

**CLEAN WATER;
AND HOW
TO GET IT**

Published @ 2017 Trieste Publishing Pty Ltd

ISBN 9780649550661

Clean Water; And How to Get It by Allen Hazen

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

ALLEN HAZEN

**CLEAN WATER;
AND HOW
TO GET IT**



Interior of covered pure-water reservoir at Washington, D. C., before being filled with water. It is covered for the purpose of keeping the filtered water clean.

Frontispiece

CLEAN WATER

AND

HOW TO GET IT

BY

ALLEN HAZEN

MEMBER OF THE AMERICAN SOCIETY OF CIVIL ENGINEERS, THE BOSTON
SOCIETY OF CIVIL ENGINEERS, THE AMERICAN WATER WORKS
ASSOCIATION, THE NEW ENGLAND WATER WORKS ASSOCIATION,
THE AMERICAN PUBLIC HEALTH ASSOCIATION,
THE SOCIETY OF ARTS, ETC.

SECOND EDITION, REVISED AND ENLARGED

FIRST THOUSAND

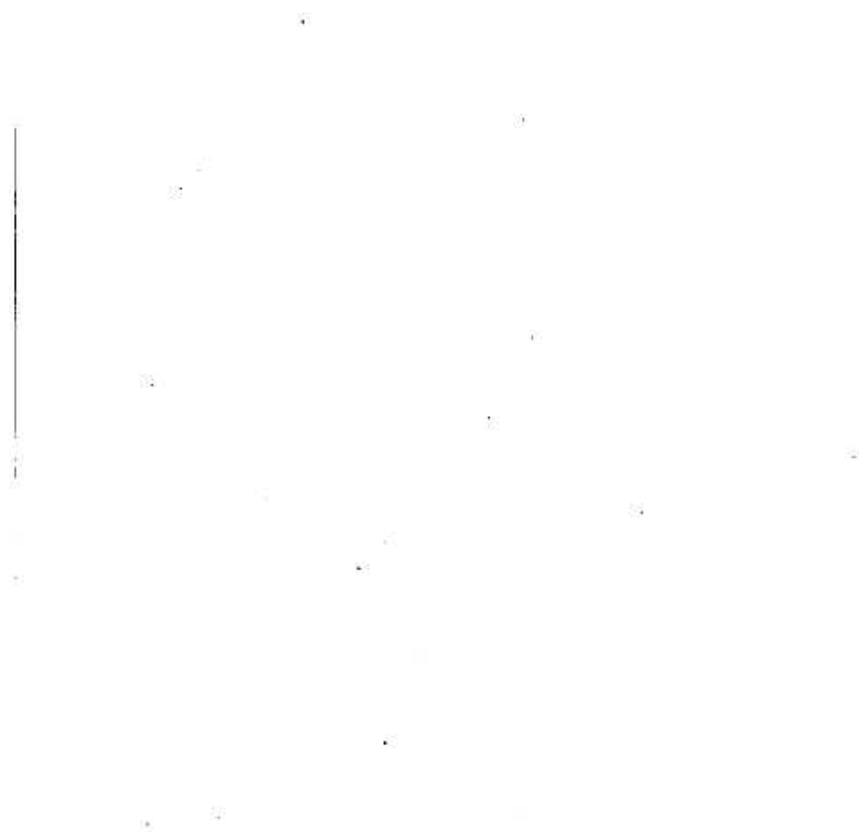
NEW YORK

JOHN WILEY & SONS, INC.

LONDON: CHAPMAN & HALL: LIMITED

1914

Dedicated
TO
THE BRISBANE BOARD OF WATERWORKS
IN WHOSE SERVICE WAS MADE
THE VOYAGE ON WHICH THESE PAGES
WERE WRITTEN



PREFACE.

THIS little volume, originally written in the spare hours of a long ocean voyage, deals with the means now used by American cities to secure clean water.

Some closely allied subjects are also touched upon, including some matters of general policy, pressure, fire service, the sale of water, and the financial management of water works. This is because an understanding of these matters is often necessary to enable the means of securing a new supply, or improving an old one, to be fully considered.

Matter descriptive of existing works and their management is frequently used where principles can best be shown by it; but it is the object to illustrate principles and not to describe the works that are mentioned.

Its object is to help beginners to understand something of the first principles.

In the present edition chapters have been added upon the red-water trouble and upon the disinfection of water supplies, in the knowledge of which great advance has been made since the first edition.

The statistics have also been brought up to the census of 1910, and corrections and additions made throughout the volume.

CONTENTS.

	PAGE
CHAPTER I.	
IMPOUNDING RESERVOIR SUPPLIES.....	1
CHAPTER II.	
WATER SUPPLIES FROM SMALL LAKES.....	26
CHAPTER III.	
SUPPLIES FROM THE GREAT LAKES.....	29
CHAPTER IV.	
WATER SUPPLY FROM RIVERS.....	32
CHAPTER V.	
GROUND WATER SUPPLIES.....	42
CHAPTER VI.	
ON THE ACTION OF WATER ON IRON PIPES AND THE EFFECT THEREOF ON THE QUALITY OF THE WATER.....	59
CHAPTER VII.	
RED-WATER TROUBLES.....	67