

**THE COMMERCIAL  
ORGANISATION OF  
ENGINEERING  
FACTORIES: A HANDBOOK  
TO COMMERCIAL ENGINEERING**

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The Commercial Organisation of Engineering Factories: A Handbook to Commercial Engineering by Henry Spencer

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THE  
COMMERCIAL ORGANISATION OF  
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*A HANDBOOK*  
TO  
*COMMERCIAL ENGINEERING,*

BEING AN  
EXPOSITION OF MODERN PRACTICE WITH FORMS AND PRECEDENTS  
FOR THE USE OF DIRECTORS, SECRETARIES, MANAGERS,  
ACCOUNTANTS, CASHIERS, AND ALL STUDENTS  
OF INDUSTRIAL ECONOMY,

BY HENRY SPENCER

WITH 92 ILLUSTRATIONS

NEW IMPRESSION



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## PREFACE

THE object of this work is to place in the hands of those responsible for the administrative control of our engineering workshops, and of aspirants thereto, a record of those principles which make for sound business doctrine; and to demonstrate the application of those principles by an enunciation of the procedure that experience has proved to be of fundamental importance for the ultimate achievement of the purpose in view. The tendency of late years has been more and more toward the equipment of specially-designed plant for rapid production and maximum output, with which consideration the question of fixed maximum remuneration of the workers has come to be regarded as irreconcilable and inconsistent.

In applying this proposition to our centres of industry, there has gradually developed a need and demand for exactness and accuracy that has reached at last the portals of those responsible for the distribution of that which is produced by the skill of the workers, in response to which there has arisen the office of commercial engineer, or, as it has been denominated in the United States, production engineer. The primary duty of this functionary is the scientific development and control of channels for the prompt collection of facts, regarding the fluctuating



tendencies in factory production, for the guidance of the supreme head of the establishment.

The manner of arriving at these results, and the principles upon which the prescribed procedure is based, are points that have been carefully dealt with in the following pages.

It was intended to include in an Appendix, an application of these important principles to a smaller works, having a more moderate staff than would be found in an establishment such as is referred to, but this has been reserved for a future edition. Any suggestions with reference thereto, as also to the present work, will be gladly welcomed and acknowledged.

The Author desires to express his sincere thanks to the proprietors of "The Engineer" for the prominence that was accorded to the series of articles on this subject, published in the columns of that paper, and to JOHN ADAMS for his valuable assistance in the preparation of this work for the press.

HENRY SPENCER.

2 INVERCLYDE GARDENS,  
PARTICK, GLASGOW

*January, 1907.*

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