

**ESSENTIALS OF BACTERIOLOGY:
BEING A CONCISE AND
SYSTEMATIC INTRODUCTION TO
THE STUDY OF MICRO-
ORGANISMS**

Published @ 2017 Trieste Publishing Pty Ltd

ISBN 9780649577187

Essentials of Bacteriology: Being a Concise and Systematic Introduction to the Study of Micro-Organisms by M. V. Ball

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.

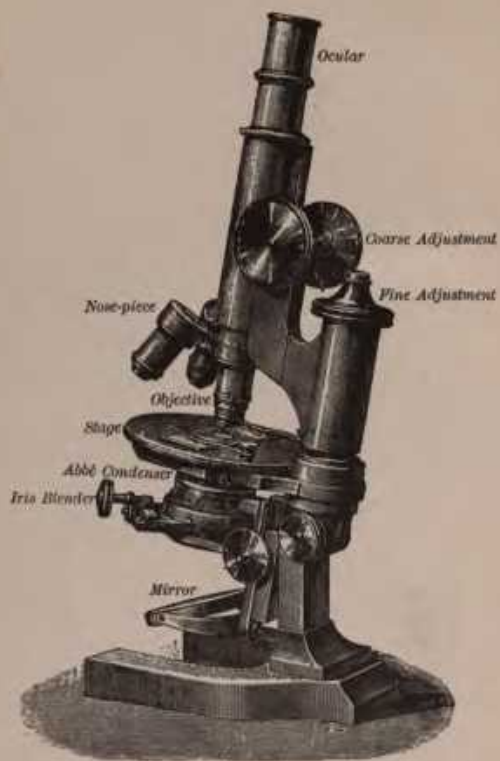
www.triestepublishing.com

M. V. BALL

**ESSENTIALS OF BACTERIOLOGY:
BEING A CONCISE AND
SYSTEMATIC INTRODUCTION TO
THE STUDY OF
MICRO-ORGANISMS**

ESSENTIALS

BACTERIOLOGY.



BACTERIOLOGICAL MICROSCOPE (WITH ABBE AND BLENDER IN POSITION).

ESSENTIALS OF BACTERIOLOGY:

BEING A

CONCISE AND SYSTEMATIC INTRODUCTION TO THE
STUDY OF MICRO-ORGANISMS

FOR THE USE OF

STUDENTS AND PRACTITIONERS.

BY

M. V. BALL, M. D.,

BACTERIOLOGIST TO ST. AGNES' HOSPITAL, PHILADELPHIA.

THIRD EDITION, REVISED.

WITH EIGHTY-ONE ILLUSTRATIONS, SOME IN COLORS,
AND FIVE PLATES.

PHILADELPHIA:
W. B. SAUNDERS,
925 WALNUT STREET.
1897.



K

G46
B18
1897

PREFACE TO THIRD EDITION.

THE advances that have been made in Bacteriology since the appearance of the second edition are so few that it has been unnecessary to make any great changes in the present edition. The article on "Diphtheria" has been carefully revised, and the latest knowledge concerning the Antitoxin treatment added. An article on the "Bacteriologic Examination of the Organs and Cavities of the Human Body" has been added to the Appendix.

Mindful as we are of the limitations of this little work, we are thankful for the many kind praises it has received. That a third edition should be demanded is very gratifying to us.

PHILADELPHIA, Oct. 1, 1896,
529 Pine Street.

M. V. B.

(vii)

PREFACE TO FIRST EDITION.

FEELING the need of a Compendium on the subject of this work, it has been our aim to produce a concise treatise upon the Practical Bacteriology of *to-day*, chiefly for the medical student, which he may use in his laboratory.

It is the result of experience gained in the Laboratory of the Hygienical Institute, Berlin, under the guidance of Koch and Fränkel; and of information gathered from the original works of other German, as well as of French, bacteriologists.

Theory and obsolete methods have been slightly touched upon. The scope of the work, and want of space, forbade adequate consideration of them. The exact measurements of bacteria have not been given. The same bacterium varies often much in size, owing to differences in the media, staining, etc.

We have received special help from the following books, which we recommend to students for further reference:—

- MACÉ: *Traité pratique de Bacteriologie.*
- FRÄNDEL: *Grundriss der Bakterienkunde.*
- EISENBERG: *Bakteriologische Diagnostik.*
- CROOKSCHANK, E. M.: *Manual of Bacteriology.*
- GUNTHER: *Einführung in das Studium der Bacteriologie, etc.*
- WOODHEAD AND HARE: *Pathological Mycology.*
- SALMONSEN: *Bacteriological Technique (English translation).*

M. V. BALL.

BUFFALO, N. Y., October 1, 1891.
62 Delaware Avenue.

