

**MACHINE SHOP PRACTICE: A STUDY
OF CONDITIONS FOR USES IN TRADE,
INDUSTRIAL AND TECHNICAL SCHOOLS
AND MODERN MACHINE SHOPS, AND
MANUFACTURING PLANTS**

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Machine Shop Practice: A Study of Conditions for Uses in Trade, Industrial and Technical Schools and Modern Machine Shops, and Manufacturing Plants by William J. Kaup

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MODERN MACHINE SHOPS AND MANU-
FACTURING PLANTS

BY

WILLIAM J. KAUP

WESTINGHOUSE ELECTRIC AND MANUFACTURING CO., PITTSBURG

Formerly Head of Department of Machine Construction, Pratt Institute

Member of the American Society of Mechanical Engineers

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PREFACE

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THE trifling things of life make up the sum total of existence, and faithfulness to these trifles is of much more value than talent, and genius is only another name for hard work and constant loyalty to these little things. Therefore the purpose of this volume is *not* to deal with the big things of Machine Shop Practice, nor is it designed as a comprehensive treatise on the subject, but primarily to deal with those things which seemed too small to notice, by those who have already written so ably on the subject, and to connect them together by classifying them and bringing out their really great importance in the general order of things pertaining to the Craft, and by them to prove the good old law.

The author believes that it is so arranged as to be valuable as a text-book in the trade, industrial and technical schools, and that the apprentice and journeyman machinist will be able to use it with profit in his daily work. The fundamentals only are covered, but these are treated from the standpoint that each will fit into the other and the whole form a groundwork upon which substantially to build.

The whole is considered from the How and the Why, the Theory and the Practice. Much thought has been given to the method of presentation, so that the old things may appear in a new light and the hard things be presented so that they will appeal to the reader's common sense.

The subject-matter may not appear in the logical sequence that is regarded by some as the *only way*, but each subject

is treated completely in itself to make a complete rung of the ladder by which to climb, a logical whole.

To the man who is desirous of climbing it is essential that he build his own ladder, that he may know the strength of each rung. The building process may vary, notwithstanding some old "saws" to the contrary; the top rung or the middle one, may be put in first, it matters not, so long as one never loses sight of the relation it must bear to those that are to follow to make a whole, and that the strength of the work as a whole is determined by its weakest rung. Seldom is the book that is most logical the best one from which to teach.

Because our forefathers, from whom perhaps we may have inherited our taste for like things, started to build their ladder by scraping grease, holding the torch, or oiling the ratchet drill for the man above, it does not necessarily follow that it is the only way to *arrive*. Every man will have that to do some time in life. No matter how high in position or responsibility and trust, there will always be some grease to scrape, some torch to hold, or some drill to oil for the man higher up, and to those who have already learned that lesson, the author would say, "Don't bother to read this text—you have already arrived, provided you can scrape grease, hold torches and do the oiling with a smile."

The text is primarily based on a series of mimeograph sheets which have been tried out for a period of twelve years, and their efficiency measured by the efficiency of the men who have built their ladder in this way. The author has aimed to do away with all useless energy and so arranged the text that the greatest efficiency would be possible with the least possible waste of time to the student or apprentice.

In conclusion, the author wishes to say that it is with a sincere desire only to help the other fellow and in a humble way, as best he knows how, he is presenting this

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volume, also to express his obligation to the many machine builders who have helped him develop the work by criticism and suggestions, and especially to Mr. H. D. Burghardt of Pratt Institute and Professor R. W. Burnham of Erasmus Hall High School, who have contributed much to the details of the work.

W. J. KAUP.

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