

**HOME STUDY COURSE IN
PRACTICAL ELECTRICITY: AN
ELECTRICAL CATECHISM, IN THREE
VOLUMES, VOL. I: PRINCIPLES
AND SOURCES OF ELECTRICITY**

Published @ 2017 Trieste Publishing Pty Ltd

ISBN 9780649606429

Home Study Course in Practical Electricity: An Electrical Catechism, in Three Volumes, Vol. I:
Principles and Sources of Electricity by W. H. Radcliffe

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W. H. RADCLIFFE

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McGraw-Hill Book Company

Publishers of Books for

Electrical World	The Engineering and Mining Journal
Engineering Record	Engineering News
Railway Age Gazette	American Machinist
Signal Engineer	American Engineer
Electric Railway Journal	Coal Age
Metallurgical and Chemical Engineering	Power

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AN ELECTRICAL CATECHISM

IN *THREE VOLUMES*

VOLUME I
PRINCIPLES AND SOURCES OF ELECTRICITY

BY
W. H. Radcliffe
W. H. RADCLIFFE

FIRST EDITION

NEW YORK
PUBLIC
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McGRAW-HILL BOOK COMPANY, INC.
239 WEST 39TH STREET, NEW YORK
4 AND 8 BOUVERIE STREET, LONDON, E. C.

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PREFACE

The keener competition in engineering, of late years, has forced the need for a more accurate and complete training of those who would succeed in this work. Young men starting in the electrical business without proper training are seriously handicapped, as are also practical workers such as power station men, engineers, electricians and operators of electrical machinery who have not acquired a fundamental knowledge of their work, so that it is no longer a question of choice whether or not they shall thoroughly understand the facts and principles of electricity; it is a matter of necessity.

The purpose of the 1400 Questions and Answers given here is to meet this need by providing a simple and easily mastered course of instruction in practical electricity and the elements of electrical engineering. The contents should also prove useful as a reference guide for those who desire to "brush up" on rusty points and as a source of information for all who have occasion to use electricity in any form.

The author originally prepared these Questions and Answers for the magazine *Power*, in which they were published as an "Electrical Catechism" more or less continuously from January 1, 1905, to July 16, 1912. Owing to the widespread interest in the serial, the author was induced to assemble the material for publication in book form. In doing this, the descriptions and explanations have been carefully revised and simplified to the utmost possible degree consistent with a thorough presentation of the subject, new illustrations prepared especially for the text have been added, and the material as a whole has been brought to date.

Special care has been taken to make the reading matter easily understood, both by clear wording and by reference

letters on the illustrations; also, by introducing new subjects in the proper order for an easy grasp of their relation to the preceding ones. The author takes this opportunity to thank the many electrical manufacturing companies who have so generously coöperated with him in producing the work.

W. H. R.

BROOKLYN, N. Y.
April, 1918.

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