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# PRACTICAL MATHEMATICS

FOR

## HOME STUDY

*BEING THE ESSENTIALS OF  
ARITHMETIC, GEOMETRY,  
ALGEBRA AND TRIGONOMETRY*

BY

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## PREFACE

During the past fifteen years the author has taught classes in practical mathematics in the evening school at the Armour Institute of Technology, Chicago. These classes have been composed of men engaged in practical pursuits of various kinds. The needs of these men have been carefully studied; and, so far as possible, those mathematical subjects of interest to them have been taken up. The matter presented to the classes has necessarily been of an intensely practical nature. This has been worked over and arranged in a form that was thought most suitable for class use; and was printed in Palmer's Practical Mathematics, four volumes, in 1912 and appeared in a revised edition in 1918.

The four volume edition has been used by thousands of men for home study. It is to meet the needs especially of such men that this one volume edition has been made. The subject matter includes all that is in the four volumes; and to this has been added a few new topics together with many solutions of exercises, and suggestions that makes the text more suitable for home study. It is hoped that it will find a place in the library of the man who applies elementary mathematics, and who wishes occasionally to brush up his mathematics.

Usually when the practical man appreciates the fact for himself that mathematics is a powerful tool that he must be able to use in performing his work, he finds that even the arithmetic that he learned at school has left him. A student of this kind is discouraged if required to pursue the study of mathematics in the ordinary text-books.

This work has been written for the adult. The endeavor has been to make the student feel that he is in actual touch with real things. The intention has been to lay as broad a foundation as is consistent with the scope of the work.

The nearly 3000 drill exercises and problems are, in most