

Notes on Civil War Logistics: Facts & Stories

By

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Beef-on-the-Hoof

Photograph by Brenda J. Lackey

[**Note** – *Marching Meat*: There are roughly 4,000 self-propelled rations, at least eight beeves, in this picture, enough to provide beef for a full-strength brigade (i.e., 4 regiments, each with a notional strength of 1,000 soldiers) for one day. A full-strength division of three brigades (i.e., 12,000 men) consumed a minimum of twenty-four beeves per day and an army corps of three full-strength divisions (i.e., 36,000 soldiers) required more than seventy-two beeves per day.]

Table of Contents

Introduction

Learning the Basics

- **The Infantryman - The Soldier and His Equipment**
 - **The .58 Caliber, Model 1855 Rifled Musket**
 - **Bayonet**
 - **Bayonet Scabbard & Frogs**
 - **Cap Box**
 - **Cartridge Box & Plate**
 - **Infantry Shoulder Strap and Plate (for the Cartridge Box)**
 - **Belt and Buckle**
 - **Blanket**
 - **Haversack**
 - **Knapsack**
 - **Change of Clothing**
 - **Overcoat**
 - **Shelter Half**
 - **Poncho**
- **The Infantryman in the Field**
 - **Mobility of the Soldier**
 - **Frontage & Interval**
- **Unit Organization**
 - **Company Level Organizations**
 - **The Infantry Company**
 - **The Artillery Battery**
 - **The Cavalry Troop**
 - **The Regiment**
 - **The Brigade**
 - **The Division**
 - **The Corps**
 - **The Army**

Notes on Civil War Logistics

- **The Canal Boat Bridge at Harpers Ferry**
- **The 1862 Peninsula Campaign**
 - **“The Leap of a Giant”**
 - **Logistics Over the Shore Operations: Ship Point to White House**
 - **Infrastructure**
 - **McClellan’s Change of Base and the Baggage-Destroying Order**
 - **In-Transit Visibility (ITV)**
- **Fredericksburg**

- Chancellorsville
- Gettysburg
- The 1864 Overland Campaign
- The Siege of Petersburg
- The 1865 Appomattox Campaign

Annex A – Classes of Supply (Data and Planning)

- Class I. (Rations Support)
- Class II. (General Supply Support)
- Class III. (Petroleum, Oil and Lubricants Support)
- Class IV. (Barrier Support)
- Class V. (Ammunition and Explosive Support)
- Class VI. (Personal Demand Items)
- Class VII. (Major End Items Support)
- Class VIII. (Medical Supply Support)
- Class IX. (Repair Part Support)
- Class X. (Civil Affairs Support)

Annex B – Transportation Reference Data

- Barrel
- Box
- Bushel
- In-Transit Visibility (ITV)
- Railcars
- Ships
- Six-Mule Wagon

Annex C – General Orders & Army Regulations

- The Ration
 - General Orders No. 54, War Dept., Aug. 10, 1861
 - General Orders No. 2226, War Dept., July 8, 1864
- The “Baggage-Destroying Order”
- Anti-Scorbutic
- Apportionment of Wagons & Baggage Trains
- Movement Control – The Peninsula Campaign
- Speed Limits – The Peninsula Campaign

Annex D – Correspondence

- The First Battle of Bull Run

- **Boat Bridges at Harpers Ferry**
- **The Peninsula Campaign**
 - **The Richmond & West Point RR**
- **The Second Battle of Bull Run**
- **The Battle of Antietam**
- **The Battle of Fredericksburg**
- **The Battle of Chancellorsville**
- **The Battle of Gettysburg**
- **The Overland Campaign**
 - **Capacity of Wagons (November 18, 1863)**
 - **Pioneers & Wagon Train Guards (February 26, 1864)**
 - **Transportation Planning for the Overland Campaign (April 13, 1864)**

Annex E – Reports of Logisticians

Annex F – Order of Battle Information & Strength Reports

- **November 12, 1861**
- **March 31, 1862**
- **April 1, 1862**
- **April 13, 1862**
- **April 30, 1862**
- **May 31, 1862**
- **June 1, 1862**
- **June 20, 1862**
- **July 20, 1862**
- **September 20, 1862**
- **October 20 1862**
- **November 10, 1862**
- **December 10, 1862**
- **January 20, 1863**
- **January 31, 1863**
- **February 10, 1863**
- **February 28, 1863**
- **March 31, 1863**
- **April 30, 1863**
- **May 10, 1863**
- **May 31, 1863**
- **First Week of July, 1863**
- **July 31, 1863**
- **August, 1863**
- **August 10, 1863**
- **December, 1863**
- **January, 1864**

- **March, 1864**
- **April 30, 1864**
- **May 31, 1864**
- **June, 1864**
- **July, 1864**
- **August, 1864**
- **September, 1864**
- **October, 1864**

Annex G – Hints on Army Transportation

Annex H – “The Art of Supplying Armies in the Field as Exemplified During the Civil War”

Annex I – Miscellaneous Related Documents

Notes on Civil War Logistics

“An army is simply a vast community on legs, with all its appointments and appurtenances complete, here one day, and the next day gone, bearing within itself all the elements of life and motion.”¹

Introduction

The two-fold purpose in writing this paper is to demonstrate that Civil War logistics problems have relevance today and, more importantly, to provide a rudimentary book of Civil War logistics data. This work presents a loosely chronological series of vignettes about logistics in the Army of the Potomac. It makes full use of The Official Records of the War of the Rebellion², reprinted period military manuals, and material that is nearly contemporary to the Civil War. Whenever possible, Federal quartermasters and commissary officers present the solutions to logistics problems that they used during the war.

Armies do three things: they camp, move and fight. The relationship of logistics to each of these operations is thoroughly discussed. Armies are exorbitantly expensive to operate. They consume prodigious amounts of supplies, materiel and manpower. It does not matter whether an army is on campaign or in camp, it still has to be fed and sheltered. Worn out equipment must be replaced. Armies need tremendous expanses of real estate to operate and even to bivouac. The

¹ Rusling, Captain J. F. (1865). A Word for the Quartermaster's Department appearing in the United States Service Magazine, Volume III. NY NY. Charles R. Richardson. p. 257

² _____ (1880-1901). The War of the Rebellion: A Compilation of the Official Records of the Union and Confederate Armies. Washington DC. Government Printing Office (hereafter cited as OR).

essential transportation and distribution problems remain unchanged and logisticians have a mission to accomplish whether the army is at peace or at war.

Brevet Brigadier General Rufus Ingalls, Chief Quartermaster,
Army of the Potomac (Source: <http://www.theunionforever.net/04071r.html>)

The Infantryman: The Soldier & His Equipment



In Heavy Marching Order
(Billings, Hardtack and Coffee, p. 318)

The soldier is a self-contained logistics system. His weapons were a rifle and a bayonet. His ordnance was carried in a cartridge box and cap box. Water was supplied from a canteen and rations were stored in a haversack. Extra clothing, ordnance and food was carried in a knapsack. Housing was a shelter-half and a blanket. The soldier had an overcoat in winter.

The .58 Caliber, Model 1855 Rifled-Musket – The 1855 rifled-musket was 55.85-inches long without the bayonet fixed and 73.85 inches long with fixed bayonet. It weighed 9.18 pounds without the bayonet fixed and 9.90 pounds with the bayonet attached.³ **How was it loaded? What was the maximum effective range, rate of fire, etc.? Add an explanation of the nomenclature.**

Bayonet – The bayonet for the 1855 rifled-musket was 18 inches long and weighed 11.5 ounces.⁴ **Talk about the lethality of the bayonet and it's primary use as a candle holder.**

Bayonet Scabbard & Frogs – “100 Bayonet scabbards and frogs.....31 lbs”⁵ Therefore,

³ Laidley, Brevet Major T. T. S. (1861). The Ordnance Manual For the Use of Officers of the United States Army (Third Edition). NYNY. J.J. Lippincott & Co. & republished by Invictus, Decatur MI. p.183

⁴ Laidley, Brevet Major T. T. S. (1861). The Ordnance Manual For the Use of Officers of the United States Army (Third Edition). NYNY. J.J. Lippincott & Co. & republished by Invictus, Decatur MI. p.183

one bayonet scabbard with frogs weighs 4.96 ounces.

Cap Box – “One hundred infantry cap boxes with cone picks....13 lbs.”⁶ One infantry cap box with cone picks weighs 2.08 ounces. **Explain what a percussion cap was.**

Cartridge Box and Plate – “100 Infantry cartridge boxes and plates for .58 inch ball....167 lbs.”⁷ Therefore, one cartridge box and plate, minus ammunition, weighed 1.67 pounds. The cartridge box held forty rounds of ammunition, the proverbial “forty dead men”. A bundle of ten cartridges weighed 13.5 ounces⁸, so the weight of the cartridge box etc., when filled, was about five pounds.

Infantry Shoulder Strap and Plate (for the cartridge box) – “100 infantry cartridge box-belts and plates....63 lbs.”⁹ Therefore, one infantry shoulder strap and plate weighed 10.08 ounces.

Belt & Buckle – “100 waist belts and plates, 1.9 inch wide....50 lbs”¹⁰ Therefore, one belt and buckle weighs 8 ounces.

Blanket – “Paragraph 1571. *Blanket* – woolen, gray, with letters U.S. in black, four inches long in the center; to be seven feet long, and five and a half feet wide, and to weigh five pounds.”¹¹ “The average weight of blanket....5 ¼ pounds”¹²

⁵ Laidley, Brevet Major T. T. S. (1861). The Ordnance Manual For the Use of Officers of the United States Army (Third Edition). NYNY. J.J. Lippincott & Co. & republished by Invictus, Decatur MI. p.233.

⁶ Laidley, Brevet Major T. T. S. (1861). The Ordnance Manual For the Use of Officers of the United States Army (Third Edition). NYNY. J.J. Lippincott & Co. & republished by Invictus, Decatur MI. p.233.

⁷ Laidley, Brevet Major T. T. S. (1861). The Ordnance Manual For the Use of Officers of the United States Army (Third Edition). NYNY. J.J. Lippincott & Co. & republished by Invictus, Decatur MI. p.233.

⁸ Laidley, Brevet Major T. T. S. (1861). The Ordnance Manual For the Use of Officers of the United States Army (Third Edition). NYNY. J.J. Lippincott & Co. & republished by Invictus, Decatur MI. p.270.

⁹ Laidley, Brevet Major T. T. S. (1861). The Ordnance Manual For the Use of Officers of the United States Army (Third Edition). NY NY. J.J. Lippincott & Co. & republished by Invictus, Decatur MI. p.233.

¹⁰ Ibid.

Canteen – The canteen held three pints and weighed slightly over three pounds when filled. **Double check this. Some sources document 1.5 pints.**

Haversack – The haversack was the soldier’s food larder. It was designed to carry roughly one peck of rations (i.e., 537.61 cubic inches), about a three day supply. By way of comparison, a modern paper grocery bag has a two peck capacity. The unpublished 1865 Quartermaster’s Manual states:

“Haversacks were to be made of ¼ yard of [31½ inches wide] cotton or pure, to weigh 6 ounces to the yard; ½ yard of [27 inches wide] cotton or pure linen drilling, of same material as sack, for the [inner] pocket; 3 white metal suspender buttons, 2½ skeins of W[hited]. B[rown]. linen thread, No. 3; one ¾ inch roller buckle, having a leather strap and loop strongly sewed on the sack, with two rows of stitches, of not less than 6 [stitches] each, all of the thread used for sewing to be well waxed and strong; a leather strap 7 inches long and ½ inch wide, punched with 6 holes, at equal distances, to receive the tongue of the buckle, and to be sewed on in the same manner, with the same kind of thread, and the same manner of stitches; the sling or carrying strap, to be of the same material as sack, and doubled; to be from 40 to 45 inches long and 2 inches wide, strongly sewed on sack, with two rows of stitches near the outer edges; the inner pocket to button on the inside of the sack; the outside of the sack, with the strap, to be painted with the same material as for a knapsack. Bottom of sack, 3½ inches wide; back, from top of flap to bottom of sack, 11½ inches; width of sack 12½ inches; depth of pocket 11 inches; and width of pocket 11½ inches.”

“Three days rations of biscuit, bacon, and small stores were put into a haversack, and it weighed...5 ¾ pounds.”¹³

Knapsack – The average weight of a knapsack...6 pounds.¹⁴

Change of Clothing – “The average weight of change of clothing...2 pounds.”¹⁵

¹¹ ____ (1861). The Revised Regulations for the Army of the United States, United States War Department, Washington DC. Government Printing Office p. 488. See also The Scientific American, Volume 11, Issue 7, p. 110: “Army blankets of domestic manufacture wool, grey, (with letters U. S. in black, four inches long in the center) to be seven feet long and five feet 6 inches wide to weigh five pounds each.”

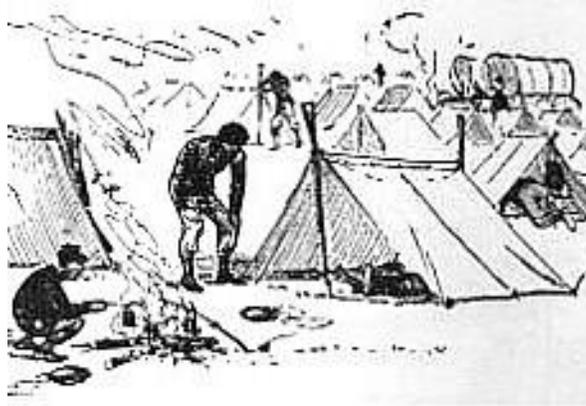
¹² O.R., Series 1, Volume 25, (Part 2), p.488. See also The Scientific American, Volume 11, Issue 7, p.110.

¹³ O.R., Series 1, Volume 25, (Part 2), p.488. (Digitized by Making of America <http://cdl.library.cornell.edu/moa/>)

¹⁴ O.R., Series 1, Volume 25, (Part 2), p.488. (Digitized by Making of America <http://cdl.library.cornell.edu/moa/>)

¹⁵ O.R., Series 1, Volume 25, (Part 2), p.488. (Digitized by Making of America <http://cdl.library.cornell.edu/moa/>)

Overcoat – “The average weight of overcoat....5 ¼ pounds.”¹⁶



(The Dog or Shelter Tent.)
(Billings, Hartack and Coffee, p. 52)

Shelter Half – The shelter half measured “...five feet two inches long by four feet eight inches wide and is provided with a single row of button-holes on three sides and a pair of holes for stake loops at the corners. Infantry pitched shelter tents as follows: “Two muskets with bayonets fixed were stuck erect into the ground the width of a shelter-half apart. A guy rope, which went with every half-shelter was stretched between the trigger guards of the muskets, and over this as a ridge pole the tent was pitched in a twinkling.”¹⁷ “The average weight of shelter-tent....1 ¾ pounds.”¹⁸

Poncho – “An army poncho, I may here say, is specified as made of unbleached muslin coated with vulcanized India-rubber, sixty inches wide and seventy-one inches long, having an

¹⁶ Ibid. (Digitized by Making of America <http://cdl.library.cornell.edu/moa/>)

¹⁷ Billings, John D. Hard Tack and Coffee: Soldier's Life in the Civil War, Old Saybrook CT, published @ 1887 and republished 2005. p 52.

¹⁸ O.R., Series 1, Volume 25, (Part 2), p.488. (Digitized by Making of America <http://cdl.library.cornell.edu/moa/>)

opening in the center lengthwise of the poncho, through which the head passes with a lap that is three inches wide and sixteen inches long. The army poncho was used in lieu of the gum blanket.”¹⁹

The Infantryman in the Field

Mobility of the Soldier²⁰ – A soldier marches, in common time, at a rate of 90 steps per minute (One step equals 28 inches.), which equals 210 feet per minute or 2.386 miles per hour. In quick time, the rate increases to 110 steps per minute. This equals 258 feet per minute, or 2.932 miles per hour. In double quick time, the rate again increases to 140 steps per minute. This equals 327 feet per minute, or 3.716 miles per hour.

Frontage & Interval²¹ – The soldier occupies a front of 20-inches (1.67 feet) and a depth of 13 inches (1.083 feet), without the knapsack. The interval between the ranks is 13 inches. In column, therefore, one man, without a knapsack, occupies a depth of 26-inches (2.167 feet). The knapsack added 3-inches to the total. For general planning purposes, a soldier occupied a frontage of 2-feet and a depth of 2½ feet. Assuming that men marched in a column of fours (A frontage of roughly seven to eight feet):

¹⁹ Billings, John D. Hard Tack and Coffee: Soldier's Life in the Civil War, Old Saybrook CT, published @ 1887 and republished 2005. p 55.

²⁰ Laidley, Brevet Major T. T. S. (1861). The Ordnance Manual For the Use of Officers of the United States Army (Third Edition). NYNY. J.J. Lippincott & Co. & republished by Invictus, Decatur MI. p.455.

²¹ Laidley, Brevet Major T. T. S. (1861). The Ordnance Manual For the Use of Officers of the United States Army (Third Edition). NYNY. J.J. Lippincott & Co. & republished by Invictus, Decatur MI. p.455.

Table # 1. Approximate Column Length & Pass Time (Column of Fours)														
No of Men	Len. of Column (Feet)	Len. of Column (Miles)	Pass Time (Min.)	Pass Time (Hrs.)	No of Men	Len. of Column (Feet)	Len. of Column (Miles)	Pass Time (Min.)	Pass Time (Hrs.)	No of Men	Len. of Column (Feet)	Len. of Column (Miles)	Pass Time (Min.)	Pass Time (Hrs.)
100	63	0.01	0.30	0.00	2,600	1,625	0.31	7.74	0.13	6,000	3,750	0.71	17.86	0.30
200	125	0.02	0.60	0.01	2,700	1,688	0.32	8.04	0.13	7,000	4,375	0.83	20.83	0.35
300	188	0.04	0.89	0.01	2,800	1,750	0.33	8.33	0.14	8,000	5,000	0.95	23.81	0.40
400	250	0.05	1.19	0.02	2,900	1,813	0.34	8.63	0.14	9,000	5,625	1.07	26.79	0.45
500	313	0.06	1.49	0.02	3,000	1,875	0.36	8.93	0.15	10,000	6,250	1.18	29.76	0.50
600	375	0.07	1.79	0.03	3,100	1,938	0.37	9.23	0.15	11,000	6,875	1.30	32.74	0.55
700	438	0.08	2.08	0.03	3,200	2,000	0.38	9.52	0.16	12,000	7,500	1.42	35.71	0.60
800	500	0.09	2.38	0.04	3,300	2,063	0.39	9.82	0.16	13,000	8,125	1.54	38.69	0.64
900	563	0.11	2.68	0.04	3,400	2,125	0.40	10.12	0.17	14,000	8,750	1.66	41.67	0.69
1,000	625	0.12	2.98	0.05	3,500	2,188	0.41	10.42	0.17	15,000	9,375	1.78	44.64	0.74
1,100	688	0.13	3.27	0.05	3,600	2,250	0.43	10.71	0.18	16,000	10,000	1.89	47.62	0.79
1,200	750	0.14	3.57	0.06	3,700	2,313	0.44	11.01	0.18	17,000	10,625	2.01	50.60	0.84
1,300	813	0.15	3.87	0.06	3,800	2,375	0.45	11.31	0.19	18,000	11,250	2.13	53.57	0.89
1,400	875	0.17	4.17	0.07	3,900	2,438	0.46	11.61	0.19	19,000	11,875	2.25	56.55	0.94
1,500	938	0.18	4.46	0.07	4,000	2,500	0.47	11.90	0.20	20,000	12,500	2.37	59.52	0.99
1,600	1,000	0.19	4.76	0.08	4,100	2,563	0.49	12.20	0.20	30,000	18,750	3.55	89.29	1.49
1,700	1,063	0.20	5.06	0.08	4,200	2,625	0.50	12.50	0.21	40,000	25,000	4.73	119.05	1.98
1,800	1,125	0.21	5.36	0.09	4,300	2,688	0.51	12.80	0.21	50,000	31,250	5.92	148.81	2.48
1,900	1,188	0.22	5.65	0.09	4,400	2,750	0.52	13.10	0.22	60,000	37,500	7.10	178.57	2.98
2,000	1,250	0.24	5.95	0.10	4,500	2,813	0.53	13.39	0.22	70,000	43,750	8.29	208.33	3.47
2,100	1,313	0.25	6.25	0.10	4,500	2,813	0.53	13.39	0.22	80,000	50,000	9.47	238.10	3.97
2,200	1,375	0.26	6.55	0.11	4,700	2,938	0.56	13.99	0.23	90,000	56,250	10.65	267.86	4.46
2,300	1,438	0.27	6.85	0.11	4,800	3,000	0.57	14.29	0.24	100,000	62,500	11.84	297.62	4.96
2,400	1,500	0.28	7.14	0.12	4,900	3,063	0.58	14.58	0.24	110,000	68,750	13.02	327.38	5.46
2,500	1,563	0.30	7.44	0.12	5,000	3,125	0.59	14.88	0.25	120,000	75,000	14.20	357.14	5.95

NOTE: 40-foot interval between regiments; 50-foot interval between brigades; 100 foot interval between divisions. Source: Craighill, William P. The 1862 Army Officer's Pocket Guide, p. 66.

Parade ground data does not apply in an operational environment. Captain J. F. Rusling, Assistant Quartermaster, wrote: “For example, an army of one hundred and twenty-five thousand (125,000) men, marching in column four (4) abreast, and the interval but six (6) feet apart, which is less than the usual interval of troops on the march, would extend over a distance

of thirty-five (35) miles, without making any allowance for the usual intervals between regiments, brigades, divisions and army corps.”²²

Table # 2. Approximate Column Length & Pass Time (Column of Fours)(CPT. Rusling's Estimate)														
No of Men	Len. of Column (Feet)	Len. of Column (Miles)	Pass Time (Min.)	Pass Time (Hrs.)	No of Men	Len. of Column (Feet)	Len. of Column (Miles)	Pass Time (Min.)	Pass Time (Hrs.)	No of Men	Len. of Column (Feet)	Len. of Column (Miles)	Pass Time (Min.)	Pass Time (Hrs.)
100	150	0.03	0.71	0.01	2,600	3,900	0.74	18.57	0.31	6,000	9,000	1.70	42.86	0.71
200	300	0.06	1.43	0.02	2,700	4,050	0.77	19.29	0.32	7,000	10,500	1.99	50.00	0.83
300	450	0.09	2.14	0.04	2,800	4,200	0.80	20.00	0.33	8,000	12,000	2.27	57.14	0.95
400	600	0.11	2.86	0.05	2,900	4,350	0.82	20.71	0.35	9,000	13,500	2.56	64.29	1.07
500	750	0.14	3.57	0.06	3,000	4,500	0.85	21.43	0.36	10,000	15,000	2.84	71.43	1.19
600	900	0.17	4.29	0.07	3,100	4,650	0.88	22.14	0.37	11,000	16,500	3.13	78.57	1.31
700	1,050	0.20	5.00	0.08	3,200	4,800	0.91	22.86	0.38	12,000	18,000	3.41	85.71	1.43
800	1,200	0.23	5.71	0.10	3,300	4,950	0.94	23.57	0.39	13,000	19,500	3.69	92.86	1.55
900	1,350	0.26	6.43	0.11	3,400	5,100	0.97	24.29	0.40	14,000	21,000	3.98	100.00	1.67
1,000	1,500	0.28	7.14	0.12	3,500	5,250	0.99	25.00	0.42	15,000	22,500	4.26	107.14	1.79
1,100	1,650	0.31	7.86	0.13	3,600	5,400	1.02	25.71	0.43	16,000	24,000	4.55	114.29	1.90
1,200	1,800	0.34	8.57	0.14	3,700	5,550	1.05	26.43	0.44	17,000	25,500	4.83	121.43	2.02
1,300	1,950	0.37	9.29	0.15	3,800	5,700	1.08	27.14	0.45	18,000	27,000	5.11	128.57	2.14
1,400	2,100	0.40	10.00	0.17	3,900	5,850	1.11	27.86	0.46	19,000	28,500	5.40	135.71	2.26
1,500	2,250	0.43	10.71	0.18	4,000	6,000	1.14	28.57	0.48	20,000	30,000	5.68	142.86	2.38
1,600	2,400	0.45	11.43	0.19	4,100	6,150	1.16	29.29	0.49	30,000	45,000	8.52	214.29	3.57
1,700	2,550	0.48	12.14	0.20	4,200	6,300	1.19	30.00	0.50	40,000	60,000	11.36	285.71	4.76
1,800	2,700	0.51	12.86	0.21	4,300	6,450	1.22	30.71	0.51	50,000	75,000	14.20	357.14	5.95
1,900	2,850	0.54	13.57	0.23	4,400	6,600	1.25	31.43	0.52	60,000	90,000	17.05	428.57	7.14
2,000	3,000	0.57	14.29	0.24	4,500	6,750	1.28	32.14	0.54	70,000	105,000	19.89	500.00	8.33
2,100	3,150	0.60	15.00	0.25	4,500	6,750	1.28	32.14	0.54	80,000	120,000	22.73	571.43	9.52
2,200	3,300	0.63	15.71	0.26	4,700	7,050	1.34	33.57	0.56	90,000	135,000	25.57	642.86	10.71
2,300	3,450	0.65	16.43	0.27	4,800	7,200	1.36	34.29	0.57	100,000	150,000	28.41	714.29	11.90
2,400	3,600	0.68	17.14	0.29	4,900	7,350	1.39	35.00	0.58	110,000	165,000	31.25	785.71	13.10
2,500	3,750	0.71	17.86	0.30	5,000	7,500	1.42	35.71	0.60	120,000	180,000	34.09	857.14	14.29

At a rate of 210 feet per minute and an interval of six feet between ranks, 35 ranks (140) men pass one point every minute. The number of men in a column can be approximated by multiplying the pass time in minutes by 140. For example, if it takes 28½ minutes for a column

²² Rusling, Captain J. F. (1865). A Word for the Quartermaster's Department appearing in the United States Service Magazine, Volume III. NY NY. Charles R. Richardson. p. 255-256

of infantry to pass a given point, there are about 4,000 men in the column, a full-strength brigade ($28\frac{1}{2} \times 140 = 3,990$).

Unit Organization

The Infantry Company

An army is built from the bottom up. The smallest organization in a Civil War army was an infantry company of around 100 men was. A company was commanded by a captain. He was assisted by two lieutenants, five sergeants and eight corporals. The unit was authorized between sixty-four and eighty-two private soldiers, making a total of between 80 and 98 soldiers. Each company had a Commissary Sergeant and a Quartermaster Sergeant. The Company Commissary Sergeant made out the returns for the company, drew the rations and supervised their preparation and distribution to the men. He also kept the company fund. The Quartermaster Sergeant...**(clothing accounts, company property, etc.)**

The Artillery Battery

An artillery battery was commanded by a captain who was assisted by a first lieutenant and a second lieutenant. One of the lieutenants was in charge of the six guns in the gun line and the other supervised the six caissons, the battery wagon and the traveling forge (i.e., Each battery had fourteen six-horse carriages.). A battery also had a first sergeant, a quartermaster sergeant, four sergeants, eight corporals, two musicians (These positions were not filled.), two artificers, one wagoner and one hundred twenty two privates (gunners), for an aggregate strength of 144 officers and men. This organization could be augmented by one first and one second lieutenant, two sergeants and four corporals, at the Presidents discretion. The grand total was a maximum of 152 soldiers per battery.

An artillery battery had six guns, six caissons, a battery wagon and a traveling forge, a total of fourteen carriages. Each carriage was pulled by a six-horse team. The minimum number of team horses in a battery was 84, not counting spares and saddle horses. The accepted planning factor for spares was 1/12 the required number of team horses²³, so the 84 team horses required seven spares. The sergeants, artificers and musicians rode saddle horses (1864 Artillery Tactics, p.24), adding eight saddle horses and two spares. The grand total was 101 horses.

“[A]n army of one hundred and twenty-five (125,000) men will usually have at least two guns to the thousand men, which would make two hundred and fifty guns, or say forty batteries of six pieces each. Now a battery on the march, as a general thing, will occupy fully three hundred (300) yards, so that forty batteries would take about seven miles.”²⁴

Artillery used four types of ammunition: (1) shot, (2) spherical case, (3) shell, and (4) canister. “Solid shot is spherical, and its weight in pounds is used to designate the caliber of the gun to which it belongs.”²⁵ (e.g., 12-pounder Napoleon) “Solid shot should be used from 350 yards upwards.”²⁶

“The shrapnel or case shot is a cast-iron shot forming a *case* which is filled with musket balls...Spherical case ought not, as a general rule, to be used for a range less than 500 yards; and

²³ French, CPT William H. Barry, CPT. William F. Hunt, CPT H. J. (1864). Field Artillery Tactics. NY NY. D. Van Nostrand. p.24.

²⁴ Rusling, Captain J. F. (1865). A Word for the Quartermaster's Department appearing in the United States Service Magazine, Volume III. NY NY. Charles R. Richardson. p. 255-256

²⁵ French, CPT William H. Barry, CPT. William F. Hunt, CPT H. J. (1864). Field Artillery Tactics. NY NY. D. Van Nostrand. p.8.

²⁶ French, CPT William H. Barry, CPT. William F. Hunt, CPT H. J. (1864). Field Artillery Tactics. NY NY. D. Van Nostrand. p.29.

neither spherical case nor shells should be fired rapidly at rapidly advancing bodies, as, for instance, cavalry charging.”²⁷

“The shell is a hollow shot, which such thickness of metal as enables it to penetrate earthworks, wooden buildings, &c., without breaking. For service it is charged with powder and bursts with great force. “The fire of spherical case and of shells on bodies of cavalry in line or column and in position is often very effective.”²⁸ “The best rule for approximate time of flight is one second for 300 yards.”²⁹

“The canister consists of a tin cylinder, attached to a sabot and filled with *cast iron shot*. Twelve-pound canister was filled with 27 shot. The use of canister should begin at 350 yards, and the rapidity of the fire increase as the range diminishes.”³⁰

Each gun had one ammunition chest on the limber that pulled the gun, another ammunition chest on the limber that pulled the caisson and two additional ammunition chests on the caisson itself. Therefore, the number of rounds organic to the battery was computed by multiplying the number of rounds in each ammunition chest by four.

<u>For the 12-pdr. Gun (1857)</u> ³¹	<u>No.</u>	<u>Weight (lbs.)</u>
Shot, fixed	12	184.80
Spherical case	12	176.40
Shells	4	48.48
Canisters	4	67.64

²⁷ French, CPT William H. Barry, CPT. William F. Hunt, CPT H. J. (1864). Field Artillery Tactics. NY NY. D. Van Nostrand. pp. 8 & 29.

²⁸ French, CPT William H. Barry, CPT. William F. Hunt, CPT H. J. (1864). Field Artillery Tactics. NY NY. D. Van Nostrand. pp. 8 & 29.

²⁹ French, CPT William H. Barry, CPT. William F. Hunt, CPT H. J. (1864). Field Artillery Tactics. NY NY. D. Van Nostrand. p. 28.

³⁰ French, CPT William H. Barry, CPT. William F. Hunt, CPT H. J. (1864). Field Artillery Tactics. NY NY. D. Van Nostrand. pp. 8 & 29.

³¹ Laidley, Brevet Major T. T. S. (1861). The Ordnance Manual For the Use of Officers of the United States Army (Third Edition). NYNY. J.J. Lippincott & Co. & republished by Invictus, Decatur MI. p. 335)

Spare cartridges (2.5 lb)	2	5.12
Friction-primers	48	.62
Portfires	3	.57
<u>Total rds. & net wt.</u>	<u>32</u>	<u>479.60</u>

Each 12-pounder gun and caisson had a total of 128 rounds organic to the battery. Normally, 250 rounds were carried on campaign.³²

The formula for the number of wagons required to carry 12-pounder ammunition was (No. of guns x 122)/112. Each 12-pounder transported 128 rounds within the battery and needed a total of 250 rounds in the field. The difference is the 122 rounds that appear in the formula. When the formula is applied to a single gun, a little over one wagon is required to carry 112 rounds.

Add the formula for rifled cannon.

The Cavalry Troop

The Infantry Regiment

NOTE: Write about the number of wagonloads of food and ammunition required by an infantry regiment.

Ten companies of approximately 100 men were formed into infantry regiments of about 1,000 men. A regiment was commanded by a colonel. His authorized staff included a lieutenant colonel, a major, an adjutant, a chaplain, a surgeon with two assistant surgeons and one hospital steward, a regimental quartermaster officer and regimental quartermaster sergeant, and a regimental commissary officer and regimental commissary sergeant. The staff had 15 soldiers and the line companies totaled between 800 and 980 soldiers, so the authorized strength of an infantry regiment was between 815 and 995 soldiers. Regiments were raised by individual states

³² O.R. Series 1, Volume 11, Part 3, Chapter XXXIII, General Order No. 152, *Camp near Harrison's Landing, Va. dated August 9, 1862*, pp.361 & 362

and then offered to the Federal government, but they still retained some of their state's identity. For example, the 119th New York Volunteer infantry regiment is referred to in a later paragraph.

The quartermaster sergeant of the regiment was appointed by the regimental commander on the recommendation of the regimental quartermaster. He was in charge of receiving and issuing the stores signed for by the Quartermaster. He supervised the teamsters in the regimental train and was foreman of the work details furnished by the companies. Work details involved more than just packing and unpacking the wagons. Because the Quartermaster's Department was responsible for maintaining the roads used by the army, Quartermasters supervised this strenuous work. **(Document this.)**

An infantry regiment was used wagons to perform the same chores as today's army trucks. The six-mule wagon was the coin of the realm of Civil War logistics. As its name implies, the wagon was drawn by six mules. The wheelers were the span nearest to the wagon. The swing pair was the middle span and the leaders, the lightest and supposedly the smartest pair, were in front. Wagons were driven by a muleskinner who rode the left-hand mule (i.e., facing forward) nearest to the wagon. This mule was called the near-side wheel mule or near-pole mule. From the muleskinners driving position, the left file of mules was called the near-side and the right file was the off-side. The near-side leader was connected to the off-side leader by an iron pole. The mules were steered by a single rein running back from the near-side lead mule. The team turned to the left when the driver yelled "Haw" and pulled steadily on the rein. A shout of "Gee", accompanied by quick jerks on the rein, caused the team to turn to the right. Shouting "Yay" sent the team straight ahead. "On good roads where trains were well closed up,

it is calculated that each six-mule team will occupy about sixty (60) lineal feet; this would give about ninety (90) teams to the mile, a large average on most marches...”³³

“I presume every one of mature years has an idea of what army wagons look like. They were heavy, lumbering affairs at best, built for hard service, all, apparently after the same pattern, each one having its tool box in front, its feed trough behind, which, in camp, was placed lengthwise of the pole; its spare pole suspended at its side; its wooden bucket for water, and iron ‘slush bucket’ for grease, hanging from the hind axle; and its canvas cover, which when closely drawn in front and rear, as it always was on the march, made quite a satisfactory close carriage.”³⁴

“The dimensions of an army wagon, as laid down in Subsistence Regulations, is as follows: Box 114 inches long inside measurement, 42 inches wide (inside measurement), 22 inches high. By actual measurement, however, of those in use at the ‘Washington Monument Subsistence Depot,’ the dimensions are as follows: Box 120 inches long (inside measurement), 43 inches wide (inside measurement), 22 inches high.”³⁵

“A government wagon, drawn by four horses, over good roads, ought to carry 2,800 pounds avoirdupois, and make an average distance of two and a half miles per hour.”³⁶ N. S. Dodge, the Regimental Quartermaster of the 119th New York Volunteer Infantry Regiment, expressed that view in his short book³⁷ on army transportation that was written near the beginning of the Civil War. As the war progressed, experience fine tuned the army’s knowledge of the carrying capacity of a six-mule wagon. “An army wagon will carry conveniently, with what forage is usually added, about 2,500 pounds, making with the forage 3,000 pounds, which is about the greatest capacity over moderately good roads; even this amount will be found very

³³ Rusling, Captain J. F. (1865). A Word for the Quartermaster’s Department appearing in the United States Service Magazine, Volume III. NY NY. Charles R. Richardson. p. 256.

³⁴ Billings, John D. Hard Tack and Coffee: Soldier’s Life in the Civil War, Old Saybrook CT, published @ 1887 and republished 2005. p 352.

³⁵ Hathaway, Brevet Lieutenant Colonel John L. (1901) in How To Feed An Army. United States War Department, Washington DC. Government Printing Office, p. 28. (Digitized by Google Books: <http://books.google.com/bkshp?tab=wp>)

³⁶ Dodge, N. S. (1863). Hints on Army Transportation. Albany NY, Charles Van Benthuyssen, Printer, p.7.

³⁷ Dodge, N. S. (1863). Hints On Army Transportation. Albany NY. Charles Van Benthuyssen, Printer.

great if the march is continued long each day or requires to be at all rapid.”³⁸ “...I have found that an army wagon will haul from 700 to 800 complete rations, if well packed, and 1,200 of the ordinary marching ration.”³⁹ Brigadier General Ingalls, the Chief Quartermaster of the Army of the Potomac, said that “One wagon will carry 1,200 rations hard bread; 2,000 rations coffee (1 barrel); 1,800 rations sugar (1 barrel); 300 rations (two-eights pound) pork (1 barrel, 1 box, 25 pounds); 1,200 rations salt (1 box, 45 pounds); 36 rations (9 pounds to ration) oats (3 sacks); gross weight, 2,674 pounds.”⁴⁰ The next table provides a comprehensive listing of the carrying capacity of a six-mule wagon.

³⁸ CPT. N. J. Sapington in How to Feed an Army: Published By Authority of the Secretary of War for use in the Army of the United States, Washington, 1901, Government Printing Office, p.60. (Digitized by Google Books: <http://books.google.com/bkshp?tab=wp>)

³⁹ Carpenter, Lieutenant Colonel C. C. (1901) in How To Feed An Army. United States War Department, Washington DC. Government Printing Office, p. 79. (Digitized by Google Books: <http://books.google.com/bkshp?tab=wp>)

⁴⁰ O.R., Series 1, Volume 29 (Part 2), p.472 (Digitized by Making of America <http://cdl.library.cornell.edu/moa/>)

Table # 3.

