

**PACK TRANSPORTATION.
QUATERMASTER'S
DEPARTMENT**

Published @ 2017 Trieste Publishing Pty Ltd

ISBN 9780649160082

Pack transportation. Quatermaster's department by Mr. H. W. Daly

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

MR. H. W. DALY

**PACK TRANSPORTATION.
QUATERMASTER'S
DEPARTMENT**

Property of the United States Government.

WAR DEPARTMENT
OFFICE OF THE QUARTERMASTER-GENERAL

PACK TRANSPORTATION

 QUARTERMASTER'S DEPARTMENT

BY

MR. H. W. DALY

Chief Packer

UNDER DIRECTION OF THE QUARTERMASTER-GENERAL
U. S. ARMY

PUBLISHED BY AUTHORITY OF THE
SECRETARY OF WAR FOR USE IN
THE ARMY OF THE UNITED STATES



WASHINGTON
GOVERNMENT PRINTING OFFICE
1908

UC 303
A3

CONTENTS.

	Section.	Page.
Preface	9	9
General history	11	11
Evolution of the aparejo	14	14
Evolution of the diamond hitch	21	21
CHAPTER I.		
Pack saddles, description and uses:		
The Aparejo	1	22
Accessories of the aparejo	1	22
Crosstree or sawbuck	2	26
Moore pack saddle	3	26
CHAPTER II.		
Assembling and care of the aparejo:		
Selection of sticks suitable for ribbing aparejos	4	31
Selection of hay suitable as padding for aparejos	5	31
Setting up the aparejo	6	31
Causes of belly "bunches" and sore tails on pack mules and direc- tions for their prevention and cure	7	35
Setting up the Daly aparejo for use	8	36
CHAPTER III.		
School system of instruction:		
A. Instruction of the individual packer in preparation for his duties in the pack train—		
1. Securing and coiling ropes—		
How to prepare lash, sling, and lair ropes	9	40
How to do up a lash rope	10	41
How to do up a sling rope	11	41
How to do up a lair rope	12	41
2. Lairing up the packs—		
How to square ends of packs before lairing up	13	41
How to lair up side packs	14	42
How to lair up side pack of ropes without the aid of pack cover or manta	15	43
How to lair up an aparejo and riding saddle for storage or shipment	16	43
3. Putting the aparejo on the mule—		
How to fold an aparejo blanket	17	43
How to place blanket on aparejo preparatory to putting on the aparejo	18	44
How to blind a pack mule	19	44
How to place corona, blanket, and aparejo on the mule	20	44
How to turn the crupper	21	47
How to cinch an aparejo	22	47
Forming the load preparatory to loading the mule	23	50
4. Slinging the load—		
How to place the sling rope on the aparejo	24	50
How to lift side packs and place them on the aparejo	25	50
How to sling the load and tie the square knot	26	53
How to brake a side pack	27	55
How to double sling the side packs when length of packs requires it	28	55
How to cross sling side packs when top packs are neces- sary	29	56
How to double cross sling side packs when length of packs requires it	30	56

School system of instruction—Continued.		Section.	Page.
A. Instruction of the individual packer in preparation for his duties in the pack train—Continued.			
5. Lashing the load—			
	How to form the diamond hitch.....	31	57
	How to form the double diamond.....	32	89
	How to form the double hitch.....	33	94
	How to form the diamond hitch when the cinch hook is lost or broken.....	34	94
	How one packer can sling the load and form the diamond hitch.....	35	94
	How to form the pole hitch.....	36	95
	How to form the Oregon diamond hitch.....	37	98
6. How to sling the load and form the crosstree hitch on crosstree or sawbuck—			
	How to sling the load on crosstree.....	38	103
	How to form the crosstree hitch.....	39	103
	How to form the stirrup hitch.....	40	108
7. Taking off the load and aparejo—			
	How to take off the lash rope and the load.....	41	108
	How to uncinch an aparejo and turn the crupper.....	42	115
	How to take off an aparejo.....	43	115
8. Miscellaneous—			
	How to form two half hitches, the pole hitch.....	44	115
	How to form a bowline knot.....	45	116
	How to form a bowline and bight.....	46	116
	How to construct a travois.....	47	116
	How to improvise a stretcher.....	48	117

CHAPTER IV.

B. Instruction in the service of a pack train:			
1.	Summary of duties in loading and unloading a train.....	49	121
2.	Loading a pack train—		
	How to form cargo preparatory to loading the mules.....	50	121
	How to place the rigging.....	51	122
	How to teach animals to come properly to rigging.....	52	122
	How to tie animals to rigging.....	53	123
	How to do up halter shank before tying animal to his load.....	54	125
	How to tie an animal to his load.....	55	125
	How to load a pack train for the day's march in the most expeditious manner.....	56	125
	Putting on aparejos.....	57	126
	Putting on the cargo.....	58	126
	Leaving the park or camp ground.....	59	127
3.	Duties on the march—		
	In open country.....	60	127
	On bad and narrow trails.....	61	127
	Up and down a mountain.....	62	128
	In crossing streams, either fording or swimming.....	63	128
	How to catch a pack animal when his load needs attention.....	64	128
	How to tighten a load and indicate it has been tightened.....	65	128
	How to teach saddle mules to stand.....	66	129
	Signal code.....	67	129
4.	How to park (unload) a pack train—		
	Outline of duties.....	68	130
	How pack animals should be led to cargador for convenience in taking off the rigging.....	69	130
	How to cover cargo and tie down.....	70	131
	How to cover rigging and tie down.....	71	131
	How to stretch a picket line.....	72	131
	How to clean coronas.....	73	132
	How to fold pack covers.....	74	133
	How to fold rigging covers.....	75	133
	How to fold cargo covers.....	76	133
	How to fold feed covers.....	77	133

CHAPTER V.

