SYMPOSIUM ON POWDER METALLURGY

BUFFALO SPRING MEETING AMERICAN SOCIETY FOR TESTING MATERIALS March 3, 1943



Published by the AMERICAN SOCIETY FOR TESTING MATERIALS 260 S. Broad St., Philadelphia 2, Pa.

SYMPOSIUM ON POWDER METALLURGY

BUFFALO SPRING MEETING AMERICAN SOCIETY FOR TESTING MATERIALS March 3, 1943



Published by the AMERICAN SOCIETY FOR TESTING MATERIALS 260 S. Broad St., Philadelphia 2, Pa. Copyright, 1943 by the American Society for Testing Materials

Printed in Baltimore. U.S.A. September, 1943

FOREWORD

The papers and discussions appearing in this volume were presented at Buffalo, N. Y., March 3, 1943, during the Spring Meeting of the American Society for Testing Materials as a Symposium on Powder Metallurgy. This symposium was sponsored by the Buffalo Committee on Arrangements under the direction of B. L. McCarthy, of the Wickwire Spencer Steel Co., Chairman; W. H. Lutz, Pratt & Lambert, Inc., Vice-Chairman; and T. L. Mayer, of the Buffalo Public Library, Secretary.

The symposium was developed by B. L. McCarthy, Chairman of the Buffalo Committee, with the assistance of H. S. Rawdon, Director, National Bureau of Standards, on behalf of the Society's Committee E-6 on Papers and Publications.

The presiding officer of the symposium session was A. J. Langhammer, President, Amplex Division, Chrysler Corp. NOTE.—The Society is not responsible, as a body, for the statements and opinions advanced in this publication.

CONTENTS

PAG	GE
The Fundamentals Necessary to Apply Powder Metallurgy-Charles Hardy	1
Discussion	
The Effect of Pressure on the Properties of Compacts-Clarence W. Balke	11
Discussion	21
The Influence of Homogenization Upon the Physical Properties of Copper-Nickel Powder Alloys—Frederick N. Rhines and Russell A. Meussner	25
Discussion	30
The Effect of Particle Size on the Shrinkage of Metal Compacts-P. R. Kalischer	31
Discussion	37
Alloy Powders—T. H. Lashar	41
Discussion	42
Metal Powder Friction Materials-J. F. Kuzmick	44
Discussion	48
The Hot Pressing of Metal Powders-W. N. Pratt.	49
Discussion	53

