

**KING'S SERIES IN
WOODWORK AND
CAROENTRY: ELEMENTS
OF WOODWORK**

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King's Series in Woodwork and Carentry: Elements of Woodwork by Charles A. King

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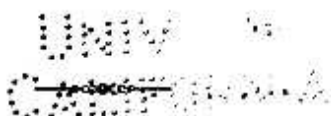
ELEMENTS OF WOODWORK

BY

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EASTERN HIGH SCHOOL, BAY CITY, MICHIGAN



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KING'S SERIES IN WOODWORK AND CARPENTRY

ELEMENTS OF WOODWORK
ELEMENTS OF CONSTRUCTION
CONSTRUCTIVE CARPENTRY
INSIDE FINISHING
HANDBOOK FOR TEACHERS

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PREFACE TO THE SERIES

THIS series consists of five volumes, four of which are intended as textbooks for pupils in manual-training, industrial, trade, technical, or normal schools. The fifth book of the series, the "Handbook in Woodwork and Carpentry," is for the use of teachers and of normal students who expect to teach the subjects treated in the other four volumes.

Of the pupils' volumes, the first two, "Elements of Woodwork" and "Elements of Construction," are adapted to the needs of students in manual-training schools, or in any institution in which elementary woodwork is taught, whether as purely educational handwork, or as preparatory to a high, or trade, school course in carpentry or vocational training.

The volumes "Constructive Carpentry" and "Inside Finishing" are planned with special reference to the students of technical, industrial, or trade schools, who have passed through the work of the first two volumes, or their equivalent. The subjects treated are those which will be of greatest value to both the prospective and the finished workman.

For the many teachers who are obliged to follow a required course, but who are allowed to introduce supplementary or optional models under certain conditions, and for others who have more liberty and are able to make such changes as they see fit, this series will be found perfectly adaptable, regardless of the grades taught. To accomplish this, the material has been arranged by topics, which may be used by the teacher irrespective of the sequence, as each topic has to the greatest extent possible been treated independently.

The author is indebted to Dr. George A. Hubbell, Ph.D., now President of the Lincoln Memorial University, for encouragement and advice in preparing for and planning the series, and to George R. Swain, Principal of the Eastern High School of Bay City, Michigan, for valuable aid in revising the manuscript.

Acknowledgment is due various educational and trade periodicals, and the publications of the United States Departments of Education and of Forestry, for the helpful suggestions that the author has gleaned from their pages.

CHARLES A. KING.

BAY CITY, MICHIGAN.

PREFACE TO ELEMENTS OF WOODWORK

IN preparing this book, it has been the author's purpose to present, in as complete and concise form as possible, the knowledge which every wood-worker should possess regarding the care and use of his tools and the material upon which he employs them.

Whether an amateur, apprentice, or skilled workman, whether a carpenter, boat builder, pattern maker, or wood carver, the elementary knowledge of the construction of tools, of sharpening them, and of their adjustment and manipulation is practically the same. The structure of wood, and the necessity of applying its peculiarities of grain and texture to the advantage of the work in hand, also is the same upon all branches of woodwork.

While innumerable tools and cutting devices have been invented to enable the wood-worker to accomplish special results economically both as to time and material, a study of them will prove that they all operate upon a few simple principles, a knowledge of which is not difficult to acquire, though skill and judgment in the application of the tools can be attained only by continuous and properly directed practice.

It would be both impossible and unnecessary in a book of this sort to describe these various devices, though in a schoolroom it is a great advantage to have as many of them as practicable, not for their use only, but that the students may become familiar with their purposes and the applications of the fundamental principles upon which each is based.

The actual use of tools may be considered the ABC of woodwork, as it bears the same relation to the finished product of the workman as the alphabet bears to literature, the space between

the mere mechanical facility in the use of either tools or alphabet, being the result of the judgment, skill, and individuality of either the workman or the author.

Thus, if a student acquires the facility to use the tools described in this volume, he will have little difficulty in using other and more complex tools; and when he has mastered the principles of construction involved in the exercises explained in the following book of this series, the "Elements of Construction," and the correct use of the tools involved in making these, together with their applications and combinations, he has acquired the fundamental knowledge of all construction in wood.

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