, with 40 members. The Rockford, IL, and Twin City, MN, Branches were born in 1945. (The latter withdrew in 1959.) At this point AES had 34 branches—31 in the U.S., two in Canada, one in Australia.

Death dealt a hard blow to AES when it took William J.R. Kennedy on August 7, 1942. He was its long-time and very able executive secretary and *Monthly Review* editor. The first paid secretary of the Society, he had been the 1925-26 president of the Hartford Branch. Possessing a winning personality, he was greatly respected and beloved by the membership. Society funds were low during the depression, yet Bill Kennedy traveled by bus to many branches, paying his fare out of his own pocket and carrying with him a bag of sandwiches. AES President Ellsworth T. Candee succeeded Mr. Kennedy and established AES Headquarters at 545 Fifth Ave., New York.

Death struck again on December 3, 1942, when founder Charles Henry Proctor died at his home in Avon, NJ, at age 76. AES mourned his loss. "The AES," wrote First President

Hogaboom, "shall always be a memorial to Charles H. Proctor."

Dr. A. Kenneth Graham became executive secretary in 1945 and Headquarters was moved to Jenkintown, PA. Gustav Soderberg was named editor of the journal.

In 1945 the country was immersed in World War II and travel was strictly limited. The 1945 AES Annual Convention scheduled to be held in Pittsburgh was restricted to Society Delegates. About 50 attended. Because the regular convention was not held, Pittsburgh was again chosen as the site for 1946.

The qualifications for membership were changed at the 1945 1-day meeting to anyone who "had an interest in plating." However, some branches still insisted on 5 years as a plater and 2 years as a foreman. In 1946, members' dues were set at \$4.70 annually. In 1947, a five-man Constitutional and Bylaws Revision Committee was established to modernize and streamline those instruments in keeping with the Society's expanding status and needs. Headed by Arthur W. Logozzo (Hartford) and including Franklyn J. MacStoker (New York), F.R. Keller (Pittsburgh), Cleveland F. Nixon (Detroit), and Clyde Kelly (Chicago), the committee's revision was adopted by the Supreme Society at the Annual Meeting in Atlantic City, NJ, June 1948.

The first silver-plated "pot," or "Order of the Pot" (now the "Order of Past Presidents"), was presented in 1946 at the Baltimore-Washington Branch Annual Meeting to AES President Walter L. Pinner by the award creator, Past President Kenneth M. Huston. Thus, at the Maryland Yacht Club in Baltimore that spring was inaugurated the tradition of presenting to each outgoing AES national president a silver-plated, engraved "pot" in grand ceremony.

By 1947, expanding AES—now with some 5000 members—had reached another milestone: the metamorphosis of its



Walter Pinner (1945-46 AES president) with Ezra Blount (right) at a Phoenix meeting in 1972.



journal. From AES Headquarters in Jenkintown, PA, came this "obituary" notice from Editor Soderberg:

"This is literally and actually the last page of *The Monthly Review*. As was announced in last month's editorial columns, the January 1948 issue of this publication will bear the title of *Plating*. *Plating* will be larger in page size than *The Monthly Review* and will be distinctively styled with a new format. It will be easier to read, too, because it will have larger type in the text matter.

"The decision to enlarge the size of the publication was made several years ago, but the war, with its corresponding paper shortage, prevented carrying out the plan. January 1948 offered the first practical opportunity for this change.

"Active planning for the publication has been under way for over a year. There have been an untold number of staff conferences. Outside authorities in the plating and publishing fields have contributed generously with good advice. All who have seen the advance layout of the new format have spoken enthusiastically of it.

"We feel confident that our readers will receive the new look of *Plating* with enthusiasm," concluded Mr. Soderberg. "The same high quality, factual editorial content that has characterized *The Review* will form the basis of *Plating*. Interesting and useful new features will be added in coming months. And in the same manner that an electroplater adds a pleasing appearance to a finished product, we are attempting to make our editorial package as attractive as possible."

In December 1947, AES published its last issue of *The Monthly Review*. In January 1948, *Plating* made its debut.

Most AES Annual Conventions had included exhibits, but the first Industrial Exhibition per se was in 1947 concurrently with the 34th Annual Convention hosted in the Motor City by the Detroit Branch.

The second such exposition was held in Atlantic City the following year with the Newark Branch as Convention/Exposition host. These were the years of the executive secretaryship of Dr. Graham, sought after by many branches as technical speaker. For many years Hanson-Van Winkle-Munning Company offered three grand prizes at AES Conventions. In 1948, they were a Reed & Barton five-piece, silver-plated tea service and tray; an International Silver Company silver-plated water pitcher; and a silver-plated cigarette box, also from International Silver. There were about 100 exhibits at the 1948 Exposition.

For the final World War II years and the "police action" in Korea, almost every metal and chemical was in short supply. Through the exposure tests of the American Society for Testing and Materials (ASTM), the porosity research of the AES, and the microthrowing-power studies of the New Jersey Zinc Company, considerable light was shed on the protective value of plated coatings.

Since 1946, the AES had chartered nine branches. They included: branches "Down Under"—the splitting of the Sydney, Australia, local into three groups, thus creating Adelaide and Melbourne in 1946. St. Joseph Valley, IN, Columbus, OH, and even America's Southland with its Southeastern Branch embodying Alabama, Georgia, Florida, the Carolinas and Mississippi, all were chartered in 1946. And in 1948, AES added its Louisville, KY, Saginaw Valley, MI, and Western Ontario (Canada) Branches, plus the Winston-Salem, NC, Branch that folded in '49. In its 40th Anniversary Year, the Society chartered the Allentown-Reading, PA, and Hamilton (Canada) Branches.

Consequently, 40 years after its humble beginning in New York on April 10, 1909, the AES had grown to 5220 members and 44 branches.

## AES Research Program

Dr. William Blum contributed a single-page history of AES Research to *Milestones of AES*. It was published in *Plating* and as a pamphlet in June 1959, during the AES Golden Jubilee. Dr. Blum had been associated with AES Research since its beginning. Here are some portions of his historical recounting:

"From the inception of the AES in 1909, it has always been considered an 'Educational Society.' As such it was early interested in researches in this field and their possible application to industrial practice. In 1913, George Hogaboom, just elected the first president of the AES, presented to the American Chemical Society his paper on 'Unsolved Problems in Electroplating.' In 1915, he offered to present to the American Chemical Society as subjects for research any problems sent to him through the AES.

"When in 1917, this writer presented to the AES Convention a report on the plating researches at the Bureau of Standards, George Hogaboom strongly urged the AES to cooperate with the bureau. In 1918, this cooperation involved the employment by the bureau of three experienced AES platers, namely George B. Hogaboom, Fred J. Liscomb and Thomas F. Slattery.

"In 1919, the AES supported efforts then being made to secure funds for continuation of the plating researches at the Bureau of Standards. The first AES Research Committee was appointed in 1923. An advisory committee to the Bureau of Standards was also appointed and met there in November 1923.

"In 1925, the AES Research Committee issued an appeal for subscriptions at the rate of \$50 per year from manufacturers, for a three-year program. By January 1927, sufficient funds were raised to start the employment of W.P. Barrows as a Research Associate at the National Bureau of Standards (NBS). Since that time, except for a few years during World War II, one or more AES Research Associates have been employed at the bureau.

"The first study of Barrows was on 'Spotting Out,' followed by one on 'Throwing Power in Chromium Plating' by H.L. Farber, and one on 'Porosity of Chromium Coatings' by Barrows. In

1930, plans were made for a study of the 'Protective Value of Plated Coatings' in cooperation with the AES, the ASTM and the NBS. P.W.C. Strausser was appointed as Research Associate, and by 1932, the many required specimens were prepared and exposed in six locations. This work was continued in spite of the fact that during the depression in 1932, the Research Committee had to borrow funds from branches and firms. At that time, Jacob Hay, then chairman of the Research Committee, recommended an assessment of \$2 per member for research, a plan not adopted until many years later. . . .

"In 1938, AES research was started at NBS on the 'Effects of Polishing Steel on the Protective Value of the Plated Coatings' with Gerald A. Lux as Research Associate.

"Up to this time, the AES Research Committee was appointed each year, occasionally with sufficient change in personnel to prevent adequate continuity: In 1944, the Research Committee was reorganized to consist of nine members, three to be appointed each year by the AES Executive Board. This arrangement has since then proved highly effective. . . . Carl E. Heussner, who developed the plan, was the first chairman. William Blum was then made an honorary member of the Research Committee.

"This new committee originally planned to maintain 400 Sustaining Members at \$100 each. While this goal has not been fully realized, sufficient funds have been raised to support six or more researches, and to build up a moderate reserve to insure continuation of studies if, for any period, inadequate funds are obtained. Each AES member now [1959] contributes one dollar per year to the Research Fund.

"Greater resultant funds permitted establishment of AES projects in a number of universities and research foundations in the United States and Canada. This arrangement is advantageous because it enlists the interest of a larger group of scientists, and also stimulates study of electroplating by students. . . .

"A new series of 'AES Research Serial Reports' was started in 1946. Those reports that are not out of print can be purchased from the AES.

"The outstanding success of the AES Research Program is a result of the interest and devotion of Research Committee members, and of the much greater number of AES members who have served on various Project Committees, all without compensation. All the funds collected for research are spent directly for conducting the studies and publishing the results," Dr. Blum concluded.

In 1966, all of the Serial Reports that were out of print were reprinted and it became policy to continually reprint as stocks were exhausted. At that time, Dr. Blum prepared a report, *The Research Activities of the American Electroplaters' Society*, which appeared in the March 1966 issue of *Plating*, and was published in pamphlet form. It briefly described all of the projects to that time. Project 25 was about to be started.

A list prepared by Edward E. Oberland of all of the projects through 1973, with brief descriptions of each one, was published in the May 1974 issue of *Plating*.

The number of projects has, in 1984, grown to more than 60. Funding remains a problem, though there have been increases in Research Patron and Sponsor contributions, and the assessment received from a member's dues is now \$4 yearly.

Research Patrons and Sponsors receive reports each quarter of the active projects. AES research papers are presented at most Annual Technical Conferences. Serial Reports are available from AES Headquarters.

The reports on current projects by the Research Board Chairman each year appear with the AES annual report, usually in the June issue of *P&SF*.

The Research Committee became the Research Board in 1963, with the adoption of a new Constitution and Bylaws. The term Patron or Research Sustaining Member was recently changed to Research or Patron Sponsor.

## Activities of the '50s

It was in 1950 that the Society revised the structure of its Paper Award system. In the revisions, the AES rewarded merit of published technical and scientific work with annual awards: (1) the AES Gold Medal, (2) the AES Silver Medal, (3) the Certificate of Honorable Mention, (4) the Mechanical Finishing Award, co-sponsored by Nutmeg Chrome Company, and (5) the Gold and Gold Alloy Plating Award, co-sponsored by Technic Inc.

In that same period, AES cemented a relationship with the Ohio River Valley Water Sanitation Commission, particularly with its Metal Finishing Industry Action Committee, with which AES collaborated through Research Project Number 2. As a forward step in AES government, the first

Interim Meeting of the Supreme Society was launched at Philadelphia, in 1951.

At the end of that year Dr. Graham had completed 7 years as executive secretary of AES and ended his tenure. A scientist of widely recognized ability, he probably will be most remembered as editor of the *Electroplating Engineering Handbook*. Dr. D. Gardner Foulke succeeded Dr. Graham in January 1952. Already well known throughout the plating industry, he brought to AES technical intellect and excellent qualifications. It was now necessary to seek a new location for the Society.

## Headquarters to Newark

AES Headquarters was moved to Newark, NJ, in 1952, occupying most of the third floor at 443-45 Broad Street. Dr. Foulke built the bookcases with his power saw. Gustav Soderberg ended his editorship of *Plating* in May 1952, retiring to Sweden. Alexander Korbelak, who had been with Westinghouse, became editor in July.

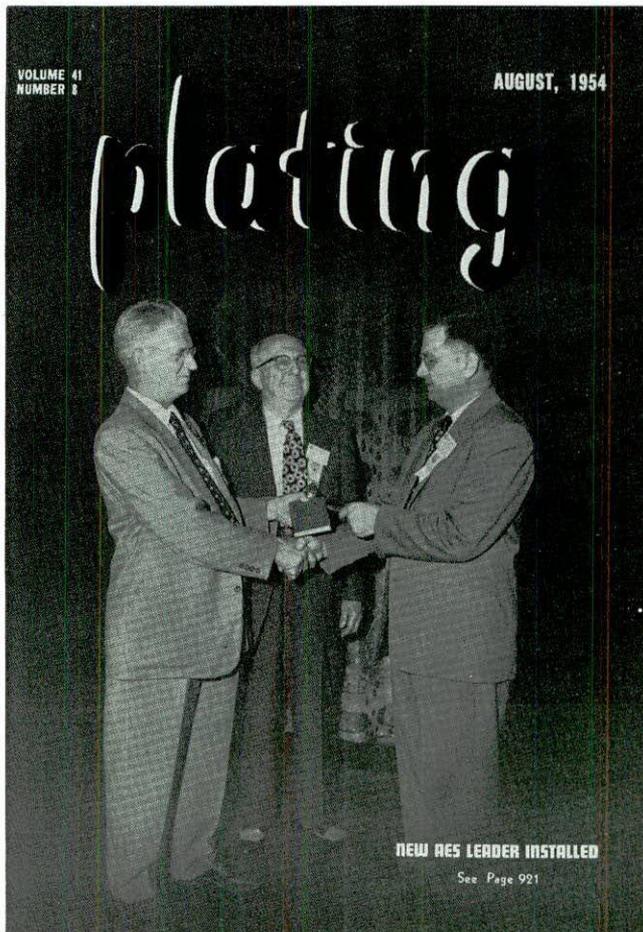
The Carl E. Heussner Award was created as the highest Society honor for best paper. It was also in 1952 that the Chicago Branch hosted the Third Industrial Finishing Exposition at the 39th AES Annual Convention. Franklyn J. MacStoker ascended to AES presidency.

Dr. Oliver P. Watts, retired University of Wisconsin professor, died February 6, 1953, at age 87. He had been an AES honorary member since 1914, and will be remembered as the developer of the Watts nickel bath. One of his pupils, 1951-52 AES President Cleveland F. Nixon, paid tribute to him in the July 1953 issue of *Plating*.

By midyear 1953, Dr. Foulke decided to return to industry. P. Peter Kovatis followed him as executive secretary in September. Mr. Kovatis had an extensive public-relations background, used effectively in promoting AES and *Plating*. Another room was added to Headquarters, enabling the production of *Plating* to be handled directly from Headquarters, giving better control and improved format. After 2 years as editor of *Plating*, Al Korbelak joined the Sel-Rex staff. Editorship was in the hands of Lee H. Morrison for a short period (August to November 1954), then Archimedes Doria took over.

In 1954, AES filed an Amended Certificate of Incorporation with the State of New Jersey as a non-profit educational corporation. By year-end, the Society had 6700 members. In that 4-year interval between 1951 and 1954, AES had penetrated the Lone Star State with a branch in Dallas/Ft. Worth. In 1952, it had entered the Wheat Belt with branches in Wichita and Kansas City. The next year, it entered the Northwest by establishing a branch in Portland and in 1954 chartered a branch in Seattle. Aside from adding Eastern branches in Upstate New York's Capitol District and Southern Tier in 1954, it had bolstered its Texas representation by authorizing branches in Houston and San Antonio. Hence, as 1954 ended, its network of autonomous branches numbered 53, consisting of 46 coast-to-coast in the U.S., four in the Canadian Dominion, and three in the Australian Commonwealth.

The Industrial Finishing Exposition of 1955 was an adjunct of the 42nd Annual Convention, a successful combine with the industrious Cleveland Branch as host. Eight hotels were used to house the multitude of AES members, their families and guests. The planning and effort of nearly 100 devoted Cleveland Branch members and their wives made the event educationally and relaxationally effective. A total of 27,020 square feet of exhibit space was employed. Exhibitors' teams included company presidents and sales



President Ralph Schaefer (center) receives traditional gavel from 1953-54 outgoing President G.P. Swift, as F.J. MacStoker (right) looks on.



Induction of 1956 officers in Washington, DC: (l-r) Samuel Helman, Francis Eddy, Herberth Head, Ralph Wysong and Clyde Kelly.

managers. The educational sessions drew an aggregate 4-day attendance of 2041. Nearly 450 individuals attended the nine plant tours and some 1250 members and their families and guests were present at the last evening's Farewell Banquet. That was a far cry from the 182 pioneers who attended NEPA's historic Third Annual Banquet, February 10, 1912.

In backtracking through time, then retracing steps along the pathway of AES history, there is constant view of the relationship between the metal finisher and the supplier. The latter not only displayed up-to-date equipment and supplies at exhibitions, but cooperated in AES assemblies by providing a good measure of relaxational fare.

George P. Swift was AES president in 1953-54, Ralph A. Schaefer in 1954-55, and Clyde Kelly in '55-'56. The Mississippi Valley Branch was chartered in 1955. In mid-1956, Executive Secretary Kovatis went to the National Association of Metal Finishers as executive director. John P. Nichols came to AES as executive secretary just before the 43rd Annual Convention held in Washington, DC, hosted by the Baltimore-Washington Branch. Samuel Heiman was elected president there. Dr. Abner Brenner was the convention's educational chairman and coordinated 41 papers, a record to that time. Arthur G. Pierdon was general chairman.

Mr. Doria's editorship of *Plating* terminated in September 1956 and Rodney Leeds succeeded him. During the early months of the transition, I. William Marcovitch assisted in a technical advisory capacity.

Harold W. Faint died on December 22, 1955, at the age of 60. He was the son of Edward W.T. Faint, one of the AES founders. Harold had written the chapter on filtration for the *Electroplating Engineering Handbook*. The death in 1956 of Dr. Richard M. Wick removed another prominent member. He was the 1947-48 chairman of the AES Research Committee and a member of the Allentown-Reading Branch. Before the year was out, John J. Haney, past president of the Grand Rapids Branch, would die at age 57. He was later to be memorialized with a Paper Award in his name.

The Fourth Interim Meeting was held in Pittsburgh on January 12, 1957. Membership had grown to 6740, with 341 Research Sustaining Members. Three new branches were soon chartered: British Columbia (Canada), Miami, FL, and Mohawk Valley, NY. Research Committee Chairman Arthur H. DuRose presided over nine AES projects.

During this same period, *Plating* published special issues on subjects like mechanical finishing, organic coating, research, and waste treatment. President Heiman visited 12 branches during his presidency and presented the charters to British Columbia and Miami.

An Electroplating Course Committee consisting of Dr. Dodd S. Carr, chairman, Newark Branch; Ezra A. Blount, Cincinnati Branch; Fred G. Brune, Detroit Branch; and F.J. LaManna, Newark Branch, had a six-point program: (1) fostering new electroplating courses with AES sponsorship; (2) encouraging the growth of existing courses; (3) acting as a clearinghouse in exchanging teaching aids to instructors; (4) publicizing class schedules in various journals; (5) revising the plating course section of the *Branch Officers Manual*; (6) obtaining data on electroplating courses given at the college level.

The 1957 AES Convention was held in Montreal at the Sheraton Mount Royal Hotel, June 16-21. G.R. Davidson was general chairman and P.M. Coady educational chairman. Twenty-three papers were presented. The AES fiscal year was changed to July 1 through June 30 and the per capita tax was increased \$2. The Scientific Achievement

Award, proposed by Dr. Heiman, was also established in 1957.

Frederick Gumm, 66, died in October of that year. In 1929, he had formed Hesse & Gumm Company. Three years later, he joined in partnership with C.R. Percival, and Frederick Gumm Chemical Company was created. Shortly thereafter, Oliver J. Sizelove joined the company. Mr. Gumm was active almost 50 years in the electroplating industry.

Planning for the AES 50th anniversary, to be celebrated during 1959, was begun in 1958 at the Fifth Interim Meeting, held in Indianapolis. Preliminary plans were discussed with the delegates and alternates. The *Delegates Manual*, prepared by Past President William J. Neill, was published in handy reference format.

On March 28, 1958, President Francis T. Eddy presented a charter to the AES Blue Ridge Branch, and the John J. Haney Paper Award proposed by the Grand Rapids Branch was approved. It was jointly given by the branch and M&T Chemicals, and consisted of certificates and an honorarium of \$75. The Midwest Regional Council was formed with seven branches, and Leslie L. Diveley became the first chairman. Twenty-six branches were now "regionalized."

There were seven Research Projects in 1958 and the Research Committee was chaired by Robert A. Ehrhardt. Membership had increased to 7480 and there were 352 Research Sustaining Members.

The Hotel Sheraton Gibson was the scene of the Annual Convention in Cincinnati, May 18-22, 1958. Charles Wise was general chairman, Ezra A. Blount, vice chairman, and Robert Miller, educational chairman. Twenty-three papers were presented. Special sessions covered surface pretreatment, waste treatment, finishes for aircraft components, and electroplating practices. There was also a panel discussion on practical plating problems.

Four prominent AES members died in 1958. Clarence L. VanDerau served two terms as president: 1932-33 and 1933-34. A member of the Dayton Branch, he had been named an honorary member in 1950. E. Steen Thompson, national president in 1936-37, died on February 21. He had also been president of the Cleveland Branch from 1930-33. Franklyn J. MacStoker, New York Branch member for 35 years, died May 21 at the age of 71. He was AES president in 1952-53 and an honorary member as well. Finally, AES founder Thomas A. Trumbour, 75, died on September 2. He had been general manager of *Metal Finishing* since 1938, having joined that publishing firm in 1901. He was named an AES honorary member in 1956 and had been secretary-treasurer of the Metal Finishing Suppliers' Association.

I. William Marcovitch compiled a Speakers List, which was circulated to branches and found to be of excellent assistance to "librarians" (this nomenclature was later changed to "educational chairmen").

### Golden Anniversary

Looking toward the Golden Anniversary, First Vice President Ralph D. (Duke) Wysonog said in his 1958 *Plating* editorial: "Now is the time for each branch to take advantage of this Golden Opportunity! . . . Use it as a selling point for new members." A Golden Jubilee large, ceremonial banner was widely circulated during 1958 and 1959 for display at regional and branch meetings.

In his editorial, "The Fiftieth Year," in the January 1959 *Plating*, Past President Eddy said "the greatest single value of AES has been, and will continue to be, the interchange between individual members. Those seeking to

learn meet with those willing and able to teach." At the 47th Educational Session of the Chicago Branch, January 31, 1959, Simon P. Gary (to become 1979-80 AES president) presented a paper on "Fifty Years of Plating Progress," dedicated to the AES Golden Jubilee.

At the time of the Golden Anniversary, there were five living AES founders: Harry C. Bernard, William Schneider, Justus A. Stremel (all of the New York Branch), Edward W.T. Faint (Newark Branch), and Frederick F. Pierdon (Baltimore-Washington). There were 11 living honorary members and 22 living past presidents.

Harry Bernard and Justus Stremel and wife were present at the 50th Anniversary Banquet of the New York Branch on February 7, 1959. Also in attendance were AES President Herberth E. Head, Third Vice President W. Andrew Wesley and Past President Eddy. At the educational session, papers were presented by such notables as Dr. Henry Brown, Dr. D. Gardner Foulke and Walter L. Pinner. Dr. Edward B. Saubestre was the New York Branch president and Arthur Carlson was educational chairman.

The Sixth Interim Meeting of the Supreme Society occurred on February 14 in Atlanta and was held in conjunction with the First Regional Meeting of the newly formed Dixie Group, which included the Blue Ridge, Miami and Southeastern Branches. At the Order of Past Presidents presentation for Herberth E. Head by the Baltimore-Washington Branch, AES founder Frederick F. Pierdon was singularly honored.

A major feature of the AES Golden Jubilee Convention and Fifth Industrial Finishing Exposition in Detroit, June 15-19, 1959, was the Fifth International Conference on Electrodeposition and Metal Finishing, chaired by Walter L. Pinner. Technical papers were presented by authors from 10 countries: Australia (1), Canada (1), England (10), France (4), Germany (2), Holland (1), India (1), Italy (1), Switzerland (1), and the U.S. (22). A total of 44 papers. Dr. William Blum presented the first William Blum Lecture and was awarded the first Scientific Achievement Award plaque and honora-

rium. Dr. A. Kenneth Graham was announced as second recipient of this award.

At the annual meeting, Convention Chairman Wright W. Wilson presented a gold-plated gavel to the Society. It was suitably engraved and was accepted by President Head. It has been used at Annual Meetings subsequently by each president in conducting the affairs of the Society.

The Statler Hilton was headquarters for the Convention with overflow at the Sheraton Cadillac. The Exhibit, with Howard J. McAleer as chairman and Manuel Ben, vice chairman, had 147 exhibitors at the Artillery Armory. The morning sessions of the educational program were held at the hotel and in the afternoon at the armory. Convention registration was \$20 for both men and ladies.

The 238-page June Golden Jubilee issue of *Plating* contained comprehensive papers of lasting importance: "The Story of Nickel Plating" (18 pages) by George Dubpernell, "Tin in Electroplating" by Robert M. MacIntosh, "Precious Metals" by Edward A. Parker, "Copper Plating During the Last Fifty Years" by Frank Passal, and "Zinc in the World of Electroplating" by Ernest W. Horvick.

Fiftieth anniversary congratulatory letters were received from many dignitaries, including the U.S. president, governors, mayors, congressmen, heads of technical associations, and publishers. As was customary, the Metal Finishing Suppliers' Association and the National Association of Metal Finishers held their annual meetings concurrently with the AES convention. At the banquet, memorabilia was placed in a gold box, with the proposal that it be opened at the 75th AES anniversary.

In its 50th year, AES had 7300 members in 58 branches, and 349 Research Sustaining Members. Annual dues were increased from \$5.70 to \$7.50; members-at-large paid \$11. The Research Committee was headed by Dr. Russel E. Harr, with seven active projects. The Denver and Phoenix Branches were chartered but the Twin City Branch withdrew. The First Annual Conference of the Midwest Regional Council was held November 7 in Rockford. The Southwestern Regional Group—Houston, Kansas City, Dallas/Ft.

### Industry Milestones

Many key industrial developments have occurred throughout the lifetime of AES. The appearance of practical processes for plating bright nickel in the 1930s eliminated costly buffing and promoted the use of nickel plus chromium composites, which triggered the "bright chrome" era of the 1930s and '40s.

In the early 1940s, the adoption of high-speed tin plating lines for continuous steel strip led to a revolution in the fabrication of food containers.

Duplex nickel in the late 1950s and the subsequent development of microdiscontinuous chromium processes greatly improved the corrosion protection provided by nickel/chromium composites and sustained the use of plating on automobiles throughout the 1960s and '70s.

Discovered in the 1940s, initiated

commercially in the 1950s, and maturing during the following 2 decades, electroless nickel is now used for a variety of applications where uniform coatings for resisting wear or abrasion are required. In the mid-1950s, electroless copper attained commercial acceptance for through-hole plating of circuit boards.

Controlled-depth plating, the first of many selective deposition processes to come, appeared in the early 1950s. The first application of spot plating for electronics was recorded during the 1960s.

High-speed plating processes for electronics were also introduced in the early '50s, and in less than 10 years encompassed a sizable market, particularly where precious metals and nickel were used.

In the 1960s, especially noteworthy

were the introduction of acid citrate solutions for gold plating, as well as hard golds such as the cobalt-hardened alloy now popular for contact materials. These deposits were widely adopted to minimize wear and to prolong contact life.

Tin-free steel with ultrathin films of chromium and chromic oxide began to be used with adhesives for food containers in the late 1960s.

The 1970s saw the substitution of zinc-nickel alloy for unalloyed zinc in order to extend the life of coated steel. During the same decade, a large share of time and dollars devoted to R&D by the metal finishing industry was spent on improving methods for recycling plating chemicals, in order to reduce the high cost of waste disposal.

Worth and Wichita—met on December 7, with the gathering followed by an Aircraft Finishing Symposium.

The year 1960 saw the Philadelphia Branch celebrate its 50th Anniversary, having been chartered with 14 members in 1910. It hosted the Seventh Interim Meeting in celebration of this Golden Anniversary. The San Antonio Branch folded while the Memphis-Midsouth Branch arrived, President Wesley presenting the charter. James D. Thomas, chairman of the Research Committee, oversaw seven projects, while AES maintained liaison with 11 other societies. Fifteen courses in electroplating were being offered in the U.S. and Canada, and a series of articles on "Japan's Plating Industry" by Ezra A. Blount was published in *Plating*.

AES traveled to Los Angeles to hold its Annual Convention for the first time in 1960. Ralph D. Wyson was AES president. A feature of the educational program was a Symposium on Hydrogen Embrittlement, with Dr. Harold J. Read as chairman. The papers presented formed the basis for a book, edited by Dr. Read and published under the aegis of AES. The first Charles Henry Proctor Leadership Award was presented to Walter L. Pinner. Mr. and Mrs. William O. Preston, the donors, witnessed the presentation. (Mrs. Preston was the daughter of founder Proctor.) Dr. Charles Faust received the Scientific Achievement Award. He was well known for his work in electropolishing, among other areas.

In the June 1960 issue of *Plating*, a definitive, 19-page paper, "Development of Chromium Plating" by George Dubpernell, was published. Though supposedly retired and in his early 80's, Dr. Dubpernell is still involved in chromium research today. His 2000-volume library on electrochemistry and electroplating is probably the most extensive in the world.

In branch matters, Waterbury created a plaque to be awarded at science fairs in its area. The first was given to Watertown Junior High School in March 1941 in conjunction with a lecture on electroplating. The San Diego Branch was chartered that April, with First Vice President Chester G. Borlet making the presentation.

The Annual Convention returned to Boston after a 20-year lapse. Louis Gagnon chaired the affair, which included, of course, a New England clambake. At the concert of the Boston Pops Orchestra attended by AES, President Wesley's talented daughter was the piano soloist. Dr. Abner Brenner was the deserving Scientific Achievement Award recipient. He is widely recognized as the inventor of electroless plating.

The Supreme Society mandated the appointment of a Bylaws Revision Committee composed of: Cleveland F. Nixon, Detroit, chairman; Leslie L. Diveley, Milwaukee, vice chairman; Manson Glover, Boston, secretary; Clyde Kelly, Chicago; Francis T. Eddy, Los Angeles; William J. Neill, Columbus; I. William Marcovitch, Philadelphia; Kergan Wells, Toronto; Myron E. Browning, Dallas/Ft. Worth.

The Central Iowa Branch, with 26 charter members, was approved in August 1961, and the presentation was made by President Chester G. Borlet. The Santa Clara Valley Branch followed suit shortly thereafter. Society membership stood at 7300, with 338 Research Sustaining Members.

Dr. D. Gardner Foulke, chairman of the Research Committee, witnessed two new projects: Number 19 at the Bureau of Standards on "Galvanizing Effects Associated with Coating Failure" and Number 20, "Plating by Thermal Decomposition."

Edward J. Musick died on October 30, 1961, at age 78. He was a founder of the St. Louis Branch, president of AES in 1925-26, and an honorary member. He was president of the Musick Plating Co., established by his father, William Musick, in 1879. Other notables who passed away in 1961-62 were H.A. Gilbertson, Chicago Branch, one of the oldest AES past presidents; Wright W. Wilson, chairman of the 1959 Convention; Richard C. Barrett, a Bridgeport Branch member, candidate for AES third vice president, and co-chairman of the Eighth Interim Meeting. A fifth death, that of Cleveland F. Nixon, occurred on May 4, 1962, his 61st birthday. He was president in 1951-52 and was posthumously named an AES honorary member. At about the same time in 1962, Justus A. Stremel and Frederick F. Pierdon, both founding members of AES, also were elevated to honorary membership. Another founding member, Edward W.T. Faint, died on July 24 at the age of 92. He was also a charter member of the Newark Branch.

### New Constitution and Bylaws

The Ninth Interim Meeting was held in Indianapolis during January 1962. The proposed revised Constitution and Bylaws were read to the delegates. Section by section, the revisions were considered for action at the Supreme Society's Annual Meeting in Milwaukee the last week in June. It would be the first time an AES Convention would be hosted by a regional group—the Midwest Regional Council. Herman Tessmann was chairman.

\*Scientific Achievement Award.



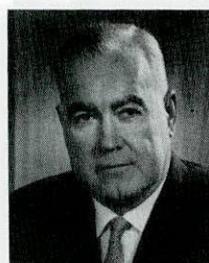
Manuel Ben  
President (1962-63)



William Blum  
SAW\* Recipient (1958)



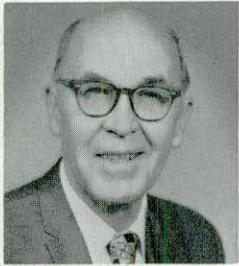
Dr. Henry Brown  
SAW Recipient (1967)



George W. Cavanaugh  
President (1966-67)



Leslie Diveley  
President (1965-66)



**A.H. DuRose**  
SAW Recipient (1969)



**Harold Ellis**  
Leadership Award (1970)



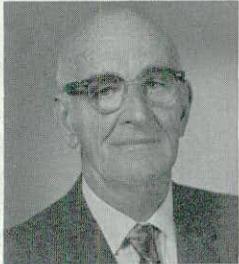
**Dr. C.L. Faust**  
SAW Recipient (1960)



**Hellmuth Fischer**  
SAW Recipient (1968)



**William Geissman**  
Proctor Award (1975)



**A. Kenneth Graham**  
SAW Recipient (1959)



**R.A.F. Hammond**  
SAW Recipient (1963)



**Samuel Helman**  
President (1956-57)



**Otto Kardos**  
SAW Recipient (1972)



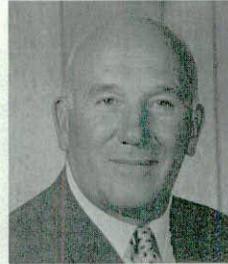
**Burton Knapp**  
SAW Recipient (1977)



**Joseph Kushner**  
SAW Recipient (1976)



**Frank E. Lane**  
Lane Award



**Arthur Logozzo**  
President (1949-50)



**William Nell**  
President (1950-51)



**Cleveland Nixon**  
President (1951-52)



**Fielding Ogburn**  
SAW Recipient (1975)



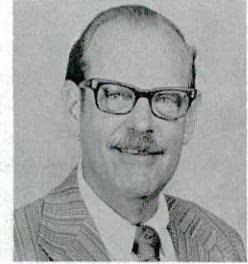
**Edward A. Parker**  
Honorary Member (1969)



**Frederick Pierdon**  
Honorary Member (1962)



**Walter Pinner**  
President (1945-46)



**Robert Ruleff**  
President (1973-74)



**Richard Saltonstall**  
Honorary Member (1971)



**Jesse Stareck**  
SAW Recipient (1970)



**Kergan Wells**  
Honorary Member (1970)



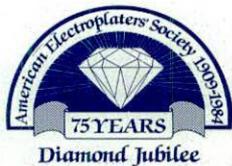
**W.A. Wesley**  
SAW Recipient (1962)



**Donald Wood**  
Wood's Nickel Strike



**Ralph Wysong**  
Honorary Member (1966)



The new Constitution and Bylaws were indeed approved at the Milwaukee Convention. Thus, the most sweeping operational changes in the history of the AES were adopted. The Supreme Society was replaced by the Council of Delegates, with curtailed authority. The Executive Board ceased to exist. Under the new Constitution and Bylaws, a Board of Directors composed of the president, first vice president, second vice president, treasurer, immediate past president, and 12 directors governed the Society. The office of third vice president was eliminated.

The Council of Delegates duty was to "hear reports, to elect society officers, to elect members of the Board of Directors, to elect the Nominating Committee, to act upon duly proposed amendments to the Constitution, and to fill any office it has declared vacant." All other authority was the province of the Board of Directors. With the implementation of the new laws, the executive secretary would be known as general manager. The office of treasurer was new, the secretary's duties to be performed by the general manager. A director's term was set at 3 years.

The Research Committee became the Research Board. The Membership Committee would be under the new Branch Activities Board. The Editorial Board was supplanted by the Technical Education Board.

The Council of Delegates alone can change the Constitution, though the Board of Directors may amend the bylaws.

In other 1962 activity, the Scientific Achievement Award was presented to Dr. W. Andrew Wesley, manager of the Research Laboratory at the International Nickel Company. The Research Committee was chaired by Dr. Harold J. Wiesner and membership stood at 7141. There were 328 Research Sustaining Members. The Wichita Branch disbanded and Mid-Hudson was chartered.

The tenure of John P. Nichols in the post of executive secretary was concluded in July 1962. Rodney Leeds, editor of *Plating*, was appointed acting executive secretary and continued as editor. President Manuel Ben was presented a gold-plated bell by Juichi Nakanishi of the Japan Electroplaters Association on September 17. Four days later, the Japanese delegation visited AES Headquarters in Newark. The Mid-Atlantic Regional Council, with Arthur G. Pierdon as chairman, was formed late that year.

Death claimed three more prominent members before the end of 1962. Myron Diggin, at 57, had been an associate editor of *Monthly Review*, was on the Editorial Board of *Plating*, was chairman of AES Research Project 4, and received the AES Gold Medal in 1946 and the Award of Merit in 1956. Walter J. Allen, 89, was president of the

Society in 1922-23. Charles C. Conley, 1942-43 AES president, was general chairman of the 1940 Annual Convention in Cleveland and passed away at 64.

### Last Interim Meeting

The 10th Interim Meeting was held in Kansas City, January 19, 1963. It was also the last Interim Meeting because, with a Board of Directors of 17 members who would assume most of the powers of the Supreme Society according to the new Constitution and Bylaws, it no longer appeared to be necessary. At a meeting of the Executive Board, Rod Leeds was appointed executive secretary and Dr. Frederick A. Lowenheim was introduced as the new technical editor of *Plating*. This was a part-time connection for Dr. Lowenheim, who would continue in research with M&T Chemicals. One of his first ideas was to inaugurate a journal section called "Plating Topics" to accommodate practical articles.

In other news of the day, AES Headquarters was operating with 11 full-time staff members and one part-time employee, while the Milwaukee Branch was celebrating its Golden Anniversary with a splendid affair in May 1963.

The 1963 annual was also the 50th Anniversary Convention of AES and the 50th year of the host Newark Branch. It was held at the Ambassador Hotel in Atlantic City. Dr. D. Gardner Foulke was general chairman. The MFSA and NAMF held their meetings concurrently with the AES convention, making it possible to hold a joint meeting of the three groups, as frequently happened.

For the first time, a scientist outside of the U.S. received the Scientific Achievement Award. He was Roy A.F. Hammond of England. Mr. Hammond was head of the Electrodeposition Branch at the Royal Armament Research and Development Establishment of the War Office. Meanwhile, Leslie L. Diveley had been elected to the post of third vice president for 1962-63, an office he worked hard to eliminate in the Constitution and Bylaws revision. He was consequently the last third vice president.

The June 24, 1963, meeting of the Supreme Society was of historical significance. It was its last because, by the end of the meeting, the Society would be ready to operate under the new Constitution and Bylaws. Appointments to the many new boards and committees were announced by President Ben.

The first meeting of the Council of Delegates took place on June 26. The first officers and directors were duly elected. Frank O. Beuckman became the first president at the operational transition of the Society. William J. Neill



Harold Simon (center) collects Central Iowa Branch charter from 1961-62 AES President Chester Borlet.



Dr. Harold Read, 1965 Scientific Achievement Award winner, during Chicago Branch talk in 1969.



A.D. Squitro (right) presents title slide of fifth AES Illustrated Lecture to series originator Dr. Donald Swalheim in 1965. The title: "Electroforming with Nickel."

was the first treasurer. The executive secretary now became general manager.

At the outset of 1962-63, the fiscal state of the Society was such that a deficit budget had been adopted. By the end of the fiscal period, however, various economies and a reduction in the cost of publishing the journal returned the AES to financial stability.

The 51st Annual Convention was held in St. Louis in 1964, with the Sheraton Jefferson as headquarters hotel. No Scientific Achievement Award recipient was selected that year.

The SADAM Branch in Argentina was granted a temporary charter in July 1964. Marmaduke H. Dent played a principal role in its organization. Also, the Upper Midwest Branch, with 100 members, was welcomed back with a new name.

Dr. George P. Swift died July 3, 1964. He was AES president in 1953-54, a national honorary member, and secretary of the Boston Branch for 16 years. Frank C. Mesle, 1926-27 AES president, passed away that August at the age of 80. He had been editor of *Monthly Review* from 1932-36. An ordained minister, Mr. Mesle had pronounced the invocation at many AES Conventions.

The "Technical Editor's Page," by Dr. Lowenheim, first appeared in the January 1965 *Plating* and thereafter was published each month for some 8 years. Another feature, "Some Production Plating Problems and How They Were Solved," was edited by Dr. Samuel Heiman.

The New York Hilton Hotel was the scene of the 1965 AES Annual Convention. The New York Branch was host, with Milton Nadel as general chairman. Edward E. Oberland of the Baltimore-Washington Branch was AES president. The World's Fair was held in New York that year, and conventioners spent a day there. Rudy J. Hazucha Sr. of the Chicago Branch was commended for having attended 50 AES Conventions.

Dr. Harold J. Read of Pennsylvania State University received the 1965 Scientific Achievement Award. He is renowned for his studies of electrodeposit adhesion.

In branch affairs, Orange County Metropolitan was welcomed to the Society, and AES President Leslie L. Diveley presented a charter to Worcester, MA, on October 19, 1965. On October 21, Kergan Wells and Ezra A. Blount visited the Melbourne Branch to discuss the "AES Research Program" and "Recent U.S. Plating Developments," respectively.

Five eminent AES members died in 1965. George J. Wagner had joined the Newark Branch in 1924, become national president in 1943-44, and been tapped as an honorary member in 1955. Manson Glover, honorary member of the AES and the Boston Branch, had graduated from Harvard in 1911. He was an eloquent speaker at AES meetings and had long been chairman of the Law Committee. Roy Stout, a 50-year AES member and past president of the

Newark Branch, died at 83. Talmage R. (Ted) Boggess died at age 61. He was a founder of the Blue Ridge Branch and, beginning in 1947, had presented an engraved silver-plated gavel to each national president of the AES. The first recipient was Kenneth M. Huston. Mr. Boggess made and plated the gavels himself and wrote a brief article explaining how he did it in the July 1952 issue of *Plating*. Since his death the Blue Ridge Branch has carried on the tradition and it has become a memorial to Ted Boggess. John A. Munning, vice president of Munning and Munning and a member of the Philadelphia Branch, died on July 17 at 69.

In 1966, AES President Diveley officially represented the Society at the 40th Anniversary of the Institute of Metal Finishing in London. The completely revised Constitution and Bylaws, effective June 26, 1963, and as amended in 1964 and '65, were published in *Plating* that April. The presentation of a charter to the Natural Bridge Branch was made on May 20, while a well-attended Conference on Waste Disposal occurred in Waterbury, CT, with a host of speakers such as Dr. A. Kenneth Graham and political figures.

The 1966 53rd Annual Convention was held in Miami Beach's Fontainebleu Hotel and was hosted by the Dixie Region under the chairmanship of Clem H. Hohner, Southeastern Branch. Dr. Henry B. Linford, Columbia University, received the AES Scientific Achievement Award. It was noted that he had done more than his share to train young minds toward science as professor of chemical engineering.

Five papers delineating the results derived from AES research projects were presented. Dr. Dennis R. Turner, research chairman, noted in his annual report two important findings on Project 12, "Cleaning and Preparation of Metals Prior to Plating": (1) "nickel deposition efficiency is poor initially but increases to a limiting value after a few seconds, and (2) contaminants which soil cathodes decrease nickel deposition efficiency by lowering the hydrogen potential." That same year, an informative, prescient article, "Computers and Plating" by W.A. Mogeraman, formerly of the National Bureau of Standards, appeared in *Plating*.

Among the deceased in 1966 were Joseph P. Sexton, honorary member of AES and charter member of the Bridgeport and New Haven Branches, and Clyde Kelly, national president in 1955-56. Mr. Kelly was a member of the Constitution and Bylaws Revision Committee and was voted posthumously an honorary member.

Joan Trumbour Wiarda died October 20, 1966, at the age of 59. She had been an AES member for 40 years, having joined when still a teenager in 1926. She conducted a ladies' affair at the 1965 Convention in New York, at the time saying that it was her swan song. She had been a member of the Chicago, Buffalo and Newark Branches. In her capacity of advertising director of *Metal Finishing*, she traveled throughout the country and was widely known in the industry.

Robert L. Ruleff, chairman of the Books and Symposia Committee, conceived the idea of holding a Symposium on Plating in the Electronics Industry. The Mid-Atlantic Regional Council agreed to host it. An excellent program was developed covering four general topics: electroless plating, magnetics, printed circuits and electroplating. The symposium was held in Newark during December 1966. Robert A. Ehrhardt of the Newark Branch was educational chairman, and Mr. Ruleff general chairman. Advance registration indicated a probable attendance of 300, but 600 arrived before the opening session, stretching the capacity of the meeting room and the kitchen at luncheon. Attendees came from as far away as the Pacific Coast, Switzerland,



(L-r) Leslie Diveley, Frank Beuckman, Harold Simon, Herman Tessmann and Paul Glab at 22nd Rockford Branch Annual, 1964.

England and West Germany. Mr. Ruleff and AES President George W. Cavanaugh extended welcomes at the opening session. This symposium continues to be popular today.

A Patron Membership in the amount of \$1000 was adopted in 1967. It was felt that contributions to the AES Research Fund in this category should have special recognition. (It was subsequently lowered to \$500.) Finally, in 1967, the St. Joseph Valley Branch purchased the 1000th Illustrated Lecture.

### Relocation in East Orange

A Land Committee, headed by Dr. Henry L. Kellner, was active in 1967 endeavoring to locate a new site for AES Headquarters. It had been narrowed to north New Jersey, after considering many other proposed sites, mostly in the Midwest.

The corner property and building at 56 Melmore Gardens in East Orange, NJ, was purchased on May 1, 1967. The transaction was entirely in cash. Chairman Kellner and Treasurer William J. Neill were at the closing. It was a two-story building with completely finished basement, and was very functional, a far cry from the rented space in Newark that had become very crowded. There was sufficient space on the first floor for the entire staff: two corner offices, four partitioned offices, and large central office space, also a lunch room. The basement was comprised of a large board room, mail room, addressing room and two storage rooms. As the second floor was not needed, it was decided to rent it until such time as the growth of the Society might require the space. There now were 12 full-time staff members and the part-time technical editor.

AES occupied its new quarters in midsummer. During the month of August, a couple of the earliest visitors were Dr. Simon Wernick, director of the Institute of Metal Finishing, England, and Palmer H. Langdon, president and editor, *Metal Finishing*. Membership was over the 8000 mark (8027) and Research Sustaining Members were at 435.

During July 1967, AES President William H. Safranek and Ezra A. Blount, AES liaison representative to the Japan Electroplating Society, toured Japan, attending meetings and visiting plating plants.

The AES Annual Convention was held for the first time in Texas. The Dallas/Ft. Worth Branch was host at the 54th Annual Meeting in Dallas, with R. Fred Howard as general chairman. George W. Cavanaugh was national president.



D. Gardner Foulke, 1979 honorary member, at dais during opening session of 1963 AES Annual Convention in Atlantic City.

The first Frank E. Lane Award was presented to Mr. Lane, for whom it was to honor and was named.

Dr. Henry Brown was the AES Scientific Achievement Award recipient. The following year, he received the \$1000 honorarium, which was part of the award upon delivery of the William Blum Lecture. Dr. Brown, whose principal work was the development of organic addition agents for bright nickel plating baths, subsequently donated the honorarium to the AES Research Fund.

An AES Educational Trade Tour to South America took place in April 1967. The Society was officially represented by President Cavanaugh, accompanied by Past President Arthur W. Logozzo and M.H. Dent. Later in the year, the SADAM Branch held its Fourth Annual Meeting and Exhibition in Buenos Aires, Argentina.

There were five active projects during the Research Board chairmanship of Dr. M.M. Beckwith. Three were terminated in June 1967: Projects 20, 21 and 23, and three were begun. Project 25 "Properties of Electrodeposited Gold for Electronic Uses" at the University of Southern California, and Project 26, "Electrodeposited Metals Handbook," were to be handled under the direction of William H. Safranek at Battelle. Mr. Safranek suggested the latter project and it resulted in an AES book. The third new project was Number 27, "Sealing of Anodic Coatings on Aluminum."

Chairman Beckwith noted in his annual report: "There is a constant effort being made by the Research Board to keep the type of projects in balance. The terms theoretical and practical are being tossed around and the adherents of either thinking are inclined to feel that the 'balance' is too unbalanced in favor of the other approach." True today as then.

### Events in the Late 1960s

The year 1968 saw the Bylaws changed to reverse the AES fiscal year back to April to March 31, from July 1 to June 30. Also, the Grand Rapids Branch celebrated its 50 years at a dinner party that January.

An AES Educational and Trade Mission departed April 20 from New York to attend the Seventh International Metal Finishing Conference and Hanover Fair, Hanover, Germany. The mission was headed by Past Presidents Arthur W. Logozzo and Edward E. Oberland. In addition to Hanover, the mission visited installations in Sweden, Denmark, Holland, West Berlin, England and Geneva.

The Golden Gate Conference, the Society's 55th Annual, was held in San Francisco, July 6-11, 1968, hosted jointly by the San Francisco and Santa Clara Branches. Harold J. Wiesner and Donald Levy were co-chairmen. The educational program included a symposium on immersion plating, two sessions on waste treatment, and one on anodizing. There was also a question-and-answer panel, always popular.

An Aluminum Finishing Seminar, sponsored jointly by AES, the Aluminum Association, Aluminum Extruders Council et al., formed the basis for the book, *Finishing of Aluminum*, edited by Dr. G.H. Kissin. What's more, AES membership rose to a new high for the era, 8487 members. Research Sustaining Members totaled 485—also a new high.

Edwin J. Smith was the Research Board chairman, and there were four active projects. A Project 22 paper was presented at the San Francisco Conference. In his thorough report, Mr. Smith stated: "Societies fostering an art or a science perceive a duty of insuring the future vitality of the technical field. This is accomplished by supporting research

designed to avoid obsolescence. When the goal of research is forgotten, the intricacies of proposing and financing research projects takes all of the attention. Membership Research Fund and Sustaining Members dues are paid as a guarantee against obsolescence; they should not be made available for crash programs, the latest research fad, or a seemingly insolvable 'practical' problem."

Three new branches were chartered during 1968: Midwest Florida, Erie, PA, and Valley Forge. President Marmaduke H. Dent presented the Valley Forge charter to Branch President William N. Karaces on September 10, 1968. National First Vice President James H. Lindsay made the charter presentation to the Erie Branch on September 20. Branch President Gerald Crane accepted for Erie.

By October 1968, 2000 Illustrated Lectures had been distributed. In that same month, Philip J. Ritzenthaler died. He was 58 years old and had been exceptionally active in the Milwaukee Branch and the Midwest Regional Council.

President Safranek had been pressing for more practical articles to be published in *Plating*. Ezra A. Blount, long experienced in editing and obtaining articles of a practical nature, graciously assisted in developing a section termed "Plating/Finishing Practice." Two new Paper Awards were approved to memorialize Eugene C. Chapdelaine and Richard O. Hull Sr.

The year 1969 saw a further updating of the Constitution and Bylaws, with appendix, while the Books and Symposia Committee sponsored the Second Plating in the Electronics Industry Symposium, Boston, with 500 attendees under the chairmanship of R. Scott Modjeska. Yet another regional group, the Pacific Northwest, met in Seattle in May.

During an educational and trade tour to Mexico in conjunction with the National Association of Metal Finishers, President Dent presented a charter to the AMTEG Branch. The five letters stand for Association Mexicana de Tecnologia en Galvanostegia. President Dent also presented a charter to the ABTG Branch in Sao Paulo, Brazil.

The 56th Annual Convention was held June 16-20, concurrently with the Seventh Industrial Finishing Exposition at Cobo Hall in Detroit. John E. Siefin was general chairman of the Convention and Howard McAleer chaired the Exposition. Attendance was better than 1700, with 129 exhibitors. There were nine sessions in the educational program and 33 papers. There was an "Aluminum Processing" session and two sessions on "Precious Metals." A panel handled the subject "Plating on Plastics."

Research Board Chairman Manuel Ben reported on the activities of six projects. The practical Project 28, "Barrel Plating of Carbo-Nitrided Steel Parts," had been completed

and two new projects were underway: "Crystal Defects in Electrodeposited Metals" at Stevens Institute of Technology, and Project 30-31, "Application of Reverse Osmosis to Metal Finishing Wastes" at the Ontario Research Foundation.

Arthur H. DuRose, a pioneer in the development of bright and leveling nickel deposits, was tapped as the Scientific Achievement Award winner.

### Membership Nears 9000

A per capita tax increase to \$15.80 became effective April 1, 1969. Membership stood at 8999, with 479 Sustaining and two Patron members. The 27 Illustrated Lectures now completed were being used worldwide. Austin B. Wilson, AES president in 1937-38, died that May.

The first four-color article appeared in the September 1969 issue of *Plating*. It was "Racking for Hard Chromium Plating" by Arthur W. Logozzo. The use of four color in the editorial section was too costly, so Nutmeg Chrome Corporation generously paid the additional cost.

The Merrimack Valley Branch, reflecting the increasing interest in electronics finishing, manned a booth at the First Annual Electronics Manufacturing Exposition and Conference in New York. Two other meetings of special interest were the Valley Forge Branch Printed Circuit Workshop and the Zinc Plating Symposium held by the Syracuse Branch.

In 1970, AES President James H. Lindsay presented to Research Board Chairman Edward A. Parker at the New England Regional Meeting a check in the amount of \$10,000 for the AES Research Fund. The check was derived from income generated at the Seventh Annual Industrial Finishing Exposition. With respect to the Annual Meeting, a new policy adopted early that year required annual reports to the Council of Delegates only from the president, first vice president and treasurer.

Other 1970 events: Harry C. Bernard, at the age of 90, died on November 16, ending 60 years of AES membership, and a new regional group composed of the Erie, Pittsburgh and Cleveland Branches was called the Mideast Regional Council.

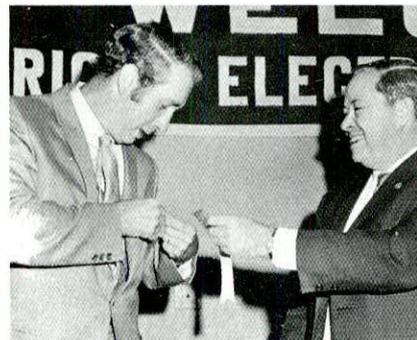
The AES 57th Annual Technical Conference was hosted by the Montreal Branch on June 21-25. M.C. Cohen was general chairman. The strong technical program offered 11 sessions, with 43 papers and a workshop panel. The conference had an attendance of 1400 members and guests and Dr. Jesse E. Stareck received the Scientific Achievement Award for his work on electrocoloring, pattern plating, composite coating, etc.



Richard Saltonstall (left) accepts Order of Past Presidents Award from Edward Oberland in 1968.



James Lindsay assumed AES presidency in 1969 and was also technical editor of "Plating."



John Donaldson (left) is elevated to second vice president in this 1970 photo. R. Scott Modjeska (1971-72 president) assists with induction ceremony.

from Newark  
Newark Branch  
Penny Thomas  
Robert Groom  
Elizabeth Hayes  
James J. O'Brien  
P. G. Barry  
Frank O. Bauckman

**AMERICAN NATIONAL ANTHEM**

O say, can you see  
By the dawn's early light  
What so proudly we hail  
At the twilights' last gleaming.  
O'er the rocket's red glare,  
The bombs bursting in air  
Gave proof through the night  
That our Flag was still there.  
Oh say, does that Star Spangled Banner yet wave?  
O'er the land of the free  
And the home of the brave.

L. E. W. Johnson

**BRITISH NATIONAL ANTHEM**

God save our gracious queen  
Long live our noble queen  
Long may she reign  
Send her victorious  
Happy and glorious  
Long to reign over us  
God save the queen.

W. J. O'Connell  
Ellen M. Divinsky  
Joe Divinsky  
Marie Bittrock  
Gus Bittrock  
Robert E. Norton

Happy Time in Atlantic City  
Stewart - Ed. Rubin  
Luck to  
Stephen  
from  
Barbara  
Garretton  
Some from  
Art Garretton

**50<sup>th</sup> ANNUAL CONVENTION BANQUET**



7:30 P.M., THURSDAY, JUNE 27, 1963

Sponsored by Newark Branch  
AMERICAN ELECTROPLATERS' SOCIETY, INC.

AMBASSADOR HOTEL, ATLANTIC CITY, N. J.

Walter M. Sammet  
John J. Kelly  
Kirk  
Best Wishes  
Peter P. Hoff  
Bob & Jerry  
Walter M. Sammet  
John J. Kelly  
Kirk  
Best Wishes  
Peter P. Hoff  
Bob & Jerry  
Walter M. Sammet  
John J. Kelly  
Kirk  
Best Wishes  
Peter P. Hoff  
Bob & Jerry

Donna Long  
James E. Long  
C. Y. Lammanna  
Thos. LaManna  
To AES Members and Guests

This Annual Banquet formally brings to a close, the Golden Anniversary of AES Conventions. Your host, the Newark Branch, hopes that it was one of the most memorable in Society's distinctive history.