Packaging & Transportation Data for Rations

Ration	Pkg.	Shipping Weight			Rations per Bbl.	Weight Per 1,000 Rations				Packages Per Wagonload Per Type of Road			Packages per RR Boxcar	
		Tare	Net	Gross		Tare	Net	Gross	Shipping Containers	Good	Indifferent	Bad		
Bacon	0.75 lb. PMD	Barrel	60	290	350	386.67	155	750	905	2.5862	8	7	5	60
Beans	2.4 oz. PMD	Barrel	17	223	240	1,486.67	11	150	161	0.6726	12	11	7	100
Bread	1.0 LB PMD	Box	15	50	65	50.00	300	1,000	1,300	20.0000	40	40	26	380
Candles	0.2 oz. PMD	Box	7.5	40	48	3,200.00	2	13	15	0.3125	60	60	37	500
Coffee	1.28 oz. PMD	Barrel	30	160	190	2,000.00	15	80	95	0.5000	10	10	9	112
Flour	22 oz. PMD	Barrel	21	196	217	142.55	147	1,375	1,522	7.0153	12	12	8	100
Hominy	1.6 oz. PMD	Barrel	21	200	221	2,000.00	11	100	111	0.5000	12	12	8	100
Pepper	.04 oz. PMD	Box	7	25	32	10,000.00	0.7	2.5	3.2	0.1000	80	80	55	800
Pork ¹	0.75 lb. PMD	Barrel	140	200	340	266.67	525	750	1,275	3.7500	10	8	5	60
Rice	1.6 oz. PMD	Barrel	27	280	307	2,800.00	10	100	110	0.3571	10	8	6	80
Salt	0.6 oz. PMD	Barrel	20	280	300	7,466.67	3	38	40	0.1339	10	9	6	70
Salt Beef ¹	1.25 lb. PMD	Barrel	140	200	340	160.00	875	1,250	2,125	6.2500	10	8	5	60
Soap	.64 oz. PMD	Box	12	80	92	2,000.00	6	40	46	0.5000	36	30	20	240
Sugar	2.4 oz. PMD	Barrel	21	269	290	1,793.33	12	150	162	0.5576	12	9	6	280

1. Tare weight includes the weight of the brine (@ 56 lb.) and the weight of the salt used in packaging. (O.R., Series 1, Volume 11, Part 1, p.175.)

Spreadsheet by Rodney C. Lackey using data prepared by Brevel Major W. P. Martin appearing in *How To Feed An Army*, GPO, Washington DC, 1901, pp 111 & 113.

During most of the war, each Federal regiment had, on average, six wagons⁴¹ that were used to satisfy its immediate needs. Some had a lot more and some less. N. S. Dodge described how each wagon was used. One of the wagons hauled the surgeon's medical stores. Another carried three wall tents and the baggage of the field and staff officers. The third wagon carried the baggage of the line officers. The fourth wagon hauled the pans and kettles of the line companies. The fifth and sixth wagons carried rations.⁴²

⁴¹ O.R., Series 1, Volume 11, Part 3, pp. 365-366: General Orders Number 153, dated August 10, 1862. (Digitized by Making of America <http://cdl.library.cornell.edu/moa/>). The full text of the order is found Annex C, page ____ of this book.

⁴² Ibid. page 6. The six regimental wagons were just the tip of the iceberg. Brigades, divisions and army corps were apportioned wagons to carry baggage, rations, forage, hospital supplies, ammunition, entrenching tools and quartermaster supplies. The mobility of the army depended on the carrying capacity of its wagons. Towards the end

The six wagons had a total hauling capacity of 16,800 pounds, assuming 2,800 pounds per wagonload. Much of it was wasted. Dodge said that the hospital supply wagon was grossly underutilized. The hospital supplies for a regiment, a 185 pound hospital tent and 125 pounds of medical supplies, used under 12% of a 2,800-pound carrying capacity. The second wagon, the one that carried the regimental books, the three wall tents and the baggage of the field and staff officers weighed out at about 2,200 pounds, or 79% capacity, so it was well used. The third wagon was barely adequate to haul the baggage of the thirty line officers in a regiment. The fourth wagon carried the pots and pans of the ten infantry companies. There is little doubt that this amount of cooking gear was required to prepare the complete ration. However, field experience during the Civil War lead to the development of a marching ration, which is discussed elsewhere in this paper, and did not require so much gear. The fifth and sixth wagons carried two days' rations for the men and forage for the cattle that was slaughtered to feed the men. The men normally carried three days' cooked rations in their haversacks, giving a regiment a total of five days' mobility before re-supply was required. It is interesting to note that no extra ammunition was routinely carried in the regimental wagons, although a box of 1,000 cartridges only weighed 98-pounds.

Brigadier-General Butterfield said: "The quartermaster should have his train thoroughly disciplined and under his control to move it with as much facility as a battery of artillery can be moved."⁴³

(Note: Add information about comparing upkeep of the wagons to the artillery.) Later on in the same passage, Butterfield stressed the need for in-transit visibility:

of the war, the Army of the Potomac carried ten days' of rations and ordnance stores for an entire campaign. See **Annex C** for orders pertaining to the apportionment of wagons.

⁴³ Butterfield, Brigadier-General Daniel. (1862 and 2003). Camp and Outpost Duty for Infantry. Originally published in New York NY by Harper & Brothers, Publishers and republished in Mechanicsburg VA by Stackpole books, p.47.

“The contents of each and every wagon in the train should be known to all officers in charge or connected therewith. The quartermaster and his sergeant should have a notebook, in which is noted, as the train is packed and made up, as follows”⁴⁴:

<i>No. of the wagon</i>	<i>Contents</i>	<i>Driver</i>	<i>Regiment</i>
401	Ammunition	John Owens	73d reg.
436	Hospital stores	Wm. French	83d reg
307	Forage - hay only	Jas. Burke	44th reg
22	Prov'ns (com scales)	Jos. Horne	22d reg.

Butterfield emphasized the importance of preventative maintenance: “Quartermasters will see that the wagon-master or teamsters have had the wagons greased, bolts, chains and everything in order; tar buckets on hand and not empty; spare parts (duplicates of those likely to break or give out on the march) ready. The blacksmith with his tools, forge, etc, where he can be got at readily, to work by the roadside, if necessary.”⁴⁵ Every artillery battery had a blacksmith and portable forge.

The regimental commissary sergeant was appointed by the regimental commander on the recommendation of the regimental commissary officer. He was the foreman of the commissary store-house, whether the “store-house” was an actual building in winter camp, or a couple of tents and some cattle in the field. He supervised the commissary clerk in writing the daily receipts and returns and was responsible for the regimental scales, weights and measures. He oversaw slaughtering and butchering beef-on-the-hoof and, when practicable, insured that the hides were turned in to the Quartermaster’s Department. “Issues are usually made to companies

⁴⁴ Ibid. pp. 47-48

⁴⁵ Ibid. 48.

for ten days in garrisons or permanent camps and for five days or less on the march.”⁴⁶ One thousand complete rations weighed around 3,886 pounds gross weight⁴⁷, so the regimental commissary sergeant was responsible for drawing, weighing, and issuing up to 19.5 short tons of rations (i.e., almost 14 wagonloads at 2,800 pounds per wagon) at one time. He was supervised by the Commissary Officer.

Transportation control and movements documentation was important to Civil War logisticians:

“As the quartermaster takes charge of transportation of the stores, they are necessarily, whilst in his charge and in transit, out of the control of the commissary department for the time being; but it is the sergeant’s duty to note the amount he turns over for transportation, to give invoices and take transportation receipts. These should be signed by the quartermaster and commissary. In regiments where the quartermaster is also the commissary, this is not necessary, and he simply co-operates with the quartermaster sergeant, the latter attending immediately to the teams or means of transport, and the former looking after the stores.”⁴⁸

Having 1,000 men on the regimental roles, the aggregate strength (a.k.a. the rationing strength), was not the same the same thing as having those men on the battle line, which was referred to as the effective strength of the unit⁴⁹. A Colonel commanding 1,000 men could count on over 35% of them being absent at any given time.⁵⁰ Those sick in hospital made up roughly 9% of his losses (89 men out of 1,000) and those listed simply as absent, over 26% (265 men out of 1,000), made up the rest. Most of those listed as absent had purposeful work. Cooks, hospital

⁴⁶ Kautz, Brigadier-General August V. (1865 and 2001) The 1865 Customs of the Service for Non-commissioned Officers and Soldiers. Originally published by J. B. Lippincott & Co. and republished in Mechanicsburg PA. Stackpole Books. p. 154.

⁴⁷ Ibid. p. 159

⁴⁸ Ibid. pp. 163-164

⁴⁹ Phisterer, CPT. Frederick. (1883 and 2002). Statistical Record of the Armies of the United States. The 2002 edition was published in Edison NJ by Castle books. p. 63.

⁵⁰ “The ‘absent’ were not present with the armies at the front, but were generally in rear of the base of supplies; and even of the ‘present’ we had to estimate at least one-third as detached, guarding our long lines of supply, sick in hospital, company cooks, teamsters, escorts to trains, and absent from the ranks by reason of the many causes incident to war.” Sherman, General W. T. The Grand Strategy of the War of the Rebellion. The Century, Volume 35, Issue 4, Feb. 1888, p.54.

stewards, clerks, drivers, drovers, guards, men detailed to higher headquarters for various duties (e. g., Private Sneden, who is quoted elsewhere in this book, was detailed from his company to III Corps headquarters, where he worked as a self-taught cartographer for Brigadier General Samuel P. Heintzelman during the Peninsula Campaign.), deserters and men on leave were all carried as “absent” on the roles. The combined losses left the Colonel of 1,000 men with an average effective strength of 646 men before the first shot was fired.

The idealized, parade-ground camp of a regiment of infantry was about 1,000 feet wide (400 paces⁵¹) and 1,227.5 feet (491) deep, or about 28¼ acres for 1,000 men. Most of the space used to separate the officers and men from the latrines. The tents were pitched in an area that was 670 feet wide (400 paces) and 390 feet deep (156 paces), covering roughly 6 acres for 1,000 men.

At full strength, an infantry regiment of 1,000 men in a column of fours occupied 625 feet. The six wagons added about 300 feet⁵² to the total, making the total column length 925 feet and the pass time, at two miles per hour, five or six minutes. The column occupied a front of between seven and eight feet. Craighill stated that “Roads should be at least seven feet wide for the passage of artillery carriages.”⁵³ Cramming four men abreast between the hubs of an artillery piece is a tight squeeze on an all-day march, especially along Virginia’s notoriously bad roads.

The Brigade

⁵¹ “The pace is thirty inches, or two-and-a-half feet.” Viele, CPT. Egbert L. (1861). Handbook for Active Service, NY NY. D. Van Nostrand, p.58.

⁵² Craighill, William P. (1862 & 2002) The 1862 Army Officer’s Pocket Companion. Originally published in New York NY. By D. Van Nostrand & republished in Mechanicsburg PA by Stackpole Books. P.209: “A six-horse team will occupy about seventeen yards, allowing four to a horse, four to the carriage, and one for the interval between consecutive vehicles.”

⁵³ Craighill, William P. (1862 & 2002) The 1862 Army Officer’s Pocket Companion. Originally published in New York NY. By D. Van Nostrand & republished in Mechanicsburg PA by Stackpole Books. P.70:

After completing rudimentary training at Camps of Instruction, the volunteer infantry regiments were sworn into Federal service and moved to the Washington D. C. area. There, the regiments were assigned to brigades. A brigade consisted of four or more regiments so, at full strength, it carried 4,000 officers and men on its rolls and had an average effective strength of 2,584. In the field, units fought as brigades. If the brigade was composed of four regiments and the train conformed to orders, the brigade train had a minimum twenty-seven wagons.

Butterfield's stuff may have been intended for the brigade-level. Mention that and add his traffic regulation stuff here.

The Division

A division had three or more infantry brigades (i.e., at least twelve infantry regiments) and a notional strength of around 12,000. The effective strength averaged 7,752 men. It also had four six-gun artillery batteries. One of these batteries was from the Regular Army. The commander of this battery was appointed commandant of the division artillery.⁵⁴ The three infantry brigades had a total of 81 six-mule wagons and the artillery added 56 six-horse carriages (i.e., guns, caissons, portable forges and battery wagons) so, with the four wagons allowed to the division headquarters, the minimum number of vehicles was 141. This total does not include extra wagons for marching rations to increase the divisions' mobility, extra wagons for infantry and artillery ammunition, and forage wagons for the team animals. Five wagons per 1,000 (i.e., Twenty boxes of ammunition, or 20,000 rounds per wagonload.) men were allowed to carry an extra 100 rounds of small arms ammunition per man, so an additional sixty wagons were needed to carry the divisions' reserve infantry ammunition. Assuming one battery of smooth-bore

⁵⁴ "It was decided that the proportion of rifled guns should be one-third, and of smooth-bores two-thirds – that the rifled guns should be restricted to the system of the United States ordnance department and of Parrot, and the smooth-bores to be exclusively the light twelve-pounder or Napoleon gun." Barry: Report of Artillery Operations of the Army of the Potomac, pp. 106-109 quoted in Swinton, William. (1866) Campaigns of the Army of the Potomac, NY NY. Charles B. Richardson. p.5.

Napoleon guns and three rifled batteries, fourteen wagons⁵⁵ were required to carry the artillery ammunition. Ten days' of marching rations, figuring on the basis of 8 ½ wagonloads per 1,000 men⁵⁶, added 102 wagons to the division's train. Each artillery battery had a minimum of five wagons for baggage, subsistence, and forage, and the artillery brigade headquarters had another three wagons for the same purposes, adding 23 wagons to the division's trains. Two wagons per division were allotted to carry the forage for the division's ambulances. The total number of vehicles (56 artillery carriages and 286 six-mule wagons) was 342. Each regiment was allotted two two-horse ambulances, bringing the grand total to 56 artillery carriages and 310 wagons a vehicles, a train at least 3½ three miles long when arranged in parade ground order. Although the division troops normally marched in the fields on the sides and in front and rear of the vehicles, the three brigades⁵⁷ added 1½ miles to the column length if they marched on the road. The pass time for the division would have been a minimum of two hours.

The Corps

A corps had three of three or more divisions with an aggregate strength of 36,000 men and an effective strength of 23,256 men. Logistical supervision at the corps-level was provided by a Chief Commissary and a Chief Quartermaster, both Lieutenant Colonels. A Medical Director, Commissary of Musters, Provost Marshal and a Signal Officer were also part of the Corps Commander's logistical team. The Chief Quartermaster, Chief Commissary and the Medical Director generally had assistant officers. The train of an army corps of three divisions numbered at least 256 wagons.

⁵⁵ (6 Twelve-Pounder guns x 122)/112 = 6.5 wagons and (18 Rifled Guns x 50)/140 = 6.4, so a minimum of 13 wagonloads of artillery ammunition were required. To segregate the ammunition by type, fourteen wagons would have been used.

⁵⁶ Each wagon carried 1,200 marching rations. One thousand men consumed 10,000 rations in ten days, so 8-1/3 wagons were required. The normal planning factor was 8½ wagonloads per 1,000 men.

⁵⁷ **Put the logic and calculations here.**

Add commissary duties from HTFA

Add artillery batteries, if appropriate.

The Army

A field army had three or more infantry corps. For example, the Army of the Potomac was originally organized into four corps by President Lincoln, over the vociferous objections of Major General McClellan: I Corps (Brigadier-General Irwin McDowell), II Corps (Brigadier-General Edwin “Bull” Sumner), III Corps (Brigadier-General Samuel Heinzelman) and IV Corps (Brigadier-General Erasmus Keyes).

Measure Twice; Cut Once (The Boat Bridges at Harper’s Ferry)

The Lincoln administration imposed two tasks on Major-General McClellan before he could conduct the Peninsula Campaign. He had to secure the Shenandoah Valley so that it could not be used by Confederate forces to menace Washington and he had to open the Potomac River. Although Major-General McClellan believed that his original plan for the Peninsula Campaign would accomplish both objects, he obeyed President Lincoln and ordered Brigadier General Hooker to attack across the Occoquan and seize the Confederate Potomac River batteries. Simultaneously, McClellan would attack at Harpers Ferry and, conditions permitting clear the valley to Winchester.⁵⁸

⁵⁸ See Section D of this paper: The Boat Bridges at Harpers Ferry.



Pontoon Bridge Across Appomattox Creek

<http://www.old-picture.com/civil-war/Appomattox-Pontoon-across-creek.htm>

McClellan planned to bridge the Potomac River at Harpers Ferry with a temporary pontoon bridge followed by a more permanent canal boat bridge. These bridges were required to provide a secure means, infrastructure, to transport men and supplies to the Virginia side of the river. As described by Private William Goss⁵⁹, the pontoon bridge was successfully constructed on February 26, 1862:

“The bridge from the Maryland to the Virginia or Harpers Ferry shore had been destroyed by fire, leaving only the granite abutments (which were afterwards built upon again), and we were soon at work conveying some flat-bottomed scows from Sandy Hook to Harpers Ferry. As early as 9 o’clock about one hundred men came down opposite the ferry, just above the old bridge, and broke into little groups, in military precision. Four or five with spades and other implements improvised a wooden abutment on the shore; another party rowed against the stream, moored a scow, and let it drift down until it was opposite the wooden abutment; then a party of ten advanced, each two carrying a claw-bulk, or timbers fitted with a claw, one of which held the gunwale of the boat, the other the shore abutment. Twenty men now came down on the left with planks, one inch thick, six inches wide, and fifteen feet long, narrowed at each end; these they laid across the five joists or balks, and returned on the right. Another

⁵⁹ Goss, Private Warren Lee. Campaigning to No Purpose appearing in North To Antietam, Volume II, Battles and Leaders of the Civil War. (1956). Thomas Yoseloff, Inc. pp. 155-156.

party meanwhile moored another boat, which dropped downstream opposite the one already bridged; five joists twenty feet long, were laid upon the gunwale by five men; these were fastened by those in the boat, by means of ropes, to cleats or hooks provided for the purpose on the side of the scows, which were then shoved off from shore until the shore end of the balk rested upon the shore boat. These were covered with planks in the same manner as before; side-rails of joists were lashed down with ropes to secure the whole. So one after another of the boats was dropped into position until a bridge several hundred feet long reached from the Maryland to the Virginia shore, for the passage of artillery and ammunition of every description of munitions for an army. Owing to the force of the current, a large rope cable was stretched from shore to shore fifty feet above the bridge, and the upper end of each boat was stayed to the cable by a smaller rope. The clock-like precision with which these men worked showed them to be the drilled engineers and pontoniers of the regular army. After the bridge was built, a slight, short man, with sandy hair, came out upon it and congratulated the engineers on their success. This unassuming man was George B. McClellan, commander of the Army of the Potomac.”

The story was different for the canal-boat bridge.

The 1862 Peninsula Campaign: Getting There is Half the Fun

Need to expand this with ... infrastructure is important...logistical good news and bad news on the Peninsula

The Peninsula Campaign was a learning experience for both armies. The structure of the Army of the Potomac was still in flux. Key participants, Lincoln and McClellan included had to learn their new jobs.

The “Leap of a Giant”

John Tucker, Assistant Secretary of War, chartered the shipping required to move the Army of the Potomac from the vicinity of Washington DC to Fort Monroe on the Peninsula of Virginia. Secretary Tucker described the deployment in the following oft quoted passage:

“In thirty-seven days from the time I received the order in Washington (and most of it was accomplished in thirty days) these vessels⁶⁰ were laden at Perryville, Alexandria and Washington (the place of embarking the troops having been changed after all the transports had sailed, which caused confusion and delay,) with 121,500 men, 14,592 animals, 1,150 wagons, 44 batteries, besides pontoon bridges, ambulances, telegraph materials, and the immense

⁶⁰ Assistant Secretary of War John Tucker refers to 113 steams, 188 schooners and 88 barges, a total of 319 self-propelled and towed vessels.

quantities of equipage, &c., required for an army of such magnitude. The only loss of which I have heard (and I am confident there is no other) is eight mules and nine barges, which latter went ashore in a gale within a few miles of Fort Monroe, the cargoes being saved.”⁶¹ *John Tucker, Assistant Secretary of War*

When the campaign of the Peninsula commenced the Army of the Potomac had with it 3,600 wagons and 70 ambulances and spring wagons...In transferring the army and its material, and furnishing it with supplies during the campaign, the following number of vessels were employed, viz: 71 side-wheel steamers, 29,071 tons; 57 propellers, 9,824 tons; 187 schooners, brigs, and barks, 36,634 tons, and 90 barges, 10749 tons, making in all 405 vessels, of a tonnage of 86,278 tons. Many of these vessels were discharged after the army was transferred to the Peninsula, but it was necessary to retain the greater number of them, as our supplies were obliged to be kept afloat to follow the army.”⁶²

The Port of Embarkation was changed because the Confederate Army evacuated Manassas. **Discuss McClellan’s options**

Logistics Over the Shore (LOTS) Operations

“As the plan which I finally decided to adopt was afterward successfully carried out at West Point, it may be proper to describe it here. In general terms its was this: We had a number (ten or twelve) of canal barges (boats, say, 14 feet wide and 70 to 80 feet long), drawing, when loaded, 5 feet of water; when light, 2 feet; of about 80 tons burden. We also succeeded in picking up some four scows (flat boats), say 12 feet wide and from 40 to 60 feet long. We also had, say, seventy pontoon-boats, with balks, chess, oars, anchors, &c.; in fact everything necessary to make a pontoon bridge, say, 1,400 feet long. In addition, we had all the lumber we wanted, for the precaution had been taken to load the canal barges with lumber of various dimensions before they left Washington. We also had cordage and an abundant supply of tools. By lashing two of the canal barges together, placing the boats some twelve feet apart, and throwing a false or additional deck over the whole, we had an area some 40 feet wide and 45 feet long, upon which a whole battery of artillery could be placed. This boat, when so loaded, would draw only about 4 feet of water. Two more canal barges fixed in the same manner would carry the horses of a battery, or at least enough of them to move the pieces and caissons, leaving the remainder to follow afterward. Several of these double boats (four, I think) were thus prepared and the men were drilled for two or three days in taking them as near the shore as they would float and then making a bridge from there to the shore. When this bridge was completed, the artillerymen were drilled in bringing on their artillery and horses and afterward in taking them off.”⁶³ *LTC. Barton S. Alexander*

⁶¹ _____. (1863) The Report of Committees of the Senate of the United States for the Third Session of the Thirty-Seventh Congress. Washington DC. Government Printing Office. p. 329

⁶² O.R., Series 1, Volume 11, (Part 1), p.158. (Digitized by Making of America <http://cdl.library.cornell.edu/moa/>)

⁶³ O.R., Series 1, Volume 11, (Part 1), pp. 134-135. (Digitized by Making of America <http://cdl.library.cornell.edu/moa/>)

Infrastructure

“Regiments had more camp equipage in 1861 than sufficed for a brigade or a division in later years. Handsome tents, capable of accommodating a dozen men, made picturesque camps, with their fluttering pennons and painted tops. Mess chests, heavier than a caisson box, were considered essential to the proper comfort of a company’s officers, though some of them lived to see when not even a colonel indulged in such luxury. Young men, fresh from domestic the hearth, were furnished with more clothing and blankets than a mule could carry; consequently the wagon trains in the early days of the war presented formidable obstacles to successful prosecution of campaigns.”⁶⁴

Talk about what the army didn’t know how to do: cook, look after its health, etc. There were several Armies of the Potomac. The 90 day volunteers who left after Bull Run, the two year volunteers who left after Chancellorsville, the three year volunteers, etc.

Mr. George F. Williams wrote these lines about army life in 1861. He could just as easily have been describing the need for a robust infrastructure on the Peninsula in 1862. Infrastructure is comprised of the port facilities, roads, and railroads that provide the links and nodes over which armies move. The Peninsula lacked a robust infrastructure. It was the heart and soul of *ante bellum* plantation life. Every plantation had its own pier along the banks of a deep-water river, often in its own sheltered cove. Cash crops from the plantation were loaded onto ships over these piers and the supplies needed for plantation life that could not be furnished locally were discharged here. The only need for roads was to move light farm carts between fields and plantations. Norfolk and Richmond were ports for ocean shipping, but neither was available to the Army of the Potomac at the start of the campaign. The famous *C.S.S Virginia* (a.k.a. the ironclad *Merrimac*) saw to that. McClellan had to literally carry his ports and railroads with him. Every inch of the narrow Peninsula roads used by the army had to be rebuilt to withstand the wear caused by heavy army wagons and siege guns.

⁶⁴ Williams, George F. (1884). “Life and Shadows of Army Life”, *The Century Magazine*, Volume 28, Number 6, October, p. 803. (Digitized by Making of America <http://cdl.library.cornell.edu/moa/>)

McClellan's war with the infrastructure began when his troops disembarked at Fort Monroe. At the Siege of Yorktown:

“The supplies of the army consisted in provisions for two days, which each soldier had taken. After these two days the army was entirely dependent on the wagons for subsistence. It was therefore necessary to construct roads. These were made by cutting down trees of equal size, and from one foot to eighteen inches in diameter, and placing the pieces, from twelve to eighteen feet in length, side by side, on the ground. All the infantry that were not on picket duty on the outposts, were employed up to their knees in mud and water in this labor. By this means the cannon and wagons arrived at places where otherwise it would have been impossible to have brought them.”⁶⁵

Note: Talk about the roads. Explain corduroy roads and provide statistics about the bridges and roads required during the Peninsula Campaign.

White House



White House Landing, Virginia View Down River

(Source: <http://www.old-picture.com/civil-war/Civil-Ships-War-001.htm>)

⁶⁵ Tenny, W. J. (1866 & 2005). *The Military and Naval History of the Rebellion in the United States*. Originally published in New York NY by D. Appleton Company and republished in Mechanicsburg PA by Stackpole Books. p. 218.

McClellan used the York River as a main supply route because the *C.S.S. Virginia* blocked the James River. Also, McClellan still expected McDowell's I Corps to be released from the defense of Washington, so that it could join him on the Peninsula. White House landing, on the south shore of the Pamunkey River in New Kent County, Virginia, became the depot of the Army of the Potomac after Yorktown and the Battle of Williamsburg. The water had a sufficient depth for ocean-going vessels, but there weren't enough piers to support an army. The Richmond and York River Railroad was completed at White House in 1861.

White House was owned by Major General W. H. F. "Rooney" Lee, the second son of General Robert. E. Lee. General Robert E. Lee's wife, Marry Anna Randolph Custis Lee, was in residence when the Yankee army arrived, but was soon passed through the lines under a flag of truce. George Washington courted Martha Dandridge Custis at White House.

Brigadier General Van Vliet explained the daily supply problem by saying:

"Of forage and materiel alone over 500 tons were required daily by the army. Adding to this the other necessary supplies swelled this amount to over 600 tons, which, rain or shine, had to be handled at the depots each day and forwarded to our lines. The difficulties of supplying an army of 100,000 are not generally comprehended. Each man consumes 3 pounds of provisions each day, and every horse consumes 26 pounds of forage."⁶⁶ *Brigadier General Stewart Van Vliet, Chief Quartermaster, Army of the Potomac*

"It is often the case that empty wagons stall, and no teams can haul more than 1,000 pounds."⁶⁷ *Brigadier General Stewart Van Vliet, Chief Quartermaster, Army of the Potomac*

Van Vliet stated two facts worth noting in these quotations. The Army of the Potomac was on full rations for both soldiers and animals. The complete ration weighed between 3.4 and 3.8 pounds gross⁶⁸, depending on components, so Van Vliet's estimate of three pounds per man per

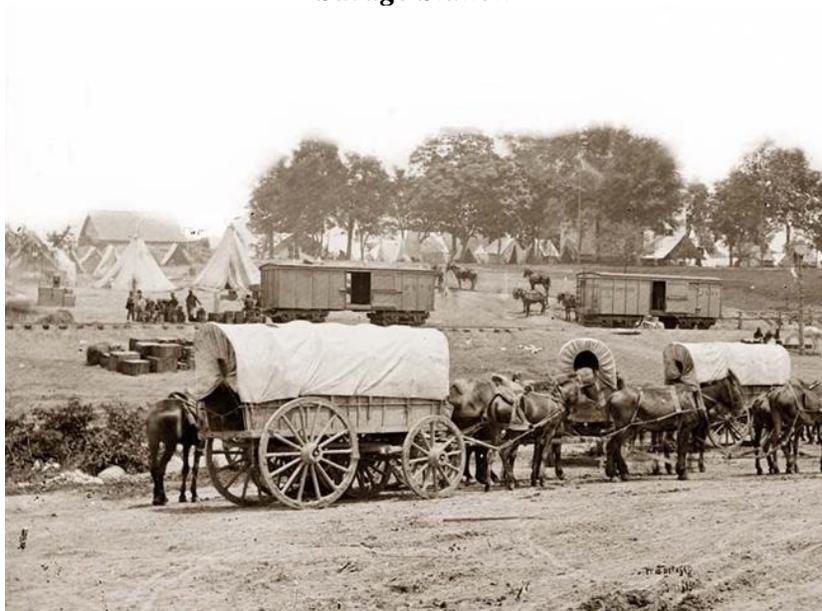
⁶⁶ O.R., Series 1, Volume 11, (Part 1), p. 159. (Digitized by Making of America <http://cdl.library.cornell.edu/moa/>)

⁶⁷ O.R., Series 1, Volume 11, (Part 1), p. 163. (Digitized by Making of America <http://cdl.library.cornell.edu/moa/>)

⁶⁸ _____ (1863). The Revised United States Army regulations of 1861, with an appendix containing the changed and laws affecting Army regulations and Articles of war to June 25, 1863, United States War Department, Washington DC. Government Printing Office p. 304. (Digitized by Making of America <http://cdl.library.cornell.edu/moa/>)

day was conservative. His estimate for the animals' forage ration conforms to army regulations. The wagons were limited to a payload of 1,000 pounds. One hundred thousand men required between 300 and 380 wagonloads of food each day. The army had at least 25,000 animals⁶⁹. Their daily ration weighed over 300 short tons, so over 600 wagonloads were required. The transportation requirement could have totaled up to 980 wagons, a train ten miles long if placed on one road. This total is confirmed by Van Vliet. Five hundred short tons per day at one-half ton per wagon equals 1,000 wagonloads per day.

Savage Station



Savage Station on the Richmond & York River RR during the 1862 Peninsula Campaign

Source: <http://www.old-picture.com/civil-war/Pulling-Horses-Wagons.htm>

The rail cars, animals, men, supplies and camp equipage pictured above were transported from the North to Savage's Station. McClellan wanted enough rolling stock to supply an army of 130,000 men and 20,000 horses on full rations. Using Van Vliet's estimates,

⁶⁹ "It was found that, about the last of July, 3,100 wagons, 17,000 horses, 8,000 mules, and 350 ambulances." Brigadier General Rufus Ingalls O.R. Series 1, Volume 19, (Part 1), p. 100-101.

the men required 390,000 pounds of food each day and the animals consumed 520,000 pounds of forage daily. Boxcars had a capacity of 20,000 pounds, or 1,285 cubic feet. A minimum of 19.5 boxcar loads of subsistence and 26 boxcar loads of forage, 45.5 boxcar loads per day in total, had to be delivered to the army from the depot. These numbers may be slightly high, at least for the soldier's rations. Tables in Annex B of this book show that between 8,000 and 10,000 complete rations could be loaded onto a boxcar by exceeding the car's weight capacity. The transportation requirement for subsistence could have been reduced to between 13 and 16¼ boxcars per day if they were loaded as specified in the tables. Annex A of this paper gives the forage ration for 1,000 horses as 26,000 pounds and 1,739.5 cubic feet. Twenty thousand horses required 26 boxcars per day by weight or 27 boxcars per day when measured by volume. Figured either way, between 39 and 43 boxcars per day should have fulfilled McClellan's requirement. D. C. McCallum, a superintendent of the U. S. Military Railroad (U.S.M.R.R.) reported that six locomotives and eighty railcars were destroyed when the railway was abandoned on June 28, 1862.⁷⁰ The Richmond and York River Railroad ran a total distance of 38.3 miles over relatively flat ground, but only about 34 miles was used by the U.S.M.R.R. The remaining four miles of track, or so, was under Confederate management.

Note: Direct the reader to the picture of Savage Station and talk about the railroad that was shipped by sea to the Peninsula. Calculate fleet capability. A simple map study suggests that the RYRR was not designed to sustain Richmond by itself. Richmond's railhead was at Petersburg. How could the RYRR be expected to sustain a much larger population, the Army of the Potomac??? It handled about 700 STON per day. Describe the "Leap of a Giant" in transportation terms (e.g., the number of ships, ITV in the Poquoson River, engineer support for roads). Mention the wandering beef herd.

⁷⁰ O.R., Series 3, Volume 3, p. 852.

Note: The Peninsula Campaign was an example of the onion story in reverse. The health of the men was adversely affected by the swamps. Document using the Doctor's book about the Peninsula

McClellan's Change of Base – Destroying the Baggage

The Civil War ended for the Army of the Potomac on April 9, 1865 when Lieutenant General Grant and General Robert E. Lee signed an armistice at Appomattox Court House, Virginia. Contentious issues about the war were debated by the participants in the press (e.g., Harper's New Monthly Magazine and The Century). One of those issues involved McClellan's Change of Base during the 1862 Peninsula Campaign. The specific incident was McClellan's baggage-destroying order. That story shows the logistical immaturity of the Army of the Potomac in 1862.

A little background information is in order.

- ***What was the change of base and why was it necessary?***

“Lieutenant-Colonel B. S. Alexander, of the Corps of Engineers, gave the following sworn evidence before the Committee on the Conduct of the War (p. 592). He said he saw, on the evening of the sixth, at General McClellan's headquarters at Savage's Station, an order directing the destruction of the baggage of the officers and men, and he thought also the camp equipage; appealing to the officers and men to submit to this privation because it would be only for a few days, he thought the order stated. He went to the general at once, and remonstrated with him against allowing any such order to be issued, telling him he thought it would have a bad effect upon the army – would demoralize the officers and men; that it would tell more plainly than in any other way that they were a defeated army, running for their lives. This led to some discussion among the officers at headquarters and Colonel Alexander heard afterward that the order was never promulgated, but suppressed.”⁷¹

Lieutenant Colonel Barton S. Alexander was quoted earlier in this book. He used canal boats and pontoon bridges to solve McClellan's logistics-over-the-shore problems. He was a praiseworthy engineer. He simply misunderstood the purpose of the order. McClellan reserved

⁷¹ Quoted in a letter by Brevet Brigadier-General James F. Rusling in The Century, Volume 38, Issue 1, p. 157. from Nicolay & Hays “Lincoln” in The Century, November, 1888, p.142. The original text of this order is available in The War of the Rebellion: A Compilation of the Official Records of the Union and Confederate Armies (O. R. Series 1, Volume 11, (Part III), p. 272) and has been reproduced on page _____ of this paper.

the army's transportation for ammunition, subsistence, entrenching tools and medical supplies. There wasn't even enough transportation to evacuate the sick and wounded. The non-essential baggage of the officers was jettisoned. The tents that were abandoned were probably the heavy, space-consuming Sibley tents and not the shelter-halves that the men carried. In other words, the baggage-destroying order was an ordinary incident of war. It may have appeared Draconian at the time because the Army of the Potomac had not been fully exposed to the harsh realities of war.⁷²

I. T. V.
(In-Transit Visibility)



Six-Mule Hitch (III Corps)
The Project Gutenberg EBook of *The Mule*, by Harvey Riley,
Release Date: January 30, 2004 [EBook #10878]

In Transit Visibility (I.T.V.) answers the question: “Where’s my stuff?”

“There never was a corps better organized than was the quartermaster’s corps with the Army of the Potomac in 1864. With a wagon-train that would have extended from the Rapidan to Richmond, stretched along in single file and separated as the teams necessarily would be when moving, we could still carry only about three days forage and about ten day to twelve days rations, besides a supply of ammunition. To overcome all difficulties, the chief quartermaster, General Rufus Ingalls, had marked on each wagon the corps badge with the division color and the number of the brigade. At a glance, the particular brigade to which any wagon belonged could be told. The wagons were also marked to note the contents: if ammunition, whether for artillery or infantry; if forage,

⁷² Hesinger, Dr. I. W. *The Century*, Vol 45, Issue 1. pp. 144-145

whether grain or hay; if rations, whether bread, pork, beans, rice, sugar, coffee or whatever it might be. Empty wagons were never allowed to follow the army or stay in camp. As soon as a wagon was empty it would return to the base of supply for a load of precisely the same article that had been taken from it. Empty trains were obliged to leave the road free for loaded ones. Arriving near the army they would be parked in fields nearest to the brigades they belonged to. Issues, except of ammunition, were made at night in all cases. By this system the hauling of forage for the supply train was almost wholly dispensed with. They consumed theirs at the depot.”⁷³ *General U. S. Grant*

General Grant’s words don’t tell the whole story. I.T.V. was also a serious ordnance problem. An ordnance officer, Colonel Charles P. Kingsbury, described his dilemma at the beginning of the 1862 Peninsula Campaign: “This variety of caliber was a constant source of trouble and anxiety in keeping up a supply of suitable ammunition for the field, and as the wagons of the ordnance trains were not properly marked, so as to reveal their contents at a glance, extraordinary exertions were required to supply the troops during the movement from the Chickahominy to Harrison’s Landing.”⁷⁴ A solution, in the form of General Orders Number 152, dated August 9, 1862, was forthcoming: “Ammunition wagons will be distinguished by a horizontal strip, 6 inches wide, painted on each side of the cover – for artillery ammunition, red; for cavalry, yellow; for infantry, light blue. The wagons will also be distinctly marked with the number of the corps and division to which they belong and the kind and caliber of ammunition contained.”⁷⁵

Fredericksburg: The Pontoon Bridge

“Some people, only too eager to blame others for their own shortcomings, and wholly ignorant of army routine, at the time charged the non-arrival of the pontoons to the Quartermaster-General. The truth is, however, as will be seen on a moments reflection, that neither Meigs nor Halleck, indeed, had anything whatever to do with the pontoons, nor will either of them be held so responsible by an impartial future. The duties of both

⁷³ Grant, GEN. Ulysses S. (1886 and 1992). The Personal Memoirs of Ulysses S. Grant, Old Saybrook Ct, Konecky & Konecky. Pp. 449-450

⁷⁴ O.R., Series 1, Volume 11, (Part 1), p. 155. (Digitized by Making of America <http://cdl.library.cornell.edu/moa/>)

⁷⁵ O.R., Series 1, Volume 11, (Part 3), pp 361, 362. General Order Number 15, Camp near Harrison’s Landing Va., Aug. 9, 1862. (Digitized by Making of America <http://cdl.library.cornell.edu/moa/>)

were and now are, of a general, supervisory, administrative nature, at general headquarters, Washington, and therefore they had, properly, no more to do with the particular job of getting pontoons to Fredericksburg for the Army of the Potomac, than they would have had with pitching tents at Nashville for the Army of the Cumberland, or driving a six-mule team, with one line, along the levee at New Orleans, for the Army of the Gulf. No, the Major-General Commanding had his own Chief Quartermaster, and should have looked to him, and to nobody else – had no right to look to anybody else – to get up his pontoon train in time. Disagreeable as it is to say, unfortunately for the country, the pontoon-failure at Fredericksburg was of an exact piece with the failure of the mine at Petersburg a year and a half afterwards – twin blunders of the same brain – ‘Somebody else was expected to attend to it,’ – and the unerring voice of history will not fail to pronounce them.”⁷⁶

Chancellorsville and Gettysburg: Experiments in Mobility

Hooker’s Pack Mules

The Bull Train

“In 1863, while the army was lying at Belle Plain after the memorable Mud March, large numbers of colored refugees came into camp. Every day saw some old cart or antiquated wagon, the relic of better days in the Old Dominion, unloading its freight of contrabands, who had thus made their entrance into the lines of Uncle Sam and Freedom. As a large number of these vehicles had accumulated near his headquarters, General Wadsworth, then commanding the first division of the first corps, conceived the novel idea of forming a supply train of them, using as draft steers, to be selected from the corps cattle herd, and broken for that purpose. His plan, more in detail, was to load the carts at the base of supplies with what rations they would safely carry, dispatch them to the troops wherever they might be, issue the rations, slaughter the oxen for fresh beef, and use the wagons for fuel to cook it. A very practical scheme, at first view, surely. A detail of mechanics was made to put the wagons in order, a requisition was drawn for yokes, and Captain Ford of a Wisconsin regiment, who had had experience in such work, was detailed to break in the steers to yoke and draft.

