





TD4 B55



Nam. Clas. : 696.12

Nam. Autor 85912

Nam. Adg. 55869

Procedence

Precio
Fecha Abril 1966

Clasificó 509

Catalogó 949

Este libro fué donado a la

UNIVERSIDAD DE NUEVO LEON

por

CERVECERIA DEL NORTE, S. A.

de

MONTERREY, N. L.

VERANO DE 1959

Editodo 8

SOME DETAILS

OF

Water-Works Construction

BY

WILLIAM R. BILLINGS

Superintendent Water-Works at Taunton, Mass. (From 1879 to 1888)

WITH

ILLUSTRATIONS FROM SKETCHES BY THE AUTHOR

THIRD EDITION COPYRIGHT 1888.

VERANO DE 1932

McGRAW-HILL BOOK COMPANY
289 WEST 39TH STREET, NEW YORK
6 BOUVERIE STREET, LONDON, E.C.
1898

OUVERSIDAD DE ROEVO LEOP INBLIOTECA UNIVERSITARIA "ALFONSO REYES"

Published by the

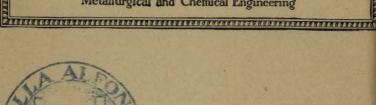
McGraw-Hill Book Company New York

Successors to the Book Departments of the McGraw Publishing Company Hill Publishing Company

Publishers of Books for

Electrical World The Engineering and Mining Journal Engineering Record Power and The Engineer Electric Railway Journal American Machinist

Metallurgical and Chemical Engineering



ACERVO GENERAL

INTRODUCTORY NOTE.

COME questions addressed to the Editor of THE ENGI-NEERING RECORD by persons in the employ of new water-works indicated that a short series of practical articles on the Details of Constructing a Water-Works Plant would be of value; and, at the suggestion of the Editor, the preparation of these papers was undertaken for the columns of that journal. The task has been an easy and agreeable one, and now, in a more convenient form than is afforded by the columns of the paper, these notes of actual experience are offered to the water-works fraternity, with the belief that they may be of assistance to beginners and of some interest to all.

TABLE OF CONTENTS.

CHAPTER 1.
PAGE
Materials for Main Pipes—Method of Lining with Cement
—Tool-Box—Derrick—Tools — Transportation — Distributing
Pipe 9–2
CHAPTER II.
Field Work—Pipe Plans—Laying Out a Line—Time Keep-
ing—Tunneling—Sheet-Piling 25-3
property and the second of the second of the second of
CHAPTER III.
Trenching and Pipe - Laying—Caving—Bell - Holes—Rock
Work—Laying Cast-Iron Pipe—Derrick Gang—Cutting Pipe. 37-4
CHAPTER IV.
Laying Cement-Lined Pipe-Joint-Making on Iron Pipe-
Strength of Joints-Quantity of Lead, 46-5
CHAPTER V.
Hydrants—Gates—Specials—Field Notes—Back-Filling—
Pulling Sheet-Piling—Filling Pipes 47-6

LIST OF ILLUSTRATIONS.

CHAPTER VI.	PAGE
Service - Pipes — Materials—Tapping Mains—Corporation	1,100
Cocks	67-73
CHAPTER VII.	
Wiped-Joint and Cup-Joint-Air-Pump and Blow-Pipe-	
Weight of Lead Pipe—Tapping Wrought-Iron Mains—Service-	
Boxes—Meters	74-81
CHAPTER VIII.	
Notes on Two Miles of 16-Inch Main—Items of Cost—Tem-	
porary Supply—Cost of Line	82-89
CHAPTER IX.	
Table of Weights and Dimensions of Cast-Iron Pipe-Pipe-	
4. Joints-Tables of Cost-Handling Water-Close Sheeting-	
Egg-Shaped Conduits—Circular Conduits	90-96

		AGE
FIGURE	r.—Lining Cone	12
"	2,—Tool-Box	14
	3,—Derrick	15
"	4.—Carrying Stick	16
	5.—Tamps	17
46	6.—Cutting-off Tool	18
66	7.—Yarning and Calking Tools	19
66	8.—Calking Hammer	20
**	9.—Lead Kettle	21
- 66	10.—Pipe Plans	27
46	II.—Pipe Plans	29
**	12.—Time Book	32
	13.—Sheet Piling	35
	14.—Feathers and Wedges	39
u	15.—Bell and Spigot Joint	48
**	16.—Clamp-Jack	52
	17.—Thread Diagram	54
**	18.—Main-Pipe Plug	60
4.6	19.—Main-Pipe Sleeve	61
**	20.—Sheet-Piling Lever	63
**	21.—Tool Wagon	6;
46	22.—Various Joints and Corporation Cock	70
44	23.—Air-Pump and Blow-Pipe	76
46	24.—Tapping Machine	78
	25.—Meter Well	80
	26.—Plan and Profile of Pipe Line	85
	27.—Temporary Supply	88
**	os Section of Pine-Toint	QI