

**STUDIES IN HISTORY, ECONOMICS
AND PUBLIC LAW. VOLUME LXV, NO.
2. WHOLE NUMBER 157. SCIENTIFIC
MANAGEMENT; A HISTORY AND
CRITISCISM, PP. 281-545**

Published @ 2017 Trieste Publishing Pty Ltd

ISBN 9780649129928

Studies in history, economics and public law. Volume LXV, No. 2. Whole number 157. Scientific management; a history and criticism, pp. 281-545 by Horace Bookwalter Drury

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

HORACE BOOKWALTER DRURY

**STUDIES IN HISTORY, ECONOMICS
AND PUBLIC LAW. VOLUME LXV, NO.
2. WHOLE NUMBER 157. SCIENTIFIC
MANAGEMENT; A HISTORY AND
CRITISCISM, PP. 281-545**

UNIV. OF
CALIFORNIA

STUDIES IN HISTORY, ECONOMICS AND PUBLIC LAW

EDITED BY THE FACULTY OF POLITICAL SCIENCE
OF COLUMBIA UNIVERSITY

Volume LXV]

[Number 2

Whole Number 157

SCIENTIFIC MANAGEMENT

A History and Criticism

BY

HORACE BOOKWALTER DRURY, Ph.D.

THIRD EDITION, REVISED AND ENLARGED



New York
COLUMBIA UNIVERSITY

SELLING AGENTS

NEW YORK: LONGMANS, GREEN & Co.

LONDON: P. S. KING & SON, LTD.

1922

To read
A. H. N. O. L. A. O.