The captain spent all winter and the following spring in perfecting the “Bull Train,” as it was called. The first serious set-back the plan received resulted from feeding the steers with unsoaked hard bread, causing several of them to swell up and die; but the general was not yet ready to give up his idea, and so continued the organization. Chancellorsville battle came when all trains remained in camp. But the day of trial was near. When the army started on the Gettysburg campaign, Captain Ford put his train in rear of the corps wagon-train, and started, with the inevitable result.

The mules and horses walked right away from the oxen, in spite of goading and lashing and yelling of their drivers. By nightfall they were doomed to be two or three miles behind the main train, an easy prey for Mosbey’s guerrilla band. At last the labor of keeping it up and the anxiety for its safety were so intense that before the Potomac was reached the animals were returned to the herd, the supplies were transferred or issued, the wagons were burned, and the pet scheme of General Wadsworth was abandoned as impractical.”⁷⁷

⁷⁶ Rusling, Captain J. F. (1865). A Word for the Quartermaster’s Department appearing in the United States Service Magazine, Volume III. NY NY. Charles R. Richardson. p. 65-66.

⁷⁷ Billings, John D. (1888 & 2005). Hard Tack and Coffee: Soldier’s Life in the Civil War, Boston MA: Fleming, 1888 and Old Saybrook CT: 2005: Konecky & Konecky, pp.369 & 370.

The 1864 Overland Campaign: Getting it Right

Brandy Station

Moving the Beef

The Chief Quartermaster and the Chief Commissary officers⁷⁸ of the Army of the Potomac shared a logistics problem. Before the Overland Campaign could begin, 6,000 head of beef had to be transported fifty miles from the depot at Alexandria to the army's forward base at Brandy Station, Virginia. The cattle, with the forage and corn needed to feed them until the campaign began, had to be shipped over a total of five days, at a rate of 1,200 cattle per day. The Orange and Alexandria railroad, over which the cattle were shipped, had enough cattle cars to ship 800 head per day, a short-fall of about one-third.⁷⁹

Onions

Supposedly, General Grant sent a telegram to the War Department during the Civil War saying that he would not move his army without onions. The next day, his commissary officers received three trainloads⁸⁰. The telegram is not recorded in the Official Record of the War of the

⁷⁸ Brevet Major General Rufus Ingalls was the Chief Quartermaster and Brevet Brigadier General Thomas Wilson was the Chief Commissary of Subsistence for the Army of the Potomac during the Overland Campaign that began May 4, 1864.

⁷⁹ Wilson, Brevet Brigadier General Thomas. (1901). in How To Feed An Army. United States War Department, Washington DC. Government Printing Office. P. 159. (Digitized by Google Books: <http://books.google.com/bkshp?tab=wp>)

⁸⁰ The quantity of onions in three trainloads can be approximated from data available in this paper and other primary sources. Onions weighed sixty pounds per bushel (Kautz, 1865, p. 60) A railroad boxcar carried a payload of 20,000 pounds or 333-1/3 bushels at 60 pounds per bushel (See Annex B). The boxcar had an interior capacity of (329"x 90" x 75" = 2,220,750 cubic inches / 2,150.4 = 1,032.7), so the cargo would "weigh out" the boxcar before it "cubed out" the interior volume of the car. Assuming ten cars per train, about 10,000 bushels of onions may have been delivered to Grant. **Ten thousand bushels would have been enough onions to feed an army of 100,000 men for _____ days.**

Rebellion, nor is the incident is not mentioned in How To Feed An Army⁸¹. The point is that the comment about the onions, whatever the source, was neither as whimsical nor as eccentric as it appears to modern readers. Soldiers must be healthy to fight effectively. The importance of anti-scorbutics – onions, potatoes etc. – to the health of an army is undeniable⁸².

This apocryphal story can be traced to the spring of 1864, before the Overland Campaign began. Doctors with the Army of the Potomac used anti-scorbutics to combat an outbreak of “greybacks”, the name soldiers gave to body vermin. As the Overland Campaign progressed, preventing scurvy remained a problem. **(Put the story of men cheering the delivery of potatoes here.)**

Anti-scorbutics also played an important part in the 1862 Peninsula campaign. Lieutenant Colonel and Quartermaster William Le Duc told the following story about foraging for sweet potatoes:

“I heard of a farmer living in the woods about three miles on the north side of the Chickahominy who had sweet potatoes. I took a team and driver and started for the potatoes, crossing the river at the upper bridge. There I told an engineer officer of my purpose, and he went with me. We found the log house much farther away than I had supposed, and outside our lines. The farmer had the potatoes under the cabin floor, and charged three dollars a bushel for them, in gold.”⁸³

Alvarez Kelly
(a.k.a. The Beefsteak Raid – September 16-17, 1864)

“In every war in every age, the forgotten weapon is food...
For to kill, soldiers must live...
To live, they must eat”⁸⁴

⁸¹ _____(1901). How To Feed An Army. United States War Department, Washington DC. Government Printing Office (Digitized by Google Books: <http://books.google.com/bkshp?tab=wp>)

⁸² General Orders related to this subject are found in Appendix C of this paper.

⁸³ Le Duc, William G. (1963). Recollections of a Civil War Quartermaster: the Autobiography of William G Le Duc, St Paul MN. The North Central Publishing Company, p. 77.

⁸⁴ Introduction to the movie Alvarez Kelly

The Civil War was fought when blocks of ice were the only refrigeration available. Preserving foodstuffs was important, but the only practical method was to heavily salt the meat and store it in brine in wet-coopered barrels. The gross weight of these barrels was over 300 pounds.⁸⁵ This method of transporting beef required a lot of army wagons. A wagon hauled ten barrels (1,600 salt beef rations) under ideal conditions. Two and one-half wagonloads were required to move the 4,000 self-propelled rations pictured on the cover. Moving beef-on-the-hoof saved the wagons for higher priority cargoes.

There were numerous disadvantages to moving beef-on-the-hoof. First, the beef has to be moved from the place that it is raised to the Army camps. This costs money. The cars were tightly packed with beef that experienced little rest, food and water. In short, the animals lost weight and their health suffered when they moved by rail⁸⁶. Life was no better for them when they got to the herds of the Army of the Potomac. They were again exposed to long marches on short forage and little rest until they were slaughtered.

The beef ration was not popular with the men, especially the regulars, who preferred salt pork. **Need to discuss the disadvantages of beef on the hoof as a ration.**

The 1966 movie Alvarez Kelly was loosely based on Major General Wade Hampton's Beefsteak Raid. In the movie, Mexican-Irish cattleman Alvarez Kelly, played by William Holden, is kidnapped by Confederate cavalryman Colonel Tom Rossiter, played by Richard Widmark, and forced to deliver his herd to the Army of Northern Virginia. During the actual raid, the herd was held near Sycamore church, Coggins Point, on the south side of the James

⁸⁵ See Annex A. Table 1.

⁸⁶ Horsford, E. N. (1864). The Army Ration. NY NY. D. Van Nostrand. Pp. 32-38. (Digitized by Google Books: <http://books.google.com/bkshp?tab=wp>)

River. Coggins Point is opposite Westover Plantation, about five miles east of City Point (present day Hopewell). City Point was the main depot for the Federal armies operating against Richmond and was also Lieutenant General Grant's headquarters. Grant was not present during the raid. He was in the north consulting with Major General Sheridan about the Shenandoah Campaign.

Hampton left the Confederate lines south of Petersburg, rode around the left flank of the Federal army, which was only lightly screened by Major General Kautz's cavalry division from the Army of the James. The operation was flawlessly executed. Hampton attacked the small force guarding the herd from the south. He structured the attack so that it was impossible to disperse the herd. To avoid moving a herd made unwieldy by its size, Hampton broke the herd into smaller elements. Herding the beef was made easier by the cattle drovers, who seemed to work equally well for both sides, although one confederate cavalryman accompanied each drover, just to make sure. Hampton succeeded in driving the herd back to Confederate lines.

Mr. Richard O'Brien related the following account of Hamptons's cattle raid to Mr. Frederick L. Hitchcock:

“But one day an operator at Washington, either too lazy or careless to put his message in cipher, telegraphed to the chief commissary at a place below City Point that fifteen hundred head of cattle would be landed at that point on a certain day. The message was caught by the rebels. The beef cattle were landed on time, but in the meantime Wade Hampton had swept in with a division of rebel cavalry and was waiting to receive the cattle. With them were captured a handsome lot of rations and a number of prisoners, including all of Mr. O'Brien's telegraph operators at that post. Mr. O'Brien said he cared a good deal more about the loss of his operators than he did for the loss of the cattle, for it was very hard to get competent operators at that time. There was at least one vacancy at Washington following the incident.”⁸⁷

⁸⁷ Hitchcock, Frederick L. (1904). War From the Inside: The Story of the 132nd Regiment Pennsylvania Volunteer Infantry in the War for the Suppression of the Rebellion. Philadelphia PA. J. B. Lippincott Company. Pp. 29-30. (Digitized by Google Books: <http://books.google.com/bkshp?tab=wp>)

The size of the herd, according to one source was 2,486 head of cattle which, using the accepted Federal planning factor of 500 rations per head, is 1,243,000 individual rations (using the regulation 1¼ pounds per ration), enough beef to feed 1,000 men for 1,243 days. If the ration is reduced to one pound per man per day, the result is 1,553,750 rations, or enough beefsteaks to feed 1,000 men for 1,554 days. This same source did the arithmetic a little differently, but arrived at a similar conclusion:

“The beeves taken in Hampton’s late expedition are judged, by a London grazier, to weigh 800 pounds net. Twenty-four hundred and eighty-six beeves at 800 pounds would make an aggregate of 1,988,800 pounds, or within a fraction of *two millions of pounds*. This, distributed in daily rations of a pound each, would feed 1,000 men for nearly 2,000 days, 10,000 men for 200 days, or 50,000 men for forty days, and so forth. It is a very nice addition to our commissariat, for which we are much obliged to Mr. Grant, and particularly to General Hampton and his braves.”⁸⁸

There is even an interesting sequel to the Beefsteak Raid:

“There was much speculation at the time, as to who was responsible for leaving the cattle-herd which invited this rebel raid. It seems to have been a high officer of the army, who in all other respects has deserved well of his country, and whose name is for this reason withheld.”⁸⁹

“Shortly after this affair, this officer dined with the commander-in-chief at the headquarters of General Kautz. In the course of conversation, he put this question: ‘General, how long are we going to remain here?’ The reticent Grant smoked on a few seconds, then took the inevitable cigar from his lips, and, while dislodging the ashes with his little finger, quietly answered: ‘I don’t know General. If you keep on feeding Lee’s army with beef, we shall have to stay a good while. The questioner blushed, and Grant resumed his smoking.’”⁹⁰

Conclusion

⁸⁸ Snow, William Parker. (1865). Southern Generals: Who They Were and What They Have Done. NY. NY. Charles Richardson Publishers. pp. 471-472. (Digitized by Google Books: <http://books.google.com/bkshp?tab=wp>)

⁸⁹ Brigadier General Henry Davies, commanding, 2nd Cavalry Division, and Brigadier General August V. Kautz, commanding the cavalry of the Army of the James, responded to Major General Wade Hampton’s (C.S.A.) Beefsteak Raid.

⁹⁰ Baker, General L. C. (1867). History of the United States Secret Service. Philadelphia PA. Published by L. C. Baker. Pp. 228-229. (Digitized by Google Books: <http://books.google.com/bkshp?tab=wp>)

Annex A

Class I (Ration & Water Supply Support)

The Federal Civil War Ration: Packaging & Transportation Data

Table # 1.														
Packaging & Transportation Data for Rations														
Ration	Pkg.	Shipping Weight			Rations per Bbl.	Weight Per 1,000 Rations				Packages Per Wagonload Per Type of Road			Packages per RR Boxcar	
		Tare	Net	Gross		Tare	Net	Gross	Shipping Containers	Good	Indifferent	Bad		
Bacon	0.75 lb. PMD	Barrel	60	290	350	386.67	155	750	905	2.5862	8	7	5	60
Beans	2.4 oz. PMD	Barrel	17	223	240	1,486.67	11	150	161	0.6726	12	11	7	100
Bread	1.0 LB PMD	Box	15	50	65	50.00	300	1,000	1,300	20.0000	40	40	26	380
Candles	0.2 oz. PMD	Box	7.5	40	48	3,200.00	2	13	15	0.3125	60	60	37	500
Coffee	1.28 oz. PMD	Barrel	30	160	190	2,000.00	15	80	95	0.5000	10	10	9	112
Flour	22 oz. PMD	Barrel	21	196	217	142.55	147	1,375	1,522	7.0153	12	12	8	100
Hominy	1.6 oz. PMD	Barrel	21	200	221	2,000.00	11	100	111	0.5000	12	12	8	100
Pepper	.04 oz. PMD	Box	7	25	32	10,000.00	0.7	2.5	3.2	0.1000	80	80	55	800
Pork ¹	0.75 lb. PMD	Barrel	140	200	340	266.67	525	750	1,275	3.7500	10	8	5	60
Rice	1.6 oz. PMD	Barrel	27	280	307	2,800.00	10	100	110	0.3571	10	8	6	80
Salt	0.6 oz. PMD	Barrel	20	280	300	7,466.67	3	38	40	0.1339	10	9	6	70
Salt Beef ¹	1.25 lb. PMD	Barrel	140	200	340	160.00	875	1,250	2,125	6.2500	10	8	5	60
Soap	.64 oz. PMD	Box	12	80	92	2,000.00	6	40	46	0.5000	36	30	20	240
Sugar	2.4 oz. PMD	Barrel	21	269	290	1,793.33	12	150	162	0.5576	12	9	6	280

1. Tare weight includes the weight of the brine (@ 56 lb.) and the weight of the salt used in packaging. (O.R., Series 1, Volume 11, Part 1, p.175.)

Spreadsheet by Rodney C. Lackey using data prepared by Brevet Major W. P. Martin appearing in *How To Feed An Army*, GPO, Washington DC, 1901, pp 111 & 113.

Bacon (3/4 pound per man per day) – Bacon was shipped in wooden casks or barrels weighing sixty pounds tare, 290 net (386.667 individual rations), and 350 pounds gross⁹¹. (See **Table # 1**.) It was also shipped in wooden boxes measuring 28” by 20” by 20”, containing 11,200 inches (6.48 cubic feet). The box held 225 pounds (300 individual rations) of bacon. One thousand rations of bacon were put up in 2.5862 shipping barrels or 3.33 shipping boxes.

⁹¹ Martin, Brevet Major W. P. (1901). in *How To Feed An Army*. United States War Department, Washington DC. Government Printing Office. P. 111 (Digitized by Google Books: <http://books.google.com/bkshp?tab=wp>)

Army Regulations give the weight and bulk of 1,000 rations of bacon as follows⁹²:

- Tare Weight = 503 pounds (109.34 pounds per barrel)
- Net Weight = 750 pounds (163 pounds / 217.4 rations per barrel)
- Gross Weight = 1,253 pounds (272.4 pounds per barrel)
- Bulk = 4.6 barrels of 6 ¼ cubic feet

Beans (15 pounds per 100 rations or 2.4 ounces per man per day) – Beans were

shipped in wooden barrels that weighed 17 pounds tare, 223 pounds net (1,486.67 rations per barrel), and 240 pounds gross.⁹³ (See Table # 1.) One thousand rations of beans were put up in .6726 shipping barrels.

According to Army Regulations, a bushel of beans weighed 60 pounds. A barrel with 223 pounds net weight contained 3.721667 bushels of beans. (*Need citation*)

Also according to Army regulations, the Winchester bushel contained 2,150.4 cubic Given these facts, the shipping barrel contained 7,992.32 cubic inches of beans, or 4.625 cubic feet. (*Need citation*)

Army Regulations give the weight and bulk of 1,000 rations of beans as follows⁹⁴:

- Tare Weight = 12 pounds (18 pounds per barrel)
- Net Weight = 150 pounds (225 pounds / 1,500 rations per barrel)
- Gross Weight = 162 pounds (243 pounds per barrel)
- Bulk = 0.6666 barrels of 6 ¼ cubic feet

Beef-on-the-hoof (1 pound 4 ounces of fresh meat per man per day) –

Note: See Table #2 for rationing data.

LTC William P. Craighill – “An ordinary sized beef will furnish about 500 rations.”⁹⁵

E. N. Horsford – “From the statement of some of the commissary officers having charge of some of the commissary supplies of some of the regiments of the Potomac army from its commencement, it appears that it requires about one ox and a half to furnish fresh beef to a regiment of 225 men – or about six oxen to 1,000

⁹² ____ (1863). The Revised United States Army regulations of 1861, with an appendix containing the changed and laws affecting Army regulations and Articles of war to June 25, 1863, United States War Department, Washington DC. Government Printing Office p. 304. (Digitized by Making of America <http://cdl.library.cornell.edu/moa/>)

⁹³ Martin, Brevet Major W. P. (1901). in How To Feed An Army. United States War Department, Washington DC. Government Printing Office. P. 111 (Digitized by Google Books: <http://books.google.com/bkshp?tab=wp>)

⁹⁴ ____ (1863). The Revised United States Army regulations of 1861, with an appendix containing the changed and laws affecting Army regulations and Articles of war to June 25, 1863, United States War Department, Washington DC. Government Printing Office p. 304. (Digitized by Making of America <http://cdl.library.cornell.edu/moa/>)

⁹⁵ Craighill, LTC William P. (1862 & 2002). The 1862 Army Officer’s Pocket Companion. New York, 1862, by D. Van Nostrand, , republished 2002 Mechanicsburg PA by Stackpole Books, , 2002, p. 90.

men.”⁹⁶

LTC C. W. Tolles – “A bullock will furnish about 450 rations, so that an army of 100,000 men needs over two hundred beef cattle for its supply.”⁹⁷

Table # 2
Beef-On-The-Hoof (Rations per Animal)

No. Beeves	Rations per Animal			No. Beeves	Rations per Animal			No. Beeves	Rations per Animal			No. Beeves	Rations per Animal		
	Horsford	Tolles	Craighill		Horsford	Tolles	Craighill		Horsford	Tolles	Craighill		Horsford	Tolles	Craighill
1	167	450	500	50	8,333	22,500	25,000	99	16,500	44,550	49,500	4,900	816,667	2,205,000	2,450,000
2	333	900	1,000	51	8,500	22,950	25,500	100	16,667	45,000	50,000	5,000	833,333	2,250,000	2,500,000
3	500	1,350	1,500	52	8,667	23,400	26,000	200	33,333	90,000	100,000	5,100	850,000	2,295,000	2,550,000
4	667	1,800	2,000	53	8,833	23,850	26,500	300	50,000	135,000	150,000	5,200	866,667	2,340,000	2,600,000
5	833	2,250	2,500	54	9,000	24,300	27,000	400	66,667	180,000	200,000	5,300	883,333	2,385,000	2,650,000
6	1,000	2,700	3,000	55	9,167	24,750	27,500	500	83,333	225,000	250,000	5,400	900,000	2,430,000	2,700,000
7	1,167	3,150	3,500	56	9,333	25,200	28,000	600	100,000	270,000	300,000	5,500	916,667	2,475,000	2,750,000
8	1,333	3,600	4,000	57	9,500	25,650	28,500	700	116,667	315,000	350,000	5,600	933,333	2,520,000	2,800,000
9	1,500	4,050	4,500	58	9,667	26,100	29,000	800	133,333	360,000	400,000	5,700	950,000	2,565,000	2,850,000
10	1,667	4,500	5,000	59	9,833	26,550	29,500	900	150,000	405,000	450,000	5,800	966,667	2,610,000	2,900,000
11	1,833	4,950	5,500	60	10,000	27,000	30,000	1,000	166,667	450,000	500,000	5,900	983,333	2,655,000	2,950,000
12	2,000	5,400	6,000	61	10,167	27,450	30,500	1,100	183,333	495,000	550,000	6,000	1,000,000	2,700,000	3,000,000
13	2,167	5,850	6,500	62	10,333	27,900	31,000	1,200	200,000	540,000	600,000	6,100	1,016,667	2,745,000	3,050,000
14	2,333	6,300	7,000	63	10,500	28,350	31,500	1,300	216,667	585,000	650,000	6,200	1,033,333	2,790,000	3,100,000
15	2,500	6,750	7,500	64	10,667	28,800	32,000	1,400	233,333	630,000	700,000	6,300	1,050,000	2,835,000	3,150,000
16	2,667	7,200	8,000	65	10,833	29,250	32,500	1,500	250,000	675,000	750,000	6,400	1,066,667	2,880,000	3,200,000
17	2,833	7,650	8,500	66	11,000	29,700	33,000	1,600	266,667	720,000	800,000	6,500	1,083,333	2,925,000	3,250,000
18	3,000	8,100	9,000	67	11,167	30,150	33,500	1,700	283,333	765,000	850,000	6,600	1,100,000	2,970,000	3,300,000
19	3,167	8,550	9,500	68	11,333	30,600	34,000	1,800	300,000	810,000	900,000	6,700	1,116,667	3,015,000	3,350,000
20	3,333	9,000	10,000	69	11,500	31,050	34,500	1,900	316,667	855,000	950,000	6,800	1,133,333	3,060,000	3,400,000
21	3,500	9,450	10,500	70	11,667	31,500	35,000	2,000	333,333	900,000	1,000,000	6,900	1,150,000	3,105,000	3,450,000
22	3,667	9,900	11,000	71	11,833	31,950	35,500	2,100	350,000	945,000	1,050,000	7,000	1,166,667	3,150,000	3,500,000
23	3,833	10,350	11,500	72	12,000	32,400	36,000	2,200	366,667	990,000	1,100,000	7,100	1,183,333	3,195,000	3,550,000
24	4,000	10,800	12,000	73	12,167	32,850	36,500	2,300	383,333	1,035,000	1,150,000	7,200	1,200,000	3,240,000	3,600,000
25	4,167	11,250	12,500	74	12,333	33,300	37,000	2,400	400,000	1,080,000	1,200,000	7,300	1,216,667	3,285,000	3,650,000
26	4,333	11,700	13,000	75	12,500	33,750	37,500	2,500	416,667	1,125,000	1,250,000	7,400	1,233,333	3,330,000	3,700,000
27	4,500	12,150	13,500	76	12,667	34,200	38,000	2,600	433,333	1,170,000	1,300,000	7,500	1,250,000	3,375,000	3,750,000
28	4,667	12,600	14,000	77	12,833	34,650	38,500	2,700	450,000	1,215,000	1,350,000	7,600	1,266,667	3,420,000	3,800,000
29	4,833	13,050	14,500	78	13,000	35,100	39,000	2,800	466,667	1,260,000	1,400,000	7,700	1,283,333	3,465,000	3,850,000
30	5,000	13,500	15,000	79	13,167	35,550	39,500	2,900	483,333	1,305,000	1,450,000	7,800	1,300,000	3,510,000	3,900,000
31	5,167	13,950	15,500	80	13,333	36,000	40,000	3,000	500,000	1,350,000	1,500,000	7,900	1,316,667	3,555,000	3,950,000
32	5,333	14,400	16,000	81	13,500	36,450	40,500	3,100	516,667	1,395,000	1,550,000	8,000	1,333,333	3,600,000	4,000,000
33	5,500	14,850	16,500	82	13,667	36,900	41,000	3,200	533,333	1,440,000	1,600,000	8,100	1,350,000	3,645,000	4,050,000
34	5,667	15,300	17,000	83	13,833	37,350	41,500	3,300	550,000	1,485,000	1,650,000	8,200	1,366,667	3,690,000	4,100,000
35	5,833	15,750	17,500	84	14,000	37,800	42,000	3,400	566,667	1,530,000	1,700,000	8,300	1,383,333	3,735,000	4,150,000
36	6,000	16,200	18,000	85	14,167	38,250	42,500	3,500	583,333	1,575,000	1,750,000	8,400	1,400,000	3,780,000	4,200,000
37	6,167	16,650	18,500	86	14,333	38,700	43,000	3,600	600,000	1,620,000	1,800,000	8,500	1,416,667	3,825,000	4,250,000
38	6,333	17,100	19,000	87	14,500	39,150	43,500	3,700	616,667	1,665,000	1,850,000	8,600	1,433,333	3,870,000	4,300,000
39	6,500	17,550	19,500	88	14,667	39,600	44,000	3,800	633,333	1,710,000	1,900,000	8,700	1,450,000	3,915,000	4,350,000
40	6,667	18,000	20,000	89	14,833	40,050	44,500	3,900	650,000	1,755,000	1,950,000	8,800	1,466,667	3,960,000	4,400,000
41	6,833	18,450	20,500	90	15,000	40,500	45,000	4,000	666,667	1,800,000	2,000,000	8,900	1,483,333	4,005,000	4,450,000
42	7,000	18,900	21,000	91	15,167	40,950	45,500	4,100	683,333	1,845,000	2,050,000	9,000	1,500,000	4,050,000	4,500,000
43	7,167	19,350	21,500	92	15,333	41,400	46,000	4,200	700,000	1,890,000	2,100,000	9,100	1,516,667	4,095,000	4,550,000
44	7,333	19,800	22,000	93	15,500	41,850	46,500	4,300	716,667	1,935,000	2,150,000	9,200	1,533,333	4,140,000	4,600,000
45	7,500	20,250	22,500	94	15,667	42,300	47,000	4,400	733,333	1,980,000	2,200,000	9,300	1,550,000	4,185,000	4,650,000
46	7,667	20,700	23,000	95	15,833	42,750	47,500	4,500	750,000	2,025,000	2,250,000	9,400	1,566,667	4,230,000	4,700,000
47	7,833	21,150	23,500	96	16,000	43,200	48,000	4,600	766,667	2,070,000	2,300,000	9,500	1,583,333	4,275,000	4,750,000
48	8,000	21,600	24,000	97	16,167	43,650	48,500	4,700	783,333	2,115,000	2,350,000	9,600	1,600,000	4,320,000	4,800,000
49	8,167	22,050	24,500	98	16,333	44,100	49,000	4,800	800,000	2,160,000	2,400,000	9,700	1,616,667	4,365,000	4,850,000

Spreadsheet by Rodney C. Lackey

Candles (Adamantine or Star) (1 pound 4 ounces per 100 rations or 0.2 ounces per man per day) – Candles were packed in wooden boxes measuring 17” by 11” by 10½”.

⁹⁶ Horsford, E. N.(1864). *The Army Ration*, New York NY. D. Van Nostrand, p. 21. (Digitized by Google Books: <http://books.google.com/bkshp?tab=wp>)

⁹⁷ Tolles, LTC C. W. (1864). *An Army: Its Organization and Movements*, The Continental Monthly, Volume 6, July 1864, Number 1, p. 5. (Digitized by Making of America <http://cdl.library.cornell.edu/moa/>)

The box occupied 1,963.5 cubic inches (1.14 cubic feet). The tare weight of the box was 7½ pounds. The box was packed with 40 pounds (3,200 individual rations) of adamantine or star candles and weighed a total of 47½ pounds gross.⁹⁸ (See Table # 1) One thousand rations of star or adamantine candles required 0.3125 of a shipping box.

Army Regulations give the weight and bulk of 1,000 rations of candles as follows⁹⁹:

- Tare Weight = 4 pounds (45 pounds per barrel)
- Net Weight = 12½ pounds (140.64 pounds / 11,251 rations per barrel)
- Gross Weight = 16½ pounds (185.64 pounds per barrel)
- Bulk = 0.08888 barrels of 6 ¼ cubic feet

Coffee (Roasted and Ground) (8 pounds per 100 rations or 1.28 ounces per man per day)

– Roasted and ground coffee was shipped in wooden barrels weighing 20 pounds tare, 160 pounds net (2,000 individual rations) and 190 pounds gross.¹⁰⁰ (See Table # 1.) One thousand rations of roasted and ground coffee required one-half of a shipping barrel.

Army Regulations give the weight and bulk of 1,000 rations of candles as follows¹⁰¹:

- Tare Weight = 22 pounds (28.98 pounds per barrel)
- Net Weight = 80 pounds (105.37 pounds / 1,317 rations per barrel)
- Gross Weight = 102 pounds (134.35 pounds per barrel)
- Bulk = 0.7592 barrels of 6 ¼ cubic feet

Complete Ration – The tables that follow were prepared originally by Brevet Major W. P.

Martin, Commissary of Assistance of Volunteers. His contribution to How To Feed An Army has been frequently cited in this annex. Table #3 describes a wagonload of 800 complete rations of pork, etc. Table #4 documents a wagonload of about 1,150 complete rations of bacon, etc. Table #5 documents a railroad boxcar filled with 8,000 complete rations of pork, etc. Table #6 documents a railroad boxcar with around 9,000 complete rations of bacon, etc.

⁹⁸ Hathaway, Brevet Lieutenant Colonel John L. and Martin, Brevet Major W. P. (1901). in How To Feed An Army. United States War Department, Washington DC. Government Printing Office. P. 32 & p. 111 (Digitized by Google Books: <http://books.google.com/bkshp?tab=wp>)

⁹⁹ _____ (1863). The Revised United States Army regulations of 1861, with an appendix containing the changed and laws affecting Army regulations and Articles of war to June 25, 1863, United States War Department, Washington DC. Government Printing Office p. 304. (Digitized by Making of America <http://cdl.library.cornell.edu/moa/>)

¹⁰⁰ Martin, Brevet Major W. P. (1901). in How To Feed An Army. United States War Department, Washington DC. Government Printing Office. P. 111 (Digitized by Google Books: <http://books.google.com/bkshp?tab=wp>)

¹⁰¹ _____ (1863). The Revised United States Army regulations of 1861, with an appendix containing the changed and laws affecting Army regulations and Articles of war to June 25, 1863, United States War Department, Washington DC. Government Printing Office p. 304. (Digitized by Making of America <http://cdl.library.cornell.edu/moa/>)

Table # 3			
Army wagon loaded with complete rations - Pork, etc.			
Article	Number of packages	Net weight	Number of rations
Pork	3	600	800
Hard bread	16	800	800
Beans	1	223	1,487
Roasted and ground coffee	1	160	2,000
Brown sugar	1	269	1,793
Vinegar	(Keg) 1	*22	2,200
Adamantine candles	(Box) 1	40	3,200
Soap	(Box) 1	80	2,000
Salt	(Sack) 1	30	800
Pepper	(Box) 1	25	10,000
Gross weight		3,194	
* Gallons			
Prepared by Bvt. MAJ W. P. Martin, How To Feed An Army, p. 115. Spreadsheet by R. C. Lackey			

TABLE #3: "STOWED AS FOLLOWS.

HARD BREAD, 3 BOXES ONE ABOVE THE OTHER, IN THE CENTER OF THE BODY, ENDS AGAINST FRONT-END BOARD, 2 ON EACH SIDE, ON THEIR EDGE, BOTH ON FLOOR, END TO END; ON THESE LATTER SET ON END, 3 ON EACH SIDE, SIDE OF THE BOX TO SIDE OF THE WAGON, 2 ON EDGE SIDE BY SIDE, ON THE TIER FIRST LAID IN, BINDING THE TIER. THE BARREL OF SUGAR IN THE CENTER SPACE PUSHED CLOSE TO THE THREE BOXES LAID FLAT, AND BETWEEN THOSE ON THE SIDES; A BARREL OF BEANS BEHIND THIS, THEN 3 BARRELS OF PORK AND ONE BARREL OF COFFEE, PACKED CLOSE. IN REAR IN THE CENTER 1 KEG OF VINEGAR, WITH BOX OF SOAP ON ONE SIDE, AND CANDLES AND PAPER ON THE OTHER. THE REMAINING BOX OF BREAD ON SUGAR BARREL. SACK OF SALT ON PORK."¹⁰²

Table # 4			
Army wagon loaded with complete rations - Bacon, etc.			
Article	Number of packages	Net weight	Number of rations
Bacon	3	870	1,160
Hard bread	23	1,150	1,150
Beans in sacks	2	172.50	1,150
Roasted and ground coffee in sacks	2	92	1,150
Sugar in sacks	2	172.50	1,150
Vinegar in kegs	1	*10	1,000
Candles		14.38	1,150
Soap*		46	1,150
Salt in sacks	1	43	1,150
Pepper			
Gross weight		3,188	
* Candles, soap, and pepper in soap box. **Gallons			
Prepared by Bvt. MAJ W. P. Martin, How To Feed An Army, p. 115. Spreadsheet by R. C. Lackey			

TABLE #4: "STOWED AS FOLLOWS.

HARD BREAD, THE BOXES IN CENTER, 2 LONG, THREE HIGH, 2 ON EACH SIDE ON EDGE, 3 ON THESE ON END, 4 IN CENTER ON EDGE; TOTAL 20. TWO BARRELS BACON BEHIND THE BREAD ON ONE SIDE, AND THE OTHER ON THE OPPOSITE SIDE AS FAR FORWARD AS IT WILL GO. THERE WILL BE A SPACE BETWEEN THE BACON AND THE BREAD SUFFICIENTLY LARGE TO HOLD THE SOAP BOX, IN WHICH IS THE SOAP, CANDLES, AND PEPPER; AND THE BEAN,

¹⁰² Martin, Brevet Major W. P. (1901). in *How To Feed An Army*. United States War Department, Washington DC. Government Printing Office. P. 115 (Digitized by Google Books: <http://books.google.com/bkshp?tab=wp>)

COFFEE, SUGAR, AND SALT IN SACKS; SALT PUT IN FIRST, THEN BEANS, SUGAR, AND COFFEE; 3 BOXES OF BREAD ON THE BACON, VINEGAR KEG IN SPACE BETWEEN LAST BARREL OF BACON AND SIDE OF WAGON NEAR TAILBOARD.”

Table #5			
RR Box car loaded with complete rations - Pork etc.			
Article	Number of packages	Net Weight	Number of rations
Pork	30	6,000	8,000
Hard bread	100	8,000	8,000
Beans	4	892	5,946
Rice	1	280	2,800
Roasted and ground coffee	4	640	8,000
Brown sugar	5	1,350	9,000
Vinegar	(Kegs) 4	*88	8,800
Adamantine Candles	(Boxes) 3	120	9,600
Soap	(Boxes) 4	320	8,000
Salt	(Bbl.) 1	280	7,467
Pepper	(Box) 1	25	10,000
Gross Weight		25,767	
* Gallons			
Prepared by Bvt. MAJ W. P. Martin, How To Feed An Army, p. 112. Spreadsheet by R. C. Lackey			

TABLE # 5: “STOWED AS FOLLOWS.

Table #6			
Box car loaded with complete rations - Bacon			
Article	Number of packages	Net Weight	Number of rations
Bacon	24	6,900	9,280
Hard bread	180	9,000	9,000
Beans	4	892	6,187
Rice	1	280	2,800
Roasted and ground coffee	5	800	10,000
Brown sugar	5	1,345	8,970
Vinegar	(Kegs) 4	*88	8,800
Adamantine Candles	(Boxes) 3	120	9,000
Soap	(Boxes) 4	320	8,000
Salt	(Bbl.) 1	280	7,467
Pepper	(Box) 1	25	10,000
Gross Weight		25,457	
* Gallons			
Prepared by Bvt. MAJ W. P. Martin, How To Feed An Army, p. 113. Spreadsheet by R. C. Lackey			

“STOWED AS FOLLOWS.

BACON IN TIERS ACROSS, 8 IN A TIER, 3 TIERS, HARD BREAD, 160 BOXES IN ONE END OF CAR. RICE, COFFEE, SUGAR, AND SALT, 12 BARRELS IN ONE TIER NEXT TO BACON, LEAVING THE SPACE BETWEEN DOORS FOR 20 BOXES OF BREAD, AND THE BEANS, VINEGAR, SOAP, CANDLES, AND PEPPER.

Flour (1 pound 6 ounces per man per day) – Flour was shipped in a wooden barrel that weighed 21 pounds tare, 196 pounds net (142½ individual rations) and 217 pounds gross.¹⁰³ (See Table # 1.) One thousand rations of flour required 7.0153 shipping barrels.

Flour barrels were 25½” high with a head diameter of 16½” and a bilge diameter of 19¼”. They weighed 18 to 20 pounds tare¹⁰⁴.