We wish to thank all delegates, members and friends for attending this Convention, and extend to all, Newark's best wishes for a gay and happy summer.

See you next year in St. Louis.

Newark Branch, AES

R. A. Eberhardt  
W. B. Harding  
H. H. Johnson  
Helen Lutz  
Gerry Lutz  
Tom Tracy  
C. E. Mader  
C. E. Mader  
J. C. Zatorski  
Clare Zatorski  
Tom Laine (Canada)  
L. S. Newman  
Mayone Newman  
Dorothy Shively  
Alfred D. Shively

Mr. & Mrs. Raymond Abage  
Catteret N. J.  
Come see us sometimes!  
Juon Harry  
Don Martin  
Eugene  
George  
Loretta A. Huston  
Kenneth M. Huston  
Grace Huston  
Sam Huston  
Jernia Wagner  
George Wagner  
Kitty Carr  
Hans  
George

- CHILLED FRESH FRUIT COCKTAIL
- HEARTS OF CELERY - RIPE AND GREEN OLIVES
- ROAST PRIME RIBS OF BEEF, AU JUS
- OVEN BROWNED POTATO GREEN BEANS IN BUTTER
- ROLLS BUTTER
- HEARTS OF LETTUCE RUSSIAN DRESSING
- LADIES' CHAIRMAN
- AMBASSADOR ICE CREAM LOG
- CHOCOLATE SAUCE
- TEA COFFEE MILK

Steven Duva, son of former AES Research Board Chairman Robert Duva, collected these signatures on banquet menu at AES 50th Annual Convention.

Membership had dropped to 8135, partly due to the formation of Australia's own metal finishing society. This was in part precipitated by the AES increase in per capita tax. Many members of the three Australian Branches, Adelaide, Melbourne, and Sydney, let their AES membership lapse, at least temporarily, and joined the Australian society. Sustaining Membership, however, rose above 500 for the first time. Interestingly, President Lindsay headed an AES tour group of Australia and New Zealand that same year.

Five prominent AES members died in 1970. Samuel Taylor, a founder of the Newark Branch in 1913 and three times its president, had once been editor of *Quarterly Review*. Dr. Nathan Koslin, past president of the Columbus Branch, died on March 10. He established Nalin Laboratories in 1945. John R. Gumm, 54, died on February 6. He was a past president of the Newark Branch and president of Gumm Chemical. John E. Trumbour, son of AES founder Thomas Trumbour, died at the age of 58. He was an honorary member of the New York Branch, past president of the Newark Branch and treasurer of the Metal Finishing Suppliers' Association. On July 9, Anthony P. Julius died. He was an honorary member of both the AES and the St. Louis Branch. Andy was active in the formation of the Midwest Regional Council, and was general chairman of the 1964 AES Convention in St. Louis.

John Donaldson, then national second vice president, was the guest speaker at a February 1971 meeting of the Long Island Branch at which a temporary charter was granted. The Mid-Tennessee Branch charter was presented by AES Director George E. Parisho in September.

AES Treasurer William J. Neill, 69, died on January 10, 1971. He had been treasurer since 1963, when the revised Constitution and Bylaws became effective establishing that office. He was AES president in 1950-51, was made a national honorary member in 1961, and had been a delegate to the Supreme Society and Council of Delegates for 26 years. He had been a member of the Law Committee for a decade, and served on the Constitution and Bylaws Revision Committee. His branch was Columbus. Kergan Wells followed Mr. Neill in the office of AES treasurer.

The 58th Annual Technical Conference was held in Buffalo, NY, June 14-17, 1971, at the Statler Hilton Hotel. O.B. Kirchoff was honorary general chairman. General co-chair-

men were John C. Scholterer and Charles R. Fotheringham. Dr. Harold J. Wiesner was national president. Ten technical sessions offered a wide-ranging program, including two sessions devoted to waste treatment; there was also a vibratory finishing symposium. Niagara Falls was the scene of an enjoyable outing.

President Wiesner reported that after careful evaluation of the progress of the International Union for Electrodeposition and Metal Finishing, AES decided to become an active member. An outgrowth of a well-attended meeting of members was a strong feeling that divisions should be formed to accommodate special-interest groups such as electronics and automotive.

At the annual meeting of the Council of Delegates, June 17, 1971, an amendment to the AES Constitution was adopted, stipulating members of the Nominating Committee to be ineligible for nomination for national office and/or directorship, except from the floor at annual meetings.

Research Board Chairman William Geissman reported on seven active projects. Two new projects were "The Role of Additives in Electroplating Processes" at Baylor University and "The Optimization of Barrel Plating Solutions" at Arizona State University. Membership had dropped to 7958. There were 481 Sustaining Members and two Patrons.

T.P. Hoar, British metallurgist, received the 1971 Scientific Achievement Award. His studies on corrosion inhibition, mainly by using sodium nitrite, were important contributions.

Leslie L. Diveley, 1965-66 national president, died June 18, 1971. He was 63. A national honorary member, recipient of the Proctor Award, past president of the Milwaukee Branch, chairman of the AES Constitution and Bylaws Revision Committee, Mr. Diveley had represented AES at the 40th Anniversary of the Institute of Metal Finishing in London. He was educational chairman of the 1949 AES Convention in Milwaukee and a member of *Plating's* Editorial Board. He organized an Organic Division of the Milwaukee Branch in 1957, and started the Branch's *Monthly Newsleaf*, of which he was editor for a decade.

Burton G. Daw, 83, died on July 27, 1971. An honorary member of the St. Louis Branch, he had been with Hanson-Van Winkle-Munning and Lasalco for many years. In 1930, he designed and marketed the first fully automatic chromium plating machine.



At 1971 meeting of MFSA and AES in Dearborn, MI, are (seated from left): Fred Gumm, George Parisho, Stan Sax, Joseph Elsele, James Lindsay, James Zievers, Kergan Wells, Richard Hull Jr., Harold Wiesner, M.A. Broderick, R. Scott Modjeska, Harold Leever, Gerald Kraft, Louis Gagnon, Ronald Shaw, and William Clemons; (standing, from left) Gwynne Edson, John Siefen, Robert Trees, Rod Leeds, Harold Simon, John Donaldson, Jules Horelick, A.C. West and Ezra Blount.

## From Convention to Conference

The year 1972 saw the change of the Annual Meeting from "Convention" to "Technical Conference" and the 59th was held in Cleveland, OH, June 19-22. The First Interim Exhibit of Industrial Finishing was held at the same time, except that it opened 1 day later. Louis Gianelos was general chairman and R. Scott Modjeska national president. Dr. Otto Kardos received the AES Scientific Achievement Award. He specialized in the development of bright plating processes and anodizing.

Twenty-six papers were programmed in conjunction with an analytical instrumentation symposium, platers forum, and anodizing problem-solving panel. The attendance at the Conference topped 1700 and there were 131 exhibitors at the Interim Exhibit.

Membership stood at 7624. The Albuquerque Branch was operating under temporary charter.

A well-attended evening meeting was held during the Cleveland Conference ostensibly to chart the future course of AES. First Vice President John G. Donaldson stated the purpose was to determine how to make AES useful to a greater number of people. He termed the activity as "Evolutionary Planning." Past President Harold J. Wiesner agreed to be the general chairman of a group to encompass national past presidents, directors, and chairmen of all the boards and committees who would seek to determine how the Society could better serve emerging finishing technologies. It was wondered whether the Society should publish a quarterly technical journal and a separate monthly publication for news and practical material.

The Board of Directors met at Headquarters in East Orange on September 28, 1972, for the fall meeting. President Donaldson invited the only living founder of AES, Justus A. Stremel, then 86 years old, to lunch with the board members at East Orange. Past President Modjeska presented a plaque to Mr. Stremel, showing that he joined AES in 1909, became an honorary member of the New York Branch in 1950, national honorary member in 1962, and was given an Award of Esteem in 1972. President Donaldson presented Mr. Stremel with a color television set. Presi-



Justus Stremel was last living founder of the AES. In 1972, he was honored by the Board of Directors at a luncheon and awarded a TV set.

dent Jack Weiner of the New York Branch attended the luncheon.

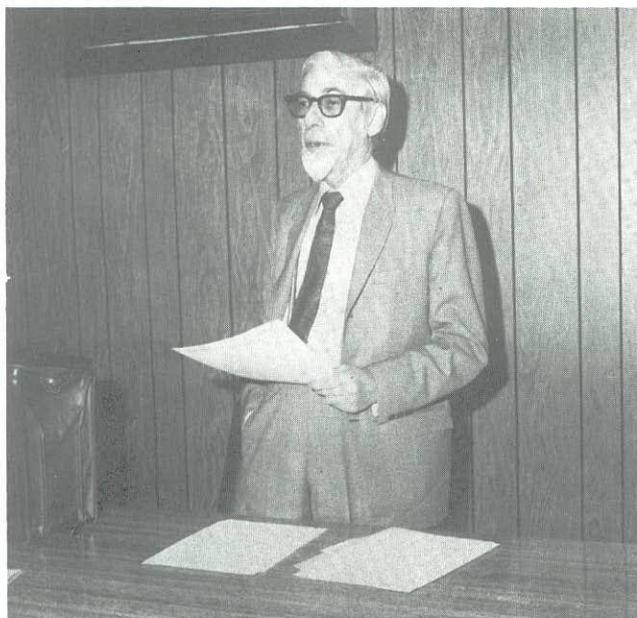
The first AES Intensive Training Course was held in Philadelphia, October 2-6, 1972. It was conducted by Donald A. Swalheim, Dr. Samuel Heiman and Fred Pearlstein.

Henry Mahlstedt died at age 75 on August 3, 1972. Retired from M&T Chemicals, he was one of the foremost figures in chromium plating. Another great loss was the death on March 24 of Dr. Edward B. Saubestre. He was 46. A member of the New Haven Branch, he had been with Enthone since 1958. He had served AES on the Editorial and Research Boards, was project chairman of Research Project 33, and was past president of the New York Branch. He was a member of the Paper Awards Committee at the time of his death. He had been awarded the AES Gold, Silver and Bronze medals.

The OSHA and Air Pollution Seminar held at the University of Chicago, December 4 and 5, was the first to be offered by AES Headquarters. It was well attended and very successful.

One of the most respected figures in AES history, Dr. William Blum, died on December 7, 1972, at the great age of 90. National honorary member, Philadelphia Branch honorary member, Research Board honorary member, AES presented him with a gold watch in 1928. He joined the National Bureau of Standards as a chemist in 1909 and directed the Electrodeposition Section from 1913 until 1951. He joined AES in 1915. Author of more than 100 technical papers, he co-authored with George B. Hoga-boom, "Principles of Electroplating and Electroforming." First published in 1924, it was revised in 1930 and 1949. An extensive biography is published in the February 1973 issue of *Plating*.

Frank E. Lane died December 9, 1972. He was 79. Past president of the Dallas/Ft. Worth Branch, which established the Frank E. Lane Industrial Award, he was its first recipient. On the 13th of December, death claimed Rudolph J. Hazucha—one month short of his 79th birthday. He was an honorary member of both the Chicago and Rockford Branches, and had been presented the AES Award of Merit. Rudy had joined the Chicago Branch in 1915.



Frederick Lowenheim, recipient of Scientific Achievement Award in 1978, was a prolific author of books and papers.

In the first few days of 1973, more stalwart members died. John Lockerbie expired on January 7 at the age of 91. He had been named a national honorary member in 1949, and was the first president and honorary member of the St. Joseph Valley Branch. He had been an organizer of the Chicago, Detroit, Milwaukee, Indianapolis and St. Joseph Valley Branches, and was a delegate for many years. William M. Phillips Sr. died on January 10. He was a national honorary member and AES president in 1938-39. Mr. Phillips was 85 years old at his death. Before retiring, he was head of the electrochemical department, General Motors Technical Center. At the young age of 39, Rockford Branch Past President Thomas O. McCullough died on January 19, 1973. He had served on national boards and committees and had he been spared, would have gone far in AES.

In his annual report, AES President Donaldson stated, "I hope that all of our members know of the Evolutionary

Planning activities initiated last June under the very able direction of Past President Harold J. Wiesner. They were begun because . . . many concerned members recognized that for AES to continue to maintain its important position in industry, it must quickly and effectively react to the changing needs of its membership."

The Albuquerque, NM, and Palmetto (Greenville, SC) Branches were chartered in 1973. Joint committees were created by MFSA, NAMF and AES for public-relations purposes and for close contact with OSHA, as President Donaldson stated "to explore ways and means for cooperative effort in establishing effective metal finishing publicity and PR programs and in providing timely, adequate, and understandable information to our members in matters related to OSHA and EPA regulations."

Research Board Chairman Martin J. Frant reported on the active Research Projects 27, 29, 30, 32, and 34. He said,

### Evolution of AES Branches

1909	New York	1938	New Haven (Terminated)	1955	Mississippi Valley
1910	Philadelphia		Buffalo - New Charter	1957	British Columbia
1911	Rochester	1939	Binghamton-Syracuse		(Terminated)
1912	Toronto		(Became Syracuse 1943)		Miami
	Indianapolis	1940	Indianapolis - New Charter		Mohawk Valley
	(Terminated 1933)	1943	Lancaster	1958	Blue Ridge
	Detroit		Syracuse	1959	Denver
	Chicago	1944	Jackson-Lansing		Phoenix
1913	St. Louis		(Became Central Michigan	1960	Memphis-Midsouth
	Newark		1954)	1961	San Diego
	Milwaukee		Australia		Central Iowa
	Dayton		(Divided 1946)		Santa Clara Valley
	Cincinnati	1945	Rockford	1962	Mid-Hudson
	Buffalo		Twin-City	1964	Upper Midwest
	(Terminated 1915)		(Withdrew 1960)		(Former Twin City)
1914	Cleveland	1946	Melbourne		SADAM (Buenos Aires)
	Bridgeport		Sydney	1965	Orange County Metropolitan
1915	Toledo		Adelaide		Worcester (new charter)
1916	Syracuse		St. Joseph Valley	1966	Natural Bridge
	(Terminated 1924)		Columbus	1968	Mid-West Florida
	Providence-Attleboro	1947	Southeastern		Erie
	(Attleboro added 1919)	1948	Louisville		Valley Forge
1918	Grand Rapids	1948	Saginaw Valley	1969	AMTEG (Mexico)
1919	Pittsburgh		Western Ontario		ABTS (Sao Paulo)
1920	Reading		Winston-Salem	1971	Long Island
	(Terminated 1926)		(Terminated 1949)		Mid-Tennessee
1921	Boston	1949	Allentown-Reading	1973	Albuquerque
	Waterbury		Hamilton		Palmetto
	Connecticut Valley		(Terminated)	1975	Allegheny
	(Now Hartford)	1951	Dallas-Ft. Worth		Colonial Virginia
	Montreal	1952	Wichita	1976	Orlando
1929	Baltimore-Washington		(Terminated 1962)	1977	Mississippi
	Los Angeles		Kansas City	1982	Charlotte Metrolina
	Worcester	1953	Portland		North Alabama
	(Terminated 1933)	1954	Capitol District		Taipei
1930	San Francisco		Houston		San Juan
	(Terminated)		(Terminated)		Tucson
	Anderson, Indiana		San Antonio		Carolina Sandhills
	(Terminated 1938)		(Terminated 1960)		Smoky Mountain
1936	Springfield		Seattle	1983	International
	Binghamton-Elmira		(Added Puget Sound 1955)		Hampton Roads (Norfolk)
	(Terminated 1939)		Southern Tier	1984	Golden Reef (South Africa)

"The major effort on new projects has been the development of methods of analyzing wastes, particularly those which could be applied with relatively simple equipment."

The Technical Education Board established an *ad hoc* committee, headed by Dr. Henry B. Linford of Columbia University, to develop a full electroplating and metal finishing curriculum that could lead to a college certificate, according to William G. Millman, board chairman.

A *Branch Public Relations Manual* was prepared by the AES Public Relations Committee. A Public Relations Reward, \$50 and a plaque, was created for presentation to the most outstanding branch public-relations officer each year.

The AES 60th Annual Technical Conference and the Industrial Finishing Exhibit were held in Minneapolis, MN, and hosted by the Upper Midwest Branch. Fred J. Kaim and Cort G. Platt were co-chairmen. The Conference was at the Radisson Hotel, June 17-21, 1973. Richard E. Thompson was exhibit chairman at the Radisson Mart.

There were 13 sessions in the technical program in which 35 papers were presented. The main topic was conservation. Two sessions covered Decorative Plating Conservation. There was a Conservation of Materials Symposium and a Symposium on Conservation of Organic Materials. A two-session Conservation in Plant Engineering Symposium featured a panel on Tools for the Plating Engineer to Reduce Wastes and Costs and one on Plant Engineering Systems. A Light Metals Finishing Workshop actually was comprised of two panels in two sessions, bringing together 12 experts. In the hope of creating a larger attendance, the Annual Banquet was held on Wednesday evening, instead of Thursday, the final day of the Conference.

At the annual business meeting of the Council of Delegates, Past President Arthur W. Logozzo inducted the newly elected national officers and directors, and announced that General Manager Rodney Leeds would retire at the end of the calendar year. J. Howard Schumacher Jr. assumed the position of general manager on January 1, 1974. He came to AES after six years with the Institute of Electrical and Electronics Engineers (IEEE). In 1974, the Board of Directors changed the title general manager to executive director and made him a member of the Executive Committee. William K. Brush, who had joined *Plating* as associate editor in 1964 and subsequently became managing editor, was made editor on January 1, 1974.

Dr. Frederick J. Lowenheim resigned the technical editorship of *Plating* at the beginning of 1974, after 10 years in that post. AES Past President James H. Lindsay was the successor. A technical expert and author, Mr. Lindsay had been a chairman of the Editorial Board of *Plating*.

### Progress in the 70s

An Awards Board was created composed of the chairmen of the Scientific Achievement Award, Charles Henry Proctor, Lane and Paper Awards Committees. Also the Technical Conference Advisory Committee was established. In 1974, temporary charters were given to the Allegheny, Colonial Virginia, Orlando and Nebraska-Iowa Branches.

The Decorative Plating Symposium held in Detroit and the Pollution Abatement Seminar in Reston, VA, were important meetings. President Robert L. Ruleff reported: "Work is well under way toward initiating an AES-sponsored college-level course in electroplating. Frederick Lowenheim will author a text for this course and arrangements have been made with a well-known publishing house. A laboratory manual will follow. Our intensive plating course, under the able direction of Don Swalheim, continues to be well received."

Through the efforts of Treasurer Wells, \$5 of the annual dues was to be allocated to the subscription of *Plating*, up from \$2. Research up \$1. The Research Board 1974 report was made by Vice Chairman of Research Leslie D. McGraw. He was concerned about increasing costs. A new project had been added, Number 35, "The Application of Pulse Plating Techniques to Metal Deposition," at Columbia University. EPA offered to provide a \$25,000 grant (AES to fund 5 percent) to further work on reverse-osmosis membranes.

The Conrad Hilton Hotel, Chicago, housed the 61st AES Annual Technical Conference (June 16-20, 1974) and the Industrial Finishing Exhibit. The general co-chairmen were Simon P. Gary and Paul Glab. Germany's Dr. Ernst Raub was recipient of the AES Scientific Achievement Award. Twenty-seven papers were delivered in sessions with such subjects as: light metals finishing, plating on plastics, autocatalytic nickel, pollution control, precious metals, metallography of electrodeposits. And there was a jobshop seminar, along with seven plant tours, and some 100 exhibitors.

In his annual report, Technical Education Board Chairman William G. Millman stated: "We have seen improvements and innovations in the various symposia presented, a



Herb Tilton (left) and Arthur Pierdon (1975-76 president) lobbied for 75th Anniversary stamp.



Three past presidents (l-r) Frank Beuckman, 1963-64, Ed Smith, 1974-75, and Bernard Gagnon, 1977-78, as honorary membership is conferred upon Mr. Beuckman.

continuous emphasis on satisfying the need for current and comprehensive programs that relate to the environment, and, of course, a continuation of symposia for those highly specialized areas which appeal to selective industries."

Membership had slipped to 7485. Sustaining Membership was 471 and there were eight Patron Members. Twelve Branches were conducting electroplating courses.

In the May 1974 issue of *Plating*, Research Vice Chairman of Finance Edward E. Oberland presented an excellent list of all the AES Research Projects, beginning with the very first, "Spotting of Plated or Finished Metals."

The only remaining AES founder, Justus A. Stremel, died on June 29, 1974. He was 88. A national honorary member, AES President James H. Lindsay invited him to attend the 1970 Annual Technical Conference in Montreal. Poor health prevented him from attending; nevertheless, New York Branch Delegate Milton Nadel proposed to the Council of Delegates in session that a resolution be passed officially recognizing Mr. Stremel as the sole survivor of the founding fathers of the AES. Mr. Stremel deeply appreciated this action, which was unanimously approved.

In a letter to President Lindsay at that time, he wrote, "I am proud to have been associated with this loyal and dedicated group of men, and especially our founder, Mr. Charles H. Proctor, as the formation of an educational society of platers and metal finishers was his brainchild. May his progressive spirit prevail throughout our membership for years to come to the benefit of our Society." Mr. Stremel was an honorary member of the New York Branch and led the procession of national officers, directors, past presidents and convention chairmen at the opening session of the 1965 AES Annual Convention in New York. He had started in plating at the age of 13 and left a substantial monetary gift to AES at his death.

Wendell P. Barrows, a charter member of the Baltimore-Washington Branch, died on August 21, 1974. He had worked with Dr. Blum at the National Bureau of Standards.

At the January 9, 1975, meeting of the Board of Directors, the Bylaws were amended to increase the per capita tax to \$17.50 for active members, the dues of members-at-large to \$21, Research Sustaining Members to \$150 and Research Patrons to \$600. The Scientific Achievement Award honorarium became \$1500. The name of the journal was changed from *Plating* to *Plating and Surface Finishing* with the April 1975 issue. William K. Brush's editorship

ended with the May issue and Phyllis D. Alexander took over with the February 1976 issue. The Colonial Virginia and Allegheny Branches were chartered.

An Educational Tour and Trade Mission was conducted by AES to Europe, starting on May 11, 1975. It was headed by AES President Arthur G. Pierdon and Past President Edward E. Oberland. An interesting account of the tour by Mr. Oberland was published in the August 1975 *Plating and Surface Finishing*.

The 62nd Annual Technical Conference and Exhibit of Industrial Finishing at the Royal York Hotel, Toronto, June 22-26, 1975, was hosted by the Toronto Branch. Edwin J. Smith was AES president, Kenneth R. Coulter general chairman and John D. Buchan chairman of the Exhibit. A 12-session educational program included 47 papers, a thickness-measurement workshop and a symposium on zinc plating and finishing of zinc die castings.

The 1975 membership stood at 7616, with 501 Research Sustaining Members and seven Research Patron Members. Two new Research Projects were initiated: Project 36, "New Membranes for Treatment of Metal Finishing Effluents by Reverse Osmosis," and Project 37, "Demonstration of Reverse Osmosis for Recovery of Chromium from Plating Rinsewaters." Research Board Chairman Vladimir Hospadaruk presided over six projects in progress. A committee was organized, at the suggestion of President Smith, on energy and materials conservation. It was chaired by Gerard Poll.

In his annual report, President Smith stated, "A committee to decide how to promote the affiliation of the AES with other metal finishing societies has been active during the year. At the last board meeting, Jim Voytko (AES 1980-81 president) reported for the committee that a select group of societies, including the NAMF, MFSA and IPC, will be invited to send a representative to the meeting to discuss the idea of affiliation, its advantages and disadvantages, organization, method of operation and the opportunities that it offers to present a united front on governmental affairs."

Fielding Ogburn of the National Bureau of Standards was the Scientific Achievement Award recipient in 1975. He was associated with William Blum and Abner Brenner, the first and fourth award winners, and conducted studies on a wide range of electrodeposition areas, including thickness testing, porosity, and acceptance sampling.

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## Regionals

Two or more branches may form a regional group and apply to the Board of Directors for a charter. There are 12 such regionals in the U.S. and Canada. They hold annual technical conferences, often climaxed with banquets. Regionals operate under their own bylaws, nonconflicting with the AES Constitution and Bylaws. They may have a strong voice in AES affairs. The 12 Regionals and member Branches are:

• **Dixie Regional:** Blue Ridge, Memphis-Midsouth, Miami, Midwest Florida, Natural Bridge, Southeastern, Colonial Virginia, Mid-Tennessee, Palmetto, Orlando, North Alabama, Mississippi,

Carolina Sandhills, Smoky Mountain.

• **Eastern Canada Regional:** Montreal, Ottawa, Toronto, Western Ontario.

• **Empire State Regional:** Buffalo, Capitol District, Mohawk Valley, Rochester, Southern Tier, Syracuse.

• **Great Lakes Regional:** Central Michigan, Detroit, Grand Rapids, Saginaw Valley, Toledo.

• **Golden West Regional:** Denver, Los Angeles, Orange County Metropolitan, Phoenix, San Diego, Santa Clara Valley, Tucson.

• **Mid-Atlantic Regional:** Allentown-Reading, Baltimore-Washington, Lancaster, Long Island, Newark, New York,

Philadelphia, Valley Forge.

• **Mid-East Regional:** Cleveland, Erie, Allegheny, Pittsburgh.

• **Midwest Regional:** Central Iowa, Chicago, Kansas City, Milwaukee, Rockford, St. Joseph Valley, St. Louis, Upper Midwest.

• **New England Regional:** Bridgeport, Hartford, Springfield, Waterbury.

• **Northeast Regional:** Boston, Merrimack Valley, Providence-Attleboro, Worcester.

• **Pacific Northwest Regional:** Portland, Seattle-Puget Sound.

• **Tri-State Regional:** Cincinnati, Columbus, Dayton, Indianapolis, Louisville, Toledo.

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Other events in 1975 included a new *P&SF* column entitled "Light Metals News," edited by David C. Montgomery. Central dues collection was initiated by AES headquarters. This was a policy matter considered for many years. At the start, the national office invoiced the member for \$26 and refunded the branch \$9.

Prof. Dr. Hellmuth Fischer, 1968 AES Scientific Achievement Award recipient, died in early 1976. He was a professor of applied chemistry at Technische Hochschule Berlin, where he investigated the morphology of electrodeposited metals.

The 63rd AES Annual Technical Conference was held in Denver, CO, June 27 to July 1, 1976. Bernard Gagnon was general chairman. The Exhibit of Industrial Finishing was chaired by Andrew P. Rylant. Arthur G. Pierdon, son of AES founder Frederick F. Pierdon, was AES president, and MFSA hosted a Night in Larimer Square. Thirty papers in 10 technical sessions were offered.

Dr. George DiBari, Research Board chairman, reported on the status of nine active projects. The Society had 7504 members, 454 Research Sustaining Members, and five Research Patrons.

AES purchased new Headquarters in Winter Park, FL, and moved from East Orange, NJ, in August 1976. The new property cost \$160,000 and was financed with a \$130,000 mortgage. Sylvia Baxley was named editor of *P&SF* starting with the November 1976 issue and Kergan Wells retired as national treasurer. He was succeeded by Charles R. Fotheringham, still in that office in this Diamond Jubilee year. James H. Lindsay resigned as technical editor of *P&SF* in December 1976. William H. Safranek, 1964-65 Research Board chairman, 1967-68 AES president, 1969 Proctor Award recipient, 1979 Scientific Achievement Award winner, AES honorary member and a former member of the Editorial Board of *Metal Progress*, became the new *P&SF* technical editor with the August 1977 issue.

### Certification Program

At the outset of 1977, the AES Voluntary Certification Program was initiated. Upon passing a specified examination, a member could become a Certified Electroplater-Finisher and earn the privilege of including CEF after his or her name. Today, in this AES Diamond Jubilee year, there are over 1000 members who have attained this designation.

In 1977, there were 41 Illustrated Lectures and a home-study course was being planned. The Sixth Plating in the Electronics Industry Symposium took place in Chicago, March 9-10, while AES Headquarters was busy purchasing a typesetting machine for the Society's publications, including *P&SF*. Other equipment for printing and binding gave AES complete in-house printing capability for branch needs, Society brochures, symposia proceedings, etc.

The 64th Annual Technical Conference and Exhibit of Industrial Finishing was held at the Bonaventure Hotel, Los Angeles, on June 26-30, 1977. Isidore Cross was president and Gail Korte general chairman. The Los Angeles and Orange County Metropolitan Branches were hosts. Forty-two papers were presented in sessions devoted to such subjects as hydrogen embrittlement, organic finishing, pollution control, plating for electronics, and solar energy. Five plants were visited by platers, and the social feature was an afternoon at Disneyland. More than 100 exhibitors displayed their wares.

In his first formal talk as president, Mr. Cross said, "We want to be the educational-scientific Society for the finishing industry and government on any question that comes up pertaining to our area of expertise." In his annual report, President Cross said, "If anyone were to ask me to mention one of the Society's most important personal assets, I could say it in three words: Mary Lou Dowdell" (AES staff member).



Dr. William Blum (seated) at 1972 birthday party in his honor. The annual AES William Blum Lecture is made in his name.



Trio of AES past presidents: (l-r) Gerald Schmidt (1978-79), Isidore Cross (1976-77), and Simon Gary (1979-80).

A per capita tax of \$17.50 and member-at-large dues of \$28 were adopted in the spring of 1977. The Mississippi Branch received its charter that year and Dr. Burton B. Knapp, who worked on the development of nickel anodes at the International Nickel Company, got the Scientific Achievement Award. Dr. George DiBari served a second year as Research Board chairman. It was the 50th anniversary of AES-sponsored research and there were nine active projects with a budget of \$280,000—about two-thirds funded by EPA. Membership was at 7205, with 429 Research Sustaining Members and eight Research Patron Members.

Losses that year began with Dr. Russel E. Harr, who died on February 7, 1977, at the age of 72. He had been a member since 1928 and was the director of Research Project 34. Les Reynolds, 68, died on March 25. He had been a delegate to the Supreme Society and Council of Delegates for many years, and frequently chaired the Credentials Committee. Joseph Gurski died on March 9. He had served on the AES Board of Directors and had retired from Ford Motor in 1973. Samuel E. Craig Jr. of the Phoenix Branch died at 48. He was professor of chemical engineering at Arizona State University and was chairman of two AES Research Projects, 34 and 44. Death also took Robert Niggerman, 44, past president of the Montreal Branch and registration chairman of the 1970 57th AES Annual Technical Conference.

A new standard billing policy was adopted by AES in 1978. All newly chartered branches were to have their dues billing handled by Headquarters. Also, through the efforts of Herbert Tilton, the East Orange property was sold.

An important event occurred in January 1978 when the AES co-sponsored the First Conference on Advanced Pollution Control for the Metal Finishing Industry. Agency representatives responded in a positive manner to the exchange of technical information with industry. The AES Environmental Committee, with the likes of Fred Steward, Canada's Kenneth R. Coulter, Dr. Clarence Roy, and Dr. Robert Wing continually nurtured the information exchange with EPA.

Other key events of 1978 were the First AES Symposium on Thickness Testing, New York, and the initial edition of the *SUR/FIN Shop Guide*, published in the February issue of *P&SF*. This directory of job and captive shops providing finishing services has been published regularly since then.

The AES 65th Annual Technical Conference and Exhibit of Industrial Finishing was held in Washington, DC, June 25-30. The Baltimore-Washington Branch, with Anthony O. Facciolo Jr. as general chairman, hosted the event. Bernard Gagnon was AES president. The technical program featured 45 papers and MFSA was host at a Washington Ball. Three plants were visited and there were nearly 100 exhibitors.

In his president's report, Bernard Gagnon stated, "As far as energy is concerned we've been lulled into a false sense of security in thinking that the only shortage we have is in coming up with the money to pay for it. Energy scarcity is a fact, and the problem is compounded not only by a shortage of sources, but also by a lack of research and by misguided administration. . . . The AES currently has Research Project 46 (co-sponsored by ERDA) at the Georgia Institute of Technology. This project is definitely designed to help our industry; it focuses on energy conservation."

Treasurer Charles Fotheringham reported: "The sale (of the East Orange Headquarters property) reduced the Society's property taxes and maintenance costs. Coupled with this, we have enjoyed our first complete year of operations in our Winter Park, FL Headquarters; the result has been lower taxes and reduced operating costs."

Research Board Chairman Lawrence J. Durney commented, "Each dollar of research funding contributed by the membership continues to purchase almost \$3 of research." Proposed projects in 1978 included "The Effect of Wastewater Heavy Metal Sludges on the Physical Characteristics of Concrete" at Manhattan College, and "Diffusion at Grain Boundaries in Gold," which was to be conducted at Pennsylvania State University.

A recurring subject, whether to change the name of the Society, again started to rumble. Proponents argued that AES was too restrictive a name, that Society members were involved in surface finishing techniques other than electroplating. Opponents said the present name brought with it prestige and recognition. At that time, AES had 7333 members, 449 Research Sustaining Members, and eight Patron Members.

At a meeting of the Board of Directors, October 23-24, the Bylaws were changed to raise the per capita tax from \$17.50 to \$19, of which \$7.50 was allocated to *P&SF* and \$4 to AES research. The member-at-large dues were to go from \$26 to \$28.50.

The grim reaper took 12 prominent members in 1978. Leonard A. Rood of the Southern Tier Branch died early that year. Lancaster Lowry, past president of Baltimore-Washington and a member for some 40 years, followed shortly. Carl Byrns, a 30-year member and past president of the Syracuse Branch, was next. Dr. Joseph P. Kushner, AES Scientific Achievement Award recipient known for his work on rinsing, passed away in February. He had delivered the William Blum Lecture only a few months before his death and had originated an electroplating correspondence course years before. Ralph D. (Duke) Wysong, 1959-60 AES president, also expired in February. He was co-founder and honorary member of the St. Joseph Valley Branch. Donald L. Wood, developer of the Wood's nickel strike, joined the others in 1978. He was affiliated with the Boston and Providence-Attleboro Branches and received the Lane Industrial Award in 1969. Another death was that of Paul Glab, 58-year member of the Chicago Branch, secretary-treasurer of the Midwest Regional Council, and a delegate to the Supreme Society and Council of Delegates for more than 20 years. Otto "Bert" Kirchoff, 75, died on August 8. He was a past president of the Buffalo Branch and a 40-year-plus member of AES.

There were also Dr. A. Kenneth Graham, Frederick Fulforth, Dr. Richard B. Saltonstall and Samuel B. Wyman. Dr. Graham was founder of Graham, Savage & Assoc., a three-time winner of the AES Gold Medal Award, a Scientific Achievement Award winner, and an honorary member. Mr. Fulforth was AES president in 1940-41, and joined the Philadelphia Branch in 1935 after successfully campaigning to change AES from a Society exclusively for foremen platers to one open to all interested individuals. Dr. Saltonstall, honorary member of the AES and the Detroit Branch, received the Proctor Award in 1971 and was educational chairman of the 56th Annual Conference. Samuel B. Wyman, co-founder of the Colonial Virginia Branch and a driving force in the development of an AES Light Metals

Finishing Section, died at the age of 50. An award in his name was established for the individual presenting the best paper on aluminum (or other light metals) finishing each year at the Annual Conference.

An important publishing milestone was reached in mid-1978 with the AES-sponsored book, *Electroplating—Fundamentals of Surface Finishing* by Dr. Frederick A. Lowenheim. It was published by McGraw Hill. Dr. Lowenheim also received the AES Scientific Achievement Award that year. He was most well known for his work in the field of tin plating.

By 1979, the AES was more than a \$500,000 operation with 16 staff members, and a series of three ballots was being distributed to determine the membership's preference for the Society's name. Mary Lou Dowdell was named meetings manager, a position necessitated because of the growing number of symposia, courses and other functions being offered under the auspices of AES. At that time, Ms. Dowdell had already been with AES for 18 years. In this Diamond Jubilee year, she completes 23 years of consecutive service and thereby sets a staff record.

The 66th Annual Technical Conference and Exhibit of Industrial Finishing, SUR/FIN '79, was held June 24-28 in Atlanta. More than 100 exhibitors augmented 81 technical papers on electroforming, chromium plating, energy conservation, etc.

The Society now had 7482 members, 460 Research Sustaining Members and eight Patron Members. William H. Safranek got the Scientific Achievement Award and subsequently delivered the William Blum Lecture on "Opportunity," in which he covered high-speed plating and other areas of recommended exploitation in the finishing industry. Steven B. Isham was named editor when Sylvia Baxley was shifted to marketing manager.

The obituary list in 1978-79 included several prodigious members. Christopher Marzano, a Chicago Branch past president and chairman of the AES Paper Awards Committee, died in January 1979. His news of Chicago Branch meetings was unusually informative; he had the gift of reporting in capsule form the data contained in presentations. Carmi Crawford, founder of the Chicago Electroplaters Institute, president of NAMF in 1947, and long-time member of the Chicago Branch, died at 75. Charles W. Ostrander of the AES Research Board and the Baltimore-Washington Branch died in April 1979. The New York

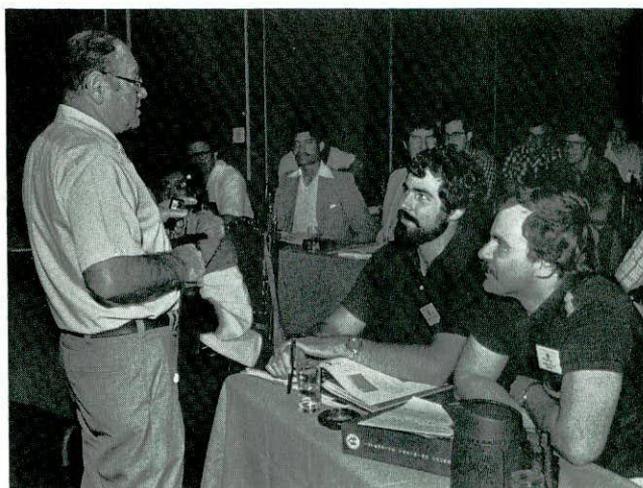
Branch lost two popular members: George F. Hermann and Jack Weiner. Mr. Hermann had received the New York/Newark Branch John E. Trumbour Award. Mr. Weiner was twice president of the New York Branch and was outgoing chairman at the 1965 Annual Conference. Hubert M. Goldman, who presented many papers on plating plastics and who was a past president of the Bridgeport Branch, died at 64. Homer G. Morton, honorary member at Grand Rapids, passed away on August 6. Russell V. Vandenberg, recipient of the AES Bronze Medal in 1956 and an expert on aluminum finishing, and Walter L. Pinner, AES past president and national honorary member, were also lost in 1979. Mr. Pinner contributed to *Electroplating Engineering Handbook* and *Modern Electroplating*. He wrote 40 papers, and for 25 years was the principal speaker at Milwaukee Branch Annual Meetings. He received the AES Gold Medal and the Proctor Award and was affiliated with the Manhattan Project.

### The Eighties

In 1980, some of the new features appearing in *P&SF* were Finishing Tip of the Month, Plating for Electronics (by John Donaldson), and Finishers' Think Tank (by John Laurilliard). These were introduced in response to a continuing appeal for articles of a practical nature, as a supplement to the technical papers. Meanwhile, there were 44 Illustrated Lectures running the gamut from surface preparation to zinc plating.

The 67th AES Annual Technical Conference and Exhibit of Industrial Finishing was held in Milwaukee, June 22-26, 1980. There were some 150 exhibitors and 55 papers in 13 sessions. A workshop on the reduction of precious metals used in electronics applications was indicative of the rising price of gold and the intensifying interest in plating for this high-technology industry sector. AES membership stood at 7999, with 477 Research Sustaining Members and eight Patrons.

President Simon P. Gary had this to say in his annual report: "AES is going great, but it will take Herculean efforts to make this a springboard for greater accomplishments rather than a plateau or peak before a crash. I fear that the present success is a flash of glory while the old war horses burn themselves out. We do not have the same *esprit de corps* among our young members as we do among the older warriors. We must recruit, involve, and inspire the 20



Mort Schwartz teaches an early AES Intensive Training Course. More than 2000 students have attended to date.



Myron Browning of Golden West Regional presents commemorative mining pan to AES 1980-81 President James Voytko.

to 35 year olds. We must recruit among a broader segment of the industry (we are in danger of becoming elitists); we must decide whether we are going to remain a heavily volunteer-oriented Society or whether we will increase our dependence on paid staff."

Research Board Chairman Jack Hyner reported that three projects had been completed and three added: Project 53, "Development of a Reactor to Eliminate Cyanide in Electroplating Effluents" at Ontario Research Foundation; Project 54, "Method of Life Testing of Coatings" at the National Bureau of Standards; and Project 55, "Sludge Characterization" at Centec Corp. (co-financed by EPA).

Regarding the proposed AES name change, Past President Gerald Schmidt concluded, "Many of our members expressed the belief that they felt the time had come to consider changing our name and expanding the scope of the Society to more adequately reflect the industry we serve. They felt that a change would allow us to achieve our full potential as the technical/educational Society of the finishing industry. After due consideration of these requests, it was our opinion that the concept had both merit and sufficient support to put the matter to the acid test and have the membership vote on the issue."

The members did vote, and the results on the name of the Society were in: American Electroplaters' Society, by a narrow margin, was to be retained.

The year 1980 saw the passing of many noble individuals. Dr. Henry B. Linford, a one-time member of the Board of Directors and director of AES Research Projects 12 and 35, died on February 3. He had been a student of Prof. Colin G. Fink. In April, the AES lost Hugh D. McLeese, who had held two joint patents with Dr. Fink and who had retired from M&T Chemicals, where he promoted new uses of hard chromium deposits.

Dr. Frederick A. Lowenheim passed away that August. In addition to being *P&SF* technical editor and winning the

Scientific Achievement Award, Dr. Lowenheim was technical chairman of the 1963 Annual Conference in Atlantic City, a member of the Research Board and the Editorial Board, and was involved with two books.

James H. Lindsay, who followed Dr. Lowenheim in 1974 as technical editor, died on July 10. His editorship continued for nearly 3 years. Mr. Lindsay was AES president in 1969-70, was a member of the Board of Directors, an honorary member, and was associated with the CASS test (AES Project 15), an accelerated method of determining corrosion resistance.

Indicative of the increasing number of finishing applications in the aerospace and electronics industries, in October 1980 AES sponsored a Symposium on Difficult-to-Plate Metals.

A Scholarship Fund was created in 1981 with a \$5000 donation and \$15,000 from the general fund. AES also entered the age of computerization when an anonymous member donated to Headquarters an IBM system, making possible quicker and more efficient handling of financial membership records.

The 68th AES Annual Technical Conference and Exhibit of Industrial Finishing was held at the Boston Sheraton Hotel and John B. Hynes Auditorium, June 28 - July 2, 1981. Paul F. Reddy was general chairman and Charles Levy exhibit chairman. There were 13 sessions on the technical program, MFSA hosted a Night at the Boston Pops, and there were seven plant tours, a spouses' trip to Newport, RI, and a clambake. Exhibit participation showed 150 exhibitors. Dr. Rolf Weil, known for his investigations of the structure and properties of electrodeposits, was selected as recipient of the Scientific Achievement Award.

Membership was growing and for the first time in 10 years was well over 8000, hitting 8475. There were 480 Research Sustaining Members and 11 Research Patrons. President

## Symposia and Conferences

The largest AES conference is the Annual Technical Conference held in conjunction with the annual meeting of the Council of Delegates and Exhibit of Surface Finishing, SUR/FIN. Free-standing symposia and conferences on specific subjects have been provided for some two decades.

In 1966, the First Plating in the Electronics Industry Symposium, brainchild of Past President Robert L. Ruleff, was held in Newark, with the unexpectedly large attendance of 600. In Diamond Jubilee Year 1984, the 11th took place in Orlando, in February. An AES Symposium on Electroforming was held in Dallas in 1967. In 1974, a symposium on the same subject was co-sponsored with ASTM. In March 1983, the AES International Symposium on Electroforming/Deposition Forming held forth in Los Angeles. AES also has co-sponsored many Aerospace Finishing Symposia.

AES conducted an OSHA (Occupational Safety and Health Act) Symposium at the University of Chicago, December 1972. The first Decorative Plating Symposium was in Detroit, November 1973. The first Continuous Strip Plating Symposium, proposed by Past President Edwin J. Smith, came into being in 1974. The fourth was in Chicago, May 1984.

A Pollution Abatement Symposium was another first for 1974. The AES/EPA Fifth Conference on Pollution Control for the Metal Finishing Industry was held in Orlando, January 30 and February 1, 1984.

The first Printed Wiring and Hybrid Circuits Symposium made its appearance in 1976. There was a Zinc Symposium in 1977. The following year, 1978, the first Thickness Testing Symposium was sponsored by the Syracuse Branch.

The year 1979 saw the first Interna-

tional Pulse Plating Symposium. Also, a joint conference was held with the Aluminum Association, April 1979.

Two symposia in 1980 were: the First Plating on Difficult-to-Plate Metals, and the AES Symposium on Economic Use of and Substitution for Precious Metals in the Electronics Industry.

The AES Design for Plating Symposium, February 1981, was conducted in Lake Buena Vista, FL. The First Electroless Plating Symposium debuted in 1982, and the second was in Orlando, February 2 and 3, 1984. The Federal/State/Municipal/Industrial Waste Control Management Conference for the Surface Finishing Industry was conducted in Orlando, January 1983.

In September 1983, a Symposium on Cleaning, Pickling and Etching was given in Toronto, Canada. All of the above were AES meetings.

Informative presentations are given each year at the Regional Conferences.

James E. Voytko spread the word about AES at the international level, visiting Japan and China in late 1980, and the Institute of Metal Finishing, England, in May 1981. In his annual report, Mr. Voytko mentioned that a new group, the Golden West Regional, had been established and that an organizational change conceived by the Advance Planning Committee would establish a new Technical Activities Board. The plan would structure this board with a series of sections and committees providing for direct representation by individuals in disciplines such as electroless plating, vacuum coating, and plating for electronics.

Nine projects were summarized in the report of Research Board Chairman Robert Duva and Vice Chairman James H. Lindsay II. Among these was Project 58 on "Electrodeposition of Heat- and Corrosion-Resistant Alloys" at the National Bureau of Standards. "This year," said the report, "the Research Board has been considering the long-range direction of AES research programs. . . . The Research Board must maintain a balance between projects that have an immediate impact on the industry and those that are of a fundamental nature. Our current balance (two practical to one fundamental) is felt to be a good ratio to maintain in the future."

New symposia included The Economic Use of and Substitution for Precious Metals in the Electronics Industry and Design for Plating. A 15-minute film, *Surface Finishing—You Can't Live Without It*, was completed to acquaint the public with the importance of surface finishing in daily life. The film was successfully distributed and has been viewed by more than 6 million people to date.

President Harry J. Litsch, Executive Director J.H. Schumacher Jr., Technical Editor William H. Safranek, Past President M.H. "Duke" Dent, and former AES Director Milton Nadel attended the technical conference EBRATS in Sao Paulo, Brazil, during October 1981. Mr. Safranek gave a paper on high-speed plating and Mr. Dent reminisced about the early history of the ABTG Branch. Mr. Dent and the late Paulo Ribbe were forces in its beginning.

Also in 1981, individual names denoting the Proctor, Lane and Wells Awards were eliminated. In the same order, they are now known as AES Leadership, AES Industrial Achievement, and AES Service Awards. In other changes, new members were to be billed on the anniversary dates of their memberships rather than pro rata, based on the fiscal year. Computer billing made this desirable.



(L-r) Alan Grobin with two Scientific Achievement Award winners—Bill Safranek (1979) and Harold Wiesner (1983).

AES lost another past president, Herberth E. Head, on May 25, 1981. He had been president of the Detroit Branch and a delegate for 25 years. He received the AES Award of Merit in 1961 and was chairman of the Membership, Education and Proctor Award Committees.

Dr. Edward Parker, 73, died on June 8. He was affiliated with the Providence-Attleboro Branch and was an AES honorary member, Research Board chairman, recipient of the AES Gold Medal Award in 1951, and one of the founders of Technic Inc. in the early '40s. Ronald A. Shaw, former member of the Board of Directors, also passed away in 1981. He was a past president of the Western Ontario Branch.

The growth and development of AES outside the U.S. continued in 1982 when the Taipei Branch in Taiwan received a temporary charter. By year's end, the Society's operating budget exceeded the \$1 million mark.

The First AES Electroless Plating Symposium, addressing both nickel and copper, was held in March 1982. The increasing applications of electroless plating for printed circuit boards, oil-drilling equipment and other uses were largely responsible for the attendance of 250 finishers.

Beginning in 1982, the member-at-large classification was eliminated. Such existing members were given their choice of branch affiliation, or, alternatively, to be assigned one. New members would be assigned to a branch, without election. Furthermore, a new International Branch was created. By eliminating the member-at-large category, the Society made it possible for all members to hold office.

The 69th AES Annual Technical Conference at the San Francisco Hilton and Tower was held from June 20-24, 1982. Jack Dini was general chairman. The concurrent Exhibit of Industrial Finishing opened on June 22, with Joe Payne as chairman and more than 150 exhibitors. The educational program presented some 85 papers in 21 sessions. In general the session topics followed the pattern of previous Conferences, but with sessions devoted to powder coating, alternative deposition processes, electroplating for optics applications and statistical design and computer modeling. MFSA was host to AES attendees at a Gay Nineties Ball and at the Prebanquet Cocktail Party. The technical program, exhibition and committee meetings were held in the George R. Moscone Convention Center, site also of two new features, the Jobshop Center and the Technical Talk Center. Dr. Rolf Weil, Stevens Institute of Technology, delivered the William Blum Lecture and Fred Pearlstein, U.S. Navy Aviation Supply Office in Philadelphia, received the 1982 AES Scientific Achievement Award. Mr. Pearlstein, in his work on coatings for military use, has been involved with electroless plating, chromating, anodizing and many other finishing processes.

In the spring, President Harry J. Litsch and Executive Director J. Howard Schumacher Jr. represented AES at the International Union for Electrodeposition and Surface Finishing in Zurich, Switzerland, and at the Annual Conference and Exhibition of the Institute of Metal Finishing (IMF), Brighton, England, May 4-8.

Membership had increased to 8713, with 476 Research Sustaining Members and 12 Patrons. Moreover, a second film was being produced. *How to Run a Successful Meeting* was done to assist AES branches in conducting their get-togethers and technical sessions in a professional manner.

In his annual report, President Litsch again brought up the question of whether or not the Society's name was appropriate. "We are actually engaged in 'surface finishing,'

which clearly differs from simply 'electroplating.' Based on this observation," he said, "and the fact that international development is strongly on the upswing, a name that adequately encompasses these characteristics should be selected. If I were asked to pick a name at this moment, I would say the International Surface Finishing Society."

Research Board Chairman James H. Lindsay II reported on seven projects, the newest being Project 60, "Field-Evaluation of a Prototype Donnan Dialyzer" at Southwest Research Institute. Dr. Lindsay mentioned in his report, "The AES research program has, as its primary product, research and development. But a number of side-benefits accrue. In projects undertaken at universities, the work often is assigned to one or more graduate students. As a result these people are exposed to the surface finishing field and may be influenced to choose a career in our industry. In projects undertaken elsewhere, jobs are provided."

The new Technical Activities Board completed its first year of operation under the chairmanship of William G. Millman. There were five operating sections: Electronics Finishing, Decorative and Functional Finishing, Light Metals Finishing, and Allied Technologies. The Allied Technologies Section incorporates Plasma Coating, Vacuum Coatings, Airline Plating Applications, Organic Finishing and Chemical Pretreatment, and represents the Society's determination to address all areas of surface finishing technology.

In other 1982 news, a Group Life Insurance Plan was made available to members, branches and regionals and the Society acquired 8 acres in the Central Florida Research Park for construction of a new International Headquarters. The Fifth Edition of the *AES Shop Guide* was also published. A computerized retrieval service accessing more than 300 databases was offered by AES in conjunction with the University of Central Florida. Thus, computerized searches of the volumes of technical literature that AES



(L-r) Nine-time AES Treasurer Charles Fotheringham, 1983-84 President Herb Tilton, Past President Cort Platt (1982-83), Executive Director J. Howard Schumacher, President-Elect Jack Dini, and Past President Harry Litsch (1981-82).



Fred Pearlstein garnered Scientific Achievement Award in 1982. He is also an Intensive Training Course instructor.

activities and publications helped to create can now be scanned and selectively retrieved in a matter of minutes.

The obituary column for 1982 included the "Father of Electroplating" in Australia, Benjamin W. Armstrong. He was the first president of the Sydney Branch. W.E. Cooke, an expert on aluminum finishing, died on June 6. He presented papers at AES Annual Conferences and was particularly active in the Light Metals Finishing Section. Harold E. Ellis, an honorary member of the Rockford Branch and chairman of the Research Sustaining/Patron Membership Committee for many years, was lost to the Society in July. He established the Forging Ahead Award and received the Proctor Leadership Award in 1970 and the Wells Service Award in 1980. Robert L. Ruleff, 1973-74 AES president, died in October. At his death, he was a member of the Miami Branch, but had been long involved with Dayton. He had chaired the Books and Symposia Committee and the Technical Education Board. Prior to moving to Florida, he had been with NCR Data Terminal Division and had owned a plating shop.

Dr. Earl J. Serfass also passed away in '82. He was associated with AES research for many years and was director of Project 29. A graduate of Lehigh University, he eventually headed the chemistry department there and formed the Serfass Company in 1952. It was acquired by Milton Roy Company in 1959.

### Jubilee Year Approaches

With the advent of 1983, plans were being formulated to celebrate the AES 75th Diamond Jubilee Anniversary in 1984. The most important event would be the building of the AES International Headquarters on 7.6 acres of land acquired for \$300,000 in the Central Florida Research Park. Value of the land has more than doubled since the July 1982 purchase.

The 17,000-square-foot building, expected to be occupied by September 1984, is being designed expressly to fit the needs of the staff and equipment and to provide for current and future society growth and membership needs. The Winter Park building was sold in mid-1983 for approximately three times the original purchase price and the money placed in an interest-bearing account to defray the cost of a low-interest-rate Industrial Revenue Bond funding the project. The building was leased back until the new Headquarters is occupied. AES President Herbert Tilton, Past President Cort Platt, and Executive Director Schumacher broke ground for the new Headquarters with a gold-plated shovel in September 1983.

The dues were increased to \$40. The per capita tax became \$31, allowing \$9 for the branches. The increase was not linked with the building of the new Headquarters. It was necessary for P&SF operations, and to endeavor to have dues provide for a more reasonable and equitable financial base in proportion to total percentage of Society income.

The First AES Federal/State/Municipal/Industrial Waste Management and Control Conference for the Surface Finishing Industry was held in Orlando, January 10-11, 1983, with the purpose of introducing attendees to the many types of equipment and methods for pollution control. The First Electroforming/Deposition Forming Symposium occurred on March 23-24 in Los Angeles.

In conjunction with the 10th Plating in the Electronics Industry Symposium, February 1-2, 1983, San Francisco, there were meetings of the Technical Activities Board, Electronics and Electroless Finishing Sections, the Meetings

Section, the Publications Board, Certification Committee, Educational Activities and Alloy Plating Sections, and the Technical Education Board, Vacuum Coating and Education Committees. These many divisions, and others, collectively form the mechanism to keep the Society in the mainstream of coatings technology.

There were now 46 Illustrated Lectures and a new 15-minute film telling the AES story. *AES—The Surface Finishing Society* explores Society functions in live action to show the educational opportunities, services and camaraderie available today.

SUR/FIN '83, the 70th AES Technical Conference and Exhibit of Surface Finishing, was held in Indianapolis, June 26 to 30, with an attendance of 3600. Paul Johnson and Richard O. Watson were co-chairmen. Frank Hartwig was exhibit chairman. Sixty-eight papers were delivered in 13 technical sessions, with management a new subject offering. There were some 150 exhibits at the Indiana Convention-Exposition Center and 30 presentations on exhibitors' products and services at the TechTalk Center. Three plant tours, daily programs for spouses, guests, teens and 'tweens, an outing to the Indianapolis Speedway, and an MFSA "Young at Heart Night" all will be remembered by attendees.

Past President Simon Gary was named an honorary member of the Society, and Dr. Harold J. Wiesner received, posthumously, the 1983 AES Scientific Achievement Award. He was active in electroforming, hard anodizing, precious metals plating, lead dispersion plating and other processes at Lawrence Livermore National Labs. More than 50 boards, committees, sections and regionals held meetings during SUR/FIN, proving how AES has expanded and diversified in recent years. The Society at this Jubilee time has an operating budget of more than \$1.4 million, showing remarkable growth.

Membership broke 9000 for the first time on March 31, 1983. There were 411 Research Sponsors (formerly Sustaining Members) and 10 Patron Sponsors. The One-on-One Membership Contest, beginning September 1, 1982, and ending Phase I on March 31, 1983, had a goal of doubling the membership by the 75th Anniversary. This could be accomplished with each member bringing in just one new member. Joseph Werbicki, Providence-Attleboro Branch, won the First Phase Award. He was far ahead of all other contestants.

