

**ELECTRICITY FOR  
EVERYBODY: ITS NATURE  
AND USES EXPLAINED**

Published @ 2017 Trieste Publishing Pty Ltd

ISBN 9780649569830

Electricity for Everybody: Its Nature and Uses Explained by Philip Atkinson

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](http://www.triestepublishing.com)

**PHILIP ATKINSON**

**ELECTRICITY FOR  
EVERYBODY: ITS NATURE  
AND USES EXPLAINED**



**ELECTRICITY FOR  
EVERYBODY.**



*Philip Atkinson.*

12.1.24

# ELECTRICITY FOR EVERYBODY;

ITS NATURE AND USES EXPLAINED.

1

BY

PHILIP ATKINSON, A. M., PH. D.

AUTHOR OF "ELEMENTS OF STATIC ELECTRICITY,"

"THE ELEMENTS OF ELECTRIC LIGHTING,"

"THE ELEMENTS OF DYNAMIC ELECTRICITY AND MAGNETISM,"

"THE ELECTRIC TRANSFORMATION OF POWER."



L. C.

NEW YORK  
THE CENTURY CO.

1899

17.2.24

35769A

Copyright, 1895, 1897  
by THE CENTURY CO.

THE CENTURY PRESS, NEW YORK.



## INTRODUCTION.

The object of this book is to meet the public demand for information in regard to the nature and uses of electricity, and the various kinds of apparatus by which it is generated and employed. This information has been given in the simplest form consistent with clearness, fullness, and strict scientific accuracy, and with as little detail as possible; the constant aim of the writer being to make each topic so plain, that any person having no previous knowledge of electricity or kindred sciences, who gives the book a careful perusal, can obtain a good general knowledge of electric science in all its principal details; the style throughout being adapted, as far as possible, to the requirements of the general reader rather than to those of the student.

All mathematical demonstrations have been omitted, and all unnecessary technicality avoided; such technical terms as are strictly required being fully explained. Only the latest and most approved apparatus and methods have been described, matter of a merely historical character being omitted, or receiving only a passing notice. The principal electric units and instruments for electric measurement have been briefly described in connection with other matter, to avoid the wearisome detail of a full description in a separate chapter.

PHILIP ATKINSON.

CHICAGO, May 6, 1895.

17

18

19

20

\_\_\_\_\_

INTRODUCTION  
TO THE SECOND EDITION.

THE development, within the last year, of the wonderful X-rays, which were previously almost unknown, has made the addition of a chapter to the present edition necessary; in which all the information obtainable on this important and interesting subject has been given in a concise, comprehensive manner.

I am indebted to the Western Electric Company for the cuts given of their X-ray apparatus, and to Chicago physicians for the X-ray illustrations; Dr. O. L. Schmidt having furnished the sciagraphs from which Figs. 106, 108, 109, 110, 112, 113, 114, and 115 were made, and Dr. W. H. Peck those from which Figs. 107 and 111 were made.

Changes in some of the storage battery cells described in the first edition have made a revision of the description and illustrations of those cells necessary.

PHILIP ATKINSON.

CHICAGO, Nov. 5, 1896.