Army Regulations give the weight and bulk of 1,000 rations of flour as follows¹⁰⁵:

- Tare Weight = 132 pounds (18.82 pounds per barrel)
- Net Weight = 1,375 pounds (196 pounds / 142½ rations per barrel)
- Gross Weight = 1,507 pounds (214.82 pounds per barrel)
- Bulk = 7.0153 barrels of 6 ¼ cubic feet

Hard Bread in Boxes (1 pound per man per day) – (a.k.a. hardtack or, as Captain Francis Adams Donaldson described his hard crackers, “the square meal”).¹⁰⁶ By a simple extension of this logic, the expression “three squares a day” must have referred to the complete ration of nine or ten crackers per man, per day, depending on the regiment.)

Hard bread was packed in boxes measuring 26” by 17” by 11”, each box occupying 4,862 cubicinches (2.8 cubic feet). The box weighed approximately 15 pounds tare, 50 pounds net (50 individual rations) and 65 pounds gross.¹⁰⁷ (See Table #1.) One thousand rations of hard bread in boxes required 20 boxes.

Army Regulations give the weight and bulk of 1,000 rations of hard bread in boxes as follows¹⁰⁸:

- Tare Weight = 262 pounds (27.29 pounds per barrel)

¹⁰³ Martin, Brevet Major W. P. (1901). in How To Feed An Army. United States War Department, Washington DC. Government Printing Office. P. 111 (Digitized by Google Books: <http://books.google.com/bkshp?tab=wp>)

¹⁰⁴ Ibid. p.96. (Digitized by Google Books: <http://books.google.com/bkshp?tab=wp>)

¹⁰⁵ ____ (1863). The Revised United States Army regulations of 1861, with an appendix containing the changed and laws affecting Army regulations and Articles of war to June 25, 1863, United States War Department, Washington DC. Government Printing Office p. 304. (Digitized by Making of America <http://cdl.library.cornell.edu/moa/>)

¹⁰⁶ Acken, Gregory J. (Editor). (1998). Inside the Army of the Potomac. Mechanicsburg PA. Stackpole Books. p. 69.

¹⁰⁷ Hathaway, Brevet Lieutenant Colonel John L. and Martin, Brevet Major W. P. (1901). in How To Feed An Army. United States War Department, Washington DC. Government Printing Office. p. 32 & p. 111 (Digitized by Google Books: <http://books.google.com/bkshp?tab=wp>)

¹⁰⁸ ____ (1863). The Revised United States Army regulations of 1861, with an appendix containing the changed and laws affecting Army regulations and Articles of war to June 25, 1863, United States War Department, Washington DC. Government Printing Office p. 304. (Digitized by Making of America <http://cdl.library.cornell.edu/moa/>)

- Net Weight = 1,000 pounds (104.17 pounds / 104 rations per barrel)
- Gross Weight = 1,262 pounds (131.46 pounds per barrel)
- Bulk = 9.6 barrels of 6 ¼ cubic feet (60 cubic feet ~ 21.43 boxes, but 20 boxes contained 1,000 rations)

QUART 1000™ and a
GOVERNMENT
ARE PROHIBITED TO TAKE THIS PICTURE.

Boxes of Hard Bread at Fort Macon NC

(Photograph by Brenda J. Lackey)

Hominy (10 pounds per 100 rations or 1.6 ounces per man per day) – Hominy was put up in barrels weighing 21 pounds tare, 200 pounds net (2,000 individual rations) and 221 pounds gross weight.¹⁰⁹ (See Table #1.) One thousand rations of hominy required one-half of a shipping barrel.

Army Regulations give the weight and bulk of 1,000 rations of hominy as follows¹¹⁰:

- Tare Weight = 8 pounds (15.42 pounds per barrel)
- Net Weight = 100 pounds (192.75 pounds / 1,928 rations per barrel)
- Gross Weight = 108 pounds (208.17 pounds per barrel)
- Bulk = .5188 barrels of 6 ¼ cubic feet

Marching Rations – The marching ration¹¹¹ consisted of **beef-on-the-hoof** (¾ pound of smoked

¹⁰⁹ Martin, Brevet Major W. P. (1901). in How To Feed An Army. United States War Department, Washington DC. Government Printing Office. P. 111 (Digitized by Google Books: <http://books.google.com/bkshp?tab=wp>)

¹¹⁰ ____ (1863). The Revised United States Army regulations of 1861, with an appendix containing the changed and laws affecting Army regulations and Articles of war to June 25, 1863, United States War Department, Washington DC. Government Printing Office p. 304. (Digitized by Making of America: <http://cdl.library.cornell.edu/moa/>)

¹¹¹ Martin, Brevet Major W. P. (1901) in How To Feed An Army. United States War Department, Washington DC. Government Printing Office, p. 113 & 116. (Digitized by Google Books: <http://books.google.com/bkshp?tab=wp>)

fresh meat pound per man per day) or bacon ($\frac{3}{4}$ pound per man per day), **hard bread in boxes** ($\frac{3}{4}$ pound per man per day), **roasted and ground coffee** (8 pounds per 100 rations or 1.28 ounces per man per day), **sugar** (15 pounds per 100 rations or 2.4 ounces per man per day), **salt** (.019 pounds per man per day). Assuming that bacon, vice beef-on-the-hoof, is issued, and further assuming that there was no requirement to carry forage for the team animals (normally 600 pounds) the following table for approximately 1,500 marching rations results:

Table # 7				
Army wagon loaded with marching rations.				
Article	Number of packages	Net weight	Number of rations	Gross weight
Bacon	4	1,160	1,547	1,400
Hard bread	23	1,150	1,533	1,495
Roasted and ground coffee	(Sacks) 2	120	1,500	124
Brown sugar	(Sacks) 2	225	1,500	229
Half ration salt	(Sacks) 1	28	750	30
Total		2,683		3,278
Table prepared by Bvt. Maj. W. P. Martin in <u>How to Feed An Army</u> , p. 116. Spreadsheet by R. C. Lackey				

TABLE #7: THIS MARCHING RATION CONSISTED OF $\frac{3}{4}$ POUND OF BACON IN BARRELS, $\frac{3}{4}$ POUND OF HARD BREAD IN BOXES; COFFEE, SUGAR AND SALT IN SACKS.

TABLE #7 "STOWED AS FOLLOWS.

HARD BREAD, 20 BOXES, STOWED AS DESCRIBED FOR 'COMPLETE RATIONS'. BACON, 1 BARREL CLOSE TO BREAD, ANOTHER ON OPPOSITE SIDE, AS FAR FORWARD AS POSSIBLE; IN THE SPACE BETWEEN BREAD AND BACON, COFFEE, SUGAR, AND SALT; THE TWO REMAINING BARRELS WILL JUST GO INSIDE THE TAILBOARD, WITH SPACE ON ONE SIDE FOR A BOX OF BREAD. TWO BOXES OF BREAD ON THE BACON."

"The following is the gross weight of 1,000 rations:

	Pounds
1,000 rations pork.....	1,253
1,000 rations hard bread	1,211
1,000 rations sugar.....	161
1,000 rations coffee.....	102
1,000 rations salt	40½

It will be seen that a wagon can haul from 1,200 to 1,400 rations of provisions without salt meat. It can haul forage enough for its team for ten days."¹¹²

¹¹² O.R., Series 1, Volume 33, p.855. (Digitized by Making of America <http://cdl.library.cornell.edu/moa/>)

Table # 8				
RR box car loaded with marching rations				
Article	Number of packages	Net weight	Number of rations	Gross weight
Bacon	32	9,280	212,373	11,200
Hard bread	182	9,100	12,133	11,830
Roasted and ground coffee	6	960	12,000	1,140
Brown sugar	7	1,800	12,600	2,030
Salt	1	280	7,363	221
Total		21,420		26,421
Table prepared by Bvt. Maj. W. P. Martin in <u>How to Feed An Army</u> , p. 113. Spreadsheet by R. C. Lackey				

Molasses (1 quart per 100 rations) –

Pepper (4 ounces per 100 rations or .04 Ounces per man per day) – Pepper was packed in boxes measuring 14” by 11” by 10”, occupying 1,540 cubic inches (.8912 cubic feet). Boxes of pepper weighed approximately 7 pounds tare, 25 pounds net (10,000 individual rations) and 32 pounds gross.¹¹³ (See Table # 1.) One thousand rations of pepper required one-tenth of a shipping box.

Army Regulations give the weight and bulk of 1,000 rations of pepper as follows¹¹⁴:

- Tare Weight = 1.5 pounds (4.33 pounds per barrel)
- Net Weight = 2.5 pounds (7.21 pounds / 1,928 rations per barrel)
- Gross Weight = 4 pounds (11.54 pounds per barrel)
- Bulk = .3466 barrels of 6 ¼ cubic feet

Pork (¾ of a pound per man per day) – Pork was put up in salt and brine and packed in a barrel that weighed 140 pounds tare, including the weight of the salt, brine, and the empty barrel; 200 pounds net (266.6667 rations) and 340 pounds gross.¹¹⁵ (See Table #1.) One barrel of pork required 3.75 shipping barrels.

LTC K. L. Kilburn recommended that a pork barrel should be “...twenty-eight inches long and seventeen and one-half inches over the ends (when finished), made of seasoned

¹¹³ Hathaway, Brevet Lieutenant Colonel John L. and Martin, Brevet Major W. P. (1901). in How To Feed An Army. United States War Department, Washington DC. Government Printing Office. p. 32 & p. 111 (Digitized by Google Books: <http://books.google.com/bkshp?tab=wp>)

¹¹⁴ ____ (1863). The Revised United States Army regulations of 1861, with an appendix containing the changed and laws affecting Army regulations and Articles of war to June 25, 1863, United States War Department, Washington DC. Government Printing Office p. 304.

¹¹⁵ Martin, Brevet Major W. P. (1901) in How To Feed An Army. United States War Department, Washington DC. Government Printing Office, p. 113 & 116. (Digitized by Google Books: <http://books.google.com/bkshp?tab=wp>)

white oak, full bound, with hickory or white oak hoops, and one iron hoop (one inch wide) on each end.”¹¹⁶

Army Regulations give the weight and bulk of 1,000 rations of pork as follows¹¹⁷:

- Tare Weight = 503 pounds (109.35 pounds per barrel)
- Net Weight = 750 pounds (163.04 pounds / 217.39 rations per barrel)
- Gross Weight = 1,253 pounds (272.39 pounds per barrel)
- Bulk = 4.6 barrels of 6 ¼ cubic feet

Potatoes (One pound per man issued 3 times per week when practicable) – 60 pounds per bushel

Rice (10 pounds per 100 rations or 1.6 pounds per man per day) – Rice was packed in barrels weighing 27 pounds tare, 280 pounds net (2,800 individual rations) and 307 pounds gross.¹¹⁸ (See Table #1.) One thousand rations of rice required 0.3571 shipping barrels.

Army Regulations give the weight and bulk of 1,000 rations of rice as follows¹¹⁹:

- Tare Weight = 8 pounds (15.42 pounds per barrel)
- Net Weight = 100 pounds (192.75 pounds / 1,927.5 rations per barrel)
- Gross Weight = 108 pounds (208.17 pounds per barrel)
- Bulk = .5188 barrels of 6 ¼ cubic feet

Salt (3 pounds 12 ounces per 100 rations or .6 ounce per man per day) – Salt was packed in barrels weighing 20 pounds tare, 280 pounds net (7,466.67 individual rations) and 300 pounds gross.¹²⁰ (See Table #1.) One thousand rations of salt required 0.1339 shipping barrels.

Army Regulations give the weight and bulk of 1,000 rations of salt as follows¹²¹:

- Tare Weight = 1.5 pounds (10.7 pounds per barrel)

¹¹⁶ Kilburn, LTC. K. L. (1863) Notes on Preparing Stores for the United States Army... Cincinnati. W. A. Webb, p. 10.

¹¹⁷ ____ (1863). The Revised United States Army regulations of 1861, with an appendix containing the changed and laws affecting Army regulations and Articles of war to June 25, 1863, United States War Department, Washington DC. Government Printing Office p. 304.

¹¹⁸ Martin, Brevet Major W. P. (1901) in How To Feed An Army. United States War Department, Washington DC. Government Printing Office, p. 113 & 116. (Digitized by Google Books: <http://books.google.com/bkshp?tab=wp>)

¹¹⁹ ____ (1863). The Revised United States Army regulations of 1861, with an appendix containing the changed and laws affecting Army regulations and Articles of war to June 25, 1863, United States War Department, Washington DC. Government Printing Office p. 304.

¹²⁰ Martin, Brevet Major W. P. (1901) in How To Feed An Army. United States War Department, Washington DC. Government Printing Office, p. 113 & 116. (Digitized by Google Books: <http://books.google.com/bkshp?tab=wp>)

¹²¹ ____ (1863). The Revised United States Army regulations of 1861, with an appendix containing the changed and laws affecting Army regulations and Articles of war to June 25, 1863, United States War Department, Washington DC. Government Printing Office p. 304.

- Net Weight = 2.5 pounds (17.83 pounds / 475 rations per barrel)
- Gross Weight = 4 pounds (28.53 pounds per barrel)
- Bulk = .1402 barrels of 6 ¼ cubic feet

Salt Beef (1 pound 4 ounces per man per day) – Salt beef was packaged in barrels weighing 140 pounds tare (including the weight of the empty barrel, brine and packing salt), 200 pounds net (160 individual rations) and 340 pounds gross. (See Table #1.) One thousand rations of salt beef required 6.25 shipping barrels

Army Regulations give the weight and bulk of 1,000 rations of rice as follows¹²²:

- Tare Weight = 989 pounds (129 pounds per barrel)
- Net Weight = 1,250 pounds (163 pounds / 130.44 rations per barrel)
- Gross Weight = 2,239 pounds (292 pounds per barrel)
- Bulk = 7.6665 barrels of 6 ¼ cubic feet

Soap (4 pounds of soap per 100 rations or 0.64 ounces per man per day) – Soap was packed in boxes measuring 17” x 15” x 11”, occupying 2,805 cubic inches (1.623 cubic feet). Soap boxes weighed approximately 12 pounds tare, 80 pounds net (2,000 individual rations) and 92 pounds gross.¹²³ (See Table # 1.) One thousand rations of soap required one-half of a shipping box.

Army Regulations give the weight and bulk of 1,000 rations of soap as follows¹²⁴:

- Tare Weight = 4 pounds (28.57 pounds per barrel)
- Net Weight = 40 pounds (285.57 pounds / 7,142 rations per barrel)
- Gross Weight = 44 pounds (314.2857 pounds per barrel)
- Bulk = .14 barrels of 6 ¼ cubic feet

Sugar (15 pounds per 100 rations or 2.4 ounces per man per day) – Brown sugar was packed in barrels weighing 21 pounds tare, 269 pounds net (1,793 individual rations), and 290 pounds gross.¹²⁵ (See Table # 1.) One thousand rations of sugar required 0.5576 of a shipping barrel.

Army Regulations give the weight and bulk of 1,000 rations of sugar as follows¹²⁶:

¹²² ____ (1863). The Revised United States Army regulations of 1861, with an appendix containing the changed and laws affecting Army regulations and Articles of war to June 25, 1863, United States War Department, Washington DC. Government Printing Office p. 304.

¹²³ Hathaway, Brevet Lieutenant Colonel John L. and Martin, Brevet Major W. P. (1901). in How To Feed An Army. United States War Department, Washington DC. Government Printing Office. p. 32 & p. 111 (Digitized by Google Books: <http://books.google.com/bkshp?tab=wp>)

¹²⁴ ____ (1863). The Revised United States Army regulations of 1861, with an appendix containing the changed and laws affecting Army regulations and Articles of war to June 25, 1863, United States War Department, Washington DC. Government Printing Office p. 304.

¹²⁵ Martin, Brevet Major W. P. (1901) in How To Feed An Army. United States War Department, Washington DC. Government Printing Office, p. 113 & 116. (Digitized by Google Books: <http://books.google.com/bkshp?tab=wp>)

Sugar (15 pounds per 100 rations or 2.4 ounces per man per day) – Brown sugar was packed in barrels weighing 21 pounds tare, 269 pounds net (1,793 individual rations), and 290 pounds gross.¹²⁷ (See Table # 1.) One thousand rations of sugar required 0.5576 of a shipping barrel.

Army Regulations give the weight and bulk of 1,000 rations of sugar as follows¹²⁸:

Water –

- Water was not part of either the complete- or the marching ration. The regulation canteen held three pints of water, adding about three pounds to the soldier's load.
- “Daily allowance of water for a man, 1 gallon, for all purposes.”¹²⁹
- “Daily allowance of water for a horse, 4 gallons.”¹³⁰



Soldiers Filling Canteens at a Civil War Water Point

¹²⁶ ____ (1863). The Revised United States Army regulations of 1861, with an appendix containing the changed and laws affecting Army regulations and Articles of war to June 25, 1863, United States War Department, Washington DC. Government Printing Office p. 304.

¹²⁷ Martin, Brevet Major W. P. (1901) in How To Feed An Army. United States War Department, Washington DC. Government Printing Office, p. 113 & 116. (Digitized by Google Books: <http://books.google.com/bkshp?tab=wp>)

¹²⁸ ____ (1863). The Revised United States Army regulations of 1861, with an appendix containing the changed and laws affecting Army regulations and Articles of war to June 25, 1863, United States War Department, Washington DC. Government Printing Office p. 304.

¹²⁹ Laidley, Brevet Major T. T. S. (1861). The Ordnance Manual For the Use of Officers of the United States Army (Third Edition). NYNY. J.J. Lippincott & Co. & republished by Invictus, Decatur MI. p.455.

¹³⁰ Ibid.

(Source: <http://www.old-picture.com/civil-war/Soldiers-Canteens-Filling.htm>)

Whiskey – Whiskey was not routinely rationed to soldiers. It was used as a special ration in disease-ridden areas (A whiskey ration was granted during part of the Peninsula Campaign, for example.) or as a stimulant to combat severe fatigue. Private Robert Knox Sneden described the whiskey ration: “Three gallons of whiskey were drawn from the brigade commissary for 100 men. One gallon of this was mixed with three buckets of water and a gill was given to each hard working soldier morning and evening. The remaining two gallons was kept in the officers’ tents for their own use and card playing and drinking went on until midnight sometimes.”¹³¹

Note: One bucket = 5 gallons or 160 gills and 1 gallon = 32 gills. The grog was mixed with one part whiskey to fifteen parts water, hardly an inebriating concoction. Had all three gallons been used to mix the grog, the result would have been one part whiskey and five parts water, far less stimulating than the average American cocktail. One gill contained four ounces (U.S. liquid).

Note: The tare weight is suspicious. Normally an empty whiskey barrel weighs in excess of 75 pounds.

Class II. (General Supply Support)

General supply support refers to the soldier’s uniform, accoutrements and tentage. The soldier is both the focus of military logistics and a logistics system in his own right. The infantry soldier’s personal logistics system is discussed in this section.

Bayonet Scabbard & Frogs – “100 Bayonet scabbards and frogs.....31 lbs”¹³² Therefore, one bayonet scabbard with frogs weighs 4.96 ounces.

Belt & Buckle – “100 waist belts and plates, 1.9 inch wide.....50 lbs”¹³³ Therefore, one belt and buckle weighs 8 ounces.

Blanket – “Paragraph 1571. *Blanket* – woolen, gray, with letters U.S. in black, four inches long in the center; to be seven feet long, and five and a half feet wide, and to weigh five pounds.”¹³⁴ “The average weight of blanket...5 ¼ pounds”¹³⁵

¹³¹ Sneden, Private Robert Knox (Edited by Charles F. Bryan and Nelson D. Lankford). (2000). Eye of the Storm. NYNY, Simon & Shuster. p.5.

¹³² Laidley, Brevet Major T. T. S. (1861). The Ordnance Manual For the Use of Officers of the United States Army (Third Edition). NYNY. J.J. Lippincott & Co. & republished by Invictus, Decatur MI. p.233.

¹³³ Ibid.

¹³⁴ _____(1861). The Revised Regulations for the Army of the United States, United States War Department, Washington DC. Government Printing Office p. 488.

¹³⁵ O.R., Series 1, Volume 25, (Part 2), p.488.

Canteen – The canteen held three pints and weighed slightly over three pounds when filled.

Cap Box – “One hundred infantry cap boxes with cone picks....13 lbs.”¹³⁶ One infantry cap box with cone picks weighs 2.08 ounces.

Cartridge Box and Plate – “100 Infantry cartridge boxes and plates for .58 inch ball....167 lbs.”¹³⁷ Therefore, one cartridge box and plate, minus ammunition, weighed 26.72 ounces.

Change of Clothing – “The average weight of change of clothing....2 pounds.”¹³⁸

Infantry Cartridge Box Shoulder Strap and Plate – “100 infantry cartridge box-belts and plates....63 lbs.”¹³⁹ Therefore, one infantry shoulder strap and plate weighed 10.08 ounces.

Haversack – The haversack was the soldier’s food larder. It was designed to carry roughly one peck of rations (i.e., 537.61 cubic inches), about a three day supply. By way of comparison, a modern paper grocery bag has a two peck capacity. The unpublished 1865 Quartermaster’s Manual states:

“Haversacks were to be made of ¼ yard of [31½ inches wide] cotton or pure, to weigh 6 ounces to the yard; ½ yard of [27 inches wide] cotton or pure linen drilling, of same material as sack, for the [inner] pocket; 3 white metal suspender buttons, 2½ skeins of W[hited]. B[rown]. linen thread, No. 3; one ¾ inch roller buckle, having a leather strap and loop strongly sewed on the sack, with two rows of stitches, of not less than 6 [stitches] each, all of the thread used for sewing to be well waxed and strong; a leather strap 7 inches long and ½ inch wide, punched with 6 holes, at equal distances, to receive the tongue of the buckle, and to be sewed on in the same manner, with the same kind of thread, and the same manner of stitches; the sling or carrying strap, to be of the same material as sack, and doubled; to be from 40 to 45 inches long and 2 inches wide, strongly sewed on sack, with two rows of stitches near the outer edges; the inner pocket to button on the inside of the sack; the outside of the sack, with the strap, to be painted with the same material as for a knapsack. Bottom of sack, 3½ inches wide; back, from top of flap to bottom of sack, 11½ inches; width of sack 12½ inches; depth of pocket 11 inches; and width of pocket 11½ inches.”

“Three days rations of biscuit, bacon, and small stores were put into a haversack, and it weighed....5 ¾ pounds.”¹⁴⁰

¹³⁶ Laidley, Brevet Major T. T. S. (1861). The Ordnance Manual For the Use of Officers of the United States Army (Third Edition). NYNY. J.J. Lippincott & Co. & republished by Invictus, Decatur MI. p.233.

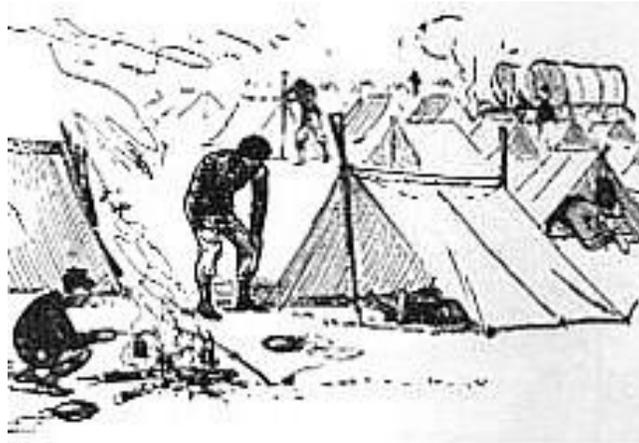
¹³⁷ Ibid.

¹³⁸ O.R., Series 1, Volume 25, (Part 2), p.488. (Digitized by Making of America <http://cdl.library.cornell.edu/moa/>)

¹³⁹ Laidley, Brevet Major T. T. S. (1861). The Ordnance Manual For the Use of Officers of the United States Army (Third Edition). NY NY. J.J. Lippincott & Co. & republished by Invictus, Decatur MI. p.233.

Knapsack – The average weight of a knapsack...6 pounds.¹⁴¹

Overcoat – “The average weight of overcoat...5 ¼ pounds.”¹⁴²



(The Dog or Shelter Tent.)
(Billings, Hartack and Coffee, p. 52)

Shelter Half – The shelter half measured “...five feet two inches long by four feet eight inches wide and is provided with a single row of button-holes on three sides and a pair of holes for stake loops at the corners. Infantry pitched shelter tents as follows: “Two muskets with bayonets fixed were stuck erect into the ground the width of a shelter-half apart. A guy rope, which went with every half-shelter was stretched between the trigger guards of the muskets, and over this as a ridge pole the tent was pitched in a twinkling.”¹⁴³

“The average weight of shelter-tent...1 ¾ pounds.”¹⁴⁴

Poncho – “An army poncho, I may here say, is specified as made of unbleached muslin coated with vulcanized India-rubber, sixty inches wide and seventy-one inches long, having an

¹⁴⁰ O.R., Series 1, Volume 25, (Part 2), p.488. (Digitized by Making of America <http://cdl.library.cornell.edu/moa/>)

¹⁴¹ O.R., Series 1, Volume 25, (Part 2), p.488. (Digitized by Making of America <http://cdl.library.cornell.edu/moa/>)

¹⁴² Ibid. (Digitized by Making of America <http://cdl.library.cornell.edu/moa/>)

¹⁴³ Billings, John D. Hard Tack and Coffee: Soldier's Life in the Civil War, Old Saybrook CT, published @ 1887 and republished 2005. p 52.

¹⁴⁴ O.R., Series 1, Volume 25, (Part 2), p.488. (Digitized by Making of America <http://cdl.library.cornell.edu/moa/>)

opening in the center lengthwise of the poncho, through which the head passes with a lap that is three inches wide and sixteen inches long. The army poncho was used in lieu of the gum blanket.”¹⁴⁵

Class III. (Parts, Oil, Lubrication (POL) Support)

The Army of the Potomac depended on animals for mobility, so POL referred to the forage consumed by the army’s horses and mules. The full, daily allowance for horses and mules follows:

Mules – Paragraph 1121. “For mules, fourteen pounds of hay and nine pounds of oats, corn, or barley.”¹⁴⁶

Horses – Paragraph 1121. “The forage ration is fourteen pounds of hay and twelve pounds of oats, corn or barley.”¹⁴⁷

NOTE: General Orders No. 18, Headquarters of the Army, Adjutant General’s Office, February 21, 1862, paragraph II: “Paragraph 1121 of the Revised Regulations for the Army, of 1861, is amended by adding as follows: In special cases of hard service or exposure, the Quartermaster General may authorize the ration if grain to be increased not more than three pounds, upon a report recommending it by the Chief Quartermaster in a military Department, or with the army in the field.

- “**Hay**, pressed in bundles, 11 lbs. per cubic foot. Average weight of bundles, 300 lbs.” “Fresh grass weighs about 84 pounds to the cubic 11 lbs. per cubic foot. Average weight of bundles, 300 lbs.” “Fresh grass weighs about 84 pounds to the cubic yard.”¹⁴⁸
- **Oats:** 32 lbs. to the bushel, or 25.71 lbs. to the cubic foot.¹⁴⁹
- **Corn:** 56 lbs. to the bushel, or 45.02 lbs. to the cubic foot.¹⁵⁰

¹⁴⁵ Billings, John D. Hard Tack and Coffee: Soldier’s Life in the Civil War, Old Saybrook CT, published @ 1887 and republished 2005. p 55.

¹⁴⁶ _____ (1863). The Revised United States Army regulations of 1861, with an appendix containing the changed and laws affecting Army regulations and Articles of war to June 25, 1863, United States War Department, Washington DC. Government Printing Office p. 166.

¹⁴⁷ Ibid.

¹⁴⁸ Laidley, Brevet Major T. T. S. (1861). The Ordnance Manual For the Use of Officers of the United States Army (Third Edition). NYNY. J.J. Lippincott & Co. & republished by Invictus, Decatur MI. p.453.

¹⁴⁹ Ibid, p. 453

¹⁵⁰ Ibid, p. 453

- “One bushel of **barley** at 60 pounds.”¹⁵¹ “A box 16 x 16.8 inches square, an 8 inches deep will contain one bushel, or 2,150 cubic inches.”¹⁵²

Example: On November 1, 1862, the Army of the Potomac had 12,483 mules and 8,693 horses.¹⁵³ Using the table that follows, the forage requirement for one day totaled 261 short tons, or 35,400 cubic feet.¹⁵⁴ The forage requires 380 six-mule wagon loads or 30 railroad boxcars (3 trains at ten cars per train) for this one day.¹⁵⁵

¹⁵¹ Kautz, The 1865 Customs of the Service, Second Edition, 1865, reprinted 2001, page 157

¹⁵² Ibid. p.156

¹⁵³ OR, Series 1, Volume 19, Part 1, Chapter XXI, pp. 99 – 106. (Digitized by Making of America <http://cdl.library.cornell.edu/moa/>)

¹⁵⁴ **Hay (Weight) for 12,483 mules** = 140,000 lb. hay for 10,000 mules + 28,000 lb. hay for 2,000 mules + 5,600 lb. hay for 400 mules + 1,120 lb. hay for 80 mules + 42 lb. of hay for 3 mules = 174,762 lb. / 87.38 short tons of hay.

Hay (Cubic Feet) for 12,483 mules = 12,727.27 CU. FT. hay for 10,000 mules + 2,545.45 CU. FT. hay for 2,000 mules + 509.09 CU. FT. of hay for 400 mules + 101.82 CU. FT. of hay for 80 mules + 3.82 CU. FT. of hay for 3 mules = 15,887.45 CU. FT./397.19 measurement tons of hay .

Oats (Weight) for 12,483 mules = 90,000 lb. oats for 10,000 mules + 18,000 lb. oats for 2,000 mules + 3,600 lb. oats for 400 mules + 720 lb. oats for 80 mules + 27 lb. of oats for 3 mules = 112,347 lb / 56.17 short tons of oats.

Oats (Cubic Feet) for 12,483 mules = 3,500.58 CU. FT. oats for 10,000 mules + 700.12 CU. FT. oats for 2,000 mules + 140.02 CU. FT. of oats for 400 mules + 28 CU. FT. of oats for 80 mules + 1.05 CU. FT. of oats for 3 mules = 4,369.77 CU. FT./109.24 measurement tons of oats

Total Weight and Volume for 12,483 Mules = 143.55 short tons /506.43 measurement tons.

Hay (Weight) for 8,693 horses = 112,000 lb. hay for 8,000 horses + 8,400 lb. hay for 600 horses + 1,260 lb. hay for 90 horses + 42 lb. of hay for 3 horses = 121,702 lb. / 60.85 short tons of hay.

Hay (Cubic Feet) for 8,693 mules = 10,181.82 CU. FT. hay for 8,000 horses + 763.64 CU. FT. of hay for 600 mules + 114.55 CU. FT. of hay for 90 mules + 3.82 CU. FT. of hay for 3 horses = 11,063.83 CU. FT./276.6 measurement tons of hay .

Oats (Weight) for 8,693 horses = 96,000 lb. oats for 8,000 horses + 7,200 lb. oats for 600 horses + 1,080 lb. oats for 90 horses + 36 lb. of oats for 3 horses = 104,316 lb / 56.16 short tons of oats.

Oats (Cubic Feet) for 8,693 horses = 3,733.96 CU. FT. oats for 8,000 horses + 280.05 CU. FT. of oats for 600 horses + 42.01 CU. FT. of oats for 90 horses + 1.05 CU. FT. of oats for 3 horses = 4,057.07 CU. FT./101.43 measurement tons of oats.

Total Weight and Volume for 8,693 horses = 117.01 short tons /378.03 measurement tons.

TOTAL REQUIRMENT = 260.6 STON / 884.5 MTON

¹⁵⁵ The total amount of hay to be transported is 148¼ short tons / 673¾ measurement tons. The total amount of oats to be transported is 112.33 short tons / 210.67 measurement tons. It is reasonable to assumed that a six-mule wagon can haul one short ton of cargo, so 261 wagon-loads are required if weight is the controlling metric. It isn't. Forage

Forage Ration For Horses & Mules												
No.	Mule							Horse				
	Hay Pounds	Cubic Feet	Oats Pounds	Oats Cubic Feet	Oats Total Bushels	Total Weight	Total Cube	Oats Pounds	Oats Cubic Feet	Oats Total Bushels	Total Weight	Total Cube
1	14	1.27	9	0.35	0.28	23	1.62	12	0.47	0.38	26	1.74
2	28	2.55	18	0.70	0.56	46	3.25	24	0.93	0.75	52	3.48
3	42	3.82	27	1.05	0.84	69	4.87	36	1.40	1.13	78	5.22
4	56	5.09	36	1.40	1.13	92	6.49	48	1.87	1.50	104	6.96
5	70	6.36	45	1.75	1.41	115	8.11	60	2.33	1.88	130	8.70
6	84	7.64	54	2.10	1.69	138	9.74	72	2.80	2.25	156	10.44
7	98	8.91	63	2.45	1.97	161	11.36	84	3.27	2.63	182	12.18
8	112	10.18	72	2.80	2.25	184	12.98	96	3.73	3.00	208	13.92
9	126	11.45	81	3.15	2.53	207	14.61	108	4.20	3.38	234	15.66
10	140	12.73	90	3.50	2.81	230	16.23	120	4.67	3.75	260	17.39
20	280	25.45	180	7.00	5.63	460	32.46	240	9.33	7.50	520	34.79
30	420	38.18	270	10.50	8.44	690	48.68	360	14.00	11.25	780	52.18
40	560	50.91	360	14.00	11.25	920	64.91	480	18.67	15.00	1,040	69.58
50	700	63.64	450	17.50	14.06	1,150	81.14	600	23.34	18.75	1,300	86.97
60	840	76.36	540	21.00	16.88	1,380	97.37	720	28.00	22.50	1,560	104.37
70	980	89.09	630	24.50	19.69	1,610	113.59	840	32.67	26.25	1,820	121.76
80	1,120	101.82	720	28.00	22.50	1,840	129.82	960	37.34	30.00	2,080	139.16
90	1,260	114.55	810	31.51	25.31	2,070	146.05	1,080	42.01	33.75	2,340	156.55
100	1,400	127.27	900	35.01	28.13	2,300	162.28	1,200	46.67	37.50	2,600	173.95
200	2,800	254.55	1,800	70.01	56.25	4,600	324.56	2,400	93.35	75.00	5,200	347.89
300	4,200	381.82	2,700	105.02	84.38	6,900	486.84	3,600	140.02	112.50	7,800	521.84
400	5,600	509.09	3,600	140.02	112.50	9,200	649.11	4,800	186.70	150.00	10,400	695.79
500	7,000	636.36	4,500	175.03	140.63	11,500	811.39	6,000	233.37	187.50	13,000	869.74
600	8,400	763.64	5,400	210.04	168.75	13,800	973.67	7,200	280.05	225.00	15,600	1,043.68
700	9,800	890.91	6,300	245.04	196.88	16,100	1,135.95	8,400	326.72	262.50	18,200	1,217.63
800	11,200	1,018.18	7,200	280.05	225.00	18,400	1,298.23	9,600	373.40	300.00	20,800	1,391.58
900	12,600	1,145.45	8,100	315.05	253.13	20,700	1,460.51	10,800	420.07	337.50	23,400	1,565.52
1,000	14,000	1,272.73	9,000	350.06	281.25	23,000	1,622.79	12,000	466.74	375.00	26,000	1,739.47
2,000	28,000	2,545.45	18,000	700.12	562.50	46,000	3,245.57	24,000	933.49	750.00	52,000	3,478.94
3,000	42,000	3,818.18	27,000	1,050.18	843.75	69,000	4,868.36	36,000	1,400.23	1,125.00	78,000	5,218.42
4,000	56,000	5,090.91	36,000	1,400.23	1,125.00	92,000	6,491.14	48,000	1,866.98	1,500.00	104,000	6,957.89
5,000	70,000	6,363.64	45,000	1,750.29	1,406.25	115,000	8,113.93	60,000	2,333.72	1,875.00	130,000	8,697.36
6,000	84,000	7,636.36	54,000	2,100.35	1,687.50	138,000	9,736.71	72,000	2,800.47	2,250.00	156,000	10,436.83
7,000	98,000	8,909.09	63,000	2,450.41	1,968.75	161,000	11,359.50	84,000	3,267.21	2,625.00	182,000	12,176.30
8,000	112,000	10,181.82	72,000	2,800.47	2,250.00	184,000	12,982.28	96,000	3,733.96	3,000.00	208,000	13,915.77
9,000	126,000	11,454.55	81,000	3,150.53	2,531.25	207,000	14,605.07	108,000	4,200.70	3,375.00	234,000	15,655.25
10,000	140,000	12,727.27	90,000	3,500.58	2,812.50	230,000	16,227.86	120,000	4,667.44	3,750.00	260,000	17,394.72

Spreadsheet by Rodney C. Lackey

Special Orders Number 44, Headquarters Armies of the United States, dated June 29, 1864, Paragraph 16. "In the armies operating against Richmond, the maximum allowance of forage per day will be, ten pounds hay and *fourteen* pounds grain; for mules, *ten* pounds hay and *eleven* pounds grain; and when short forage only can be provided, the allowance will be, for horses *fifteen* pounds, for mules *thirteen*. On a march, however, the forage ration will be only *ten* pounds grain.¹⁵⁶ "Short forage" refers to the grain component of the ration. The material just

is a space cargo. The box of the six-mule wagon had a capacity of 1.5 measurement tons. Cargo could be loaded above the top of the box, providing that enough of the container remained within the box to lock the cargo in place. A total capacity of 2.33 MTON is assumed for the grain and hay.. Given a total transportation requirement of 884.5 MTON. 380 wagons are needed to move the forage, with each wagon carrying about 1,372 pounds. A railroad boxcar had an interior capacity of of 10 short tons / 32 measurement tons. Optimistically assuming loads of 30 measurement tons per boxcar (94%), 30 cars, or 3 train loads are required.

¹⁵⁶ O.R., Series I, Volume 40, Part 1, pp. 37-42. (Digitized by Making of America <http://cdl.library.cornell.edu/moa/>)

cited demonstrates that a wide variety of rationing combinations existed. The next table provides the data required to solve permutations of the rationing problem.

