

**A MANUAL OF MILITARY
TELEGRAPHY FOR THE SIGNAL
SERVICE, UNITED STATES ARMY
EMBRACING PERMANENT AND
FIELD LINES**

Published @ 2017 Trieste Publishing Pty Ltd

ISBN 9780649504381

A Manual of Military Telegraphy for the Signal Service, United States Army Embracing
Permanent and Field Lines by Various

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VARIOUS

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A MANUAL
OF
MILITARY TELEGRAPHY

FOR THE

SIGNAL SERVICE, UNITED STATES [—] ARMY,_^

EMBRACING

PERMANENT AND FIELD LINES.

PREPARED UNDER THE DIRECTION OF THE
CHIEF SIGNAL OFFICER OF THE ARMY.

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WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1872.

INTRODUCTION.

This work is, as its title indicates, a manual of military telegraphy, and is intended merely to furnish to officers of the United States Army such information as will enable them to establish and maintain telegraphic communication between forces in the field or points covered by military operations, as between the center and wings of an army, or an army and its base of operations, including, of course, intermediate points in either case.

The Morse or American system of telegraphy is the one proposed, and no attention is paid to others. Two kinds of lines are described, but they differ merely in weight and size of material and equipment: one intended for continued use upon fixed routes, being the ordinary American line, and herein called permanent, and the other intended for use with moving columns, being composed of lighter materials, more simply equipped, portable, capable of being rapidly erected and as rapidly taken down, and provided with means of transportation, and a drilled force to handle it, denominated field-lines.

Sufficient elementary information is given to enable the student to understand the principles which underlie the work he has to perform, without attempting a scientific treatise, and technicalities have been avoided as far as seemed practicable. Reference is made to works on electrics and telegraphy for information of a character too purely scientific to be embraced in this manual, chiefly to the *Modern Practice of Telegraphy*, by F. L. Pope, esq.

The two varieties of lines are treated of separately, and each in the same manner: materials of line, method of preparation, tools for and method of erection, equipment, method of working, and, in case of field-lines, drill of the force.

The compiler is indebted to the courtesy of Messrs. D. Van Nostrand and L. G. Tillotson for many of the illustrations.

TABLE OF CONTENTS.

PART I.

	Page.
CHAPTER I.—Materials for permanent lines :	
Supports, posts, timber for, how prepared	9
trees, buildings.....	10
Insulators, materials of, forms of, mode of attaching, comparative value of.....	11
Line-wire, material of, size of, quality of, weight per mile, how prepared for use.....	17
Wire for office use, insulated	19
CHAPTER II.—Tools and appliances :	
Tools for digging post-holes, for raising and setting posts, reels	21
for making joints or connections, climbers, pulleys.....	24
CHAPTER III.—Equipment of line :	
Batteries, voltaism or galvanism	27
main, Grove's, Bunsen's, Daniell's	28
insulation and care of, stands	34
Instruments, Morse, key, relay, sounder	35
tables, switches, lightning-guards	38
ground-wires.....	39
CHAPTER IV.—Labor of building, how organized :	
Digging post-holes, procuring posts	41
Attaching insulators, erecting posts	42
Putting up wire, connecting wire	43
CHAPTER V.—Maintenance and working :	
Patrols or repairers ; repairs, how to make.....	46
Organization of working force	46
Directions for working	47

PART II.

CHAPTER VI.—Materials for field-lines :		Page.
Supports, lances, trees.....		51
Insulators, forms of, and material for.....		52
substitutes for regular.....		54
Wire, iron, compound, insulated.....		54
CHAPTER VII.—Equipment and tools :		
Instruments.....		57
Batteries, Signal Corps patterns.....		58
Ground-bars.....		61
Tools, marking-pins, crowbars, ice-bars.....		62
Climbers, reels, &c.....		63
CHAPTER VIII.—The train :		
Battery-wagon.....		65
Wire-wagon.....		65
Lance-truck.....		66
Full train, section train.....		66
The detachment, how organized and worked.....		67
CHAPTER IX.—Drill and illustrations.....		72
CHAPTER X.—Working the line :		
Opening station, terminal or way.....		87
The code.....		88
Working directions, calls, breaks, &c.....		89
Adjustment, escape.....		93
CHAPTER XI :		
Breaks, grounds, crosses.....		96
Testing.....		96

PART I.

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PERMANENT LINES.

