TEXT-BOOK ON PRACTICAL SOLID OR DESCRIPTIVE GEOMETRY. IN TWO PARTS - PART II

Published @ 2017 Trieste Publishing Pty Ltd

ISBN 9780649492084

Text-Book on Practical Solid or Descriptive Geometry. In Two Parts - Part II by David Allan Low

Except for use in any review, the reproduction or utilisation of this work in whole or in part in any form by any electronic, mechanical or other means, now known or hereafter invented, including xerography, photocopying and recording, or in any information storage or retrieval system, is forbidden without the permission of the publisher, Trieste Publishing Pty Ltd, PO Box 1576 Collingwood, Victoria 3066 Australia.

All rights reserved.

Edited by Trieste Publishing Pty Ltd.
Cover @ 2017

This book is sold subject to the condition that it shall not, by way of trade or otherwise, be lent, re-sold, hired out, or otherwise circulated without the publisher's prior consent in any form or binding or cover other than that in which it is published and without a similar condition including this condition being imposed on the subsequent purchaser.

www.triestepublishing.com

DAVID ALLAN LOW

TEXT-BOOK ON PRACTICAL SOLID OR DESCRIPTIVE GEOMETRY. IN TWO PARTS - PART II

Trieste

PRACTICAL SOLID OR DESCRIPTIVE

GEOMETRY

The following are the Contents of Part I. (price 2s.)

CHAPTER I.
Introduction.

CHAPTER II.
Projection of Points and Lines.

CHAPTER III.
Simple Solids in Simple Positions.

CHAPTER IV.
Changing the Planes of Projection.

CHAPTER V.
Additional Problems on Lines.

CHAPTER VI.
Planes other than the Co-ordinate Planes.

CHAPTER VII.
Problems on the Straight Line and Plane.

CHAPTER VIII.
Sections of Solids.

CHAPTER IX.
Projection of Plane Figures.

APPENDIX.

TEXT-BOOK

ON

PRACTICAL SOLID OR DESCRIPTIVE

GEOMETRY

BY

DAVID ALLAN LOW

(WHITWORTH SCHOLAR)

LECTURER ON ENGINEERING IN ALLAN GLEN'S INSTITUTION, GLASGOW

IN TWO PARTS—PART II.

SECOND EDITION

LONDON

LONGMANS, GREEN, AND CO.

AND NEW YORK: 15 EAST 16th STREET

1887

All rights reserved

PRINTED BY
STRAHAN AND CO., NEW-STREET SQUARE
LONDON

PREFACE.

THE AUTHOR, in writing this text-book, has endeavoured to meet the wants of both elementary and advanced students, and he believes that it will be found to contain all the descriptive geometry which is usually required by engineering and architectural draughtsmen. But while making the book comprehensive, and illustrating it fully, it has not been made of an inconvenient size for use in large classes.

The treatment of the subject in this work is slightly different from that in any existing books. The problems are stated in a more comprehensive way, and are made to include more cases than is usual with other writers. After the statement of the problem follows the general solution, which is usually given without reference to any particular example. Next comes the application of the problem to one or more examples. In many cases the student may not fully understand the general solution of a problem until he has worked out the examples which illustrate it. The advantage of this mode of treatment is, that it is more systematic, and enables the student to get a more intelligent and comprehensive grasp of the subject. After working the examples and mastering the general solution of a problem, the student is better able to cope with any fresh examples which may come before him, than if he had learned the subject from examples only.

The elementary portion of the subject is treated of in Part I., and the more advanced portion in Part II.

A great want which the author has found in existing works on descriptive geometry is that of a sufficient number of good exercises properly graduated; he has, therefore, been at considerable trouble to collect and devise a large number of exercises, and he believes that in no other work of the kind will there be found such a good collection. In this matter he would record his indebtedness to the examination papers published by the Science and Art Department, which has done so much to promote the teaching of this and other science subjects throughout the country.

In conclusion, the author would like to impress upon the student the necessity of working out all the examples and exercises on paper with the drawing instruments, neatly and of full size. It is not enough for the student to know how a problem is to be solved, he must actually work it out; as very often from the peculiar position of the points, lines, or planes, the result is quite different from what he would have expected.

D. A. L.

GLASGOW: *November* 1883.

CONTENTS.

PART II.

CHAPTER X.

PAGE

ADDITIONAL PROBLEMS ON THE STRAIGHT LINE AND PLANE . 1

CHAPTER XI.

PROJECTION OF SOLIDS 15

CHAPTER XII.

ISOMETRIC PROJECTION 22

CHAPTER XIII.

HORIZONTAL PROJECTION 34

CHAPTER XIV.

CURVED SURFACES AND TANGENT PLANES 45

CHAPTER XV.

DEVELOPMENTS AND THE PROJECTION OF SCREW THREADS . 64