Marches and loads:		Section.	Page.
1. What may be required of the pack mule under ordinary conditions..		78	134
Mountainous country		79	134
Forced marches.....		80	134
2. Gaits		81	135
3. Table showing loads and rates of travel considered practicable for a well-organized and seasoned train.....		82	135
4. Endurance of the pack mule under proper conditions.....		83	136

CHAPTER VI.

Organization:			
1. Usual organization and equipment of a pack train.....		84	138
2. Table showing size and quantity of rope and canvas required for one pack train.....		85	138
3. Articles of equipment in use in pack trains—			
Mess or kitchen boxes		86	139
Packer's field stove, with kit		87	139
Cooking outfit, without stove.....		88	139
Pack-train mess kit		89	139
Clothes or war bags.....		90	139
Packer's wardrobe		91	139
Packer's wall tent		92	140
Tool sacks.....		93	140
Grass or hay pads.....		94	140
Pack covers		95	140
Rigging covers.....		96	140
Cargo covers.....		97	140
Feed covers		98	140
Cargador's box		99	140
Cargador's kit		100	141
Blacksmith's boxes		101	141
Blacksmith's kit.....		102	141
4. How to organize a pack train.....		103	141
5. The essential conditions in the selection of the packer		104	143
The skilled packer.....		105	144
The novice or unskilled packer		106	145
Instructions to pack masters.....		107	145
6. Duties of individuals:			
The chief packer		108	145
The assistant chief packer		109	146
The pack master.....		110	146
The cargador or assistant pack master.....		111	147
The blacksmith		112	148
The packer		113	149
The cook		114	149
What packers are not permitted to do		115	150
Feeding.....		116	150
Watering		117	151
Grooming.....		118	151
Traveling		119	151
Camping.....		120	152
Use of blinds.....		121	152
Kindness to animals		122	152
Precautions		123	153
Glossary		124	153
7. Specifications for pack and riding mules.....		125	155
What to avoid in the selection of pack mules.....		126	156

CHAPTER VII.

The Daly aparejo, specifications for construction:			
1. The body of the aparejo.....		127	157
2. The crupper.....		127	160
3. The aparejo cover or sobre jalma.....		127	161
4. The aparejo cincha		127	161
5. The corona.....		127	162

The Daly aparejo, specifications for construction—Continued.		Section.	Page.
6.	The pack blanket.....	127	163
7.	Halters.....	127	163
8.	Packers' blinds.....	127	164
9.	Packers' saddles.....	127	164
10.	Bridles.....	127	164
11.	Pack covers.....	127	164
12.	Rigging covers.....	127	164
13.	Cargo covers.....	127	165
14.	Feed covers.....	127	165
15.	Lash rope with cincha.....	127	165
16.	Sling ropes.....	127	165
17.	Lair ropes.....	127	165
18.	Stamping.....	127	165
Ribbing for Daly aparejos.....		128	166
19.	Saddle bars.....	128	166
20.	Boot bars.....	128	166
21.	Hickory ribs.....	128	167
22.	Hay.....	128	167
Table showing weights of pack saddles and equipments.....		129	168

CHAPTER VIII.

D. Special devices:			
	Tool pouches (Engineer Corps).....	130	169
	Pack chests (Engineer Corps).....	131	169
	Pack reel (Signal Corps).....	132	173
	Pack chests (Signal Corps).....	133	175
	Litter carrier (Hospital Corps).....	134	177
	Ammunition boxes (Ordnance Department).....	135	181
	Pack outfit. American model for Maxim automatic machine gun .30 caliber.....	136	185
	Pack outfit. American model for 2.95-inch Vickers-Maxim mountain gun.....	137	198

WAR DEPARTMENT,
OFFICE OF THE QUARTERMASTER-GENERAL,
Washington, July 17, 1908.

SIR: I have the honor to forward herewith manuscript copy of a manual entitled "Pack Transportation, Q. M. D." with 93 illustrations.

Under direction of this office, Mr. H. W. Daly, chief packer of the army, has prepared this work, which was later sent to Col. H. L. Scott, Superintendent of the Military Academy, who has had a wide experience with pack trains, and who, at the request of the Quartermaster-General, undertook the work of revision of this manuscript.

It is recommended that this work be published in an edition of 1,000 copies, 250 in cloth and 750 in paper binding. So far as this office has been able to ascertain, this manual contains the most complete history and detailed explanation of the art of packing that has yet been published and is, of its kind, it is believed, unique. It is considered that it will be of great value to the army at large and a valuable addition to the literature heretofore published upon this subject.

In transmitting this manuscript for publication this office desires to record its appreciative thanks to Colonel Scott and Mr. Daly for their efforts which, it is confidently believed, in the form of this publication, will be valued by the army at large.

Very respectfully,

J. B. ALESHIRE,
Quartermaster-General, U. S. Army.

To the SECRETARY OF WAR.