In other news, the Scholarship Program, operating but a short time, had awarded six grants, and the Board of Directors authorized a temporary charter to the Hampton Roads Branch in Norfolk, VA. The ABTG Branch in Brazil received approval to change its name to Associacao Brasileira de Tecnologia Galvanica et Ratamentos de Superficie. Sur-

face finishing is now incorporated in its name. Los Angeles was chosen by the Council of Delegates as the site for SUR/FIN '88 and Cleveland for '89.

A revised Constitution was presented to the Council of Delegates at its July 1, 1983, meeting. It was rejected, except for Article X, *Dissolution*, a new addition. The proposed revision was returned to the Board of Directors with the request that the delegates have the opportunity to compare the existing with the proposed new Constitution, along with proposed changes in the Bylaws. This will be done at the July 1984 meeting.

The following was to be found in the annual report of President Platt: "The diverse interests of our Society are formidable. To increase membership we must keep serving the needs of the plater and continue to develop educational, training and research activities for allied sciences such as electronics finishing, organic coating, electroless plating, vacuum deposition, electroforming and ceramic finishing. We know from surveys that our membership has job-related interests in these areas, in addition to electroplating. The newly formed Allied Technologies Committee and its sections are responding to these needs."

Treasurer Fotheringham paid tribute to AES members in his annual report: "We continue to experience very significant volunteer participation in the conduct of AES affairs. I am continually impressed with the dedication and interest of our volunteer members who donate so much of their time and resources to Society affairs."

Dr. John Deuber, Research Board chairman, reported on the latest AES work, Project 61, "Electrodeposition on Anodized Aluminum Alloys" at Reynolds Metals Company. The ongoing recession had affected contributions to AES research, prompting Dr. Deuber to comment, "Since 1927, the AES Research Board has been committed to finding solutions for the problems facing our industry. The board routinely seeks co-sponsors in order to make our dollars go further; for example, EPA is expected to co-fund two environmentally related projects this fiscal year. Even so, shrinking contributions could interfere with the Research Board's objective." He urged the membership to reverse the trend so that the research program could continue to benefit surface finishers.

In early 1983 the International Branch was temporarily chartered and in June a list of CEFs was published in *P&SF*. Frank H. Schladen, active in plating for nearly 50 years, was made an honorary member of the Dayton Branch.

Deaths that year included Al W. Castellero, former member of the Board of Directors. He was a founder of the Orange County Metropolitan Branch. Dr. M.M. Beckwith, a consultant and former employee of GMC's Guide Lamp Div., Harshaw Chemical, R.O. Hull Co. and Conversion Chemical,

### AES Awards

The most prestigious is the Scientific Achievement Award, given to those who have made "outstanding contributions advancing the theory and practice of electroplating and allied sciences, raised the quality of products, or enhanced the dignity of the profession."

Annual awards are given for Leadership, Industrial Achievement and Service. An Award of Merit is frequently given.

Annual awards for papers selected as the best published in *Plating and Surface Finishing*, from those appearing during the period of a year,

are presented at the Annual Technical Conference. A Paper Awards Committee makes the selections. Awards also are made for best verbal presentations of papers.

Branches and members receive awards for increasing the membership of the Society.

died on March 30. Dr. Beckwith was a member of the Indianapolis Branch and a past chairman of the Research Board. AES 50-year member Vincent Mattacotti passed away on April 1. He had received the Lane Industrial Achievement Award in 1976 and headed the Milwaukee Plating Company. Finally, Robert F. Meyers of the St. Louis Branch was lost to AES in 1983. He had served on the Publications Board and two terms on the Board of Directors. He was also

a member of the Light Metals Finishing Section.

At the suggestion of First Vice President Jack Dini, a series of one-day concentrated courses was established. The first of these Short Courses, Solving Surface Finishing Problems, was held in Cleveland on October 10, 1983, followed by a two-day Symposium on Cleaning, Pickling and Etching. Lawrence J. Durney was course instructor and symposium chairman.

## Publications

Educating through the printed word is a paramount function of AES. Its most important publication is its journal, *Plating and Surface Finishing*. First published as *Quarterly Review* in 1910, becoming *Monthly Review* in 1914, the name was changed to *Plating* with the January 1948 issue and again changed to *Plating and Surface Finishing* in April 1975. Steven B. Isham is editor and William H. Safranek, technical editor. Its technical content, professional layout and four-color printing place it high among technical journals.

The technical papers must be offered for first publication and are required to be approved by two reviewers, expert on the subject. If a third opinion appears to be required, the technical editor acts as a reviewer. To reach members on all levels, a 50/50 balance of technical and practical papers is striven for; papers with new information are always sought.

Technical Editor Safranek states, "I'd like to see more survey articles that explore, in-depth, the pros and cons of competitive finishing processes (e.g., cadmium vs. substitutes; buffing vs. vibratory finishing; recovery vs. chemical treatment) and that quote scores of adherents to both sides."

Features such as Plating for Electronics, Finishers' Think Tank, Finishing Facts, Circuit Topics, and Finishing Tip of the Month contain usable data. The news of the branches, members, other associations, trade literature and new products can be found in every issue.

The annual *AES Shop Guide*, now in its fifth edition, is a useful addition to the publications.

The *Technical Proceedings* of the Annual Conventions, discontinued 20 years ago, was an entitlement of the members without charge. Today, proceedings of the Annual Conference technical program and many

symposia are available through AES at additional charges.

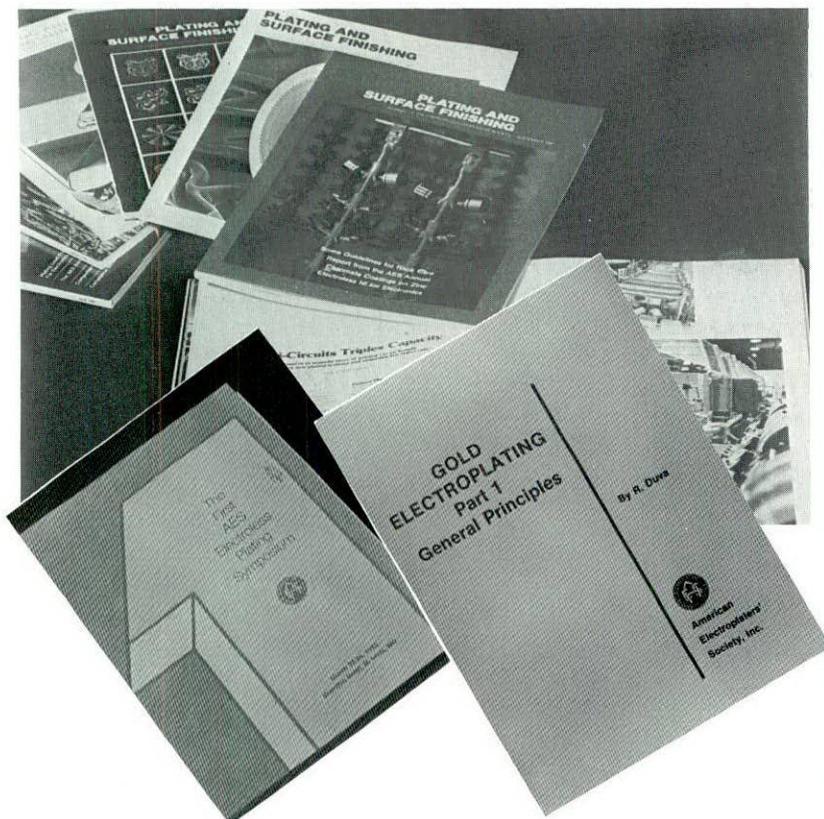
Books that AES has been responsible for include: *Electroplating Process Control Handbook* by Dr. D. Gardner Foulke, *Electroplating—Fundamentals of Surface Finishing* by Dr. Frederick A. Lowenheim, *Fundamentals of Electrochemistry and Electrodeposition* by Dr. Samuel Glasstone, *Finishing of Light Metals* by Dr. Gerald H. Kissin, *Hydrogen Embrittlement in Metal Finishing*, edited by Dr. Harold J. Read, and *Electrodeposited Metals Handbook* edited by William H. Safranek.

In the early 1960s, Dr. Donald A. Swalheim, then chairman of the Branch Education Committee, began the development of the Illustrated Lecture series. There are now 47 lectures, with accompanying 35-mm color

slides. AES acknowledges its indebtedness to the many firms that have produced the texts and slides, over the years. The texts, in pamphlet form, are obtainable, with optional slides, from AES Headquarters. They are used extensively by AES branches, educational institutions and finishing organizations in the presentation of lectures.

Experts on each subject authored the lectures. Many have been updated in incidences of technological advances. The 47 subjects cover the industry broadly. Moreover, about 25 new lectures on electronics finishing are being developed under Richard G. Baker, AES educational/technical director.

A listing of the available Illustrated Lectures appears regularly in *Plating and Surface Finishing*.



## Tilton Jubilee President

On June 30, 1983, The Council of Delegates elected Herbert Tilton AES president for 1983-84. He serves through the 75th Anniversary of the April 10, 1909, formation of the Society. Although formerly a plater, Mr. Tilton is the first supplier to attain the presidency of AES. A self-made, hard-driving individual, he has been deeply concerned with AES membership through many years of service on the Membership Committee and Branch and Regional Activities Board (presently the Member Services Board). Now that he is president, membership is more important to him than ever. He believes AES is far from reaching its potential in this area.

All AES presidents travel widely in office. President Tilton

seems to be on his way to some sort of record. He probably will visit a third of the AES branches and several regionals during his term of office. In October 1983, he attended with Executive Director Schumacher the Second SURTEC Berlin '83 in West Germany, as well as a meeting of the AES International Branch and the International Union for Electrodeposition and Surface Finishing.

Kergan Wells, AES treasurer from 1971 to 1976, died on November 18, 1983. An illustrious, second-generation member of the Toronto Branch, Mr. Wells had long served the branch as an officer and member of the executive group. His father, W.W. Wells, was a founder of the branch. Kergan served on the AES Project Committee at the Ontario Research Foundation and his firm has been a consistent Research Patron of long standing.

## The Pot and Past Presidents

The story of the Order of the Pot was written by its originator, 1947-48 National President Kenneth M. Huston, and published in the March 1958 issue of *Plating*. The tale is told best by Ken Huston so here are portions of it.

An "important event was Tom Slatery's (1935-36 national president) presentation of a 'pot' to Walter Pinner upon the occasion of his visit as president of the AES to the Baltimore-Washington Branch in 1946. Pinner had related to his third vice president, Ken Huston, how he had played a practical joke upon one of his supervisors at the Danville, IL, Manhattan Project. This resulted in a 'fur-lined pot' being presented to the boss by an unsuspecting secretary at the annual Christmas Party. Huston believed a humorous incident could be added to the evening's entertainment by giving Pinner a plated pot. It was a silver and cadmium plated echo box (used to check aviation equipment in World War II) with a gold plated handle.

"From these beginnings, the Baltimore-Washington Branch thereafter presented similar pots to Presidents Savage (1947), Huston (1948), Johnston (1949) and Logozzo (1950). Logozzo's was the last of the original aluminum pots. Each 'pot' that has since been presented. . . has been of copper. Holders of the original aluminum pots are considered today as Charter Members of the Order."

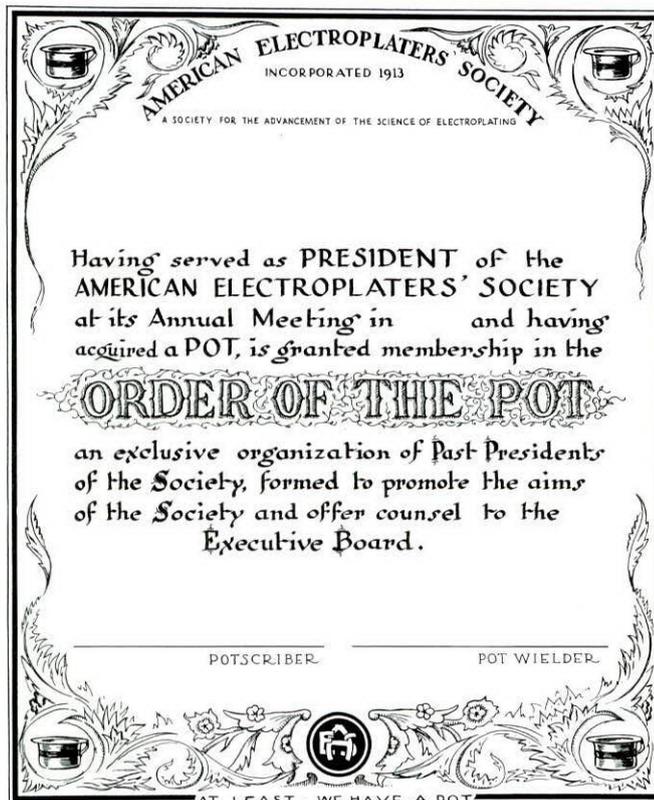
The Order of the Pot was formally organized in 1949 and its first dinner meeting was held in Buffalo in 1951. All of the living past presidents prior to 1946 joined the Order in 1952.

It became evident in 1954 that the

name "Order of the Pot" made it difficult to hold serious recognition of its object of "a group of experienced leaders to whom the Executive Board and others may turn for counsel in furtherance of the aims of the American Electroplaters' Society." A letter ballot vote of past presidents resulted that year in change of the name from "Order of the Pot" to "Order of Past Presidents." (When it was the Order of the Pot, the chairman was known as the potwielder and the secretary was the potscriber.)

The Pot is still presented to the outgoing AES President at the annual banquet of the Baltimore-Washington Branch, each April. Since the death of Ken Huston, the production of the Pot has been faithfully performed by AES Past President Arthur G. Pierdon.

The Order of Past Presidents meets at the AES Annual Technical Conference, and presents an award plaque each year at the banquet to someone (not necessarily a member of AES) worthy of "recognition of exceptional service" to the AES.



"Order of the Pot" certificate.

### The 75th Year

The AES 75th Diamond Jubilee year started auspiciously in January with about 1000 attendees at AES Week in Orlando, FL. There were board, committee and section meetings, a Short Course in Gold Plating for Electronic Applications, a Short Course on Plating Through-Holes in Printed Circuits, the 5th AES/EPA Conference on Pollution Control, the 11th Plating in the Electronics Industry Symposium, and the Second Electroless Plating Symposium—all of which were well received. Also in January, the AES named its first Educational/Technical Services Director, Richard G. Baker, who logged 16 years with Bell Laboratories as supervisor of the Corrosion Engineering and Metal Finishing Group. His responsibilities: to interact with AES volunteers in establishing and overseeing educational programs and to further the Society's involvement in all areas of surface finishing.

The great event for 1984 is the celebration of the Society's Diamond Jubilee at SUR/FIN '84 at the New York Hilton, New York, July 16-19. It is the 71st AES Annual Technical Conference and Exhibit of Surface Finishing. Herman N. Hammer is general chairman and Daniel B. Paris exhibit chairman.

So the Society returns to New York for its Jubilee celebration. Particularly fitting because it is the city of its founding. The organizational meeting was held at the Chelsea Hotel on April 10, 1909. That hostelry celebrated its 100th Anniversary in 1983 and is still a residential hotel of distinction. The return to New York is not only to the city of AES origin, but also to the same hotel the Annual Conference (then Convention) was held in 1965. It has space for all activities, including the exhibition, under one roof.

The program set up by Chairman Hammer takes on an anniversary glow. The July 17 opening session is unusually interesting and will be open to spouses and guests. An exercise program is an innovation. A plant tour to Pan American Airlines, under Chairman William Sepp, will be a treat for attendees. The technical program, with some 90 papers, offers new work on many finishing subjects: electroless plating, electroforming, electronics finishing, anodizing and dispersion coatings, to name a few. A 230-booth exhibit featuring the latest in equipment, processes and services, is another highlight.

Jack Dini has been nominated as 1984-85 AES president. He has long service on Society boards and committees and in-depth familiarity of AES operations. As chairman of the Advance Planning Committee, he thoroughly explained its organization and purposes in the July 1983 *P&SF* editorial, "Advance Planning: What It Can and Will Do."

"The current objectives of the Advance Planning Committee include broadening the scope of AES, strengthening the branches, encouraging more membership involvement in Society affairs, emphasizing membership retention and dues, and determining an accurate member profile," said Mr. Dini. "The Advance Planning Committee is relatively new—its first meeting was held in January 1980." This is

perhaps more accurately a rebirth, rather than a "new" committee. Nearly 20 years ago, AES had a Forward Planning Committee. In June 1972, an Evolutionary Planning Committee was formed. New starts or "rebirths" are needed when there is continuous changing of officers, and board and committee members. The new Advance Planning Committee has made an auspicious beginning and is expected to have an impact on the future history of the AES.

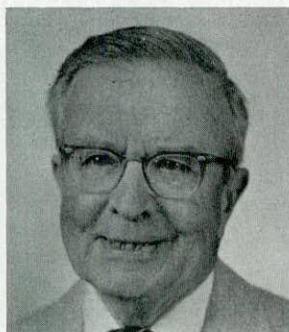
With more members than ever before participating in greatly expanded boards, sections and committees and the prospect of even better services at Headquarters, AES is justifiably proud at its 75th Diamond Jubilee Celebration. And the look ahead holds great promise for fulfillment of its mission as set forth in the current AES Constitution:

"To improve and disseminate knowledge of the arts and sciences of electroplating and the deposition and finishing of metals, allied arts, and to develop a cooperative spirit of friendship and mutual assistance among its members."

For 75 years, AES has served the needs of surface finishers—from the foremen platers of 1909 to the finishing professionals worldwide of 1984. This international organization has a proud tradition and looks forward to accepting the challenges of the future. □

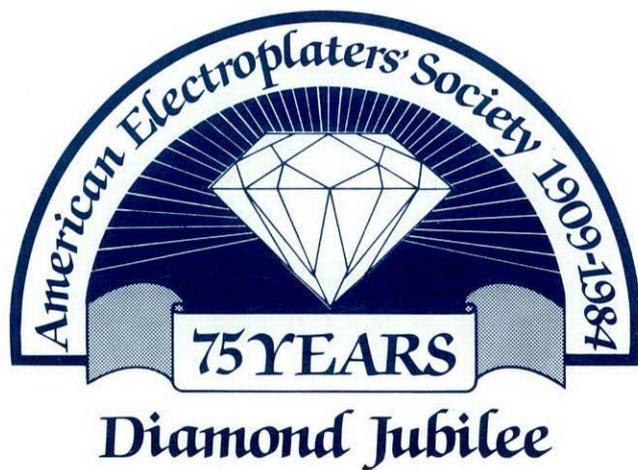
### Acknowledgments

Especial gratitude to Ezra A. Blount for making available his preliminary work. Appreciation to *Metal Finishing* for the use of its library, and to Arthur G. Pierdon, William H. Safranek, Dr. Donald A. Swalheim, Dr. D. Gardner Foulke, Dr. Samuel Heiman, I. William Marcovitch, Joan Harrison, Mary Lou Dowdell, Herbert Tilton, Herman N. Hammer, Steven B. Isham and Stephen H. Roiter.



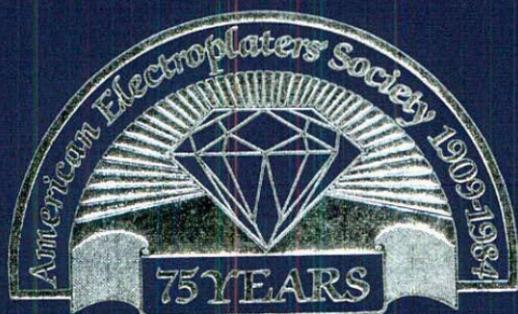
### About the Author

Rodney Leeds retired as editor of "Plating" and as general manager of the AES in 1973, after 17 years of distinguished service. A resident of Cedar Grove, NJ, Mr. Leeds holds honorary membership in both the AES and the Newark Branch. Prior to joining AES, he served in a variety of editorial posts with newspapers and magazines.





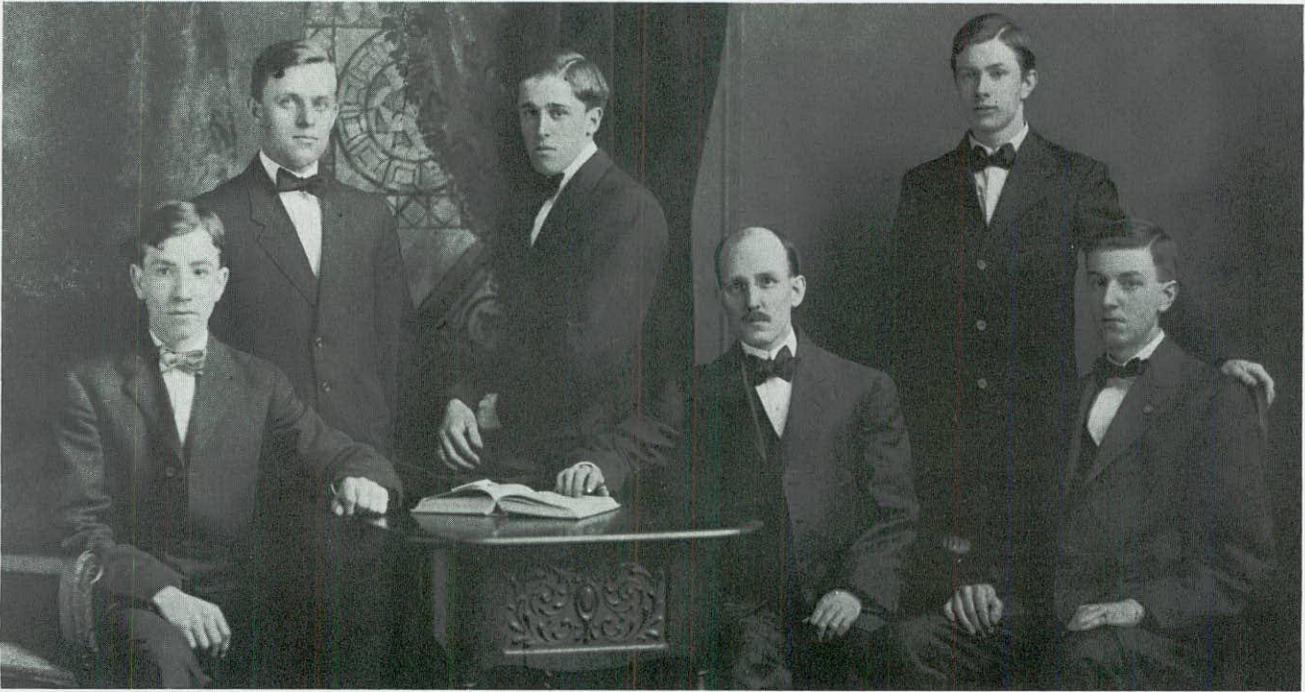




*Diamond Jubilee*

*Seventy Five Years*

1909-1984



First AES Executive Committee (1910). Only identifiable individual is George Hogaboom (fourth from left), second Society president. Can anyone help with the others?

## Collated by Rodney Leeds Foreword

Seventy-five years in the life of the American Electroplaters' Society embraces so vast an amount of activity by individual members, officers, boards, sections, committees, branches and regionals that, to present a complete history of the Society, a monumental publication—far beyond the scope of this treatise—would be required.

The first 50 years were related at the Golden Anniversary in 1959 by John P. Nichols, and published in *Plating* (June 1959) and as a separate pamphlet, titled *Milestones of AES*. A significant portion of that material is now republished with some rearranging, updating and additions.

No attempt is made to include the fascinating history of the surface finishing industry for the 75-year period.

Looking back three-quarters of a century, the life span of the American Electroplaters' Society brings vividly into focus a host of individuals whose vision, selfless contribution and labor have brought the organization to its present state of greatness.

On March 6, 1909, when the salary of foremen platers was on the order of \$27.50 weekly, Charles H. Proctor, a farsighted New Jersey plating and foundry supervisor, achieved his cherished dream by inspiring a meeting of some two dozen foremen platers at the old Hotel Chelsea in New York, NY, for the purpose of creating a non-profit association to advance the science of electroplating, metal finishing and allied processes.

Friday, March 19, the same pioneering group, with some enthusiastic additions, met again, this time at the Big Apple's historic Astor House, for further consideration and action. Out of their thinking and planning, the National Electro-Platers Association of the United States and Canada (NEPA) came into formal being at an organizational meeting held at the Chelsea Hotel, Saturday, April 10. There, the infant association's Constitution and Bylaws were approved by 60 charter members, and founder Charles H. Proctor was elected NEPA's first president, with Benjamin W. Gilchrist,

secretary; Nathan S. Emery, treasurer; George B. Hogaboom, librarian. Among the founding members who were to be prominent for many years in the industry were: Harry C. Bernard, Royal F. Clark, Frederick C. Clement, Edward W.T. Faint, Palmer H. Langdon, Frederick F. Pierdon, William Schneider, Horace H. Smith, Justus A. Stremel and Thomas A. Trumbour.

NEPA became incorporated as a New York non-profit educational association on October 18, 1909. The principal reasons for incorporation were fourfold: (1) to advance and disseminate "knowledge concerning the art of electro-deposition of metals," (2) to maintain a laboratory equipped for research work, (3) to conduct meetings for the purpose of presenting papers on appropriate technical and scientific subjects, and (4) to publish technical literature.

Within 3 months, NEPA had conducted its first Annual Banquet at the Old Marlborough Hotel in New York. This was the forerunner of today's Annual Technical Conference, SUR/FIN.

The organization had three classes of membership. "Active Members" had to be foremen electroplaters or electrochemists. "Associate Members" were employees of supply houses. "Honorary Members" were described as men of knowledge preeminently valuable to the association. It had a board of trustees consisting of five members, three of whom had to be electroplaters. There were 17 officers; a president, 10 regional vice presidents, a recording secretary, a corresponding and financial secretary, a treasurer, a librarian, a sergeant-at-arms and an assistant sergeant-at-arms.

The association met monthly on the first Saturday. Annual dues for active members were \$5—but just \$3 for associate members. The president could grant a charter to any applying body of foremen electroplaters and electrochemists if the application was approved by two-thirds of NEPA's members.

On September 10, 1910, the first branch was formed in Philadelphia by charter member F.C. Clement of the Victor Talking Machine Company.

### The First Journal

Needing a medium of its own through which to further the knowledge of its members, NEPA inaugurated a quarterly magazine in June 1910 titled *Quarterly Review*, progenitor of *Monthly Review*, *Plating*, and today's *Plating and Surface Finishing*. The original print order was for 500 copies.

Though NEPA's headquarters was then located in New York and its members met at 309 W. 23rd St., its first editorial office was in the Jersey City home of the *Quarterly Review's* first editor, August G. Hoffman. George B. Hogaboom assumed the editorship in March 1911. Under his guidance—and aided by such associate editors as Adolph Wahl, Amos G. Reeve, Royal F. Clark, John E. Grant, Frederick C. Clement and Charles H. Proctor—the quarterly made rapid headway. That same year a new branch was formed in Rochester, NY.

### First Exposition

The year 1912 saw NEPA, now with 144 active members, make even greater progress. It became international by the formation of the Toronto Branch in Canada. Walter S. Barrow, who was to become the fourth president of AES, was the principal organizer of the Toronto Branch and was its first president. Among the 24 charter members were W.W. Wells Sr. and Jr. The Wells name is still prominent in the Society in its 75th year. Branches were also chartered in Indianapolis, Detroit, Chicago and St. Louis.

NEPA's third banquet not only was by far its largest but also featured (quoting *Quarterly Review*) the "first exhibition of electroplating apparatus and finishes in the United States." Held in New York, Saturday, February 10, 1912, as the afternoon phase of that Third Annual Banquet, "the informal exhibit—worked up only 10 days before the banquet—met with such willing responses from manufacturers of electroplating supplies," said the *Review*, "that nothing short of a full-fledged exhibition will satisfy the demands for next year."

The Egyptian Lacquer Manufacturing Company of New York provided badges for the day. "The buttons," *Quarterly Review* reported, "were consecutively numbered, and as

each guest arrived, the Reception Committee had him register, then presented him with a badge. On one of the walls of the room was a bulletin headed 'Introduce Yourself,' and opposite the corresponding number of each badge was the name and address of each guest. This feature added much to the pleasure of the day, and through it, many old friendships were renewed, and men known to the trade by name only became acquainted with their fellow-platers." The exhibitors' list ran the gamut of that era's progressive and growing source of supply. Some are with us in 1984.

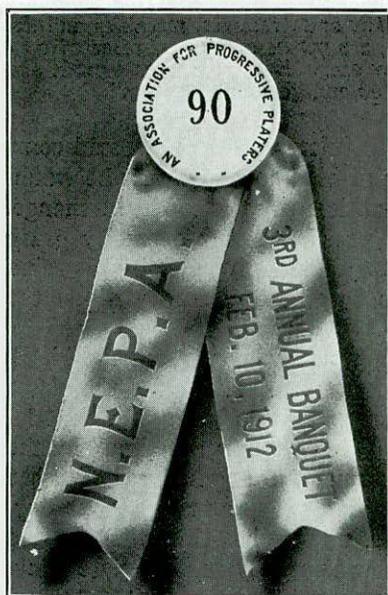
That same 1912 winter evening, 182 NEPA members and guests, males all, convened at the banquet itself compared with 130 the prior year. "The hall," according to *Quarterly Review*, "was beautifully decorated, and multi-colored carnations were scattered over the tables. Elegant engraved menu cards upon which the emblem of the Association was embossed in gold were the gift of the Celluloid Zapon Company."

President Charles H. Proctor, NEPA's founding father, was toastmaster. Among technical papers presented at that evening's meeting was "Galvanizing" by Louis Pothoff, president of the United States Electro-Galvanizing Company of Brooklyn, NY. "It was illustrated by many stereoptican views made especially for the occasion."

From the Eureka Pneumatic Spray Company each guest received an ash tray finished in old ivory. The same source presented President Proctor with a large statue of Venus de Milo finished in verde antique. Philadelphia Branch President Clement was honored with a pair of Bonheur models of the lion and lioness—finished in black with verde relief—and a 20-inch statue of "The Athlete" was given to the newly organized Indianapolis Branch.

### From NEPA to AES

But 1913 was an even more eventful year for burgeoning NEPA. It reorganized on June 1 as the American Electroplaters' Society, with a membership of over 350. With the creation in 1913 of the Newark, Milwaukee, Dayton, Cincinnati and Buffalo Branches, the Society had issued 13 charters.



Ribbon for 1912 banquet of National Electro-Platers Association of United States and Canada, forerunner of AES.

### The Annual Conference, SUR/FIN

The Annual Technical Conference, AES SUR/FIN, serves multiple purposes. It provides for the presentation of a technical program, annual meeting of the Council of Delegates and an industrial exhibit.

More than 10 years ago, the term Annual Convention was changed to Technical Conference. The Industrial Finishing Exposition has become the Exhibit of Surface Finishing. All included under the catchy nomenclature, SUR/FIN.

The Council of Delegates holds its annual meeting to elect the officers and directors of the Society, receive reports, and conduct such other business within its jurisdiction. Boards, committees, sections and regionals hold meetings. Plant tours are provided.

These annual affairs are hosted by branches or regionals, and are held in the larger cities in the U.S. and Canada. The technical program has grown to as many as 14 sessions, presenting some 80 papers. A wide variety of subjects are covered, serving the interests of all segments of the industry. More than a hundred suppliers occupy booths to exhibit their processes and products.

Social functions fill the few off hours. A day or afternoon outing is usually part of the program. Special affairs and entertainment are arranged for the ladies, guests and youngsters. The Metal Finishing Suppliers' Association (MFSA) hosts an evening of pleasure and a cocktail party before the annual banquet.

To effect its transition, AES conducted its First Annual Convention on June 1, 1913, in New York, with founder Charles H. Proctor presiding. At that initial Annual Meeting of the Supreme Society, AES inducted its first national officers: George B. Hogaboom (New York), president; Col. J.H. Hansjosten (Chicago), first vice president; W.S. Barrows (Toronto), second vice president; John J. Schultz (Detroit), treasurer; and H.E. Willmore (Chicago), editor.

"The object of this Society," stated Article I, Section 2, of the new Constitution, "shall be the improvement and dissemination of knowledge concerning the art of electrodeposition in all its branches. All laws and rules must be so formed that the Society will promote no other object than the education of its members in all the principles of electrodeposition and coloring of metals."

The AES governing council was the Supreme Society (which continued until 1963), composed of three active members from each "Branch Society." According to the Constitution, the Supreme Society was "the Supreme Court of the entire Society" and its decisions were final.

Leadership, as previously mentioned, was then composed of the national president, first and second vice presidents, a secretary-treasurer, and an editor. These plus the immediate past president composed the Executive Board. The principal office was located in New York and the Society was a state non-profit corporation. The AES was required by its Constitution to maintain a publication.

As in NEPA, the membership classifications of AES were active members, associate members and honorary members. The Society's fiscal year commenced on June 1. Dues for members of "Branch Societies" were \$5 a year per person. Each "Branch Society" had to pay a 35 percent per

capita tax for the maintenance of the Supreme Society, payable annually in four quarterly installments.

Though today's AES Constitution and Bylaws are modern instruments kept apace of changed times and needs, it is nevertheless amazing that so many of today's AES policies stem basically from the principles enunciated in that pioneering instrument framed by founding fathers so long ago.

The first issue of *Quarterly Review* in 1910 contained 28 pages with such technical articles as: "The Art of Decorating Metals with Pigments and the Production of Antiques" (Charles H. Proctor), "The Care of Lacquers" (W.A. Jones), "The Production of Matte Gold Finish" (Royal F. Clark), "The Electrical Side of Electroplating" (William Voss), "Water-Dip Lacquers and Their Use" (C. DeBraun), "Roman Color on Gold Jewelry" (Charles A. Stiehle), "The Rose Gold Finish" (Justus A. Stremel) and "The Green Gold Finishes" (August G. Hoffmann).

The June/July/August issue of *Quarterly Review* was the first under the aegis of AES. Grown to 48 pages and edited by Samuel R. Taylor, with the national president and all branch presidents as associate editors, it now featured a broader technical editorial scope with three articles on copper and brass plating, one on cleaning stove parts, one on acid zinc plating and several on general topics.

During these early days of AES, electroplaters closely guarded their knowledge and processes. An editorial in that same issue stated: "Narrow-mindedness and secrecy among the members themselves is to be frowned upon. No one should have joined the Society whose intention it was to have absorbed all the benefits to be had and give none in return. Let us be liberal in our knowledge to one another."

## Electroplating Courses

The AES Intensive Training Course is based on a selected group of 27 of the Illustrated Lectures. The 4½-day course provides basic knowledge of electroplating and finishing practices, which include the fundamental aspects of chemistry, electrochemistry and electricity. The course was conceived by Dr. Donald A. Swalheim, and was first given in Philadelphia in October 1972, with 46 students. Over 2000 students have taken the course. Eleven courses were given in 1983, including those in Singapore and South Africa. AES has been fortunate to have such skilled instructors as Dr. Samuel Heiman, Richard G. Baker, Lawrence J. Durney, Morton Schwartz, and Fred Pearlstein, in addition to Dr. Swalheim.

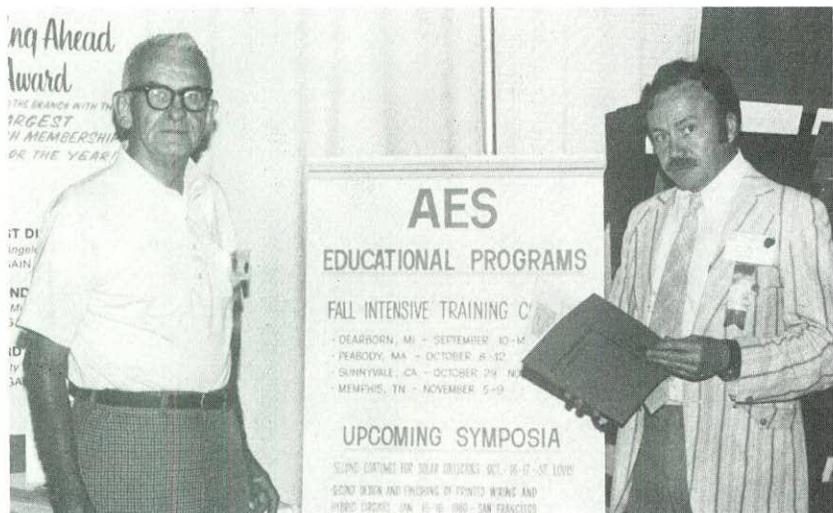
The correspondence course covers the same ground as the Intensive Training Course.

The new one-day Short Courses will cover many subjects. At Diamond Jubilee time, courses include: Gold Plating for Electronic Applications, Plating Through-Holes for Printed

Circuits, Solving Surface Finishing Problems. Then there is the 2½-day course, Environmental Compliance & Control, first given in 1980. A new Intensive Training Course in Surface Finishing for Electronics will debut this October.

Several branches conduct electro-

plating courses and have done so for many years. Among these are Buffalo, Chicago, Cleveland, Dallas/Ft. Worth, Denver, Indianapolis, Los Angeles, Montreal, Milwaukee, Newark, New Haven, New York, Philadelphia, Providence-Attleboro, St. Louis, Rockford and Toronto.

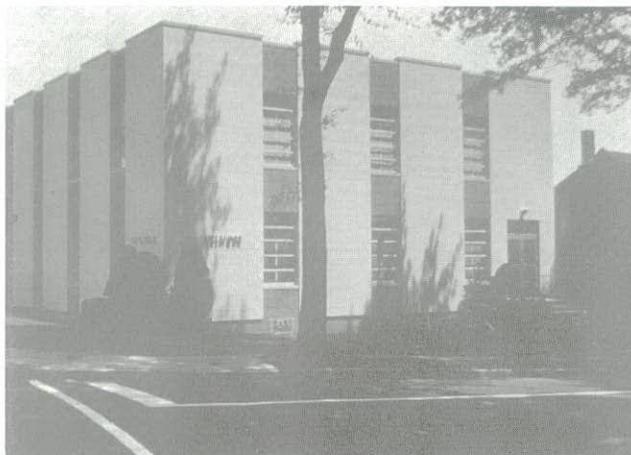


Dr. Donald Swalheim (left) with Earl Winters.

## Evolution of AES Headquarters



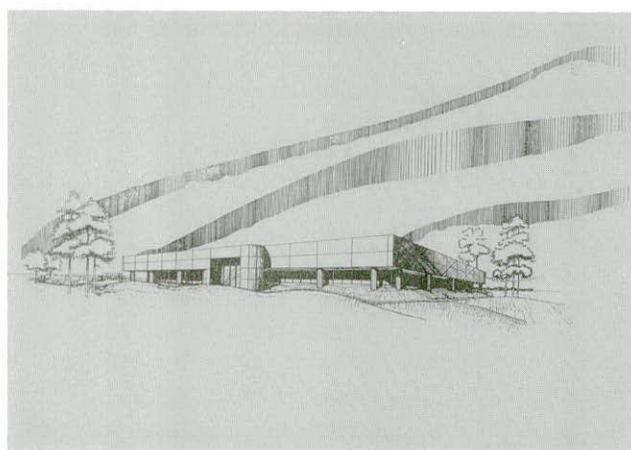
Broad St. location in Newark, 1952.



Moved to Melmore Gardens, E. Orange, NJ, in 1967.



Current facility in Winter Park, FL, was occupied in August 1976.



Artist's rendering of building to be occupied in Central Florida Research Park, Orlando, this September.

Growing membership and the Society's ambition to further technical knowledge resulted in increasing the frequency and thus usefulness of the official journal. In June 1914, the quarterly publication became *Monthly Review*. It was enlarged and was edited by H.E. Willmore.

In the December 1914 *Monthly Review*, the editor devoted considerable space to the role of the supply house. Here is a portion of his comments: The supply house "has been asked to be a veritable encyclopedia of information, and has been used as an employment bureau and in many ways has accomplished a great deal of good. It should, and I believe does, welcome the new conditions with acclaim, as all of the features which the Society cultivates tend to make these tasks easier in the future. The education of the plater will fit him to understand many things which have heretofore seemed mysterious to him and of which he has always been more or less skeptical and hence the selling of honest goods will become an easier problem."

By 1918, at the end of World War I, AES had increased its number of branches to 18—the additions being Cleveland and Bridgeport (1914), Toledo (1915), Syracuse and Providence (1916), and Grand Rapids (1918). Meanwhile, the Buffalo Branch, born in 1913, was terminated.

Within another year, the AES had chartered still another branch, Pittsburgh, and the Providence Branch had expanded by adding Attleboro, becoming today's Providence-Attleboro Branch. Membership was some 800 at year-end 1919.

At the Annual Banquet of the thriving Chicago Branch,

President Walter J. Fraine described the progress of that decade:

"We can look back over the past 10 years and can contrast the conditions prevailing at that time with those of the present. Every one of us realizes that an immense improvement has taken place in processes and methods, and it has largely been accomplished by the thought and work of the members of this Society. Every new process, method and material used has been placed at the disposal of all of our members through the papers of our Branch Societies and our Annual Conventions, adding to our knowledge and usefulness, and raising the standards of electroplating from an empirical art to a profession."

Despite the depression of 1920-21, the AES continued its progress. In 1920, it chartered a Reading, PA, Branch, and in 1921 added branches in Boston, Waterbury and Connecticut Valley (now Hartford). In that same year, it also launched a second Canadian branch, Montreal. Now there were 24.

### Research Introduced

In 1919, the National Bureau of Standards embarked upon expanded research in cooperation with private industry. The AES was among the earliest to enter into cooperative relationship with the bureau on important research to advance the science of electroplating and metal finishing. The bureau provided the equipment, space, supervision, and marshaled, tabulated and made the resultant data available to all concerned. The AES furnished the funds for man-

## METAL FINISHERS EXPOSITION

The first of its kind—a sure indication that the AES is a progressive organization especially the

### The Dayton Branch



#### OBJECT :

To tell the world how art and science combined to produce the beautiful finishes on metal that are seen and admired in every home. For further information see page 3, 23-26.

**APRIL 9-14, 1923**

**MEMORIAL HALL, DAYTON, OHIO**

Promotion for Dayton Branch meeting in 1923.

power (one research fellow to start, more later). Dr. William Blum was the program's spark from origin. The Bridgeport Branch was the first to contribute to the AES research fund.

In order to provide efficient collaboration with the bureau and Dr. Blum and to establish sound AES direction and coordination over its program, including fund-raising, the AES established its first Research Committee in 1923. In 1925, it called for financial contributions not only from its branches but also from some 1600 American and Canadian manufacturers. The amount sought was \$50 apiece per year. As of May 1926, it had collected \$2450.

Among the first organizations to contribute to that first general research fund were: Bell Telephone Laboratories, Felt & Tarrant Co., Oneida Community Company, Ltd., General Motors Corporation, Crown Rheostat & Supply Co., International Nickel Co., American Zinc Institute, General Electric Company, G.J. Nikolas & Co., Canada Cycle & Motor Co., Wyandotte Chemical Co., Frederick B. Stevens Co., George A. Stutz Mfg. Co., Westinghouse Electric Co., The Meaker Company, and Hanson-Van Winkle-Munning Co. It is interesting to note that many of these same donors have continuously contributed to AES research to the present time.

#### The Twenties and Thirties

In 1919, Mrs. Esther Zalia Jencks Gailey became the first woman to be granted AES membership. She was made an honorary member and to the present time is the only woman to hold that designation. She was with the National Bureau of Standards.

The *Monthly Review's* first pictorial illustration, a half-tone of a group photo from the AES 10th Annual Convention, Cincinnati, was published in 1922. It was there that the Constitution and Bylaws, as rewritten by an appointed committee of past presidents, was adopted by the Supreme Society, thereby keeping AES laws apace with the times.

At the 12th Annual Convention, held in Milwaukee in 1924, a hotel room with bath was \$3.50 a day, and the convention registration fee was \$6. That year, the Society created the Founders Gold Medal to recognize, "the best paper or progress showing a distinct improvement over what was then known in commercial practice." It also launched three prizes (Gold, Silver and Bronze Certificates) to honor top product exhibits. In 1925, AES journeyed to Montreal for its 13th Annual Convention, the first held outside the borders of the U.S.

Though membership grew, no additional branches were chartered after 1921 until 1929. Two were lost with the termination of Syracuse in 1924 and the dissolution of Reading in 1926.

AES spanned the continent in mid-year 1929 by founding the Los Angeles Branch, with 31 charter members. That same year, Worcester (terminated 1933, rechartered 1965) and Baltimore-Washington were chartered. The latter was organized by William F. Chase of the Agate Lacquer Company and New York Branch; Frederick F. Pierdon, its first president, a founder of the AES and of the ART Metal Finishing Company; Dr. William Blum of the National Bureau of Standards; and Thomas F. Slattery of the U.S. Bureau of Engraving and Printing who was soon to become national president of AES.

At fiscal year-end that May 31, 1929, the AES audit statement showed receipts of \$3350.30 and disbursements of \$3133.89 with total cash on hand amounting to \$2642.05 consisting of a savings account of \$2004.11 and a checking account of \$637.94.

As AES completed two decades of operation in 1929, it was composed of 25 branches, two in Canada. It had some 1500 members compared with 800 in 1919. It was solvent. It was rendering service to its industry, to its members, to the public. It had prospects, but ahead lay acute business problems.

The depression years 1929-1933 were difficult for AES and its members. The Indianapolis and Worcester Branches fell by the wayside in 1933. Branch resignations and suspensions swelled, and there were few elections or reinstatements. The Society's financial situation became such that, by late 1932, the Supreme Society, at the Philadelphia Convention that June, ordered that *Monthly Review* return to its *Quarterly Review* status for 1 year as a major economy. The AES technical staff in the Research Section of the National Bureau of Standards was reduced from six to four. In order to ease the financial load, the official journal, when it came back as *Monthly Review* in September 1933, carried advertising for the first time.

In that September issue, the following appeared in the editorial columns: "There seems to be a change taking place all around us. In our industrial life, we are faced with changes that would have seemed impossible a few months ago. The plating business must keep up with the new order of things. We have, in the September issue, taken a step forward which should help us financially. . . . Let us broaden our vision and include in our membership all who make plating their means of livelihood. . . . Our task is to bring these various groups under one head. . . ."

*Monthly Review's* first advertisers were MacDermid, Inc., United Chromium, Inc. (M&T Chemicals Inc. today), Frederick B. Stevens, Inc., American Brass Co. (Anaconda Copper), The Matchless Metal Polish Co., and E. Wambaugh Co. In its October 1933 issue, the publication opened its columns to classified advertisements at 10 cents per line, six words to the line. In that same issue, it carried, for the first time, the advertising of Crown Rheostat & Supply Co., The Abbott Ball Co., Maas & Waldstein Co., Ault & Wiborg, The Zapon Co., and the H.V. Walker Co.

The very first use of color in *Monthly Review* occurred in December 1937 when The Bruce Products Corp. used orange in its two-page advertisement. The first consistent color user, however, was the Hanson-Van Winkle-Munning Co., whose first color spread in the September 1939 issue introduced a practice that the company followed constantly throughout the years of *Monthly Review*.

Only two new branches were chartered during the depression years: the second Pacific Coast entry, San Francisco, and a branch in Anderson, IN, that disbanded in 1938. From 1930 to 1936, no new branches were added, although the Society did sponsor its first membership drive. T.F. Slattery, AES president in 1935, summed up the Society's position on membership very nicely.

"Heretofore," he said, "we have been inclined to sit back and wait for prospective members to come to us. Now, with industry on the upgrade, and assistant foremen eligible for membership, we owe it to the science and industry with which we are affiliated to contact every potential member in the U.S. and Canada. . . . This will make it possible for these fellow artisans to meet with us for the discussion of mutual problems, education, research, helping themselves and at the same time adding to our strength."

The subsequent economic recovery brought new expansion activity. The Springfield, MA, Branch entered the AES in 1936 together with Binghamton-Elmira, NY, which became Binghamton-Syracuse in 1939 and Syracuse in 1943. The New Haven and Buffalo entries were born in 1938.

In appraising electroplating advancements to 1938, George Hogaboom had this to say: "It was not until about 1918 that some attention was given to the need of a better understanding of the principles of electrodeposition of metals. . . . It is due today to electroplating that books are universally available. . . . Paper currency is printed from plates made by

electrodeposition of iron. . . our metal coins are embossed in dies that have been chromium plated by methods developed long after 1918. . . the general public has become, within the last 10 years, 'electroplating conscious.' . . . Progress can be no better illustrated than to note the increase of nickel for plating in the past 20 years. . . . Previous to 1920, about 500,000 lb of nickel were consumed as salts and anodes. In 1937, some 11.5 million lb were used in electroplating. . . ."

Streamlining of the AES award system was a priority task at the Society's 30th Anniversary Meeting in 1939. It recognized and honored individual and branch achievements with five chief awards:

1. The Founders Gold Medal was issued for the best paper by an active member on electroplating or allied subjects.
2. The AES Gold Medal was issued for the paper adjudged best by the Awards Committee prepared by an AES member, whether active or associate.
3. The Proctor Memorial Award was given for the best paper entered into competition by anyone, member or non-member.
4. The Sam Huenerfauth Award was presented for the best branch paper. Any branch winning three times kept the silver cup.
5. The Metal Industry Cup was provided for the best branch exhibit. In addition, there were individual exhibit awards.

### Entering the 1940s

As business recovery gained ground and as earning and spending power grew, AES resignations and suspensions dropped while applications, elections and reinstatements rose. On the technical side, Mr. Hogaboom ventured, "There has never been such definite progress toward the goal of the AES. . . . The completion of the work and the report of the research on 'The Prospective Value of Electroplated Coatings on Steel' has made history."

As AES celebrated its three-decade birth year in 1939, it had not only recouped its substantial losses of the depression period but also made quantitative and qualitative headway. Compared with about 1500 members in 1929, it had some 1900 members in 1939. During the same period, the number of branches grew from 25 to 28.



Charles H. Proctor, father of the American Electroplaters' Society.

### Branch Secretaries

Branch secretaries play a key role in the operation of the Society. They form the principal line of communication between Headquarters and the branches. Many have served for very long periods of time. The record holder appears to be 40-year member I. William Marcovitch, secretary of the Philadelphia Branch for 36 years. Mr. Marcovitch was a member of the AES Board of Directors from 1971 to 1973.

Many past and present, with long periods of service, include: George Haas, Bridgeport; Charles R. Fotheringham,

Buffalo; Pedro Hidalgo Rivera, AMTEG; Joseph Calentone, Capitol District; R.W. Boos, Central Michigan; David Kaplan, Cincinnati; Paul B. Croly, Detroit; Stanley Platoz, Hartford; Ian W. Rose, Melbourne; Ward W. Kelly, St. Louis; Henry L. Heissfeld, Springfield; James R. Kennedy, Waterbury; Stan Scislawski, Western Ontario; Robert Horrocks, Newark; Harold Simon, Central Iowa; Joseph J. Werbicki Jr., Providence-Attleboro; Henry Bornitzke, Milwaukee; Paul Glab, Chicago; Joseph Rembecki and Michael Murphy, New York.

To expand to a targeted 2600 members by 1941, AES inaugurated its annual branch membership promotional competition in 1940 that has continued to recognize accomplishment through the years. To the winning branch, annually, in that era went the handsome AES Membership Trophy. Also of note: AES launched its first regional meeting in 1939. The group was composed of five branches—Bridgeport, Hartford, New Haven, Springfield and Waterbury—that initiated the yearly New England Regional Conference. By year-end 1940, AES had assimilated its 29th branch, Indianapolis, which succeeded the Hoosier capital's depression casualty of 1933.

In the early thirties, the AES as an educational Society had no part in the codification of industry negotiated under the government's National Recovery Act (NRA). It shared nonetheless in the movement for higher quality. An example of member sentiment was stated in the *Monthly Review* by Frederick F. Pierdon of the Baltimore-Washington Branch: "Even though the AES is not in a position to officially discuss such questions as wages and hours, it is the logical organization to propose standards of quality that may be incorporated into Codes. It is important, therefore, that all members of the AES become familiar with the plans of the NRA."

National associations and societies had received great impetus under the NRA. Still composed principally of foremen platers, chemists and engineers, AES concentrated on defense and war service within its power. And when World War II came, zinc, nickel, cadmium, copper, chromium and other critical materials of the Victory Program were there with it, though this era of short supply brought substitution, simplification, conservation and standardization. In its Annual Meeting program on December 6, 1942, the Detroit Branch had this to say:

"The function of the AES is going to be to keep interest in plating alive throughout the period of curtailment; to see that interest in plating does not cease; to see that plating is specified where it is of advantage to war; and that if it is possible to do some decorative plating without impairing the war effort, that this be permitted. It will be its function to see that an adequate body of men are kept acquainted with plating so that when the war is over, they will be able to make the world a better place in which to live. The Society has a great duty to perform during a discouraging period, but it will not fail."

As stated previously, AES started the war period pursuing a membership expansion goal of 2600. By autumn 1945 there were 4000 members. A branch in Lancaster, PA, was added

*Wartime Finishes Must Be* **TOUGH**



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**THE MONTHLY REVIEW**




Typical advertisement appearing in early 1940s issues of "Monthly Review," later to become "Plating and Surface Finishing."

Cover of January 1943 "Monthly Review" stressed war involvement, to which the plating industry made great contributions.



Annual AES Convention banquet at Hotel Statler in Boston, June 12, 1941.

in 1943, and another in Jackson-Lansing, MI (today's Central Michigan Branch), was chartered in 1944. AES also took a major step forward by chartering the Australia Branch in Sydney, with 40 members. The Rockford, IL, and Twin City, MN, Branches were born in 1945. (The latter withdrew in 1959.) At this point AES had 34 branches—31 in the U.S., two in Canada, one in Australia.

Death dealt a hard blow to AES when it took William J.R. Kennedy on August 7, 1942. He was its long-time and very able executive secretary and *Monthly Review* editor. The first paid secretary of the Society, he had been the 1925-26 president of the Hartford Branch. Possessing a winning personality, he was greatly respected and beloved by the membership. Society funds were low during the depression, yet Bill Kennedy traveled by bus to many branches, paying his fare out of his own pocket and carrying with him a bag of sandwiches. AES President Ellsworth T. Candee succeeded Mr. Kennedy and established AES Headquarters at 545 Fifth Ave., New York.

Death struck again on December 3, 1942, when founder Charles Henry Proctor died at his home in Avon, NJ, at age 76. AES mourned his loss. "The AES," wrote First President

Hogaboom, "shall always be a memorial to Charles H. Proctor."

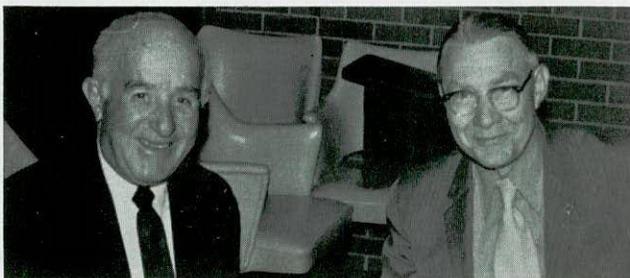
Dr. A. Kenneth Graham became executive secretary in 1945 and Headquarters was moved to Jenkintown, PA. Gustav Soderberg was named editor of the journal.

In 1945 the country was immersed in World War II and travel was strictly limited. The 1945 AES Annual Convention scheduled to be held in Pittsburgh was restricted to Society Delegates. About 50 attended. Because the regular convention was not held, Pittsburgh was again chosen as the site for 1946.

The qualifications for membership were changed at the 1945 1-day meeting to anyone who "had an interest in plating." However, some branches still insisted on 5 years as a plater and 2 years as a foreman. In 1946, members' dues were set at \$4.70 annually. In 1947, a five-man Constitutional and Bylaws Revision Committee was established to modernize and streamline those instruments in keeping with the Society's expanding status and needs. Headed by Arthur W. Logozzo (Hartford) and including Franklyn J. MacStoker (New York), F.R. Keller (Pittsburgh), Cleveland F. Nixon (Detroit), and Clyde Kelly (Chicago), the committee's revision was adopted by the Supreme Society at the Annual Meeting in Atlantic City, NJ, June 1948.

The first silver-plated "pot," or "Order of the Pot" (now the "Order of Past Presidents"), was presented in 1946 at the Baltimore-Washington Branch Annual Meeting to AES President Walter L. Pinner by the award creator, Past President Kenneth M. Huston. Thus, at the Maryland Yacht Club in Baltimore that spring was inaugurated the tradition of presenting to each outgoing AES national president a silver-plated, engraved "pot" in grand ceremony.

By 1947, expanding AES—now with some 5000 members—had reached another milestone: the metamorphosis of its



Walter Pinner (1945-46 AES president) with Ezra Blount (right) at a Phoenix meeting in 1972.



Journal. From AES Headquarters in Jenkintown, PA, came this "obituary" notice from Editor Soderberg:

"This is literally and actually the last page of *The Monthly Review*. As was announced in last month's editorial columns, the January 1948 issue of this publication will bear the title of *Plating*. *Plating* will be larger in page size than *The Monthly Review* and will be distinctively styled with a new format. It will be easier to read, too, because it will have larger type in the text matter.

"The decision to enlarge the size of the publication was made several years ago, but the war, with its corresponding paper shortage, prevented carrying out the plan. January 1948 offered the first practical opportunity for this change.

