

LOCOMOTIVE  
FIREBOX  
STAYS

HENRY WIGGIN & CO., LTD.  
WIGGIN STREET • BIRMINGHAM • 16

## CONTENTS

	<i>Page</i>
INTRODUCTION	7
ESSENTIAL REQUIREMENTS IN STAYBOLT MATERIALS	7
LOCOMOTIVE FIREBOX STAYS	11
<i>Classification of Stays</i>	12
<i>Methods of Fitting Stays</i>	14
FIREBOX PLATE AND STAYBOLT CALCULATIONS	22
<i>Firebox Plate</i>	22
<i>Staybolt</i>	23
MATERIALS FOR LOCOMOTIVE FIREBOXES	27
<i>Inner Firebox Plate Materials</i>	27
<i>Monel as a Staybolt Material</i>	28
CORROSION	34
<i>Factors Affecting Corrosion</i>	34
<i>Galvanic Corrosion</i>	37
<i>Corrosion-Fatigue</i>	38
MACHINING MONEL STAYBOLTS	41
<i>General</i>	41
<i>Equipment</i>	41
<i>Tool Steel</i>	41
<i>Tool Design</i>	42
<i>Cutting Compounds</i>	51
<i>Details of Two Machine Tools</i>	51