Forage Table: Pounds & Volume								
No. Lb.	Hay		Oats		Corn		Barley	
	Cu. Ft.	Bushels						
1	0.09	0.07	0.04	0.03	0.02	0.02	0.02	0.02
2	0.18	0.15	0.08	0.06	0.04	0.04	0.04	0.03
3	0.27	0.22	0.12	0.09	0.07	0.05	0.06	0.05
4	0.36	0.29	0.16	0.13	0.09	0.07	0.08	0.07
5	0.45	0.37	0.19	0.16	0.11	0.09	0.10	0.08
6	0.55	0.44	0.23	0.19	0.13	0.11	0.12	0.10
7	0.64	0.51	0.27	0.22	0.16	0.12	0.15	0.12
8	0.73	0.58	0.31	0.25	0.18	0.14	0.17	0.13
9	0.82	0.66	0.35	0.28	0.20	0.16	0.19	0.15
10	0.91	0.73	0.39	0.31	0.22	0.18	0.21	0.17
11	1.00	0.80	0.43	0.34	0.24	0.20	0.23	0.18
12	1.09	0.88	0.47	0.38	0.27	0.21	0.25	0.20
13	1.18	0.95	0.51	0.41	0.29	0.23	0.27	0.22
14	1.27	1.02	0.54	0.44	0.31	0.25	0.29	0.23
15	1.36	1.10	0.58	0.47	0.33	0.27	0.31	0.25
16	1.45	1.17	0.62	0.50	0.36	0.29	0.33	0.27
17	1.55	1.24	0.66	0.53	0.38	0.30	0.35	0.28
18	1.64	1.32	0.70	0.56	0.40	0.32	0.37	0.30
19	1.73	1.39	0.74	0.59	0.42	0.34	0.39	0.32
20	1.82	1.46	0.78	0.63	0.44	0.36	0.41	0.33
21	1.91	1.53	0.82	0.66	0.47	0.37	0.44	0.35
22	2.00	1.61	0.86	0.69	0.49	0.39	0.46	0.37
23	2.09	1.68	0.89	0.72	0.51	0.41	0.48	0.38
24	2.18	1.75	0.93	0.75	0.53	0.43	0.50	0.40
25	2.27	1.83	0.97	0.78	0.56	0.45	0.52	0.42

Spreadsheet by Rodney C. Lackey

Example: Special Order 44. authorizes a maximum ration of ten pounds (.91 cubic feet/.73 bushels) of hay per animal per day and fourteen pounds of grain (oats = .54 cubic feet / .44 bushels.)

Marching Rations for Horses and Mules: “Each wagon was also required to carry five days rations of forage for the animals, thus lessening the capacity of the wagons by 600 pounds.”¹⁵⁷ By this standard, the team was fed 120 pounds of grain per day and each animal received 20 pounds of oats, corn or barley per day. Special Orders 44, cited above, states that the 600 pounds of grain provided 10 pounds per animal per day for ten days.

¹⁵⁷ Wilson, Bvt. BG Thomas, *How to Feed an Army*: Published By Authority of the Secretary of War for use in the Army of the United States, Washington, 1901, Government Printing Office, p.166

Class IV. (Barrier Materials Support)

Talk about the tool wagons on the Peninsula and the tool wagons that accompanied the army throughout the war. Soldiers didn't carry entrenching tools. Talk about slashings, abates, etc.

Class V. (Ammunition & Explosives Support¹⁵⁸)

Planning Factors on Transporting Small Arms Ammunition –

- Note: Ammunition wagons were loaded too heavily to carry forage for the team animals. Ingalls allocated: “For every 25 wagons, ammunition train, for forage, &c., 5 wagons.”¹⁵⁹
- Wagon loads = Number of Soldiers / 200
- Wagon loads = Ammunition Boxes /20
- Ammunition boxes = (Number of Soldiers x 100)/1,000
- Weight of Boxes (STON) = (Number of boxes x 0.049)

Packaging Small Arms Ammunition –

- **.58 expanding ball ammunition –**
 - **Bundles of ten cartridges –**
 - Length – 2.6 inches
 - Width – 2.9 inches
 - Height – 1.15 inches
 - Weight – 13.5 ounces / 0.84375 pounds
 - Color of cartridge wrapper – ordinary
 - **Box of 1,000 cartridges –** “The boxes are made of white pine board, and are furnished with wooden brackets or handles nailed to the ends with wrought nails, clenched on the inside; the lids fastened with 1.75 inch screws. They are painted different colors, to indicate the kind of cartridges. The boxes should be lined with strong paper, and the bundles

¹⁵⁸ Laidley, Brevet Major T. T. S. (1861). The Ordnance Manual For the Use of Officers of the United States Army (Third Edition). NYNY. J.J. Lippincott & Co. & republished by Invictus, Decatur MI. p.270 & 280.

¹⁵⁹ OR Series 1, Volume 33, p. 854. (Digitized by Making of America <http://cdl.library.cornell.edu/moa/>)

of cartridges must be packed closely, so as not to shake in transportation. Each box should be marked, on each end, with the number and kind of cartridges, and on the inside of the cover with the place and date of fabrication.”¹⁶⁰

- Length – 14.75 inches
- Width – 10.75 inches
- Height – 6.38 inches
- Tare Weight – 13.625 pounds
- Net Weight – 84.375 pounds
- Gross Weight – 98 pounds
- Color of box – Olive

▪ **Boxes per wagonload – 20**

- “For every 1,000 men, infantry and cavalry, for carrying 100 rounds per man of small-arm ammunition, 5 wagons.”¹⁶¹ BG Rufus Ingalls

Note – Therefore, one wagon carried 100 rounds per man for 200 men (1,000 / 5 = 200). Each wagon carried 20,000 rounds, or 20 boxes and the boxes had a gross weight of 1,960 pounds.

- “If 100 rounds of small-arm ammunition per man must be carried in wagons, it will require five for every 1,000 men.”¹⁶² BG Rufus Ingalls

○ **.58 pistol carbine ammunition –**

▪ **Bundles of ten cartridges –**

- Length – 2.4 inches
- Width – 2.9 inches
- Height – 1.15 inches
- Weight – 12.5 ounces / 0.78125 pounds
- Color of cartridge wrapper – blue

▪ **Box of 1,000 cartridges –**

- Length –
- Width –
- Height –
- Tare Weight –
- Net Weight –
- Gross Weight –
- Color of box – Yellow

¹⁶⁰ Laidley, Brevet Major T. T. S. (1861). *The Ordnance Manual For the Use of Officers of the United States Army* (Third Edition). NYNY. J.J. Lippincott & Co. & republished by Invictus, Decatur MI. p.269. (Digitized by Making of America <http://cdl.library.cornell.edu/moa/>)

¹⁶¹ O.R. Series 1, Volume 33, p.853. (Digitized by Making of America <http://cdl.library.cornell.edu/moa/>)

¹⁶² O.R. Series 1, Volume 33, p.852. (Digitized by Making of America <http://cdl.library.cornell.edu/moa/>)

- **.54 Sharps carbine ammunition –**
 - **Bundles of ten cartridges –**
 - Length – 2.6 inches
 - Width – 2.5 inches
 - Height – 1.1 inches
 - Weight – 13.5 ounces / 0.84375 pounds
 - Color of cartridge wrapper – ordinary
 - **Box of 1,000 cartridges –**
 - Length – 14.75
 - Width – 8.9
 - Height – 5.2
 - Tare Weight –
 - Net Weight – 84.375 pounds
 - Gross Weight – 78 pounds
 - Color of box – Olive
 - **Note** – Laidley’s table gives the gross weight of 1,000 cartridges and the gross weight of 10 cartridges. Based on Laidley’s data, the net weight of 1,000 cartridges of .54 Sharps carbine ammunition is 84.375 pounds, which is more than the gross weight of the cartridges packed in the box. In short, there is a mistake in Laidley’s data.

- **.44 Army revolver ammunition –**
 - **Bundles of ten cartridges –**
 - Length – 2.3 inches
 - Width – 2.0 inches
 - Height – .85 inches
 - Weight – 6 ounces / 0.375 pounds
 - Color of cartridge wrapper – blue
 - **Box of 600 cartridges –** Box made of .75-inch boards.
 - Length – 13.1
 - Width – 4.6
 - Height – 3.5
 - Tare Weight – 6.0
 - Net Weight – 22.5 pounds
 - Gross Weight – 28.5 pounds
 - Color of box – Olive

- **.36 Navy revolver ammunition –**
 - **Bundles of ten cartridges –**
 - Length – 2.2 inches
 - Width – 1.9 inches
 - Height – .85 inches
 - Weight – 5 ounces / 0.3125 pounds
 - Color of cartridge wrapper – ordinary
 - **Box of 600 cartridges –** Box made of .75-inch boards.
 - Length – 10.5
 - Width – 3.8

- Height – 3.25
- Tare Weight –
- Net Weight – 18.75 pounds
- Gross Weight – 18.5 pounds
- Color of box – Blue
- **Note** – Laidley’s table gives the gross weight of 600 cartridges and the gross weight of 10 cartridges. Based on Laidley’s data, the net weight of 600 cartridges of .36 Navy revolver ammunition is 18.75 pounds, which is more than the gross weight of the cartridges packed in the box.

Packaging Artillery Ammunition –

○ **6-pounder gun –**

▪ **Shot –**

- Length (ID) – 24 inches
- Width (ID) – 8.75 inches
- Height (ID) – 7.75 inches
- Tare Weight – 25 pounds
- Net Weight – 106.4 pounds (Note – The weight of 21 friction primers loaded in the box is not included in the total.)
- Gross Weight – 131
- Number of Rounds – 14
- Weight Per Round – 7.6
- Color of Box – Olive

▪ **Spherical Case –**

- Length (ID) – 24 inches
- Width (ID) – 8.75 inches
- Height (ID) – 7.75 inches
- Tare Weight – 25 pounds
- Net Weight – 98 pounds (Note – The weight of 21 friction primers loaded in the box is not included in the total.)
- Gross Weight – 125 pounds
- Number of Rounds – 14
- Weight Per Round – 7
- Color of Box – Red

▪ **Canister –**

- Length (ID) – 25.5
- Width (ID) – 10.5
- Height (ID) – 7.75
- Tare Weight – 26
- Net Weight – 117.6 pounds (Note – The weight of 21 friction primers loaded in the box is not included in the total.)
- Gross Weight – 146 pounds
- Number of Rounds – 14
- Weight Per Round – 8.4 pounds
- Color of Box – Drab

Notes on the 12-pounder gun –

- 12-pounder ammunition wagons required¹⁶³ = (No. of guns x 122)/112.
- 250 rounds were carried on campaign¹⁶⁴.
- The ammunition box held 32 rounds of 12-pounder ammunition¹⁶⁵.
- Each limber carried one ammunition chest. One limber pulled the 12-pounder and one limber pulled the caisson. Two ammunition chests were loaded on the caisson. Therefore, each 12-pounder had four ammunition chests (128 rounds) organic to the artillery battery.
- 122 rounds (see formula) had to be carried in the ammunition wagons of the ordnance trains (250-128 = 122).
- According to the formula, the six-mule wagon carried 112 rounds, or 14 boxes (8 rounds per box)
- **Boxes per wagonload = 14**
- No forage was carried in the ammunition wagons for the team animals.

¹⁶³ OR, Series 1, Volume 33, Chapter XLV, p. 853. (Digitized by Making of America <http://cdl.library.cornell.edu/moa/>)

¹⁶⁴ OR, Series 1, Volume 11, Part 3, pp. 361-362. (Digitized by Making of America <http://cdl.library.cornell.edu/moa/>)

¹⁶⁵ 1861 Ordnance Manual, p.335.

Ammunition Wagons Required Per 12-Pounder									
No. Guns	No. Ammo. Wgns.	No. Guns	No. Ammo. Wgns.	No. Guns	No. Ammo. Wgns.	No. Guns	No. Ammo. Wgns.	No. Guns	No. Ammo. Wgns.
1	1.09	21	22.88	42	45.75	62	67.54	82	89.32
2	2.18	22	23.96	43	46.84	63	68.63	83	90.41
3	3.27	23	25.05	44	47.93	64	69.71	84	91.50
4	4.36	24	26.14	45	49.02	65	70.80	85	92.59
5	5.45	26	28.32	46	50.11	66	71.89	86	93.68
6	6.54	27	29.41	47	51.20	67	72.98	87	94.77
7	7.63	28	30.50	48	52.29	68	74.07	88	95.86
8	8.71	29	31.59	49	53.38	69	75.16	89	96.95
9	9.80	30	32.68	50	54.46	70	76.25	90	98.04
10	10.89	31	33.77	51	55.55	71	77.34	91	99.13
11	11.98	32	34.86	52	56.64	72	78.43	92	100.21
12	13.07	33	35.95	53	57.73	73	79.52	93	101.30
13	14.16	34	37.04	54	58.82	74	80.61	94	102.39
14	15.25	35	38.13	55	59.91	75	81.70	95	103.48
15	16.34	36	39.21	56	61.00	76	82.79	96	104.57
16	17.43	37	40.30	57	62.09	77	83.88	97	105.66
17	18.52	38	41.39	58	63.18	78	84.96	98	106.75
18	19.61	39	42.48	59	64.27	79	86.05	99	107.84
19	20.70	40	43.57	60	65.36	80	87.14	100	108.93
20	21.79	41	44.66	61	66.45	81	88.23	101	110.02
Spreadsheet by Rodney C. Lackey									

○ **12 pounder gun –**

▪ **Shot –**

- Length (ID) – 17.5 inches
- Width (ID) – 10.5 inches
- Height (ID) – 9.5 inches
- Tare Weight – 23 pounds
- Net Weight – 123.2 pounds (Note – The weight of 12 friction primers loaded in the box is not included in the total.)
- Gross Weight – 148 pounds
- Number of Rounds – 8 pounds
- Weight Per Round – 15.4 pounds
- Color of Box – Olive
- Number of boxes per wagonload – 14
- Payload – 2,072 pounds

▪ **Shell –**

- Length (ID) – 17.5 inches
- Width (ID) – 10.5 inches
- Height (ID) – 9.5 inches
- Tare Weight – 23 pounds

- Net Weight – 97.36 pounds (Note – The weight of 12 friction primers loaded in the box is not included in this total.)
 - Gross Weight – 121 pounds
 - Number of Rounds – 8
 - Weight Per Round – 12.17 pounds each
 - Color of Box – Black
 - Number of boxes per wagonload – 14
 - Payload – 1,694 pounds
- **Spherical Case –**
 - Length (ID) – 17.5 inches
 - Width (ID) – 10.5 inches
 - Height (ID) – 9.5 inches
 - Tare Weight – 23 pounds
 - Net Weight – 117.6 pounds (Note – The weight of 12 friction primers loaded in the box is not included in this total.)
 - Gross Weight – 142 pounds
 - Number of Rounds – 8
 - Weight Per Round – 14.7 pounds
 - Color of Box – Red
 - Number of boxes per wagonload – 14
 - Payload – 1,988 pounds
- **Canister –**
 - Length (ID) – 18.4 inches
 - Width (ID) – 12.5 inches
 - Height (ID) – 9.5 inches
 - Tare Weight – 24 pounds
 - Net Weight – 135.28 pounds (Note – The weight of 12 friction primers loaded in the box is not included in this total.)
 - Gross Weight – 161 pounds
 - Number of Rounds – 8
 - Weight Per Round – 16.91 pounds
 - Color of Box – Drab
 - Number of boxes per wagonload – 14
 - Payload – 2,254 pounds
- **12 pounder howitzer –**
 - **Shell –**
 - Length (ID) – 22.5
 - Width (ID) – 9.25
 - Height (ID) – 10.5
 - Tare Weight – 27
 - Net Weight – 126
 - Gross Weight – 133
 - Number of Rounds – 12
 - Weight Per Round – 10.5
 - Color of Box – Black
 - Note – There is an unresolved discrepancy between the gross and tare weights presented by Laidley’s and the calculated net weight.
 - **Spherical Case –**
 - Length (ID) – 22.5 inches

- Width (ID) – 9.26 inches
 - Height (ID) – 11 inches
 - Tare Weight – 27 pounds
 - Net Weight – 163.8 pounds
 - Gross Weight – 165 pounds
 - Number of Rounds – 12
 - Weight Per Round – 13.65 pounds
 - Color of Box – Red
 - Note – There is an unresolved discrepancy between the gross and tare weights presented by Laidley’s and the calculated net weight.
- **Canister –**
 - Length (ID) – 22.5
 - Width (ID) – 9.25
 - Height (ID) – 12.5
 - Tare Weight – 28.5
 - Net Weight – 142.2
 - Gross Weight – 148
 - Number of Rounds – 12
 - Weight Per Round – 11.85
 - Color of Box – Drab
 - Note – There is an unresolved discrepancy between the gross and tare weights presented by Laidley’s and the calculated net weight.

Class VI.
(Personal Demand Items Support)

Class VII.
(Major End Items)



Sutlers

(Source: <http://www.old-picture.com/civil-war/Sutlers.htm>)

**Class VIII.
(Medical Supply Support)**



Zoave Ambulance Crew Demonstrating Casualty Evacuation

(Source: <http://www.old-picture.com/civil-war/Ambulance-Civil-Crew-War.htm>)

The issue with medical supplies was not the ambulances, although the numbers, column length and pass time of the Army of the Potomac's ambulance train should be discussed.

The issue was the waste of lift assets caused by the excessively generous assignment of six-mule wagons to carry medical supplies.

- “An ambulance on the march usually occupies about forty feet...”¹⁶⁶

**Class IX.
(Repair Parts Support)**



Antietam, Blacksmith Shoeing Horses

(Source: <http://www.old-picture.com/civil-war/Blacksmith.htm>)

**Class X.
(Civil Affairs Support)**

This would be the ideal place to discuss reverse Class X; Napoleon’s idea that war should be made to support war, as evidenced by liberally foraging across the countryside.

¹⁶⁶ Rusling, Captain J. F. (1865). A Word for the Quartermaster’s Department appearing in the United States Service Magazine, Volume III. NY NY. Charles R. Richardson. p. 256

Annex B

Transportation Reference Data

Animals to men (ratio) –

- “In the campaign of the past summer [1864 Overland Campaign], the *Army of the Potomac* (emphasis added), as near as we can arrive at the figures, appears to have numbered ordinarily about one hundred and twenty-five thousand effective fighting men. Its transportation is reported to have consisted of about four thousand two hundred wagons, eight hundred (800) ambulances, thirty thousand (30,000) artillery, cavalry, ambulance and draught horses, four thousand five hundred (4,500) private horses, and twenty-two (22,000) thousand mules, making an aggregate in all of some fifty-six thousand (56,000) animals. *This is just about one-third (1/3) animals to the men* (emphasis added), about the same ratio as obtained during the Peninsula campaign and ever since; whereas the ratio among the *Western armies, during the same time, and always, has usually been one half (1/2) animals to the men* (emphasis added). The figures in General Sherman’s combined army , during the Atlanta campaign, footed up generally about as follows: One hundred and twenty thousand (120,000) effective fighting men, six thousand three hundred (6,300) wagons, nine hundred (900) ambulances, thirty-two thousand (32,000) artillery, cavalry, ambulance, and draught horses, four thousand five hundred (4,500) private horses, and thirty-six thousand (36,000) mules, making an aggregate in all of some seventy-two thousand (72,000) animals”¹⁶⁷

Ambulance –

- “An ambulance on the march usually occupies about forty feet...”¹⁶⁸

Barrel –

- “A box 24 by 16 inches deep will contain one barrel, or 10,752 cubic inches.”¹⁶⁹

¹⁶⁷ Rusling, Captain J. F. (1865). *A Word for the Quartermaster’s Department* appearing in the United States Service Magazine, Volume III. NY NY. Charles R. Richardson. p. 256

¹⁶⁸ Rusling, Captain J. F. (1865). *A Word for the Quartermaster’s Department* appearing in the United States Service Magazine, Volume III. NY NY. Charles R. Richardson. p. 256

¹⁶⁹ _____(1861 and 1980) *Revised Regulations for the Army of the United States*, United States War Department, Washington DC. Government Printing Office, and republished by the National Historical Society of Harrisburg PA. p.277.

- Flour barrel size (25½ inches high, 19½ inch bilge, 16½ inch head), made of well seasoned oak staves, should weigh 28 to 30 pounds, instead of 18 to 20 pounds as at present.”¹⁷⁰
- “The mean diameter of a barrel, cask &c. may be found by adding to the head diameter 2/3, or, if the staves be but little curving 6/10 of the difference between the head and bung diameters. Now if the square of the mean diameter expressed in inches be multiplied by .7854, the product will be the area of one end, and this area multiplied by the length in inches will give the cubic content in cubic inches.”¹⁷¹
- Using the data above:
 - $19.5 - 16.5 = 3$
 - $3 \times .6666 = 2$
 - $16.5 + 2 = 18.5$
 - $18.5^2 = 342.25$
 - $342.25 \times .7854 = 268.8$
 - $268.8 \times 25.5 = 6,854.5$ cubic inches
 - $6,854.5 / 2,150 = 3.2$ dry bushels
 - Traditionally, a barrel of flour contains 3 bushels, with a net weight of 196 pounds.
- For planning purposes, the Civil War barrel contained 6¼ cubic feet.
- The barrel just mentioned is not to be confused with the standard barrel (U.S. dry), which contains:
 - 7,056 cubic inches
 - 4.083 cubic feet
 - 3.281 bushels
 - 26.25 gallons
 - The Sixth Conference on Weights and Measures, held in Washington DC, 17-18 February 1911, recommended that: “...a barrel within the meaning of this act shall represent a quantity of 7,056 cubic inches, or a quantity equal to a barrel having the following dimensions: Head diameter 17-1/8 inches; length of stave, 26 ½ inches; circumferences of bilge not less than 64 inches outside measurement; distance between heads not less than 26 inches...”¹⁷² The diameter of a circle is equal to its circumference divided

¹⁷⁰ Martin, Brevet Major W. P. (1901) in How To Feed An Army. United States War Department, Washington DC. Government Printing Office, p. 96. (Digitized by Google Books: <http://books.google.com/bkshp?tab=wp>)

¹⁷¹ Adams, Daniel. (1850). Adam’s Mensuration, Mechanical Powers and Machinery. New York NY. Robert B. Collins, p. 87. (Digitized by Google Books: <http://books.google.com/bkshp?tab=wp>)

¹⁷² _____, Weights and Measures: Sixth Annual Conference. Government Printing Office, p. 134. (Digitized by Google Books: <http://books.google.com/bkshp?tab=wp>)

by Pi, so a barrel with a circumference of 64 inches has a bilge diameter (outside measurement) of 20.3718 inches

- $20.3718 - 17.125 = 3.2468$
- $3.2468 \times .6666 = 2.1465$
- $17.125 + 2.1465 = 19.2715$
- $19.2715^2 = 371.3907$
- $371.3907 \times .7854 = 291.6903$
- $291.6903 \times 26 = 7,583.9467$
- The difference between the result above and the desired result is obviously caused by the difference between the outside measurement and inside measurement of the diameter of the barrel. A close approximation of the desired result is obtained by assuming that the staves have a ½ inch thickness.

Box –

- **.58 Ball Ammunition** – Length, 14.75 inches; width, 10.75 inches; height 6.38 inches; gross weight 98 pounds; 1,012 cubic inches / 0.59 cubic feet; color, olive; boxes per wagonload, 20.
- **Bacon** – Length, 28 inches; width, 20 inches; depth, 20 inches; 11,200 cubic inches / 6.48 cubic feet; net weight, 225 pounds (300 individual rations).
- **Hard Bread (a.k.a Hardtack)** – Length, 26 inches; width, 17 inches, height 11 inches ; 4,862 cubic inches / 2.81 cubic feet; 50 rations per box; gross weight, approximately 65 pounds; 40 boxes per wagonload and 380 boxes per railcar.
- **Candles** – Length, 17 inches; width, 11 inches; height, 10½ inches; 1,963.5 cubic inches / 1.14 cubic feet; 3,200 individual rations per box; 60 boxes per wagonload and 500 boxes per railcar.
- **Pepper** – Length, 14 inches; width, 11 inches; height, 10 inches; 1540 cubic inches / 0.89 cubic feet; 10,000 individual rations per box; 80 boxes per wagonload and 800; boxes per railcar.
- **Soap** – boxes per wagonload, 36; boxes per railcar, 240.

Bushel – The Winchester bushel contained about 2,150 cubic inches. During the Civil War, the following estimates (pounds per bushel) were used:¹⁷³

- One bushel of **dried apples = 24 pounds.**
- One bushel of **barley = 48 pounds.**
- One bushel of **beans = 60 pounds.**
- One bushel of **beets = 60 pounds.**
- One bushel of **bran = 20 pounds.**

¹⁷³ Kautz, Brigadier General August V. (1865 & 2001) . The 1865 Customs of Service for Non-commissioned Officers and Soldiers. Reprinted in Mechanicsburg PA by Stackpole Books, p. 157.

- One bushel of **buckwheat = 52 pounds.**
- One bushel of **carrots = 60 pounds.**
- One bushel of **corn on the cob = 70 pounds.**
- One bushel of **corn meal = 50 pounds.**
- One bushel of **corn (shelled) = 56 pounds.**
- One bushel of **hominy = 45 pounds.**
- One bushel of **malt = 28 pounds.**
- One bushel of **oats = 32 pounds.**
- One bushel of **onions = 60 pounds.**
- One bushel of **dried peaches = 32 pounds.**
- One bushel of **peas = 50 pounds.**
- One bushel of **potatoes = 60 pounds.**
- One bushel of **rye = 56 pounds.**
- One bushel of **fine salt = 60 pounds.**
- One bushel of **turnips = 60 pounds.**
- One bushel of **wheat = 60 pounds.**

Intransit Visibility (ITV) –

“The system of designating the troops by corps badges was extended to the transportation, and every wagon was marked on the side of the canvas covering with the corps badge, perhaps eighteen inches in diameter, and of the appropriate color to designate the division to which it belonged. In addition to this, the number of its division, brigade, and the nature of its contents, whether rations, forage, clothing, or ammunition, - and, if the latter, whether artillery or musket, and the caliber, - were plainly stenciled in large letters on the cover.”¹⁷⁴

If the wagon carried ordnance supplies, General Orders Number 30, Headquarters, Army of the Potomac, Camp near Falmouth VA, March 25, 1863, stipulated that: “Ammunition wagons will be distinguished by a horizontal stripe, six inches wide, painted on each side of the cover; for artillery ammunition, red; for cavalry, yellow; for infantry, light blue. The wagons will also be distinctly marked with the number of the corps and division to which they belong, and the kind and caliber of ammunition contained.”

¹⁷⁴ Billings, John D. Hard Tack and Coffee: Soldier's Life in the Civil War, Old Saybrook CT, published @ 1887 and republished 2005. p 368.)

Corps Badges

RED = 1st Division WHITE = 2nd Division BLUE = 3rd Division GREEN = 4th Division



Source: <http://civilwarclipart.com/Clipartgallery/clipart4.htm>

(In Heavy Marching Order)
(Billings, Hartack and Coffee, p. 318)

Railcars –



“General J. C. Robinson” & other equipment from the
U. S. Military Rail Road at City Point VA

Source: <http://www.old-picture.com/civil-war/Locomotive-Steam.htm>

Box Car –

- “To supply an army of 100,000 men in the field, by means of a single line of track, the proportion of rolling stock should be one engine and 24 freight cars to every four miles of road, and this does not provide for the conveyance of troops.”¹⁷⁵
- “Dimensions (interior measurement): Length, 27 feet 5 inches; breadth, 7 feet 6 inches; height, 6 feet 3 inches; capacity, 20,000 pounds.”¹⁷⁶
- “The dimensions of an ordinary box car are as follows: Length 27 feet (inside measurement), width 7 11/12 feet (inside measurement), height 6 feet (inside measurement). This gives a space of 1,282½ cubic feet. The capacity of this car is from 18,000 to 20,000 pounds.”¹⁷⁷
- “The floor of the rail car, 45 inches above the track.”¹⁷⁸
- “When a box car is loaded with pork or salt beef, 60 barrels, placed on their ends or heads constitute a load; of flour, piled in tiers, 100 barrels; hard bread, 360 boxes. About 6,000 rations (complete) may be carried in a box car; salt meats to be stowed in the ends over the trucks, other stores in the center.”¹⁷⁹
- “Boxcars will hold comfortably eight to ten animals. Both doors should be open to admit air and the opening secured by planks or joists.”¹⁸⁰ The “animals” are beef-on-the-hoof.
- “General Pope calls for more than 25,000 forage rations, 20 carloads of grain per day...”¹⁸¹ *BG M. C. Meigs, Quartermaster General*
NOTE: 1,250 forage rations per boxcar.

¹⁷⁵ Tutherly, CPT. Herbert E. (1897) *Elementary Treatise on Military Science and the Art of War*. Burlington VT. The Free Press. p.85. Note: This source is not contemporary with the Civil War, but the data is internally consistent with Civil War rolling stock.

¹⁷⁶ Martin, Brevet Major W. P. (1901) in *How To Feed An Army*. United States War Department, Washington DC. Government Printing Office, p. 111. (Digitized by Google Books: <http://books.google.com/bkshp?tab=wp>)

¹⁷⁷ Hathaway, Brevet Lieutenant Colonel John L. (1901) in *How To Feed An Army*. United States War Department, Washington DC. Government Printing Office, p. 28. (Digitized by Google Books: <http://books.google.com/bkshp?tab=wp>)

¹⁷⁸ Martin, Brevet Major W. P. (1901) in *How To Feed An Army*. United States War Department, Washington DC. Government Printing Office, p. 92. (Digitized by Google Books: <http://books.google.com/bkshp?tab=wp>)

¹⁷⁹ Ibid. pps. 27-28. (Digitized by Google Books: <http://books.google.com/bkshp?tab=wp>)

¹⁸⁰ Martin, Brevet Major W. P. (1901) in *How To Feed An Army*. United States War Department, Washington DC. Government Printing Office, p. 92. (Digitized by Google Books: <http://books.google.com/bkshp?tab=wp>)

¹⁸¹ O. R., Series 1, Volume 12, (Part III), p. 596

Cattle Car – “Cattle cars will carry fourteen to eighteen animals.”¹⁸²

Flat Car –

- “Platform or open cars are usually 26 feet long and 8 feet wide, capacity from 14,000 to 18,000 pounds.”¹⁸³

Table # 9							
RR BOXCAR LOADED WITH SINGLE ARTICLE OF THE RATION							
FEET 3 INCHES; CAPACITY, 20,000 POUNDS							
Article	Number of Packages	Gross Weight Per Package	Net Weight Per Package	Rations Per Package	Total Pounds Net	Number of Rations	Gross Weight
Pork	60	340	200	266.67	12,000	16,000	20,400
Salt Beef	60	340	200	160.00	12,000	9,600	20,400
Bacon	60	350	200	266.67	12,000	16,000	21,000
Flour	100	217	196	142.55	19,600	14,255	21,700
Hard Bread	388	65	50	40.00	19,400	15,520	25,220
Beans	100	240	223	1,486.67	22,300	148,667	24,000
Rice	80	307	280	2,800.00	22,400	224,000	24,560
Hominy	100	221	200	2,000.00	20,000	200,000	22,100
Roasted and Ground Coffee	112	190	160	2,000.00	17,920	224,000	21,280
Tea	425	59	46	3,066.67	19,550	1,303,333	25,075
Brown Sugar	80	290	269	1,793.33	21,520	143,467	23,200
Vinegar (Kegs & Gallons)	100	212			2,200	220,000	21,200
Adamantine Candles	500	47.5	40	3,200.00	20,000	1,600,000	23,750
Soap	240	92	80	2,000.00	19,200	480,000	22,080
Salt	70	300	280	7,466.67	19,600	522,667	21,000
Pepper	800	32	25	10,000.00	20,000	8,000,000	25,600

Data by Bvt. MAJ. W. P. Martin, How To Feed An Army, p. 111. Spreadsheet by Rodney C. Lackey

TABLE # 8: “STOWED AS FOLLOWS

PORK AND BEEF – ON THE CHINES; 15 LONG, 4 WIDE, COVERING THE ENTIRE LENGTH OF THE FLOOR.

BACON – IN TIERS ACROSS THE CAR; 3 WIDE, 2 HIGH, 24 IN EACH END, 12 BETWEEN THE DOORS ON CHINES; TOTAL 60.

FLOUR – IN TIERS ACROSS THE CAR; 4 WIDE, 3 HIGH, 48 IN EACH END, 4 BETWEEN THE DOORS; TOTAL 100.

HARD BREAD – BOXES ON THE EDGE, END OF BOX TO END OF CAR; 8 ON THE FLOOR, 4 HIGH, 32 IN A TIER, 5 TIERS IN EACH END (320); IN SPACE BETWEEN THE DOORS, 5 ON EDGE, ENDS TOWARD DOOR, OR SIDE OF CAR, 4 HIGH IN 3 TIERS (60); LEAVING ROOM FOR 8 BOXES, 6 ON END, 3 WIDE, 2 HIGH, SIDE TOWARD DOOR, AND 2 ON EDGE SIDE TOWARD DOOR, BREAKING JOINTS; TOTAL 388 BOXES.

BEANS – SAME AS FLOUR, 100 BARRELS

¹⁸² Ibid. p. 92.

¹⁸³ Hathaway, Brevet Lieutenant Colonel John L. (1901) in *How To Feed An Army*. United States War Department, Washington DC. Government Printing Office, p. 28. (Digitized by Google Books: <http://books.google.com/bkshp?tab=wp>)

RICE – IN TIERS ACROSS CAR, ON BILGE; 4 WIDE, 2 HIGH, 4 TIERS IN EACH END, 16 BETWEEN DOORS ON CHINES; TOTAL 80 BARRELS.”

Ships –

“Two passengers to every five tons.”¹⁸⁴ This, according to Ambrose Snow, was the old United States law that applied to immigrant vessels. Snow demonstrated that 3-¾ soldiers to every five tons was used to plan Bank’s expedition to New Orleans. For a voyage not exceeding seven days and carrying one months’ supplies, the allowance should be 2¼ tons per man and 6¼ tons per horse (See footnote #184). Ample evidence exists that Assistant Secretary Tucker used a planning factor two soldiers per long ton¹⁸⁵.

“Propellers” – “...vessels of 900 to 1,100 tons, swift and staunch, burning twelve to sixteen tons of coal per day, with a speed of 8 to 10 knots.”¹⁸⁶

“The *Matanzas* is the first steamer, whose hull is entirely of iron, that has ever been constructed in the United States. Her frame is of angle iron, with reverse bars also of iron; her keel is of solid iron, 3 by 9 inches, as are her beams and deck knees. She is clipper built, 900 tons burden; her dimensions are – length 210 feet, keel 200 feet, 30 feet beam, depth 20½ feet. This beautiful propeller...”¹⁸⁷

“Side Wheelers” –

“Schooners” –

“Steam Tugs” –

“Barges” –

Wagon (Six-Mule) –

¹⁸⁴ Snow, Alfred in testimony before the Joint Committee on the Conduct of the War appearing in The Reports of the Committees of the Senate of the United States for the Third Session of the Thirty-Seventh Congress. (1863). Washington DC, Government Printing Office. p. 42. Note: Allowances vary. BG Henry G. Sharpe states in his book, (1909), The Provisioning of the Modern Army in the Field, Kansas City MO. Franklin Hudson Publishing Company that, for a voyage not exceeding seven days and carrying one months’ supplies, the allowance should be **2¼ per man and 6¼ tons per horse**. This planning factor is very close to the 2½ tons per man given above. If the voyage is longer than seven days, plan **2-¾ tons per man and 6¼ tons per horse**.

¹⁸⁵ Colonel Ingall’s prepared a schedule based upon Assistant Secretary Tuckers calculation [(1863). The Reports of the Committees of the Senate of the United States for the Third Session of the Thirty-Seventh Congress, p. 283) containing the following examples: “16 propellers...200 tons each...6,400 men” (Note: 6,400 men / 3,200 LTON = 2 men per LTON) and “12 propellers...300 tons each...7,200 men” (Note: 7,200 men / 3,600 LTON = 2 men per LTON). Further evidence in support of the two men per LTON of shipping is found in O.R. Volume 33, p. 915.

¹⁸⁶ 1865 Report of the Quartermaster General to the Secretary of War found on p.98 of the 1865 Report of the Secretary of War.

¹⁸⁷ _____. (1864). Eighty Years’ Progress of the United States... NY NY. New National Publishing House p. 241

Table # 10													
Army Wagon Loaded With One Article													
Article	One Package				Good Roads			Indifferent Roads			Bad Roads		
	Gross	Net	Tare	No. Rations	Packages	Gross Weight	Rations	Packages	Gross Weight	Rations	Packages	Gross Weight	Rations
Pork	340	200	140	266.67	10	3,400	2,667	8	2,720	2,133	5	1,700	1,333
Salt Beef	340	200	140	160.00	10	3,400	1,600	8	2,720	1,280	5	1,700	800
Bacon	350	290	60	386.67	8	2,800	3,093	7	2,450	2,707	5	1,750	1,933
Flour	217	196	21	142.55	12	2,604	1,711	12	2,604	1,711	8	1,736	1,140
Hard Bread	65	50	15	50.00	40	2,600	2,000	40	2,600	2,000	26	1,690	1,300
Beans	240	223	17	1,486.67	12	2,880	17,840	11	2,640	16,353	7	1,680	10,407
Rice	307	280	27	2,800.00	10	3,070	28,000	8	2,456	22,400	6	1,842	16,800
Hominy	221	200	21	2,000.00	12	2,652	24,000	12	2,652	24,000	8	1,768	16,000
Roasted and Ground Coffee	190	160	30	2,000.00	10	1,900	20,000	10	1,900	20,000	9	1,710	18,000
Sugar	290	269	21	1,793.33	12	3,480	21,520	9	2,610	16,140	6	1,740	10,760
Candles	47.5	40	7.5	3,200.00	60	2,850	192,000	60	2,850	192,000	37	1,758	118,400
Soap	92	80	12	2,000.00	36	3,312	72,000	30	2,760	60,000	20	1,840	40,000
Salt	300	280	20	7,466.67	10	3,000	74,667	9	2,700	67,200	6	1,800	44,800
Vinegar (Gal.)	212			2,200.00	12	2,544	26,400	12	2,544	26,400	8	1,696	17,600
Pepper	32	25	7	10,000.00	80	2,560	800,000	80	2,560	800,000	55	1,760	550,000

Data by Bvt. MAJ W. P. Martin in [How To Feed An Army](#), p. 114. Spreadsheet by Rodney C. Lackey

Wagon (Four-Mule)

Four-Mule Wagon near City Point VA

Source: <http://www.old-picture.com/civil-war/wagon-mule-army-team.htm>

- “I presume every one of mature years has an idea of what army wagons look like. They were heavy, lumbering affairs at best, built for hard service, all, apparently

after the same pattern, each one having its tool box in front, its feed trough behind, which, in camp, was placed lengthwise of the pole; its spare pole suspended at its side; its wooden bucket for water, and iron 'slush bucket' for grease, hanging from the hind axle; and its canvas cover, which when closely drawn in front and rear, as it always was on the march, made quite a satisfactory close carriage."¹⁸⁸

- "The common army wagon might possibly be made a little lighter, in some respects, without impairing its strength or decreasing its durability; and it would, perhaps, be somewhat benefited for most purposes by an efficient lock, within the immediate reach and control of the driver, instead of the primitive lock-chains now in use, that compel him to stop and dismount whenever his wheels require to be locked or unlocked. Yet, take it all in all, with its six mule team well in hand, driven with one line by a detailed Yankee or a live contraband, seated securely on the rear tongue-mule, and brandishing his blacksnake as the scepter of his power, it is by far the best and cheapest species of land locomotion that was ever put into the hands of a modern army."¹⁸⁹
- "The dimensions of an army wagon, as laid down in Subsistence Regulations, is as follows: Box 114 inches long inside measurement, 42 inches wide (inside measurement), 22 inches high. By actual measurement, however, of those in use at the 'Washington Monument Subsistence Depot,' the dimensions are as follows: Box 120 inches long (inside measurement), 43 inches wide (inside measurement), 22 inches high."¹⁹⁰
- "The six mule wagon weighs about 1,950 pounds and is of the following dimensions
 - Body, 3 ft. 6 in wide; 10 ft. long; 2 ft. high.
 - Cubic capacity of body about 72 cubic feet
 - Cover, 3 ft. 6 in wide; 10 ft. long; 3 ft. high.
 - Total cubic capacity about 176 feet.""Six mule wagon, in addition to its weight, 3,000 to 3,300 pounds."¹⁹¹
- "Capacity of an army wagon 60 1656/1728 cubic feet or 9 barrels 4 feet 1,224 inches estimating 6¼ cubic feet per barrel."¹⁹²

¹⁸⁸ Billings, John D. Hard Tack and Coffee: Soldier's Life in the Civil War, Old Saybrook CT, published @ 1887 and republished 2005. p 352.