"Active planning for the publication has been under way for over a year. There have been an untold number of staff conferences. Outside authorities in the plating and publishing fields have contributed generously with good advice. All who have seen the advance layout of the new format have spoken enthusiastically of it.

"We feel confident that our readers will receive the new look of *Plating* with enthusiasm," concluded Mr. Soderberg. "The same high quality, factual editorial content that has characterized *The Review* will form the basis of *Plating*. Interesting and useful new features will be added in coming months. And in the same manner that an electroplater adds a pleasing appearance to a finished product, we are attempting to make our editorial package as attractive as possible."

In December 1947, AES published its last issue of *The Monthly Review*. In January 1948, *Plating* made its debut.

Most AES Annual Conventions had included exhibits, but the first Industrial Exhibition *per se* was in 1947 concurrently with the 34th Annual Convention hosted in the Motor City by the Detroit Branch.

The second such exposition was held in Atlantic City the following year with the Newark Branch as Convention/Exposition host. These were the years of the executive secretaryship of Dr. Graham, sought after by many branches as technical speaker. For many years Hanson-Van Winkle-Munning Company offered three grand prizes at AES Conventions. In 1948, they were a Reed & Barton five-piece, silver-plated tea service and tray; an International Silver Company silver-plated water pitcher; and a silver-plated cigarette box, also from International Silver. There were about 100 exhibits at the 1948 Exposition.

For the final World War II years and the "police action" in Korea, almost every metal and chemical was in short supply. Through the exposure tests of the American Society for Testing and Materials (ASTM), the porosity research of the AES, and the microthrowing-power studies of the New Jersey Zinc Company, considerable light was shed on the protective value of plated coatings.

Since 1946, the AES had chartered nine branches. They included: branches "Down Under"—the splitting of the Sydney, Australia, local into three groups, thus creating Adelaide and Melbourne in 1946. St. Joseph Valley, IN, Columbus, OH, and even America's Southland with its Southeastern Branch embodying Alabama, Georgia, Florida, the Carolinas and Mississippi, all were chartered in 1946. And in 1948, AES added its Louisville, KY, Saginaw Valley, MI, and Western Ontario (Canada) Branches, plus the Winston-Salem, NC, Branch that folded in '49. In its 40th Anniversary Year, the Society chartered the Allentown-Reading, PA, and Hamilton (Canada) Branches.

Consequently, 40 years after its humble beginning in New York on April 10, 1909, the AES had grown to 5220 members and 44 branches.

## AES Research Program

Dr. William Blum contributed a single-page history of AES Research to *Milestones of AES*. It was published in *Plating* and as a pamphlet in June 1959, during the AES Golden Jubilee. Dr. Blum had been associated with AES Research since its beginning. Here are some portions of his historical recounting:

"From the inception of the AES in 1909, it has always been considered an 'Educational Society.' As such it was early interested in researches in this field and their possible application to industrial practice. In 1913, George Hogaboom, just elected the first president of the AES, presented to the American Chemical Society his paper on 'Unsolved Problems in Electroplating.' In 1915, he offered to present to the American Chemical Society as subjects for research any problems sent to him through the AES.

"When in 1917, this writer presented to the AES Convention a report on the plating researches at the Bureau of Standards, George Hogaboom strongly urged the AES to cooperate with the bureau. In 1918, this cooperation involved the employment by the bureau of three experienced AES platers, namely George B. Hogaboom, Fred J. Liscomb and Thomas F. Slattery.

"In 1919, the AES supported efforts then being made to secure funds for continuation of the plating researches at the Bureau of Standards. The first AES Research Committee was appointed in 1923. An advisory committee to the Bureau of Standards was also appointed and met there in November 1923.

"In 1925, the AES Research Committee issued an appeal for subscriptions at the rate of \$50 per year from manufacturers, for a three-year program. By January 1927, sufficient funds were raised to start the employment of W.P. Barrows as a Research Associate at the National Bureau of Standards (NBS). Since that time, except for a few years during World War II, one or more AES Research Associates have been employed at the bureau.

"The first study of Barrows was on 'Spotting Out,' followed by one on 'Throwing Power in Chromium Plating' by H.L. Farber, and one on 'Porosity of Chromium Coatings' by Barrows. In

1930, plans were made for a study of the 'Protective Value of Plated Coatings' in cooperation with the AES, the ASTM and the NBS. P.W.C. Strausser was appointed as Research Associate, and by 1932, the many required specimens were prepared and exposed in six locations. This work was continued in spite of the fact that during the depression in 1932, the Research Committee had to borrow funds from branches and firms. At that time, Jacob Hay, then chairman of the Research Committee, recommended an assessment of \$2 per member for research, a plan not adopted until many years later. . . .

"In 1938, AES research was started at NBS on the 'Effects of Polishing Steel on the Protective Value of the Plated Coatings' with Gerald A. Lux as Research Associate.

"Up to this time, the AES Research Committee was appointed each year, occasionally with sufficient change in personnel to prevent adequate continuity: In 1944, the Research Committee was reorganized to consist of nine members, three to be appointed each year by the AES Executive Board. This arrangement has since then proved highly effective. . . . Carl E. Heussner, who developed the plan, was the first chairman. William Blum was then made an honorary member of the Research Committee.

"This new committee originally planned to maintain 400 Sustaining Members at \$100 each. While this goal has not been fully realized, sufficient funds have been raised to support six or more researches, and to build up a moderate reserve to insure continuation of studies if, for any period, inadequate funds are obtained. Each AES member now [1959] contributes one dollar per year to the Research Fund.

"Greater resultant funds permitted establishment of AES projects in a number of universities and research foundations in the United States and Canada. This arrangement is advantageous because it enlists the interest of a larger group of scientists, and also stimulates study of electroplating by students. . . .

"A new series of 'AES Research Serial Reports' was started in 1946. Those reports that are not out of print can be purchased from the AES.

"The outstanding success of the AES Research Program is a result of the interest and devotion of Research Committee members, and of the much greater number of AES members who have served on various Project Committees, all without compensation. All the funds collected for research are spent directly for conducting the studies and publishing the results," Dr. Blum concluded.

In 1966, all of the Serial Reports that were out of print were reprinted and it became policy to continually reprint as stocks were exhausted. At that time, Dr. Blum prepared a report, *The Research Activities of the American Electroplaters' Society*, which appeared in the March 1966 issue of *Plating*, and was published in pamphlet form. It briefly described all of the projects to that time. Project 25 was about to be started.

A list prepared by Edward E. Oberland of all of the projects through 1973, with brief descriptions of each one, was published in the May 1974 issue of *Plating*.

The number of projects has, in 1984, grown to more than 60. Funding remains a problem, though there have been increases in Research Patron and Sponsor contributions, and the assessment received from a member's dues is now \$4 yearly.

Research Patrons and Sponsors receive reports each quarter of the active projects. AES research papers are presented at most Annual Technical Conferences. Serial Reports are available from AES Headquarters.

The reports on current projects by the Research Board Chairman each year appear with the AES annual report, usually in the June issue of *P&SF*.

The Research Committee became the Research Board in 1963, with the adoption of a new Constitution and Bylaws. The term Patron or Research Sustaining Member was recently changed to Research or Patron Sponsor.

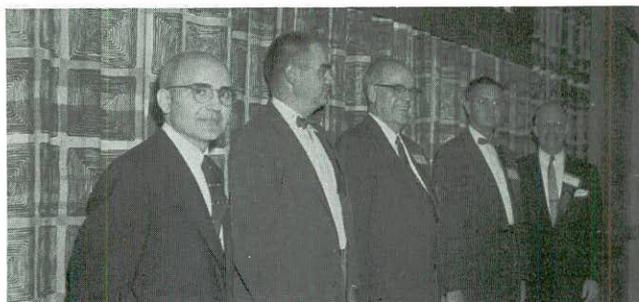
### Activities of the '50s

It was in 1950 that the Society revised the structure of its Paper Award system. In the revisions, the AES rewarded merit of published technical and scientific work with annual awards: (1) the AES Gold Medal, (2) the AES Silver Medal, (3) the Certificate of Honorable Mention, (4) the Mechanical Finishing Award, co-sponsored by Nutmeg Chrome Company, and (5) the Gold and Gold Alloy Plating Award, co-sponsored by Technic Inc.

In that same period, AES cemented a relationship with the Ohio River Valley Water Sanitation Commission, particularly with its Metal Finishing Industry Action Committee, with which AES collaborated through Research Project Number 2. As a forward step in AES government, the first



President Ralph Schaefer (center) receives traditional gavel from 1953-54 outgoing President G.P. Swift, as F.J. MacStoker (right) looks on.



Induction of 1956 officers in Washington, DC: (l-r) Samuel Helman, Francis Eddy, Herberth Head, Ralph Wysong and Clyde Kelly.

Interim Meeting of the Supreme Society was launched at Philadelphia, in 1951.

At the end of that year Dr. Graham had completed 7 years as executive secretary of AES and ended his tenure. A scientist of widely recognized ability, he probably will be most remembered as editor of the *Electroplating Engineering Handbook*. Dr. D. Gardner Foulke succeeded Dr. Graham in January 1952. Already well known throughout the plating industry, he brought to AES technical intellect and excellent qualifications. It was now necessary to seek a new location for the Society.

### Headquarters to Newark

AES Headquarters was moved to Newark, NJ, in 1952, occupying most of the third floor at 443-45 Broad Street. Dr. Foulke built the bookcases with his power saw. Gustav Soderberg ended his editorship of *Plating* in May 1952, retiring to Sweden. Alexander Korbelak, who had been with Westinghouse, became editor in July.

The Carl E. Heussner Award was created as the highest Society honor for best paper. It was also in 1952 that the Chicago Branch hosted the Third Industrial Finishing Exposition at the 39th AES Annual Convention. Franklyn J. MacStoker ascended to AES presidency.

Dr. Oliver P. Watts, retired University of Wisconsin professor, died February 6, 1953, at age 87. He had been an AES honorary member since 1914, and will be remembered as the developer of the Watts nickel bath. One of his pupils, 1951-52 AES President Cleveland F. Nixon, paid tribute to him in the July 1953 issue of *Plating*.

By midyear 1953, Dr. Foulke decided to return to industry. P. Peter Kovatis followed him as executive secretary in September. Mr. Kovatis had an extensive public-relations background, used effectively in promoting AES and *Plating*. Another room was added to Headquarters, enabling the production of *Plating* to be handled directly from Headquarters, giving better control and improved format. After 2 years as editor of *Plating*, Al Korbelak joined the Sel-Rex staff. Editorship was in the hands of Lee H. Morrison for a short period (August to November 1954), then Archimedes Doria took over.

In 1954, AES filed an Amended Certificate of Incorporation with the State of New Jersey as a non-profit educational corporation. By year-end, the Society had 6700 members. In that 4-year interval between 1951 and 1954, AES had penetrated the Lone Star State with a branch in Dallas/Ft. Worth. In 1952, it had entered the Wheat Belt with branches in Wichita and Kansas City. The next year, it entered the Northwest by establishing a branch in Portland and in 1954 chartered a branch in Seattle. Aside from adding Eastern branches in Upstate New York's Capitol District and Southern Tier in 1954, it had bolstered its Texas representation by authorizing branches in Houston and San Antonio. Hence, as 1954 ended, its network of autonomous branches numbered 53, consisting of 46 coast-to-coast in the U.S., four in the Canadian Dominion, and three in the Australian Commonwealth.

The Industrial Finishing Exposition of 1955 was an adjunct of the 42nd Annual Convention, a successful combine with the industrious Cleveland Branch as host. Eight hotels were used to house the multitude of AES members, their families and guests. The planning and effort of nearly 100 devoted Cleveland Branch members and their wives made the event educationally and relaxationally effective. A total of 27,020 square feet of exhibit space was employed. Exhibitors' teams included company presidents and sales

managers. The educational sessions drew an aggregate 4-day attendance of 2041. Nearly 450 individuals attended the nine plant tours and some 1250 members and their families and guests were present at the last evening's Farewell Banquet. That was a far cry from the 182 pioneers who attended NEPA's historic Third Annual Banquet, February 10, 1912.

In backtracking through time, then retracing steps along the pathway of AES history, there is constant view of the relationship between the metal finisher and the supplier. The latter not only displayed up-to-date equipment and supplies at exhibitions, but cooperated in AES assemblies by providing a good measure of relaxational fare.

George P. Swift was AES president in 1953-54, Ralph A. Schaefer in 1954-55, and Clyde Kelly in '55-'56. The Mississippi Valley Branch was chartered in 1955. In mid-1956, Executive Secretary Kovatis went to the National Association of Metal Finishers as executive director. John P. Nichols came to AES as executive secretary just before the 43rd Annual Convention held in Washington, DC, hosted by the Baltimore-Washington Branch. Samuel Heiman was elected president there. Dr. Abner Brenner was the convention's educational chairman and coordinated 41 papers, a record to that time. Arthur G. Pierdon was general chairman.

Mr. Doria's editorship of *Plating* terminated in September 1956 and Rodney Leeds succeeded him. During the early months of the transition, I. William Marcovitch assisted in a technical advisory capacity.

Harold W. Faint died on December 22, 1955, at the age of 60. He was the son of Edward W.T. Faint, one of the AES founders. Harold had written the chapter on filtration for the *Electroplating Engineering Handbook*. The death in 1956 of Dr. Richard M. Wick removed another prominent member. He was the 1947-48 chairman of the AES Research Committee and a member of the Allentown-Reading Branch. Before the year was out, John J. Haney, past president of the Grand Rapids Branch, would die at age 57. He was later to be memorialized with a Paper Award in his name.

The Fourth Interim Meeting was held in Pittsburgh on January 12, 1957. Membership had grown to 6740, with 341 Research Sustaining Members. Three new branches were soon chartered: British Columbia (Canada), Miami, FL, and Mohawk Valley, NY. Research Committee Chairman Arthur H. DuRose presided over nine AES projects.

During this same period, *Plating* published special issues on subjects like mechanical finishing, organic coating, research, and waste treatment. President Heiman visited 12 branches during his presidency and presented the charters to British Columbia and Miami.

An Electroplating Course Committee consisting of Dr. Dodd S. Carr, chairman, Newark Branch; Ezra A. Blount, Cincinnati Branch; Fred G. Brune, Detroit Branch; and F.J. LaManna, Newark Branch, had a six-point program: (1) fostering new electroplating courses with AES sponsorship; (2) encouraging the growth of existing courses; (3) acting as a clearinghouse in exchanging teaching aids to instructors; (4) publicizing class schedules in various journals; (5) revising the plating course section of the *Branch Officers Manual*; (6) obtaining data on electroplating courses given at the college level.

The 1957 AES Convention was held in Montreal at the Sheraton Mount Royal Hotel, June 16-21. G.R. Davidson was general chairman and P.M. Coady educational chairman. Twenty-three papers were presented. The AES fiscal year was changed to July 1 through June 30 and the per capita tax was increased \$2. The Scientific Achievement

Award, proposed by Dr. Heiman, was also established in 1957.

Frederick Gumm, 66, died in October of that year. In 1929, he had formed Hesse & Gumm Company. Three years later, he joined in partnership with C.R. Percival, and Frederick Gumm Chemical Company was created. Shortly thereafter, Oliver J. Sizelove joined the company. Mr. Gumm was active almost 50 years in the electroplating industry.

Planning for the AES 50th anniversary, to be celebrated during 1959, was begun in 1958 at the Fifth Interim Meeting, held in Indianapolis. Preliminary plans were discussed with the delegates and alternates. The *Delegates Manual*, prepared by Past President William J. Neill, was published in handy reference format.

On March 28, 1958, President Francis T. Eddy presented a charter to the AES Blue Ridge Branch, and the John J. Haney Paper Award proposed by the Grand Rapids Branch was approved. It was jointly given by the branch and M&T Chemicals, and consisted of certificates and an honorarium of \$75. The Midwest Regional Council was formed with seven branches, and Leslie L. Diveley became the first chairman. Twenty-six branches were now "regionalized."

There were seven Research Projects in 1958 and the Research Committee was chaired by Robert A. Ehrhardt. Membership had increased to 7480 and there were 352 Research Sustaining Members.

The Hotel Sheraton Gibson was the scene of the Annual Convention in Cincinnati, May 18-22, 1958. Charles Wise was general chairman, Ezra A. Blount, vice chairman, and Robert Miller, educational chairman. Twenty-three papers were presented. Special sessions covered surface pretreatment, waste treatment, finishes for aircraft components, and electroplating practices. There was also a panel discussion on practical plating problems.

Four prominent AES members died in 1958. Clarence L. VanDerau served two terms as president: 1932-33 and 1933-34. A member of the Dayton Branch, he had been named an honorary member in 1950. E. Steen Thompson, national president in 1936-37, died on February 21. He had also been president of the Cleveland Branch from 1930-33. Franklyn J. MacStoker, New York Branch member for 35 years, died May 21 at the age of 71. He was AES president in 1952-53 and an honorary member as well. Finally, AES founder Thomas A. Trumbour, 75, died on September 2. He had been general manager of *Metal Finishing* since 1938, having joined that publishing firm in 1901. He was named an AES honorary member in 1956 and had been secretary-treasurer of the Metal Finishing Suppliers' Association.

I. William Marcovitch compiled a Speakers List, which was circulated to branches and found to be of excellent assistance to "librarians" (this nomenclature was later changed to "educational chairmen").

### Golden Anniversary

Looking toward the Golden Anniversary, First Vice President Ralph D. (Duke) Wysong said in his 1958 *Plating* editorial: "Now is the time for each branch to take advantage of this Golden Opportunity! . . . Use it as a selling point for new members." A Golden Jubilee large, ceremonial banner was widely circulated during 1958 and 1959 for display at regional and branch meetings.

In his editorial, "The Fiftieth Year," in the January 1959 *Plating*, Past President Eddy said "the greatest single value of AES has been, and will continue to be, the interchange between individual members. Those seeking to

learn meet with those willing and able to teach." At the 47th Educational Session of the Chicago Branch, January 31, 1959, Simon P. Gary (to become 1979-80 AES president) presented a paper on "Fifty Years of Plating Progress," dedicated to the AES Golden Jubilee.

At the time of the Golden Anniversary, there were five living AES founders: Harry C. Bernard, William Schneider, Justus A. Stremel (all of the New York Branch), Edward W. T. Faint (Newark Branch), and Frederick F. Pierdon (Baltimore-Washington). There were 11 living honorary members and 22 living past presidents.

Harry Bernard and Justus Stremel and wife were present at the 50th Anniversary Banquet of the New York Branch on February 7, 1959. Also in attendance were AES President Herberth E. Head, Third Vice President W. Andrew Wesley and Past President Eddy. At the educational session, papers were presented by such notables as Dr. Henry Brown, Dr. D. Gardner Foulke and Walter L. Pinner. Dr. Edward B. Saubestre was the New York Branch president and Arthur Carlson was educational chairman.

The Sixth Interim Meeting of the Supreme Society occurred on February 14 in Atlanta and was held in conjunction with the First Regional Meeting of the newly formed Dixie Group, which included the Blue Ridge, Miami and Southeastern Branches. At the Order of Past Presidents presentation for Herberth E. Head by the Baltimore-Washington Branch, AES founder Frederick F. Pierdon was singularly honored.

A major feature of the AES Golden Jubilee Convention and Fifth Industrial Finishing Exposition in Detroit, June 15-19, 1959, was the Fifth International Conference on Electrodeposition and Metal Finishing, chaired by Walter L. Pinner. Technical papers were presented by authors from 10 countries: Australia (1), Canada (1), England (10), France (4), Germany (2), Holland (1), India (1), Italy (1), Switzerland (1), and the U.S. (22). A total of 44 papers. Dr. William Blum presented the first William Blum Lecture and was awarded the first Scientific Achievement Award plaque and honora-

rium. Dr. A. Kenneth Graham was announced as second recipient of this award.

At the annual meeting, Convention Chairman Wright W. Wilson presented a gold-plated gavel to the Society. It was suitably engraved and was accepted by President Head. It has been used at Annual Meetings subsequently by each president in conducting the affairs of the Society.

The Statler Hilton was headquarters for the Convention with overflow at the Sheraton Cadillac. The Exhibit, with Howard J. McAleer as chairman and Manuel Ben, vice chairman, had 147 exhibitors at the Artillery Armory. The morning sessions of the educational program were held at the hotel and in the afternoon at the armory. Convention registration was \$20 for both men and ladies.

The 238-page June Golden Jubilee issue of *Plating* contained comprehensive papers of lasting importance: "The Story of Nickel Plating" (18 pages) by George Dubpernell, "Tin in Electroplating" by Robert M. MacIntosh, "Precious Metals" by Edward A. Parker, "Copper Plating During the Last Fifty Years" by Frank Passal, and "Zinc in the World of Electroplating" by Ernest W. Horvick.

Fiftieth anniversary congratulatory letters were received from many dignitaries, including the U.S. president, governors, mayors, congressmen, heads of technical associations, and publishers. As was customary, the Metal Finishing Suppliers' Association and the National Association of Metal Finishers held their annual meetings concurrently with the AES convention. At the banquet, memorabilia was placed in a gold box, with the proposal that it be opened at the 75th AES anniversary.

In its 50th year, AES had 7300 members in 58 branches, and 349 Research Sustaining Members. Annual dues were increased from \$5.70 to \$7.50; members-at-large paid \$11. The Research Committee was headed by Dr. Russel E. Harr, with seven active projects. The Denver and Phoenix Branches were chartered but the Twin City Branch withdrew. The First Annual Conference of the Midwest Regional Council was held November 7 in Rockford. The Southwestern Regional Group—Houston, Kansas City, Dallas/Ft.

### Industry Milestones

Many key industrial developments have occurred throughout the lifetime of AES. The appearance of practical processes for plating bright nickel in the 1930s eliminated costly buffing and promoted the use of nickel plus chromium composites, which triggered the "bright chrome" era of the 1930s and '40s.

In the early 1940s, the adoption of high-speed tin plating lines for continuous steel strip led to a revolution in the fabrication of food containers.

Duplex nickel in the late 1950s and the subsequent development of microdiscontinuous chromium processes greatly improved the corrosion protection provided by nickel/chromium composites and sustained the use of plating on automobiles throughout the 1960s and '70s.

Discovered in the 1940s, initiated

commercially in the 1950s, and maturing during the following 2 decades, electroless nickel is now used for a variety of applications where uniform coatings for resisting wear or abrasion are required. In the mid-1950s, electroless copper attained commercial acceptance for through-hole plating of circuit boards.

Controlled-depth plating, the first of many selective deposition processes to come, appeared in the early 1950s. The first application of spot plating for electronics was recorded during the 1960s.

High-speed plating processes for electronics were also introduced in the early '50s, and in less than 10 years encompassed a sizable market, particularly where precious metals and nickel were used.

In the 1960s, especially noteworthy

were the introduction of acid citrate solutions for gold plating, as well as hard golds such as the cobalt-hardened alloy now popular for contact materials. These deposits were widely adopted to minimize wear and to prolong contact life.

Tin-free steel with ultrathin films of chromium and chromic oxide began to be used with adhesives for food containers in the late 1960s.

The 1970s saw the substitution of zinc-nickel alloy for unalloyed zinc in order to extend the life of coated steel. During the same decade, a large share of time and dollars devoted to R&D by the metal finishing industry was spent on improving methods for recycling plating chemicals, in order to reduce the high cost of waste disposal.

Worth and Wichita—met on December 7, with the gathering followed by an Aircraft Finishing Symposium.

The year 1960 saw the Philadelphia Branch celebrate its 50th Anniversary, having been chartered with 14 members in 1910. It hosted the Seventh Interim Meeting in celebration of this Golden Anniversary. The San Antonio Branch folded while the Memphis-Midsouth Branch arrived, President Wesley presenting the charter. James D. Thomas, chairman of the Research Committee, oversaw seven projects, while AES maintained liaison with 11 other societies. Fifteen courses in electroplating were being offered in the U.S. and Canada, and a series of articles on "Japan's Plating Industry" by Ezra A. Blount was published in *Plating*.

AES traveled to Los Angeles to hold its Annual Convention for the first time in 1960. Ralph D. Wysong was AES president. A feature of the educational program was a Symposium on Hydrogen Embrittlement, with Dr. Harold J. Read as chairman. The papers presented formed the basis for a book, edited by Dr. Read and published under the aegis of AES. The first Charles Henry Proctor Leadership Award was presented to Walter L. Pinner. Mr. and Mrs. William O. Preston, the donors, witnessed the presentation. (Mrs. Preston was the daughter of founder Proctor.) Dr. Charles Faust received the Scientific Achievement Award. He was well known for his work in electropolishing, among other areas.

In the June 1960 issue of *Plating*, a definitive, 19-page paper, "Development of Chromium Plating" by George Dubpernell, was published. Though supposedly retired and in his early 80's, Dr. Dubpernell is still involved in chromium research today. His 2000-volume library on electrochemistry and electroplating is probably the most extensive in the world.

In branch matters, Waterbury created a plaque to be awarded at science fairs in its area. The first was given to Watertown Junior High School in March 1941 in conjunction with a lecture on electroplating. The San Diego Branch was chartered that April, with First Vice President Chester G. Borlet making the presentation.

The Annual Convention returned to Boston after a 20-year lapse. Louis Gagnon chaired the affair, which included, of course, a New England clambake. At the concert of the Boston Pops Orchestra attended by AES, President Wesley's talented daughter was the piano soloist. Dr. Abner Brenner was the deserving Scientific Achievement Award recipient. He is widely recognized as the inventor of electroless plating.

The Supreme Society mandated the appointment of a Bylaws Revision Committee composed of: Cleveland F. Nixon, Detroit, chairman; Leslie L. Diveley, Milwaukee, vice chairman; Manson Glover, Boston, secretary; Clyde Kelly, Chicago; Francis T. Eddy, Los Angeles; William J. Neill, Columbus; I. William Marcovitch, Philadelphia; Kergan Wells, Toronto; Myron E. Browning, Dallas/Ft. Worth.

The Central Iowa Branch, with 26 charter members, was approved in August 1961, and the presentation was made by President Chester G. Borlet. The Santa Clara Valley Branch followed suit shortly thereafter. Society membership stood at 7300, with 338 Research Sustaining Members.

Dr. D. Gardner Foulke, chairman of the Research Committee, witnessed two new projects: Number 19 at the Bureau of Standards on "Galvanizing Effects Associated with Coating Failure" and Number 20, "Plating by Thermal Decomposition."

Edward J. Musick died on October 30, 1961, at age 78. He was a founder of the St. Louis Branch, president of AES in 1925-26, and an honorary member. He was president of the Musick Plating Co., established by his father, William Musick, in 1879. Other notables who passed away in 1961-62 were H.A. Gilbertson, Chicago Branch, one of the oldest AES past presidents; Wright W. Wilson, chairman of the 1959 Convention; Richard C. Barrett, a Bridgeport Branch member, candidate for AES third vice president, and co-chairman of the Eighth Interim Meeting. A fifth death, that of Cleveland F. Nixon, occurred on May 4, 1962, his 61st birthday. He was president in 1951-52 and was posthumously named an AES honorary member. At about the same time in 1962, Justus A. Stremel and Frederick F. Pierdon, both founding members of AES, also were elevated to honorary membership. Another founding member, Edward W.T. Faint, died on July 24 at the age of 92. He was also a charter member of the Newark Branch.

### New Constitution and Bylaws

The Ninth Interim Meeting was held in Indianapolis during January 1962. The proposed revised Constitution and Bylaws were read to the delegates. Section by section, the revisions were considered for action at the Supreme Society's Annual Meeting in Milwaukee the last week in June. It would be the first time an AES Convention would be hosted by a regional group—the Midwest Regional Council. Herman Tessmann was chairman.

\*Scientific Achievement Award.



Manuel Ben  
President (1962-63)



William Blum  
SAW\* Recipient (1958)



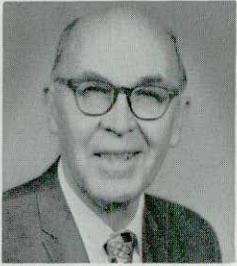
Dr. Henry Brown  
SAW Recipient (1967)



George W. Cavanaugh  
President (1966-67)



Leslie Diveley  
President (1965-66)



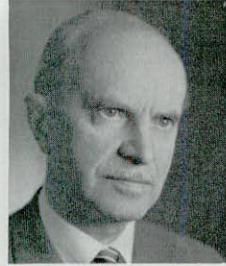
**A.H. DuRose**  
SAW Recipient (1969)



**Harold Ellis**  
Leadership Award (1970)



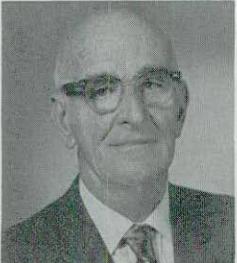
**Dr. C.L. Faust**  
SAW Recipient (1960)



**Hellmuth Fischer**  
SAW Recipient (1968)



**William Geissman**  
Proctor Award (1975)



**A. Kenneth Graham**  
SAW Recipient (1959)



**R.A.F. Hammond**  
SAW Recipient (1963)



**Samuel Holman**  
President (1956-57)



**Otto Kardos**  
SAW Recipient (1972)



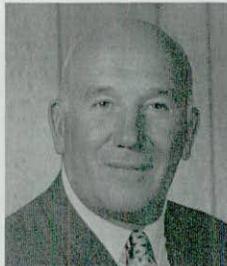
**Burton Knapp**  
SAW Recipient (1977)



**Joseph Kushner**  
SAW Recipient (1976)



**Frank E. Lane**  
Lane Award



**Arthur Logozzo**  
President (1949-50)



**William Neill**  
President (1950-51)



**Cleveland Nixon**  
President (1951-52)



**Fielding Ogburn**  
SAW Recipient (1975)



**Edward A. Parker**  
Honorary Member (1969)



**Frederick Pierdon**  
Honorary Member (1962)



**Walter Pinner**  
President (1945-46)



**Robert Ruleff**  
President (1973-74)



**Richard Saltonstall**  
Honorary Member (1971)



**Jesse Stareck**  
SAW Recipient (1970)



**Kergan Wells**  
Honorary Member (1970)



**W.A. Wesley**  
SAW Recipient (1962)



**Donald Wood**  
Wood's Nickel Strike



**Ralph Wysong**  
Honorary Member (1966)



The new Constitution and Bylaws were indeed approved at the Milwaukee Convention. Thus, the most sweeping operational changes in the history of the AES were adopted. The Supreme Society was replaced by the Council of Delegates, with curtailed authority. The Executive Board ceased to exist. Under the new Constitution and Bylaws, a Board of Directors composed of the president, first vice president, second vice president, treasurer, immediate past president, and 12 directors governed the Society. The office of third vice president was eliminated.

The Council of Delegates duty was to "hear reports, to elect society officers, to elect members of the Board of Directors, to elect the Nominating Committee, to act upon duly proposed amendments to the Constitution, and to fill any office it has declared vacant." All other authority was the province of the Board of Directors. With the implementation of the new laws, the executive secretary would be known as general manager. The office of treasurer was new, the secretary's duties to be performed by the general manager. A director's term was set at 3 years.

The Research Committee became the Research Board. The Membership Committee would be under the new Branch Activities Board. The Editorial Board was supplanted by the Technical Education Board.

The Council of Delegates alone can change the Constitution, though the Board of Directors may amend the bylaws.

In other 1962 activity, the Scientific Achievement Award was presented to Dr. W. Andrew Wesley, manager of the Research Laboratory at the International Nickel Company. The Research Committee was chaired by Dr. Harold J. Wiesner and membership stood at 7141. There were 328 Research Sustaining Members. The Wichita Branch disbanded and Mid-Hudson was chartered.

The tenure of John P. Nichols in the post of executive secretary was concluded in July 1962. Rodney Leeds, editor of *Plating*, was appointed acting executive secretary and continued as editor. President Manuel Ben was presented a gold-plated bell by Juichi Nakanishi of the Japan Electroplaters Association on September 17. Four days later, the Japanese delegation visited AES Headquarters in Newark. The Mid-Atlantic Regional Council, with Arthur G. Pierdon as chairman, was formed late that year.

Death claimed three more prominent members before the end of 1962. Myron Diggin, at 57, had been an associate editor of *Monthly Review*, was on the Editorial Board of *Plating*, was chairman of AES Research Project 4, and received the AES Gold Medal in 1946 and the Award of Merit in 1956. Walter J. Allen, 89, was president of the

Society in 1922-23. Charles C. Conley, 1942-43 AES president, was general chairman of the 1940 Annual Convention in Cleveland and passed away at 64.

### Last Interim Meeting

The 10th Interim Meeting was held in Kansas City, January 19, 1963. It was also the last Interim Meeting because, with a Board of Directors of 17 members who would assume most of the powers of the Supreme Society according to the new Constitution and Bylaws, it no longer appeared to be necessary. At a meeting of the Executive Board, Rod Leeds was appointed executive secretary and Dr. Frederick A. Lowenheim was introduced as the new technical editor of *Plating*. This was a part-time connection for Dr. Lowenheim, who would continue in research with M&T Chemicals. One of his first ideas was to inaugurate a journal section called "Plating Topics" to accommodate practical articles.

In other news of the day, AES Headquarters was operating with 11 full-time staff members and one part-time employee, while the Milwaukee Branch was celebrating its Golden Anniversary with a splendid affair in May 1963.

The 1963 annual was also the 50th Anniversary Convention of AES and the 50th year of the host Newark Branch. It was held at the Ambassador Hotel in Atlantic City. Dr. D. Gardner Foulke was general chairman. The MFSA and NAMF held their meetings concurrently with the AES convention, making it possible to hold a joint meeting of the three groups, as frequently happened.

For the first time, a scientist outside of the U.S. received the Scientific Achievement Award. He was Roy A.F. Hammond of England. Mr. Hammond was head of the Electrodeposition Branch at the Royal Armament Research and Development Establishment of the War Office. Meanwhile, Leslie L. Diveley had been elected to the post of third vice president for 1962-63, an office he worked hard to eliminate in the Constitution and Bylaws revision. He was consequently the last third vice president.

The June 24, 1963, meeting of the Supreme Society was of historical significance. It was its last because, by the end of the meeting, the Society would be ready to operate under the new Constitution and Bylaws. Appointments to the many new boards and committees were announced by President Ben.

The first meeting of the Council of Delegates took place on June 26. The first officers and directors were duly elected. Frank O. Beuckman became the first president at the operational transition of the Society. William J. Neill



Harold Simon (center) collects Central Iowa Branch charter from 1961-62 AES President Chester Borlet.



Dr. Harold Read, 1965 Scientific Achievement Award winner, during Chicago Branch talk in 1969.



A.D. Squitro (right) presents title slide of fifth AES Illustrated Lecture to series originator Dr. Donald Swalhelm in 1965. The title: "Electroforming with Nickel."

was the first treasurer. The executive secretary now became general manager.

At the outset of 1962-63, the fiscal state of the Society was such that a deficit budget had been adopted. By the end of the fiscal period, however, various economies and a reduction in the cost of publishing the journal returned the AES to financial stability.

The 51st Annual Convention was held in St. Louis in 1964, with the Sheraton Jefferson as headquarters hotel. No Scientific Achievement Award recipient was selected that year.

The SADAM Branch in Argentina was granted a temporary charter in July 1964. Marmaduke H. Dent played a principal role in its organization. Also, the Upper Midwest Branch, with 100 members, was welcomed back with a new name.

Dr. George P. Swift died July 3, 1964. He was AES president in 1953-54, a national honorary member, and secretary of the Boston Branch for 16 years. Frank C. Mesle, 1926-27 AES president, passed away that August at the age of 80. He had been editor of *Monthly Review* from 1932-36. An ordained minister, Mr. Mesle had pronounced the invocation at many AES Conventions.

The "Technical Editor's Page," by Dr. Lowenheim, first appeared in the January 1965 *Plating* and thereafter was published each month for some 8 years. Another feature, "Some Production Plating Problems and How They Were Solved," was edited by Dr. Samuel Heiman.

The New York Hilton Hotel was the scene of the 1965 AES Annual Convention. The New York Branch was host, with Milton Nadel as general chairman. Edward E. Oberland of the Baltimore-Washington Branch was AES president. The World's Fair was held in New York that year, and conventioners spent a day there. Rudy J. Hazucha Sr. of the Chicago Branch was commended for having attended 50 AES Conventions.

Dr. Harold J. Read of Pennsylvania State University received the 1965 Scientific Achievement Award. He is renowned for his studies of electrodeposition.

In branch affairs, Orange County Metropolitan was welcomed to the Society, and AES President Leslie L. Diveley presented a charter to Worcester, MA, on October 19, 1965. On October 21, Kergan Wells and Ezra A. Blount visited the Melbourne Branch to discuss the "AES Research Program" and "Recent U.S. Plating Developments," respectively.

Five eminent AES members died in 1965. George J. Wagner had joined the Newark Branch in 1924, become national president in 1943-44, and been tapped as an honorary member in 1955. Manson Glover, honorary member of the AES and the Boston Branch, had graduated from Harvard in 1911. He was an eloquent speaker at AES meetings and had long been chairman of the Law Committee. Roy Stout, a 50-year AES member and past president of the

Newark Branch, died at 83. Talmage R. (Ted) Boggess died at age 61. He was a founder of the Blue Ridge Branch and, beginning in 1947, had presented an engraved silver-plated gavel to each national president of the AES. The first recipient was Kenneth M. Huston. Mr. Boggess made and plated the gavels himself and wrote a brief article explaining how he did it in the July 1952 issue of *Plating*. Since his death the Blue Ridge Branch has carried on the tradition and it has become a memorial to Ted Boggess. John A. Munning, vice president of Munning and Munning and a member of the Philadelphia Branch, died on July 17 at 69.

In 1966, AES President Diveley officially represented the Society at the 40th Anniversary of the Institute of Metal Finishing in London. The completely revised Constitution and Bylaws, effective June 26, 1963, and as amended in 1964 and '65, were published in *Plating* that April. The presentation of a charter to the Natural Bridge Branch was made on May 20, while a well-attended Conference on Waste Disposal occurred in Waterbury, CT, with a host of speakers such as Dr. A. Kenneth Graham and political figures.

The 1966 53rd Annual Convention was held in Miami Beach's Fontainebleu Hotel and was hosted by the Dixie Region under the chairmanship of Clem H. Hohner, Southeastern Branch. Dr. Henry B. Linford, Columbia University, received the AES Scientific Achievement Award. It was noted that he had done more than his share to train young minds toward science as professor of chemical engineering.

Five papers delineating the results derived from AES research projects were presented. Dr. Dennis R. Turner, research chairman, noted in his annual report two important findings on Project 12, "Cleaning and Preparation of Metals Prior to Plating": (1) "nickel deposition efficiency is poor initially but increases to a limiting value after a few seconds, and (2) contaminants which soil cathodes decrease nickel deposition efficiency by lowering the hydrogen potential." That same year, an informative, prescient article, "Computers and Plating" by W.A. Mogerman, formerly of the National Bureau of Standards, appeared in *Plating*.

Among the deceased in 1966 were Joseph P. Sexton, honorary member of AES and charter member of the Bridgeport and New Haven Branches, and Clyde Kelly, national president in 1955-56. Mr. Kelly was a member of the Constitution and Bylaws Revision Committee and was voted posthumously an honorary member.

Joan Trumbour Wiarda died October 20, 1966, at the age of 59. She had been an AES member for 40 years, having joined when still a teenager in 1926. She conducted a ladies' affair at the 1965 Convention in New York, at the time saying that it was her swan song. She had been a member of the Chicago, Buffalo and Newark Branches. In her capacity of advertising director of *Metal Finishing*, she traveled throughout the country and was widely known in the industry.

Robert L. Ruleff, chairman of the Books and Symposia Committee, conceived the idea of holding a Symposium on Plating in the Electronics Industry. The Mid-Atlantic Regional Council agreed to host it. An excellent program was developed covering four general topics: electroless plating, magnetics, printed circuits and electroplating. The symposium was held in Newark during December 1966. Robert A. Ehrhardt of the Newark Branch was educational chairman, and Mr. Ruleff general chairman. Advance registration indicated a probable attendance of 300, but 600 arrived before the opening session, stretching the capacity of the meeting room and the kitchen at luncheon. Attendees came from as far away as the Pacific Coast, Switzerland,



(L-r) Leslie Diveley, Frank Beuckman, Harold Simon, Herman Tessmann and Paul Gleb at 22nd Rockford Branch Annual, 1964.

England and West Germany. Mr. Ruleff and AES President George W. Cavanaugh extended welcomes at the opening session. This symposium continues to be popular today.

A Patron Membership in the amount of \$1000 was adopted in 1967. It was felt that contributions to the AES Research Fund in this category should have special recognition. (It was subsequently lowered to \$500.) Finally, in 1967, the St. Joseph Valley Branch purchased the 1000th Illustrated Lecture.

### Relocation in East Orange

A Land Committee, headed by Dr. Henry L. Kellner, was active in 1967 endeavoring to locate a new site for AES Headquarters. It had been narrowed to north New Jersey, after considering many other proposed sites, mostly in the Midwest.

The corner property and building at 56 Melmore Gardens in East Orange, NJ, was purchased on May 1, 1967. The transaction was entirely in cash. Chairman Kellner and Treasurer William J. Neill were at the closing. It was a two-story building with completely finished basement, and was very functional, a far cry from the rented space in Newark that had become very crowded. There was sufficient space on the first floor for the entire staff: two corner offices, four partitioned offices, and large central office space, also a lunch room. The basement was comprised of a large board room, mail room, addressing room and two storage rooms. As the second floor was not needed, it was decided to rent it until such time as the growth of the Society might require the space. There now were 12 full-time staff members and the part-time technical editor.

AES occupied its new quarters in midsummer. During the month of August, a couple of the earliest visitors were Dr. Simon Wernick, director of the Institute of Metal Finishing, England, and Palmer H. Langdon, president and editor, *Metal Finishing*. Membership was over the 8000 mark (8027) and Research Sustaining Members were at 435.

During July 1967, AES President William H. Safranek and Ezra A. Blount, AES liaison representative to the Japan Electroplating Society, toured Japan, attending meetings and visiting plating plants.

The AES Annual Convention was held for the first time in Texas. The Dallas/Ft. Worth Branch was host at the 54th Annual Meeting in Dallas, with R. Fred Howard as general chairman. George W. Cavanaugh was national president.



D. Gardner Foulke, 1979 honorary member, at dais during opening session of 1963 AES Annual Convention in Atlantic City.

The first Frank E. Lane Award was presented to Mr. Lane, for whom it was to honor and was named.

Dr. Henry Brown was the AES Scientific Achievement Award recipient. The following year, he received the \$1000 honorarium, which was part of the award upon delivery of the William Blum Lecture. Dr. Brown, whose principal work was the development of organic addition agents for bright nickel plating baths, subsequently donated the honorarium to the AES Research Fund.

An AES Educational Trade Tour to South America took place in April 1967. The Society was officially represented by President Cavanaugh, accompanied by Past President Arthur W. Logozzo and M.H. Dent. Later in the year, the SADAM Branch held its Fourth Annual Meeting and Exhibition in Buenos Aires, Argentina.

There were five active projects during the Research Board chairmanship of Dr. M.M. Beckwith. Three were terminated in June 1967: Projects 20, 21 and 23, and three were begun. Project 25 "Properties of Electrodeposited Gold for Electronic Uses" at the University of Southern California, and Project 26, "Electrodeposited Metals Handbook," were to be handled under the direction of William H. Safranek at Battelle. Mr. Safranek suggested the latter project and it resulted in an AES book. The third new project was Number 27, "Sealing of Anodic Coatings on Aluminum."

Chairman Beckwith noted in his annual report: "There is a constant effort being made by the Research Board to keep the type of projects in balance. The terms theoretical and practical are being tossed around and the adherents of either thinking are inclined to feel that the 'balance' is too unbalanced in favor of the other approach." True today as then.

### Events in the Late 1960s

The year 1968 saw the Bylaws changed to reverse the AES fiscal year back to April to March 31, from July 1 to June 30. Also, the Grand Rapids Branch celebrated its 50 years at a dinner party that January.

An AES Educational and Trade Mission departed April 20 from New York to attend the Seventh International Metal Finishing Conference and Hanover Fair, Hanover, Germany. The mission was headed by Past Presidents Arthur W. Logozzo and Edward E. Oberland. In addition to Hanover, the mission visited installations in Sweden, Denmark, Holland, West Berlin, England and Geneva.

The Golden Gate Conference, the Society's 55th Annual, was held in San Francisco, July 6-11, 1968, hosted jointly by the San Francisco and Santa Clara Branches. Harold J. Wiesner and Donald Levy were co-chairmen. The educational program included a symposium on immersion plating, two sessions on waste treatment, and one on anodizing. There was also a question-and-answer panel, always popular.

An Aluminum Finishing Seminar, sponsored jointly by AES, the Aluminum Association, Aluminum Extruders Council et al., formed the basis for the book, *Finishing of Aluminum*, edited by Dr. G.H. Kissin. What's more, AES membership rose to a new high for the era, 8487 members. Research Sustaining Members totaled 485—also a new high.

Edwin J. Smith was the Research Board chairman, and there were four active projects. A Project 22 paper was presented at the San Francisco Conference. In his thorough report, Mr. Smith stated: "Societies fostering an art or a science perceive a duty of insuring the future vitality of the technical field. This is accomplished by supporting research

designed to avoid obsolescence. When the goal of research is forgotten, the intricacies of proposing and financing research projects takes all of the attention. Membership Research Fund and Sustaining Members dues are paid as a guarantee against obsolescence; they should not be made available for crash programs, the latest research fad, or a seemingly insolvable 'practical' problem."

Three new branches were chartered during 1968: Midwest Florida, Erie, PA, and Valley Forge. President Marmaduke H. Dent presented the Valley Forge charter to Branch President William N. Karaces on September 10, 1968. National First Vice President James H. Lindsay made the charter presentation to the Erie Branch on September 20. Branch President Gerald Crane accepted for Erie.

By October 1968, 2000 Illustrated Lectures had been distributed. In that same month, Philip J. Ritzenthaler died. He was 58 years old and had been exceptionally active in the Milwaukee Branch and the Midwest Regional Council.

President Safranek had been pressing for more practical articles to be published in *Plating*. Ezra A. Blount, long experienced in editing and obtaining articles of a practical nature, graciously assisted in developing a section termed "Plating/Finishing Practice." Two new Paper Awards were approved to memorialize Eugene C. Chapdelaine and Richard O. Hull Sr.

The year 1969 saw a further updating of the Constitution and Bylaws, with appendix, while the Books and Symposia Committee sponsored the Second Plating in the Electronics Industry Symposium, Boston, with 500 attendees under the chairmanship of R. Scott Modjeska. Yet another regional group, the Pacific Northwest, met in Seattle in May.

During an educational and trade tour to Mexico in conjunction with the National Association of Metal Finishers, President Dent presented a charter to the AMTEG Branch. The five letters stand for Association Mexicana de Technicon en Galvanostegia. President Dent also presented a charter to the ABTG Branch in Sao Paulo, Brazil.

The 56th Annual Convention was held June 16-20, concurrently with the Seventh Industrial Finishing Exposition at Cobo Hall in Detroit. John E. Siefin was general chairman of the Convention and Howard McAleer chaired the Exposition. Attendance was better than 1700, with 129 exhibitors. There were nine sessions in the educational program and 33 papers. There was an "Aluminum Processing" session and two sessions on "Precious Metals." A panel handled the subject "Plating on Plastics."

Research Board Chairman Manuel Ben reported on the activities of six projects. The practical Project 28, "Barrel Plating of Carbo-Nitrided Steel Parts," had been completed

and two new projects were underway: "Crystal Defects in Electrodeposited Metals" at Stevens Institute of Technology, and Project 30-31, "Application of Reverse Osmosis to Metal Finishing Wastes" at the Ontario Research Foundation.

Arthur H. DuRose, a pioneer in the development of bright and leveling nickel deposits, was tapped as the Scientific Achievement Award winner.

### Membership Nears 9000

A per capita tax increase to \$15.80 became effective April 1, 1969. Membership stood at 8999, with 479 Sustaining and two Patron members. The 27 Illustrated Lectures now completed were being used worldwide. Austin B. Wilson, AES president in 1937-38, died that May.

The first four-color article appeared in the September 1969 issue of *Plating*. It was "Racking for Hard Chromium Plating" by Arthur W. Logozzo. The use of four color in the editorial section was too costly, so Nutmeg Chrome Corporation generously paid the additional cost.

The Merrimack Valley Branch, reflecting the increasing interest in electronics finishing, manned a booth at the First Annual Electronics Manufacturing Exposition and Conference in New York. Two other meetings of special interest were the Valley Forge Branch Printed Circuit Workshop and the Zinc Plating Symposium held by the Syracuse Branch.

In 1970, AES President James H. Lindsay presented to Research Board Chairman Edward A. Parker at the New England Regional Meeting a check in the amount of \$10,000 for the AES Research Fund. The check was derived from income generated at the Seventh Annual Industrial Finishing Exposition. With respect to the Annual Meeting, a new policy adopted early that year required annual reports to the Council of Delegates only from the president, first vice president and treasurer.

Other 1970 events: Harry C. Bernard, at the age of 90, died on November 16, ending 60 years of AES membership, and a new regional group composed of the Erie, Pittsburgh and Cleveland Branches was called the Mideast Regional Council.

The AES 57th Annual Technical Conference was hosted by the Montreal Branch on June 21-25. M.C. Cohen was general chairman. The strong technical program offered 11 sessions, with 43 papers and a workshop panel. The conference had an attendance of 1400 members and guests and Dr. Jesse E. Stareck received the Scientific Achievement Award for his work on electrocoloring, pattern plating, composite coating, etc.



Richard Saltonstall (left) accepts Order of Past Presidents Award from Edward Oberland in 1968.



James Lindsay assumed AES presidency in 1969 and was also technical editor of "Plating."



John Donaldson (left) is elevated to second vice president in this 1970 photo. R. Scott Modjeska (1971-72 president) assists with induction ceremony.



Membership had dropped to 8135, partly due to the formation of Australia's own metal finishing society. This was in part precipitated by the AES increase in per capita tax. Many members of the three Australian Branches, Adelaide, Melbourne, and Sydney, let their AES membership lapse, at least temporarily, and joined the Australian society. Sustaining Membership, however, rose above 500 for the first time. Interestingly, President Lindsay headed an AES tour group of Australia and New Zealand that same year.

Five prominent AES members died in 1970. Samuel Taylor, a founder of the Newark Branch in 1913 and three times its president, had once been editor of *Quarterly Review*. Dr. Nathan Koslin, past president of the Columbus Branch, died on March 10. He established Nalin Laboratories in 1945. John R. Gumm, 54, died on February 6. He was a past president of the Newark Branch and president of Gumm Chemical. John E. Trumbour, son of AES founder Thomas Trumbour, died at the age of 58. He was an honorary member of the New York Branch, past president of the Newark Branch and treasurer of the Metal Finishing Suppliers' Association. On July 9, Anthony P. Julius died. He was an honorary member of both the AES and the St. Louis Branch. Andy was active in the formation of the Midwest Regional Council, and was general chairman of the 1964 AES Convention in St. Louis.

John Donaldson, then national second vice president, was the guest speaker at a February 1971 meeting of the Long Island Branch at which a temporary charter was granted. The Mid-Tennessee Branch charter was presented by AES Director George E. Parisho in September.

AES Treasurer William J. Neill, 69, died on January 10, 1971. He had been treasurer since 1963, when the revised Constitution and Bylaws became effective establishing that office. He was AES president in 1950-51, was made a national honorary member in 1961, and had been a delegate to the Supreme Society and Council of Delegates for 26 years. He had been a member of the Law Committee for a decade, and served on the Constitution and Bylaws Revision Committee. His branch was Columbus. Kergan Wells followed Mr. Neill in the office of AES treasurer.

The 58th Annual Technical Conference was held in Buffalo, NY, June 14-17, 1971, at the Statler Hilton Hotel. O.B. Kirchoff was honorary general chairman. General co-chair-

men were John C. Scholterer and Charles R. Fotheringham. Dr. Harold J. Wiesner was national president. Ten technical sessions offered a wide-ranging program, including two sessions devoted to waste treatment; there was also a vibratory finishing symposium. Niagara Falls was the scene of an enjoyable outing.

President Wiesner reported that after careful evaluation of the progress of the International Union for Electrodeposition and Metal Finishing, AES decided to become an active member. An outgrowth of a well-attended meeting of members was a strong feeling that divisions should be formed to accommodate special-interest groups such as electronics and automotive.

At the annual meeting of the Council of Delegates, June 17, 1971, an amendment to the AES Constitution was adopted, stipulating members of the Nominating Committee to be ineligible for nomination for national office and/or directorship, except from the floor at annual meetings.

Research Board Chairman William Geissman reported on seven active projects. Two new projects were "The Role of Additives in Electroplating Processes" at Baylor University and "The Optimization of Barrel Plating Solutions" at Arizona State University. Membership had dropped to 7958. There were 481 Sustaining Members and two Patrons.

T.P. Hoar, British metallurgist, received the 1971 Scientific Achievement Award. His studies on corrosion inhibition, mainly by using sodium nitrite, were important contributions.

Leslie L. Diveley, 1965-66 national president, died June 18, 1971. He was 63. A national honorary member, recipient of the Proctor Award, past president of the Milwaukee Branch, chairman of the AES Constitution and Bylaws Revision Committee, Mr. Diveley had represented AES at the 40th Anniversary of the Institute of Metal Finishing in London. He was educational chairman of the 1949 AES Convention in Milwaukee and a member of *Plating's* Editorial Board. He organized an Organic Division of the Milwaukee Branch in 1957, and started the Branch's *Monthly Newsleaf*, of which he was editor for a decade.

Burton G. Daw, 83, died on July 27, 1971. An honorary member of the St. Louis Branch, he had been with Hanson-Van Winkle-Munning and Lasalco for many years. In 1930, he designed and marketed the first fully automatic chromium plating machine.



At 1971 meeting of MFSA and AES in Dearborn, MI, are (seated from left): Fred Gumm, George Parisho, Stan Sax, Joseph Eisele, James Lindsay, James Zievers, Kergan Wells, Richard Hull Jr., Harold Wiesner, M.A. Broderick, R. Scott Modjeska, Harold Leever, Gerald Kraft, Louls Gagnon, Ronald Shaw, and William Clemons; (standing, from left) Gwynne Edson, John Siefen, Robert Trees, Rod Leeds, Harold Simon, John Donaldson, Jules Horelick, A.C. West and Ezra Blount.

## From Convention to Conference

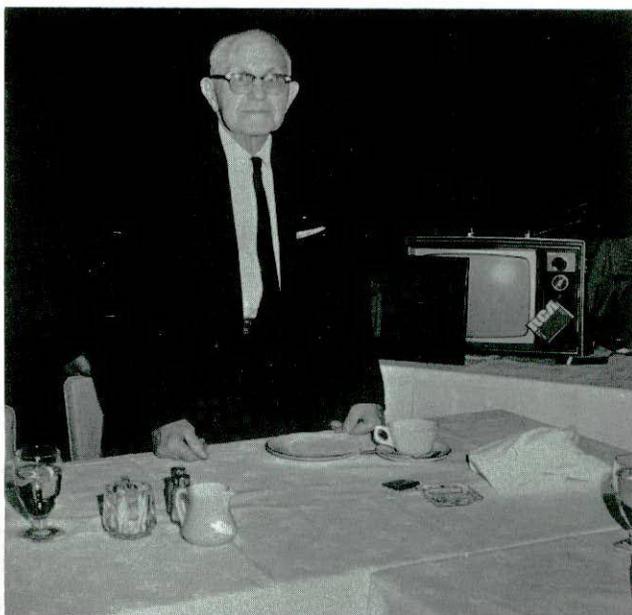
The year 1972 saw the change of the Annual Meeting from "Convention" to "Technical Conference" and the 59th was held in Cleveland, OH, June 19-22. The First Interim Exhibit of Industrial Finishing was held at the same time, except that it opened 1 day later. Louis Gianelos was general chairman and R. Scott Modjeska national president. Dr. Otto Kardos received the AES Scientific Achievement Award. He specialized in the development of bright plating processes and anodizing.

Twenty-six papers were programmed in conjunction with an analytical instrumentation symposium, platers forum, and anodizing problem-solving panel. The attendance at the Conference topped 1700 and there were 131 exhibitors at the Interim Exhibit.

Membership stood at 7624. The Albuquerque Branch was operating under temporary charter.

A well-attended evening meeting was held during the Cleveland Conference ostensibly to chart the future course of AES. First Vice President John G. Donaldson stated the purpose was to determine how to make AES useful to a greater number of people. He termed the activity as "Evolutionary Planning." Past President Harold J. Wiesner agreed to be the general chairman of a group to encompass national past presidents, directors, and chairmen of all the boards and committees who would seek to determine how the Society could better serve emerging finishing technologies. It was wondered whether the Society should publish a quarterly technical journal and a separate monthly publication for news and practical material.

The Board of Directors met at Headquarters in East Orange on September 28, 1972, for the fall meeting. President Donaldson invited the only living founder of AES, Justus A. Stremel, then 86 years old, to lunch with the board members at East Orange. Past President Modjeska presented a plaque to Mr. Stremel, showing that he joined AES in 1909, became an honorary member of the New York Branch in 1950, national honorary member in 1962, and was given an Award of Esteem in 1972. President Donaldson presented Mr. Stremel with a color television set. Presi-



Justus Stremel was last living founder of the AES. In 1972, he was honored by the Board of Directors at a luncheon and awarded a TV set.

dent Jack Weiner of the New York Branch attended the luncheon.

