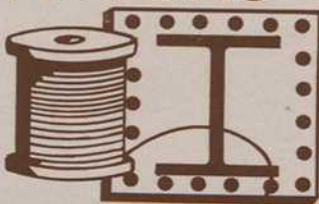


ATMOSPHERIC FACTORS
AFFECTING THE
CORROSION OF
ENGINEERING METALS



S. K. Coburn, *editor*



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ATMOSPHERIC FACTORS AFFECTING THE CORROSION OF ENGINEERING METALS

Proceedings of the
Golden Anniversary Symposium
Commemorating 50 Years'
Atmospheric Exposure Testing

A symposium sponsored by
Committee A-5 on
Metallic-Coated Iron and Steel Products
and Committee G-1 on
Corrosion of Metals
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Dedication



Vincent Paul Pearson
12 April 1916 to 15 October 1977

This volume, recording the activities of the Golden Anniversary Symposium, and serving as a permanent record of contributions to the field of atmospheric corrosion, is hereby dedicated as a living memorial to our professional colleague and close personal friend—Vincent Paul Pearson, Senior Research Engineer, Research Department, Inland Steel Company, East Chicago, Indiana, who passed away on 15 October 1977, at the age of 61 years.

Vince was born in Chicago, Illinois, and attended its public schools and the University of Illinois. He completed the requirements for the B.S. degree at Roosevelt University in 1940. He began his career in the Research Laboratory of the Inland Steel Company in 1940 in the field of steel pickling inhibitors. He spent the period 1942 to 1945, during World War II, in the United States Army Armored Artillery where he achieved the rank of Colonel.

Upon his return to Inland Steel, he became engaged in corrosion activities beginning in 1948 and continuing to 1968. He had responsibilities in the area of corrosion control. During this period, he was granted three patents in the field of tinsplating. Beginning in 1968, he supervised programs in atmospheric corrosion and accelerated testing in the field of metallic-coated sheets.

Vince was a resident of Chesterton, Indiana for 30 years. He was married to Clare Breckenridge on 15 April 1939, and leaves a married son, John, and married daughters, Ann Donahue and Dottie Johnson, and a mother, Dagmar Johansen, a sister, Mrs. Samuel Bond, and five grandchildren. He was a precinct committeeman, served on the Board of Zoning Appeals for many years, and was a Cub Master.

Vince came into ASTM activity when the giants of another era were completing their work. He learned well and soon picked up the reigns of Subcommittee XIV on Sheet Tests. When Committee G-1 was activated, it was Vince who was called upon to coordinate the effort to gain membership. His organizing ability, his enthusiasm, and thoroughness in these tasks made him a giant of sorts in his own right. He left us with several viable committee structures in which we and future members can function effectively. Vince prepared the tabulation forms for the annual sheet inspection of A05.15 and G01.4.2. He prepared all subcommittee and section reports. He photographed all specimens and presented thoroughly documented photographic reports at the annual meetings which will serve as a model of effectiveness. He conducted the 50th Annual Inspection by rededicating the State College rural test site in a ribbon-cutting ceremony. Vince was equally active in atmospheric corrosion affairs in the National Association of Corrosion Engineers where he was the chairman of the newly formed Unit Committee on Atmospheric Corrosion. He became a corrosion specialist in 1971.

It can truly be said of Vincent Paul Pearson—who faithfully served his country, was a successful investigative corrosion engineer, inventor, author, organizer, parent, loving husband, and a dedicated citizen—that he was man for all seasons.

Foreword

This publication contains papers presented at the Golden Anniversary Symposium Commemorating 50 Years' Atmospheric Exposure Testing at the State College Rural Test Site held at Pennsylvania State University, State College, Pa., 18-19 May 1976. The symposium was sponsored by the American Society for Testing and Materials Committees A-5 on Metallic-Coated Iron and Steel Products and G-1 on Corrosion of Metals. D. C. Pearce, American Smelting and Refining Company, and S. K. Coburn, United States Steel Corporation, presided as symposium co-chairmen. Mr. Coburn is editor of this publication.

Related ASTM Publications

**Galvanic and Pitting Corrosion—Field and Laboratory Studies, STP 576
(1976),04-576000-27**

Stress Corrosion—New Approaches, STP 610 (1976), 04-610000-27

Chloride Corrosion of Steel in Concrete, STP 629 (1977), 04-629000-27

A Note of Appreciation to Reviewers

This publication is made possible by the authors and, also, the unheralded efforts of the reviewers. This body of technical experts whose dedication, sacrifice of time and effort, and collective wisdom in reviewing the papers must be acknowledged. The quality level of ASTM publications is a direct function of their respected opinions. On behalf of ASTM we acknowledge with appreciation their contribution.

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