¹⁸⁹ Rusling, Captain J. F. (1865). A Word for the Quartermaster's Department appearing in the United States Service Magazine, Volume III. NY NY. Charles R. Richardson. p. 257-258

¹⁹⁰ Hathaway, Brevet Lieutenant Colonel John L. (1901) in How To Feed An Army. United States War Department, Washington DC. Government Printing Office, p. 28. (Digitized by Google Books: <http://books.google.com/bkshp?tab=wp>)

¹⁹¹ _____.(1898). Subsistence Manual, 1896: Manual for the Subsistence Department, (War Department Document 21), , Government Printing Office, p.43] (Digitized by Google Books: <http://books.google.com/bkshp?tab=wp>)

¹⁹² King, Captain John N. (1901) in How To Feed An Army. United States War Department, Washington DC. Government Printing Office, p. 71. (Digitized by Google Books: <http://books.google.com/bkshp?tab=wp>)

- “One good six–mule team, in the best season of the year, is sufficient to haul this load (i.e., 3,730 pounds) and its own forage of 270 lbs., or a total of 4,000 pounds.” (Holabird – Army Wagon Transportation)¹⁹³ [Footnote by CPT. H. G. Sharpe appearing in Espanet, O. (1899). Notes on the Supply of An Army During Active Operations. Kansas City MO. Hudon-Kimberly Publishing Company p. 213.]
- “An army wagon will carry conveniently, with what forage is usually added, about 2,500 pounds, making with the forage 3,000 pounds, which is about the greatest capacity over moderately good roads; even this amount will be found very great if the march is continued long each day or requires to be at all rapid. This 2,500 pounds will be equal to about 700 complete or 800 marching rations of pork, hard bread, and coffee and sugar.”¹⁹⁴
- “...I have found that an army wagon will haul from 700 to 800 complete rations, if well packed, and 1,200 of the ordinary marching ration.”¹⁹⁵
- “In transporting stores by wagon they are loaded as follows: Pork or salt beef, by rolling the barrels into the wagon on their sides on skids, if at hand; if not, then by rails or plank, whichever one can be most readily obtained. They are then placed on their ends. On very good roads 10 barrels may be carried, but on marches over ordinary country roads 8 barrels constitute a load.”¹⁹⁶
- “A wagon drawn by six mules over good roads can haul 1,200 short rations of provisions (bread, sugar, coffee, salt, and soap) and six days’ rations of grain for the mules. Over hilly or muddy roads the weight would be correspondingly reduced. It can thus be easily seen how far from our depots an army can be supplied by wagons. When the supplies in trains become exhausted, an army must

¹⁹³ Footnote by CPT. H. G. Sharpe appearing in Espanet, O. (1899). Notes on the Supply of An Army During Active Operations. Kansas City MO. Hudon-Kimberly Publishing Company p. 213.

¹⁹⁴ CPT. N. J. Sapington in How to Feed an Army: Published By Authority of the Secretary of War for use in the Army of the United States, Washington, 1901, Government Printing Office, p.60. (Digitized by Google Books: <http://books.google.com/bkshp?tab=wp>)

¹⁹⁵ Carpenter, Lieutenant Colonel C. C. (1901) in How To Feed An Army. United States War Department, Washington DC. Government Printing Office, p. 79. (Digitized by Google Books: <http://books.google.com/bkshp?tab=wp>)

¹⁹⁶ Hathaway, Brevet Lieutenant Colonel John L. (1901) in How To Feed An Army. United States War Department, Washington DC. Government Printing Office, p. 21. (Digitized by Google Books: <http://books.google.com/bkshp?tab=wp>)

be at or near another source of supply, as a matter of course.” *BG Rufus Ingalls, Chief Quartermaster, Army of the Potomac*¹⁹⁷

- “One wagon will carry 1,200 rations hard bread; 2,000 rations coffee (1 barrel); 1,800 rations sugar (1 barrel); 300 rations (two-eights pound) pork (1 barrel, 1 box, 25 pounds); 1,200 rations salt (1 box, 45 pounds); 36 rations (9 pounds to ration) oats (3 sacks); gross weight, 2,674 pounds.” *BG Rufus Ingalls, Quartermaster, Army of the Potomac*¹⁹⁸
- “A six-mule wagon will carry 1,400 rations of provisions, bread, coffee, sugar, salt and soap, and eight days’ of rations of short forage for the six mules, or 25 boxes of small-arms ammunition.” *BG Rufus Ingalls, Quartermaster, Army of the Potomac*¹⁹⁹
- “A government wagon, drawn by four horses, over good roads, ought to carry 2,800 pounds avoirdupois, and make an average distance of two and a half miles per hour.”²⁰⁰
- A six-mule team was more common than the four-mule hitch pictured above. It was hitched in three spans. The largest mules, the wheel pair, were hitched closest to the wagon. The swing pair was in the middle. The leaders, probably the smallest and supposedly the smartest, were in front. Wagons were driven by a muleskinner who rode the left-hand mule (i.e., facing forward) nearest to the wagon. This position was occupied by the near-side wheel mule, also called the near-pole mule. The left file of mules; that is, the file closest to the reader in the illustration, was the near-side and the right file was the off-side. The near-side leader was connected to the off-side leader by an iron pole. The mules were steered by a single rein running back from the near-side lead mule. The team turned to the left when the driver yelled “Haw” and pulled steadily on the rein. A shout of “Gee”, accompanied by quick jerks on the rein, caused the team to turn to the right. Shouting “Yay” sent the team straight ahead.
- “[A] wagon drawn by four horses occupies ten yards.”²⁰¹
- **Convoy calculations –**

¹⁹⁷ O.R., Series 1, Volume 19 (Part 1), p.96 (Digitized by Making of America <http://cdl.library.cornell.edu/moa/>)

¹⁹⁸ O.R., Series 1, Volume 29 (Part 2), p.472 (Digitized by Making of America <http://cdl.library.cornell.edu/moa/>)

¹⁹⁹ O.R., Series 1, Volume 25, (Part 2), p 545. (Digitized by Making of America <http://cdl.library.cornell.edu/moa/>)

²⁰⁰ Dodge, N. S. (1863). Hints on Army Transportation. Albany NY, Charles Van Benthuysen, Printer, p.7.

²⁰¹ Scott, Colonel H. L. (1861) Military Dictionary. NY NY, Van Nostrand. Pp 180-181. (Digitized by Google Books: <http://books.google.com/bkshp?tab=wp>)

- **LTC C. W. Tolle’s Commentary** – “The transportation of supplies is limited by the ability of the Government to provide trains, and by the ability of the army to protect them; for large trains create large drafts on the troops for teamsters, pioneers, guards, etc. An army train, upon the most limited allowance compatible with freedom of operations for a few days, away from the depots, is an immense affair. Under the existing allowance in the Army of the Potomac, a corps of thirty thousand infantry has about seven hundred wagons, drawn by four thousand two hundred mules; the horses of the officers and of the artillery will bring the total of animals to be provided for up to about seven thousand. On the march it is calculated that each wagon will occupy eighty feet – in bad roads even more; consequently a train of seven hundred wagons will cover fifty-six hundred feet of road – or over ten miles; the ambulances of a corps will occupy about a mile, and the batteries about three miles; thirty thousand troops need six miles to march in, if they form but one column; the total length of the marching column of a corps is therefore *twenty miles*, even without including the cattle herds and trains of bridge material.”²⁰²

Number of Wagons & Column Length (Tolle's Calculations)											
Number of Wagons	Column Length in Feet			Number of Wagons	Column Length in Feet			Number of Wagons	Column Length in Feet		
	Feet	Yards	Miles		Feet	Yards	Miles		Feet	Yards	Miles
1	80	27	0.02	200	16,000	5,333	3.03	2,100	168,000	56,000	31.82
2	160	53	0.03	300	24,000	8,000	4.55	2,200	176,000	58,667	33.33
3	240	80	0.05	400	32,000	10,667	6.06	2,300	184,000	61,333	34.85
4	320	107	0.06	500	40,000	13,333	7.58	2,400	192,000	64,000	36.36
5	400	133	0.08	600	48,000	16,000	9.09	2,500	200,000	66,667	37.88
6	480	160	0.09	700	56,000	18,667	10.61	2,600	208,000	69,333	39.39
7	560	187	0.11	800	64,000	21,333	12.12	2,700	216,000	72,000	40.91
8	640	213	0.12	900	72,000	24,000	13.64	2,800	224,000	74,667	42.42
9	720	240	0.14	1,000	80,000	26,667	15.15	2,900	232,000	77,333	43.94
10	800	267	0.15	1,100	88,000	29,333	16.67	3,000	240,000	80,000	45.45
20	1,600	533	0.30	1,200	96,000	32,000	18.18	3,100	248,000	82,667	46.97
30	2,400	800	0.45	1,300	104,000	34,667	19.70	3,200	256,000	85,333	48.48
40	3,200	1,067	0.61	1,400	112,000	37,333	21.21	3,300	264,000	88,000	50.00
50	4,000	1,333	0.76	1,500	120,000	40,000	22.73	3,400	272,000	90,667	51.52
60	4,800	1,600	0.91	1,600	128,000	42,667	24.24	3,500	280,000	93,333	53.03
70	5,600	1,867	1.06	1,700	136,000	45,333	25.76	3,600	288,000	96,000	54.55
80	6,400	2,133	1.21	1,800	144,000	48,000	27.27	3,700	296,000	98,667	56.06
90	7,200	2,400	1.36	1,900	152,000	50,667	28.79	3,800	304,000	101,333	57.58

- “A wagon with four horses occupies 50 feet.”²⁰³ This works out to approximately the same seventeen yards mentioned in the next section for a six-mule hitch.

²⁰² Tolles, LTC C. W. (1864) An Army: Its Organization and Movements, Second Paper, Continental Monthly, Volume 6, Issue 1, July, p. 3.

²⁰³ “Carlton” (pseud.) (1864) Days and Nights on the Battle-Field, Boston, Ticnor and Fields, p.27.

- “On good roads where trains are kept well closed up, it is calculated that each six-mule team will occupy about sixty (60) lineal feet; this would give about ninety (90) teams to the mile, a large average on most marches...”²⁰⁴
- **Calculating Column Length & March Space (Craighill’s Planning Factors)**: “A team of 100 to 500 carriages should be divided into several parts, divisions of 100 carriages being separated by thirty or forty yards, and formed into sections of twenty-five or thirty carriages with intervals of twelve to twenty yards. A six-horse team will occupy about seventeen yards, allowing four to a horse, four to the carriage, and one for the interval between consecutive vehicles.”²⁰⁵

Step 1: Calculate Wagon Density: $\text{Wagon Density} = (1,760 \text{ Yards}) / (\text{Gap Between Wagons in Yards} + \text{Average Length of Wagon in Yards})$

Step 2: Calculate Total Gap Length:

- $\text{March Unit Gap Length} = (\text{Number of March Units} - 1) \times (\text{March Unit Gap in Yards})$
- $\text{Serial Gap Length} = (\text{Number of Serials} - 1) \times (\text{Serial Gap Length in Yards} - \text{March Unit Gap in Yards})$
- $\text{Total Gap Length in Yards} = \text{March Unit Gap Length} + \text{Serial Gap Length}$
- $\text{Total Gap Length in Miles} = \text{Total Gap Length in Yards} / 1,760$

Step 3: Calculate Road Space: $\text{Road Space in Miles} = (\text{Total Number of Wagons} / \text{Wagon Density}) + (\text{Total Gap Length in Miles})$

Step 4: Calculate Pass Time: $\text{Pass Time} = \text{Road Space} / \text{MPH}$

²⁰⁴ Rusling, Captain J. F. (1865). A Word for the Quartermaster’s Department appearing in the United States Service Magazine, Volume III. NY NY. Charles R. Richardson. p. 256

²⁰⁵ Craighill, William P. The 1862 Army Officer’s Pocket Companion: A Manual for Staff Officers in the Field, reprinted by Stackpole Books, 2002, pp. 208-209.

Number of Wagons & Column Length (Craighill's Worst Possible Case)											
Number of Wagons	Column Length in Feet	Column Length in Yards	Column Length in Miles	Number of Wagons	Column Length in Feet	Column Length in Yards	Column Length in Miles	Number of Wagons	Column Length in Feet	Column Length in Yards	Column Length in Miles
1	48	16	0.01	200	10,680	3,560	2.02	2,100	112,140	37,380	21.24
2	99	33	0.02	300	16,080	5,360	3.05	2,200	117,540	39,180	22.26
3	150	50	0.03	400	21,480	7,160	4.07	2,300	122,940	40,980	23.28
4	201	67	0.04	500	26,880	8,960	5.09	2,400	128,340	42,780	24.31
5	252	84	0.05	600	32,280	10,760	6.11	2,500	133,740	44,580	25.33
6	303	101	0.06	700	37,680	12,560	7.14	2,600	139,140	46,380	26.35
7	354	118	0.07	800	43,080	14,360	8.16	2,700	144,540	48,180	27.38
8	405	135	0.08	900	48,480	16,160	9.18	2,800	149,940	49,980	28.40
9	456	152	0.09	1,000	53,880	17,960	10.20	2,900	155,340	51,780	29.42
10	507	169	0.10	1,100	59,280	19,760	11.23	3,000	160,740	53,580	30.44
20	1,071	357	0.20	1,200	64,680	21,560	12.25	3,100	166,140	55,380	31.47
30	1,578	526	0.30	1,300	70,080	23,360	13.27	3,200	171,540	57,180	32.49
40	2,085	695	0.39	1,400	75,480	25,160	14.30	3,300	176,940	58,980	33.51
50	2,592	864	0.49	1,500	80,880	26,960	15.32	3,400	182,340	60,780	34.53
60	3,156	1,052	0.60	1,600	86,280	28,760	16.34	3,500	187,740	62,580	35.56
70	3,663	1,221	0.69	1,700	91,680	30,560	17.36	3,600	193,140	64,380	36.58
80	4,227	1,409	0.80	1,800	97,080	32,360	18.39	3,700	198,540	66,180	37.60
90	4,734	1,578	0.90	1,900	102,480	34,160	19.41	3,800	203,940	67,980	38.63
100	5,241	1,747	0.99	2,000	107,880	35,960	20.43	3,900	209,340	69,780	39.65

Annex C

General Orders & Army Regulations

The Civil War Army Ration

The Army Ration

General Orders Number 54²⁰⁶

General Orders
No. 54

War Department, Adjutant General's Office
Washington, August 10, 1861.

* * * * *

SEC. 13. *And be it further enacted*, That the army ration shall be increased as follows, VIZ: Twenty-two ounces of bread or flour, or one pound of hard bread, instead of the present issue: fresh beef shall be issued as often as the commanding officer of any detachment or regiment shall require it, when practicable, in place of salt meat; beans and rice or hominy shall be issued in the same ration in the proportions now provided by the regulation, and one pound of potatoes per man shall be issued at least three times a week, if practicable; and when these articles cannot be issued in these proportions, an equivalent in value shall be issued in some other proper food, and a ration of tea may be substituted for a ration of coffee upon the requisition of the proper officer: *Provided*, That after the present insurrection shall cease, the ration shall be as provided by law and regulations on the first day of July, eighteen hundred and sixty one.

²⁰⁶ O.R. Series III, Volume 1, p. 399. (Digitized by Making of America: http://cdl.library.cornell.edu/moa/moa_browse.html).

*Movement Control – The Peninsula Campaign*²⁰⁷

Lessons Learned (General Orders No. 127):

- **Convoy Protection:** Two companies (200 men) per brigade as guards.
- **Movement Control:** Trains marching toward the enemy have the right of way. Trains that miss their departure time give way to all others.

“General Orders,
No. 127” }

HQDRS ARMY OF THE POTOMAC
Camp near Cold Harbor, Va., May 23, 1862

Each brigade commander will detail daily two companies, under a field officer, to march in rear of the brigade train as a guard. The field officer will be responsible that the brigade train keeps closed.

If trains meet on the roads, those advancing toward the enemy will pass first, and those going to the rear will halt, if there is not room to pass while in motion. Trains which do not leave their camps at the hours designated in orders from headquarters will give way to others that come in contact with them on the line of march.

A surgeon or assistant surgeon will march with the rear guard of each brigade, whose duty it will be to examine every man who leaves the ranks and remains behind. If he is unable to march he will be placed in an ambulance; otherwise the rear guard will take him prisoner and force him to go forward.

By command of Major-General McClellan:

S. WILLIAMS
Assistant Adjutant-General”

*The Peninsula Campaign*²⁰⁸

Lessons Learned (General Orders No. 134):

- **Speed limits enforced during the Peninsula Campaign!**

“General Orders,
No. 134” }

HQDRS ARMY OF THE POTOMAC
Camp Lincoln, Va., June 12, 1862

I. All fast riding or driving of public horses and mules is positively prohibited, unless in cases of necessity. Trains will not move faster than a walk, except under written orders to the officer or wagon-master in charge. Officers sending mounted messengers with dispatches which

²⁰⁷ O.R., Series 1, Volume 11, (Part 3), pp. 188-189. (Digitized by Making of America
<http://cdl.library.cornell.edu/moa/>)

²⁰⁸ O.R., Series 1, Volume 11, (Part 3), p. 227. (Digitized by Making of America
<http://cdl.library.cornell.edu/moa/>)

are to be carried at a faster pace than a walk, will indicate upon the envelope the gait the messenger is to take, whether a trot or a gallop. The same directions may be indicated by the seals on the envelope – one seal for the walk, two for the trot, and three for the gallop. Officers will be held accountable for the instructions they give to mounted orderlies or trains with regard to their gait.

All provost-marshals and provost guards are specially charged with the enforcement of this order.

II. The present camp of these headquarters will be known as Camp Lincoln.

By command of Major-General McClellan:

S. WILLIAMS
Assistant Adjutant General

*Change of Base*²⁰⁹

Lessons Learned (The Three Circulars):

- **The three circulars that follow emphasize the importance of entrenching tools (no mention is made of the equally important picks and axes that could have been used to widen roads) and specify marching rations.**
- **The third circular (“It is a matter of vital importance) is “McClellan’s Baggage Destroying Order”**

CIRCULAR]

HEADQUARTERS ARMY OF THE POTOMAC,
June 28, 1862

The commanding general directs that you immediately cause your command to be provided with three days’ rations in haversacks; ammunition sufficient to fill the boxes of the infantry and artillery; that the wagons that can be spared for the purpose be at once sent to the depots at Orchard Station and Savage Station for supplies of hard bread, sugar and coffee, and forage. These wagons, after being so loaded, will at once be sent through the White Oak Swamp via Savage Station, where they will await further orders.

The usual reserve ammunition must be taken. Please acknowledge.

By command of Major-General McClellan:

S. WILLIAMS
Assistant Adjutant-General

CIRCULAR]

HEADQUARTERS ARMY OF THE POTOMAC,
June 28, 1862

Care will be taken by commanders to send forward with their wagons all the entrenching tools in the possession of their commands.

By command of Major-General McClellan:

S. WILLIAMS
Assistant Adjutant-General

CIRCULAR]

HEADQUARTERS, ARMY OF THE POTOMAC

²⁰⁹ O.R., Series 1, Volume 11, (Part III), pp. 272-273. (Digitized by Making of America
<http://cdl.library.cornell.edu/moa/>)

June 28, 1862

It is a matter of vital importance that all transportation of the army should in the movement now taking place be employed exclusively for the carrying of ammunition and subsistence. All tents and all articles not indispensable to the safety or maintenance of the troops must be abandoned and destroyed. A reasonable supply of hospital stores will be taken and all entrenching tools in the possession of the troops. All unnecessary officers' baggage will be left behind; the sick and the wounded that are not able to walk must necessarily be left. Every provision for their comfort must be made. Subsistence must be left and medical stores for their use in liberal quantities. Medical officers will be left in charge of the sick and wounded, and a sufficient number of attendants to supply the requisite care. They should be furnished with papers stating their character. It is enjoined upon commanders to lose no time in loading their wagons as required.

The commanding general relies upon the cheerfulness and patience with which the sacrifice demanded of officers and men for the short season only, it is hoped, will be borne.

By command of Major-General McClellan:

[S. WILLIAMS]

Assistant Adjutant-General

*Health of the Army of the Potomac at Harrison's Landing, August 2, 1862*²¹⁰

Lessons Learned (General Orders No. 150):

- **“Having lost fully one-third of its numbers during the campaign, decimated by disease...”²¹¹**
- **The importance of anti-scorbutics (including onions!).**
- **Floating Ovens!**
- **The importance of coffee and a whiskey, really grog, ration.**
- **Cooking from scratch is work. It takes time that is not available, because armies must march and fight. The amount of time required to prepare food does not consider the amount of time required to slaughter animals.**
- **The transportation and distribution problem is summarized as follows: meats packaged in barrels reduce preparation time but, at over 300 pounds per barrel, are heavy and take up space in the wagon-bed. Beef-on-the-hoof has to be fed on the move and takes more time to slaughter and prepare. It doesn't require wagon capacity.**

General Orders
No. 150 }
}

Hdqrs. Army of the Potomac
Camp near Harrison's Landing VA, August 2, '62.

The suggestions and recommendations contained in the following letter from the medical director of the army and the directions for cooking appended thereto are published for the

²¹⁰ O.R., Series 1, Volume 11, (Part III), pp. 349-350. (Digitized by Making of America <http://cdl.library.cornell.edu/moa/>)

²¹¹ The Prince de Joinville. (1862). The Army of the Potomac: Its Organization Its Commanders and Its Campaigns. NY NY. Anson D.F. Randolph (Digitized by Google)

information and guidance of all concerned, and it is enjoined upon corps and other commanders to see that they are carried out.

By command of Major-General McClellan:

S. WILLIAMS

Assistant Adjutant-General

[Extracts]

HEADQUARTERS ARMY OF THE POTOMAC

MEDICAL DIRECTOR'S OFFICE

Camp Near Harrison's Landing, Va., July 18, 1862.

GENERAL: I have the honor to submit the following extract from a report of the sick and wounded in this army, taken from the latest reports made to this office by the medical directors of corps, and to present to you certain suggestions for removing the causes of disease and improving the general condition of the men:

* * * * *

The diseases prevailing in our army are generally of a mild type and are not increasing; their chief causes are, in my opinion, the want of proper food (and that improperly prepared), exposure to the malaria of swamps and the inclemencies of the weather, excessive fatigue and want of natural rest, combined with great excitement of several days' duration and the exhaustion consequent thereon. I would recommend, to remedy these evils, that food, with an abundance of fresh vegetables, shelter, rest, with a moderate amount of exercise, be given all the troops, and general and personal police be enforced. To accomplish this, I would suggest that an abundant supply of fresh onions and potatoes be used by the troops daily for a fortnight and thereafter at least twice a week, cost what they may; that the desiccated vegetables, dried apples or peaches, and pickles be used thrice a week; that a supply of fresh bread, by floating ovens or other methods, be distributed at least three times a week; that the food be prepared by companies and not by squads, and that there be two men detailed as permanent cooks, to be governed in making the soups and cooking by the enclosed directions; that wells be dug as deep as the water will permit. That the troops be provided with tents, or other shelter, to protect them from the sun and rain and struck once a week and placed upon new grounds; the *tentes d'arbi* also to be placed over new ground once a week; that the men be required to cut pine tops, spread them thickly in their tents, and not sleep on the ground; that camps be formed not in the woods, but a short distance from them, where a free circulation of pure air can be procured, and where the ground has been exposed to the sun and air to such an extent as to vitiate the noxious exhalations from damp ground, saturated with the emanations from the human body and decaying vegetation. Sleep during the day will not compensate for the loss of it at night; that not more than two drills per day be had, one in the morning from 6.15 to 7, and one in the evening from 6.30 to 7.15; that the men be allowed to sleep until sunrise, and that they have their breakfast as soon as they rise; this, with the labor required for policing, will be sufficient during the present season. That when troops are to march they should have breakfast, if only a cup of coffee, before starting, and after their arrival in camp each man be given a gill of whiskey in a canteen three-fourths filled with water. I would also recommend that the strictest attention be paid to policing, general and special; that all the troops be compelled to bathe once a week – a regiment at a time, if possible, being marched to the river from a brigade one hour after sunrise or an hour and a half before sunset – to remain in the water fifteen minutes; that sinks be dug and used, 6 inches of earth being thrown into them daily, and when filled to within 2 feet of the surface new sinks be dug and the old ones filled up; that holes be dug at each company kitchen for the refuse

matter and filled in like manner; that the entire grounds of each regiment be thoroughly policed every day, and the refuse matter, including that from stables and wagon yards, buried two feet below the surface or burned; that dead animals and the blood and offal from slaughtered animals be not merely covered with a layer of earth, but buried at least 4 feet in the ground; that the spaces between regiments be kept policed, and no nuisance whatever be allowed anywhere within the limits of this army, and that regimental commanders be held strictly accountable that this most important matter is attended to. I think if these suggestions be carried into effect that we may with reason expect the health of this army to be in as good as state as that of any army in the field.

* * * * *

Very respectfully, your obedient servant,

JOHNATHAN LETTERMAN,

Surgeon and Medical Director, Army of the Potomac

Brig.Gen. S. Williams

Assistant Adjutant General

Directions for cooking in camp

The importance of soup as a diet for troops is not sufficiently appreciated except by veteran soldiers, those of experience in the field. It cannot be too highly esteemed, and should be used to a much greater extent than it is. Bean soup, when properly made, is one of the best that can be used; when improperly made, one of the worst. The beans must be washed, steeped in water overnight, put on the fire at reveille, and boiled slowly for six hours; a piece of pork, say one ration for three men, put in three hours before dinner; this eaten with a little pepper and vinegar, makes a wholesome and palatable dish. The cooking is everything; if not done well, it is positively injurious; if well done, it is wholesome. The great principal in making soup is that it must be boiled slowly and for a long time; it cannot be boiled too much. In making beef soup all the bones should be used, together with half rations of beef, rice, and desiccated and fresh vegetables, with salt and pepper; the desiccated vegetables should be steeped in water for two or three hours, and boiled with the soup for three hours; the rice should be added, after having been washed half an hour before the soup is served; the soup must first be put in cold water, and the soup kept at a low boil for five hours. Beef should not in any case be used for cooking until cold. Hard bread will be more palatable and more easy of digestion if placed in the ashes until thoroughly heated; it also can be improved by breaking it in pieces an inch or two square and soaking it thoroughly in warm water, then placing it in a frying pan with a few slices of pork, and cooked for five minutes, stirring it, that all may be cooked alike. Such portions of beef as are not used in making soup should be cut in pieces about the size of a hen's egg, with a half ration of potatoes and a small-sized onion cut in slices to one man, and a half ration of desiccated vegetables previously soaked in cold water for an hour, with a few small pieces of pork, adding salt and pepper, with water sufficient to cover well the ingredients, and stewed slowly for three hours, will make an excellent dish. Beef that is not used thus should be cooked on coals or held before them on stick or fork, and no salt or pepper put on until cooked; the salt put on before cooking only assists in abstracting the juices of the meat and in making it dry and hard when cooked. The secret in using the desiccated vegetables is in having them thoroughly cooked. The

want of this has given rise to a prejudice against them which is unfounded; it is the fault of the cooking, and not of the vegetables. Pork should be boiled three hours, having been previously soaked in water, to abstract the salt, for three hours, the water being changed twice in that time; when cold and cut in slices, with a piece of bread and a slice of onion, it makes an excellent lunch; cut in slices and toasted over coals it is sweet and good. Coffee should be roasted over a slow fire, constantly stirring it until it becomes of a chestnut-brown color, and not burnt as is so commonly done. It should be boiled for twenty minutes, set one side, sweetened, well stirred, and a little cold water added to cause the grounds to settle. Cabbage is more wholesome when cut in shreds and eaten with a little vinegar, pepper, and salt, than when cooked. All fried meats are unwholesome; they should be boiled or broiled.

JONATHAN LETTERMAN

Surgeon and Medical Director, Army of the Potomac

*Ordnance Regulations*²¹²

Lessons Learned (General Orders No. 152):

- **In-Transit Visibility: Ordnance depots were marked with flags. Ammunition wagons were painted with a six-inch horizontal stripes (red for artillery, yellow for cavalry, and light blue for infantry) and with the numerals of the corps and division to which they belong and the kind and caliber of ammunition that they carry.**
- **250 rounds per gun, including that in the ammunition chests, for artillery**
- **150 rounds per man, including that in the cartridge boxes, for cavalry and infantry.**

General Orders
No. 152 }
}

Hdqrs. Army of the Potomac
Camp near Harrison's Landing VA, August 9, 1862.

On and after the 14th instant all requisitions for ordnance and ordnance stores, after being signed by the colonel of the regiment for cavalry and infantry, and by the captain of the battery and chief of artillery of this army for artillery, will be presented to the acting ordnance officer of the division, and in the Artillery Reserve to the acting ordnance officer of that command. The division ordnance officer will make consolidated requisitions for all stores required for their divisions.

After being signed by the general commanding the division their requisitions will be presented by the division ordnance officer at the ordnance depot, and, after being approved by the chief of ordnance, will be immediately issued upon.

Requisitions upon the ordnance department are not required to be made in duplicate.

Division ordnance officers will be held responsible that the following supply of ammunition for their divisions will be kept constantly on hand, viz. 250 rounds per gun,

²¹² O.R., Series 1, Volume 11, (Part III), pp. 361-362 (Digitized by Making of America
<http://cdl.library.cornell.edu/moa/>)

including that in the ammunition chests, for artillery; 150 rounds per man, including that in the cartridge boxes, for cavalry and infantry.

In moving, the wagons containing the reserve ammunition will be under the control of the division ordnance officers. Ammunition wagons will be distinguished by a horizontal stripe, 6 inches wide, painted on each side of the cover – for artillery ammunition, red; for cavalry, yellow; for infantry, light blue. The wagons will also be distinctly marked with the number of the number of the corps and division to which they belong and the kind and caliber of ammunition contained. The main depot will be designated by a crimson flag, marked ‘Ordnance Depot, U.S.A.’

Upon the march, or when the brigades are widely separated from each other, the wagons containing the reserve ammunition for each brigade may, at the discretion of the division commander, be turned over to the brigade quartermaster, who will draw his supplies from the division ordnance officer.

Division ordnance officers will select from the non-commissioned officers and privates of the division a competent clerk, and from those of each brigade a mechanic capable of repairing small arms, who will be provided with a complete set of armorer’s tools. If skilled in their employment, each will be paid 40 cents per day by the ordnance department. A sergeant will be detailed from each division as an acting ordnance sergeant.

Division ordnance officers will be relieved from all duty with their regiments and will report for duty at division headquarters.

In condemning ordnance and ordnance stores officers will be governed by paragraphs 1021, 1022. and 1023, Army Regulations.

Unserviceable stores will not pass through division ordnance officers, but be turned into the depot ordnance officer, accompanied by duplicate invoices and receipts, stating the exact condition of the stores.

Upon the receipt of this order acting ordnance officers will report for further instruction to First Lieut. Horace Porter, chief of ordnance, at the ordnance wharf.

By command of Major-General McClellan:

S. WILLIAMS
Acting Adjutant-General

*Apportionment of Wagons at Harrison’s Landing, August 10, 1862,
The 1862 Peninsula Campaign²¹³*

General Orders }
No. 153

Hdqrs. Army of the Potomac
Camp near Harrison’s Landing VA, August 10, 1862.

I. The following allowance for wagons is authorized:

For the headquarters of an army corps, four.

For the headquarters of a division or brigade, three.

For a battery of light artillery or squadron of cavalry, three.

For a full regiment of infantry, six.

²¹³ O.R., Series 1, Volume 11, (Part III), pp. 365-366. (Digitized by Making of America
<http://cdl.library.cornell.edu/moa/>)

This allowance will in no case be exceeded, but will be reduced to correspond as nearly as practicable with the number of officers and men actually present. All means of transportation in excess of the prescribed standard will be immediately turned in to the depot, with the exception of the authorized supply trains, which will be under the direction of the chief quartermasters of corps. The chief quartermaster of this army will direct the organization of the supply trains.

II. The army must be prepared to bivouac when on marches away from the depots. The allowance of tents will therefore be immediately reduced to the following standard, and no other accommodations must be expected until a permanent depot is established:

For the headquarters of an army corps, division, or brigade, one wall-tent for the general commanding and one to every two officers of his staff.

To each regiment, for the colonel, field, and staff officers, three wall-tents.

For all other non-commissioned officers, one shelter-tent each.

For every two non-commissioned officers, soldiers, officers' servants, and camp followers, as far as they can be supplied, one shelter-tent.

One hospital tent will be allowed for office purposes at corps headquarters, and one wall tent at division and brigade headquarters.

All tents in excess of this allowance will be immediately turned in to the depots.

Tents of other patterns required to be exchanged for shelter-tents will be turned in as soon as the latter can be obtained from the Quartermaster's Department. Under no circumstances will they be allowed to be carried when the army moves.

III. The allowance of officers' baggage will be limited to blankets, a small valise or carpet bag, and a reasonable mess kit. All officers will at once reduce their baggage to this standard. The men will carry no baggage except blankets and shelter-tents. The chief quartermaster will provide storage on the transports for the knapsacks of the men and for the officers' surplus baggage.

IV. Hospital tents must not be diverted from their legitimate use, except for officers, as authorized in paragraph II.

V. The wagons allowed to a regiment or battery must carry nothing but forage for the teams, cooking utensils for the men, hospital stores, small rations, and officers' baggage. One of the wagons allowed for a regiment will be used exclusively for hospital stores, under the direction of the regimental surgeon. The wagon for regimental headquarters will carry grain for the officers' horses. At least one and a half of the wagons allowed to a battery or squadron will carry grain.

VI. Hospital stores, ammunition, quartermaster's stores, and subsistence stores in bulk will be transported in special trains.

VII. Commanding officers will be held responsible that the reduction above ordered, especially of officers' baggage is carried into effect at once, and corps commanders are especially charged to see that this responsibility is enforced.

VIII. On all marches quartermaster's will accompany and conduct their trains, under the orders of their commanding officers, so as never to obstruct the movement of troops.

IX. All quartermasters and commissaries of subsistence will attend in person to the receipt and issue of supplies for their commands, and will keep themselves constantly informed of the situation of the depots, roads, &c.

By command of Major-General McClellan:

S. WILLIAMS
Assistant Adjutant-General

Evacuation from the Peninsula

Circular.]²¹⁴

HEADQUARTERS ARMY OF THE POTOMAC
Camp near Harrison's Landing, Va., August 12, 1862

Corps and other independent commanders will have loaded up at once six days' rations of all components except meat, which will be for four days' – bacon or salt pork.

Four days short forage for wagon animals will be carried in each wagon. Four days' short forage for the cavalry and artillery horses will also be taken.

When the march commences all men must have two days' rations in their haversacks.

Each man will have his cartridge box filled, and 60 rounds additional will be carried in the wagons.

The artillery ammunition will be limited to that which can be carried in the limber boxes and caissons.

The wagons will not be loaded with over 1,800 pounds, including forage.

As soon as the wagons are loaded, commanders will report to headquarters what number they have disposable.

A reasonable amount of axes, spades, and picks will be carried in the division trains.

These arrangements will be made this day.

By command of Major-General McClellan:

[S. WILLIAMS]
Assistant Adjutant-General

Movement to Yorktown, Newport News, Fort Monroe for Evacuation from the Peninsula²¹⁵

NOTE: The following, General Orders, No. 155, was not published as a general order. It was directed to be considered a circular, without number. General Orders, No. 155, of the series of 1862, is dated September 8.

Lessons Learned (General Orders No. 155):

- **Wagons precede combat troops because the army is retreating.**
- **Trains are aggregated by division in order of brigades**
- **Convoy Protection – 100 men per brigade guard the brigade wagon train & prevent stragglers from joining relative safety of the trains.**

²¹⁴ O. R., Series 1, Volume 11, Part 3. p. 374. (Digitized by Making of America
<http://cdl.library.cornell.edu/moa/>)

²¹⁵ O.R., Series 1, Volume 11, (Part III.), pp. 373-377 (Digitized by Making of America
<http://cdl.library.cornell.edu/moa/>)

- **Convoy Management** – Shorten column length during breaks by forming wagons in column of twos. Don't stop for a broken wagon or balked team. Leave an escort and move on. Don't stop to water teams' en-route.
- **March Discipline** – Troops or artillery pass wagons on the left. Keep trains closed up. Trains must not be cut by other trains.
- **Prepare the night camp for rapid departure in the morning. Face wagons so that they can be pulled in the direction of march without turning in a semi-circle. Remove fences and fill in ditches for a speedy morning departure.**
- **Five minute rest period at the end of every hour.**

General Orders }
No. 155

Hdqrs. Army of the Potomac
Camp near Harrison's Landing VA, August 14, '62.