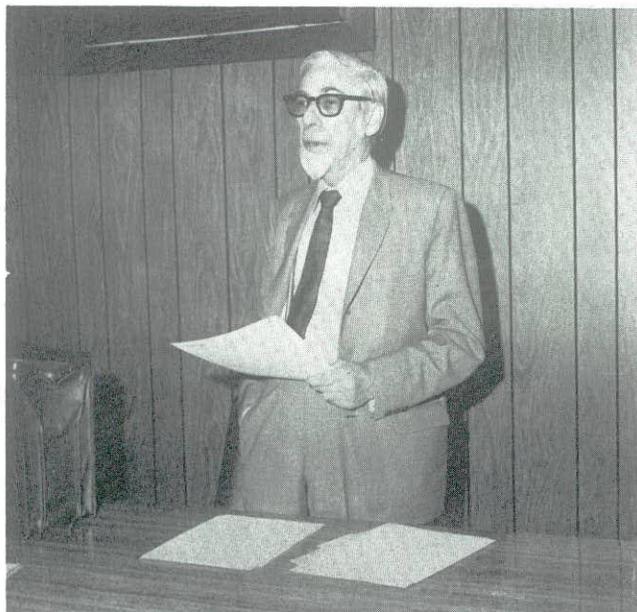
The first AES Intensive Training Course was held in Philadelphia, October 2-6, 1972. It was conducted by Donald A. Swalheim, Dr. Samuel Heiman and Fred Pearlstein.

Henry Mahlstedt died at age 75 on August 3, 1972. Retired from M&T Chemicals, he was one of the foremost figures in chromium plating. Another great loss was the death on March 24 of Dr. Edward B. Saubestre. He was 46. A member of the New Haven Branch, he had been with Enthone since 1958. He had served AES on the Editorial and Research Boards, was project chairman of Research Project 33, and was past president of the New York Branch. He was a member of the Paper Awards Committee at the time of his death. He had been awarded the AES Gold, Silver and Bronze medals.

The OSHA and Air Pollution Seminar held at the University of Chicago, December 4 and 5, was the first to be offered by AES Headquarters. It was well attended and very successful.

One of the most respected figures in AES history, Dr. William Blum, died on December 7, 1972, at the great age of 90. National honorary member, Philadelphia Branch honorary member, Research Board honorary member, AES presented him with a gold watch in 1928. He joined the National Bureau of Standards as a chemist in 1909 and directed the Electrodeposition Section from 1913 until 1951. He joined AES in 1915. Author of more than 100 technical papers, he co-authored with George B. Hoga-boom, "Principles of Electroplating and Electroforming." First published in 1924, it was revised in 1930 and 1949. An extensive biography is published in the February 1973 issue of *Plating*.

Frank E. Lane died December 9, 1972. He was 79. Past president of the Dallas/Ft. Worth Branch, which established the Frank E. Lane Industrial Award, he was its first recipient. On the 13th of December, death claimed Rudolph J. Hazucha—one month short of his 79th birthday. He was an honorary member of both the Chicago and Rockford Branches, and had been presented the AES Award of Merit. Rudy had joined the Chicago Branch in 1915.



Frederick Lowenheim, recipient of Scientific Achievement Award in 1978, was a prolific author of books and papers.

In the first few days of 1973, more stalwart members died. John Lockerbie expired on January 7 at the age of 91. He had been named a national honorary member in 1949, and was the first president and honorary member of the St. Joseph Valley Branch. He had been an organizer of the Chicago, Detroit, Milwaukee, Indianapolis and St. Joseph Valley Branches, and was a delegate for many years. William M. Phillips Sr. died on January 10. He was a national honorary member and AES president in 1938-39. Mr. Phillips was 85 years old at his death. Before retiring, he was head of the electrochemical department, General Motors Technical Center. At the young age of 39, Rockford Branch Past President Thomas O. McCullough died on January 19, 1973. He had served on national boards and committees and had he been spared, would have gone far in AES.

In his annual report, AES President Donaldson stated, "I hope that all of our members know of the Evolutionary

Planning activities initiated last June under the very able direction of Past President Harold J. Wiesner. They were begun because . . . many concerned members recognized that for AES to continue to maintain its important position in industry, it must quickly and effectively react to the changing needs of its membership."

The Albuquerque, NM, and Palmetto (Greenville, SC) Branches were chartered in 1973. Joint committees were created by MFSA, NAMF and AES for public-relations purposes and for close contact with OSHA, as President Donaldson stated "to explore ways and means for cooperative effort in establishing effective metal finishing publicity and PR programs and in providing timely, adequate, and understandable information to our members in matters related to OSHA and EPA regulations."

Research Board Chairman Martin J. Frant reported on the active Research Projects 27, 29, 30, 32, and 34. He said,

### Evolution of AES Branches

1909	New York	1938	New Haven (Terminated)	1955	Mississippi Valley
1910	Philadelphia		Buffalo - New Charter	1957	British Columbia
1911	Rochester	1939	Binghamton-Syracuse		(Terminated)
1912	Toronto		(Became Syracuse 1943)		Miami
	Indianapolis	1940	Indianapolis - New Charter		Mohawk Valley
	(Terminated 1933)	1943	Lancaster	1958	Blue Ridge
	Detroit		Syracuse	1959	Denver
	Chicago	1944	Jackson-Lansing		Phoenix
1913	St. Louis		(Became Central Michigan	1960	Memphis-Midsouth
	Newark		1954)	1961	San Diego
	Milwaukee		Australia		Central Iowa
	Dayton		(Divided 1946)		Santa Clara Valley
	Cincinnati	1945	Rockford	1962	Mid-Hudson
	Buffalo		Twin-City	1964	Upper Midwest
	(Terminated 1915)		(Withdrew 1960)		(Former Twin City)
1914	Cleveland	1946	Melbourne		SADAM (Buenos Aires)
	Bridgeport		Sydney	1965	Orange County Metropolitan
1915	Toledo		Adelaide		Worcester (new charter)
1916	Syracuse		St. Joseph Valley	1966	Natural Bridge
	(Terminated 1924)		Columbus	1968	Mid-West Florida
	Providence-Attleboro	1947	Southeastern		Erie
	(Attleboro added 1919)	1948	Louisville		Valley Forge
1918	Grand Rapids	1948	Saginaw Valley	1969	AMTEG (Mexico)
1919	Pittsburgh		Western Ontario		ABTS (Sao Paulo)
1920	Reading		Winston-Salem	1971	Long Island
	(Terminated 1926)		(Terminated 1949)		Mid-Tennessee
1921	Boston	1949	Allentown-Reading	1973	Albuquerque
	Waterbury		Hamilton		Palmetto
	Connecticut Valley		(Terminated)	1975	Allegheny
	(Now Hartford)	1951	Dallas-Ft. Worth		Colonial Virginia
	Montreal	1952	Wichita	1976	Orlando
1929	Baltimore-Washington		(Terminated 1962)	1977	Mississippi
	Los Angeles		Kansas City	1982	Charlotte Metropolina
	Worcester	1953	Portland		North Alabama
	(Terminated 1933)	1954	Capitol District		Taipei
1930	San Francisco		Houston		San Juan
	(Terminated)		(Terminated)		Tucson
	Anderson, Indiana		San Antonio		Carolina Sandhills
	(Terminated 1938)		(Terminated 1960)		Smoky Mountain
1936	Springfield		Seattle	1983	International
	Binghamton-Elmira		(Added Puget Sound 1955)		Hampton Roads (Norfolk)
	(Terminated 1939)		Southern Tier	1984	Golden Reef (South Africa)

"The major effort on new projects has been the development of methods of analyzing wastes, particularly those which could be applied with relatively simple equipment."

The Technical Education Board established an *ad hoc* committee, headed by Dr. Henry B. Linford of Columbia University, to develop a full electroplating and metal finishing curriculum that could lead to a college certificate, according to William G. Millman, board chairman.

A *Branch Public Relations Manual* was prepared by the AES Public Relations Committee. A Public Relations Reward, \$50 and a plaque, was created for presentation to the most outstanding branch public-relations officer each year.

The AES 60th Annual Technical Conference and the Industrial Finishing Exhibit were held in Minneapolis, MN, and hosted by the Upper Midwest Branch. Fred J. Kaim and Cort G. Platt were co-chairmen. The Conference was at the Radisson Hotel, June 17-21, 1973. Richard E. Thompson was exhibit chairman at the Radisson Mart.

There were 13 sessions in the technical program in which 35 papers were presented. The main topic was conservation. Two sessions covered Decorative Plating Conservation. There was a Conservation of Materials Symposium and a Symposium on Conservation of Organic Materials. A two-session Conservation in Plant Engineering Symposium featured a panel on Tools for the Plating Engineer to Reduce Wastes and Costs and one on Plant Engineering Systems. A Light Metals Finishing Workshop actually was comprised of two panels in two sessions, bringing together 12 experts. In the hope of creating a larger attendance, the Annual Banquet was held on Wednesday evening, instead of Thursday, the final day of the Conference.

At the annual business meeting of the Council of Delegates, Past President Arthur W. Logozzo inducted the newly elected national officers and directors, and announced that General Manager Rodney Leeds would retire at the end of the calendar year. J. Howard Schumacher Jr. assumed the position of general manager on January 1, 1974. He came to AES after six years with the Institute of Electrical and Electronics Engineers (IEEE). In 1974, the Board of Directors changed the title general manager to executive director and made him a member of the Executive Committee. William K. Brush, who had joined *Plating* as associate editor in 1964 and subsequently became managing editor, was made editor on January 1, 1974.

Dr. Frederick J. Lowenheim resigned the technical editorship of *Plating* at the beginning of 1974, after 10 years in that post. AES Past President James H. Lindsay was the successor. A technical expert and author, Mr. Lindsay had been a chairman of the Editorial Board of *Plating*.

### Progress in the 70s

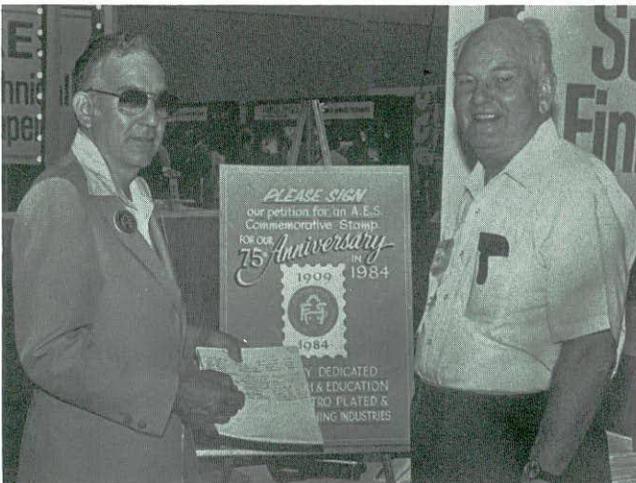
An Awards Board was created composed of the chairmen of the Scientific Achievement Award, Charles Henry Proctor, Lane and Paper Awards Committees. Also the Technical Conference Advisory Committee was established. In 1974, temporary charters were given to the Allegheny, Colonial Virginia, Orlando and Nebraska-Iowa Branches.

The Decorative Plating Symposium held in Detroit and the Pollution Abatement Seminar in Reston, VA, were important meetings. President Robert L. Ruleff reported: "Work is well under way toward initiating an AES-sponsored college-level course in electroplating. Frederick Lowenheim will author a text for this course and arrangements have been made with a well-known publishing house. A laboratory manual will follow. Our intensive plating course, under the able direction of Don Swalheim, continues to be well received."

Through the efforts of Treasurer Wells, \$5 of the annual dues was to be allocated to the subscription of *Plating*, up from \$2. Research up \$1. The Research Board 1974 report was made by Vice Chairman of Research Leslie D. McGraw. He was concerned about increasing costs. A new project had been added, Number 35, "The Application of Pulse Plating Techniques to Metal Deposition," at Columbia University. EPA offered to provide a \$25,000 grant (AES to fund 5 percent) to further work on reverse-osmosis membranes.

The Conrad Hilton Hotel, Chicago, housed the 61st AES Annual Technical Conference (June 16-20, 1974) and the Industrial Finishing Exhibit. The general co-chairmen were Simon P. Gary and Paul Glab. Germany's Dr. Ernst Raub was recipient of the AES Scientific Achievement Award. Twenty-seven papers were delivered in sessions with such subjects as: light metals finishing, plating on plastics, autocatalytic nickel, pollution control, precious metals, metallography of electrodeposits. And there was a jobshop seminar, along with seven plant tours, and some 100 exhibitors.

In his annual report, Technical Education Board Chairman William G. Millman stated: "We have seen improvements and innovations in the various symposia presented, a



Herb Tilton (left) and Arthur Pierdon (1975-76 president) lobbied for 75th Anniversary stamp.



Three past presidents (l-r) Frank Beuckman, 1963-64, Ed Smith, 1974-75, and Bernard Gagnon, 1977-78, as honorary membership is conferred upon Mr. Beuckman.

continuous emphasis on satisfying the need for current and comprehensive programs that relate to the environment, and, of course, a continuation of symposia for those highly specialized areas which appeal to selective industries."

Membership had slipped to 7485. Sustaining Membership was 471 and there were eight Patron Members. Twelve Branches were conducting electroplating courses.

In the May 1974 issue of *Plating*, Research Vice Chairman of Finance Edward E. Oberland presented an excellent list of all the AES Research Projects, beginning with the very first, "Spotting of Plated or Finished Metals."

The only remaining AES founder, Justus A. Stremel, died on June 29, 1974. He was 88. A national honorary member, AES President James H. Lindsay invited him to attend the 1970 Annual Technical Conference in Montreal. Poor health prevented him from attending; nevertheless, New York Branch Delegate Milton Nadel proposed to the Council of Delegates in session that a resolution be passed officially recognizing Mr. Stremel as the sole survivor of the founding fathers of the AES. Mr. Stremel deeply appreciated this action, which was unanimously approved.

In a letter to President Lindsay at that time, he wrote, "I am proud to have been associated with this loyal and dedicated group of men, and especially our founder, Mr. Charles H. Proctor, as the formation of an educational society of platers and metal finishers was his brainchild. May his progressive spirit prevail throughout our membership for years to come to the benefit of our Society." Mr. Stremel was an honorary member of the New York Branch and led the procession of national officers, directors, past presidents and convention chairmen at the opening session of the 1965 AES Annual Convention in New York. He had started in plating at the age of 13 and left a substantial monetary gift to AES at his death.

Wendell P. Barrows, a charter member of the Baltimore-Washington Branch, died on August 21, 1974. He had worked with Dr. Blum at the National Bureau of Standards.

At the January 9, 1975, meeting of the Board of Directors, the Bylaws were amended to increase the per capita tax to \$17.50 for active members, the dues of members-at-large to \$21, Research Sustaining Members to \$150 and Research Patrons to \$600. The Scientific Achievement Award honorarium became \$1500. The name of the journal was changed from *Plating and Surface Finishing* with the April 1975 issue. William K. Brush's editorship

ended with the May issue and Phyllis D. Alexander took over with the February 1976 issue. The Colonial Virginia and Allegheny Branches were chartered.

An Educational Tour and Trade Mission was conducted by AES to Europe, starting on May 11, 1975. It was headed by AES President Arthur G. Pierdon and Past President Edward E. Oberland. An interesting account of the tour by Mr. Oberland was published in the August 1975 *Plating and Surface Finishing*.

The 62nd Annual Technical Conference and Exhibit of Industrial Finishing at the Royal York Hotel, Toronto, June 22-26, 1975, was hosted by the Toronto Branch. Edwin J. Smith was AES president, Kenneth R. Coulter general chairman and John D. Buchan chairman of the Exhibit. A 12-session educational program included 47 papers, a thickness-measurement workshop and a symposium on zinc plating and finishing of zinc die castings.

The 1975 membership stood at 7616, with 501 Research Sustaining Members and seven Research Patron Members. Two new Research Projects were initiated: Project 36, "New Membranes for Treatment of Metal Finishing Effluents by Reverse Osmosis," and Project 37, "Demonstration of Reverse Osmosis for Recovery of Chromium from Plating Rinsewaters." Research Board Chairman Vladimir Hospadaruk presided over six projects in progress. A committee was organized, at the suggestion of President Smith, on energy and materials conservation. It was chaired by Gerard Poll.

In his annual report, President Smith stated, "A committee to decide how to promote the affiliation of the AES with other metal finishing societies has been active during the year. At the last board meeting, Jim Voytko (AES 1980-81 president) reported for the committee that a select group of societies, including the NAMF, MFSA and IPC, will be invited to send a representative to the meeting to discuss the idea of affiliation, its advantages and disadvantages, organization, method of operation and the opportunities that it offers to present a united front on governmental affairs."

Fielding Ogburn of the National Bureau of Standards was the Scientific Achievement Award recipient in 1975. He was associated with William Blum and Abner Brenner, the first and fourth award winners, and conducted studies on a wide range of electrodeposition areas, including thickness testing, porosity, and acceptance sampling.

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## Regionals

Two or more branches may form a regional group and apply to the Board of Directors for a charter. There are 12 such regionals in the U.S. and Canada. They hold annual technical conferences, often climaxed with banquets. Regionals operate under their own bylaws, nonconflicting with the AES Constitution and Bylaws. They may have a strong voice in AES affairs. The 12 Regionals and member Branches are:

• **Dixie Regional:** Blue Ridge, Memphis-Midsouth, Miami, Midwest Florida, Natural Bridge, Southeastern, Colonial Virginia, Mid-Tennessee, Palmetto, Orlando, North Alabama, Mississippi,

Carolina Sandhills, Smoky Mountain.

• **Eastern Canada Regional:** Montreal, Ottawa, Toronto, Western Ontario.

• **Empire State Regional:** Buffalo, Capitol District, Mohawk Valley, Rochester, Southern Tier, Syracuse.

• **Great Lakes Regional:** Central Michigan, Detroit, Grand Rapids, Saginaw Valley, Toledo.

• **Golden West Regional:** Denver, Los Angeles, Orange County Metropolitan, Phoenix, San Diego, Santa Clara Valley, Tucson.

• **Mid-Atlantic Regional:** Allentown-Reading, Baltimore-Washington, Lancaster, Long Island, Newark, New York,

Philadelphia, Valley Forge.

• **Mid-East Regional:** Cleveland, Erie, Allegheny, Pittsburgh.

• **Midwest Regional:** Central Iowa, Chicago, Kansas City, Milwaukee, Rockford, St. Joseph Valley, St. Louis, Upper Midwest.

• **New England Regional:** Bridgeport, Hartford, Springfield, Waterbury.

• **Northeast Regional:** Boston, Merrimack Valley, Providence-Attleboro, Worcester.

• **Pacific Northwest Regional:** Portland, Seattle-Puget Sound.

• **Tri-State Regional:** Cincinnati, Columbus, Dayton, Indianapolis, Louisville, Toledo.

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Other events in 1975 included a new *P&SF* column entitled "Light Metals News," edited by David C. Montgomery. Central dues collection was initiated by AES headquarters. This was a policy matter considered for many years. At the start, the national office invoiced the member for \$26 and refunded the branch \$9.

Prof. Dr. Hellmuth Fischer, 1968 AES Scientific Achievement Award recipient, died in early 1976. He was a professor of applied chemistry at Technische Hochschule Berlin, where he investigated the morphology of electrodeposited metals.

The 63rd AES Annual Technical Conference was held in Denver, CO, June 27 to July 1, 1976. Bernard Gagnon was general chairman. The Exhibit of Industrial Finishing was chaired by Andrew P. Rylant. Arthur G. Pierdon, son of AES founder Frederick F. Pierdon, was AES president, and MFSA hosted a Night in Larimer Square. Thirty papers in 10 technical sessions were offered.

Dr. George DiBari, Research Board chairman, reported on the status of nine active projects. The Society had 7504 members, 454 Research Sustaining Members, and five Research Patrons.

AES purchased new Headquarters in Winter Park, FL, and moved from East Orange, NJ, in August 1976. The new property cost \$160,000 and was financed with a \$130,000 mortgage. Sylvia Baxley was named editor of *P&SF* starting with the November 1976 issue and Kergan Wells retired as national treasurer. He was succeeded by Charles R. Fotheringham, still in that office in this Diamond Jubilee year. James H. Lindsay resigned as technical editor of *P&SF* in December 1976. William H. Safranek, 1964-65 Research Board chairman, 1967-68 AES president, 1969 Proctor Award recipient, 1979 Scientific Achievement Award winner, AES honorary member and a former member of the Editorial Board of *Metal Progress*, became the new *P&SF* technical editor with the August 1977 issue.

### Certification Program

At the outset of 1977, the AES Voluntary Certification Program was initiated. Upon passing a specified examination, a member could become a Certified Electroplater-Finisher and earn the privilege of including CEF after his or her name. Today, in this AES Diamond Jubilee year, there are over 1000 members who have attained this designation.

In 1977, there were 41 Illustrated Lectures and a home-study course was being planned. The Sixth Plating in the Electronics Industry Symposium took place in Chicago, March 9-10, while AES Headquarters was busy purchasing a typesetting machine for the Society's publications, including *P&SF*. Other equipment for printing and binding gave AES complete in-house printing capability for branch needs, Society brochures, symposia proceedings, etc.

The 64th Annual Technical Conference and Exhibit of Industrial Finishing was held at the Bonaventure Hotel, Los Angeles, on June 26-30, 1977. Isidore Cross was president and Gail Korte general chairman. The Los Angeles and Orange County Metropolitan Branches were hosts. Forty-two papers were presented in sessions devoted to such subjects as hydrogen embrittlement, organic finishing, pollution control, plating for electronics, and solar energy. Five plants were visited by platers, and the social feature was an afternoon at Disneyland. More than 100 exhibitors displayed their wares.

In his first formal talk as president, Mr. Cross said, "We want to be the educational-scientific Society for the finishing industry and government on any question that comes up pertaining to our area of expertise." In his annual report, President Cross said, "If anyone were to ask me to mention one of the Society's most important personal assets, I could say it in three words: Mary Lou Dowdell" (AES staff member).



Dr. William Blum (seated) at 1972 birthday party in his honor. The annual AES William Blum Lecture is made in his name.



Trio of AES past presidents: (l-r) Gerald Schmidt (1978-79), Isidore Cross (1976-77), and Simon Gary (1979-80).

A per capita tax of \$17.50 and member-at-large dues of \$28 were adopted in the spring of 1977. The Mississippi Branch received its charter that year and Dr. Burton B. Knapp, who worked on the development of nickel anodes at the International Nickel Company, got the Scientific Achievement Award. Dr. George DiBari served a second year as Research Board chairman. It was the 50th anniversary of AES-sponsored research and there were nine active projects with a budget of \$280,000—about two-thirds funded by EPA. Membership was at 7205, with 429 Research Sustaining Members and eight Research Patron Members.

Losses that year began with Dr. Russel E. Harr, who died on February 7, 1977, at the age of 72. He had been a member since 1928 and was the director of Research Project 34. Les Reynolds, 68, died on March 25. He had been a delegate to the Supreme Society and Council of Delegates for many years, and frequently chaired the Credentials Committee. Joseph Gurski died on March 9. He had served on the AES Board of Directors and had retired from Ford Motor in 1973. Samuel E. Craig Jr. of the Phoenix Branch died at 48. He was professor of chemical engineering at Arizona State University and was chairman of two AES Research Projects, 34 and 44. Death also took Robert Niggerman, 44, past president of the Montreal Branch and registration chairman of the 1970 57th AES Annual Technical Conference.

A new standard billing policy was adopted by AES in 1978. All newly chartered branches were to have their dues billing handled by Headquarters. Also, through the efforts of Herbert Tilton, the East Orange property was sold.

An important event occurred in January 1978 when the AES co-sponsored the First Conference on Advanced Pollution Control for the Metal Finishing Industry. Agency representatives responded in a positive manner to the exchange of technical information with industry. The AES Environmental Committee, with the likes of Fred Steward, Canada's Kenneth R. Coulter, Dr. Clarence Roy, and Dr. Robert Wing continually nurtured the information exchange with EPA.

Other key events of 1978 were the First AES Symposium on Thickness Testing, New York, and the initial edition of the *SUR/FIN Shop Guide*, published in the February issue of *P&SF*. This directory of job and captive shops providing finishing services has been published regularly since then.

The AES 65th Annual Technical Conference and Exhibit of Industrial Finishing was held in Washington, DC, June 25-30. The Baltimore-Washington Branch, with Anthony O. Facciolo Jr. as general chairman, hosted the event. Bernard Gagnon was AES president. The technical program featured 45 papers and MFSA was host at a Washington Ball. Three plants were visited and there were nearly 100 exhibitors.

In his president's report, Bernard Gagnon stated, "As far as energy is concerned we've been lulled into a false sense of security in thinking that the only shortage we have is in coming up with the money to pay for it. Energy scarcity is a fact, and the problem is compounded not only by a shortage of sources, but also by a lack of research and by misguided administration. . . . The AES currently has Research Project 46 (co-sponsored by ERDA) at the Georgia Institute of Technology. This project is definitely designed to help our industry; it focuses on energy conservation."

Treasurer Charles Fotheringham reported: "The sale (of the East Orange Headquarters property) reduced the Society's property taxes and maintenance costs. Coupled with this, we have enjoyed our first complete year of operations in our Winter Park, FL Headquarters; the result has been lower taxes and reduced operating costs."

Research Board Chairman Lawrence J. Durney commented, "Each dollar of research funding contributed by the membership continues to purchase almost \$3 of research." Proposed projects in 1978 included "The Effect of Wastewater Heavy Metal Sludges on the Physical Characteristics of Concrete" at Manhattan College, and "Diffusion at Grain Boundaries in Gold," which was to be conducted at Pennsylvania State University.

A recurring subject, whether to change the name of the Society, again started to rumble. Proponents argued that AES was too restrictive a name, that Society members were involved in surface finishing techniques other than electroplating. Opponents said the present name brought with it prestige and recognition. At that time, AES had 7333 members, 449 Research Sustaining Members, and eight Patron Members.

At a meeting of the Board of Directors, October 23-24, the Bylaws were changed to raise the per capita tax from \$17.50 to \$19, of which \$7.50 was allocated to *P&SF* and \$4 to AES research. The member-at-large dues were to go from \$26 to \$28.50.

The grim reaper took 12 prominent members in 1978. Leonard A. Rood of the Southern Tier Branch died early that year. Lancaster Lowry, past president of Baltimore-Washington and a member for some 40 years, followed shortly. Carl Byrns, a 30-year member and past president of the Syracuse Branch, was next. Dr. Joseph P. Kushner, AES Scientific Achievement Award recipient known for his work on rinsing, passed away in February. He had delivered the William Blum Lecture only a few months before his death and had originated an electroplating correspondence course years before. Ralph D. (Duke) Wysong, 1959-60 AES president, also expired in February. He was co-founder and honorary member of the St. Joseph Valley Branch. Donald L. Wood, developer of the Wood's nickel strike, joined the others in 1978. He was affiliated with the Boston and Providence-Attleboro Branches and received the Lane Industrial Award in 1969. Another death was that of Paul Glab, 58-year member of the Chicago Branch, secretary-treasurer of the Midwest Regional Council, and a delegate to the Supreme Society and Council of Delegates for more than 20 years. Otto "Bert" Kirchoff, 75, died on August 8. He was a past president of the Buffalo Branch and a 40-year-plus member of AES.

There were also Dr. A. Kenneth Graham, Frederick Fulforth, Dr. Richard B. Saltonstall and Samuel B. Wyman. Dr. Graham was founder of Graham, Savage & Assoc., a three-time winner of the AES Gold Medal Award, a Scientific Achievement Award winner, and an honorary member. Mr. Fulforth was AES president in 1940-41, and joined the Philadelphia Branch in 1935 after successfully campaigning to change AES from a Society exclusively for foremen platers to one open to all interested individuals. Dr. Saltonstall, honorary member of the AES and the Detroit Branch, received the Proctor Award in 1971 and was educational chairman of the 56th Annual Conference. Samuel B. Wyman, co-founder of the Colonial Virginia Branch and a driving force in the development of an AES Light Metals

Finishing Section, died at the age of 50. An award in his name was established for the individual presenting the best paper on aluminum (or other light metals) finishing each year at the Annual Conference.

An important publishing milestone was reached in mid-1978 with the AES-sponsored book, *Electroplating—Fundamentals of Surface Finishing* by Dr. Frederick A. Lowenheim. It was published by McGraw Hill. Dr. Lowenheim also received the AES Scientific Achievement Award that year. He was most well known for his work in the field of tin plating.

By 1979, the AES was more than a \$500,000 operation with 16 staff members, and a series of three ballots was being distributed to determine the membership's preference for the Society's name. Mary Lou Dowdell was named meetings manager, a position necessitated because of the growing number of symposia, courses and other functions being offered under the auspices of AES. At that time, Ms. Dowdell had already been with AES for 18 years. In this Diamond Jubilee year, she completes 23 years of consecutive service and thereby sets a staff record.

The 66th Annual Technical Conference and Exhibit of Industrial Finishing, SUR/FIN '79, was held June 24-28 in Atlanta. More than 100 exhibitors augmented 81 technical papers on electroforming, chromium plating, energy conservation, etc.

The Society now had 7482 members, 460 Research Sustaining Members and eight Patron Members. William H. Safranek got the Scientific Achievement Award and subsequently delivered the William Blum Lecture on "Opportunity," in which he covered high-speed plating and other areas of recommended exploitation in the finishing industry. Steven B. Isham was named editor when Sylvia Baxley was shifted to marketing manager.

The obituary list in 1978-79 included several prodigious members. Christopher Marzano, a Chicago Branch past president and chairman of the AES Paper Awards Committee, died in January 1979. His news of Chicago Branch meetings was unusually informative; he had the gift of reporting in capsule form the data contained in presentations. Carmi Crawford, founder of the Chicago Electroplaters Institute, president of NAMF in 1947, and long-time member of the Chicago Branch, died at 75. Charles W. Ostrander of the AES Research Board and the Baltimore-Washington Branch died in April 1979. The New York

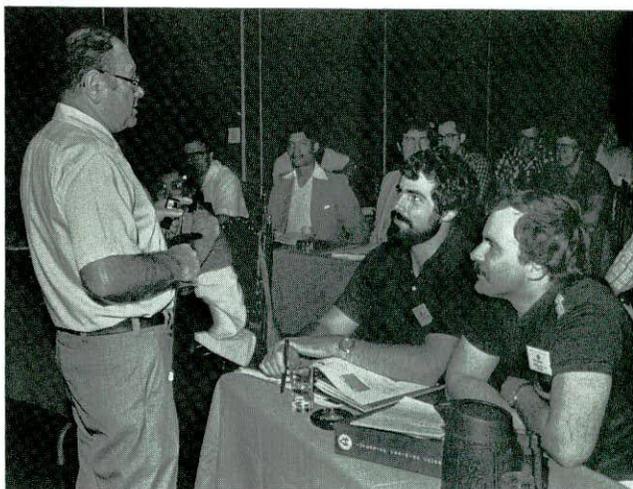
Branch lost two popular members: George F. Hermann and Jack Weiner. Mr. Hermann had received the New York/Newark Branch John E. Trumbour Award. Mr. Weiner was twice president of the New York Branch and was outgoing chairman at the 1965 Annual Conference. Hubert M. Goldman, who presented many papers on plating plastics and who was a past president of the Bridgeport Branch, died at 64. Homer G. Morton, honorary member at Grand Rapids, passed away on August 6. Russell V. Vandenberg, recipient of the AES Bronze Medal in 1956 and an expert on aluminum finishing, and Walter L. Pinner, AES past president and national honorary member, were also lost in 1979. Mr. Pinner contributed to *Electroplating Engineering Handbook* and *Modern Electroplating*. He wrote 40 papers, and for 25 years was the principal speaker at Milwaukee Branch Annual Meetings. He received the AES Gold Medal and the Proctor Award and was affiliated with the Manhattan Project.

### The Eighties

In 1980, some of the new features appearing in *P&SF* were Finishing Tip of the Month, Plating for Electronics (by John Donaldson), and Finishers' Think Tank (by John Lauriliard). These were introduced in response to a continuing appeal for articles of a practical nature, as a supplement to the technical papers. Meanwhile, there were 44 Illustrated Lectures running the gamut from surface preparation to zinc plating.

The 67th AES Annual Technical Conference and Exhibit of Industrial Finishing was held in Milwaukee, June 22-26, 1980. There were some 150 exhibitors and 55 papers in 13 sessions. A workshop on the reduction of precious metals used in electronics applications was indicative of the rising price of gold and the intensifying interest in plating for this high-technology industry sector. AES membership stood at 7999, with 477 Research Sustaining Members and eight Patrons.

President Simon P. Gary had this to say in his annual report: "AES is going great, but it will take Herculean efforts to make this a springboard for greater accomplishments rather than a plateau or peak before a crash. I fear that the present success is a flash of glory while the old war horses burn themselves out. We do not have the same *esprit de corps* among our young members as we do among the older warriors. We must recruit, involve, and inspire the 20



Mort Schwartz teaches an early AES Intensive Training Course. More than 2000 students have attended to date.



Myron Browning of Golden West Regional presents commemorative mining pan to AES 1980-81 President James Voytko.

to 35 year olds. We must recruit among a broader segment of the industry (we are in danger of becoming elitists); we must decide whether we are going to remain a heavily volunteer-oriented Society or whether we will increase our dependence on paid staff."

Research Board Chairman Jack Hyner reported that three projects had been completed and three added: Project 53, "Development of a Reactor to Eliminate Cyanide in Electroplating Effluents" at Ontario Research Foundation; Project 54, "Method of Life Testing of Coatings" at the National Bureau of Standards; and Project 55, "Sludge Characterization" at Centec Corp. (co-financed by EPA).

Regarding the proposed AES name change, Past President Gerald Schmidt concluded, "Many of our members expressed the belief that they felt the time had come to consider changing our name and expanding the scope of the Society to more adequately reflect the industry we serve. They felt that a change would allow us to achieve our full potential as the technical/educational Society of the finishing industry. After due consideration of these requests, it was our opinion that the concept had both merit and sufficient support to put the matter to the acid test and have the membership vote on the issue."

The members did vote, and the results on the name of the Society were in: American Electroplaters' Society, by a narrow margin, was to be retained.

The year 1980 saw the passing of many noble individuals. Dr. Henry B. Linford, a one-time member of the Board of Directors and director of AES Research Projects 12 and 35, died on February 3. He had been a student of Prof. Colin G. Fink. In April, the AES lost Hugh D. McLeese, who had held two joint patents with Dr. Fink and who had retired from M&T Chemicals, where he promoted new uses of hard chromium deposits.

Dr. Frederick A. Lowenheim passed away that August. In addition to being *P&SF* technical editor and winning the

Scientific Achievement Award, Dr. Lowenheim was technical chairman of the 1963 Annual Conference in Atlantic City, a member of the Research Board and the Editorial Board, and was involved with two books.

James H. Lindsay, who followed Dr. Lowenheim in 1974 as technical editor, died on July 10. His editorship continued for nearly 3 years. Mr. Lindsay was AES president in 1969-70, was a member of the Board of Directors, an honorary member, and was associated with the CASS test (AES Project 15), an accelerated method of determining corrosion resistance.

Indicative of the increasing number of finishing applications in the aerospace and electronics industries, in October 1980 AES sponsored a Symposium on Difficult-to-Plate Metals.

A Scholarship Fund was created in 1981 with a \$5000 donation and \$15,000 from the general fund. AES also entered the age of computerization when an anonymous member donated to Headquarters an IBM system, making possible quicker and more efficient handling of financial membership records.

The 68th AES Annual Technical Conference and Exhibit of Industrial Finishing was held at the Boston Sheraton Hotel and John B. Hynes Auditorium, June 28 - July 2, 1981. Paul F. Reddy was general chairman and Charles Levy exhibit chairman. There were 13 sessions on the technical program, MFSA hosted a Night at the Boston Pops, and there were seven plant tours, a spouses' trip to Newport, RI, and a clambake. Exhibit participation showed 150 exhibitors. Dr. Rolf Weil, known for his investigations of the structure and properties of electrodeposits, was selected as recipient of the Scientific Achievement Award.

Membership was growing and for the first time in 10 years was well over 8000, hitting 8475. There were 480 Research Sustaining Members and 11 Research Patrons. President

## Symposia and Conferences

The largest AES conference is the Annual Technical Conference held in conjunction with the annual meeting of the Council of Delegates and Exhibit of Surface Finishing, SUR/FIN. Free-standing symposia and conferences on specific subjects have been provided for some two decades.

In 1966, the First Plating in the Electronics Industry Symposium, brainchild of Past President Robert L. Ruleff, was held in Newark, with the unexpectedly large attendance of 600. In Diamond Jubilee Year 1984, the 11th took place in Orlando, in February. An AES Symposium on Electroforming was held in Dallas in 1967. In 1974, a symposium on the same subject was co-sponsored with ASTM. In March 1983, the AES International Symposium on Electroforming/Deposition Forming held forth in Los Angeles. AES also has co-sponsored many Aerospace Finishing Symposia.

AES conducted an OSHA (Occupational Safety and Health Act) Symposium at the University of Chicago, December 1972. The first Decorative Plating Symposium was in Detroit, November 1973. The first Continuous Strip Plating Symposium, proposed by Past President Edwin J. Smith, came into being in 1974. The fourth was in Chicago, May 1984.

A Pollution Abatement Symposium was another first for 1974. The AES/EPA Fifth Conference on Pollution Control for the Metal Finishing Industry was held in Orlando, January 30 and February 1, 1984.

The first Printed Wiring and Hybrid Circuits Symposium made its appearance in 1976. There was a Zinc Symposium in 1977. The following year, 1978, the first Thickness Testing Symposium was sponsored by the Syracuse Branch.

The year 1979 saw the first Interna-

tional Pulse Plating Symposium. Also, a joint conference was held with the Aluminum Association, April 1979.

Two symposia in 1980 were: the First Plating on Difficult-to-Plate Metals, and the AES Symposium on Economic Use of and Substitution for Precious Metals in the Electronics Industry.

The AES Design for Plating Symposium, February 1981, was conducted in Lake Buena Vista, FL. The First Electroless Plating Symposium debuted in 1982, and the second was in Orlando, February 2 and 3, 1984. The Federal/State/Municipal/Industrial Waste Control Management Conference for the Surface Finishing Industry was conducted in Orlando, January 1983.

In September 1983, a Symposium on Cleaning, Pickling and Etching was given in Toronto, Canada. All of the above were AES meetings.

Informative presentations are given each year at the Regional Conferences.

James E. Voytko spread the word about AES at the international level, visiting Japan and China in late 1980, and the Institute of Metal Finishing, England, in May 1981. In his annual report, Mr. Voytko mentioned that a new group, the Golden West Regional, had been established and that an organizational change conceived by the Advance Planning Committee would establish a new Technical Activities Board. The plan would structure this board with a series of sections and committees providing for direct representation by individuals in disciplines such as electroless plating, vacuum coating, and plating for electronics.

Nine projects were summarized in the report of Research Board Chairman Robert Duva and Vice Chairman James H. Lindsay II. Among these was Project 58 on "Electrodeposition of Heat- and Corrosion-Resistant Alloys" at the National Bureau of Standards. "This year," said the report, "the Research Board has been considering the long-range direction of AES research programs. . . . The Research Board must maintain a balance between projects that have an immediate impact on the industry and those that are of a fundamental nature. Our current balance (two practical to one fundamental) is felt to be a good ratio to maintain in the future."

New symposia included The Economic Use of and Substitution for Precious Metals in the Electronics Industry and Design for Plating. A 15-minute film, *Surface Finishing—You Can't Live Without It*, was completed to acquaint the public with the importance of surface finishing in daily life. The film was successfully distributed and has been viewed by more than 6 million people to date.

President Harry J. Litsch, Executive Director J.H. Schumacher Jr., Technical Editor William H. Safranek, Past President M.H. "Duke" Dent, and former AES Director Milton Nadel attended the technical conference EBRATS in Sao Paulo, Brazil, during October 1981. Mr. Safranek gave a paper on high-speed plating and Mr. Dent reminisced about the early history of the ABTG Branch. Mr. Dent and the late Paulo Ribbe were forces in its beginning.

Also in 1981, individual names denoting the Proctor, Lane and Wells Awards were eliminated. In the same order, they are now known as AES Leadership, AES Industrial Achievement, and AES Service Awards. In other changes, new members were to be billed on the anniversary dates of their memberships rather than pro rata, based on the fiscal year. Computer billing made this desirable.



(L-r) Alan Grobin with two Scientific Achievement Award winners—Bill Safranek (1979) and Harold Wiesner (1983).

AES lost another past president, Herberth E. Head, on May 25, 1981. He had been president of the Detroit Branch and a delegate for 25 years. He received the AES Award of Merit in 1961 and was chairman of the Membership, Education and Proctor Award Committees.

Dr. Edward Parker, 73, died on June 8. He was affiliated with the Providence-Attleboro Branch and was an AES honorary member, Research Board chairman, recipient of the AES Gold Medal Award in 1951, and one of the founders of Technic Inc. in the early '40s. Ronald A. Shaw, former member of the Board of Directors, also passed away in 1981. He was a past president of the Western Ontario Branch.

The growth and development of AES outside the U.S. continued in 1982 when the Taipei Branch in Taiwan received a temporary charter. By year's end, the Society's operating budget exceeded the \$1 million mark.

The First AES Electroless Plating Symposium, addressing both nickel and copper, was held in March 1982. The increasing applications of electroless plating for printed circuit boards, oil-drilling equipment and other uses were largely responsible for the attendance of 250 finishers.

Beginning in 1982, the member-at-large classification was eliminated. Such existing members were given their choice of branch affiliation, or, alternatively, to be assigned one. New members would be assigned to a branch, without election. Furthermore, a new International Branch was created. By eliminating the member-at-large category, the Society made it possible for all members to hold office.

The 69th AES Annual Technical Conference at the San Francisco Hilton and Tower was held from June 20-24, 1982. Jack Dini was general chairman. The concurrent Exhibit of Industrial Finishing opened on June 22, with Joe Payne as chairman and more than 150 exhibitors. The educational program presented some 85 papers in 21 sessions. In general the session topics followed the pattern of previous Conferences, but with sessions devoted to powder coating, alternative deposition processes, electroplating for optics applications and statistical design and computer modeling. MFSA was host to AES attendees at a Gay Nineties Ball and at the Prebanquet Cocktail Party. The technical program, exhibition and committee meetings were held in the George R. Moscone Convention Center, site also of two new features, the Jobshop Center and the Technical Talk Center. Dr. Rolf Weil, Stevens Institute of Technology, delivered the William Blum Lecture and Fred Pearlstein, U.S. Navy Aviation Supply Office in Philadelphia, received the 1982 AES Scientific Achievement Award. Mr. Pearlstein, in his work on coatings for military use, has been involved with electroless plating, chromating, anodizing and many other finishing processes.

In the spring, President Harry J. Litsch and Executive Director J. Howard Schumacher Jr. represented AES at the International Union for Electrodeposition and Surface Finishing in Zurich, Switzerland, and at the Annual Conference and Exhibition of the Institute of Metal Finishing (IMF), Brighton, England, May 4-8.

Membership had increased to 8713, with 476 Research Sustaining Members and 12 Patrons. Moreover, a second film was being produced. *How to Run a Successful Meeting* was done to assist AES branches in conducting their get-togethers and technical sessions in a professional manner.

In his annual report, President Litsch again brought up the question of whether or not the Society's name was appropriate. "We are actually engaged in 'surface finishing,'

which clearly differs from simply 'electroplating.' Based on this observation," he said, "and the fact that international development is strongly on the upswing, a name that adequately encompasses these characteristics should be selected. If I were asked to pick a name at this moment, I would say the International Surface Finishing Society."

Research Board Chairman James H. Lindsay II reported on seven projects, the newest being Project 60, "Field-Evaluation of a Prototype Donnan Dialyzer" at Southwest Research Institute. Dr. Lindsay mentioned in his report, "The AES research program has, as its primary product, research and development. But a number of side-benefits accrue. In projects undertaken at universities, the work often is assigned to one or more graduate students. As a result these people are exposed to the surface finishing field and may be influenced to choose a career in our industry. In projects undertaken elsewhere, jobs are provided."

The new Technical Activities Board completed its first year of operation under the chairmanship of William G. Millman. There were five operating sections: Electronics Finishing, Decorative and Functional Finishing, Light Metals Finishing, and Allied Technologies. The Allied Technologies Section incorporates Plasma Coating, Vacuum Coatings, Airline Plating Applications, Organic Finishing and Chemical Pretreatment, and represents the Society's determination to address all areas of surface finishing technology.

In other 1982 news, a Group Life Insurance Plan was made available to members, branches and regionals and the Society acquired 8 acres in the Central Florida Research Park for construction of a new International Headquarters. The Fifth Edition of the *AES Shop Guide* was also published. A computerized retrieval service accessing more than 300 databases was offered by AES in conjunction with the University of Central Florida. Thus, computerized searches of the volumes of technical literature that AES



(L-r) Nine-time AES Treasurer Charles Fotheringham, 1983-84 President Herb Tilton, Past President Cort Platt (1982-83), Executive Director J. Howard Schumacher, President-Elect Jack Dini, and Past President Harry Litach (1981-82).



Fred Pearlstein garnered Scientific Achievement Award in 1982. He is also an Intensive Training Course Instructor.

activities and publications helped to create can now be scanned and selectively retrieved in a matter of minutes.

The obituary column for 1982 included the "Father of Electroplating" in Australia, Benjamin W. Armstrong. He was the first president of the Sydney Branch. W.E. Cooke, an expert on aluminum finishing, died on June 6. He presented papers at AES Annual Conferences and was particularly active in the Light Metals Finishing Section. Harold E. Ellis, an honorary member of the Rockford Branch and chairman of the Research Sustaining/Patron Membership Committee for many years, was lost to the Society in July. He established the Forging Ahead Award and received the Proctor Leadership Award in 1970 and the Wells Service Award in 1980. Robert L. Ruleff, 1973-74 AES president, died in October. At his death, he was a member of the Miami Branch, but had been long involved with Dayton. He had chaired the Books and Symposia Committee and the Technical Education Board. Prior to moving to Florida, he had been with NCR Data Terminal Division and had owned a plating shop.

Dr. Earl J. Serfass also passed away in '82. He was associated with AES research for many years and was director of Project 29. A graduate of Lehigh University, he eventually headed the chemistry department there and formed the Serfass Company in 1952. It was acquired by Milton Roy Company in 1959.

### Jubilee Year Approaches

With the advent of 1983, plans were being formulated to celebrate the AES 75th Diamond Jubilee Anniversary in 1984. The most important event would be the building of the AES International Headquarters on 7.6 acres of land acquired for \$300,000 in the Central Florida Research Park. Value of the land has more than doubled since the July 1982 purchase.

The 17,000-square-foot building, expected to be occupied by September 1984, is being designed expressly to fit the needs of the staff and equipment and to provide for current and future society growth and membership needs. The Winter Park building was sold in mid-1983 for approximately three times the original purchase price and the money placed in an interest-bearing account to defray the cost of a low-interest-rate Industrial Revenue Bond funding the project. The building was leased back until the new Headquarters is occupied. AES President Herbert Tilton, Past President Cort Platt, and Executive Director Schumacher broke ground for the new Headquarters with a gold-plated shovel in September 1983.

The dues were increased to \$40. The per capita tax became \$31, allowing \$9 for the branches. The increase was not linked with the building of the new Headquarters. It was necessary for *P&SF* operations, and to endeavor to have dues provide for a more reasonable and equitable financial base in proportion to total percentage of Society income.

The First AES Federal/State/Municipal/Industrial Waste Management and Control Conference for the Surface Finishing Industry was held in Orlando, January 10-11, 1983, with the purpose of introducing attendees to the many types of equipment and methods for pollution control. The First Electroforming/Deposition Forming Symposium occurred on March 23-24 in Los Angeles.

In conjunction with the 10th Plating in the Electronics Industry Symposium, February 1-2, 1983, San Francisco, there were meetings of the Technical Activities Board, Electronics and Electroless Finishing Sections, the Meetings

Section, the Publications Board, Certification Committee, Educational Activities and Alloy Plating Sections, and the Technical Education Board, Vacuum Coating and Education Committees. These many divisions, and others, collectively form the mechanism to keep the Society in the mainstream of coatings technology.

There were now 46 Illustrated Lectures and a new 15-minute film telling the AES story. *AES—The Surface Finishing Society* explores Society functions in live action to show the educational opportunities, services and camaraderie available today.

SUR/FIN '83, the 70th AES Technical Conference and Exhibit of Surface Finishing, was held in Indianapolis, June 26 to 30, with an attendance of 3600. Paul Johnson and Richard O. Watson were co-chairmen. Frank Hartwig was exhibit chairman. Sixty-eight papers were delivered in 13 technical sessions, with management a new subject offering. There were some 150 exhibits at the Indiana Convention-Exposition Center and 30 presentations on exhibitors' products and services at the TechTalk Center. Three plant tours, daily programs for spouses, guests, teens and 'tweens, an outing to the Indianapolis Speedway, and an MFSA "Young at Heart Night" all will be remembered by attendees.

Past President Simon Gary was named an honorary member of the Society, and Dr. Harold J. Wiesner received, posthumously, the 1983 AES Scientific Achievement Award. He was active in electroforming, hard anodizing, precious metals plating, lead dispersion plating and other processes at Lawrence Livermore National Labs. More than 50 boards, committees, sections and regionals held meetings during SUR/FIN, proving how AES has expanded and diversified in recent years. The Society at this Jubilee time has an operating budget of more than \$1.4 million, showing remarkable growth.

Membership broke 9000 for the first time on March 31, 1983. There were 411 Research Sponsors (formerly Sustaining Members) and 10 Patron Sponsors. The One-on-One Membership Contest, beginning September 1, 1982, and ending Phase I on March 31, 1983, had a goal of doubling the membership by the 75th Anniversary. This could be accomplished with each member bringing in just one new member. Joseph Werbicki, Providence-Attleboro Branch, won the First Phase Award. He was far ahead of all other contestants.

In other news, the Scholarship Program, operating but a short time, had awarded six grants, and the Board of Directors authorized a temporary charter to the Hampton Roads Branch in Norfolk, VA. The ABTG Branch in Brazil received approval to change its name to Associacao Brasileira de Tecnologia Galvanica et Ratamentos de Superficie. Sur-

face finishing is now incorporated in its name. Los Angeles was chosen by the Council of Delegates as the site for SUR/FIN '88 and Cleveland for '89.

A revised Constitution was presented to the Council of Delegates at its July 1, 1983, meeting. It was rejected, except for Article X, *Dissolution*, a new addition. The proposed revision was returned to the Board of Directors with the request that the delegates have the opportunity to compare the existing with the proposed new Constitution, along with proposed changes in the Bylaws. This will be done at the July 1984 meeting.

The following was to be found in the annual report of President Platt: "The diverse interests of our Society are formidable. To increase membership we must keep serving the needs of the plater and continue to develop educational, training and research activities for allied sciences such as electronics finishing, organic coating, electroless plating, vacuum deposition, electroforming and ceramic finishing. We know from surveys that our membership has job-related interests in these areas, in addition to electroplating. The newly formed Allied Technologies Committee and its sections are responding to these needs."

Treasurer Fotheringham paid tribute to AES members in his annual report: "We continue to experience very significant volunteer participation in the conduct of AES affairs. I am continually impressed with the dedication and interest of our volunteer members who donate so much of their time and resources to Society affairs."

Dr. John Deuber, Research Board chairman, reported on the latest AES work, Project 61, "Electrodeposition on Anodized Aluminum Alloys" at Reynolds Metals Company. The ongoing recession had affected contributions to AES research, prompting Dr. Deuber to comment, "Since 1927, the AES Research Board has been committed to finding solutions for the problems facing our industry. The board routinely seeks co-sponsors in order to make our dollars go further; for example, EPA is expected to co-fund two environmentally related projects this fiscal year. Even so, shrinking contributions could interfere with the Research Board's objective." He urged the membership to reverse the trend so that the research program could continue to benefit surface finishers.

In early 1983 the International Branch was temporarily chartered and in June a list of CEFs was published in *P&SF*. Frank H. Schladen, active in plating for nearly 50 years, was made an honorary member of the Dayton Branch.

Deaths that year included Al W. Castillero, former member of the Board of Directors. He was a founder of the Orange County Metropolitan Branch. Dr. M.M. Beckwith, a consultant and former employee of GMC's Guide Lamp Div., Harshaw Chemical, R.O. Hull Co. and Conversion Chemical,

## AES Awards

The most prestigious is the Scientific Achievement Award, given to those who have made "outstanding contributions advancing the theory and practice of electroplating and allied sciences, raised the quality of products, or enhanced the dignity of the profession."

Annual awards are given for Leadership, Industrial Achievement and Service. An Award of Merit is frequently given.

Annual awards for papers selected as the best published in *Plating and Surface Finishing*, from those appearing during the period of a year,

are presented at the Annual Technical Conference. A Paper Awards Committee makes the selections. Awards also are made for best verbal presentations of papers.

Branches and members receive awards for increasing the membership of the Society.

died on March 30. Dr. Beckwith was a member of the Indianapolis Branch and a past chairman of the Research Board. AES 50-year member Vincent Mattacotti passed away on April 1. He had received the Lane Industrial Achievement Award in 1976 and headed the Milwaukee Plating Company. Finally, Robert F. Meyers of the St. Louis Branch was lost to AES in 1983. He had served on the Publications Board and two terms on the Board of Directors. He was also

a member of the Light Metals Finishing Section.

At the suggestion of First Vice President Jack Dini, a series of one-day concentrated courses was established. The first of these Short Courses, Solving Surface Finishing Problems, was held in Cleveland on October 10, 1983, followed by a two-day Symposium on Cleaning, Pickling and Etching. Lawrence J. Durney was course instructor and symposium chairman.

## Publications

Educating through the printed word is a paramount function of AES. Its most important publication is its journal, *Plating and Surface Finishing*. First published as *Quarterly Review* in 1910, becoming *Monthly Review* in 1914, the name was changed to *Plating* with the January 1948 issue and again changed to *Plating and Surface Finishing* in April 1975. Steven B. Isham is editor and William H. Safranek, technical editor. Its technical content, professional layout and four-color printing place it high among technical journals.

The technical papers must be offered for first publication and are required to be approved by two reviewers, expert on the subject. If a third opinion appears to be required, the technical editor acts as a reviewer. To reach members on all levels, a 50/50 balance of technical and practical papers is striven for; papers with new information are always sought.

Technical Editor Safranek states, "I'd like to see more survey articles that explore, in-depth, the pros and cons of competitive finishing processes (e.g., cadmium vs. substitutes; buffing vs. vibratory finishing; recovery vs. chemical treatment) and that quote scores of adherents to both sides."

Features such as Plating for Electronics, Finishers' Think Tank, Finishing Facts, Circuit Topics, and Finishing Tip of the Month contain usable data. The news of the branches, members, other associations, trade literature and new products can be found in every issue.

The annual *AES Shop Guide*, now in its fifth edition, is a useful addition to the publications.

The *Technical Proceedings* of the Annual Conventions, discontinued 20 years ago, was an entitlement of the members without charge. Today, proceedings of the Annual Conference technical program and many

symposia are available through AES at additional charges.

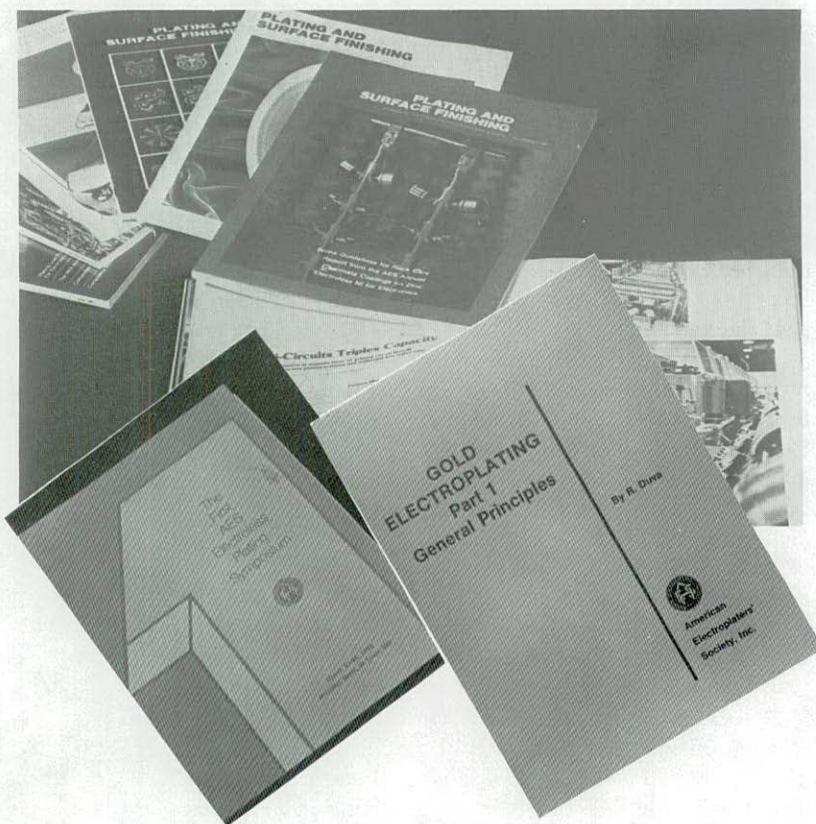
Books that AES has been responsible for include: *Electroplating Process Control Handbook* by Dr. D. Gardner Foulke, *Electroplating—Fundamentals of Surface Finishing* by Dr. Frederick A. Lowenheim, *Fundamentals of Electrochemistry and Electrodeposition* by Dr. Samuel Glasstone, *Finishing of Light Metals* by Dr. Gerald H. Kissin, *Hydrogen Embrittlement in Metal Finishing*, edited by Dr. Harold J. Read, and *Electrodeposited Metals Handbook* edited by William H. Safranek.

