

**ESSENTIALS OF  
WOODWORKING: A  
TEXTBOOK FOR SCHOOLS**

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Essentials of Woodworking: A Textbook for Schools by Ira Samuel Griffith

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# ESSENTIALS OF WOODWORKING

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A TEXTBOOK FOR SCHOOLS

BY

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## PREFACE.

An experience, somewhat extended, in teaching academic branches of learning as well as woodworking, has convinced the author that the most effective teaching of woodworking can be accomplished only when its content is made a subject of as diligent study as is that of the other and older branches. Such a study necessitates the use, by the student, of a textbook.

The selection of a suitable text is made difficult because of the fact that tool processes are usually treated in connection either with models or exercises. It is hardly to be expected that any one set of models or of exercises, tho they may be of very great value, will fill the needs of varying local school conditions. The production of a textbook which shall deal with tool processes in a general way without reference to any particular set of models or exercises is the author's aim. It is believed that such a text will prove suitable wherever the essentials of woodworking shall be taught, whether in grammar, high school or college, and whatever the system of instruction.

A few words as to the manner of using the text seem advisable. It is not expected that the book will be studied chapter by chapter, consecutively, as are the elementary texts in mathematics or science. Rather, it is to be studied topically. To illustrate: A class is to make a model, project, exercise, or whatever we may choose to call it,

which will require a knowledge of certain tools and the manner of using them. At a period previous to their intended use the numbers of the sections of the text relating to these tools and their uses, or the page numbers, should be given the student. Previous to the period in which these tools are to be used he should be required to study the sections so marked. The recitation upon the assigned text should take place at the beginning of the period following that of the assignment, and may be conducted in a manner quite similar to that of academic branches.

The "demonstration" may be given at the time the assignment is made or it may be given in connection with the recitation or at its close.

If as thoro a knowledge of the matter studied is insisted upon in the recitation as is insisted upon in the academic classroom, there need be but little excuse for ignorance on the part of the pupil when he begins his work or at any subsequent time.

Acknowledgment is due the Department of Forestry, Washington, D. C., for the use of material contained in the chapter on Woods and for the prints from which many of the half-tones relating to forestry were produced.

## INTRODUCTION.

### CARE OF TOOLS AND BENCH.

It is important that a beginner should become impressed with the necessity of keeping his tools in the best condition. Good results can be obtained only when tools are kept sharp and clean, and used only for the purposes for which they are made. Tools properly sharpened and properly used permit one to work easily as well as accurately. When it becomes necessary for the worker to use undue strength because of the dullness of his tools, "troubles" begin to accumulate and the "pleasure of doing" is soon changed to despair.

Orderliness and carefulness, with knowledge and patience, are sure to bring good results; just as a lack of them will bring failure.

The bench top must not be marked with pencil or scratched unnecessarily. Chisel boards are to protect the top from any accidental cuts and should always be used for that purpose. Bench tops that are scraped and shelled or oiled every other year ought to remain in as good condition as when new except for the few accidental marks too deep to remove, which the thoughtless boy may have inflicted.

Good workers take pride in keeping their benches in good order. Tools that are not in immediate use should

be placed in their racks that they may not be injured or cause injury to the worker. At the close of the period the bright parts of tools that have come in contact with perspiring hands should be wiped off with oily waste kept for that purpose. All tools should then be put away in their proper places and the top of the bench brushed clean.

The beginner should also understand that, important as are the results he may be able to produce in wood, more serious results are being produced in himself in the habits he is forming. Carefulness, neatness, accuracy, ability to economize in time and material, ability to "think" and "to do" because of the thinking, honesty, orderliness—these are some of the more important results that are oftentimes overlooked.

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