1. In the contemplated movement, unless otherwise directed, the train of each division will precede the division, arranged in the order of march of the troops, and will be itself preceded by an advanced guard taken from the division.

The train of the reserve artillery of the corps will go with the train of the leading division.

Each quartermaster and his assistants must be with his train, and require it to take at the proper time its appropriate place in the column and keep it, and will see that his wagons do not check the march of the troops or wagons in the rear.

2. Each regimental commander will be held responsible for delay caused by any wagons of the train of his regiment not being ready. So, too, with each brigade and division commander regarding his supply train. Any train not prepared to move at its appropriate time will be held, to fall in the rear of the division trains.

3. Trains of batteries attached to divisions will accompany that with the division in the order of march.

Corps commanders will designate the order of march of the supply trains.

4. Staff officers not otherwise occupied will find their appropriate place in the line of march, ascertaining the cause of any detention that may occur.

5. On arriving in camp each commander will see to all necessary arrangements, such as requiring wagons to be camped quickly, properly faced, bridges to be made, fences removed, ditches filled, &c., to enable trains to leave and re-enter the road without delay.

6. If troops or artillery are required to pass wagons at any time they will pass on the left, and the wagons will close sufficiently to the right and keep moving if possible. Trains must be kept closed, and must not be cut by other trains, artillery, or troops.

7. During a temporary halt, quartermasters will close up and double or park their trains in convenient places near the road so as to allow rear trains to move up, thus shortening the line occupied by the column.

8. No accident, such as breaking down of a wagon, balking of a team, &c., must on any consideration be allowed to delay the wagons in the rear of the one specifically affected. An escort must be left with it and the train must move on.

9. Quartermasters will see that their animals are well watered before starting out.

No stoppage must be made for the purpose of watering while on the road.

Wagon wheels will not be locked for the descent of hills, except when it cannot be avoided without danger.

10. To each brigade train the brigade commander will assign a guard of companies of 100 men. No other men will be permitted to go with the wagons. These companies will permit no straggler of any command whatever to join the train, compelling all such to join their own regiments or march as prisoners and assist the guard in giving aid to the wagons. The officers will exercise their cool judgment and energy to expedite the march and not wait to be asked for assistance.

11. Commanders of corps, divisions, brigades, regiments, companies and guards will take the necessary steps to prevent straggling, and punish, on arrival in camp, all offenders. Men must not be permitted to leave the ranks. At the end of every hour on the march there will be a rest of five minutes, and the men must avail themselves of these intervals to re-arrange belts, obey the calls of nature, &c.

12. The hour of marching, the route, and the place of encampment will be specially communicated to each corps commander.

By command of Major-General McClellan

S. WILLIAMS
Assistant Adjutant-General

Baggage Trains – September 14, 1862²¹⁶

General Orders
No. 130 }
}

War Dept., Adjt. General's Office
Washington, September 14, 1862.

I. The attention of all officers, and especially of commanders of departments and army corps, is called to the absolute necessity of reducing the baggage trains of troops in the field. The mobility of our armies is destroyed by the vast trains which attend them, and which they are required to guard. This evil requires a prompt remedy. Officers will hereafter be allowed to carry into the field only the ordinary mess-chest and a valise or carpet-bag. No trunks or boxes will be permitted in the baggage trains. Privates frequently carry carpet-bags and boxes in the regimental wagons. This must be immediately stopped. Inspectors, quartermasters, and wagon-masters will see that such articles are ejected from the wagons and cars wherever found; and regimental and company officers who permit these abuses will be reported, through the proper channels, for dismissal from service. Commanders of departments and army corps will direct frequent inspections to be made of baggage trains, and especially of officers' baggage, and see that this order is strictly enforced in their respective commands.

II. Another cause of the increase of trains is carrying of suttlers' goods in regimental or quartermaster wagons, under the guise of the quartermaster or commissary stores. Hereafter any officer or wagon-master who permits this abuse will be duly punished, and the sutler whose goods are so carried will be placed without the lines of the army and his appointment revoked.

By command of Major-General Halleck:

L. THOMAS
Adjutant-General

Apportionment of Wagons – October 18, 1862²¹⁷

²¹⁶ O.R., Series 3, Volume 2, p. 544. (Digitized by Making of America <http://cdl.library.cornell.edu/moa/>)

The following regulations are established for army trains and baggage:

I. There will be allowed –

For headquarters train of an army corps, four wagons; of a division or brigade, three; of a full infantry regiment, six; and of a light artillery battery or squadron of cavalry, three.

In no case will this allowance be exceeded, but always proportionally reduced according to the numbers of officers and men actually present. All surplus wagons will be turned over to the chief quartermaster to be organized, under the direction of the commanding generals, into supply trains and sent to the nearest depot.

The requisite supply trains, their size depending upon the state of the roads and character of the campaign, will be organized by the chief quartermaster, with the approval of the commanding generals, subject to the control of the War Department.

II. The wagons allowed to a regiment, battery, or squadron must carry nothing but the forage for the teams, cooking utensils, and rations for the troops, hospital stores, and officer's baggage. One wagon to each regiment will transport exclusively hospital supplies, under the direction of the regimental surgeon; the one for regimental headquarters will carry the grain for the officers' horses; and the three allowed for each battery or squadron will be at least half loaded with grain for their own teams.

Stores in bulk and ammunition will be carried in the regular or special supply trains.

III. In active campaign troops must be prepared to bivouac on the march, the allowance of tents being limited, as follows:

For the headquarters of an army corps, division, or brigade, one wall-tent to the commanding general, and one to every two officers of his staff.

For the colonel, field, and staff of a full regiment, three wall tents; and for every other commissioned officer, one shelter-tent each.

For every two non-commissioned officers, soldiers, officer's servants, and authorized camp followers, one shelter-tent.

One hospital tent will be allowed for office purposes at corps headquarters, and one wall-tent at those of a division or a brigade. All tents beyond this allowance will be left in depot.

IV. Officers' baggage will be limited to blankets, one small valise or carpet bag, and a moderate mess kit. The men will carry their own blankets and shelter-tents, and reduce the contents of their knapsacks as much as possible.

The depot quartermaster will provide storage for a reasonable amount of officers' surplus baggage and extra clothing and knapsacks of the men.

²¹⁷ O.R., Series 3, Volume 2, pp. 671-672. (Digitized by Making of America <http://cdl.library.cornell.edu/moa/>)

V. Hospital tents are for the sick and wounded, and, except those allowed for army corps headquarters, must not be diverted from their proper use.

VI. Commanding officers will be held responsible for the strict enforcement of these regulations, especially the reduction of officers' baggage, within their respective commands.

VII. On all marches quartermasters, under the orders of their commanding officers, will accompany and conduct their trains in a way not to obstruct the movement of troops.

VIII. All quartermasters and commissaries will personally attend to the reception and issue of supplies for their commands, and will keep themselves informed of the condition of the depots, roads, and other communications.

IX. All quartermasters and commissaries will report by letter on the first of every month to the chiefs of their respective departments at Washington, D. C., their station, and generally the duty on which they have been engaged during the preceding month.

By command of Major-General Halleck:

L. THOMAS

Adjutant General

*Organization of the Volunteer Army of the United States
April 29, 1863*²¹⁸

“General Orders,
No. 110” }

WAR DEPT., ADJT. GENERAL'S OFFICE
Washington, April 29, 1863

I. The following is the organization of regiments and companies of the Volunteer Army of the United States under existing laws:

1. *Regiment of infantry (ten companies)*. – One colonel, 1 lieutenant-colonel, 1 major, 1 adjutant (an extra lieutenant), 1 quartermaster (an extra lieutenant), 1 surgeon, 2 assistant surgeons, 1 chaplain, 1 sergeant major, 1 regimental quartermaster-sergeant, 1 regimental commissary-sergeant, 1 hospital steward, 2 principal musicians.

Company of infantry – One captain, 1 first lieutenant, 1 second lieutenant, 1 first sergeant, 4 sergeants, 8 corporals, 2 musicians, 1 wagoner, and 64 privates, minimum; 82 privates, maximum.

2. *Regiment of cavalry (twelve companies or troops)*. – One colonel, 1 lieutenant colonel, 3 majors, 1 surgeon, 2 assistant surgeons, 1 regimental adjutant (an extra lieutenant), 1 regimental quartermaster (an extra lieutenant), 1 regimental commissary (an extra lieutenant), 1 chaplain, 1 veterinary surgeon, 1 sergeant-major, 1 quartermaster-sergeant, 1 commissary-sergeant, 2 hospital stewards, 1 saddler sergeant, 1 chief trumpeter.

Company or troop of cavalry – One captain, 1 first lieutenant, 1 second lieutenant, 1 first sergeant, 1 quartermaster-sergeant, 1 commissary-sergeant, 5 sergeants, 8 corporals, 2 trumpeters, 2 farriers or blacksmiths, 1 saddler, 1 wagoner, and 60 privates, minimum; 78 privates, maximum.

²¹⁸ O.R., Series 3, Volume 3, pp. 175-176. (Digitized by Making of America
<http://cdl.library.cornell.edu/moa/>)

3. *Regiment of artillery (twelve batteries)*. – One colonel, 1 lieutenant colonel, 1 major for every four batteries, 1 adjutant (not an extra lieutenant), 1 quartermaster (not an extra lieutenant), 1 chaplain, 1 sergeant-major, 1 quartermaster-sergeant, 1 commissary-sergeant, 1 hospital steward, 2 principal musicians.

Battery of artillery – One captain, 1 first lieutenant, 1 second lieutenant, 1 first sergeant, 1 quartermaster-sergeant, 4 sergeants, 8 corporals, 2 musicians, 2 artificers, 1 wagoner and 122 privates.

To the above organization of a battery one first and one second lieutenant, two sergeants, and four corporals may be added, at the Presidents discretion.

The field officers, chaplain, and regimental staff – commissioned and non-commissioned – will not be mustered or received into service without special authority from the War Department. As a general rule, artillery will be called for and received by batteries, thus rendering the field and staff unnecessary.

II. Chaplains must meet the requirements of section 8 of the act of July 17, 1862 (G. O., 91, A. G. O., 1862, pp. 17 and 18), as follows

No person shall be appointed a chaplain in the United States Army who is not a regularly ordained minister of some religious denomination, and who does not present testimonials of his present good standing as such minister, with a recommendation for his appointment as an army chaplain from some authorized ecclesiastical body, or not less than five accredited ministers belonging to said religious denomination.

After chaplains are appointed, under section 9 of the act of July 22, 1861 (G. O., 49, A. G. O., 1861, p. 4) they must be mustered into service by an officer of the Regular Army and thereafter borne on the field and staff roll of the regiment.

Mustering officers before mustering chaplains into service will require from them a copy of the proceedings on which the appointment is based. The said copy, if found conformable to the requirements of the law, will be indorsed by the mustering officers and by him forwarded to the Adjutant-Generals Office for the file with the muster-in role.

III. Except where consolidations have been made or are to be made, under General Orders, No. 86, from this office, the foregoing organizations will be strictly adhered to by all concerned.

No commissioned officer or enlisted man of any grade in excess of the legal organization will be recognized. Any commander who may acknowledge or receive, as in service, any such officer or enlisted man, will be brought to trial for neglect of duty and disobedience of orders. No person acting in the capacity of a supernumerary will, under any circumstances, to receive pay and allowances from the Government; and paymasters making payment to such supernumeraries will be held individually accountable for amounts so paid.

By order of the Secretary of War:

E. D. TOWENDSEND
Assistant Adjutant-General

*Apportionment of Wagons – August 7, 1863*²¹⁹

General Orders
No. 274



War Dept., Adj. General's Office
Washington, August 7, 1863.

²¹⁹ O.R., Series 1, Volume 29, Part 2, Chapter XLI, pp. 14-15. (Digitized by Making of America <http://cdl.library.cornell.edu/moa/>)

I. The following is the maximum amount of transportation to be allowed in the field:

To the headquarters of an army corps, 2 wagons or 8 pack animals.

To headquarters of a division or brigade, 1 wagon or 5 pack animals.

To field and staff of a regiment, 1 wagon or 4 pack animals.

To every 3 company officers, 1 pack animal.

To every 12 company officers, 1 wagon or 4 pack animals.

To every 2 staff officers not attached to any headquarters, 1 pack animal.

To every 10 staff officers not attached to any headquarters, 1 wagon or 4 pack animals.

To every 16 non-commissioned officers and privates, 1 pack animal.

To every 80 non-commissioned officers and privates, 1 wagon or 5 pack animals.

The above will include transportation for all personal baggage, mess-chests, cooking utensils, desks, papers, &c. The weight of officers' baggage in the field, specified in the Army Regulations, will be reduced so as to bring it within the foregoing schedule. All excess of transportation now with army corps, divisions, brigades, and regiments, or batteries, will be immediately turned in to the quartermaster's department, to be used in the trains. Commanding officers of corps, divisions, &c., will immediately cause inspections to be made, and will be held responsible for the strict execution of this order.

Commissary stores and forage will be transported by the trains. When these are not convenient of access, and where troops act in detachments, the quartermaster's department will assign wagons or pack animals for that purpose; but the baggage of officers or of troops, or camp equipage, will not be permitted to be carried in the wagons or on the pack animals so assigned. The assignment of transportation for ammunition will be made in proportion to the amount ordered to be carried.

II. Cavalry horses are often broken down or injured by permitting riders to carry extra baggage. Cavalry officers will be held responsible for the immediate removal of this evil.

The knapsack of infantry soldiers will also be frequently inspected to see that they are properly packed and that nothing is carried in them except as directed by regulations and orders.

III. In ordinary marches, where the troops can receive daily issues from the trains, they will be required to carry only two days' rations; but in the immediate vicinity of the enemy, and where the exigencies of the service render it necessary for troops to move without baggage or trains, the men may be required to carry with them from eight to twelve days' rations as follows:

For eight days

Five days' beef or mutton, to be driven on the hoof, or collected in the country passed over.

Three days' cooked rations in haversacks..... 5¾

Five days' rations of bread and small stores, in knapsacks..... 6

A change of underclothes, in knapsacks..... 2

A blanket.....5¼

Total Weight.....19

For twelve days

Nine days' rations of meat, on the hoof.

Three days' cooked rations in haversacks..... 5¾

Nine days' rations of biscuit and small stores, in knapsacks	10½
A change of underclothes, in knapsacks.....	2
A blanket.....	5¼
<u>Total Weight.....</u>	<u>23½</u>

The underclothing should be packed in the knapsacks next to the back.

One or two pack animals will march with each regiment, according to its size, to carry camp kettles, rice, beans, &c. Where circumstances will permit, a wagon may be assigned to a brigade or division for this purpose.

Officers' servants are expected to carry rations for their officers and themselves. Those of mounted officers are expected to carry small forage for their animals. Long forage must be sought in the country.

By increasing the ordinary meat ration and levying contributions of flour and meal in the country passed over, the bread and small rations carried as above by the soldier may be made to last from twenty to twenty-five days. In the proper season, the bread ration may be partially dispensed with by substituting green corn, which can be foraged in the fields. Movable columns in the fields should be furnished with hand and horse mills for grinding the grain which they procure in the country.

Within one week after the receipt of this order at their respective headquarters, inspectors of armies and army corps will report directly to the Adjutant-General of the army every violation of this order, certifying in their reports that they have thoroughly inspected the several commands, and have reported therein every deviation from this order in regard to allowance of transportation.

IV. The attention of all officers commanding forces in the field is called to the foregoing details, and they will adopt them as instructions in fitting out their command for movements which are to be made rapidly and without ordinary transportation.

This order will be published in every regiment.

By order of the Secretary of War:

E. D. TOWNSEND

Assistant Adjutant-General

Apportionment of Wagons, August 21, 1863 ²²⁰

General Orders }
No. 83 }

Hdqrs. Army of the Potomac
August 21, 1863.

In order that the transportation of this army shall not in any instance exceed the maximum allowance prescribed in General Orders, No. 274, of August 7, 1863, from the War Department, and to further modify and reduce baggage and supply trains, heretofore authorized, the following allowances are established and will be strictly conformed to, viz:

²²⁰ O.R., Series 1, Volume 29, Part 2, Chapter XLI, pp. 85-87. (Digitized by Making of America <http://cdl.library.cornell.edu/moa/>)

1. The following is the maximum amount of transportation to be allowed to this army in the field:

To the headquarters of an army corps, 2 wagons or 8 pack-mules.

To the headquarters of a division or brigade, 1 wagon or 5 pack-mules.

To every 3 company officers, when detached or serving without wagons, 1 pack mule.

To every 12 company officers, when detached, 1 wagon or 4 pack-mules.

The above will include transportation for all personal baggage, mess chests, cooking utensils, desks, papers, &c. The weight of officers' baggage in the field specified in the Army Regulations, will be reduced so as to bring it within the foregoing schedule. All excess of transportation now with army corps, divisions, brigades, and regiments, or batteries, over the allowances herein prescribed, will be immediately turned in to the quartermaster's department, to be used in the trains.

Commanding officers of corps, divisions, &c., will immediately cause instructions to be made, and will be held responsible for the strict execution of this order.

Commissary stores and forage will be transported by the trains. Where these are not convenient of access, and where troops act in detachments, the quartermaster's department will assign wagons or pack animals for that purpose; but the baggage of officers, or of troops, or of camp equipage, will not be permitted to be carried in the wagons or on the pack animals so assigned.

The assignment for transportation for ammunition, hospital stores, subsistence, and forage will be made in proportion to the amount ordered to be carried. The number of wagons is hereinafter prescribed.

The allowance of spring wagons and saddle horses for contingent wants, and of camp and garrison equipage, will remain as established by circular, dated July 17, 1863.

2. For each full regiment of infantry and cavalry, of 1,000 men, for baggage, camp equipage, &c., 6 wagons.

For each regiment of infantry less than 700 men and more than 500 men, 5 wagons.

For each regiment of infantry less than 500 men and more than 300 men, 4 wagons.

For each regiment of infantry less than 300 men, 3 wagons.

3. For each battery of four and six guns – for personal baggage, mess chests, cooking utensils, desks, papers, &c., 1 and 2 wagons respectively.

For ammunition trains the number of wagons will be determined and assigned upon the following rules:

First. Multiply each 12-pounder by 112 and divide by 112.

Second. Multiply each rifle gun by 50 and divide by 140.

Third. For each 20-pounder gun, 1½ wagons.

Fourth. For each siege gun, 2½ wagons.

Fifth. For the general supply train of reserve ammunition of 20 rounds to each gun in the army, to be habitually kept with the Artillery Reserve, 54 wagons.

For each battery, to carry its proportion of subsistence, forage &c., 2 wagons.

4. The supply train for forage, subsistence, quartermaster's stores, &c., to each 1,000 men, cavalry and infantry, 7 wagons.

To each 1,500 men, cavalry and infantry, for small-arms ammunition, 5 wagons.

To each 1,500 men, cavalry and infantry, for hospital supplies, 3 wagons.

To each army corps, except the cavalry, for entrenching tools, &c., 6 wagons.

To each corps headquarters for the carrying of subsistence, forage and other stores not provided for herein, 3 wagons.

To each division headquarters for similar purposes as above, 2 wagons.

To each brigade headquarters for similar purposes as above, 1 wagon.

To each brigade, cavalry and infantry, commissary stores for sales to officers, 1 wagon.

To each division, cavalry and infantry, for hauling forage for ambulance animals, portable forges, &c., 1 wagon.

To each division, cavalry and infantry, for carrying armorers' tools, parts of muskets, extra arms and accoutrements, 1 wagon.

It is expected that each ambulance and each wagon, whether in the baggage, supply, or ammunition train, will carry the necessary forage for its own team.

By command of Major-General Meade:

S. WILLIAMS

Assistant Adjutant-General

*Apportionment of Wagons, November 5, 1863*²²¹

General Orders }
No. 100 }

Hdqrs. Army of the Potomac
November 5, 1863.

I. The following is the maximum allowance of transportation, camp and garrison equipage allowed in this army while in the field engaged in active operations, and will be strictly conformed to, viz:

1. For the headquarters of an army corps, 2 wagons, or 8 pack-mules, for baggage; 1 two-horse spring wagon for contingent wants; 5 extra saddle horses for contingent wants; 1 wall tent for personal use and office of commanding general; 1 wall tent for every two officers of his staff.

2. For the headquarters of a division, 1 wagon, or 5 pack-mules, for baggage; 1 two-horse spring wagon for contingent wants; 5 extra saddle horses for contingent wants; 1 wall tent for personal use and office of commanding general; 1 wall tent for every two officers of his staff.

3. For the headquarters of a brigade, 1 wagon or 5 pack-mules, for baggage; 1 wall tent for personal use and office of commanding general; 1 wall tent for every two officers of his staff.

4. To every three company officers, when detached or serving without wagons, 1 pack-mule; to every 12 company officers, when detached, 1 wagon or 4 pack-mules; to every 2 staff officers, when not attached to any headquarters, 1 pack-mule; to every 10 staff officers, serving similarly, 1 wagon, or 4 pack-mules.

The above wagons and pack-mules will include all personal baggage, mess chests, cooking utensils, desks, papers, &c. The weight of the officers' specified by Army Regulations, will be reduced so as to bring it within the foregoing schedule. All excess transportation now

²²¹ O.R., Series 1, Volume 29, Part 2, pp. 420-422. (Digitized by Making of America
<http://cdl.library.cornell.edu/moa/>)

with army corps, divisions, brigades, regiments or batteries over the allowance herein prescribed will be immediately turned in to the quartermaster's department, to be used in the trains.

5. Commissary stores and forage will be transported by the trains. When these are not convenient of access, and where troops act in detachments, the quartermaster's department will assign wagons or pack animals for that purpose; but the baggage of officers, or of troops, or camp equipage, will not be carried in the wagons or on the pack animals so assigned. The assignment of transportation for ammunition, hospital stores, subsistence, and forage, will be made on the basis of the amount of each ordered to be carried in orders from general headquarters. The number of wagons is hereinafter prescribed, required by existing orders, to wit:

6. For each full regiment of infantry and cavalry of 1,000 men, for baggage, camp equipage, &c., 6 wagons; for each regiment of infantry less than 700 men and more than 500 men, 5 wagons; for each regiment of infantry less than 500 men and more than 300 men, 4 wagons; for each regiment of infantry less than 300 men, 3 wagons; for each regiment of infantry and cavalry, 3 wall tents for field and staff, 1 wall tent for every other commissioned officer, 1 shelter tent for every 2 non-commissioned officers, soldiers, servants, and camp followers.

7. For each battery of 4 and 6 guns, for personal baggage, mess chests, cooking utensils, desks, papers, &c., 1 and 2 wagons respectively; for each 6-gun battery, 3 wall tents for officers; for each 4-gun battery, 2 wall tents for officers; shelter tents, same allowance as for infantry and cavalry regiments.

8. For artillery ammunition trains, the number of wagons will be determined and assigned upon the following rules: Multiply the number of 12-pounder guns by 122 and divide by 112; multiply the number of rifled guns by 50 and divide by 140; multiply the number of 20-pounder guns by 2; multiply the number of 4½-inch by 2½; multiply the number of rifled guns in horse batteries by 100 and divide by 140. For the general supply train of reserve ammunition of 20 rounds to each gun in the army, to be kept habitually with the Artillery Reserve, the following formula will apply: Multiply the number of 12-pounder guns by 20, divide by 112 = number of wagons; multiply the number of rifled guns by 20, divide by 140 = number of wagons. To every 1,000 men, cavalry and infantry, for small arm ammunition, 5 wagons: for Artillery Reserve, for carrying fuses, primers and powder, 2 wagons.

9. The supply trains shall be as follows: To each 1,000 men, for cavalry and infantry, for quartermaster's stores, subsistence, &c., 7 wagons; to each cavalry division, for carrying forage for cavalry horses, 30 wagons additional; to each battery, for carrying its proportion of subsistence, forage, &c., 3 wagons; to each horse battery, for the same purpose, 4 wagons; to every 25 wagons of the artillery ammunition train there will be allowed 5 wagons additional for carrying forage for animals of ammunition and additional wagons, baggage, camp equipage, and subsistence of wagon-masters and teamsters. Nothing but artillery ammunition will be carried in the artillery train. The baggage of the drivers of the wagons composing it will be carried in the additional trains allowed for that purpose.

To each 1,500 men, cavalry and infantry, for hospital supplies, 3 wagons; to each brigade of artillery, for hospital supplies, 1 wagon; to each army corps, except the cavalry, for entrenching tools, &c., 6 wagons; to each corps headquarters, for the carrying of subsistence, forage, and other stores not provided for herein, 3 wagons; to each division headquarters, for similar purposes as above, 2 wagons; to each brigade, for similar purposes as above, 1 wagon; to each brigade of cavalry, artillery, and infantry, for commissary stores for sales to officers, 1 wagon; to each division of cavalry and infantry, for hauling forage for ambulance animals,

portable forges, &c., 2 wagons; to each division, cavalry and infantry, for carrying armorer's tools, parts of muskets, extra arms and accouterments, 1 wagon. It is expected that each ambulance and each wagon, excepting those of the artillery train, will carry the necessary forage for its own team.

10. If corps, division and brigade commanders take their guards or escorts from commands already furnished with the full allowance of transportation, a corresponding amount should be taken with them to headquarters; but if they have not been provided for at all, then a proper number of wagons will be transferred by the depot quartermaster, on the requisition of the chief quartermaster, certified and approved by the commanding general. As a rule, neither quartermaster nor commissary sergeants will be allowed to ride public horses.

II. It has been decided that there is no advantage to the service, commensurate with the expense, in keeping up regularly organized pack trains with mules independent of wagons. All pack saddles now on hand will be carried in the wagons of the ammunition and supply trains, not to exceed 2 to a wagon.

When it becomes necessary to pack officer's baggage, rations, or ammunition for short distances over rough roads and broken country, pack trains can be made up temporarily by taking mules from the wagons, not to exceed 2 to any 1 wagon.

There will be allowed to each corps 50 extra mules, to supply losses on marches and for packing.

The following modification of Paragraph 1121, Revised Army Regulations, approved by the War Department, General-in-Chief, Quartermaster-General, and the general commanding, is hereby established as far as relates to this army, and will be observed until otherwise ordered:

The maximum allowance of forage per day will be, for horses, 10 pounds hay and 14 pounds grain; for mules, 10 pounds hay and 11 pounds grain, and when short forage only can be procured, 18 pounds of grain for horses and 15 pounds of grain for mules can be issued as the daily ration.

When the army is on the march, the above order will not apply. The wagons will carry only the marching ration (10 pounds average to each animal per day).

This increased allowance of grain is to be fed only when the animals are at rest, after long marches, to recuperate them, and when hay cannot be procured.

III. Private property shall not be taken, except when required for the public service, and then only on the written order of the commanding general, a general commanding a corps, or other independent commander.

A copy of the order and receipts for the property taken must be left with the owner thereof, and a report of all property captured from the enemy, or seized for the public service, will be made monthly to the chief of the department, at these headquarters, to which it appertains.

By command of Major-General Meade:

S. WILLIAMS
Assistant Adjutant-General

*Apportionment of Wagons and Supply Requirements for the Overland Campaign*²²²

²²² O.R. Series 1, Volume 33, pp. 919-922. (Digitized by Making of America <http://cdl.library.cornell.edu/moa/>)

I. General Orders, No. 100, of November 5, 1863, from these headquarters, prescribing the maximum allowance of transportation, camp and garrison equipage for this army while in the field engaged in operations, having been modified in some particulars, the order as modified is reprinted, and its provisions will be strictly conformed to, the following being now the established maximum allowance of transportation and camp equipage, viz:

1. For the headquarters of an army corps, 2 wagons or 8 pack-mules for baggage, &c., 1 two-horse wagon, 1 two-horse wagon, 1 two-horse spring wagon and 10 extra saddle-horses for contingent wants; 1 wall-tent for the personal use and office of the commanding general; 1 wall tent for every 2 officers of his staff.

2. For the headquarters of a division, 1 wagon or 5 pack mules for baggage, &c., 1 two-horse spring wagon, 1 two-horse wagon, 1 two-horse spring wagon and five extra saddle-horses for contingent wants; 1 wall-tent for the personal use and office of the commanding general; 1 wall-tent for every 2 officers of his staff.

3. For the headquarters of a brigade, 1 wagon or 5 pack-mules for baggage, 1 two-horse spring wagon, and 2 extra saddle-horses for contingent wants; one wall tent for the personal use and office of the commanding general; 1 wall-tent for every two officers of his staff.

4. To every 3 company officers, when detached or serving without wagons, 1 pack-mule; to every 12 company officers, when detached, 1 wagon or 4 pack-mules; to every 2 staff officers, when not attached to any headquarters, 1 pack-mule; to every 10 staff officers serving similarly, 1 wagon or 4 pack mules.

The above wagons and pack-mules will include transportation for all personal baggage, mess chests, cooking utensils, desks, papers, &c. The weight of officers' baggage in the field, specified by Army regulations, will be reduced so as to bring it within the foregoing schedule. All excess of transportation now with army corps, divisions, brigades, regiments or batteries over the allowance herein prescribed will be immediately turned in to the quartermaster's department.

5. Commissary stores and forage will be transported by the trains. When these are not convenient of access, and where troops act in detachments, the quartermaster's department will assign wagons or pack animals for that purpose; but the baggage of officers, or of troops, or camp equipage, will not be carried in the wagons or on the pack animals so assigned.

6. For each regiment of infantry or cavalry and battalion of heavy artillery, for baggage, camp equipage, &c., not to exceed 2 wagons, 3 wall-tents for field and staff, 1 shelter-tent for every other commissioned officer, and 1 shelter-tent for every 2 non-commissioned officers, soldiers, servants and camp followers.

7. For each battery, for personnel baggage, mess-chests, cooking utensils, desks, papers &c., 1 wagon, 2 wall-tents for officers; shelter tents, same allowance as for the infantry and cavalry regiments.

8. For artillery ammunition trains, the number of wagons will be determined and assigned upon the following rules: Multiply the number of 12-pounder guns by 122 and divide by 112; multiply the number of rifled guns multiplied by 50 and divide by 140; multiply the number of 20-pounder guns by 2; multiply the number of 4½-inch guns multiplied by 2½; multiply the

number of rifled guns in horse batteries by 100 and divide by 140. For the general supply train of reserve ammunition of 20 rounds to each gun in the army, to be kept habitually with the Artillery Reserve, the following formula will apply: Multiply the number of 12-pounder guns by 20 and divide by 112; multiply the number of rifled guns by 20 and divide by 140. To every 1,000 men, cavalry, infantry, and heavy artillery, for small arm ammunition, 5 wagons; for Artillery Reserve, for carrying fuses, primers, and powder, 2 wagons.

9. The supply trains will be as follows: To each 1,000 men, cavalry and infantry, for forage, quartermaster's stores, subsistence, &c., 9 wagons, sufficient to carry ten days' supply, one days' salt meat, net weight, included. To each cavalry division, exclusively for forage, 50 wagons additional; to each battery, for carrying its proportion of subsistence, forage, &c., 3 wagons; to each horse battery, for the same purpose, 4 wagons; to every 25 wagons of the artillery ammunition train there will be allowed 5 wagons additional for carrying forage for animals of ammunition and additional wagons, baggage, camp equipage, and subsistence of wagon-masters and teamsters. Ammunition trains shall be laden with ammunition exclusively, so far as practicable. Baggage of the drivers of the wagons composing it will be carried in the additional wagons allowed for that purpose.

To each brigade of cavalry, infantry, and artillery, of not less than 1,500 men, for hospital supplies, 3 wagons; for every 1,000 men additional, 1 wagon; to each army corps, except the cavalry, for entrenching tools, &c., 6 wagons; to each corps headquarters, for subsistence, forage, and other stores not provided for herein, 3 wagons; and to each division headquarters, 2 wagons; to each brigade headquarters, 1 wagon for similar purposes; to each brigade of cavalry, artillery, and infantry, for commissary stores for sales to officers, 1 wagon; for the ambulance train of each division, 2 wagons; for the ambulance train of an independent command less than a division, batteries excepted, 1 wagon; to each division of cavalry and infantry, for armorer's tools, parts of muskets, extra arms, and accoutrements, 1 wagon. It is expected that each ambulance and each wagon, except those of the artillery ammunition train, will carry the necessary forage for its own team.

10. If corps, division, and brigade commanders take their guards or escorts from commands already furnished with the full allowance of transportation, a corresponding amount should be taken with them to headquarters; but if they have not been provided for at all, then a proper number of wagons will be transferred by the depot quartermaster, on the requisition of the chief quartermaster, certified to and approved by the commanding general. As a rule, neither quartermaster nor commissary sergeants will be allowed to ride public horses.

II. It has been decided that there is no advantage to the service, commensurate with the expense, in keeping up regularly organized pack trains with mules independent of the wagons. Pack-saddles, not to exceed 400 to a corps, will be carried in the wagons of the trains. When it becomes necessary to pack officers' baggage, rations, or ammunition, for short distances over rough roads and broken country, pack trains will be made up temporarily by taking mules from the wagons, not to exceed 2 to any one wagon. There will be allowed to each corps 50 extra mules, to supply losses on marches and for use in packing.

III. The following modification of Paragraph 1121, Revised Army Regulations, approved by the War Department, General-in-Chief, Quartermaster General, and the general commanding, is hereby established, as far as relates to this army, and will be observed until otherwise ordered: The maximum allowance of forage per day will be, for horses, 10 pounds hay and 14 pounds grain; for mules, 10 pounds hay and 11 pounds grain, and when short forage only can be procured, 15 pounds of grain for horses and 13 pounds of grain for mules can be issued as the

daily ration. For a campaign, the above order will not apply. The wagons will carry only the marching ration (10 pounds average to each animal per day). This increased allowance of grain is intended to be fed only when the animals are at rest, after long marches, to recuperate them, and when hay cannot be procured.

IV. Private property shall not be taken, except when required for the public service, and then only on the written order of the general commanding the army, a general commanding a corps, or other independent commander. A copy of the order and receipts for the property taken must be left with the owner thereof, and a report of all property captured from the enemy, or seized for the public service, will be made monthly to the chief of the department, at these headquarters, to which it appertains.

By command of Major-General Meade:

S. Williams
Assistant Adjutant-General

*Apportionment of Wagons – June 29, 1864*²²³

General Orders
No. 8 } Office of Chief Quartermaster
Armies Operating Against Richmond,
City Point, Va., June 29, 1864.

The following special orders, issued by the lieutenant-general commanding Armies of the United States, are printed for distribution to officers of the quartermaster's department on duty with the "Armies operating against Richmond:"

Special Orders
No. 8 } Headquarters Armies of the United States
City Point, Va., June 28, 1864.

I. The following orders, prescribing the means of transportation, camp and garrison equipage, for the armies in the field operating against Richmond, are published:

1. For the headquarters of the lieutenant general commanding the armies of the United States in the field, and major generals commanding separate armies, such wagons, light spring-carriages, saddle-horses, and camp equipage as may be deemed necessary from time to time, to be assigned by the chief quartermaster at general headquarters.

2. For the headquarters of an army corps, 2 wagons or 8 pack-mules for baggage, &c., 1 two-horse wagon, 1 two-horse spring-wagon, and 10 extra saddle-horses for contingent wants; two wall tents for the personal use and office of the commanding general; one wall tent for every two officers of his staff.

3. For the headquarters of a division, 1 wagon or 5 pack-mules for baggage, &c., 1 two-horse spring wagon, 1 two-horse wagon, and five extra saddle-horses for contingent wants; one wall tent for the personal use and office of the commanding general; one wall tent for every two officers of his staff.

4. For the headquarters of a brigade, 1 wagon or 5 pack-mules for baggage, 1 two-horse spring wagon, and 2 extra saddle-horses for contingent wants; one wall tent for the personal use and office of the commanding general; one wall tent for every two officers of his staff.

5. The allowance of wagons and pack-mules to officers detached; to every three company officers, when detached or serving without wagons, 1 pack-mule; to every twelve company officers, when detached, 1 wagon or 4 pack-mules; to every ten staff officers, when serving similarly, 1 wagon or 4 pack-mules.

²²³ O.R., Series I, Volume 40, Part 1, pp. 37-42. (Digitized by Making of America
<http://cdl.library.cornell.edu/moa/>)

6. These wagons and pack-mules will include transportation for all personal baggage, mess chests, cooking utensils, desks, papers, &c. The weight of officers' baggage, specified by army regulations, will be reduced so as to bring it within the forgoing schedule.

All excess of transportation, camp and garrison equipage, now with the army corps, divisions, brigades, regiments, or batteries, over the allowance herein prescribed, will be immediately turned into the quartermaster's department, at the general depot, now at City Point.

7. Commissary stores and forage will be transported in the supply trains. When they are not convenient of access, and when troops act in detachments, the quartermaster's department will assign wagons or pack-mules for that purpose, but the baggage of officers or troops, or camp equipage, will not be carried in the wagons or on the animals so assigned.

8. For each regiment of infantry, cavalry, or battalion of heavy artillery: for baggage, camp equipage, &c., 2 wagons; 3 wall tents for field and staff; 1 shelter-tent for every other commissioned officer; 1 shelter-tent for every two no-commissioned officers, soldiers, servants, and camp followers.

9. For each battery: for personnel baggage, mess chest, cooking utensils, desks, papers &c., 1 wagon; 2 wall tents for officers; shelter-tents, same allowance as for the infantry and cavalry regiments.

10. For the artillery and small-arm ammunition train: the number of 12-pounder guns multiplied by 122 and divided by 112; the number of rifled guns multiplied by 50 and divided by 140; the number of 20-pounder guns by 2, and the number of 4½-inch guns multiplied by 2½, will give the number of wagons allowed.

The number of guns in horse batteries, multiplied by 100 and divided by 140, will give the wagons allowed.