In the early 1960s, Dr. Donald A. Swalheim, then chairman of the Branch Education Committee, began the development of the Illustrated Lecture series. There are now 47 lectures, with accompanying 35-mm color

slides. AES acknowledges its indebtedness to the many firms that have produced the texts and slides, over the years. The texts, in pamphlet form, are obtainable, with optional slides, from AES Headquarters. They are used extensively by AES branches, educational institutions and finishing organizations in the presentation of lectures.

Experts on each subject authored the lectures. Many have been updated in incidences of technological advances. The 47 subjects cover the industry broadly. Moreover, about 25 new lectures on electronics finishing are being developed under Richard G. Baker, AES educational/technical director.

A listing of the available Illustrated Lectures appears regularly in *Plating and Surface Finishing*.



## Tilton Jubilee President

On June 30, 1983, The Council of Delegates elected Herbert Tilton AES president for 1983-84. He serves through the 75th Anniversary of the April 10, 1909, formation of the Society. Although formerly a plater, Mr. Tilton is the first supplier to attain the presidency of AES. A self-made, hard-driving individual, he has been deeply concerned with AES membership through many years of service on the Membership Committee and Branch and Regional Activities Board (presently the Member Services Board). Now that he is president, membership is more important to him than ever. He believes AES is far from reaching its potential in this area.

All AES presidents travel widely in office. President Tilton

seems to be on his way to some sort of record. He probably will visit a third of the AES branches and several regionals during his term of office. In October 1983, he attended with Executive Director Schumacher the Second SURTEC Berlin '83 in West Germany, as well as a meeting of the AES International Branch and the International Union for Electrodeposition and Surface Finishing.

Kergan Wells, AES treasurer from 1971 to 1976, died on November 18, 1983. An illustrious, second-generation member of the Toronto Branch, Mr. Wells had long served the branch as an officer and member of the executive group. His father, W.W. Wells, was a founder of the branch. Kergan served on the AES Project Committee at the Ontario Research Foundation and his firm has been a consistent Research Patron of long standing.

## The Pot and Past Presidents

The story of the Order of the Pot was written by its originator, 1947-48 National President Kenneth M. Huston, and published in the March 1958 issue of *Plating*. The tale is told best by Ken Huston so here are portions of it.

An "important event was Tom Slatery's (1935-36 national president) presentation of a 'pot' to Walter Pinner upon the occasion of his visit as president of the AES to the Baltimore-Washington Branch in 1946. Pinner had related to his third vice president, Ken Huston, how he had played a practical joke upon one of his supervisors at the Danville, IL, Manhattan Project. This resulted in a 'fur-lined pot' being presented to the boss by an unsuspecting secretary at the annual Christmas Party. Huston believed a humorous incident could be added to the evening's entertainment by giving Pinner a plated pot. It was a silver and cadmium plated echo box (used to check aviation equipment in World War II) with a gold plated handle.

"From these beginnings, the Baltimore-Washington Branch thereafter presented similar pots to Presidents Savage (1947), Huston (1948), Johnston (1949) and Logozzo (1950). Logozzo's was the last of the original aluminum pots. Each 'pot' that has since been presented... has been of copper. Holders of the original aluminum pots are considered today as Charter Members of the Order."

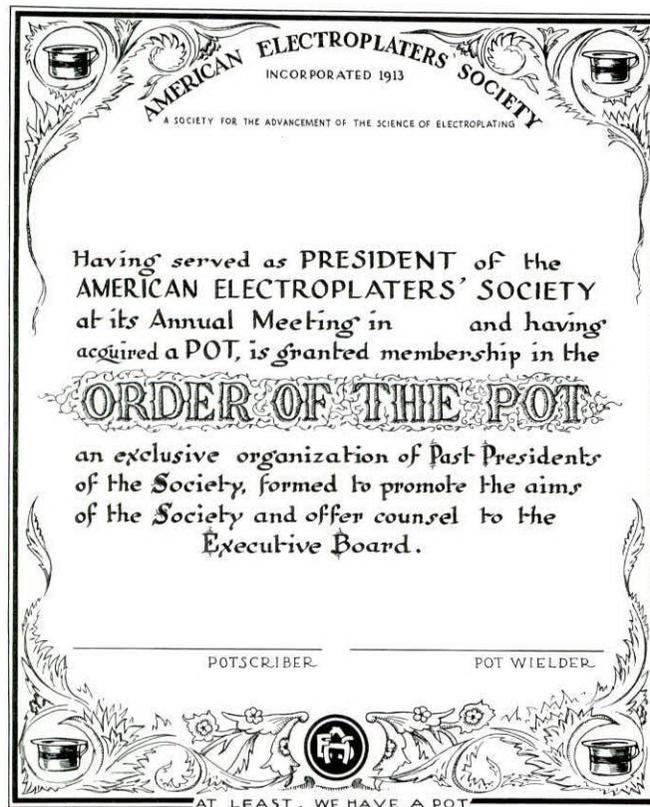
The Order of the Pot was formally organized in 1949 and its first dinner meeting was held in Buffalo in 1951. All of the living past presidents prior to 1946 joined the Order in 1952.

It became evident in 1954 that the

name "Order of the Pot" made it difficult to hold serious recognition of its object of "a group of experienced leaders to whom the Executive Board and others may turn for counsel in furtherance of the aims of the American Electroplaters' Society." A letter ballot vote of past presidents resulted that year in change of the name from "Order of the Pot" to "Order of Past Presidents." (When it was the Order of the Pot, the chairman was known as the potwielder and the secretary was the potscriber.)

The Pot is still presented to the outgoing AES President at the annual banquet of the Baltimore-Washington Branch, each April. Since the death of Ken Huston, the production of the Pot has been faithfully performed by AES Past President Arthur G. Pierdon.

The Order of Past Presidents meets at the AES Annual Technical Conference, and presents an award plaque each year at the banquet to someone (not necessarily a member of AES) worthy of "recognition of exceptional service" to the AES.



"Order of the Pot" certificate.

### The 75th Year

The AES 75th Diamond Jubilee year started auspiciously in January with about 1000 attendees at AES Week in Orlando, FL. There were board, committee and section meetings, a Short Course in Gold Plating for Electronic Applications, a Short Course on Plating Through-Holes in Printed Circuits, the 5th AES/EPA Conference on Pollution Control, the 11th Plating in the Electronics Industry Symposium, and the Second Electroless Plating Symposium—all of which were well received. Also in January, the AES named its first Educational/Technical Services Director, Richard G. Baker, who logged 16 years with Bell Laboratories as supervisor of the Corrosion Engineering and Metal Finishing Group. His responsibilities: to interact with AES volunteers in establishing and overseeing educational programs and to further the Society's involvement in all areas of surface finishing.

The great event for 1984 is the celebration of the Society's Diamond Jubilee at SUR/FIN '84 at the New York Hilton, New York, July 16-19. It is the 71st AES Annual Technical Conference and Exhibit of Surface Finishing. Herman N. Hammer is general chairman and Daniel B. Paris exhibit chairman.

So the Society returns to New York for its Jubilee celebration. Particularly fitting because it is the city of its founding. The organizational meeting was held at the Chelsea Hotel on April 10, 1909. That hostelry celebrated its 100th Anniversary in 1983 and is still a residential hotel of distinction. The return to New York is not only to the city of AES origin, but also to the same hotel the Annual Conference (then Convention) was held in 1965. It has space for all activities, including the exhibition, under one roof.

The program set up by Chairman Hammer takes on an anniversary glow. The July 17 opening session is unusually interesting and will be open to spouses and guests. An exercise program is an innovation. A plant tour to Pan American Airlines, under Chairman William Sepp, will be a treat for attendees. The technical program, with some 90 papers, offers new work on many finishing subjects: electroless plating, electroforming, electronics finishing, anodizing and dispersion coatings, to name a few. A 230-booth exhibit featuring the latest in equipment, processes and services, is another highlight.

Jack Dini has been nominated as 1984-85 AES president. He has long service on Society boards and committees and in-depth familiarity of AES operations. As chairman of the Advance Planning Committee, he thoroughly explained its organization and purposes in the July 1983 *P&SF* editorial, "Advance Planning: What It Can and Will Do."

"The current objectives of the Advance Planning Committee include broadening the scope of AES, strengthening the branches, encouraging more membership involvement in Society affairs, emphasizing membership retention and dues, and determining an accurate member profile," said Mr. Dini. "The Advance Planning Committee is relatively new—its first meeting was held in January 1980." This is

perhaps more accurately a rebirth, rather than a "new" committee. Nearly 20 years ago, AES had a Forward Planning Committee. In June 1972, an Evolutionary Planning Committee was formed. New starts or "rebirths" are needed when there is continuous changing of officers, and board and committee members. The new Advance Planning Committee has made an auspicious beginning and is expected to have an impact on the future history of the AES.

With more members than ever before participating in greatly expanded boards, sections and committees and the prospect of even better services at Headquarters, AES is justifiably proud at its 75th Diamond Jubilee Celebration. And the look ahead holds great promise for fulfillment of its mission as set forth in the current AES Constitution:

"To improve and disseminate knowledge of the arts and sciences of electroplating and the deposition and finishing of metals, allied arts, and to develop a cooperative spirit of friendship and mutual assistance among its members."

For 75 years, AES has served the needs of surface finishers—from the foremen platers of 1909 to the finishing professionals worldwide of 1984. This international organization has a proud tradition and looks forward to accepting the challenges of the future. □

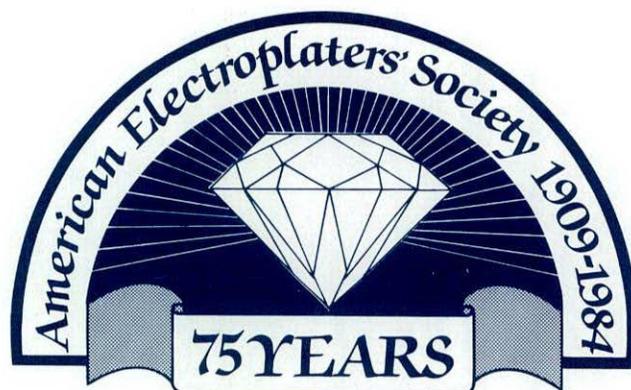
### Acknowledgments

Especial gratitude to Ezra A. Blount for making available his preliminary work. Appreciation to *Metal Finishing* for the use of its library, and to Arthur G. Pierdon, William H. Safranek, Dr. Donald A. Swalheim, Dr. D. Gardner Foulke, Dr. Samuel Heiman, I. William Marcovitch, Joan Harrison, Mary Lou Dowdell, Herbert Tilton, Herman N. Hammer, Steven B. Isham and Stephen H. Roiter.



### About the Author

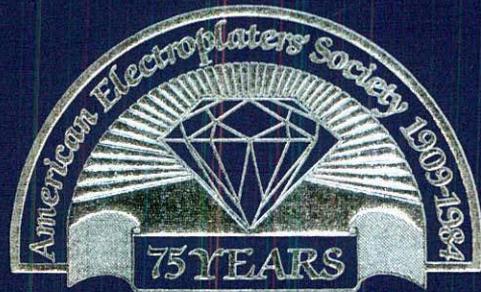
Rodney Leeds retired as editor of "Plating" and as general manager of the AES in 1973, after 17 years of distinguished service. A resident of Cedar Grove, NJ, Mr. Leeds holds honorary membership in both the AES and the Newark Branch. Prior to joining AES, he served in a variety of editorial posts with newspapers and magazines.



*Diamond Jubilee*



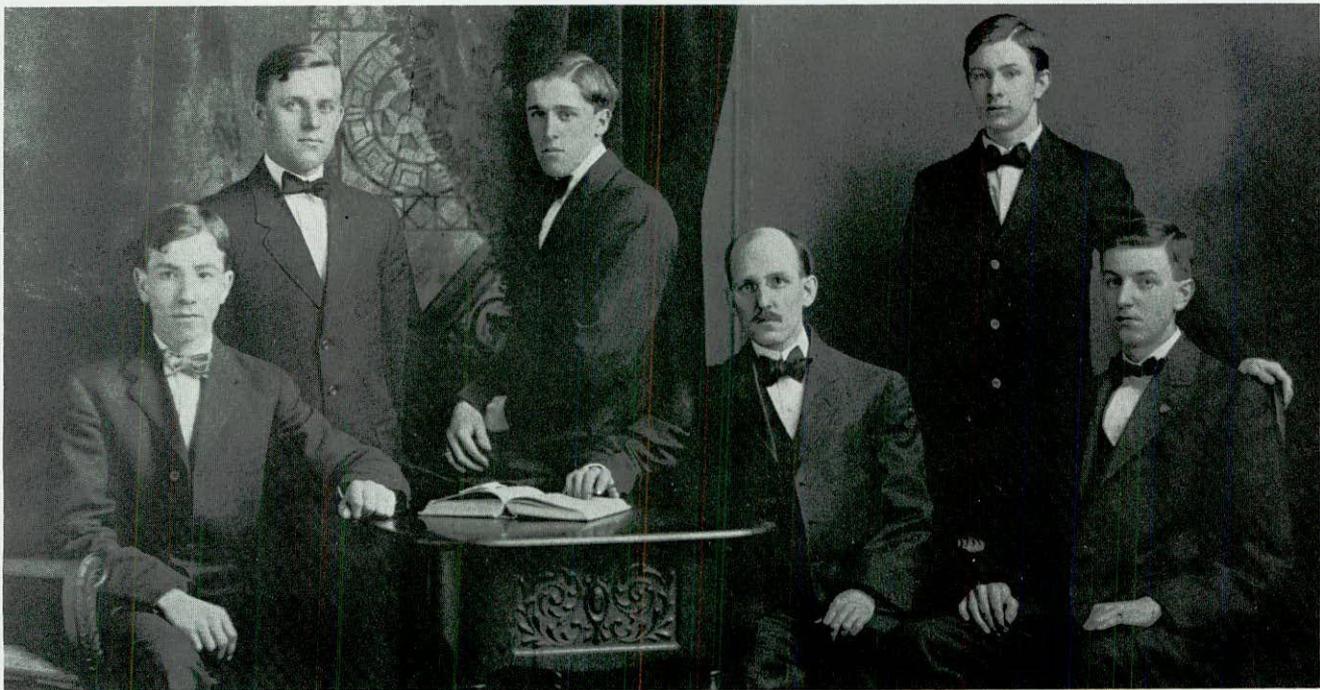




*Diamond Jubilee*

*Seventy-Five Years*

1909-1984



First AES Executive Committee (1910). Only identifiable individual is George Hogaboom (fourth from left), second Society president. Can anyone help with the others?

## Collated by Rodney Leeds Foreword

Seventy-five years in the life of the American Electroplaters' Society embraces so vast an amount of activity by individual members, officers, boards, sections, committees, branches and regionals that, to present a complete history of the Society, a monumental publication—far beyond the scope of this treatise—would be required.

The first 50 years were related at the Golden Anniversary in 1959 by John P. Nichols, and published in *Plating* (June 1959) and as a separate pamphlet, titled *Milestones of AES*. A significant portion of that material is now republished with some rearranging, updating and additions.

No attempt is made to include the fascinating history of the surface finishing industry for the 75-year period.

Looking back three-quarters of a century, the life span of the American Electroplaters' Society brings vividly into focus a host of individuals whose vision, selfless contribution and labor have brought the organization to its present state of greatness.

On March 6, 1909, when the salary of foremen platers was on the order of \$27.50 weekly, Charles H. Proctor, a farsighted New Jersey plating and foundry supervisor, achieved his cherished dream by inspiring a meeting of some two dozen foremen platers at the old Hotel Chelsea in New York, NY, for the purpose of creating a non-profit association to advance the science of electroplating, metal finishing and allied processes.

Friday, March 19, the same pioneering group, with some enthusiastic additions, met again, this time at the Big Apple's historic Astor House, for further consideration and action. Out of their thinking and planning, the National Electro-Platers Association of the United States and Canada (NEPA) came into formal being at an organizational meeting held at the Chelsea Hotel, Saturday, April 10. There, the infant association's Constitution and Bylaws were approved by 60 charter members, and founder Charles H. Proctor was elected NEPA's first president, with Benjamin W. Gilchrist,

secretary; Nathan S. Emery, treasurer; George B. Hogaboom, librarian. Among the founding members who were to be prominent for many years in the industry were: Harry C. Bernard, Royal F. Clark, Frederick C. Clement, Edward W. T. Faint, Palmer H. Langdon, Frederick F. Pierdon, William Schneider, Horace H. Smith, Justus A. Stremel and Thomas A. Trumbour.

NEPA became incorporated as a New York non-profit educational association on October 18, 1909. The principal reasons for incorporation were fourfold: (1) to advance and disseminate "knowledge concerning the art of electro-deposition of metals," (2) to maintain a laboratory equipped for research work, (3) to conduct meetings for the purpose of presenting papers on appropriate technical and scientific subjects, and (4) to publish technical literature.

Within 3 months, NEPA had conducted its first Annual Banquet at the Old Marlborough Hotel in New York. This was the forerunner of today's Annual Technical Conference, SUR/FIN.

The organization had three classes of membership. "Active Members" had to be foremen electroplaters or electrochemists "Associate Members" were employees of supply houses. "Honorary Members" were described as men of knowledge preeminently valuable to the association. It had a board of trustees consisting of five members, three of whom had to be electroplaters. There were 17 officers; a president, 10 regional vice presidents, a recording secretary, a corresponding and financial secretary, a treasurer, a librarian, a sergeant-at-arms and an assistant sergeant-at-arms.

The association met monthly on the first Saturday. Annual dues for active members were \$5—but just \$3 for associate members. The president could grant a charter to any applying body of foremen electroplaters and electrochemists if the application was approved by two-thirds of NEPA's members.

On September 10, 1910, the first branch was formed in Philadelphia by charter member F.C. Clement of the Victor Talking Machine Company.

### The First Journal

Needing a medium of its own through which to further the knowledge of its members, NEPA inaugurated a quarterly magazine in June 1910 titled *Quarterly Review*, progenitor of *Monthly Review*, *Plating*, and today's *Plating and Surface Finishing*. The original print order was for 500 copies.

Though NEPA's headquarters was then located in New York and its members met at 309 W. 23rd St., its first editorial office was in the Jersey City home of the *Quarterly Review's* first editor, August G. Hoffman. George B. Hogaboom assumed the editorship in March 1911. Under his guidance—and aided by such associate editors as Adolph Wahl, Amos G. Reeve, Royal F. Clark, John E. Grant, Frederick C. Clement and Charles H. Proctor—the quarterly made rapid headway. That same year a new branch was formed in Rochester, NY.

### First Exposition

The year 1912 saw NEPA, now with 144 active members, make even greater progress. It became international by the formation of the Toronto Branch in Canada. Walter S. Barrow, who was to become the fourth president of AES, was the principal organizer of the Toronto Branch and was its first president. Among the 24 charter members were W.W. Wells Sr. and Jr. The Wells name is still prominent in the Society in its 75th year. Branches were also chartered in Indianapolis, Detroit, Chicago and St. Louis.

NEPA's third banquet not only was by far its largest but also featured (quoting *Quarterly Review*) the "first exhibition of electroplating apparatus and finishes in the United States." Held in New York, Saturday, February 10, 1912, as the afternoon phase of that Third Annual Banquet, "the informal exhibit—worked up only 10 days before the banquet—met with such willing responses from manufacturers of electroplating supplies," said the *Review*, "that nothing short of a full-fledged exhibition will satisfy the demands for next year."

The Egyptian Lacquer Manufacturing Company of New York provided badges for the day. "The buttons," *Quarterly Review* reported, "were consecutively numbered, and as

each guest arrived, the Reception Committee had him register, then presented him with a badge. On one of the walls of the room was a bulletin headed 'Introduce Yourself,' and opposite the corresponding number of each badge was the name and address of each guest. This feature added much to the pleasure of the day, and through it, many old friendships were renewed, and men known to the trade by name only became acquainted with their fellow-platers." The exhibitors' list ran the gamut of that era's progressive and growing source of supply. Some are with us in 1984.

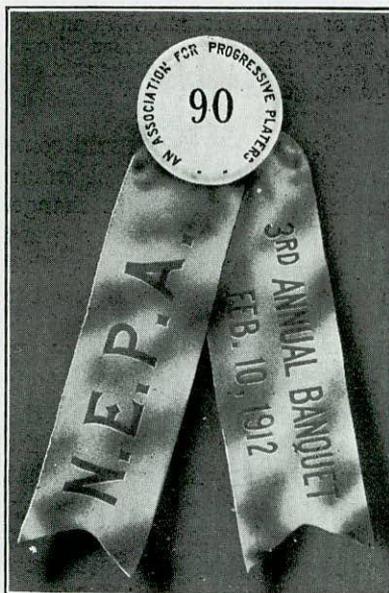
That same 1912 winter evening, 182 NEPA members and guests, males all, convened at the banquet itself compared with 130 the prior year. "The hall," according to *Quarterly Review*, "was beautifully decorated, and multi-colored carnations were scattered over the tables. Elegant engraved menu cards upon which the emblem of the Association was embossed in gold were the gift of the Celluloid Zapon Company."

President Charles H. Proctor, NEPA's founding father, was toastmaster. Among technical papers presented at that evening's meeting was "Galvanizing" by Louis Pothoff, president of the United States Electro-Galvanizing Company of Brooklyn, NY. "It was illustrated by many stereoptican views made especially for the occasion."

From the Eureka Pneumatic Spray Company each guest received an ash tray finished in old ivory. The same source presented President Proctor with a large statue of Venus de Milo finished in verde antique. Philadelphia Branch President Clement was honored with a pair of Bonheur models of the lion and lioness—finished in black with verde relief—and a 20-inch statue of "The Athlete" was given to the newly organized Indianapolis Branch.

### From NEPA to AES

But 1913 was an even more eventful year for burgeoning NEPA. It reorganized on June 1 as the American Electroplaters' Society, with a membership of over 350. With the creation in 1913 of the Newark, Milwaukee, Dayton, Cincinnati and Buffalo Branches, the Society had issued 13 charters.



Ribbon for 1912 banquet of National Electro-Platers Association of United States and Canada, forerunner of AES.

### The Annual Conference, SUR/FIN

The Annual Technical Conference, AES SUR/FIN, serves multiple purposes. It provides for the presentation of a technical program, annual meeting of the Council of Delegates and an industrial exhibit.

More than 10 years ago, the term Annual Convention was changed to Technical Conference. The Industrial Finishing Exposition has become the Exhibit of Surface Finishing. All included under the catchy nomenclature, SUR/FIN.

The Council of Delegates holds its annual meeting to elect the officers and directors of the Society, receive reports, and conduct such other business within its jurisdiction. Boards, committees, sections and regionals hold meetings. Plant tours are provided.

These annual affairs are hosted by branches or regionals, and are held in the larger cities in the U.S. and Canada. The technical program has grown to as many as 14 sessions, presenting some 80 papers. A wide variety of subjects are covered, serving the interests of all segments of the industry. More than a hundred suppliers occupy booths to exhibit their processes and products.

Social functions fill the few off hours. A day or afternoon outing is usually part of the program. Special affairs and entertainment are arranged for the ladies, guests and youngsters. The Metal Finishing Suppliers' Association (MFSA) hosts an evening of pleasure and a cocktail party before the annual banquet.

To effect its transition, AES conducted its First Annual Convention on June 1, 1913, in New York, with founder Charles H. Proctor presiding. At that initial Annual Meeting of the Supreme Society, AES inducted its first national officers: George B. Hogaboom (New York), president; Col. J.H. Hansjosten (Chicago), first vice president; W.S. Barrows (Toronto), second vice president; John J. Schultz (Detroit), treasurer; and H.E. Willmore (Chicago), editor.

"The object of this Society," stated Article I, Section 2, of the new Constitution, "shall be the improvement and dissemination of knowledge concerning the art of electrodeposition in all its branches. All laws and rules must be so formed that the Society will promote no other object than the education of its members in all the principles of electrodeposition and coloring of metals."

The AES governing council was the Supreme Society (which continued until 1963), composed of three active members from each "Branch Society." According to the Constitution, the Supreme Society was "the Supreme Court of the entire Society" and its decisions were final.

Leadership, as previously mentioned, was then composed of the national president, first and second vice presidents, a secretary-treasurer, and an editor. These plus the immediate past president composed the Executive Board. The principal office was located in New York and the Society was a state non-profit corporation. The AES was required by its Constitution to maintain a publication.

As in NEPA, the membership classifications of AES were active members, associate members and honorary members. The Society's fiscal year commenced on June 1. Dues for members of "Branch Societies" were \$5 a year per person. Each "Branch Society" had to pay a 35 percent per

capita tax for the maintenance of the Supreme Society, payable annually in four quarterly installments.

Though today's AES Constitution and Bylaws are modern instruments kept abreast of changed times and needs, it is nevertheless amazing that so many of today's AES policies stem basically from the principles enunciated in that pioneering instrument framed by founding fathers so long ago.

The first issue of *Quarterly Review* in 1910 contained 28 pages with such technical articles as: "The Art of Decorating Metals with Pigments and the Production of Antiques" (Charles H. Proctor), "The Care of Lacquers" (W.A. Jones), "The Production of Matte Gold Finish" (Royal F. Clark), "The Electrical Side of Electroplating" (William Voss), "Water-Dip Lacquers and Their Use" (C. DeBraun), "Roman Color on Gold Jewelry" (Charles A. Stiehle), "The Rose Gold Finish" (Justus A. Stremel) and "The Green Gold Finishes" (August G. Hoffmann).

The June/July/August issue of *Quarterly Review* was the first under the aegis of AES. Grown to 48 pages and edited by Samuel R. Taylor, with the national president and all branch presidents as associate editors, it now featured a broader technical editorial scope with three articles on copper and brass plating, one on cleaning stove parts, one on acid zinc plating and several on general topics.

During these early days of AES, electroplaters closely guarded their knowledge and processes. An editorial in that same issue stated: "Narrow-mindedness and secrecy among the members themselves is to be frowned upon. No one should have joined the Society whose intention it was to have absorbed all the benefits to be had and give none in return. Let us be liberal in our knowledge to one another."

## Electroplating Courses

The AES Intensive Training Course is based on a selected group of 27 of the Illustrated Lectures. The 4½-day course provides basic knowledge of electroplating and finishing practices, which include the fundamental aspects of chemistry, electrochemistry and electricity. The course was conceived by Dr. Donald A. Swalheim, and was first given in Philadelphia in October 1972, with 46 students. Over 2000 students have taken the course. Eleven courses were given in 1983, including those in Singapore and South Africa. AES has been fortunate to have such skilled instructors as Dr. Samuel Heiman, Richard G. Baker, Lawrence J. Durney, Morton Schwartz, and Fred Pearlstein, in addition to Dr. Swalheim.

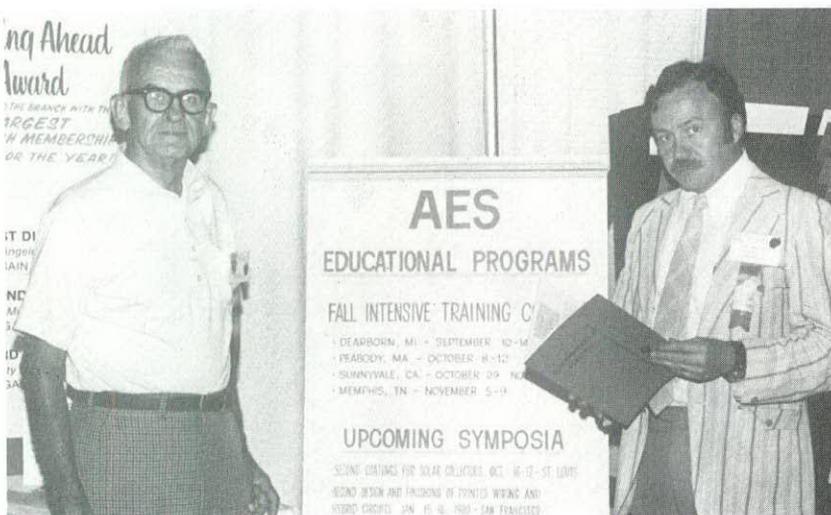
The correspondence course covers the same ground as the Intensive Training Course.

The new one-day Short Courses will cover many subjects. At Diamond Jubilee time, courses include: Gold Plating for Electronic Applications, Plating Through-Holes for Printed

Circuits, Solving Surface Finishing Problems. Then there is the 2½-day course, Environmental Compliance & Control, first given in 1980. A new Intensive Training Course in Surface Finishing for Electronics will debut this October.

Several branches conduct electro-

plating courses and have done so for many years. Among these are Buffalo, Chicago, Cleveland, Dallas/Ft. Worth, Denver, Indianapolis, Los Angeles, Montreal, Milwaukee, Newark, New Haven, New York, Philadelphia, Providence-Attleboro, St. Louis, Rockford and Toronto.

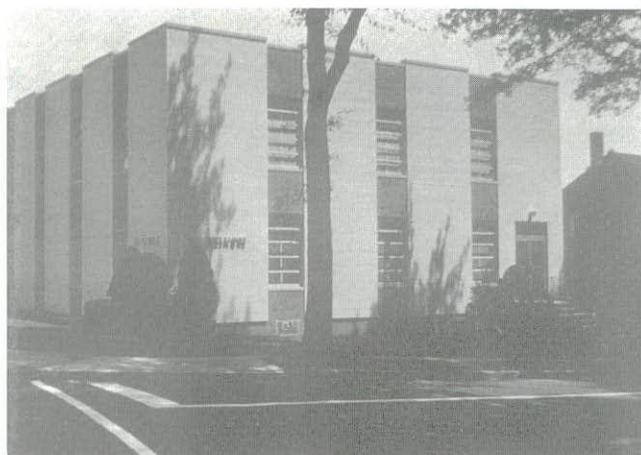


Dr. Donald Swalheim (left) with Earl Winters.

## Evolution of AES Headquarters



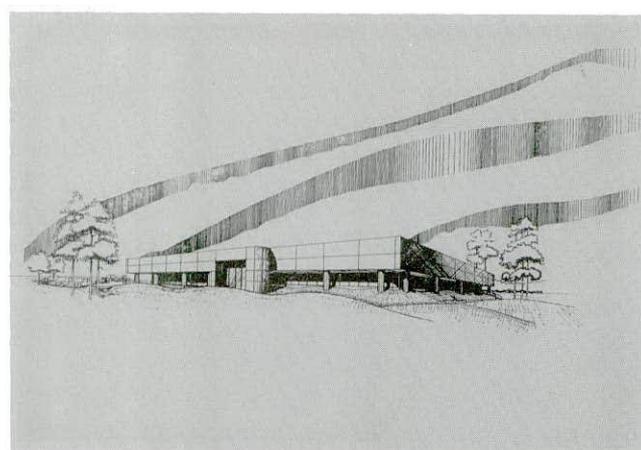
Broad St. location in Newark, 1952.



Moved to Melmore Gardens, E. Orange, NJ, in 1967.



Current facility in Winter Park, FL, was occupied in August 1976.



Artist's rendering of building to be occupied in Central Florida Research Park, Orlando, this September.

Growing membership and the Society's ambition to further technical knowledge resulted in increasing the frequency and thus usefulness of the official journal. In June 1914, the quarterly publication became *Monthly Review*. It was enlarged and was edited by H.E. Willmore.

In the December 1914 *Monthly Review*, the editor devoted considerable space to the role of the supply house. Here is a portion of his comments: The supply house "has been asked to be a veritable encyclopedia of information, and has been used as an employment bureau and in many ways has accomplished a great deal of good. It should, and I believe does, welcome the new conditions with acclaim, as all of the features which the Society cultivates tend to make these tasks easier in the future. The education of the plater will fit him to understand many things which have heretofore seemed mysterious to him and of which he has always been more or less skeptical and hence the selling of honest goods will become an easier problem."

By 1918, at the end of World War I, AES had increased its number of branches to 18—the additions being Cleveland and Bridgeport (1914), Toledo (1915), Syracuse and Providence (1916), and Grand Rapids (1918). Meanwhile, the Buffalo Branch, born in 1913, was terminated.

Within another year, the AES had chartered still another branch, Pittsburgh, and the Providence Branch had expanded by adding Attleboro, becoming today's Providence-Attleboro Branch. Membership was some 800 at year-end 1919.

At the Annual Banquet of the thriving Chicago Branch,

President Walter J. Fraine described the progress of that decade:

"We can look back over the past 10 years and can contrast the conditions prevailing at that time with those of the present. Every one of us realizes that an immense improvement has taken place in processes and methods, and it has largely been accomplished by the thought and work of the members of this Society. Every new process, method and material used has been placed at the disposal of all of our members through the papers of our Branch Societies and our Annual Conventions, adding to our knowledge and usefulness, and raising the standards of electroplating from an empirical art to a profession."

Despite the depression of 1920-21, the AES continued its progress. In 1920, it chartered a Reading, PA, Branch, and in 1921 added branches in Boston, Waterbury and Connecticut Valley (now Hartford). In that same year, it also launched a second Canadian branch, Montreal. Now there were 24.

### Research Introduced

In 1919, the National Bureau of Standards embarked upon expanded research in cooperation with private industry. The AES was among the earliest to enter into cooperative relationship with the bureau on important research to advance the science of electroplating and metal finishing. The bureau provided the equipment, space, supervision, and marshaled, tabulated and made the resultant data available to all concerned. The AES furnished the funds for man-

# METAL FINISHERS EXPOSITION

The first of its kind—a sure indication that the AES is a progressive organization especially the

## The Dayton Branch



### OBJECT :

To tell the world how art and science combined to produce the beautiful finishes on metal that are seen and admired in every home. For further information see page 9, 23-26.

**APRIL 9-14, 1923**

**MEMORIAL HALL, DAYTON, OHIO**

Promotion for Dayton Branch meeting In 1923.

power (one research fellow to start, more later). Dr. William Blum was the program's spark from origin. The Bridgeport Branch was the first to contribute to the AES research fund.

In order to provide efficient collaboration with the bureau and Dr. Blum and to establish sound AES direction and coordination over its program, including fund-raising, the AES established its first Research Committee in 1923. In 1925, it called for financial contributions not only from its branches but also from some 1600 American and Canadian manufacturers. The amount sought was \$50 apiece per year. As of May 1926, it had collected \$2450.

Among the first organizations to contribute to that first general research fund were: Bell Telephone Laboratories, Felt & Tarrant Co., Oneida Community Company, Ltd., General Motors Corporation, Crown Rheostat & Supply Co., International Nickel Co., American Zinc Institute, General Electric Company, G.J. Nikolas & Co., Canada Cycle & Motor Co., Wyandotte Chemical Co., Frederick B. Stevens Co., George A. Stutz Mfg. Co., Westinghouse Electric Co., The Meaker Company, and Hanson-Van Winkle-Munning Co. It is interesting to note that many of these same donors have continuously contributed to AES research to the present time.

### The Twenties and Thirties

In 1919, Mrs. Esther Zalia Jencks Gailey became the first woman to be granted AES membership. She was made an honorary member and to the present time is the only woman to hold that designation. She was with the National Bureau of Standards.

The *Monthly Review's* first pictorial illustration, a half-tone of a group photo from the AES 10th Annual Convention, Cincinnati, was published in 1922. It was there that the Constitution and Bylaws, as rewritten by an appointed committee of past presidents, was adopted by the Supreme Society, thereby keeping AES laws apace with the times.

At the 12th Annual Convention, held in Milwaukee in 1924, a hotel room with bath was \$3.50 a day, and the convention registration fee was \$6. That year, the Society created the Founders Gold Medal to recognize, "the best paper or progress showing a distinct improvement over what was then known in commercial practice." It also launched three prizes (Gold, Silver and Bronze Certificates) to honor top product exhibits. In 1925, AES journeyed to Montreal for its 13th Annual Convention, the first held outside the borders of the U.S.

Though membership grew, no additional branches were chartered after 1921 until 1929. Two were lost with the termination of Syracuse in 1924 and the dissolution of Reading in 1926.

AES spanned the continent in mid-year 1929 by founding the Los Angeles Branch, with 31 charter members. That same year, Worcester (terminated 1933, rechartered 1965) and Baltimore-Washington were chartered. The latter was organized by William F. Chase of the Agate Lacquer Company and New York Branch; Frederick F. Pierdon, its first president, a founder of the AES and of the ART Metal Finishing Company; Dr. William Blum of the National Bureau of Standards; and Thomas F. Slattery of the U.S. Bureau of Engraving and Printing who was soon to become national president of AES.

At fiscal year-end that May 31, 1929, the AES audit statement showed receipts of \$3350.30 and disbursements of \$3133.89 with total cash on hand amounting to \$2642.05 consisting of a savings account of \$2004.11 and a checking account of \$637.94.

As AES completed two decades of operation in 1929, it was composed of 25 branches, two in Canada. It had some 1500 members compared with 800 in 1919. It was solvent. It was rendering service to its industry, to its members, to the public. It had prospects, but ahead lay acute business problems.

The depression years 1929-1933 were difficult for AES and its members. The Indianapolis and Worcester Branches fell by the wayside in 1933. Branch resignations and suspensions swelled, and there were few elections or reinstatements. The Society's financial situation became such that, by late 1932, the Supreme Society, at the Philadelphia Convention that June, ordered that *Monthly Review* return to its *Quarterly Review* status for 1 year as a major economy. The AES technical staff in the Research Section of the National Bureau of Standards was reduced from six to four. In order to ease the financial load, the official journal, when it came back as *Monthly Review* in September 1933, carried advertising for the first time.

In that September issue, the following appeared in the editorial columns: "There seems to be a change taking place all around us. In our industrial life, we are faced with changes that would have seemed impossible a few months ago. The plating business must keep up with the new order of things. We have, in the September issue, taken a step forward which should help us financially. . . . Let us broaden our vision and include in our membership all who make plating their means of livelihood. . . . Our task is to bring these various groups under one head. . . ."

*Monthly Review's* first advertisers were MacDermid, Inc., United Chromium, Inc. (M&T Chemicals Inc. today), Frederick B. Stevens, Inc., American Brass Co. (Anaconda Copper), The Matchless Metal Polish Co., and E. Wambaugh Co. In its October 1933 issue, the publication opened its columns to classified advertisements at 10 cents per line, six words to the line. In that same issue, it carried, for the first time, the advertising of Crown Rheostat & Supply Co., The Abbott Ball Co., Maas & Waldstein Co., Ault & Wiborg, The Zapon Co., and the H.V. Walker Co.

The very first use of color in *Monthly Review* occurred in December 1937 when The Bruce Products Corp. used orange in its two-page advertisement. The first consistent color user, however, was the Hanson-Van Winkle-Munning Co., whose first color spread in the September 1939 issue introduced a practice that the company followed constantly throughout the years of *Monthly Review*.

Only two new branches were chartered during the depression years: the second Pacific Coast entry, San Francisco, and a branch in Anderson, IN, that disbanded in 1938. From 1930 to 1936, no new branches were added, although the Society did sponsor its first membership drive. T.F. Slattery, AES president in 1935, summed up the Society's position on membership very nicely.

"Heretofore," he said, "we have been inclined to sit back and wait for prospective members to come to us. Now, with industry on the upgrade, and assistant foremen eligible for membership, we owe it to the science and industry with which we are affiliated to contact every potential member in the U.S. and Canada. . . . This will make it possible for these fellow artisans to meet with us for the discussion of mutual problems, education, research, helping themselves and at the same time adding to our strength."

The subsequent economic recovery brought new expansion activity. The Springfield, MA, Branch entered the AES in 1936 together with Binghamton-Elmira, NY, which became Binghamton-Syracuse in 1939 and Syracuse in 1943. The New Haven and Buffalo entries were born in 1938.

In appraising electroplating advancements to 1938, George Hogaboom had this to say: "It was not until about 1918 that some attention was given to the need of a better understanding of the principles of electrodeposition of metals. . . . It is due today to electroplating that books are universally available. . . . Paper currency is printed from plates made by

electrodeposition of iron. . . our metal coins are embossed in dies that have been chromium plated by methods developed long after 1918. . . the general public has become, within the last 10 years, 'electroplating conscious.' . . . Progress can be no better illustrated than to note the increase of nickel for plating in the past 20 years. . . . Previous to 1920, about 500,000 lb of nickel were consumed as salts and anodes. In 1937, some 11.5 million lb were used in electroplating. . . ."

Streamlining of the AES award system was a priority task at the Society's 30th Anniversary Meeting in 1939. It recognized and honored individual and branch achievements with five chief awards:

1. The Founders Gold Medal was issued for the best paper by an active member on electroplating or allied subjects.
2. The AES Gold Medal was issued for the paper adjudged best by the Awards Committee prepared by an AES member, whether active or associate.
3. The Proctor Memorial Award was given for the best paper entered into competition by anyone, member or non-member.
4. The Sam Huenerfauth Award was presented for the best branch paper. Any branch winning three times kept the silver cup.
5. The Metal Industry Cup was provided for the best branch exhibit. In addition, there were individual exhibit awards.

### Entering the 1940s

As business recovery gained ground and as earning and spending power grew, AES resignations and suspensions dropped while applications, elections and reinstatements rose. On the technical side, Mr. Hogaboom ventured, "There has never been such definite progress toward the goal of the AES. . . The completion of the work and the report of the research on 'The Prospective Value of Electroplated Coatings on Steel' has made history."

As AES celebrated its three-decade birth year in 1939, it had not only recouped its substantial losses of the depression period but also made quantitative and qualitative headway. Compared with about 1500 members in 1929, it had some 1900 members in 1939. During the same period, the number of branches grew from 25 to 28.



**Charles H. Proctor, father of the American Electroplaters' Society.**

### Branch Secretaries

Branch secretaries play a key role in the operation of the Society. They form the principal line of communication between Headquarters and the branches. Many have served for very long periods of time. The record holder appears to be 40-year member I. William Marcovitch, secretary of the Philadelphia Branch for 36 years. Mr. Marcovitch was a member of the AES Board of Directors from 1971 to 1973.

Many past and present, with long periods of service, include: George Haas, Bridgeport; Charles R. Fotheringham,

Buffalo; Pedro Hidalgo Rivera, AMTEG; Joseph Calentone, Capitol District; R.W. Boos, Central Michigan; David Kaplan, Cincinnati; Paul B. Croly, Detroit; Stanley Platoz, Hartford; Ian W. Rose, Melbourne; Ward W. Kelly, St. Louis; Henry L. Heissfeld, Springfield; James R. Kennedy, Waterbury; Stan Scislawski, Western Ontario; Robert Horrocks, Newark; Harold Simon, Central Iowa; Joseph J. Werbicki Jr., Providence-Attleboro; Henry Bornitzke, Milwaukee; Paul Glab, Chicago; Joseph Rembecki and Michael Murphy, New York.

To expand to a targeted 2600 members by 1941, AES inaugurated its annual branch membership promotional competition in 1940 that has continued to recognize accomplishment through the years. To the winning branch, annually, in that era went the handsome AES Membership Trophy. Also of note: AES launched its first regional meeting in 1939. The group was composed of five branches—Bridgeport, Hartford, New Haven, Springfield and Waterbury—that initiated the yearly New England Regional Conference. By year-end 1940, AES had assimilated its 29th branch, Indianapolis, which succeeded the Hoosier capital's depression casualty of 1933.

In the early thirties, the AES as an educational Society had no part in the codification of industry negotiated under the government's National Recovery Act (NRA). It shared nonetheless in the movement for higher quality. An example of member sentiment was stated in the *Monthly Review* by Frederick F. Pierdon of the Baltimore-Washington Branch: "Even though the AES is not in a position to officially discuss such questions as wages and hours, it is the logical organization to propose standards of quality that may be incorporated into Codes. It is important, therefore, that all members of the AES become familiar with the plans of the NRA."

National associations and societies had received great impetus under the NRA. Still composed principally of foremen platers, chemists and engineers, AES concentrated on defense and war service within its power. And when World War II came, zinc, nickel, cadmium, copper, chromium and other critical materials of the Victory Program were there with it, though this era of short supply brought substitution, simplification, conservation and standardization. In its Annual Meeting program on December 6, 1942, the Detroit Branch had this to say:

"The function of the AES is going to be to keep interest in plating alive throughout the period of curtailment; to see that interest in plating does not cease; to see that plating is specified where it is of advantage to war; and that if it is possible to do some decorative plating without impairing the war effort, that this be permitted. It will be its function to see that an adequate body of men are kept acquainted with plating so that when the war is over, they will be able to make the world a better place in which to live. The Society has a great duty to perform during a discouraging period, but it will not fail."

As stated previously, AES started the war period pursuing a membership expansion goal of 2600. By autumn 1945 there were 4000 members. A branch in Lancaster, PA, was added

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Typical advertisement appearing in early 1940s issues of "Monthly Review," later to become "Plating and Surface Finishing."

**THE MONTHLY REVIEW**



**AMERICAN ELECTROPLATERS SOCIETY**

Cover of January 1943 "Monthly Review" stressed war involvement, to which the plating industry made great contributions.



Annual AES Convention banquet at Hotel Statler in Boston, June 12, 1941.

in 1943, and another in Jackson-Lansing, MI (today's Central Michigan Branch), was chartered in 1944. AES also took a major step forward by chartering the Australia Branch in Sydney, with 40 members. The Rockford, IL, and Twin City, MN, Branches were born in 1945. (The latter withdrew in 1959.) At this point AES had 34 branches—31 in the U.S., two in Canada, one in Australia.

Death dealt a hard blow to AES when it took William J.R. Kennedy on August 7, 1942. He was its long-time and very able executive secretary and *Monthly Review* editor. The first paid secretary of the Society, he had been the 1925-26 president of the Hartford Branch. Possessing a winning personality, he was greatly respected and beloved by the membership. Society funds were low during the depression, yet Bill Kennedy traveled by bus to many branches, paying his fare out of his own pocket and carrying with him a bag of sandwiches. AES President Ellsworth T. Candee succeeded Mr. Kennedy and established AES Headquarters at 545 Fifth Ave., New York.

Death struck again on December 3, 1942, when founder Charles Henry Proctor died at his home in Avon, NJ, at age 76. AES mourned his loss. "The AES," wrote First President

Hogaboom, "shall always be a memorial to Charles H. Proctor."

Dr. A. Kenneth Graham became executive secretary in 1945 and Headquarters was moved to Jenkintown, PA. Gustav Soderberg was named editor of the journal.

In 1945 the country was immersed in World War II and travel was strictly limited. The 1945 AES Annual Convention scheduled to be held in Pittsburgh was restricted to Society Delegates. About 50 attended. Because the regular convention was not held, Pittsburgh was again chosen as the site for 1946.

The qualifications for membership were changed at the 1945 1-day meeting to anyone who "had an interest in plating." However, some branches still insisted on 5 years as a plater and 2 years as a foreman. In 1946, members' dues were set at \$4.70 annually. In 1947, a five-man Constitutional and Bylaws Revision Committee was established to modernize and streamline those instruments in keeping with the Society's expanding status and needs. Headed by Arthur W. Logozzo (Hartford) and including Franklyn J. MacStoker (New York), F.R. Keller (Pittsburgh), Cleveland F. Nixon (Detroit), and Clyde Kelly (Chicago), the committee's revision was adopted by the Supreme Society at the Annual Meeting in Atlantic City, NJ, June 1948.

The first silver-plated "pot," or "Order of the Pot" (now the "Order of Past Presidents"), was presented in 1946 at the Baltimore-Washington Branch Annual Meeting to AES President Walter L. Pinner by the award creator, Past President Kenneth M. Huston. Thus, at the Maryland Yacht Club in Baltimore that spring was inaugurated the tradition of presenting to each outgoing AES national president a silver-plated, engraved "pot" in grand ceremony.

By 1947, expanding AES—now with some 5000 members—had reached another milestone: the metamorphosis of its



Walter Pinner (1945-46 AES president) with Ezra Blount (right) at a Phoenix meeting in 1972.



journal. From AES Headquarters in Jenkintown, PA, came this "obituary" notice from Editor Soderberg:

"This is literally and actually the last page of *The Monthly Review*. As was announced in last month's editorial columns, the January 1948 issue of this publication will bear the title of *Plating*. *Plating* will be larger in page size than *The Monthly Review* and will be distinctively styled with a new format. It will be easier to read, too, because it will have larger type in the text matter.

"The decision to enlarge the size of the publication was made several years ago, but the war, with its corresponding paper shortage, prevented carrying out the plan. January 1948 offered the first practical opportunity for this change.

"Active planning for the publication has been under way for over a year. There have been an untold number of staff conferences. Outside authorities in the plating and publishing fields have contributed generously with good advice. All who have seen the advance layout of the new format have spoken enthusiastically of it.

"We feel confident that our readers will receive the new look of *Plating* with enthusiasm," concluded Mr. Soderberg. "The same high quality, factual editorial content that has characterized *The Review* will form the basis of *Plating*. Interesting and useful new features will be added in coming months. And in the same manner that an electroplater adds a pleasing appearance to a finished product, we are attempting to make our editorial package as attractive as possible."

In December 1947, AES published its last issue of *The Monthly Review*. In January 1948, *Plating* made its debut.

Most AES Annual Conventions had included exhibits, but the first Industrial Exhibition per se was in 1947 concurrently with the 34th Annual Convention hosted in the Motor City by the Detroit Branch.

The second such exposition was held in Atlantic City the following year with the Newark Branch as Convention/Exposition host. These were the years of the executive secretaryship of Dr. Graham, sought after by many branches as technical speaker. For many years Hanson-Van Winkle-Munning Company offered three grand prizes at AES Conventions. In 1948, they were a Reed & Barton five-piece, silver-plated tea service and tray; an International Silver Company silver-plated water pitcher; and a silver-plated cigarette box, also from International Silver. There were about 100 exhibits at the 1948 Exposition.

For the final World War II years and the "police action" in Korea, almost every metal and chemical was in short supply. Through the exposure tests of the American Society for Testing and Materials (ASTM), the porosity research of the AES, and the microthrowing-power studies of the New Jersey Zinc Company, considerable light was shed on the protective value of plated coatings.

Since 1946, the AES had chartered nine branches. They included: branches "Down Under"—the splitting of the Sydney, Australia, local into three groups, thus creating Adelaide and Melbourne in 1946. St. Joseph Valley, IN, Columbus, OH, and even America's Southland with its Southeastern Branch embodying Alabama, Georgia, Florida, the Carolinas and Mississippi, all were chartered in 1946. And in 1948, AES added its Louisville, KY, Saginaw Valley, MI, and Western Ontario (Canada) Branches, plus the Winston-Salem, NC, Branch that folded in '49. In its 40th Anniversary Year, the Society chartered the Allentown-Reading, PA, and Hamilton (Canada) Branches.

Consequently, 40 years after its humble beginning in New York on April 10, 1909, the AES had grown to 5220 members and 44 branches.

## AES Research Program

Dr. William Blum contributed a single-page history of AES Research to *Milestones of AES*. It was published in *Plating* and as a pamphlet in June 1959, during the AES Golden Jubilee. Dr. Blum had been associated with AES Research since its beginning. Here are some portions of his historical recounting:

"From the inception of the AES in 1909, it has always been considered an 'Educational Society.' As such it was early interested in researches in this field and their possible application to industrial practice. In 1913, George Hogaboom, just elected the first president of the AES, presented to the American Chemical Society his paper on 'Unsolved Problems in Electroplating.' In 1915, he offered to present to the American Chemical Society as subjects for research any problems sent to him through the AES.

"When in 1917, this writer presented to the AES Convention a report on the plating researches at the Bureau of Standards, George Hogaboom strongly urged the AES to cooperate with the bureau. In 1918, this cooperation involved the employment by the bureau of three experienced AES platers, namely George B. Hogaboom, Fred J. Liscomb and Thomas F. Slattery.

"In 1919, the AES supported efforts then being made to secure funds for continuation of the plating researches at the Bureau of Standards. The first AES Research Committee was appointed in 1923. An advisory committee to the Bureau of Standards was also appointed and met there in November 1923.

"In 1925, the AES Research Committee issued an appeal for subscriptions at the rate of \$50 per year from manufacturers, for a three-year program. By January 1927, sufficient funds were raised to start the employment of W.P. Barrows as a Research Associate at the National Bureau of Standards (NBS). Since that time, except for a few years during World War II, one or more AES Research Associates have been employed at the bureau.

"The first study of Barrows was on 'Spotting Out,' followed by one on 'Throwing Power in Chromium Plating' by H.L. Farber, and one on 'Porosity of Chromium Coatings' by Barrows. In

1930, plans were made for a study of the 'Protective Value of Plated Coatings' in cooperation with the AES, the ASTM and the NBS. P.W.C. Strausser was appointed as Research Associate, and by 1932, the many required specimens were prepared and exposed in six locations. This work was continued in spite of the fact that during the depression in 1932, the Research Committee had to borrow funds from branches and firms. At that time, Jacob Hay, then chairman of the Research Committee, recommended an assessment of \$2 per member for research, a plan not adopted until many years later. . . .

"In 1938, AES research was started at NBS on the 'Effects of Polishing Steel on the Protective Value of the Plated Coatings' with Gerald A. Lux as Research Associate.

"Up to this time, the AES Research Committee was appointed each year, occasionally with sufficient change in personnel to prevent adequate continuity. In 1944, the Research Committee was reorganized to consist of nine members, three to be appointed each year by the AES Executive Board. This arrangement has since then proved highly effective. . . . Carl E. Heussner, who developed the plan, was the first chairman. William Blum was then made an honorary member of the Research Committee.

"This new committee originally planned to maintain 400 Sustaining Members at \$100 each. While this goal has not been fully realized, sufficient funds have been raised to support six or more researches, and to build up a moderate reserve to insure continuation of studies if, for any period, inadequate funds are obtained. Each AES member now [1959] contributes one dollar per year to the Research Fund.

"Greater resultant funds permitted establishment of AES projects in a number of universities and research foundations in the United States and Canada. This arrangement is advantageous because it enlists the interest of a larger group of scientists, and also stimulates study of electroplating by students. . . .

"A new series of 'AES Research Serial Reports' was started in 1946. Those reports that are not out of print can be purchased from the AES.

"The outstanding success of the AES Research Program is a result of the interest and devotion of Research Committee members, and of the much greater number of AES members who have served on various Project Committees, all without compensation. All the funds collected for research are spent directly for conducting the studies and publishing the results," Dr. Blum concluded.

In 1966, all of the Serial Reports that were out of print were reprinted and it became policy to continually reprint as stocks were exhausted. At that time, Dr. Blum prepared a report, *The Research Activities of the American Electroplaters' Society*, which appeared in the March 1966 issue of *Plating*, and was published in pamphlet form. It briefly described all of the projects to that time. Project 25 was about to be started.

A list prepared by Edward E. Oberland of all of the projects through 1973, with brief descriptions of each one, was published in the May 1974 issue of *Plating*.

The number of projects has, in 1984, grown to more than 60. Funding remains a problem, though there have been increases in Research Patron and Sponsor contributions, and the assessment received from a member's dues is now \$4 yearly.

Research Patrons and Sponsors receive reports each quarter of the active projects. AES research papers are presented at most Annual Technical Conferences. Serial Reports are available from AES Headquarters.

The reports on current projects by the Research Board Chairman each year appear with the AES annual report, usually in the June issue of *P&SF*.

The Research Committee became the Research Board in 1963, with the adoption of a new Constitution and Bylaws. The term Patron or Research Sustaining Member was recently changed to Research or Patron Sponsor.

## Activities of the '50s

It was in 1950 that the Society revised the structure of its Paper Award system. In the revisions, the AES rewarded merit of published technical and scientific work with annual awards: (1) the AES Gold Medal, (2) the AES Silver Medal, (3) the Certificate of Honorable Mention, (4) the Mechanical Finishing Award, co-sponsored by Nutmeg Chrome Company, and (5) the Gold and Gold Alloy Plating Award, co-sponsored by Technic Inc.

In that same period, AES cemented a relationship with the Ohio River Valley Water Sanitation Commission, particularly with its Metal Finishing Industry Action Committee, with which AES collaborated through Research Project Number 2. As a forward step in AES government, the first

Interim Meeting of the Supreme Society was launched at Philadelphia, in 1951.

At the end of that year Dr. Graham had completed 7 years as executive secretary of AES and ended his tenure. A scientist of widely recognized ability, he probably will be most remembered as editor of the *Electroplating Engineering Handbook*. Dr. D. Gardner Foulke succeeded Dr. Graham in January 1952. Already well known throughout the plating industry, he brought to AES technical intellect and excellent qualifications. It was now necessary to seek a new location for the Society.

