HAND AND MACHINE WOODWORK

MACMILLAN BASIC TECHNICAL SERIES

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HAND AND MACHINE WOODWORK

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EDITOR'S PREFACE

The texts which make up this series are designed for the use of pupils who are making a serious effort to master the fundamental skills and knowledge of the trade and technological subjects taught in the secondary schools. Subjects covered by the series at this time include Auto Mechanics, Machine Shop, and Woodworking. Since pupils enrolled in these courses are also required to study mathematics, the sciences, and the humanities, many doors are open to them on graduation. Apprenticeship, Grade XIII, or further study at a technological institute or university are all possibilities.

Because of this fact strong emphasis should be placed on problem-solving and the technological aspects of each trade. To know *why* is often more important than to know *how*. It is hoped that the assignment questions and problems included will serve as a starting point for pupils in this regard.

A glossary of terms peculiar to each subject has been included. The authors know from experience that pupils frequently fail to understand what is taught because the precise meanings of words new to them are not clear. Frequent short drills and tests based on the glossary will ensure an improvement in learning. On the other hand, information properly found by consulting a handbook or manual has been excluded in the belief that pupils should learn to consult such references directly.

It is hardly necessary to point up the shortcomings of a course which depends on a single textbook. Teachers are urged to have their pupils make liberal use of the bibliographies provided.

The authors, each of whom spent many years as a craftsman in his chosen trade before entering the teaching profession, have no desire to limit the creative talents of teachers or pupils as far as projects are concerned. None are included.

While the texts are addressed to all teachers of the technical subjects, the authors hope that they will be of particular help to the beginning teacher. His ability to get his course into orbit during the critical days of September and to keep it on target all year may well determine his future stature as a teacher. It is true that duplicated instruction aid sheets have, in the past, established their importance as an indispensable means of organizing the subject matter. They must continue to do so in the future. It is also true that the preparation, during the first year or two of teaching, of sufficient sheets to cover an entire course of study may be so

demanding of time as to interfere with a successful launching of the course. If, through the use of the texts, teachers are enabled to devote more time to the planning of lessons, the preparation and marking of purposeful assignments, the construction of models and charts, the composition of necessary instruction aid sheets, and the improvement of teacher-pupil relations, the texts will have served a useful purpose.

Alan W. Frizzell

AUTHOR'S PREFACE

This book was written principally as an aid for the study of woodwork in the elementary and intermediate grades of our secondary schools. The topics covered are based upon the Ontario Department of Education's Grade 9 and 10 Technical Course. However, they have been enlarged beyond this course outline to present woodworking as a more challenging and interesting subject to the majority of students.

The book is meant to serve as an introduction to woodwork. For further study many good reference books are available, some of which have been mentioned in the Bibliography. To keep up to date on the most modern developments students should take advantage of some of the current trade magazines which describe and illustrate new materials and techniques.

It would be difficult to prepare a book of this nature for publication without the co-operation and assistance of many individuals and firms. The author, therefore, wishes to acknowledge and thank these people:

The general editor, Professor Alan Frizzell of the Ontario College of Education, who acted as adviser and critic and who was instrumental in initiating this series of shop texts; the many critics who read the initial manuscript and made valuable suggestions; the manufacturing firms who supplied many of the photographs; Mr. Jack Phipps whose excellent photography was responsible for many of the illustrations; members of the staff of the New Toronto Secondary School who rendered valuable advice and assistance; the editorial staff of the Macmillan Company of Canada; and the author's wife, Dorothy, whose untiring assistance and understanding made this work possible.

H. G. Miller

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