HF 6321

D 8

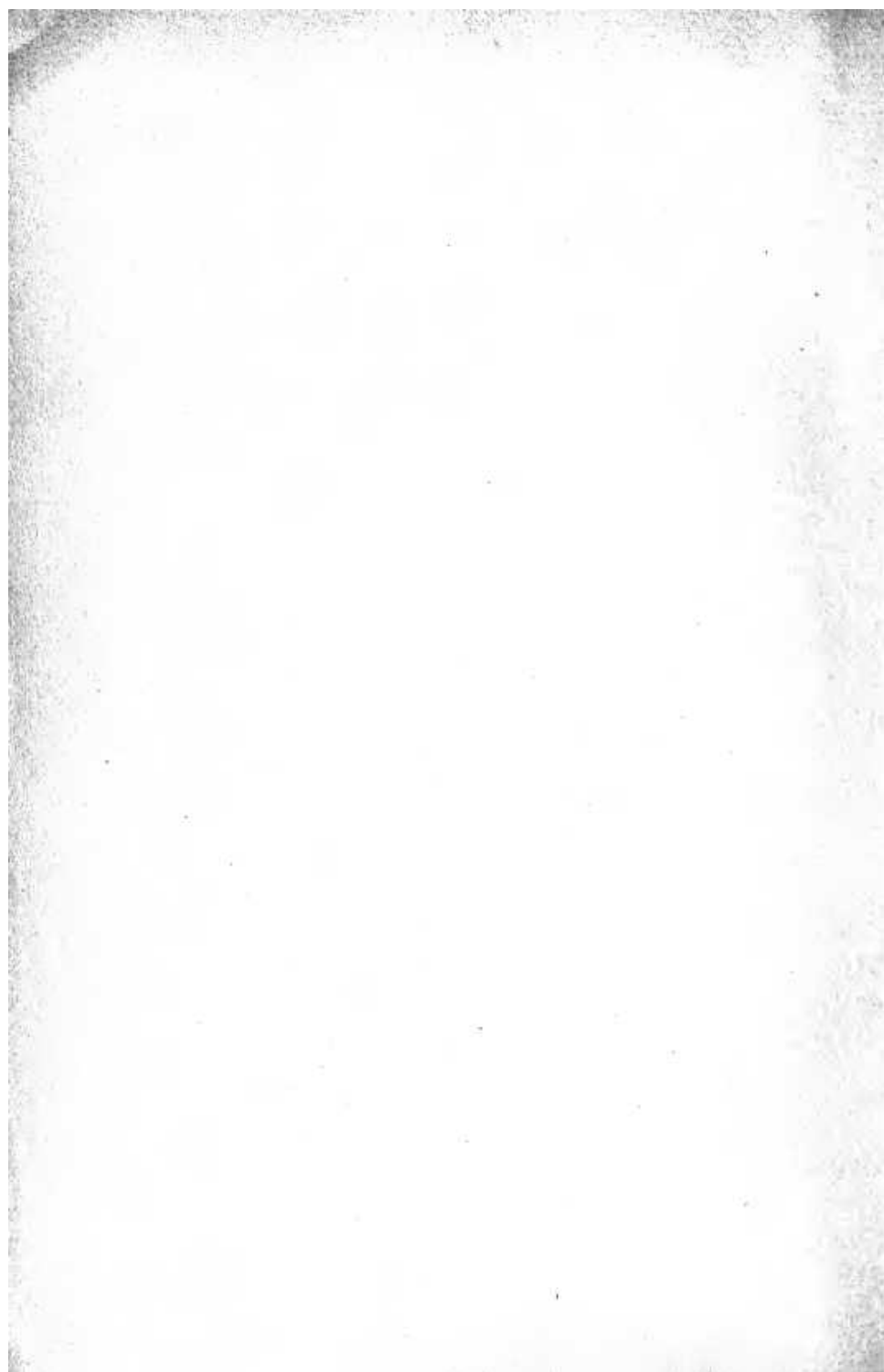
1922

~~UNIVERSITY~~
-DEPT:

COPYRIGHT, 1915, 1918, 1922
BY
HORACE BOOKWALTER DRURY

TO
A. W. D.
AND
S. B. D.

407737



INTRODUCTION TO THE THIRD EDITION

THE first edition of this book appeared in 1915. It had been written under the supervision of Professor Henry R. Seager of Columbia University. Subsequent to 1915, the author came into closer personal contact with many of the men who had been active in the development of scientific management. Their criticisms were of much value when it came to the issuance of a revised edition in 1918. In the 1918 edition, the errors of the first edition were as far as possible eliminated, omissions filled, and the whole account extended and recast so as to bring all parts of the discussion down to 1918.

In the preparation of the present edition it has seemed best to leave the body of the book substantially as it was in 1918—a history of scientific management down to that date—and to describe later tendencies and the present situation in this introduction. The reader who is not already more or less familiar with scientific management should, therefore, turn first to the body of this book, reserving what here follows for later consideration.

In scientific management, as in every other living movement, there have been constantly in evidence two opposing forces, the one making for conservatism, the other for innovation. Scientific management has been unusually favored in the character of its conservative impulse. When Frederick W. Taylor first began to practice and preach scientific management, his ideas were so alien to the general thought of the time that there was constant danger of

such merit as was in scientific management being hopelessly disfigured and diluted by those who took up the name without stopping to master its technique. It was the determination, almost the fanaticism, of Taylor, and the unswerving loyalty of a small group of disciples which kept scientific management a high ideal to be striven for, and, at the same time, a tangible system which could maintain its integrity through the years and grow to some sort of maturity.

But for all its conservatism, scientific management has been no less a thing of progress. It could hardly help being such. It has been the constant experience of those who have tried to run an industry by plan, by rule, that, having worked out a more or less elaborate technique for the accomplishment of certain ends, it has been found that there were other details not yet compassed which were fully as essential to ultimate success as those which had been worked out. It is not a reproach to a good routing system that the business which adopts it fails because there is no market for its product. But the incident should indicate that a more comprehensive technique must be worked out and new sorts of problems solved, before industry can be said to be completely scientific.

The history of scientific management is, indeed, largely a record of this or that development, and at times of this or that readjustment of that which had already been worked out. From the first, the claim of Taylor and those closest to him that they had worked out a method of running industry scientifically was subjected to the most severe criticism on grounds both of commission and omission, both by those within the wider scientific management group and later on on the part of the outside public. Almost every one of the men whose names have been prominently associated with scientific management have themselves been originators. While some have tried to confine scientific manage-

ment within rigid limits, others have established divergent schools. Thus it was by successive additions and modifications that there came into existence that body of principles and methods whose sum constituted the scientific management of 1918.

Since 1918 the most important developments of scientific management have been along three lines.

In the first place, the center of gravity in scientific management has now definitely shifted away from the idea of making men work harder to the idea of making their work more effective. A fair and stimulating system of compensation for a full day's work remains one of the great fundamentals of scientific management. But management engineers no longer profess to see in the unwillingness of the workmen the chief obstacle to the attainment of efficient production. Much more important results can be obtained by the elimination of fundamental wastes in management, by the better planning of all aspects of a business and particularly of the larger policies regarding the conduct of the plant. A realization of the importance of the non-mechanical sides of industry has led in recent years to a broadening of the programs of the Taylor Society. Sessions on sales, accounting, general administration and matters of industrial relations supplement those devoted to time study, instruction cards and routing. A full utilization of equipment, the steady employment of labor, and the manufacture of only those commodities which most need to be made are cardinal features of the scientific management of today.

As a second development, the leaders in scientific management have lately come to feel that the highest efficiency in industry can be reached only as each industry and, indeed, all industries are studied and improved as one whole. The movement in this direction has been led by Herbert Hoover, first as president of the Federated American Engineering