## Headquarters to Newark

AES Headquarters was moved to Newark, NJ, in 1952, occupying most of the third floor at 443-45 Broad Street. Dr. Foulke built the bookcases with his power saw. Gustav Soderberg ended his editorship of *Plating* in May 1952, retiring to Sweden. Alexander Korbela, who had been with Westinghouse, became editor in July.

The Carl E. Heussner Award was created as the highest Society honor for best paper. It was also in 1952 that the Chicago Branch hosted the Third Industrial Finishing Exposition at the 39th AES Annual Convention. Franklyn J. MacStoker ascended to AES presidency.

Dr. Oliver P. Watts, retired University of Wisconsin professor, died February 6, 1953, at age 87. He had been an AES honorary member since 1914, and will be remembered as the developer of the Watts nickel bath. One of his pupils, 1951-52 AES President Cleveland F. Nixon, paid tribute to him in the July 1953 issue of *Plating*.

By midyear 1953, Dr. Foulke decided to return to industry. P. Peter Kovatis followed him as executive secretary in September. Mr. Kovatis had an extensive public-relations background, used effectively in promoting AES and *Plating*. Another room was added to Headquarters, enabling the production of *Plating* to be handled directly from Headquarters, giving better control and improved format. After 2 years as editor of *Plating*, Al Korbela joined the Sel-Rex staff. Editorship was in the hands of Lee H. Morrison for a short period (August to November 1954), then Archimedes Doria took over.

In 1954, AES filed an Amended Certificate of Incorporation with the State of New Jersey as a non-profit educational corporation. By year-end, the Society had 6700 members. In that 4-year interval between 1951 and 1954, AES had penetrated the Lone Star State with a branch in Dallas/Ft. Worth. In 1952, it had entered the Wheat Belt with branches in Wichita and Kansas City. The next year, it entered the Northwest by establishing a branch in Portland and in 1954 chartered a branch in Seattle. Aside from adding Eastern branches in Upstate New York's Capitol District and Southern Tier in 1954, it had bolstered its Texas representation by authorizing branches in Houston and San Antonio. Hence, as 1954 ended, its network of autonomous branches numbered 53, consisting of 46 coast-to-coast in the U.S., four in the Canadian Dominion, and three in the Australian Commonwealth.

The Industrial Finishing Exposition of 1955 was an adjunct of the 42nd Annual Convention, a successful combine with the industrious Cleveland Branch as host. Eight hotels were used to house the multitude of AES members, their families and guests. The planning and effort of nearly 100 devoted Cleveland Branch members and their wives made the event educationally and relaxationally effective. A total of 27,020 square feet of exhibit space was employed. Exhibitors' teams included company presidents and sales



President Ralph Schaefer (center) receives traditional gavel from 1953-54 outgoing President G.P. Swift, as F.J. MacStoker (right) looks on.



Induction of 1956 officers in Washington, DC: (l-r) Samuel Helman, Francis Eddy, Herberth Head, Ralph Wysong and Clyde Kelly.

managers. The educational sessions drew an aggregate 4-day attendance of 2041. Nearly 450 individuals attended the nine plant tours and some 1250 members and their families and guests were present at the last evening's Farewell Banquet. That was a far cry from the 182 pioneers who attended NEPA's historic Third Annual Banquet, February 10, 1912.

In backtracking through time, then retracing steps along the pathway of AES history, there is constant view of the relationship between the metal finisher and the supplier. The latter not only displayed up-to-date equipment and supplies at exhibitions, but cooperated in AES assemblies by providing a good measure of relaxational fare.

George P. Swift was AES president in 1953-54, Ralph A. Schaefer in 1954-55, and Clyde Kelly in '55-'56. The Mississippi Valley Branch was chartered in 1955. In mid-1956, Executive Secretary Kovatis went to the National Association of Metal Finishers as executive director. John P. Nichols came to AES as executive secretary just before the 43rd Annual Convention held in Washington, DC, hosted by the Baltimore-Washington Branch. Samuel Heiman was elected president there. Dr. Abner Brenner was the convention's educational chairman and coordinated 41 papers, a record to that time. Arthur G. Pierdon was general chairman.

Mr. Doria's editorship of *Plating* terminated in September 1956 and Rodney Leeds succeeded him. During the early months of the transition, I. William Marcovitch assisted in a technical advisory capacity.

Harold W. Faint died on December 22, 1955, at the age of 60. He was the son of Edward W.T. Faint, one of the AES founders. Harold had written the chapter on filtration for the *Electroplating Engineering Handbook*. The death in 1956 of Dr. Richard M. Wick removed another prominent member. He was the 1947-48 chairman of the AES Research Committee and a member of the Allentown-Reading Branch. Before the year was out, John J. Haney, past president of the Grand Rapids Branch, would die at age 57. He was later to be memorialized with a Paper Award in his name.

The Fourth Interim Meeting was held in Pittsburgh on January 12, 1957. Membership had grown to 6740, with 341 Research Sustaining Members. Three new branches were soon chartered: British Columbia (Canada), Miami, FL, and Mohawk Valley, NY. Research Committee Chairman Arthur H. DuRose presided over nine AES projects.

During this same period, *Plating* published special issues on subjects like mechanical finishing, organic coating, research, and waste treatment. President Heiman visited 12 branches during his presidency and presented the charters to British Columbia and Miami.

An Electroplating Course Committee consisting of Dr. Dodd S. Carr, chairman, Newark Branch; Ezra A. Blount, Cincinnati Branch; Fred G. Brune, Detroit Branch; and F.J. LaManna, Newark Branch, had a six-point program: (1) fostering new electroplating courses with AES sponsorship; (2) encouraging the growth of existing courses; (3) acting as a clearinghouse in exchanging teaching aids to instructors; (4) publicizing class schedules in various journals; (5) revising the plating course section of the *Branch Officers Manual*; (6) obtaining data on electroplating courses given at the college level.

The 1957 AES Convention was held in Montreal at the Sheraton Mount Royal Hotel, June 16-21. G.R. Davidson was general chairman and P.M. Coady educational chairman. Twenty-three papers were presented. The AES fiscal year was changed to July 1 through June 30 and the per capita tax was increased \$2. The Scientific Achievement

Award, proposed by Dr. Heiman, was also established in 1957.

Frederick Gumm, 66, died in October of that year. In 1929, he had formed Hesse & Gumm Company. Three years later, he joined in partnership with C.R. Percival, and Frederick Gumm Chemical Company was created. Shortly thereafter, Oliver J. Sizelove joined the company. Mr. Gumm was active almost 50 years in the electroplating industry.

Planning for the AES 50th anniversary, to be celebrated during 1959, was begun in 1958 at the Fifth Interim Meeting, held in Indianapolis. Preliminary plans were discussed with the delegates and alternates. The *Delegates Manual*, prepared by Past President William J. Neill, was published in handy reference format.

On March 28, 1958, President Francis T. Eddy presented a charter to the AES Blue Ridge Branch, and the John J. Haney Paper Award proposed by the Grand Rapids Branch was approved. It was jointly given by the branch and M&T Chemicals, and consisted of certificates and an honorarium of \$75. The Midwest Regional Council was formed with seven branches, and Leslie L. Diveley became the first chairman. Twenty-six branches were now "regionalized."

There were seven Research Projects in 1958 and the Research Committee was chaired by Robert A. Ehrhardt. Membership had increased to 7480 and there were 352 Research Sustaining Members.

The Hotel Sheraton Gibson was the scene of the Annual Convention in Cincinnati, May 18-22, 1958. Charles Wise was general chairman, Ezra A. Blount, vice chairman, and Robert Miller, educational chairman. Twenty-three papers were presented. Special sessions covered surface pretreatment, waste treatment, finishes for aircraft components, and electroplating practices. There was also a panel discussion on practical plating problems.

Four prominent AES members died in 1958. Clarence L. VanDerau served two terms as president: 1932-33 and 1933-34. A member of the Dayton Branch, he had been named an honorary member in 1950. E. Steen Thompson, national president in 1936-37, died on February 21. He had also been president of the Cleveland Branch from 1930-33. Franklyn J. MacStoker, New York Branch member for 35 years, died May 21 at the age of 71. He was AES president in 1952-53 and an honorary member as well. Finally, AES founder Thomas A. Trumbour, 75, died on September 2. He had been general manager of *Metal Finishing* since 1938, having joined that publishing firm in 1901. He was named an AES honorary member in 1956 and had been secretary-treasurer of the Metal Finishing Suppliers' Association.

I. William Marcovitch compiled a Speakers List, which was circulated to branches and found to be of excellent assistance to "librarians" (this nomenclature was later changed to "educational chairmen").

### Golden Anniversary

Looking toward the Golden Anniversary, First Vice President Ralph D. (Duke) Wysong said in his 1958 *Plating* editorial: "Now is the time for each branch to take advantage of this Golden Opportunity! . . . Use it as a selling point for new members." A Golden Jubilee large, ceremonial banner was widely circulated during 1958 and 1959 for display at regional and branch meetings.

In his editorial, "The Fiftieth Year," in the January 1959 *Plating*, Past President Eddy said "the greatest single value of AES has been, and will continue to be, the interchange between individual members. Those seeking to

learn meet with those willing and able to teach." At the 47th Educational Session of the Chicago Branch, January 31, 1959, Simon P. Gary (to become 1979-80 AES president) presented a paper on "Fifty Years of Plating Progress," dedicated to the AES Golden Jubilee.

At the time of the Golden Anniversary, there were five living AES founders: Harry C. Bernard, William Schneider, Justus A. Stremel (all of the New York Branch), Edward W.T. Faint (Newark Branch), and Frederick F. Pierdon (Baltimore-Washington). There were 11 living honorary members and 22 living past presidents.

Harry Bernard and Justus Stremel and wife were present at the 50th Anniversary Banquet of the New York Branch on February 7, 1959. Also in attendance were AES President Herberth E. Head, Third Vice President W. Andrew Wesley and Past President Eddy. At the educational session, papers were presented by such notables as Dr. Henry Brown, Dr. D. Gardner Foulke and Walter L. Pinner. Dr. Edward B. Saubestre was the New York Branch president and Arthur Carlson was educational chairman.

The Sixth Interim Meeting of the Supreme Society occurred on February 14 in Atlanta and was held in conjunction with the First Regional Meeting of the newly formed Dixie Group, which included the Blue Ridge, Miami and Southeastern Branches. At the Order of Past Presidents presentation for Herberth E. Head by the Baltimore-Washington Branch, AES founder Frederick F. Pierdon was singularly honored.

A major feature of the AES Golden Jubilee Convention and Fifth Industrial Finishing Exposition in Detroit, June 15-19, 1959, was the Fifth International Conference on Electrodeposition and Metal Finishing, chaired by Walter L. Pinner. Technical papers were presented by authors from 10 countries: Australia (1), Canada (1), England (10), France (4), Germany (2), Holland (1), India (1), Italy (1), Switzerland (1), and the U.S. (22). A total of 44 papers. Dr. William Blum presented the first William Blum Lecture and was awarded the first Scientific Achievement Award plaque and honora-

rium. Dr. A. Kenneth Graham was announced as second recipient of this award.

At the annual meeting, Convention Chairman Wright W. Wilson presented a gold-plated gavel to the Society. It was suitably engraved and was accepted by President Head. It has been used at Annual Meetings subsequently by each president in conducting the affairs of the Society.

The Statler Hilton was headquarters for the Convention with overflow at the Sheraton Cadillac. The Exhibit, with Howard J. McAleer as chairman and Manuel Ben, vice chairman, had 147 exhibitors at the Artillery Armory. The morning sessions of the educational program were held at the hotel and in the afternoon at the armory. Convention registration was \$20 for both men and ladies.

The 238-page June Golden Jubilee issue of *Plating* contained comprehensive papers of lasting importance: "The Story of Nickel Plating" (18 pages) by George Dubpernell, "Tin in Electroplating" by Robert M. MacIntosh, "Precious Metals" by Edward A. Parker, "Copper Plating During the Last Fifty Years" by Frank Passal, and "Zinc in the World of Electroplating" by Ernest W. Horvick.

Fiftieth anniversary congratulatory letters were received from many dignitaries, including the U.S. president, governors, mayors, congressmen, heads of technical associations, and publishers. As was customary, the Metal Finishing Suppliers' Association and the National Association of Metal Finishers held their annual meetings concurrently with the AES convention. At the banquet, memorabilia was placed in a gold box, with the proposal that it be opened at the 75th AES anniversary.

In its 50th year, AES had 7300 members in 58 branches, and 349 Research Sustaining Members. Annual dues were increased from \$5.70 to \$7.50; members-at-large paid \$11. The Research Committee was headed by Dr. Russel E. Harr, with seven active projects. The Denver and Phoenix Branches were chartered but the Twin City Branch withdrew. The First Annual Conference of the Midwest Regional Council was held November 7 in Rockford. The Southwestern Regional Group—Houston, Kansas City, Dallas/Ft.

## Industry Milestones

Many key industrial developments have occurred throughout the lifetime of AES. The appearance of practical processes for plating bright nickel in the 1930s eliminated costly buffing and promoted the use of nickel plus chromium composites, which triggered the "bright chrome" era of the 1930s and '40s.

In the early 1940s, the adoption of high-speed tin plating lines for continuous steel strip led to a revolution in the fabrication of food containers.

Duplex nickel in the late 1950s and the subsequent development of microdiscontinuous chromium processes greatly improved the corrosion protection provided by nickel/chromium composites and sustained the use of plating on automobiles throughout the 1960s and '70s.

Discovered in the 1940s, initiated

commercially in the 1950s, and maturing during the following 2 decades, electroless nickel is now used for a variety of applications where uniform coatings for resisting wear or abrasion are required. In the mid-1950s, electroless copper attained commercial acceptance for through-hole plating of circuit boards.

Controlled-depth plating, the first of many selective deposition processes to come, appeared in the early 1950s. The first application of spot plating for electronics was recorded during the 1960s.

High-speed plating processes for electronics were also introduced in the early '50s, and in less than 10 years encompassed a sizable market, particularly where precious metals and nickel were used.

In the 1960s, especially noteworthy

were the introduction of acid citrate solutions for gold plating, as well as hard golds such as the cobalt-hardened alloy now popular for contact materials. These deposits were widely adopted to minimize wear and to prolong contact life.

Tin-free steel with ultrathin films of chromium and chromic oxide began to be used with adhesives for food containers in the late 1960s.

The 1970s saw the substitution of zinc-nickel alloy for unalloyed zinc in order to extend the life of coated steel. During the same decade, a large share of time and dollars devoted to R&D by the metal finishing industry was spent on improving methods for recycling plating chemicals, in order to reduce the high cost of waste disposal.

Worth and Wichita—met on December 7, with the gathering followed by an Aircraft Finishing Symposium.

The year 1960 saw the Philadelphia Branch celebrate its 50th Anniversary, having been chartered with 14 members in 1910. It hosted the Seventh Interim Meeting in celebration of this Golden Anniversary. The San Antonio Branch folded while the Memphis-MidSouth Branch arrived, President Wesley presenting the charter. James D. Thomas, chairman of the Research Committee, oversaw seven projects, while AES maintained liaison with 11 other societies. Fifteen courses in electroplating were being offered in the U.S. and Canada, and a series of articles on "Japan's Plating Industry" by Ezra A. Blount was published in *Plating*.

AES traveled to Los Angeles to hold its Annual Convention for the first time in 1960. Ralph D. Wysong was AES president. A feature of the educational program was a Symposium on Hydrogen Embrittlement, with Dr. Harold J. Read as chairman. The papers presented formed the basis for a book, edited by Dr. Read and published under the aegis of AES. The first Charles Henry Proctor Leadership Award was presented to Walter L. Pinner. Mr. and Mrs. William O. Preston, the donors, witnessed the presentation. (Mrs. Preston was the daughter of founder Proctor.) Dr. Charles Faust received the Scientific Achievement Award. He was well known for his work in electropolishing, among other areas.

In the June 1960 issue of *Plating*, a definitive, 19-page paper, "Development of Chromium Plating" by George Dubpernell, was published. Though supposedly retired and in his early 80's, Dr. Dubpernell is still involved in chromium research today. His 2000-volume library on electrochemistry and electroplating is probably the most extensive in the world.

In branch matters, Waterbury created a plaque to be awarded at science fairs in its area. The first was given to Watertown Junior High School in March 1941 in conjunction with a lecture on electroplating. The San Diego Branch was chartered that April, with First Vice President Chester G. Borlet making the presentation.

The Annual Convention returned to Boston after a 20-year lapse. Louis Gagnon chaired the affair, which included, of course, a New England clambake. At the concert of the Boston Pops Orchestra attended by AES, President Wesley's talented daughter was the piano soloist. Dr. Abner Brenner was the deserving Scientific Achievement Award recipient. He is widely recognized as the inventor of electroless plating.

The Supreme Society mandated the appointment of a Bylaws Revision Committee composed of: Cleveland F. Nixon, Detroit, chairman; Leslie L. Diveley, Milwaukee, vice chairman; Manson Glover, Boston, secretary; Clyde Kelly, Chicago; Francis T. Eddy, Los Angeles; William J. Neill, Columbus; I. William Marcovitch, Philadelphia; Kergan Wells, Toronto; Myron E. Browning, Dallas/Ft. Worth.

The Central Iowa Branch, with 26 charter members, was approved in August 1961, and the presentation was made by President Chester G. Borlet. The Santa Clara Valley Branch followed suit shortly thereafter. Society membership stood at 7300, with 338 Research Sustaining Members.

Dr. D. Gardner Foulke, chairman of the Research Committee, witnessed two new projects: Number 19 at the Bureau of Standards on "Galvanizing Effects Associated with Coating Failure" and Number 20, "Plating by Thermal Decomposition."

Edward J. Musick died on October 30, 1961, at age 78. He was a founder of the St. Louis Branch, president of AES in 1925-26, and an honorary member. He was president of the Musick Plating Co., established by his father, William Musick, in 1879. Other notables who passed away in 1961-62 were H.A. Gilbertson, Chicago Branch, one of the oldest AES past presidents; Wright W. Wilson, chairman of the 1959 Convention; Richard C. Barrett, a Bridgeport Branch member, candidate for AES third vice president, and co-chairman of the Eighth Interim Meeting. A fifth death, that of Cleveland F. Nixon, occurred on May 4, 1962, his 61st birthday. He was president in 1951-52 and was posthumously named an AES honorary member. At about the same time in 1962, Justus A. Stremel and Frederick F. Pierdon, both founding members of AES, also were elevated to honorary membership. Another founding member, Edward W.T. Faint, died on July 24 at the age of 92. He was also a charter member of the Newark Branch.

### New Constitution and Bylaws

The Ninth Interim Meeting was held in Indianapolis during January 1962. The proposed revised Constitution and Bylaws were read to the delegates. Section by section, the revisions were considered for action at the Supreme Society's Annual Meeting in Milwaukee the last week in June. It would be the first time an AES Convention would be hosted by a regional group—the Midwest Regional Council. Herman Tessmann was chairman.

\*Scientific Achievement Award.



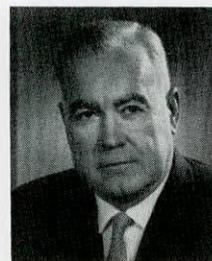
Manuel Ben  
President (1962-63)



William Blum  
SAW\* Recipient (1958)



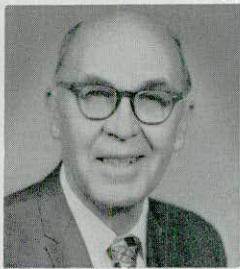
Dr. Henry Brown  
SAW Recipient (1967)



George W. Cavanaugh  
President (1966-67)



Leslie Diveley  
President (1965-66)



**A.H. DuRose**  
SAW Recipient (1969)



**Harold Ellis**  
Leadership Award (1970)



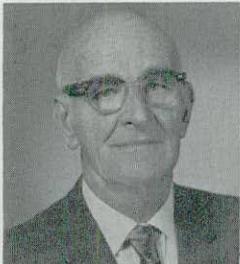
**Dr. C.L. Faust**  
SAW Recipient (1960)



**Hellmuth Fischer**  
SAW Recipient (1968)



**William Geissman**  
Proctor Award (1975)



**A. Kenneth Graham**  
SAW Recipient (1959)



**R.A.F. Hammond**  
SAW Recipient (1963)



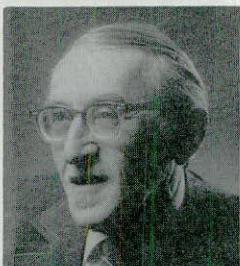
**Samuel Helman**  
President (1956-57)



**Otto Kardos**  
SAW Recipient (1972)



**Burton Knapp**  
SAW Recipient (1977)



**Joseph Kushner**  
SAW Recipient (1976)



**Frank E. Lane**  
Lane Award



**Arthur Logozzo**  
President (1949-50)



**William Neill**  
President (1950-51)



**Cleveland Nixon**  
President (1951-52)



**Fielding Ogburn**  
SAW Recipient (1975)



**Edward A. Parker**  
Honorary Member (1969)



**Frederick Plerdon**  
Honorary Member (1962)



**Walter Pinner**  
President (1945-46)



**Robert Ruleff**  
President (1973-74)



**Richard Saltonstall**  
Honorary Member (1971)



**Jesse Stareck**  
SAW Recipient (1970)



**Kergan Wells**  
Honorary Member (1970)



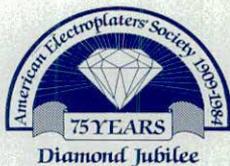
**W.A. Wesley**  
SAW Recipient (1962)



**Donald Wood**  
Wood's Nickel Strike



**Ralph Wysong**  
Honorary Member (1966)



The new Constitution and Bylaws were indeed approved at the Milwaukee Convention. Thus, the most sweeping operational changes in the history of the AES were adopted. The Supreme Society was replaced by the Council of Delegates, with curtailed authority. The Executive Board ceased to exist. Under the new Constitution and Bylaws, a Board of Directors composed of the president, first vice president, second vice president, treasurer, immediate past president, and 12 directors governed the Society. The office of third vice president was eliminated.

The Council of Delegates duty was to "hear reports, to elect society officers, to elect members of the Board of Directors, to elect the Nominating Committee, to act upon duly proposed amendments to the Constitution, and to fill any office it has declared vacant." All other authority was the province of the Board of Directors. With the implementation of the new laws, the executive secretary would be known as general manager. The office of treasurer was new, the secretary's duties to be performed by the general manager. A director's term was set at 3 years.

The Research Committee became the Research Board. The Membership Committee would be under the new Branch Activities Board. The Editorial Board was supplanted by the Technical Education Board.

The Council of Delegates alone can change the Constitution, though the Board of Directors may amend the bylaws.

In other 1962 activity, the Scientific Achievement Award was presented to Dr. W. Andrew Wesley, manager of the Research Laboratory at the International Nickel Company. The Research Committee was chaired by Dr. Harold J. Wiesner and membership stood at 7141. There were 328 Research Sustaining Members. The Wichita Branch disbanded and Mid-Hudson was chartered.

The tenure of John P. Nichols in the post of executive secretary was concluded in July 1962. Rodney Leeds, editor of *Plating*, was appointed acting executive secretary and continued as editor. President Manuel Ben was presented a gold-plated bell by Juichi Nakanishi of the Japan Electroplaters Association on September 17. Four days later, the Japanese delegation visited AES Headquarters in Newark. The Mid-Atlantic Regional Council, with Arthur G. Pierdon as chairman, was formed late that year.

Death claimed three more prominent members before the end of 1962. Myron Diggin, at 57, had been an associate editor of *Monthly Review*, was on the Editorial Board of *Plating*, was chairman of AES Research Project 4, and received the AES Gold Medal in 1946 and the Award of Merit in 1956. Walter J. Allen, 89, was president of the

Society in 1922-23. Charles C. Conley, 1942-43 AES president, was general chairman of the 1940 Annual Convention in Cleveland and passed away at 64.

### Last Interim Meeting

The 10th Interim Meeting was held in Kansas City, January 19, 1963. It was also the last Interim Meeting because, with a Board of Directors of 17 members who would assume most of the powers of the Supreme Society according to the new Constitution and Bylaws, it no longer appeared to be necessary. At a meeting of the Executive Board, Rod Leeds was appointed executive secretary and Dr. Frederick A. Lowenheim was introduced as the new technical editor of *Plating*. This was a part-time connection for Dr. Lowenheim, who would continue in research with M&T Chemicals. One of his first ideas was to inaugurate a journal section called "Plating Topics" to accommodate practical articles.

In other news of the day, AES Headquarters was operating with 11 full-time staff members and one part-time employee, while the Milwaukee Branch was celebrating its Golden Anniversary with a splendid affair in May 1963.

The 1963 annual was also the 50th Anniversary Convention of AES and the 50th year of the host Newark Branch. It was held at the Ambassador Hotel in Atlantic City. Dr. D. Gardner Foulke was general chairman. The MFSA and NAMF held their meetings concurrently with the AES convention, making it possible to hold a joint meeting of the three groups, as frequently happened.

For the first time, a scientist outside of the U.S. received the Scientific Achievement Award. He was Roy A.F. Hammond of England. Mr. Hammond was head of the Electrodeposition Branch at the Royal Armament Research and Development Establishment of the War Office. Meanwhile, Leslie L. Diveley had been elected to the post of third vice president for 1962-63, an office he worked hard to eliminate in the Constitution and Bylaws revision. He was consequently the last third vice president.

The June 24, 1963, meeting of the Supreme Society was of historical significance. It was its last because, by the end of the meeting, the Society would be ready to operate under the new Constitution and Bylaws. Appointments to the many new boards and committees were announced by President Ben.

The first meeting of the Council of Delegates took place on June 26. The first officers and directors were duly elected. Frank O. Beuckman became the first president at the operational transition of the Society. William J. Neill



Harold Simon (center) collects Central Iowa Branch charter from 1961-62 AES President Chester Borlet.



Dr. Harold Read, 1965 Scientific Achievement Award winner, during Chicago Branch talk in 1969.



A.D. Squitro (right) presents title slide of fifth AES Illustrated Lecture to series originator Dr. Donald Swalhelm in 1965. The title: "Electroforming with Nickel."

was the first treasurer. The executive secretary now became general manager.

At the outset of 1962-63, the fiscal state of the Society was such that a deficit budget had been adopted. By the end of the fiscal period, however, various economies and a reduction in the cost of publishing the journal returned the AES to financial stability.

The 51st Annual Convention was held in St. Louis in 1964, with the Sheraton Jefferson as headquarters hotel. No Scientific Achievement Award recipient was selected that year.

The SADAM Branch in Argentina was granted a temporary charter in July 1964. Marmaduke H. Dent played a principal role in its organization. Also, the Upper Midwest Branch, with 100 members, was welcomed back with a new name.

Dr. George P. Swift died July 3, 1964. He was AES president in 1953-54, a national honorary member, and secretary of the Boston Branch for 16 years. Frank C. Mesle, 1926-27 AES president, passed away that August at the age of 80. He had been editor of *Monthly Review* from 1932-36. An ordained minister, Mr. Mesle had pronounced the invocation at many AES Conventions.

The "Technical Editor's Page," by Dr. Lowenheim, first appeared in the January 1965 *Plating* and thereafter was published each month for some 8 years. Another feature, "Some Production Plating Problems and How They Were Solved," was edited by Dr. Samuel Heiman.

The New York Hilton Hotel was the scene of the 1965 AES Annual Convention. The New York Branch was host, with Milton Nadel as general chairman. Edward E. Oberland of the Baltimore-Washington Branch was AES president. The World's Fair was held in New York that year, and conventioners spent a day there. Rudy J. Hazucha Sr. of the Chicago Branch was commended for having attended 50 AES Conventions.

Dr. Harold J. Read of Pennsylvania State University received the 1965 Scientific Achievement Award. He is renowned for his studies of electrodeposit adhesion.

In branch affairs, Orange County Metropolitan was welcomed to the Society, and AES President Leslie L. Diveley presented a charter to Worcester, MA, on October 19, 1965. On October 21, Kergan Wells and Ezra A. Blount visited the Melbourne Branch to discuss the "AES Research Program" and "Recent U.S. Plating Developments," respectively.

Five eminent AES members died in 1965. George J. Wagner had joined the Newark Branch in 1924, become national president in 1943-44, and been tapped as an honorary member in 1955. Manson Glover, honorary member of the AES and the Boston Branch, had graduated from Harvard in 1911. He was an eloquent speaker at AES meetings and had long been chairman of the Law Committee. Roy Stout, a 50-year AES member and past president of the

Newark Branch, died at 83. Talmage R. (Ted) Boggess died at age 61. He was a founder of the Blue Ridge Branch and, beginning in 1947, had presented an engraved silver-plated gavel to each national president of the AES. The first recipient was Kenneth M. Huston. Mr. Boggess made and plated the gavels himself and wrote a brief article explaining how he did it in the July 1952 issue of *Plating*. Since his death the Blue Ridge Branch has carried on the tradition and it has become a memorial to Ted Boggess. John A. Munning, vice president of Munning and Munning and a member of the Philadelphia Branch, died on July 17 at 69.

In 1966, AES President Diveley officially represented the Society at the 40th Anniversary of the Institute of Metal Finishing in London. The completely revised Constitution and Bylaws, effective June 26, 1963, and as amended in 1964 and '65, were published in *Plating* that April. The presentation of a charter to the Natural Bridge Branch was made on May 20, while a well-attended Conference on Waste Disposal occurred in Waterbury, CT, with a host of speakers such as Dr. A. Kenneth Graham and political figures.

The 1966 53rd Annual Convention was held in Miami Beach's Fontainebleu Hotel and was hosted by the Dixie Region under the chairmanship of Clem H. Hohner, Southeastern Branch. Dr. Henry B. Linford, Columbia University, received the AES Scientific Achievement Award. It was noted that he had done more than his share to train young minds toward science as professor of chemical engineering.

Five papers delineating the results derived from AES research projects were presented. Dr. Dennis R. Turner, research chairman, noted in his annual report two important findings on Project 12, "Cleaning and Preparation of Metals Prior to Plating": (1) "nickel deposition efficiency is poor initially but increases to a limiting value after a few seconds, and (2) contaminants which soil cathodes decrease nickel deposition efficiency by lowering the hydrogen potential." That same year, an informative, prescient article, "Computers and Plating" by W.A. Mogerman, formerly of the National Bureau of Standards, appeared in *Plating*.

Among the deceased in 1966 were Joseph P. Sexton, honorary member of AES and charter member of the Bridgeport and New Haven Branches, and Clyde Kelly, national president in 1955-56. Mr. Kelly was a member of the Constitution and Bylaws Revision Committee and was voted posthumously an honorary member.

Joan Trumbour Wiarda died October 20, 1966, at the age of 59. She had been an AES member for 40 years, having joined when still a teenager in 1926. She conducted a ladies' affair at the 1965 Convention in New York, at the time saying that it was her swan song. She had been a member of the Chicago, Buffalo and Newark Branches. In her capacity of advertising director of *Metal Finishing*, she traveled throughout the country and was widely known in the industry.

Robert L. Ruleff, chairman of the Books and Symposia Committee, conceived the idea of holding a Symposium on Plating in the Electronics Industry. The Mid-Atlantic Regional Council agreed to host it. An excellent program was developed covering four general topics: electroless plating, magnetics, printed circuits and electroplating. The symposium was held in Newark during December 1966. Robert A. Ehrhardt of the Newark Branch was educational chairman, and Mr. Ruleff general chairman. Advance registration indicated a probable attendance of 300, but 600 arrived before the opening session, stretching the capacity of the meeting room and the kitchen at luncheon. Attendees came from as far away as the Pacific Coast, Switzerland,



(L-r) Leslie Diveley, Frank Beuckman, Harold Simon, Herman Tessmann and Paul Glab at 22nd Rockford Branch Annual, 1964.

England and West Germany. Mr. Ruleff and AES President George W. Cavanaugh extended welcomes at the opening session. This symposium continues to be popular today.

A Patron Membership in the amount of \$1000 was adopted in 1967. It was felt that contributions to the AES Research Fund in this category should have special recognition. (It was subsequently lowered to \$500.) Finally, in 1967, the St. Joseph Valley Branch purchased the 1000th Illustrated Lecture.

### Relocation in East Orange

A Land Committee, headed by Dr. Henry L. Kellner, was active in 1967 endeavoring to locate a new site for AES Headquarters. It had been narrowed to north New Jersey, after considering many other proposed sites, mostly in the Midwest.

The corner property and building at 56 Melmore Gardens in East Orange, NJ, was purchased on May 1, 1967. The transaction was entirely in cash. Chairman Kellner and Treasurer William J. Neill were at the closing. It was a two-story building with completely finished basement, and was very functional, a far cry from the rented space in Newark that had become very crowded. There was sufficient space on the first floor for the entire staff: two corner offices, four partitioned offices, and large central office space, also a lunch room. The basement was comprised of a large board room, mail room, addressing room and two storage rooms. As the second floor was not needed, it was decided to rent it until such time as the growth of the Society might require the space. There now were 12 full-time staff members and the part-time technical editor.

AES occupied its new quarters in midsummer. During the month of August, a couple of the earliest visitors were Dr. Simon Wernick, director of the Institute of Metal Finishing, England, and Palmer H. Langdon, president and editor, *Metal Finishing*. Membership was over the 8000 mark (8027) and Research Sustaining Members were at 435.

During July 1967, AES President William H. Safranek and Ezra A. Blount, AES liaison representative to the Japan Electroplating Society, toured Japan, attending meetings and visiting plating plants.

The AES Annual Convention was held for the first time in Texas. The Dallas/Ft. Worth Branch was host at the 54th Annual Meeting in Dallas, with R. Fred Howard as general chairman. George W. Cavanaugh was national president.



D. Gardner Foulke, 1979 honorary member, at dais during opening session of 1963 AES Annual Convention in Atlantic City.

The first Frank E. Lane Award was presented to Mr. Lane, for whom it was to honor and was named.

Dr. Henry Brown was the AES Scientific Achievement Award recipient. The following year, he received the \$1000 honorarium, which was part of the award upon delivery of the William Blum Lecture. Dr. Brown, whose principal work was the development of organic addition agents for bright nickel plating baths, subsequently donated the honorarium to the AES Research Fund.

An AES Educational Trade Tour to South America took place in April 1967. The Society was officially represented by President Cavanaugh, accompanied by Past President Arthur W. Logozzo and M.H. Dent. Later in the year, the SADAM Branch held its Fourth Annual Meeting and Exhibition in Buenos Aires, Argentina.

There were five active projects during the Research Board chairmanship of Dr. M.M. Beckwith. Three were terminated in June 1967: Projects 20, 21 and 23, and three were begun. Project 25 "Properties of Electrodeposited Gold for Electronic Uses" at the University of Southern California, and Project 26, "Electrodeposited Metals Handbook," were to be handled under the direction of William H. Safranek at Battelle. Mr. Safranek suggested the latter project and it resulted in an AES book. The third new project was Number 27, "Sealing of Anodic Coatings on Aluminum."

Chairman Beckwith noted in his annual report: "There is a constant effort being made by the Research Board to keep the type of projects in balance. The terms theoretical and practical are being tossed around and the adherents of either thinking are inclined to feel that the 'balance' is too unbalanced in favor of the other approach." True today as then.

### Events in the Late 1960s

The year 1968 saw the Bylaws changed to reverse the AES fiscal year back to April to March 31, from July 1 to June 30. Also, the Grand Rapids Branch celebrated its 50 years at a dinner party that January.

An AES Educational and Trade Mission departed April 20 from New York to attend the Seventh International Metal Finishing Conference and Hanover Fair, Hanover, Germany. The mission was headed by Past Presidents Arthur W. Logozzo and Edward E. Oberland. In addition to Hanover, the mission visited installations in Sweden, Denmark, Holland, West Berlin, England and Geneva.

The Golden Gate Conference, the Society's 55th Annual, was held in San Francisco, July 6-11, 1968, hosted jointly by the San Francisco and Santa Clara Branches. Harold J. Wiesner and Donald Levy were co-chairmen. The educational program included a symposium on immersion plating, two sessions on waste treatment, and one on anodizing. There was also a question-and-answer panel, always popular.

An Aluminum Finishing Seminar, sponsored jointly by AES, the Aluminum Association, Aluminum Extruders Council et al., formed the basis for the book, *Finishing of Aluminum*, edited by Dr. G.H. Kissin. What's more, AES membership rose to a new high for the era, 8487 members. Research Sustaining Members totaled 485—also a new high.

Edwin J. Smith was the Research Board chairman, and there were four active projects. A Project 22 paper was presented at the San Francisco Conference. In his thorough report, Mr. Smith stated: "Societies fostering an art or a science perceive a duty of insuring the future vitality of the technical field. This is accomplished by supporting research

designed to avoid obsolescence. When the goal of research is forgotten, the intricacies of proposing and financing research projects takes all of the attention. Membership Research Fund and Sustaining Members dues are paid as a guarantee against obsolescence; they should not be made available for crash programs, the latest research fad, or a seemingly insolvable 'practical' problem."

Three new branches were chartered during 1968: Midwest Florida, Erie, PA, and Valley Forge. President Marmaduke H. Dent presented the Valley Forge charter to Branch President William N. Karaces on September 10, 1968. National First Vice President James H. Lindsay made the charter presentation to the Erie Branch on September 20. Branch President Gerald Crane accepted for Erie.

By October 1968, 2000 Illustrated Lectures had been distributed. In that same month, Philip J. Ritzenthaler died. He was 58 years old and had been exceptionally active in the Milwaukee Branch and the Midwest Regional Council.

President Safranek had been pressing for more practical articles to be published in *Plating*. Ezra A. Blount, long experienced in editing and obtaining articles of a practical nature, graciously assisted in developing a section termed "Plating/Finishing Practice." Two new Paper Awards were approved to memorialize Eugene C. Chapdelaine and Richard O. Hull Sr.

The year 1969 saw a further updating of the Constitution and Bylaws, with appendix, while the Books and Symposia Committee sponsored the Second Plating in the Electronics Industry Symposium, Boston, with 500 attendees under the chairmanship of R. Scott Modjeska. Yet another regional group, the Pacific Northwest, met in Seattle in May.

During an educational and trade tour to Mexico in conjunction with the National Association of Metal Finishers, President Dent presented a charter to the AMTEG Branch. The five letters stand for Association Mexicana de Technicon en Galvanostegia. President Dent also presented a charter to the ABTG Branch in Sao Paulo, Brazil.

The 56th Annual Convention was held June 16-20, concurrently with the Seventh Industrial Finishing Exposition at Cobo Hall in Detroit. John E. Siefin was general chairman of the Convention and Howard McAleer chaired the Exposition. Attendance was better than 1700, with 129 exhibitors. There were nine sessions in the educational program and 33 papers. There was an "Aluminum Processing" session and two sessions on "Precious Metals." A panel handled the subject "Plating on Plastics."

Research Board Chairman Manuel Ben reported on the activities of six projects. The practical Project 28, "Barrel Plating of Carbo-Nitrided Steel Parts," had been completed

and two new projects were underway: "Crystal Defects in Electrodeposited Metals" at Stevens Institute of Technology, and Project 30-31, "Application of Reverse Osmosis to Metal Finishing Wastes" at the Ontario Research Foundation.

Arthur H. DuRose, a pioneer in the development of bright and leveling nickel deposits, was tapped as the Scientific Achievement Award winner.

### Membership Nears 9000

A per capita tax increase to \$15.80 became effective April 1, 1969. Membership stood at 8999, with 479 Sustaining and two Patron members. The 27 Illustrated Lectures now completed were being used worldwide. Austin B. Wilson, AES president in 1937-38, died that May.

The first four-color article appeared in the September 1969 issue of *Plating*. It was "Racking for Hard Chromium Plating" by Arthur W. Logozzo. The use of four color in the editorial section was too costly, so Nutmeg Chrome Corporation generously paid the additional cost.

The Merrimack Valley Branch, reflecting the increasing interest in electronics finishing, manned a booth at the First Annual Electronics Manufacturing Exposition and Conference in New York. Two other meetings of special interest were the Valley Forge Branch Printed Circuit Workshop and the Zinc Plating Symposium held by the Syracuse Branch.

In 1970, AES President James H. Lindsay presented to Research Board Chairman Edward A. Parker at the New England Regional Meeting a check in the amount of \$10,000 for the AES Research Fund. The check was derived from income generated at the Seventh Annual Industrial Finishing Exposition. With respect to the Annual Meeting, a new policy adopted early that year required annual reports to the Council of Delegates only from the president, first vice president and treasurer.

Other 1970 events: Harry C. Bernard, at the age of 90, died on November 16, ending 60 years of AES membership, and a new regional group composed of the Erie, Pittsburgh and Cleveland Branches was called the Mideast Regional Council.

The AES 57th Annual Technical Conference was hosted by the Montreal Branch on June 21-25. M.C. Cohen was general chairman. The strong technical program offered 11 sessions, with 43 papers and a workshop panel. The conference had an attendance of 1400 members and guests and Dr. Jesse E. Stareck received the Scientific Achievement Award for his work on electrocoloring, pattern plating, composite coating, etc.



Richard Saltonstall (left) accepts Order of Past Presidents Award from Edward Oberland in 1968.



James Lindsay assumed AES presidency in 1969 and was also technical editor of "Plating."



John Donaldson (left) is elevated to second vice president in this 1970 photo. R. Scott Modjeska (1971-72 president) assists with induction ceremony.



Membership had dropped to 8135, partly due to the formation of Australia's own metal finishing society. This was in part precipitated by the AES increase in per capita tax. Many members of the three Australian Branches, Adelaide, Melbourne, and Sydney, let their AES membership lapse, at least temporarily, and joined the Australian society. Sustaining Membership, however, rose above 500 for the first time. Interestingly, President Lindsay headed an AES tour group of Australia and New Zealand that same year.

Five prominent AES members died in 1970. Samuel Taylor, a founder of the Newark Branch in 1913 and three times its president, had once been editor of *Quarterly Review*. Dr. Nathan Koslin, past president of the Columbus Branch, died on March 10. He established Nalin Laboratories in 1945. John R. Gumm, 54, died on February 6. He was a past president of the Newark Branch and president of Gumm Chemical. John E. Trumbour, son of AES founder Thomas Trumbour, died at the age of 58. He was an honorary member of the New York Branch, past president of the Newark Branch and treasurer of the Metal Finishing Suppliers' Association. On July 9, Anthony P. Julius died. He was an honorary member of both the AES and the St. Louis Branch. Andy was active in the formation of the Midwest Regional Council, and was general chairman of the 1964 AES Convention in St. Louis.

John Donaldson, then national second vice president, was the guest speaker at a February 1971 meeting of the Long Island Branch at which a temporary charter was granted. The Mid-Tennessee Branch charter was presented by AES Director George E. Parisho in September.

AES Treasurer William J. Neill, 69, died on January 10, 1971. He had been treasurer since 1963, when the revised Constitution and Bylaws became effective establishing that office. He was AES president in 1950-51, was made a national honorary member in 1961, and had been a delegate to the Supreme Society and Council of Delegates for 26 years. He had been a member of the Law Committee for a decade, and served on the Constitution and Bylaws Revision Committee. His branch was Columbus. Kergan Wells followed Mr. Neill in the office of AES treasurer.

The 58th Annual Technical Conference was held in Buffalo, NY, June 14-17, 1971, at the Statler Hilton Hotel. O.B. Kirchoff was honorary general chairman. General co-chair-

men were John C. Scholterer and Charles R. Fotheringham. Dr. Harold J. Wiesner was national president. Ten technical sessions offered a wide-ranging program, including two sessions devoted to waste treatment; there was also a vibratory finishing symposium. Niagara Falls was the scene of an enjoyable outing.

President Wiesner reported that after careful evaluation of the progress of the International Union for Electrodeposition and Metal Finishing, AES decided to become an active member. An outgrowth of a well-attended meeting of members was a strong feeling that divisions should be formed to accommodate special-interest groups such as electronics and automotive.

At the annual meeting of the Council of Delegates, June 17, 1971, an amendment to the AES Constitution was adopted, stipulating members of the Nominating Committee to be ineligible for nomination for national office and/or directorship, except from the floor at annual meetings.

Research Board Chairman William Geissman reported on seven active projects. Two new projects were "The Role of Additives in Electroplating Processes" at Baylor University and "The Optimization of Barrel Plating Solutions" at Arizona State University. Membership had dropped to 7958. There were 481 Sustaining Members and two Patrons.

T.P. Hoar, British metallurgist, received the 1971 Scientific Achievement Award. His studies on corrosion inhibition, mainly by using sodium nitrite, were important contributions.

Leslie L. Diveley, 1965-66 national president, died June 18, 1971. He was 63. A national honorary member, recipient of the Proctor Award, past president of the Milwaukee Branch, chairman of the AES Constitution and Bylaws Revision Committee, Mr. Diveley had represented AES at the 40th Anniversary of the Institute of Metal Finishing in London. He was educational chairman of the 1949 AES Convention in Milwaukee and a member of *Plating's* Editorial Board. He organized an Organic Division of the Milwaukee Branch in 1957, and started the Branch's *Monthly Newsleaf*, of which he was editor for a decade.

Burton G. Daw, 83, died on July 27, 1971. An honorary member of the St. Louis Branch, he had been with Hanson-Van Winkle-Munning and Lasalco for many years. In 1930, he designed and marketed the first fully automatic chromium plating machine.



At 1971 meeting of MFSA and AES in Dearborn, MI, are (seated from left): Fred Gumm, George Parisho, Stan Sax, Joseph Elsele, James Lindsay, James Zievers, Kergan Wells, Richard Hull Jr., Harold Wiesner, M.A. Broderick, R. Scott Modjeska, Harold Leever, Gerald Kraft, Louis Gagnon, Ronald Shaw, and William Clemons; (standing, from left) Gwynne Edson, John Siefen, Robert Trees, Rod Leeds, Harold Simon, John Donaldson, Jules Horelick, A.C. West and Ezra Blount.

## From Convention to Conference

The year 1972 saw the change of the Annual Meeting from "Convention" to "Technical Conference" and the 59th was held in Cleveland, OH, June 19-22. The First Interim Exhibit of Industrial Finishing was held at the same time, except that it opened 1 day later. Louis Gianelos was general chairman and R. Scott Modjeska national president. Dr. Otto Kardos received the AES Scientific Achievement Award. He specialized in the development of bright plating processes and anodizing.

Twenty-six papers were programmed in conjunction with an analytical instrumentation symposium, platers forum, and anodizing problem-solving panel. The attendance at the Conference topped 1700 and there were 131 exhibitors at the Interim Exhibit.

Membership stood at 7624. The Albuquerque Branch was operating under temporary charter.

A well-attended evening meeting was held during the Cleveland Conference ostensibly to chart the future course of AES. First Vice President John G. Donaldson stated the purpose was to determine how to make AES useful to a greater number of people. He termed the activity as "Evolutionary Planning." Past President Harold J. Wiesner agreed to be the general chairman of a group to encompass national past presidents, directors, and chairmen of all the boards and committees who would seek to determine how the Society could better serve emerging finishing technologies. It was wondered whether the Society should publish a quarterly technical journal and a separate monthly publication for news and practical material.

The Board of Directors met at Headquarters in East Orange on September 28, 1972, for the fall meeting. President Donaldson invited the only living founder of AES, Justus A. Stremel, then 86 years old, to lunch with the board members at East Orange. Past President Modjeska presented a plaque to Mr. Stremel, showing that he joined AES in 1909, became an honorary member of the New York Branch in 1950, national honorary member in 1962, and was given an Award of Esteem in 1972. President Donaldson presented Mr. Stremel with a color television set. Presi-



Justus Stremel was last living founder of the AES. In 1972, he was honored by the Board of Directors at a luncheon and awarded a TV set.

dent Jack Weiner of the New York Branch attended the luncheon.

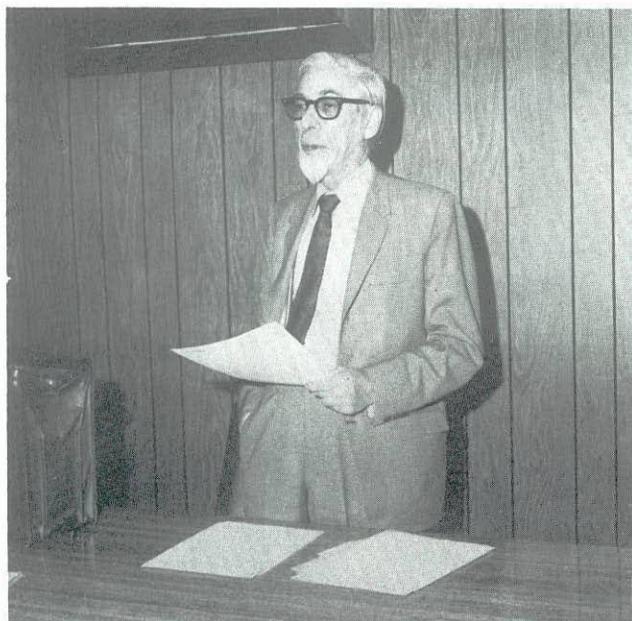
The first AES Intensive Training Course was held in Philadelphia, October 2-6, 1972. It was conducted by Donald A. Swalheim, Dr. Samuel Heiman and Fred Pearlstein.

Henry Mahlstedt died at age 75 on August 3, 1972. Retired from M&T Chemicals, he was one of the foremost figures in chromium plating. Another great loss was the death on March 24 of Dr. Edward B. Saubestre. He was 46. A member of the New Haven Branch, he had been with Enthone since 1958. He had served AES on the Editorial and Research Boards, was project chairman of Research Project 33, and was past president of the New York Branch. He was a member of the Paper Awards Committee at the time of his death. He had been awarded the AES Gold, Silver and Bronze medals.

The OSHA and Air Pollution Seminar held at the University of Chicago, December 4 and 5, was the first to be offered by AES Headquarters. It was well attended and very successful.

One of the most respected figures in AES history, Dr. William Blum, died on December 7, 1972, at the great age of 90. National honorary member, Philadelphia Branch honorary member, Research Board honorary member, AES presented him with a gold watch in 1928. He joined the National Bureau of Standards as a chemist in 1909 and directed the Electrodeposition Section from 1913 until 1951. He joined AES in 1915. Author of more than 100 technical papers, he co-authored with George B. Hoga-boom, "Principles of Electroplating and Electroforming." First published in 1924, it was revised in 1930 and 1949. An extensive biography is published in the February 1973 issue of *Plating*.

Frank E. Lane died December 9, 1972. He was 79. Past president of the Dallas/Ft. Worth Branch, which established the Frank E. Lane Industrial Award, he was its first recipient. On the 13th of December, death claimed Rudolph J. Hazucha—one month short of his 79th birthday. He was an honorary member of both the Chicago and Rockford Branches, and had been presented the AES Award of Merit. Rudy had joined the Chicago Branch in 1915.



Frederick Lowenheim, recipient of Scientific Achievement Award in 1978, was a prolific author of books and papers.

In the first few days of 1973, more stalwart members died. John Lockerbie expired on January 7 at the age of 91. He had been named a national honorary member in 1949, and was the first president and honorary member of the St. Joseph Valley Branch. He had been an organizer of the Chicago, Detroit, Milwaukee, Indianapolis and St. Joseph Valley Branches, and was a delegate for many years. William M. Phillips Sr. died on January 10. He was a national honorary member and AES president in 1938-39. Mr. Phillips was 85 years old at his death. Before retiring, he was head of the electrochemical department, General Motors Technical Center. At the young age of 39, Rockford Branch Past President Thomas O. McCullough died on January 19, 1973. He had served on national boards and committees and had he been spared, would have gone far in AES.

In his annual report, AES President Donaldson stated, "I hope that all of our members know of the Evolutionary

Planning activities initiated last June under the very able direction of Past President Harold J. Wiesner. They were begun because . . . many concerned members recognized that for AES to continue to maintain its important position in industry, it must quickly and effectively react to the changing needs of its membership."

The Albuquerque, NM, and Palmetto (Greenville, SC) Branches were chartered in 1973. Joint committees were created by MFSA, NAMF and AES for public-relations purposes and for close contact with OSHA, as President Donaldson stated "to explore ways and means for cooperative effort in establishing effective metal finishing publicity and PR programs and in providing timely, adequate, and understandable information to our members in matters related to OSHA and EPA regulations."

Research Board Chairman Martin J. Frant reported on the active Research Projects 27, 29, 30, 32, and 34. He said,

### Evolution of AES Branches

1909	New York	1938	New Haven (Terminated)	1955	Mississippi Valley
1910	Philadelphia		Buffalo - New Charter	1957	British Columbia
1911	Rochester	1939	Binghamton-Syracuse		(Terminated)
1912	Toronto		(Became Syracuse 1943)		Miami
	Indianapolis	1940	Indianapolis - New Charter		Mohawk Valley
	(Terminated 1933)	1943	Lancaster	1958	Blue Ridge
	Detroit		Syracuse	1959	Denver
	Chicago	1944	Jackson-Lansing		Phoenix
1913	St. Louis		(Became Central Michigan	1960	Memphis-Midsouth
	Newark		1954)	1961	San Diego
	Milwaukee		Australia		Central Iowa
	Dayton		(Divided 1946)		Santa Clara Valley
	Cincinnati	1945	Rockford	1962	Mid-Hudson
	Buffalo		Twin-City	1964	Upper Midwest
	(Terminated 1915)		(Withdrawn 1960)		(Former Twin City)
1914	Cleveland	1946	Melbourne		SADAM (Buenos Aires)
	Bridgeport		Sydney	1965	Orange County Metropolitan
1915	Toledo		Adelaide		Worcester (new charter)
1916	Syracuse		St. Joseph Valley	1966	Natural Bridge
	(Terminated 1924)		Columbus	1968	Mid-West Florida
	Providence-Attleboro	1947	Southeastern		Erie
	(Attleboro added 1919)	1948	Louisville		Valley Forge
1918	Grand Rapids	1948	Saginaw Valley	1969	AMTEG (Mexico)
1919	Pittsburgh		Western Ontario		ABTS (Sao Paulo)
1920	Reading		Winston-Salem	1971	Long Island
	(Terminated 1926)		(Terminated 1949)		Mid-Tennessee
1921	Boston	1949	Allentown-Reading	1973	Albuquerque
	Waterbury		Hamilton		Palmetto
	Connecticut Valley		(Terminated)	1975	Allegheny
	(Now Hartford)	1951	Dallas-Ft. Worth		Colonial Virginia
	Montreal	1952	Wichita	1976	Orlando
1929	Baltimore-Washington		(Terminated 1962)	1977	Mississippi
	Los Angeles		Kansas City	1982	Charlotte Metrolina
	Worcester	1953	Portland		North Alabama
	(Terminated 1933)	1954	Capitol District		Taipei
1930	San Francisco		Houston		San Juan
	(Terminated)		(Terminated)		Tucson
	Anderson, Indiana		San Antonio		Carolina Sandhills
	(Terminated 1938)		(Terminated 1960)		Smoky Mountain
1936	Springfield		Seattle	1983	International
	Binghamton-Elmira		(Added Puget Sound 1955)		Hampton Roads (Norfolk)
	(Terminated 1939)		Southern Tier	1984	Golden Reef (South Africa)

"The major effort on new projects has been the development of methods of analyzing wastes, particularly those which could be applied with relatively simple equipment."

The Technical Education Board established an *ad hoc* committee, headed by Dr. Henry B. Linford of Columbia University, to develop a full electroplating and metal finishing curriculum that could lead to a college certificate, according to William G. Millman, board chairman.

A *Branch Public Relations Manual* was prepared by the AES Public Relations Committee. A Public Relations Reward, \$50 and a plaque, was created for presentation to the most outstanding branch public-relations officer each year.

The AES 60th Annual Technical Conference and the Industrial Finishing Exhibit were held in Minneapolis, MN, and hosted by the Upper Midwest Branch. Fred J. Kaim and Cort G. Platt were co-chairmen. The Conference was at the Radisson Hotel, June 17-21, 1973. Richard E. Thompson was exhibit chairman at the Radisson Mart.

There were 13 sessions in the technical program in which 35 papers were presented. The main topic was conservation. Two sessions covered Decorative Plating Conservation. There was a Conservation of Materials Symposium and a Symposium on Conservation of Organic Materials. A two-session Conservation in Plant Engineering Symposium featured a panel on Tools for the Plating Engineer to Reduce Wastes and Costs and one on Plant Engineering Systems. A Light Metals Finishing Workshop actually was comprised of two panels in two sessions, bringing together 12 experts. In the hope of creating a larger attendance, the Annual Banquet was held on Wednesday evening, instead of Thursday, the final day of the Conference.

At the annual business meeting of the Council of Delegates, Past President Arthur W. Logozzo inducted the newly elected national officers and directors, and announced that General Manager Rodney Leeds would retire at the end of the calendar year. J. Howard Schumacher Jr. assumed the position of general manager on January 1, 1974. He came to AES after six years with the Institute of Electrical and Electronics Engineers (IEEE). In 1974, the Board of Directors changed the title general manager to executive director and made him a member of the Executive Committee. William K. Brush, who had joined *Plating* as associate editor in 1964 and subsequently became managing editor, was made editor on January 1, 1974.

