

Advice & Counsel

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Industry Stalwarts: William Blum and Louis Weisberg

Dear Readers,

2009 marks the 100th anniversary of AESF Foundation [formerly American Electroplaters & Surface Finishers Society (AESF) and previous to that American Electroplaters Society (AES) and previous to that the National Electroplaters Society (NES)].

In making a historical journey through the history of this magnificent organization, I have come across articles providing a rare glimpse into the backgrounds of some of the individuals in our industry that had a major impact on how things were done or why. I am making an attempt at covering some of these individuals in the next few articles, using text previously printed in past issues of Plating or Plating & Surface Finishing magazine. Readers are urged to submit names and information for inclusion in future articles. These individuals are covered in no particular intended order. In some cases, I am assuming, based on apparent age that the individuals are longer with us. Forgive me and let me know if you are still out there.

I continue this series with:

William Blum



Dr. William Blum had a major impact on the electroplating industry. As Chief of the Electrodeposition Section of the National Bureau of Standards, he has contributed much to our knowledge of plating fundamentals.

Born in Philadelphia on December 28, 1881, as one of nine children, Mr. Blum (out of necessity) learned the art of getting along with others, an ability which earned him a very large host of friends. He graduated from University of Pennsylvania in 1903 and went to teach at the University of Utah. He obtained his Ph.D. degree from his Alma Mater in 1908 and accepted an appointment at the National Bureau of Standards in 1908.

During World War I, he began research into electroplating, which became his life's work. It is difficult to select a few of Blum's contributions for special mention in this limited space. Nearly 100 papers bear his name as author or co-author. Hardly any phase of electrodeposition eluded his attention, be it scientific or technical.

Mr. Blum's epic contribution to our industry was *Principles of Electroplating and Electroforming*, which he first published in 1924 in collaboration with George B. Hogaboom. A second edition appeared in 1930 and a third edition was published in 1949.

The value of "Blum and Hogaboom" is best indicated by the fact that it is still a standard text for all who study electroplating, in spite of the fact that many of the described processes have undergone further development and refinement. The principles so well thought through and presented still remain fundamentally unchanged.

Perhaps most important has been the teaching enjoyed by his younger associates at the Bureau, many of whom have themselves become important figures in the industry. All who had the opportunity to work with Mr. Blum in technical and scientific societies and committees received inspiration and knowledge from him.

Among recognitions which were bestowed on Mr. Blum were the presidency of the Electrochemical Society (1926) and its Acheson Medal (1944), the Medal of the American Institute of Chemists (1926), an honorary membership in the American Electroplaters' Society and its special award (1928). In 1954, he was the first recipient of the AES Scientific Achievement Award, which later was named for him. The William Blum Memorial Lecture is still delivered by the previous year's recipient of the highest scientific honor of the NASF.

But Blum's interests covered a much wider field than his science. He once served as mayor of his community, Chevy Chase, Maryland, and as such succeeded in having installed various public services opposed by the machine politicians. He has also been an active member of his church, Chevy Chase Presbyterian Church, and taken particular interest in its youth work.

Louis Weisberg



Dr. Louis Weisberg was a consulting chemist in New York City and a past chairman of the Research Committee of the American Electroplaters' Society. Mr. Weisberg was a physical chemist whose interest in electrochemistry gradually led him into electroplating.

Dr. Weisberg was born in Dallas, Texas, on January 13, 1891 and spent his boyhood in the Cotton Belt where the only Republican was the postmaster. After graduating from Waco High School, he studied for four years at the University of Texas and then for three years at Massachusetts Institute of Technology, where he earned his degrees, B.A. in 1912 and Ph.D. in 1915.

Having made "easy" dyestuffs, cut off by World War I, with a struggling firm, he soon joined the Scoville Manufacturing Company in Waterbury, Conn., as research chemist. While he had nothing to do in the plating department, it was there that he saw his first good-sized plating plant and was amazed at the keen powers of observation displayed by one of the tank men. There he also met George B. Hogaboom, who impressed him "by his ability to straighten out whatever had gone wrong, and to him "the wonder grew that one small head could carry all he knew."

After a year in Paris with the Chemical Warfare Service, in which he rose from Pfc. to 2nd Lieutenant, he worked for a while as physical chemist in the Color Laboratory, U. S. Bureau of Chemistry, Washington, D.C. He then went to work in The Barrett Company's Research Laboratory in Shadyside, N.J., and soon had charge of its Experimental Plant Division.

In 1921, Dr. Weisberg threw caution to the winds and put out his shingle as consultant. In 1925, when chromium plating appeared on the horizon, he read Sargent's article and became a chromium plating expert, a not too difficult feat in those days. Chromium led to nickel, nickel to copper, and so on to a wide experience with most metals of importance in electroplating. Bright nickel and copper, electroforming and production of metal powders followed.

While best known for his bright nickelcobalt and bright copper baths, Weisberg's chief contribution to the plating field included methods for keeping solutions operating without interruption by means of continuous purification.

Dr. Weisberg was active in many technical societies, including the American Electroplaters' Society, the American Chemical Society, the Electrochemical Society, the American Institute of Chemical Engineers and the Chemists' Club. He was also a Fellow of the American Institute of Chemists and a former director and president of the Association of Consulting Chemists and Chemical Engineers.

Dr. Weisberg's principal hobby was classical music.

More next month. P&SF

The 2010 **Bright Design Challenge is GEARING UP!**









NASF is pleased to continue its relationship with the College for Creative Studies in Detroit to bring you the 2010 Bright Design Challenge. The "Challenge" will soon begin and we need your support. The future of surface finishing depends on the innovative ideas of our youth and it's the responsibility of those currently serving this industry to foster and nourish these ideas.

The 2010 Bright Design Challenge will focus on utilizing bright finishes and chromium on a performance motorcycle - the details are still being worked out - but you can be sure this will be an exciting challenge!

This event was created to help promote electroplated bright and alternative finishes in various industries and to educate future designers on the processes responsible for creating the look, feel and performance of these finishes.

To view the entire Challenge Program, click here.

Please take a moment to review the photos as well!

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A Bright Idea

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