

**ELECTRICAL
CONSTRUCTION: AN
ELEMENTARY COURSE FOR
VOCATIONAL SCHOOLS**

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Electrical Construction: An Elementary Course for Vocational Schools by Walter B. Weber

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WALTER B. WEBER

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**HARVARD UNIVERSITY
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FOREWORD

A realization of the difficulties involved in obtaining drawings which show clearly the principles of electrical construction, has led to the preparation of the following lessons or problems. The author's experience as a teacher has shown conclusively that many hours of the teacher's limited time are expended uselessly in preparing such drawings and blueprints. The primary aim, therefore, in placing this series of problems, with the accompanying drawings, before the public is to save the teachers, so far as possible, this needless labor of making such drawings and blueprints. This arrangement of the material may further prove of value to the students for reference purposes.

Thruout, the problems are graduated in the order of difficulty they present, and, in most instances, each succeeding lesson or problem involves the outstanding features of those immediately preceding. Experience has shown that such sequential arrangement is a positive aid toward understanding the principles involved.

Teachers using this book will violate one of the most fundamental principles of teaching unless they consider these drawings merely as an effective means of revealing the principles involved and in no sense a standard to be set up and maintained before the class. The application of these must be left to the individual teachers and must necessarily vary in accordance with (1) commercial practices and (2) the individualities of the different students. There is slight probability that this arrangement, together with the fore-notes, could result other than satisfactorily in the hands of a wide-awake teacher.

It will be noted that in connection with the first lesson or problem of each series the operations, tools, and materials are listed; only new or additional ones are mentioned in connection with succeeding lessons in the same series. It will be found advisable to have the student fill in the blank spaces in each lesson with the names of the operations, tools, and materials for that particular piece of work; also to answer the various questions.

The loose-leaf arrangement of the book, it is hoped, will serve a two-fold purpose: (1) That of greater convenience for any teacher who may wish to give the students one lesson sheet at a time to be filled in and answered after he has completed the work on that particular problem. In this way the sheet will serve as a record of each individual problem. (2) That the student can add extra sheets during the course or at any future time.

The author takes this opportunity of acknowledging his indebtedness to Mr. D. J. MacDonald, Head of the Department of Pedagogy, Buffalo State Normal School, who gave valuable assistance in arranging the book.

WALTER B. WEBER.

Buffalo, N. Y.
May, 1916.

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