TITANIUM vs STEEL,

A Symposium

Organized by

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THE Titanium Committee of the Society's Institute of Metals Division has arranged symposia for the Fall Meeting for the past several years. Originally, the symposia dealt exclusively with various aspects of titanium technology and applications. However, titanium does not exist in a world of its own. Indeed, the rivalry of titanium vs steel for the applications of the metal is one of the keenest in metal marketing. Hence, at the most recent symposium, in Chicago on November 3, 1959, the broader question of the competitive position of titanium vs steel was taken up.

The symposium was organized to permit speakers representing the producing industry and users to present the cases for titanium and for steel in various applications important in titanium usage: airframes, jet aircraft engines, pressure vessels, solid fuel motor cases, and chemical equipment (in the latter application all materials competitive with titanium were considered). Each speaker was provided with the opportunity for a brief counter argument, after having heard the formal presentation for the alternative material. The time remaining for each of the cases considered was taken up with discussion from the floor.

Dr. W. J. Harris, Jr., Director of the Materials Advisory Board, National Academy of Sciences, was moderator of the symposium, and to him belongs much of the credit for the lively and informative discussion periods following the formal presentations. As was true for previous IMD titanium sym-

posia, the audience contained many who were particularly informed. Dr. Harris skillfully directed questions to them and drew their discussions.

The formal presentations at the Titanium vs Steel Symposium are given in the following sections:

Introduction	W. J. Harris, Jr.
The General Case	
Titanium	W. W. Minkler
Steel	R. B. Gunia
Airframes	
Titanium	E. A. Simkovich
Steel	E. A. Green
Jet Engines	
Titanium	G. J. Wile
Steel	R. W. Patsfall
Pressure Vessels	
Titanium	A. Hurlich
Steel	J. F. Baisch
Solid Fuel Motor Cases	
Titanium	J. Sohn
Steel	D. K. Hanink
Chemical and Marine	
Titanium	G. R. Prescott
Other Metals	F. W. Fink

No verdict was reached at the Titanium vs Steel Symposium, and the debate no doubt continues in the minds and councils of the users. Perhaps the material presented will help the readers of JOURNAL OF METALS come to a decision for their own applications.

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