Symposium on

ELECTROFORMING—APPLICA-TIONS, USES, AND PROPERTIES OF ELECTROFORMED METALS



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Electroforming—Applications, Uses, and Properties of Electroformed Metals



Frontispiece.—Minerva—Bronze Electroformed in 1920.

SYMPOSIUM ON ELECTROFORMING— APPLICATIONS, USES, AND PROPERTIES OF ELECTROFORMED METALS

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FOREWORD

In 1959, when Subcommittee IV of ASTM Committee B-8 on Electrodeposited Metallic Coatings and Related Finishes reviewed projects of probable interest to the membership, electroforming appeared to be of special significance. Although electroforming is as old as electricity and has potential use in all industry, very little of its broad implications has been expounded in the literature. As the committee began to develop the picture of the present status of electroforming in this country, its vast scope began to emerge.

Even though this symposium occupied four sessions over two days, the committee recognized that it was practically impossible to take into account all the pertinent aspects available today. Many of these, of a military or proprietary nature, cannot be revealed and therefore are not available to the entire scientific community. However, it is felt that the information herein will be of value to the electroformers and clearly indicate to the layman the immense potentialities of this technique for precise reproduction of articles from one copy to millions.

This symposium, sponsored by Subcommittee IV on Electroplating Practice of ASTM Committee B-8 on Electrodeposited Coatings and Related Finishes, was held on Tuesday and Wednesday, February 6 and 7, 1962, during ASTM Committee Week held in Dallas, Tex.

Mr. A. D. Squitero, International Nickel Co., served as symposium chairman and presided over the Open Forum Session. Mr. E. B. Saubestre, Enthone, Inc., presided over the Introduction Session covering Solutions and Deposit Properties; Mr. A. H. DuRose, Harshaw Chemical Co., presided over the Session on Automotive, Sound, and Miscellaneous Parts Manufacture; and Mr. R. B. Saltonstall, Udylite Corp., presided over the Session on Aviation and Aerospace Applications.

This symposium was developed by Section E, Subcommittee IV, whose members are:

- W. L. Pinner, Co-Chairman, Consultant
- A. D. Squitero, Co-Chairman, The International Nickel Co., Inc., New York, N.Y. Manuel Ben, Supervisor, Research Laboratories Division, Plating Service Section, Electrochemistry Department, General Motors Corp., Warren, Mich.
- A. K. Graham, President, Graham Savage Associates, Jenkintown, Pa.
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- W. H. Safranek, Assistant Chief, Electrochemical Engineering Division, Battelle Memorial Institute, Columbus, Ohio
- R. B. Saltonstall, Technical Director, The Udylite Corp., Detroit, Mich.

- C. H. Sample, Supervisor of Plating Section, The International Nickel Co., Inc., New York, N. Y.
- A. H. DuRose, Director of Electrical Research, Harshaw Chemical Co., Cleveland, Ohio
- E. B. Saubestre, Technical Director, Enthone, Inc., New Haven, Conn.
- D. G. Faulke, Research Director, SEL-REX Corp., Nutley, N. J.
- F. Carlin, Chemist, The International Nickel Co., Inc., New York, N. Y.
- F. A. Lowenheim, Laboratory Manager, Metal & Thermit Corp., Rahway, N. J.
- M. B. Diggin, Technical Director, Hanson-Van Winkle-Munning Co., Matawan, N. J.

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