## THE BUSINESS MAN'S LIBRARY. COST OF PRODUCTION

Published @ 2017 Trieste Publishing Pty Ltd

ISBN 9780649406531

The Business Man's Library. Cost of Production by E. C. Warren & C. W. Norton & C. J. Watts & B. C. Bean

Except for use in any review, the reproduction or utilisation of this work in whole or in part in any form by any electronic, mechanical or other means, now known or hereafter invented, including xerography, photocopying and recording, or in any information storage or retrieval system, is forbidden without the permission of the publisher, Trieste Publishing Pty Ltd, PO Box 1576 Collingwood, Victoria 3066 Australia.

All rights reserved.

Edited by Trieste Publishing Pty Ltd. Cover @ 2017

This book is sold subject to the condition that it shall not, by way of trade or otherwise, be lent, re-sold, hired out, or otherwise circulated without the publisher's prior consent in any form or binding or cover other than that in which it is published and without a similar condition including this condition being imposed on the subsequent purchaser.

www.triestepublishing.com

E. C. WARREN & C. W. NORTON & C. J. WATTS & B. C. BEAN

# THE BUSINESS MAN'S LIBRARY. COST OF PRODUCTION

**Trieste** 



THE BUSINESS MAN'S LIBRARY

2

## COST OF PRODUCTION

63 - CC

Practical Principles, Methods, and Systems for Cost Computation — How to Determine Each Factor of Cost— The Part that Material and Labor Play—The Great Problem of Burden, How It is Best Handled—How to Estimate Depreciation, Selling Expense and Profit—Five Complete Systems

### EDRIC C. WARREN

General Masager and Secretary, Century Stove & Mfg. Co. CHARLES W. NORTON CHARLES J. WATTS Experts in Bank and Office Masagement Systematicer and Factory Cost Accountant B. C. BEAN Mechanical Engineers ; Writet on Business and Engineering Subjects And other constributors

•

.

13

CHICAGO-NEW YORK THE SYSTEM COMPANY 1907

## PREFACE

The development of manufacturing and the interests closely related to it has seen a corresponding growth in the science of costs. Nowhere has the application of scientific methods to the productive end of a business yielded larger returns than here. The productive sciences are so closely and intimately related to cost reduction that increased production calls for and demands with increase in volume of a product a corresponding decrease in its cost.

The reasons for this demand are manifold. They are at the same time empirical and scientific. Empiricism arbitrarily demands reduced cost. Scientific methods show how cost reduction can be effected.

Contrary to general opinion, there is considerable literature extant on the science of costs. Several works treat the subject from their individual standpoints; many papers of great merit have been presented before various engineering, auditing, and bookkeeping societies, and the technical press—ever to the fore in disseminating valuable information—has been, perhaps.

iii

## 163132

## PREFACE

the most important medium of all for furthering the work.

All literature on this important subject seems to have been included in either of two classes: either an exposition of a working system or systems, or an unrelated set of statements concerning the science. In this work an attempt has been made to give an exposition of the science from a broad standpoint applicable to any business; to arrange the elements in logical order, giving due weight to proper authorities; to unify and blend the whole so as to furnish true information to the student of the science and at the same time not be too elementary for the experienced cost expert. Finally, a number of cost systems with forms have been added, as operated by various experts in this particular line, with the idea of making a work of real worth to those wishing exact information on this subject.

Careful search has been made of all the available literature on the subject, a large number of manufacturing plants have been investigated and numerous personal interviews have been had with those conversant with the subject of costs in order to secure the information necessary for a work of this character.

It is hoped that the information here set forth will

iv

## PREFACE

2

be found of service and add its required quots to the upbuilding of the business sciences, at the same time maintaining the high standard set by the preceding volumes of the Business Man's library, of which this book is the third number.

339

THE AUTHOR.

Chicago, March 1, 1905.

v

50 E 

2

ł 

0**1** 

## CONTENTS

## PART I.—THE SCIENCE OF COSTS

#### CHAPTER I .- UTILITY OF A COST SYSTEM BY ALEXANDER H. REVELL

Organization of a company like a machine-Cost System saves 

## CHAPTER II .- DEVELOPMENT OF THE SCIENCE OF

COSTS

Early natural advantages—The "established" firm versus the com-petitor—The Trust as related to low productive cost—Growth of the science of Costs—Scarcity of the really competent employ6—Installation of a cost system ..... Pages 7-13

CHAPTER III .- ELEMENTS OF THE SCIENCE OF COSTS

Costs not an exact science—Burden the element which complicates Costs—The elements Prime Cost and Direct Labor—Relation of Costs to Factory Organization—Costs and the engineer—Business shrewdness and the knowledge of Costs—Relation of Costs to the accountant—In-scenracies in the use of term "Cost Accounting"—Relation of Costs of the salesman-Relation of Costs to the buyer ..... Pages 14-24 CHAPTER IV .- SELLING PRICE-THE FACTORS COM-POSING IT

The brace system of graphic representation-Cost to Make and Sell -Inexact use of terms...... Pages 25-29

#### CHAPTER V .-- MATERIAL

Definition-Value of material-Cost of material-Supervision of stores -Fluctuation in price of material-Requisition for stores-The stores invoice book-Orders for stores-Diverted stores........ Pages 30-40

#### CHAPTER VI.-LABOR

#### CHAPTER VII.-BURDEN

Constituent elements of Burden-Apportionment of Burden-The percentage burden plan-The hourly burden plan-The machine-rate plan-The scientific machine-rate plan-What system?.... Pages 58-66

### CHAPTER VIII.-INDIRECT LABOR

The term "non-productive"-Exclusion of selling expense from Burden-Indirect labor calculation-Salaries......Pages 67-71

vii