

## CONTENTS

	PAGE
PREFACE TO THIRD EDITION. . . . .	vii
PREFACE TO FIRST EDITION. . . . .	ix
<b>CHAPTER</b>	
I. Sources of Energy. . . . .	1
II. The Steam Engine. . . . .	24
III. Efficiency and Cost of Electric Generators and Motors. . . . .	96
IV. Foundations . . . . .	104
V. Condensers. . . . .	110
VI. The Steam Boiler . . . . .	147
VII. Chimneys and Mechanical Draft . . . . .	203
VIII. Smoke and Smoke Prevention. . . . .	226
IX. Boiler Auxiliaries . . . . .	233
X. Piping . . . . .	258
XI. Coal and Ash Handling. . . . .	277
XII. The Steam Power Plant . . . . .	286
XIII. Variable Load Economy . . . . .	326
XIV. Cost of Power. . . . .	342
XV. Hints on Steam Plant Operation. . . . .	377
XVI. Power Transmission . . . . .	381
XVII. District Heating. . . . .	396
XVIII. The Power Plant of the Tall Office Building. . . . .	410
XIX. The Power Plant of the Steam Locomotive . . . . .	418
XX. Fuels. . . . .	429
XXI. Internal-combustion Engines . . . . .	467
XXII. Producer Gas and Gas Producers . . . . .	504
XXIII. Comparative Efficiencies and Operating Costs for Different Types of Installations . . . . .	558
XXIV. Compressed Air. . . . .	583
XXV. Refrigerating Machinery . . . . .	597
XXVI. Hydraulic Power . . . . .	603
INDEX. . . . .	649