Dr. Frederick J. Lowenheim resigned the technical editorship of *Plating* at the beginning of 1974, after 10 years in that post. AES Past President James H. Lindsay was the successor. A technical expert and author, Mr. Lindsay had been a chairman of the Editorial Board of *Plating*.

### Progress in the 70s

An Awards Board was created composed of the chairmen of the Scientific Achievement Award, Charles Henry Proctor, Lane and Paper Awards Committees. Also the Technical Conference Advisory Committee was established. In 1974, temporary charters were given to the Allegheny, Colonial Virginia, Orlando and Nebraska-Iowa Branches.

The Decorative Plating Symposium held in Detroit and the Pollution Abatement Seminar in Reston, VA, were important meetings. President Robert L. Ruleff reported: "Work is well under way toward initiating an AES-sponsored college-level course in electroplating. Frederick Lowenheim will author a text for this course and arrangements have been made with a well-known publishing house. A laboratory manual will follow. Our intensive plating course, under the able direction of Don Swalheim, continues to be well received."

Through the efforts of Treasurer Wells, \$5 of the annual dues was to be allocated to the subscription of *Plating*, up from \$2. Research up \$1. The Research Board 1974 report was made by Vice Chairman of Research Leslie D. McGraw. He was concerned about increasing costs. A new project had been added, Number 35, "The Application of Pulse Plating Techniques to Metal Deposition," at Columbia University. EPA offered to provide a \$25,000 grant (AES to fund 5 percent) to further work on reverse-osmosis membranes.

The Conrad Hilton Hotel, Chicago, housed the 61st AES Annual Technical Conference (June 16-20, 1974) and the Industrial Finishing Exhibit. The general co-chairmen were Simon P. Gary and Paul Glab. Germany's Dr. Ernst Raub was recipient of the AES Scientific Achievement Award. Twenty-seven papers were delivered in sessions with such subjects as: light metals finishing, plating on plastics, autocatalytic nickel, pollution control, precious metals, metallography of electrodeposits. And there was a jobshop seminar, along with seven plant tours, and some 100 exhibitors.

In his annual report, Technical Education Board Chairman William G. Millman stated: "We have seen improvements and innovations in the various symposia presented, a



Herb Tilton (left) and Arthur Pierdon (1975-76 president) lobbied for 75th Anniversary stamp.



Three past presidents (l-r) Frank Beuckman, 1963-64, Ed Smith, 1974-75, and Bernard Gagnon, 1977-78, as honorary membership is conferred upon Mr. Beuckman.

continuous emphasis on satisfying the need for current and comprehensive programs that relate to the environment, and, of course, a continuation of symposia for those highly specialized areas which appeal to selective industries."

Membership had slipped to 7485. Sustaining Membership was 471 and there were eight Patron Members. Twelve Branches were conducting electroplating courses.

In the May 1974 issue of *Plating*, Research Vice Chairman of Finance Edward E. Oberland presented an excellent list of all the AES Research Projects, beginning with the very first, "Spotting of Plated or Finished Metals."

The only remaining AES founder, Justus A. Stremel, died on June 29, 1974. He was 88. A national honorary member, AES President James H. Lindsay invited him to attend the 1970 Annual Technical Conference in Montreal. Poor health prevented him from attending; nevertheless, New York Branch Delegate Milton Nadel proposed to the Council of Delegates in session that a resolution be passed officially recognizing Mr. Stremel as the sole survivor of the founding fathers of the AES. Mr. Stremel deeply appreciated this action, which was unanimously approved.

In a letter to President Lindsay at that time, he wrote, "I am proud to have been associated with this loyal and dedicated group of men, and especially our founder, Mr. Charles H. Proctor, as the formation of an educational society of platers and metal finishers was his brainchild. May his progressive spirit prevail throughout our membership for years to come to the benefit of our Society." Mr. Stremel was an honorary member of the New York Branch and led the procession of national officers, directors, past presidents and convention chairmen at the opening session of the 1965 AES Annual Convention in New York. He had started in plating at the age of 13 and left a substantial monetary gift to AES at his death.

Wendell P. Barrows, a charter member of the Baltimore-Washington Branch, died on August 21, 1974. He had worked with Dr. Blum at the National Bureau of Standards.

At the January 9, 1975, meeting of the Board of Directors, the Bylaws were amended to increase the per capita tax to \$17.50 for active members, the dues of members-at-large to \$21, Research Sustaining Members to \$150 and Research Patrons to \$600. The Scientific Achievement Award honorarium became \$1500. The name of the journal was changed from *Plating to Plating and Surface Finishing* with the April 1975 issue. William K. Brush's editorship

ended with the May issue and Phyllis D. Alexander took over with the February 1976 issue. The Colonial Virginia and Allegheny Branches were chartered.

An Educational Tour and Trade Mission was conducted by AES to Europe, starting on May 11, 1975. It was headed by AES President Arthur G. Pierdon and Past President Edward E. Oberland. An interesting account of the tour by Mr. Oberland was published in the August 1975 *Plating and Surface Finishing*.

The 62nd Annual Technical Conference and Exhibit of Industrial Finishing at the Royal York Hotel, Toronto, June 22-26, 1975, was hosted by the Toronto Branch. Edwin J. Smith was AES president, Kenneth R. Coulter general chairman and John D. Buchan chairman of the Exhibit. A 12-session educational program included 47 papers, a thickness-measurement workshop and a symposium on zinc plating and finishing of zinc die castings.

The 1975 membership stood at 7616, with 501 Research Sustaining Members and seven Research Patron Members. Two new Research Projects were initiated: Project 36, "New Membranes for Treatment of Metal Finishing Effluents by Reverse Osmosis," and Project 37, "Demonstration of Reverse Osmosis for Recovery of Chromium from Plating Rinsewaters." Research Board Chairman Vladimir Hospadaruk presided over six projects in progress. A committee was organized, at the suggestion of President Smith, on energy and materials conservation. It was chaired by Gerard Poll.

In his annual report, President Smith stated, "A committee to decide how to promote the affiliation of the AES with other metal finishing societies has been active during the year. At the last board meeting, Jim Voytko (AES 1980-81 president) reported for the committee that a select group of societies, including the NAMF, MFSA and IPC, will be invited to send a representative to the meeting to discuss the idea of affiliation, its advantages and disadvantages, organization, method of operation and the opportunities that it offers to present a united front on governmental affairs."

Fielding Ogburn of the National Bureau of Standards was the Scientific Achievement Award recipient in 1975. He was associated with William Blum and Abner Brenner, the first and fourth award winners, and conducted studies on a wide range of electrodeposition areas, including thickness testing, porosity, and acceptance sampling.

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## Regionals

Two or more branches may form a regional group and apply to the Board of Directors for a charter. There are 12 such regionals in the U.S. and Canada. They hold annual technical conferences, often climaxed with banquets. Regionals operate under their own bylaws, nonconflicting with the AES Constitution and Bylaws. They may have a strong voice in AES affairs. The 12 Regionals and member Branches are:

• **Dixie Regional:** Blue Ridge, Memphis-Midsouth, Miami, Midwest Florida, Natural Bridge, Southeastern, Colonial Virginia, Mid-Tennessee, Palmetto, Orlando, North Alabama, Mississippi,

Carolina Sandhills, Smoky Mountain.

• **Eastern Canada Regional:** Montreal, Ottawa, Toronto, Western Ontario.

• **Empire State Regional:** Buffalo, Capitol District, Mohawk Valley, Rochester, Southern Tier, Syracuse.

• **Great Lakes Regional:** Central Michigan, Detroit, Grand Rapids, Saginaw Valley, Toledo.

• **Golden West Regional:** Denver, Los Angeles, Orange County Metropolitan, Phoenix, San Diego, Santa Clara Valley, Tucson.

• **Mid-Atlantic Regional:** Allentown-Reading, Baltimore-Washington, Lancaster, Long Island, Newark, New York,

Philadelphia, Valley Forge.

• **Mid-East Regional:** Cleveland, Erie, Allegheny, Pittsburgh.

• **Midwest Regional:** Central Iowa, Chicago, Kansas City, Milwaukee, Rockford, St. Joseph Valley, St. Louis, Upper Midwest.

• **New England Regional:** Bridgeport, Hartford, Springfield, Waterbury.

• **Northeast Regional:** Boston, Merrimack Valley, Providence-Attleboro, Worcester.

• **Pacific Northwest Regional:** Portland, Seattle-Puget Sound.

• **Tri-State Regional:** Cincinnati, Columbus, Dayton, Indianapolis, Louisville, Toledo.

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Other events in 1975 included a new *P&SF* column entitled "Light Metals News," edited by David C. Montgomery. Central dues collection was initiated by AES headquarters. This was a policy matter considered for many years. At the start, the national office invoiced the member for \$26 and refunded the branch \$9.

Prof. Dr. Hellmuth Fischer, 1968 AES Scientific Achievement Award recipient, died in early 1976. He was a professor of applied chemistry at Technische Hochschule Berlin, where he investigated the morphology of electrodeposited metals.

The 63rd AES Annual Technical Conference was held in Denver, CO, June 27 to July 1, 1976. Bernard Gagnon was general chairman. The Exhibit of Industrial Finishing was chaired by Andrew P. Rylant. Arthur G. Pierdon, son of AES founder Frederick F. Pierdon, was AES president, and MFSA hosted a Night in Larimer Square. Thirty papers in 10 technical sessions were offered.

Dr. George DiBari, Research Board chairman, reported on the status of nine active projects. The Society had 7504 members, 454 Research Sustaining Members, and five Research Patrons.

AES purchased new Headquarters in Winter Park, FL, and moved from East Orange, NJ, in August 1976. The new property cost \$160,000 and was financed with a \$130,000 mortgage. Sylvia Baxley was named editor of *P&SF* starting with the November 1976 issue and Kergan Wells retired as national treasurer. He was succeeded by Charles R. Fotheringham, still in that office in this Diamond Jubilee year. James H. Lindsay resigned as technical editor of *P&SF* in December 1976. William H. Safranek, 1964-65 Research Board chairman, 1967-68 AES president, 1969 Proctor Award recipient, 1979 Scientific Achievement Award winner, AES honorary member and a former member of the Editorial Board of *Metal Progress*, became the new *P&SF* technical editor with the August 1977 issue.

### Certification Program

At the outset of 1977, the AES Voluntary Certification Program was initiated. Upon passing a specified examination, a member could become a Certified Electroplater-Finisher and earn the privilege of including CEF after his or her name. Today, in this AES Diamond Jubilee year, there are over 1000 members who have attained this designation.

In 1977, there were 41 Illustrated Lectures and a home-study course was being planned. The Sixth Plating in the Electronics Industry Symposium took place in Chicago, March 9-10, while AES Headquarters was busy purchasing a typesetting machine for the Society's publications, including *P&SF*. Other equipment for printing and binding gave AES complete in-house printing capability for branch needs, Society brochures, symposia proceedings, etc.

The 64th Annual Technical Conference and Exhibit of Industrial Finishing was held at the Bonaventure Hotel, Los Angeles, on June 26-30, 1977. Isidore Cross was president and Gail Korte general chairman. The Los Angeles and Orange County Metropolitan Branches were hosts. Forty-two papers were presented in sessions devoted to such subjects as hydrogen embrittlement, organic finishing, pollution control, plating for electronics, and solar energy. Five plants were visited by platers, and the social feature was an afternoon at Disneyland. More than 100 exhibitors displayed their wares.

In his first formal talk as president, Mr. Cross said, "We want to be the educational-scientific Society for the finishing industry and government on any question that comes up pertaining to our area of expertise." In his annual report, President Cross said, "If anyone were to ask me to mention one of the Society's most important personal assets, I could say it in three words: Mary Lou Dowdell" (AES staff member).



Dr. William Blum (seated) at 1972 birthday party in his honor. The annual AES William Blum Lecture is made in his name.



Trio of AES past presidents: (l-r) Gerald Schmidt (1978-79), Isidore Cross (1976-77), and Simon Gary (1979-80).

A per capita tax of \$17.50 and member-at-large dues of \$28 were adopted in the spring of 1977. The Mississippi Branch received its charter that year and Dr. Burton B. Knapp, who worked on the development of nickel anodes at the International Nickel Company, got the Scientific Achievement Award. Dr. George DiBari served a second year as Research Board chairman. It was the 50th anniversary of AES-sponsored research and there were nine active projects with a budget of \$280,000—about two-thirds funded by EPA. Membership was at 7205, with 429 Research Sustaining Members and eight Research Patron Members.

Losses that year began with Dr. Russel E. Harr, who died on February 7, 1977, at the age of 72. He had been a member since 1928 and was the director of Research Project 34. Les Reynolds, 68, died on March 25. He had been a delegate to the Supreme Society and Council of Delegates for many years, and frequently chaired the Credentials Committee. Joseph Gurski died on March 9. He had served on the AES Board of Directors and had retired from Ford Motor in 1973. Samuel E. Craig Jr. of the Phoenix Branch died at 48. He was professor of chemical engineering at Arizona State University and was chairman of two AES Research Projects, 34 and 44. Death also took Robert Niggerman, 44, past president of the Montreal Branch and registration chairman of the 1970 57th AES Annual Technical Conference.

A new standard billing policy was adopted by AES in 1978. All newly chartered branches were to have their dues billing handled by Headquarters. Also, through the efforts of Herbert Tilton, the East Orange property was sold.

An important event occurred in January 1978 when the AES co-sponsored the First Conference on Advanced Pollution Control for the Metal Finishing Industry. Agency representatives responded in a positive manner to the exchange of technical information with industry. The AES Environmental Committee, with the likes of Fred Steward, Canada's Kenneth R. Coulter, Dr. Clarence Roy, and Dr. Robert Wing continually nurtured the information exchange with EPA.

Other key events of 1978 were the First AES Symposium on Thickness Testing, New York, and the initial edition of the *SUR/FIN Shop Guide*, published in the February issue of *P&SF*. This directory of job and captive shops providing finishing services has been published regularly since then.

The AES 65th Annual Technical Conference and Exhibit of Industrial Finishing was held in Washington, DC, June 25-30. The Baltimore-Washington Branch, with Anthony O. Facciolo Jr. as general chairman, hosted the event. Bernard Gagnon was AES president. The technical program featured 45 papers and MFSA was host at a Washington Ball. Three plants were visited and there were nearly 100 exhibitors.

In his president's report, Bernard Gagnon stated, "As far as energy is concerned we've been lulled into a false sense of security in thinking that the only shortage we have is in coming up with the money to pay for it. Energy scarcity is a fact, and the problem is compounded not only by a shortage of sources, but also by a lack of research and by misguided administration. . . . The AES currently has Research Project 46 (co-sponsored by ERDA) at the Georgia Institute of Technology. This project is definitely designed to help our industry; it focuses on energy conservation."

Treasurer Charles Fotheringham reported: "The sale (of the East Orange Headquarters property) reduced the Society's property taxes and maintenance costs. Coupled with this, we have enjoyed our first complete year of operations in our Winter Park, FL Headquarters; the result has been lower taxes and reduced operating costs."

Research Board Chairman Lawrence J. Durney commented, "Each dollar of research funding contributed by the membership continues to purchase almost \$3 of research." Proposed projects in 1978 included "The Effect of Wastewater Heavy Metal Sludges on the Physical Characteristics of Concrete" at Manhattan College, and "Diffusion at Grain Boundaries in Gold," which was to be conducted at Pennsylvania State University.

A recurring subject, whether to change the name of the Society, again started to rumble. Proponents argued that AES was too restrictive a name, that Society members were involved in surface finishing techniques other than electroplating. Opponents said the present name brought with it prestige and recognition. At that time, AES had 7333 members, 449 Research Sustaining Members, and eight Patron Members.

At a meeting of the Board of Directors, October 23-24, the Bylaws were changed to raise the per capita tax from \$17.50 to \$19, of which \$7.50 was allocated to *P&SF* and \$4 to AES research. The member-at-large dues were to go from \$26 to \$28.50.

The grim reaper took 12 prominent members in 1978. Leonard A. Rood of the Southern Tier Branch died early that year. Lancaster Lowry, past president of Baltimore-Washington and a member for some 40 years, followed shortly. Carl Byrns, a 30-year member and past president of the Syracuse Branch, was next. Dr. Joseph P. Kushner, AES Scientific Achievement Award recipient known for his work on rinsing, passed away in February. He had delivered the William Blum Lecture only a few months before his death and had originated an electroplating correspondence course years before. Ralph D. (Duke) Wysong, 1959-60 AES president, also expired in February. He was co-founder and honorary member of the St. Joseph Valley Branch. Donald L. Wood, developer of the Wood's nickel strike, joined the others in 1978. He was affiliated with the Boston and Providence-Attleboro Branches and received the Lane Industrial Award in 1969. Another death was that of Paul Glab, 58-year member of the Chicago Branch, secretary-treasurer of the Midwest Regional Council, and a delegate to the Supreme Society and Council of Delegates for more than 20 years. Otto "Bert" Kirchoff, 75, died on August 8. He was a past president of the Buffalo Branch and a 40-year-plus member of AES.

There were also Dr. A. Kenneth Graham, Frederick Fulforth, Dr. Richard B. Saltonstall and Samuel B. Wyman. Dr. Graham was founder of Graham, Savage & Assoc., a three-time winner of the AES Gold Medal Award, a Scientific Achievement Award winner, and an honorary member. Mr. Fulforth was AES president in 1940-41, and joined the Philadelphia Branch in 1935 after successfully campaigning to change AES from a Society exclusively for foremen platers to one open to all interested individuals. Dr. Saltonstall, honorary member of the AES and the Detroit Branch, received the Proctor Award in 1971 and was educational chairman of the 56th Annual Conference. Samuel B. Wyman, co-founder of the Colonial Virginia Branch and a driving force in the development of an AES Light Metals

Finishing Section, died at the age of 50. An award in his name was established for the individual presenting the best paper on aluminum (or other light metals) finishing each year at the Annual Conference.

An important publishing milestone was reached in mid-1978 with the AES-sponsored book, *Electroplating—Fundamentals of Surface Finishing* by Dr. Frederick A. Lowenheim. It was published by McGraw Hill. Dr. Lowenheim also received the AES Scientific Achievement Award that year. He was most well known for his work in the field of tin plating.

By 1979, the AES was more than a \$500,000 operation with 16 staff members, and a series of three ballots was being distributed to determine the membership's preference for the Society's name. Mary Lou Dowdell was named meetings manager, a position necessitated because of the growing number of symposia, courses and other functions being offered under the auspices of AES. At that time, Ms. Dowdell had already been with AES for 18 years. In this Diamond Jubilee year, she completes 23 years of consecutive service and thereby sets a staff record.

The 66th Annual Technical Conference and Exhibit of Industrial Finishing, SUR/FIN '79, was held June 24-28 in Atlanta. More than 100 exhibitors augmented 81 technical papers on electroforming, chromium plating, energy conservation, etc.

The Society now had 7482 members, 460 Research Sustaining Members and eight Patron Members. William H. Safranek got the Scientific Achievement Award and subsequently delivered the William Blum Lecture on "Opportunity," in which he covered high-speed plating and other areas of recommended exploitation in the finishing industry. Steven B. Isham was named editor when Sylvia Baxley was shifted to marketing manager.

The obituary list in 1978-79 included several prodigious members. Christopher Marzano, a Chicago Branch past president and chairman of the AES Paper Awards Committee, died in January 1979. His news of Chicago Branch meetings was unusually informative; he had the gift of reporting in capsule form the data contained in presentations. Carmi Crawford, founder of the Chicago Electroplaters Institute, president of NAMF in 1947, and long-time member of the Chicago Branch, died at 75. Charles W. Ostrander of the AES Research Board and the Baltimore-Washington Branch died in April 1979. The New York

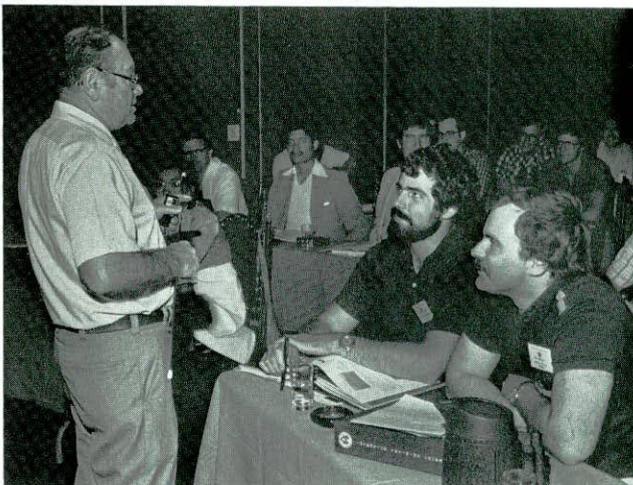
Branch lost two popular members: George F. Hermann and Jack Weiner. Mr. Hermann had received the New York/Newark Branch John E. Trumbour Award. Mr. Weiner was twice president of the New York Branch and was outgoing chairman at the 1965 Annual Conference. Hubert M. Goldman, who presented many papers on plating plastics and who was a past president of the Bridgeport Branch, died at 64. Homer G. Morton, honorary member at Grand Rapids, passed away on August 6. Russell V. VandenBerg, recipient of the AES Bronze Medal in 1956 and an expert on aluminum finishing, and Walter L. Pinner, AES past president and national honorary member, were also lost in 1979. Mr. Pinner contributed to *Electroplating Engineering Handbook* and *Modern Electroplating*. He wrote 40 papers, and for 25 years was the principal speaker at Milwaukee Branch Annual Meetings. He received the AES Gold Medal and the Proctor Award and was affiliated with the Manhattan Project.

### The Eighties

In 1980, some of the new features appearing in *P&SF* were Finishing Tip of the Month, Plating for Electronics (by John Donaldson), and Finishers' Think Tank (by John Laurilliard). These were introduced in response to a continuing appeal for articles of a practical nature, as a supplement to the technical papers. Meanwhile, there were 44 Illustrated Lectures running the gamut from surface preparation to zinc plating.

The 67th AES Annual Technical Conference and Exhibit of Industrial Finishing was held in Milwaukee, June 22-26, 1980. There were some 150 exhibitors and 55 papers in 13 sessions. A workshop on the reduction of precious metals used in electronics applications was indicative of the rising price of gold and the intensifying interest in plating for this high-technology industry sector. AES membership stood at 7999, with 477 Research Sustaining Members and eight Patrons.

President Simon P. Gary had this to say in his annual report: "AES is going great, but it will take Herculean efforts to make this a springboard for greater accomplishments rather than a plateau or peak before a crash. I fear that the present success is a flash of glory while the old war horses burn themselves out. We do not have the same *esprit de corps* among our young members as we do among the older warriors. We must recruit, involve, and inspire the 20



Mort Schwartz teaches an early AES Intensive Training Course. More than 2000 students have attended to date.



Myron Browning of Golden West Regional presents commemorative mining pan to AES 1980-81 President James Voytko.

to 35 year olds. We must recruit among a broader segment of the industry (we are in danger of becoming elitists); we must decide whether we are going to remain a heavily volunteer-oriented Society or whether we will increase our dependence on paid staff."

Research Board Chairman Jack Hyner reported that three projects had been completed and three added: Project 53, "Development of a Reactor to Eliminate Cyanide in Electroplating Effluents" at Ontario Research Foundation; Project 54, "Method of Life Testing of Coatings" at the National Bureau of Standards; and Project 55, "Sludge Characterization" at Centec Corp. (co-financed by EPA).

Regarding the proposed AES name change, Past President Gerald Schmidt concluded, "Many of our members expressed the belief that they felt the time had come to consider changing our name and expanding the scope of the Society to more adequately reflect the industry we serve. They felt that a change would allow us to achieve our full potential as the technical/educational Society of the finishing industry. After due consideration of these requests, it was our opinion that the concept had both merit and sufficient support to put the matter to the acid test and have the membership vote on the issue."

The members did vote, and the results on the name of the Society were in: American Electroplaters' Society, by a narrow margin, was to be retained.

The year 1980 saw the passing of many noble individuals. Dr. Henry B. Linford, a one-time member of the Board of Directors and director of AES Research Projects 12 and 35, died on February 3. He had been a student of Prof. Colin G. Fink. In April, the AES lost Hugh D. McLeese, who had held two joint patents with Dr. Fink and who had retired from M&T Chemicals, where he promoted new uses of hard chromium deposits.

Dr. Frederick A. Lowenheim passed away that August. In addition to being P&SF technical editor and winning the

Scientific Achievement Award, Dr. Lowenheim was technical chairman of the 1963 Annual Conference in Atlantic City, a member of the Research Board and the Editorial Board, and was involved with two books.

James H. Lindsay, who followed Dr. Lowenheim in 1974 as technical editor, died on July 10. His editorship continued for nearly 3 years. Mr. Lindsay was AES president in 1969-70, was a member of the Board of Directors, an honorary member, and was associated with the CASS test (AES Project 15), an accelerated method of determining corrosion resistance.

Indicative of the increasing number of finishing applications in the aerospace and electronics industries, in October 1980 AES sponsored a Symposium on Difficult-to-Plate Metals.

A Scholarship Fund was created in 1981 with a \$5000 donation and \$15,000 from the general fund. AES also entered the age of computerization when an anonymous member donated to Headquarters an IBM system, making possible quicker and more efficient handling of financial membership records.

The 68th AES Annual Technical Conference and Exhibit of Industrial Finishing was held at the Boston Sheraton Hotel and John B. Hynes Auditorium, June 28 - July 2, 1981. Paul F. Reddy was general chairman and Charles Levy exhibit chairman. There were 13 sessions on the technical program, MFSA hosted a Night at the Boston Pops, and there were seven plant tours, a spouses' trip to Newport, RI, and a clambake. Exhibit participation showed 150 exhibitors. Dr. Rolf Weil, known for his investigations of the structure and properties of electrodeposits, was selected as recipient of the Scientific Achievement Award.

Membership was growing and for the first time in 10 years was well over 8000, hitting 8475. There were 480 Research Sustaining Members and 11 Research Patrons. President

## Symposia and Conferences

The largest AES conference is the Annual Technical Conference held in conjunction with the annual meeting of the Council of Delegates and Exhibit of Surface Finishing, SUR/FIN. Free-standing symposia and conferences on specific subjects have been provided for some two decades.

In 1966, the First Plating in the Electronics Industry Symposium, brainchild of Past President Robert L. Ruleff, was held in Newark, with the unexpectedly large attendance of 600. In Diamond Jubilee Year 1984, the 11th took place in Orlando, in February. An AES Symposium on Electroforming was held in Dallas in 1967. In 1974, a symposium on the same subject was co-sponsored with ASTM. In March 1983, the AES International Symposium on Electroforming/Deposition Forming held forth in Los Angeles. AES also has co-sponsored many Aerospace Finishing Symposia.

AES conducted an OSHA (Occupational Safety and Health Act) Symposium at the University of Chicago, December 1972. The first Decorative Plating Symposium was in Detroit, November 1973. The first Continuous Strip Plating Symposium, proposed by Past President Edwin J. Smith, came into being in 1974. The fourth was in Chicago, May 1984.

A Pollution Abatement Symposium was another first for 1974. The AES/EPA Fifth Conference on Pollution Control for the Metal Finishing Industry was held in Orlando, January 30 and February 1, 1984.

The first Printed Wiring and Hybrid Circuits Symposium made its appearance in 1976. There was a Zinc Symposium in 1977. The following year, 1978, the first Thickness Testing Symposium was sponsored by the Syracuse Branch.

The year 1979 saw the first Interna-

tional Pulse Plating Symposium. Also, a joint conference was held with the Aluminum Association, April 1979.

Two symposia in 1980 were: the First Plating on Difficult-to-Plate Metals, and the AES Symposium on Economic Use of and Substitution for Precious Metals in the Electronics Industry.

The AES Design for Plating Symposium, February 1981, was conducted in Lake Buena Vista, FL. The First Electroless Plating Symposium debuted in 1982, and the second was in Orlando, February 2 and 3, 1984. The Federal/State/Municipal/Industrial Waste Control Management Conference for the Surface Finishing Industry was conducted in Orlando, January 1983.

In September 1983, a Symposium on Cleaning, Pickling and Etching was given in Toronto, Canada. All of the above were AES meetings.

Informative presentations are given each year at the Regional Conferences.

James E. Voytko spread the word about AES at the international level, visiting Japan and China in late 1980, and the Institute of Metal Finishing, England, in May 1981. In his annual report, Mr. Voytko mentioned that a new group, the Golden West Regional, had been established and that an organizational change conceived by the Advance Planning Committee would establish a new Technical Activities Board. The plan would structure this board with a series of sections and committees providing for direct representation by individuals in disciplines such as electroless plating, vacuum coating, and plating for electronics.

Nine projects were summarized in the report of Research Board Chairman Robert Duva and Vice Chairman James H. Lindsay II. Among these was Project 58 on "Electrodeposition of Heat- and Corrosion-Resistant Alloys" at the National Bureau of Standards. "This year," said the report, "the Research Board has been considering the long-range direction of AES research programs. . . . The Research Board must maintain a balance between projects that have an immediate impact on the industry and those that are of a fundamental nature. Our current balance (two practical to one fundamental) is felt to be a good ratio to maintain in the future."

New symposia included The Economic Use of and Substitution for Precious Metals in the Electronics Industry and Design for Plating. A 15-minute film, *Surface Finishing—You Can't Live Without It*, was completed to acquaint the public with the importance of surface finishing in daily life. The film was successfully distributed and has been viewed by more than 6 million people to date.

President Harry J. Litsch, Executive Director J.H. Schumacher Jr., Technical Editor William H. Safranek, Past President M.H. "Duke" Dent, and former AES Director Milton Nadel attended the technical conference EBRATS in Sao Paulo, Brazil, during October 1981. Mr. Safranek gave a paper on high-speed plating and Mr. Dent reminisced about the early history of the ABTG Branch. Mr. Dent and the late Paulo Ribbe were forces in its beginning.

Also in 1981, individual names denoting the Proctor, Lane and Wells Awards were eliminated. In the same order, they are now known as AES Leadership, AES Industrial Achievement, and AES Service Awards. In other changes, new members were to be billed on the anniversary dates of their memberships rather than pro rata, based on the fiscal year. Computer billing made this desirable.

AES lost another past president, Herberth E. Head, on May 25, 1981. He had been president of the Detroit Branch and a delegate for 25 years. He received the AES Award of Merit in 1961 and was chairman of the Membership, Education and Proctor Award Committees.

Dr. Edward Parker, 73, died on June 8. He was affiliated with the Providence-Attleboro Branch and was an AES honorary member, Research Board chairman, recipient of the AES Gold Medal Award in 1951, and one of the founders of Technic Inc. in the early '40s. Ronald A. Shaw, former member of the Board of Directors, also passed away in 1981. He was a past president of the Western Ontario Branch.

The growth and development of AES outside the U.S. continued in 1982 when the Taipei Branch in Taiwan received a temporary charter. By year's end, the Society's operating budget exceeded the \$1 million mark.

The First AES Electroless Plating Symposium, addressing both nickel and copper, was held in March 1982. The increasing applications of electroless plating for printed circuit boards, oil-drilling equipment and other uses were largely responsible for the attendance of 250 finishers.

Beginning in 1982, the member-at-large classification was eliminated. Such existing members were given their choice of branch affiliation, or, alternatively, to be assigned one. New members would be assigned to a branch, without election. Furthermore, a new International Branch was created. By eliminating the member-at-large category, the Society made it possible for all members to hold office.

The 69th AES Annual Technical Conference at the San Francisco Hilton and Tower was held from June 20-24, 1982. Jack Dini was general chairman. The concurrent Exhibit of Industrial Finishing opened on June 22, with Joe Payne as chairman and more than 150 exhibitors. The educational program presented some 85 papers in 21 sessions. In general the session topics followed the pattern of previous Conferences, but with sessions devoted to powder coating, alternative deposition processes, electroplating for optics applications and statistical design and computer modeling. MFSA was host to AES attendees at a Gay Nineties Ball and at the Prebanquet Cocktail Party. The technical program, exhibition and committee meetings were held in the George R. Moscone Convention Center, site also of two new features, the Jobshop Center and the Technical Talk Center. Dr. Rolf Weil, Stevens Institute of Technology, delivered the William Blum Lecture and Fred Pearlstein, U.S. Navy Aviation Supply Office in Philadelphia, received the 1982 AES Scientific Achievement Award. Mr. Pearlstein, in his work on coatings for military use, has been involved with electroless plating, chromating, anodizing and many other finishing processes.

In the spring, President Harry J. Litsch and Executive Director J. Howard Schumacher Jr. represented AES at the International Union for Electrodeposition and Surface Finishing in Zurich, Switzerland, and at the Annual Conference and Exhibition of the Institute of Metal Finishing (IMF), Brighton, England, May 4-8.

Membership had increased to 8713, with 476 Research Sustaining Members and 12 Patrons. Moreover, a second film was being produced. *How to Run a Successful Meeting* was done to assist AES branches in conducting their get-togethers and technical sessions in a professional manner.

In his annual report, President Litsch again brought up the question of whether or not the Society's name was appropriate. "We are actually engaged in 'surface finishing,'



(L-r) Alan Grobin with two Scientific Achievement Award winners—Bill Safranek (1979) and Harold Wiesner (1983).

which clearly differs from simply 'electroplating.' Based on this observation," he said, "and the fact that international development is strongly on the upswing, a name that adequately encompasses these characteristics should be selected. If I were asked to pick a name at this moment, I would say the International Surface Finishing Society."

Research Board Chairman James H. Lindsay II reported on seven projects, the newest being Project 60, "Field-Evaluation of a Prototype Donnan Dialyzer" at Southwest Research Institute. Dr. Lindsay mentioned in his report, "The AES research program has, as its primary product, research and development. But a number of side-benefits accrue. In projects undertaken at universities, the work often is assigned to one or more graduate students. As a result these people are exposed to the surface finishing field and may be influenced to choose a career in our industry. In projects undertaken elsewhere, jobs are provided."

The new Technical Activities Board completed its first year of operation under the chairmanship of William G. Millman. There were five operating sections: Electronics Finishing, Decorative and Functional Finishing, Light Metals Finishing, and Allied Technologies. The Allied Technologies Section incorporates Plasma Coating, Vacuum Coatings, Airline Plating Applications, Organic Finishing and Chemical Pretreatment, and represents the Society's determination to address all areas of surface finishing technology.

In other 1982 news, a Group Life Insurance Plan was made available to members, branches and regionals and the Society acquired 8 acres in the Central Florida Research Park for construction of a new International Headquarters. The Fifth Edition of the *AES Shop Guide* was also published. A computerized retrieval service accessing more than 300 databases was offered by AES in conjunction with the University of Central Florida. Thus, computerized searches of the volumes of technical literature that AES



(L-r) Nine-11me AES Treasurer Charles Fotheringham, 1983-84 President Herb Tilton, Past President Cort Platt (1982-83), Executive Director J. Howard Schumacher, President-Elect Jack Dini, and Past President Harry Litsch (1981-82).



Fred Pearlstein garnered Scientific Achievement Award in 1982. He is also an Intensive Training Course instructor.

activities and publications helped to create can now be scanned and selectively retrieved in a matter of minutes.

The obituary column for 1982 included the "Father of Electroplating" in Australia, Benjamin W. Armstrong. He was the first president of the Sydney Branch. W.E. Cooke, an expert on aluminum finishing, died on June 6. He presented papers at AES Annual Conferences and was particularly active in the Light Metals Finishing Section. Harold E. Ellis, an honorary member of the Rockford Branch and chairman of the Research Sustaining/Patron Membership Committee for many years, was lost to the Society in July. He established the Forging Ahead Award and received the Proctor Leadership Award in 1970 and the Wells Service Award in 1980. Robert L. Ruleff, 1973-74 AES president, died in October. At his death, he was a member of the Miami Branch, but had been long involved with Dayton. He had chaired the Books and Symposia Committee and the Technical Education Board. Prior to moving to Florida, he had been with NCR Data Terminal Division and had owned a plating shop.

Dr. Earl J. Serfass also passed away in '82. He was associated with AES research for many years and was director of Project 29. A graduate of Lehigh University, he eventually headed the chemistry department there and formed the Serfass Company in 1952. It was acquired by Milton Roy Company in 1959.

### Jubilee Year Approaches

With the advent of 1983, plans were being formulated to celebrate the AES 75th Diamond Jubilee Anniversary in 1984. The most important event would be the building of the AES International Headquarters on 7.6 acres of land acquired for \$300,000 in the Central Florida Research Park. Value of the land has more than doubled since the July 1982 purchase.

The 17,000-square-foot building, expected to be occupied by September 1984, is being designed expressly to fit the needs of the staff and equipment and to provide for current and future society growth and membership needs. The Winter Park building was sold in mid-1983 for approximately three times the original purchase price and the money placed in an interest-bearing account to defray the cost of a low-interest-rate Industrial Revenue Bond funding the project. The building was leased back until the new Headquarters is occupied. AES President Herbert Tilton, Past President Cort Platt, and Executive Director Schumacher broke ground for the new Headquarters with a gold-plated shovel in September 1983.

The dues were increased to \$40. The per capita tax became \$31, allowing \$9 for the branches. The increase was not linked with the building of the new Headquarters. It was necessary for P&SF operations, and to endeavor to have dues provide for a more reasonable and equitable financial base in proportion to total percentage of Society income.

The First AES Federal/State/Municipal/Industrial Waste Management and Control Conference for the Surface Finishing Industry was held in Orlando, January 10-11, 1983, with the purpose of introducing attendees to the many types of equipment and methods for pollution control. The First Electroforming/Deposition Forming Symposium occurred on March 23-24 in Los Angeles.

In conjunction with the 10th Plating in the Electronics Industry Symposium, February 1-2, 1983, San Francisco, there were meetings of the Technical Activities Board, Electronics and Electroless Finishing Sections, the Meetings

Section, the Publications Board, Certification Committee, Educational Activities and Alloy Plating Sections, and the Technical Education Board, Vacuum Coating and Education Committees. These many divisions, and others, collectively form the mechanism to keep the Society in the mainstream of coatings technology.

There were now 46 Illustrated Lectures and a new 15-minute film telling the AES story. *AES—The Surface Finishing Society* explores Society functions in live action to show the educational opportunities, services and camaraderie available today.

SUR/FIN '83, the 70th AES Technical Conference and Exhibit of Surface Finishing, was held in Indianapolis, June 26 to 30, with an attendance of 3600. Paul Johnson and Richard O. Watson were co-chairmen. Frank Hartwig was exhibit chairman. Sixty-eight papers were delivered in 13 technical sessions, with management a new subject offering. There were some 150 exhibits at the Indiana Convention-Exposition Center and 30 presentations on exhibitors' products and services at the TechTalk Center. Three plant tours, daily programs for spouses, guests, teens and 'tweens, an outing to the Indianapolis Speedway, and an MFSA "Young at Heart Night" all will be remembered by attendees.

Past President Simon Gary was named an honorary member of the Society, and Dr. Harold J. Wiesner received, posthumously, the 1983 AES Scientific Achievement Award. He was active in electroforming, hard anodizing, precious metals plating, lead dispersion plating and other processes at Lawrence Livermore National Labs. More than 50 boards, committees, sections and regionals held meetings during SUR/FIN, proving how AES has expanded and diversified in recent years. The Society at this Jubilee time has an operating budget of more than \$1.4 million, showing remarkable growth.

Membership broke 9000 for the first time on March 31, 1983. There were 411 Research Sponsors (formerly Sustaining Members) and 10 Patron Sponsors. The One-on-One Membership Contest, beginning September 1, 1982, and ending Phase I on March 31, 1983, had a goal of doubling the membership by the 75th Anniversary. This could be accomplished with each member bringing in just one new member. Joseph Werbicki, Providence-Attleboro Branch, won the First Phase Award. He was far ahead of all other contestants.

In other news, the Scholarship Program, operating but a short time, had awarded six grants, and the Board of Directors authorized a temporary charter to the Hampton Roads Branch in Norfolk, VA. The ABTG Branch in Brazil received approval to change its name to Associacao Brasileira de Tecnologia Galvanica et Ratamentos de Superficie. Sur-

face finishing is now incorporated in its name. Los Angeles was chosen by the Council of Delegates as the site for SUR/FIN '88 and Cleveland for '89.

A revised Constitution was presented to the Council of Delegates at its July 1, 1983, meeting. It was rejected, except for Article X, *Dissolution*, a new addition. The proposed revision was returned to the Board of Directors with the request that the delegates have the opportunity to compare the existing with the proposed new Constitution, along with proposed changes in the Bylaws. This will be done at the July 1984 meeting.

The following was to be found in the annual report of President Platt: "The diverse interests of our Society are formidable. To increase membership we must keep serving the needs of the plater and continue to develop educational, training and research activities for allied sciences such as electronics finishing, organic coating, electroless plating, vacuum deposition, electroforming and ceramic finishing. We know from surveys that our membership has job-related interests in these areas, in addition to electroplating. The newly formed Allied Technologies Committee and its sections are responding to these needs."

Treasurer Fotheringham paid tribute to AES members in his annual report: "We continue to experience very significant volunteer participation in the conduct of AES affairs. I am continually impressed with the dedication and interest of our volunteer members who donate so much of their time and resources to Society affairs."

Dr. John Deuber, Research Board chairman, reported on the latest AES work, Project 61, "Electrodeposition on Anodized Aluminum Alloys" at Reynolds Metals Company. The ongoing recession had affected contributions to AES research, prompting Dr. Deuber to comment, "Since 1927, the AES Research Board has been committed to finding solutions for the problems facing our industry. The board routinely seeks co-sponsors in order to make our dollars go further; for example, EPA is expected to co-fund two environmentally related projects this fiscal year. Even so, shrinking contributions could interfere with the Research Board's objective." He urged the membership to reverse the trend so that the research program could continue to benefit surface finishers.

In early 1983 the International Branch was temporarily chartered and in June a list of CEFs was published in *P&SF*. Frank H. Schladen, active in plating for nearly 50 years, was made an honorary member of the Dayton Branch.

Deaths that year included Al W. Castellero, former member of the Board of Directors. He was a founder of the Orange County Metropolitan Branch. Dr. M.M. Beckwith, a consultant and former employee of GMC's Guide Lamp Div., Harshaw Chemical, R.O. Hull Co. and Conversion Chemical,

### AES Awards

The most prestigious is the Scientific Achievement Award, given to those who have made "outstanding contributions advancing the theory and practice of electroplating and allied sciences, raised the quality of products, or enhanced the dignity of the profession."

Annual awards are given for Leadership, Industrial Achievement and Service. An Award of Merit is frequently given.

Annual awards for papers selected as the best published in *Plating and Surface Finishing*, from those appearing during the period of a year,

are presented at the Annual Technical Conference. A Paper Awards Committee makes the selections. Awards also are made for best verbal presentations of papers.

Branches and members receive awards for increasing the membership of the Society.

died on March 30. Dr. Beckwith was a member of the Indianapolis Branch and a past chairman of the Research Board. AES 50-year member Vincent Mattacotti passed away on April 1. He had received the Lane Industrial Achievement Award in 1976 and headed the Milwaukee Plating Company. Finally, Robert F. Meyers of the St. Louis Branch was lost to AES in 1983. He had served on the Publications Board and two terms on the Board of Directors. He was also

a member of the Light Metals Finishing Section.

At the suggestion of First Vice President Jack Dini, a series of one-day concentrated courses was established. The first of these Short Courses, Solving Surface Finishing Problems, was held in Cleveland on October 10, 1983, followed by a two-day Symposium on Cleaning, Pickling and Etching. Lawrence J. Durney was course instructor and symposium chairman.

## Publications

Educating through the printed word is a paramount function of AES. Its most important publication is its journal, *Plating and Surface Finishing*. First published as *Quarterly Review* in 1910, becoming *Monthly Review* in 1914, the name was changed to *Plating* with the January 1948 issue and again changed to *Plating and Surface Finishing* in April 1975. Steven B. Isham is editor and William H. Safranek, technical editor. Its technical content, professional layout and four-color printing place it high among technical journals.

The technical papers must be offered for first publication and are required to be approved by two reviewers, expert on the subject. If a third opinion appears to be required, the technical editor acts as a reviewer. To reach members on all levels, a 50/50 balance of technical and practical papers is striven for; papers with new information are always sought.

Technical Editor Safranek states, "I'd like to see more survey articles that explore, in-depth, the pros and cons of competitive finishing processes (e.g., cadmium vs. substitutes; buffing vs. vibratory finishing; recovery vs. chemical treatment) and that quote scores of adherents to both sides."

Features such as Plating for Electronics, Finishers' Think Tank, Finishing Facts, Circuit Topics, and Finishing Tip of the Month contain usable data. The news of the branches, members, other associations, trade literature and new products can be found in every issue.

The annual *AES Shop Guide*, now in its fifth edition, is a useful addition to the publications.

The *Technical Proceedings* of the Annual Conventions, discontinued 20 years ago, was an entitlement of the members without charge. Today, proceedings of the Annual Conference technical program and many

symposia are available through AES at additional charges.

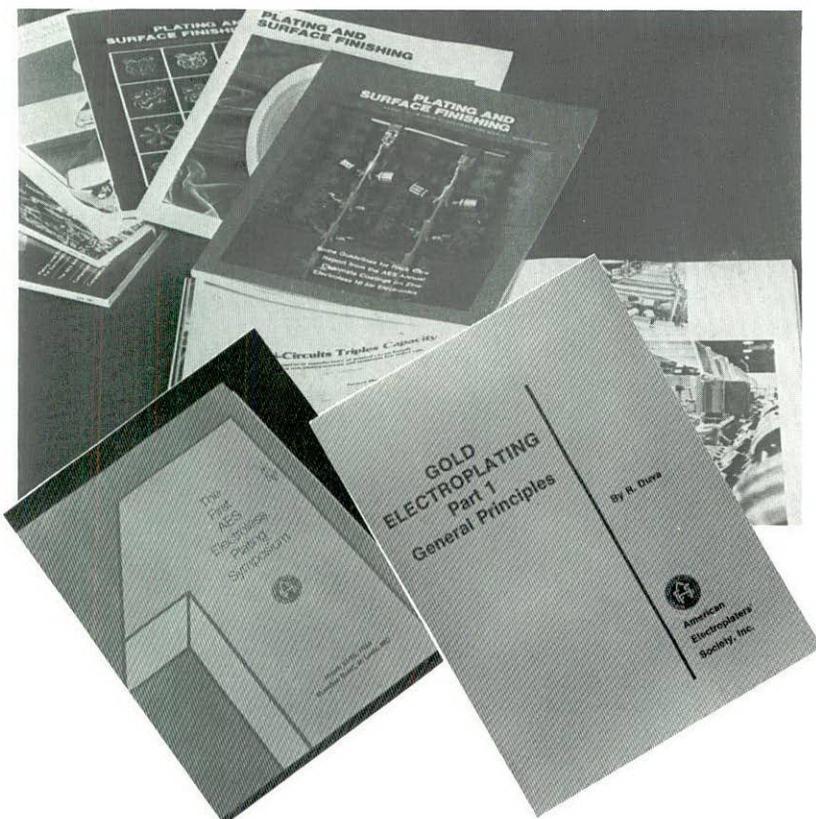
Books that AES has been responsible for include: *Electroplating Process Control Handbook* by Dr. D. Gardner Foulke, *Electroplating—Fundamentals of Surface Finishing* by Dr. Frederick A. Lowenheim, *Fundamentals of Electrochemistry and Electrodeposition* by Dr. Samuel Glasstone, *Finishing of Light Metals* by Dr. Gerald H. Kissin, *Hydrogen Embrittlement in Metal Finishing*, edited by Dr. Harold J. Read, and *Electrodeposited Metals Handbook* edited by William H. Safranek.

In the early 1960s, Dr. Donald A. Swalheim, then chairman of the Branch Education Committee, began the development of the Illustrated Lecture series. There are now 47 lectures, with accompanying 35-mm color

slides. AES acknowledges its indebtedness to the many firms that have produced the texts and slides, over the years. The texts, in pamphlet form, are obtainable, with optional slides, from AES Headquarters. They are used extensively by AES branches, educational institutions and finishing organizations in the presentation of lectures.

Experts on each subject authored the lectures. Many have been updated in incidences of technological advances. The 47 subjects cover the industry broadly. Moreover, about 25 new lectures on electronics finishing are being developed under Richard G. Baker, AES educational/technical director.

A listing of the available Illustrated Lectures appears regularly in *Plating and Surface Finishing*.



## Tilton Jubilee President

On June 30, 1983, The Council of Delegates elected Herbert Tilton AES president for 1983-84. He serves through the 75th Anniversary of the April 10, 1909, formation of the Society. Although formerly a plater, Mr. Tilton is the first supplier to attain the presidency of AES. A self-made, hard-driving individual, he has been deeply concerned with AES membership through many years of service on the Membership Committee and Branch and Regional Activities Board (presently the Member Services Board). Now that he is president, membership is more important to him than ever. He believes AES is far from reaching its potential in this area.

All AES presidents travel widely in office. President Tilton

seems to be on his way to some sort of record. He probably will visit a third of the AES branches and several regionals during his term of office. In October 1983, he attended with Executive Director Schumacher the Second SURTEC Berlin '83 in West Germany, as well as a meeting of the AES International Branch and the International Union for Electrodeposition and Surface Finishing.

Kergan Wells, AES treasurer from 1971 to 1976, died on November 18, 1983. An illustrious, second-generation member of the Toronto Branch, Mr. Wells had long served the branch as an officer and member of the executive group. His father, W.W. Wells, was a founder of the branch. Kergan served on the AES Project Committee at the Ontario Research Foundation and his firm has been a consistent Research Patron of long standing.

## The Pot and Past Presidents

The story of the Order of the Pot was written by its originator, 1947-48 National President Kenneth M. Huston, and published in the March 1958 issue of *Plating*. The tale is told best by Ken Huston so here are portions of it.

An "important event was Tom Slatery's (1935-36 national president) presentation of a 'pot' to Walter Pinner upon the occasion of his visit as president of the AES to the Baltimore-Washington Branch in 1946. Pinner had related to his third vice president, Ken Huston, how he had played a practical joke upon one of his supervisors at the Danville, IL, Manhattan Project. This resulted in a 'fur-lined pot' being presented to the boss by an unsuspecting secretary at the annual Christmas Party. Huston believed a humorous incident could be added to the evening's entertainment by giving Pinner a plated pot. It was a silver and cadmium plated echo box (used to check aviation equipment in World War II) with a gold plated handle.

"From these beginnings, the Baltimore-Washington Branch thereafter presented similar pots to Presidents Savage (1947), Huston (1948), Johnston (1949) and Logozzo (1950). Logozzo's was the last of the original aluminum pots. Each 'pot' that has since been presented... has been of copper. Holders of the original aluminum pots are considered today as Charter Members of the Order."

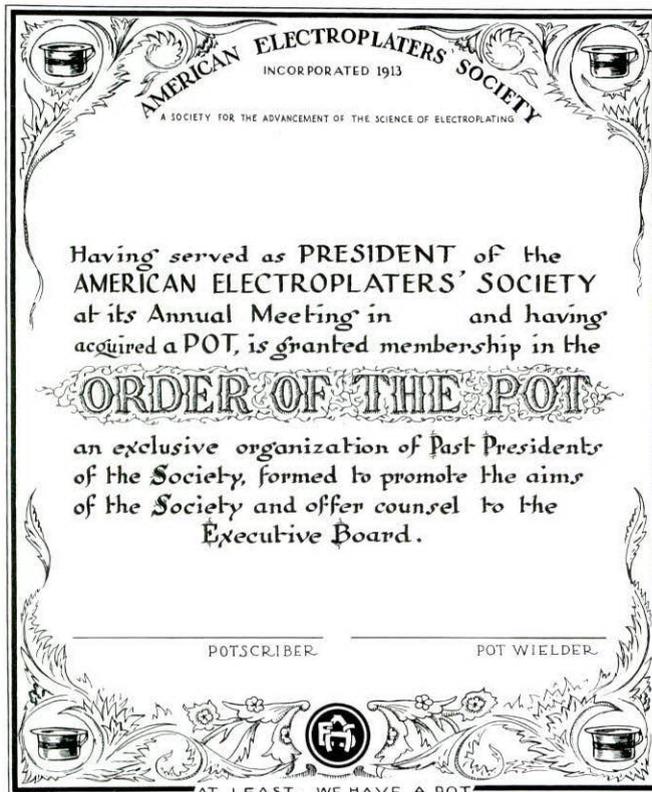
The Order of the Pot was formally organized in 1949 and its first dinner meeting was held in Buffalo in 1951. All of the living past presidents prior to 1946 joined the Order in 1952.

It became evident in 1954 that the

name "Order of the Pot" made it difficult to hold serious recognition of its object of "a group of experienced leaders to whom the Executive Board and others may turn for counsel in furtherance of the aims of the American Electroplaters' Society." A letter ballot vote of past presidents resulted that year in change of the name from "Order of the Pot" to "Order of Past Presidents." (When it was the Order of the Pot, the chairman was known as the potwielder and the secretary was the potscriber.)

The Pot is still presented to the outgoing AES President at the annual banquet of the Baltimore-Washington Branch, each April. Since the death of Ken Huston, the production of the Pot has been faithfully performed by AES Past President Arthur G. Pierdon.

The Order of Past Presidents meets at the AES Annual Technical Conference, and presents an award plaque each year at the banquet to someone (not necessarily a member of AES) worthy of "recognition of exceptional service" to the AES.



"Order of the Pot" certificate.

### The 75th Year

The AES 75th Diamond Jubilee year started auspiciously in January with about 1000 attendees at AES Week in Orlando, FL. There were board, committee and section meetings, a Short Course in Gold Plating for Electronic Applications, a Short Course on Plating Through-Holes in Printed Circuits, the 5th AES/EPA Conference on Pollution Control, the 11th Plating in the Electronics Industry Symposium, and the Second Electroless Plating Symposium—all of which were well received. Also in January, the AES named its first Educational/Technical Services Director, Richard G. Baker, who logged 16 years with Bell Laboratories as supervisor of the Corrosion Engineering and Metal Finishing Group. His responsibilities: to interact with AES volunteers in establishing and overseeing educational programs and to further the Society's involvement in all areas of surface finishing.

The great event for 1984 is the celebration of the Society's Diamond Jubilee at SUR/FIN '84 at the New York Hilton, New York, July 16-19. It is the 71st AES Annual Technical Conference and Exhibit of Surface Finishing. Herman N. Hammer is general chairman and Daniel B. Paris exhibit chairman.

So the Society returns to New York for its Jubilee celebration. Particularly fitting because it is the city of its founding. The organizational meeting was held at the Chelsea Hotel on April 10, 1909. That hostelry celebrated its 100th Anniversary in 1983 and is still a residential hotel of distinction. The return to New York is not only to the city of AES origin, but also to the same hotel the Annual Conference (then Convention) was held in 1965. It has space for all activities, including the exhibition, under one roof.

The program set up by Chairman Hammer takes on an anniversary glow. The July 17 opening session is unusually interesting and will be open to spouses and guests. An exercise program is an innovation. A plant tour to Pan American Airlines, under Chairman William Sepp, will be a treat for attendees. The technical program, with some 90 papers, offers new work on many finishing subjects: electroless plating, electroforming, electronics finishing, anodizing and dispersion coatings, to name a few. A 230-booth exhibit featuring the latest in equipment, processes and services, is another highlight.

Jack Dini has been nominated as 1984-85 AES president. He has long service on Society boards and committees and in-depth familiarity of AES operations. As chairman of the Advance Planning Committee, he thoroughly explained its organization and purposes in the July 1983 *P&SF* editorial, "Advance Planning: What It Can and Will Do."

"The current objectives of the Advance Planning Committee include broadening the scope of AES, strengthening the branches, encouraging more membership involvement in Society affairs, emphasizing membership retention and dues, and determining an accurate member profile," said Mr. Dini. "The Advance Planning Committee is relatively new—its first meeting was held in January 1980." This is

perhaps more accurately a rebirth, rather than a "new" committee. Nearly 20 years ago, AES had a Forward Planning Committee. In June 1972, an Evolutionary Planning Committee was formed. New starts or "rebirths" are needed when there is continuous changing of officers, and board and committee members. The new Advance Planning Committee has made an auspicious beginning and is expected to have an impact on the future history of the AES.

With more members than ever before participating in greatly expanded boards, sections and committees and the prospect of even better services at Headquarters, AES is justifiably proud at its 75th Diamond Jubilee Celebration. And the look ahead holds great promise for fulfillment of its mission as set forth in the current AES Constitution:

"To improve and disseminate knowledge of the arts and sciences of electroplating and the deposition and finishing of metals, allied arts, and to develop a cooperative spirit of friendship and mutual assistance among its members."

For 75 years, AES has served the needs of surface finishers—from the foremen platers of 1909 to the finishing professionals worldwide of 1984. This international organization has a proud tradition and looks forward to accepting the challenges of the future. □

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### About the Author

Rodney Leeds retired as editor of "Plating" and as general manager of the AES in 1973, after 17 years of distinguished service. A resident of Cedar Grove, NJ, Mr. Leeds holds honorary membership in both the AES and the Newark Branch. Prior to joining AES, he served in a variety of editorial posts with newspapers and magazines.

