MANUAL OF RAILWAY ENGINEERING FOR THE FIELD AND THE OFFICE

Published @ 2017 Trieste Publishing Pty Ltd

ISBN 9780649642984

Manual of Railway Engineering for the Field and the Office by Charles P. Cotton

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 P. COTTON

MANUAL OF RAILWAY ENGINEERING FOR THE FIELD AND THE OFFICE

Trieste

MANUAL OF RAILWAY ENGINEERING.

1004

.

् अस् 2

 $t \ge 0$

DUBLIN: PRINTED BY PORTECUS AND GIBOR, WICKLOW STREET,

.

.

.

ž

32

.

3**9**3

Se) (

Marding Karding

15

MANUAL

OF

RAILWAY ENGINEERING .

FOR

The field and the Office.

SECOND EDITION REVISED AND ENLARGED.

TRANSPORTATICH STATES

CHARLES P. COTTON,

DUBLIN: WILLIAM MGEE, 18 NASSAU STREET. LONDON: E. & F. N. SPON, 48 CHARING CROSS.

1874.

9-18-34 Jranoberti

THE object of the Author in writing this Manual was, first, to assist pupils on joining an office to understand what was going on around them; and, secondly, that it should be a book of reference in the various routine steps up to the preparation and letting of a Railway contract.

The Author in this work only deals with ordinary every-day work, leaving anything outside that to be sought in the many treatises specially written on the various subjects that a Railway Engineer may have exceptionally to deal with,

AUGUST, 1874.



5 D E S &

5 a ⁷²

CONTENTS.

÷

.

- 83

-2.5

PARLIAMENTARY	W	OF	ĸ								2						Poge
Standing Orders	3,					•				į٥		2		1		<u>ي</u>	2
Levelling, .	÷.,						1		a.		4				•		11
Correcting Plan	s in	the	F	iek	1,	•		•		•		•		•			15
Correcting Plan	s in	the	: 0	ffic	e		2		2		3						16
Plotting the Sec	tion	1,						•		•2		80		•		•	18
Lithographing,															•		22
Referencing .		÷.,							Ċ,	23							23
Estimate, .	6						•				•		-		•		24
CONTRACT WORK																	
Railways' Claus	7.2			20				277				-					28
Field Work in ;		2-23.9	•	c.	nte			٠,		ĩ.,							37
Staking out,				44						æ	•				20		39
Levelling, .	- 17	÷.,	1	2	2	٩,	52	23		1		٩,		¢.		•	53
Plotting the Sec	tion							_									57
Survey, .	Jul O			23		•		•		•		•		*		•	57 62
Drawings,	. ⁸	1995 (1	•	9	s,	•	묷	2	Ę.	•		•			5	67
Specification,											23	•	21			۰.	85
Estimate, .	0.9		•		•				•		•		20		•		128
issumate, .	•	2		18		10		•		•		8		<u>۰</u>		18	120
APPENDIX-																	
Laying out Cur			•		•				•				÷		×		145
Documents to h	ne șe	ent	to	Bo	arc	t o	17	[ra	de	be	for	e	ope	mi	ng,		147
Memorandum o	of In	npo	orta	nţ	Re	qu	ńr	eme	ent	5,					•		150
Acquisition of 1	Lan	d,						•								3	156
Sundry Acts of	Pa	rlia	me	nt,													161
Detail Estimate	e of	Bri	dg	e,		÷		ंः		2			1	12		4	163
Opposition on	Star	ndir	ug (Ore	ler	8,	÷								2		165
Sundry Standin	ng C	Irde	ers,	ε.													172
Curved Plate C	lird	ers	•		•				•				•		•		17

20 ⁰⁰ 18

-ce