THE ELEMENTS OF SOLID GEOMETRY

Published @ 2017 Trieste Publishing Pty Ltd

ISBN 9780649545308

The Elements of Solid Geometry by Charles Davison

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

CHARLES DAVISON

THE ELEMENTS OF SOLID GEOMETRY



THE ELEMENTS OF SOLID GEOMETRY

CAMBRIDGE UNIVERSITY PRESS WAREHOUSE,

C. F. CLAY, MANAGER.

Aondon: FETTER LANE, E.C. Glasgein: 50, WELLINGTON STREET.



Reinis: F. A. BROCKHAUS. Sein Work: THE MACMILLAN COMPANY. Bombay and Calrufa: MACMILLAN AND CO., Led.

[All Rights reserved]

THE ELEMENTS OF SOLID GEOMETRY



BY

CHARLES DAVISON, Sc.D.

MATHEMATICAL MARTER AT KING KINGKARD'S HIGH BOHOOL, BIRMINGHAM.

CAMBRIDGE: AT THE UNIVERSITY PRESS 1905 KD40079



Cambridge: PRINTED BY JOHN CLAY, M.A. AT THE UNIVERSITY PASSS.

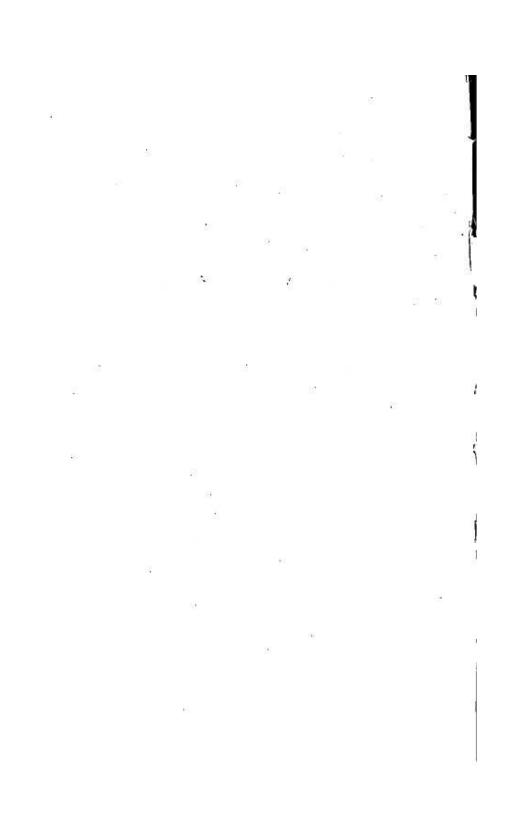
PREFACE.

In English secondary schools, the study of Solid Geometry receives much less attention than in the corresponding institutions of Germany and the United States. As a rule, the course adopted covers little more than the first twenty-one propositions of Enclid's eleventh book. In consequence, however, of the recent changes in the teaching of plane geometry, it is probable that more time will in future be given to the subject; and the present volume, which embodies the notes that have been used in this school for the last twenty years, contains, it is hoped, the theorems of chief interest and importance.

I have to thank my colleague, Mr C. H. Richards, for his kindness in reading the manuscript and for useful criticisms. I should be grateful for notices of any errors that may be found in the text or exercises, and for suggestions for the improvement of the book, in case a second edition should be required.

CHARLES DAVISON.

King Edward's High School, Birmingham, September 1905.



CONTENTS.

CHAPTER I.

LINES	AND	PLANES	IN	SPACE.

LINES	AND	PLA	NES	IN	SPA	CE.			
	4	- 7							PAGE
Planes and their intersections, etc							92.		1
Straight lines perpendicular to planes					• 3	*	2.5	S. 100	10
Parallel lines in differe	nt plan	nee	363	*	()				20
Non-planar lines	8 _39	1348	*	:•	5 3 55	26	¥		23
Projections of lines on	planes	, etc.	23			8	27		26
Dihedral angles	2 10	10. 10	772	95	1,200	75	12	928	28
Polyhedral angles .	5 8	- 23		28	183	*	79	8.00	34
Miscellaneous exercises			3.0				×		40
								325	
*	CH	APT	ER	П.					
	THE	POLY	HEI	RON	۸.				
The polyhedron and re	egular	polyhe	dra	29	£3	*	·		43
The parallelepiped		¥35		332	65	32	:2		48
The tetrahedron	F 18	201		82		άξ,	30		50
Prisms and pyramids		71			***	,	16		54
Plane sections of poly	hedra	*5	345	28	63	300	82		. 58
Volumes of simple pol	yhedra			0.0	*::	*	::		62
Similar polyhedra		93	3.0	£	i 8	92	534	49	72
Miscellaneous exercises	3 3	\$8			(()			20	74