For the reserve artillery, ammunition of 20 rounds to each gun in the armies, the number of wagons allowed will be obtained as follows: multiply the number of 12-pounders by 20 and divide by 112, and the number of rifled guns by 20 and divide by 140.

For every 1,000 men present, armed and equipped for duty, of cavalry infantry, and heavy artillery, for small-arm ammunition 3 wagons.

For carrying fuzes, powder and primers, with the reserve ammunition train, 2 wagons.

11. For general supply train: to each 1,000 men, cavalry, infantry, and heavy artillery, for forage, subsistence, &c. 7 wagons, sufficient to carry eight days' supply; to each cavalry division, exclusive for forage, 50 wagons; to each battery, for its proportion of subsistence, forage, &c. 4 wagons; to each horse battery, for the same purpose, 4 wagons; to every 25 wagons of the artillery ammunition train, 5 wagons additional for the forage of the animals of the ammunition and additional wagons, baggage, camp equipage, and subsistence of wagon masters and teamsters. Ammunition trains will be loaded exclusively with ammunition, so far as practicable. The baggage of the drivers will be carried in the additional wagons allowed for that purpose.

To each brigade of cavalry, infantry and artillery, of not less than 1,500 men, for hospital supplies, 3 wagons; for every 1,000 men additional, 1 wagon.

To each army corps, except for the cavalry, for intrenching tools, 8 wagons.

To each army corps headquarters, for subsistence, forage, and other stores not provided for herein, 3 wagons.

To each division headquarters, for similar purposes, 2 wagons.

To each brigade headquarters, for similar purposes, 1 wagon.

To each brigade of cavalry, infantry, and artillery, for commissary stores for sale to officers, 1 wagon.

For the ambulance train of each division, 2 wagons; for the ambulance train of an independent command less than a division, batteries excepted, 1 wagon.

To each division of cavalry and infantry, for armorers' tools, parts of muskets, extra arms, and accoutrements, 1 wagon.

It is expected that each ambulance and wagon, except those of the artillery ammunition train, will carry the necessary forage for his own team.

12. The unit of organization for the supply trains of subsistence, ordnance, and forage will be by division. Division quartermasters will be responsible for them. Brigade quartermasters will be responsible for the brigade baggage trains. Regimental quartermasters will be responsible for the regimental public property and baggage.

Quartermasters will attend in person to the drawing of necessary supplies at depots, and will habitually accompany their trains on marches.

13. If corps, division, or brigade commanders take their guards or escorts from commands already furnished with the full allowance of transportation, a corresponding amount shall be taken by them to headquarters; but if they have not been provided for at all, then a proper number of wagons will be transferred by the depot quartermaster, on the requisition of the chief quartermaster, certified to and approved by the commanding general.

14. As a *rule*, quartermaster and commissary sergeants will not be allowed to ride public horses, except on the written order of a corps or other independent commander setting forth the necessity.

15. It has been shown by experience that the advantage of keeping up regularly organized pack-trains is not commensurate with the expense.

Two hundred pack-saddles will be carried in the wagon trains of each corps. Whenever it becomes necessary to pack officers' baggage, provisions, or ammunition for short distances, over rough roads and broken country, pack-trains will be made up temporarily by taking mules from the wagons, not to exceed two to any one wagon.

16. In the armies operating against Richmond, the maximum allowance of forage per day will be, *ten* pounds hay and *fourteen* pounds grain; for mules, *ten* pounds hay and *eleven* pounds grain; and when short forage only can be provided, the allowance will be, for horses *fifteen* pounds, for mules *thirteen*. On a march, however, the forage ration will be only *ten* pounds grain.

17. A report of all property captured from the enemy, or seized for the public service, will be made monthly to the chief of the department at these headquarters, to which it appertains.

By command of Lieutenant General Grant:

T. S. BOWERS,
Assistant Adjutant General

Chief quartermasters of corps and other independent commands will at once take measures to have these orders complied with, so far as in the power of the quartermaster's department.

RUFUS INGALLS,
Brig. Gen. and Chief Q. M., armies operating against Richmond

The Ration
*General Orders Number 226*²²⁴

General Orders
No. 226 }
}

War Department, Adjutant General's Office
Washington, July 8, 1864.

Section 2 of the act approved June 20, 1864, published in General Orders No. 216, current series, having modified the army ration, the following regulations on that subject will be observed:

1. The ration is twelve ounces of pork or bacon, or one pound and four ounces of salt or fresh beef; eighteen ounces of soft bread or flour, or twelve ounces of hard bread, or one pound and four ounces of corn meal; and to every 100 rations, fifteen pounds of beans or peas, or ten pounds of rice or hominy; ten pounds of green coffee, or eight pounds of roasted (or roasted and ground) coffee, or one pound eight ounces of tea; fifteen pound of sugar; four quarts of vinegar; one pound and four ounces of adamantine or star candles; four pounds of soap; three pounds and twelve ounces of salt, and four ounces of pepper. The Subsistence Department, as may be most convenient or least expensive to it, and according to the condition and amount of its supplies, shall determine whether soft bread or flour, and what other component parts of the rations as equivalents, shall be issued.

²²⁴ O.R. Series III, Volume 4, p. 481 & 482. (Digitized by Making of America: http://cdl.library.cornell.edu/moa/moa_browse.html).

2. On a campaign, on marches, or on board vessels, the ration of hard bread is one pound.

3. Desiccated compressed potatoes, or desiccated compressed mixed vegetables, at the rate of one ounce and a half of the former and one ounce to the latter of the ration, may be substituted for beans, peas, rice or hominy.

4. Beans, peas, salt, and potatoes (fresh) shall be purchased, issued, and sold by weight, and the bushel of each shall be estimated at sixty pounds.

5. When deemed necessary, fresh vegetables, dried fruit, molasses, pickles, or any other proper food may be purchased and issued in lieu of any component part of the ration of equal money value. The Commissary-General of Subsistence is alone authorized to order such purchases.

By order of the Secretary of War:

E. D. TOWNSEND,
Assistant Adjutant-General

Annex D

Correspondence & Reports

The First Battle of Bull Run

July 21, 1861

The Boat Bridges at Harpers Ferry

February 25-27, 1862

HDQS. DIVISION, FREDERICK, MD., *February 23, 1862*

Brig. Gen. R. B. Marcy, *Chief of Staff, &c.:*

GENERAL: My letter of Saturday missed the messenger by accident. It is forwarded to-day. We shall accomplish all contemplated under the march in my orders received this afternoon. If the pontoon train arrives to-morrow, we shall occupy Harper's Ferry to-morrow night, and be on the road to Charleston in the morning. It is expected Colonel Geary will seize the heights to-night. If the bridge is thrown across by Captain Duane we shall cross at night with 6,000 men, one regiment of cavalry, and 16 pieces of artillery. The cavalry will march the wagon roads, the artillery be divided between cars and road, as the weight is too great for travel at this season; their arrival will be delayed somewhat on this account. Colonel Leonard can cross at Williamsport with 1,900 men; General Williams, if not engaging the enemy with General Lander, will have 3,000 more men; and should it prove that no encounter with the enemy at Bath or in the vicinity of that place, ought we not to put in execution the plan of attack on Winchester? This is a favorable opportunity. The roads to Winchester are turnpikes and in tolerable condition, and the only roads that are passable. The enemy is weak, demoralized and depressed. The result is sure, if we can compass the contemplated in the conference with the General Commanding. In co-operation with General Lander and General Burns, with the increase of artillery and a regiment of regular cavalry, we will not ask odds of fortune. Our force alone is not sufficient, but we will gladly risk it.

I have the honor to be, with great respect, yours, &c.

N. P. BANKS

*Major-General, Commanding Division*²²⁵

Sandy Hook, *February 26* – 10.20 p.m.

Hon. E. M. Stanton:

The bridge was splendidly thrown by Captain Duane, assisted by Lieutenants Babcock, Reese, and Cross. It was one of the most difficult operations of the kind ever performed. I recommend Captain Duane to be made a major by brevet for his energy and skill in this matter; also Lieutenants Babcock, Reese, and Cross, all of the Corps of Engineers, to be made captains by brevet. We have 8,500 infantry, 18 guns, and two squadrons of cavalry on the Virginia side. I have examined the ground and seen that the troops are in the proper positions and are ready to resist any attack. Loudoun and Bolivar Heights, as well as the Maryland Heights, are occupied by us. Burns' brigade will be here in a couple of hours and will cross at daybreak. Four more squadrons of cavalry and several guns pass here. Reports that G. W. Smith with 15,000 men is expected at Winchester.

Colonel Geary deserves praise for the manner in which he occupied Virginia and crossed after the construction of the bridge. We will attempt the canal-boat bridge to-morrow. The spirit of the troops is most excellent. They are in the mood to fight anything. It is raining hard, but most of the troops are in houses.

GEO. B. McCLELLAN
*Major-General*²²⁶

Sandy Hook, *February 27*, 1862 – 3.30 p.m.

Hon. E. M. Stanton:

The lift-lock is too small to permit the canal-boats to enter the river, so that it is impossible to construct the permanent bridge, as I intended. I shall probably be obliged to fall back on the safe and slow plan of merely covering the reconstruction of the railroad. This will be done at once, but will be tedious. I cannot, as things are now, be sure of my supplies for the force necessary to seize Winchester, which is probably reinforced from Manassas. The wiser plan is to rebuild the railroad bridge as rapidly as possible, and then act according to the state of affairs.

GEO. B. McCLELLAN
*Major-General*²²⁷

General McClellan:

If the lift-lock is not big enough why cannot it be made big enough? Please answer immediately.

EDWARD M. STANTON
*Secretary of War*²²⁸

²²⁵ O.R., Series 1, Volume 5, p. 726. (Digitized by Making of America <http://cdl.library.cornell.edu/moa/>)

²²⁶ O.R., Series 1, Volume 5, p. 727. (Digitized by Making of America <http://cdl.library.cornell.edu/moa/>)

²²⁷ O.R., Series 1, Volume 5, p. 728. (Digitized by Making of America <http://cdl.library.cornell.edu/moa/>)

²²⁸ O.R., Series 1, Volume 5, p. 728. (Digitized by Making of America <http://cdl.library.cornell.edu/moa/>)

Sandy Hook, *February 27*, 1862 – 3.30 p.m.

Hon. E. M. Stanton, *Secretary of War*:

It can be enlarged, but entire masonry must be destroyed and rebuilt, and new gates made; an operation impossible in the present stage of water and requiring many weeks at any time. The railroad bridge can be rebuilt many weeks before this could be done.

GEO. B. McCLELLAN

*Major-General*²²⁹

The 1862 Peninsula Campaign

March – July, 1862

Ship Point and Yorktown

The Seminary, Near Alexandria, Va.,

March 19, 1862

Maj. Gen George B. McClellan,

Commanding the Army of the Potomac, near Alexandria, Va.:

General: On the 16th instant I received from General Barnard an order to repair immediately to Fort Monroe. At the same time, I received at your headquarters in Washington, from yourself, General McDowell, and General Barnard verbal instructions for my guidance, providing, among other things, that I should make no reconnaissance in person of the landings on York River, lest the enemy thereby might receive intimations of intended movements.

In obedience to your orders, I have now the honor to make a brief report, premising that I am indebted to Colonel Cram and General Mansfield for almost all the information I obtained. In the presence of Colonel Cram I examined some intelligent negroes, who corroborated information which he had previously received. A pretended deserter from our ranks, sent out by General Wool several months ago, has recently returned, a real deserter from the enemy, with precise information of the rebel works between York and James Rivers. This information is laid down on maps, three in number, herewith enclosed, and all furnished by Colonel Cram – two copied in his office, one in the office of Captain Stewart, of the Engineers.

The first landing or landings on York River are on Back River. Pontoon boats at high water can go well up the northwest branch, perhaps as far as Big Bethel, but if the enemy is disposed to make an obstinate stand behind this stream, such a movement of pontoons would be perilous, if not impossible. This line of defense would be turned with apparent ease with a movement from Newport News along the direct road which heads the stream in question. On the matter, however, more information is desirable.

The next landing, and the best as a mere landing, is at Ship Point, on Poquoson River – a regular wood landing, with 12 feet of water. Here the enemy have had a strong battery, some ten guns, but it is reported have recently evacuated it – for what reason it is hard to conjecture, unless they intend or did intend to evacuate Yorktown. The road from this landing leads through woods to the Hampton and Yorktown roads.

The interior battery at the head of Goose Creek, between that creek and a branch of Back River, indicates an apprehension that we may land on the little peninsula, which is nearly closed

²²⁹ O.R., Series 1, Volume 5, p. 728. (Digitized by Making of America <http://cdl.library.cornell.edu/moa/>)

at that battery, and negroes informed us that pontoon bots could land on Cheeseman's Creek, a mile or more above Ship Point Battery.

The best landing for our purposes, in the opinion of Commodore Goldsborough and Colonel Cram and others is the one considered in your office on the 16th instant, namely, the right bank of the York River, between Wormley's Creek, about 2 miles from Yorktown and a little inlet about 3¾ miles from Yorktown. So far as we can learn there are no batteries on this part of the river. Gunboats a half mile from the shore or less can protect the landing. The land, elevated some 20 or 30 feet above the water, is cultivated, and without natural obstacles some half mile or more back from the river. The little peninsula between Back Creek, Back Bay, York River, and the little inlet just mentioned will apparently furnish an impregnable position for the landed forces should they be forced back by superior numbers. Pontoon boats, according to the information furnished by the negroes, will ground along the shore on hard sand. The bluff banks are not too steep for infantry. At the little inlet 3¾ miles from Yorktown the landing will apparently be protected from any batteries between Yorktown and Wormley's Creek and more particularly from two batteries of two Dahlgren guns, each said to be masked, 2 miles from Yorktown, and therefore near the mouth of that creek. Finally, the road from this landing turns all the enemy's defenses on the Hampton and Yorktown roads up to a point 4 miles from Yorktown.

The roads from Hampton and Newport News to Yorktown pass through alternations of woods and open fields, with woods sometimes on one side and open fields on the other, and with occasional defensive lines of considerable natural strength. Should the enemy occupy these roads and positions in force, a rapid advance by the direct roads would be difficult, and attended with much loss of life; but by extending our flanks considerably we shall naturally find some places of easy approach, by which all natural defenses will be turned. Considerable road and bridge making would be essential to safe and sure operations. The enemy now holds Big Bethel, where the first serious resistance on the road from Hampton will be encountered. Northwest Branch, Deep Creek, and the narrow divide between the two furnish a strong, continuous defensive line against rapid approaches – no serious obstacle, I think, against slow and careful approaches.

The works of the enemy at Wall's Creek seem to be built mainly or altogether to prevent our landing at that point. A similar remark may be made of the works between Deep Creek at Warwick River.

Warwick River, near its mouth, has, it is reported, been obstructed by the rebels. I have nothing to add to the information furnished by the map as to the works of the enemy between Hampton or Newport News and Yorktown. It will be noticed that one or two small batteries are found wherever a road from York River side joins the main road from Hampton, while no notice is taken of the roads which come in from the James River side. Still these roads seem to turn the positions of the enemy equally well. According to the map there are no prepared works beyond Deep Creek to prevent a march from Newport News by way of the Court House and the head of the Warwick River to a position entirely above Yorktown, and if possible above Williamsbug.

At Williamsburg, 12 miles above Yorktown, the enemy have fortified to some extent another natural line. On the right of the road, 1 mile below Williamsburg, there is Fort Magruder, a square redoubt with two mounted guns; on the left of the road two square redoubts without mounted guns.

Commodore Goldsborough expressed his desire to cooperate in every way and has his decided belief that the enterprise would be successful. He had secured twelve pilots when I left,

and can doubtless find as many more as may be necessary. He thinks he can protect a landing, and said something about running a gunboat or two by Yorktown in the night, but did not seem entirely willing to undertake that maneuver. There will be no difficulty in obtaining at Fort Monroe all the guides necessary for an onward march from Hampton and Newport News.

Miscellaneous information obtained in part through General Mansfield from the deserter or spy already mentioned: The steamboat Peck runs from Grove's Wharf, on James River, opposite Williamsburg, to Richmond, leaving the former place every day at 5 p. m. There is a battery of ten guns at Grove's Wharf. On James River, 21 miles above Williamsburg, there is a battery of thirty-two large guns. At Warwick there is a battery of seven guns half a mile above the Court House. This battery is not represented on the map, and I cannot make out its exact situation. The steamer Logan leaves Yorktown daily at 5 p. m. for West Point. There is a telegraph from Big Bethel to Richmond. Fourteen columbiads are mounted at Gloucester. Twenty-four guns in all, according to Mansfield, twenty-seven according to Cram, are mounted in the fortifications immediately around Yorktown. To these would probably be added the guns withdrawn from outside batteries.

Respectfully,

D. P. WOODBURY
*Lieutenant-Colonel Aide-de-Camp*²³⁰

Big Bethel, Va., *April 4*, 1862 – 5.50 p. m.

Hon. E. M. Stanton

Secretary of War:

Our advance is at Cockletown, within 5 miles of Yorktown. Slight skirmishing today. Have turned Ship Point battery. Our cavalry probably in it now. I push supplies and troops on it at once, making it a new depot. It is said by deserters and inhabitants that reinforcements are arriving at Yorktown from Richmond. I expect to fight tomorrow, as I shall endeavor to cut the communication between Yorktown and Richmond.

GEO. B. McCLELLAN
*Major-General*²³¹

Headquarters Army of the Potomac
Big Bethel, April 5, 1862

Brig. Gen Stewart Van Vliet

Acting Quartermaster-General,
Army of the Potomac, Fort Monroe:

General: I am directed by the commanding general to say that he finds the enemy a short distance in front, and too strongly entrenched to admit of his position being carried by assault. It may, and probably will, therefore, unless the enemy should retire, of which there are at present no indications be necessary for the commanding general to resort to some of the operations of a

²³⁰ O.R., Series 1, Volume 11, (Part 3.), pp 22-24. (Digitized by Making of America
<http://cdl.library.cornell.edu/moa/>)

²³¹ O.R., Series 1, Volume 11, (Part 3.), pp 66-67. (Digitized by Making of America
<http://cdl.library.cornell.edu/moa/>)

siege, and he wishes you to forward without delay to Shipping Point the siege train and mortars; also Colonel Tyler's regiment.

He also desires you to establish a large depot of all kinds of supplies at Shipping Point, and thinks it would be well for you to send Colonel Ingalls at once to that place to make extensive arrangements for the forwarding of stores up the Poquosin River to the vicinity of Howard's Bridge. Boats drawing about 5 feet will be necessary for this purpose. The troops that may arrive henceforth at Fort Monroe for the Army of the Potomac will until further orders be sent to Shipping Point. Warren's regiment may come up that route, unless he has transportation, in which event he can march. General Cassey, as soon as you can supply him with transportation, is to join General Keyes.

The commanding general desires me to impress upon you the necessity of throwing forward supplies of all kinds as rapidly as possible. You are desired to inform Mr. Eckert that the general wishes him to establish a telegraph line at once between headquarters and Shipping Point.

I am, general, very respectfully, your obedient servant,

S. WILLIAMS

*Assistant Adjutant General*²³²

Headquarters Army of the Potomac
Near Yorktown, April 11, 1862

Hon. E. M. Stanton,

Secretary of War:

I reached these headquarters at 7 o'clock this evening, having had an accident to the steamer on the way from Fort Monroe to Ship Point, and I was five hours on horseback. The roads being almost impassible, and so entirely occupied with the army, I frequently had to leave the road and take to the woods. The severe storm at Fort Monroe prevented transports from leaving for several days. The facilities for landing at Ship Point are very poor, and for several days it must have been next to impossible to move artillery over such roads. I learn that 12,000 men are engaged in repairing and building new roads. The difficulties of transportation have been so great that some of the cavalry horses had to be sent back, to keep them from starving.

I will report my observations of army movements tomorrow, but I see an earnest determination to lose no time in attacking the enemy combined.

JOHN TUCKER

*Assistant Secretary of War*²³³

Office of the Senior Quartermaster,
Army of the Potomac,
Camp Winfield Scott, Va., April 28, 1862

General M. C. Meigs

Quartermaster-General, U.S. Army, Washington D. C.:

²³² O.R., Series 1, Volume 11, (Part 3.), pp 71-72. (Digitized by Making of America
<http://cdl.library.cornell.edu/moa/>)

²³³ O.R., Series 1, Volume 11, (Part 3), p. 90. (Digitized by Making of America
<http://cdl.library.cornell.edu/moa/>)

General: With regard to the operations of our department, as connected with this army, I have the honor to report that I believe everything is working satisfactorily.

We have had great difficulties to encounter, but they have been overcome, and the wants of the army have been, and are supplied promptly. The best evidence of this is that there have been no complaints. Our army is stretched across the Peninsula, the right resting near Yorktown and the left near the James River. All our supplies are drawn from the depots at Cheeseman's Creek and Ship Point, except for a small portion of the left wing, which are obtained from Fort Monroe. The only difficulties have arisen from the character of the country, which is nearly level and covered with a dense growth of pines. The surface of the country is sandy, resting on quicksand, and during rainy weather the roads are soon rendered impassable, empty wagons even sinking to their beds. Nearly every foot of the roads have been corduroyed; a great many of these roads have been badly made and are exceedingly rough and the consequence is that the wear and tear of our transportation have been great. Large working parties are now on them and, if we should have any more good weather, they will soon be very much improved.

I find that mules are the only animals fit for this rough service. Our horse teams suffer severely, and I would recommend that hereafter no more horse teams be provided for our armies, no matter in what part of the country they be serving, as mules are more serviceable and economical.

Our main depots are at Fort Monroe, Cheeseman's Creek, and Ship Point. I have placed Captain Sawtelle in charge of the depot at the fort, assisted by Captain Thomas, and Colonel Ingalls in charge of that at Cheeseman's Creek, assisted by Captain Rankin, acting assistant quartermaster, Captain Pinner, brigade quartermaster, and Captain Wagner, brigade quartermaster. The latter is in charge of the clothing and camp and garrison equipage. The bulk of the clothing, &c., is kept at Old Point, as I do not desire to accumulate any great amount of stores here, as it would embarrass our movements when we advance.

Ship Point is at the mouth of the Poquosin River and is used exclusively as the depot for subsistence stores. Cheeseman's Creek depot is about 1 mile to the west of Ship Point, at the junction of Cheeseman's and Goose Creeks, and is used for forage, quartermaster stores and camp and garrison equipage. This depot is about 4 miles from headquarters, and the supplies from it have to be transported a distance of between $3\frac{1}{2}$ and 7 miles.

There is a small depot on Back Creek, from which General F. J. Porter's division is supplied, the distance of land transportation being about the same as from Cheeseman's Creek.

There is another small creek (Wormley's) which empties into the York River about $2\frac{1}{2}$ miles below Yorktown. This creek has $4\frac{1}{2}$ feet of water, and heavy ordnance is sent into it in barges. It is, however, under the fire of enemy guns and can only be used at night. Yesterday one of our barges, loaded with 400 13-inch shells, was delayed until daylight, when the enemy opened fire on it and burst a 100-pound shell in it and sunk it. The shells will be saved. I send you a map of the scene of our operations, with the roads plainly delineated.* (*Not Found).

I beg here to state that I have received the most cordial and efficient assistance from the officers of our department in charge of the depot at Fort Monroe and Cheeseman's Creek, and Colonel Crosman and Major Belger, as well as Colonel Rucker, have filled all my requisitions with the greatest promptness. I feel under many obligations to them for it.

I forward you herewith a copy of a circular which I have issued to the officers of our department on duty with this army.

I am, respectfully, your obedient servant,

STEWART VAN VLIET

Richmond and West Point Railroad

“Alexandria Va., March 18, 1862 – 1.50 p. m.

Hon. E. M. Stanton,
Secretary of War:

Please have McCallum provide engines and cars sufficient to transport supplies only for an army of 130,000 men, including 20,000 horses, over the West Point and Richmond Railway. The road is about 28 long. The only trouble at this point is in regards to horse transports. If [they] shall arrive promptly we shall have rapid and glorious results.

GEO. B. McCLELLAN
Major-General, Commanding²³⁵

“March 14, 1862, General McClellan instructed me to have five locomotives and eighty cars loaded upon vessels in the harbor of Baltimore and held subject to his orders with a view to using them in his contemplated Peninsula campaign. They were purchased from Northern railroad companies, loaded as directed, and remained on the vessels until early May, when they were sent to White House, Va., and placed upon the Richmond and York River Railroad. Another engine was added in June to this number, and all employed in transporting supplies between White House and the front, which, toward the close of June, was twenty miles from White House and four miles from Richmond. Upon the withdrawal of the Army of the Potomac to Harrison’s Landing, June 28, all the rolling stock was destroyed or damaged as far as practicable to prevent it from falling into the hands of the enemy.”²³⁶ *D. C. McCallum, Military Director & Superintendent of Railroads*

“War Department
Washington City, D. C., May 17, 1862

Maj. Gen. George B. McClellan,
Headquarters, Army of the Potomac

There have been forwarded from Baltimore to West Point five locomotives, eighty cars, 3 miles in length of railroad iron, 30,000 feet, board measure, of timber, one dozen frogs, one dozen switch irons, 1,200 chairs, with full supply of rail spikes, the last of which, it is expected, will reach the Peninsula on Monday.

P. H. Watson
Assistant Secretary of War²³⁷

²³⁴ O.R., Series 1, Volume 11, (Part 3), pp. 127-128.

²³⁵ O.R., Series 1, Volume 11, (Part 3), pp. 15-16. (Digitized by Making of America <http://cdl.library.cornell.edu/moa/>)

²³⁶ OR, Series 3, Volume 5, pp. 974-975. (Digitized by Making of America <http://cdl.library.cornell.edu/moa/>)

²³⁷ O.R., Series 1, Volume 11, (Part 3), p. 178. (Digitized by Making of America <http://cdl.library.cornell.edu/moa/>)

“Fort Monroe, June 29, 1862 – 8.30 p. m.

D. C. McCallum:

The rebels have possession of our railroad. White house is abandoned. Wentz and myself, with all our men, are here, waiting your orders. One locomotive, with forty cars, are at headquarters. The other locomotives are under the guns of the gunboats, with connecting-rods taken off and preserved. All the men are safe. We ran the railroad up to the last moment. The last two locomotives sent are still afloat and safe.

C. S. McAlpin
Superintendent.”²³⁸

*Extracted from D. C. McCallum’s Report, dated September 30, 1863*²³⁹

“The Richmond and York River Railroad was reconstructed from White House to a point four miles from Richmond in April and May [1862] and was used to supply the army before Richmond until June 28 [1862], when it was abandoned. Six locomotives, eighty cars, and a large amount of large material were burned or otherwise destroyed.” *D. C. McCallum*

Lessons Learned (Howard’s Report)

- **The voyage from Alexandria to Fort Monroe took about 18½ hours.**
- **The importance of infrastructure (roads & jettys).**

*Report of Brigadier General Oliver O. Howard, U. S. Army,
First Brigade, Second Division, Second Corps: Operations at Ship Point VA., 4-7 April,
1862*²⁴⁰

HDQRS. HOWARD’S BRIGADE, RICHARDSON’S DIVISION
Ship Point, Va., April 7, 1862

GENERAL: I have the honor to report, in accordance with general orders from division headquarters, dated April 4, 1862, I embarked my brigade at Alexandria, as follows: The Eighty-first Pennsylvania Volunteers and Sixty-first New York Volunteers on the Spaulding; six companies of the Fifth New Hampshire Volunteers in the Donaldson, under Colonel Cross; four companies of same, in command of Lieutenant-Colonel Langley, on the Croton. The Sixty-fourth New York Volunteers, detached by orders from headquarters army corps, had not arrived from Manassas. I took my headquarters on board the Spaulding, and sailed at 1.10 p.m, the 4th instant.

We arrived at Fort Monroe at 7.30 next morning, and were ordered by General McClellan, through General Van Vliet, to proceed without delay to Ship Point. Some delay was occasioned in procuring a pilot.

²³⁸ O.R., Series 1, Volume 11, (Part 3), p. 276 (Digitized by Making of America <http://cdl.library.cornell.edu/moa/>)

²³⁹ O.R., Series 3, Volume 3, p. 852 (Digitized by Making of America <http://cdl.library.cornell.edu/moa/>)

²⁴⁰ O. R., Series 1, Volume 11, (Part I.), pp. 284-285.

We left Old Point at 1 p.m. and reached this place at 3.15 p.m. I immediately apprised General McClellan of my arrival with my regiment, and received orders from him to remain in command at this post until relieved by a superior officer; to assist all in my power in improving the facilities for the transportation of supplies; to repair the road from this point to the Hampton and Yorktown road, and to ascertain the most feasible place of landing army supplies. I detailed Major Connor, with a force, to proceed and repair the road mentioned. I made a personal reconnaissance of the Poquosin River and became satisfied that this was the most practicable place for receiving supplies from water transportation. On the arrival of General Van Vliet I communicated with him, and ordered all assistance I could in preparing the place for unloading the vessels.

In the mean time, I received dispatches from General McClellan, urging the facilitating of the means of transportation. I have detailed all the pioneers in General French's brigade and my own, who, under Major Parisen, of the Fifty-seventh New York, are now at work, in conjunction with Major Conner, on the road.

The larger part of General Miller's regiment are and have been detailed to assist the landing of commissary stores, and Colonel Cone has assisted in the quartermaster's department.

General French, with three regiments and two companies of his fourth, arrived yesterday, the 6th, at 2 p.m. and disembarked as speedily as possible.

Six companies of the Fifth New Hampshire arrived this morning at 10 a.m., all of which are encamped in the immediate vicinity.

I have detailed Captain Sherlock as harbor-master of the port and given him instructions.

I transmit a copy of the orders of General McClellan to me; also copy of instructions to the harbor-master.

I have the honor, general, to turn over to you the command of the post.

Very respectfully, your obedient servant,

O. O. HOWARD
Brigadier General of Volunteers

“General Order 155,” actually published as a circular, dated August 14, 1862, from S. Williams, Adjutant General, Army of the Potomac²⁴¹

EXSUM: Wagon trains were organized by division. Each brigade train was guarded by 100 men, or 300 guards per division train. Artillery batteries were attached to divisions. Battery trains accompanied the train of the division to which they were attached. Always pass on the left. Don't stop to water team animals on the march. Stay closed up and double-up the train at halts.

1. In the contemplated movement, unless otherwise directed, the train of each division will precede the division, arranged in the order of march of the troops, and will itself be preceded.

The train of the reserve artillery of the corps will go with the train of the leading division.

²⁴¹ O.R., Series 1, Volume 11, Part 3, Chapter XXIII, pp. 376-377

Each quartermaster and his assistants must be with his train, and require it to take at the proper time its appropriate place in the column and keep it, and will see that his wagons do not check the march of the troops or wagons in the rear.

2. Each regimental commander will be held responsible for delay caused by any wagons of the train of his regiment not being ready. So, too, with any brigade and division commander regarding his supply train. Any train not prepared to move at its appropriate time will be held, to fall in the rear of the division trains.

3. Trains of batteries attached to divisions will accompany that of the division in the order of march.

Corps commanders will designate the order of march of the supply trains.

4. Staff officers not otherwise occupied will find their appropriate place in the line of march, ascertaining the cause of any detention that may occur.

5. On arriving in camp each commander will see to all necessary arrangements, such as requiring wagons to be camped quickly, properly faced, bridges to be made, fences removed, ditches filled, &c., to enable trains to leave and re-enter the road without delay.

6. If troops or artillery are required to pass wagons at any time they will pass on the left, and the wagons will close sufficiently to the right and keep moving if possible. Trains must be kept closed and must not be cut by other trains, artillery, or troops.

7. During a temporary halt, quartermasters will close up and double or park their trains in convenient places near the road so as to allow rear trains to move up, thus shortening the line occupied by the column.

8. No accident, such as breaking down of a wagon, balking of a team, &c., must on any consideration be allowed to delay the wagons in the rear of the one specifically affected. An escort must be left with it and the train must move on.

9. Quartermasters will see that their animals are well watered before starting out.

No stoppage must be made for the purpose of watering while on the road.

Wagon wheels will not be locked for the descent of hills, except where it cannot be avoided without danger.

10. To each brigade train the brigade commander will assign a guard of companies amounting to 100 men. No other men will be permitted to go with the wagons. These companies will permit no stragglers of any command whatever to join the train, compelling all such to join their own regiments or march as prisoners and assist the guard in giving aid to the wagons. The officers will exercise their cool judgment and energy to expedite the march and not wait to be asked for assistance.

11. Commanders of corps, divisions, brigades, regiments, companies, and guards will take the necessary steps to prevent straggling, and punish, on arrival in camp, all offenders. Men must not be permitted to leave the ranks. At the end of every hour on the march there will be a rest of five minutes, and the men must avail themselves of these intervals to re-arrange belts, obey the calls of nature, &c.

12. The hour of marching, the route, and the place of encampment will be specially communicated to each corps commander.

By command of Major-General McClellan:

S. WILLIAMS
Assistant Adjutant-General

The Second Battle of Bull Run
August 28 – August 30, 1862

The Battle of Antietam
September 17, 1862

Quartermaster-General's Office

Letter, dated October 9, 1862, from Quartermaster-General M. C. Meigs to Secretary of War Edwin M. Stanton, Subject: Transportation Allowance²⁴²

SIR: There is no regulation fixing the allowance of transportation in the field. Printed orders from some of the generals commanding active troops have fixed the allowance at fifteen wagons to a regiment; others have marched with six.

The troops generally carry too much useless baggage.

The opinion of Napoleon was that 500 wagons were enough for an army of 40,000 men, and that with this number the army could have with it a month's provisions. His troops bivouacked without tents. The introduction of the shelter-tents enables our Army to carry the tents of the rank and file upon the persons of the soldiers, and the wagon trains can therefore be reduced to as low a standard as that advised by Napoleon. The trains of an army are of three classes – the headquarters, the regimental, and the general supply trains.

It is impossible to fix by any general regulation the number of wagons in the general supply trains. They will increase as the distance from the depots of the supplies to the army increases. These depots are generally filled in our country by railroad or water transportation and the supplies are carried forward from the principal depots to the smaller depots, which are in immediate proximity to an army by general supply trains.

The headquarters trains and regimental trains, however, can be regulated. Their duty is to transport such baggage and supplies as should be always with the army. These trains have generally in our Army been larger than necessary, and, by their magnitude, have offered temptations to officers and men to carry with them useless baggage. The armies have thus been encumbered in their movements, and military operations have been less successful than if our armies had been less profusely equipped.

The losses of wagon trains and of horses have been very great. Large trains are difficult to guard. Portions of them are cut off by partisans or abandoned upon every rapid retreat.

The marches of General McClellan from Harrison's Landing to Fort Monroe and from Washington to Antietam were made with reduced trains. The march of General Buell from Nashville to Louisville, I have no doubt, from its rapidity, was made without a heavy baggage train, though I have not yet seen official reports. He had when he left Corinth to move eastward a very large train.

General Morgan is reported to have marched lately from the Cumberland Gap to Greensburg.

These rapid marches in light marching order have had important results. The march to Fort Monroe enabled the Army of the Potomac to reach Washington in time to save it. The March to Frederick, and thence to Antietam, drove the rebel army out of Maryland. The March to Chattanooga, by Nashville to Louisville, saved Louisville and Cincinnati, and if followed up

²⁴² O.R. Series 3, Volume 2, pp. 654 – 655.

in light marching order will result in the recovery of Kentucky and Tennessee. The march from Cumberland Gap to Greensburg saved General Morgan's 10,000 men. When compared in their results with the slow movement of some of our armies, while encumbered with enormous trains, they show very plainly the importance of reducing wagon trains as much as follows. I submit herewith copies of General Order 130, 14th of September, 1862, from Major-General Halleck, commander in chief.

No. 5, 1st of September, 1862, from Major-General Wright, commanding Department of the Ohio.

No. 46, A, 27th of September, 1862, from Major-General Buell, commanding, Army of the Ohio, and

No. 153, 10th of August, 1862, from Major-General McClellan, commanding the Army of the Potomac

All these are intended to correct the evils of excessive baggage and baggage trains, and I enclose a scale of allowances for headquarters, regimental, and battery or squadron baggage trains, with some regulations in regard to the use of the trains, which I respectfully submit for consideration and that of the General-in-Chief, recommending that, if approved, it shall be issued in general orders to the army and established as a regulation. It is taken with little change from the order of General McClellan, under which his most successful movements have been made.

I am, very respectfully, your obedient servant,

M. C. MEIGS,
Quartermaster-General

The Battle of Fredericksburg
December 11 - 15, 1862

**Circular, dated March 10, 1863, from Brigadier General Rufus Ingalls, Chief,
Quartermaster, Army of the Potomac Subject: Transportation Allowance²⁴³**

The following is published for the information and guidance of all officers doing duty in the quartermaster's department in this army.

It is hereby ordered:

I. That hereafter the maximum allowance of means of land transportation and of camp equipage shall not exceed the following: For headquarters Army of the Potomac, including the chiefs of all the various staff departments, with their aides-de-camp, employees, servants, retainers, and camp followers, such wagons for baggage and supply trains, ambulances, spring wagons, extra saddle-horses, with equipments complete, for contingent wants, and camp equipage, as may be from time to time actually required.

II. For the headquarters of a *corps d'armee*: Four wagons for baggage; 2 2-horse ambulances; 2 2-horse spring wagons for contingent wants; 5 extra saddle horses for contingent wants; 1 hospital or other large tent for office of commanding general; 1 wall tent for every two officers of staff.

²⁴³ O.R., Series 1, Volume 25, Part II, Chapter XXXVII, pp. 562-563.

III. For headquarters of a division: Three wagons for baggage; 2 2-horse ambulances; 1 2-horse spring wagon for contingent wants; 2 extra saddle horses for contingent wants; 1 wall tent for office of commanding general; 1 wall tent for personal use of commanding general; 1 wall tent for every two officers of his staff.

IV. For headquarters of a brigade: Three wagons for baggage; 2 2-horse ambulances; 1 wall tent for office of commanding general; 1 wall tent for personal use of commanding general; 1 wall tent for every two officers of his staff.

V. For each regiment of infantry, with 700 men and upward present, 6 wagons; for each regiment of infantry, with 500 men, and not exceeding 700 men present, 5 wagons; for each regiment of infantry with less than 500 men present, 4 wagons; 3 2-horse ambulances; 3 wall tents for the field and staff officers; 1 shelter or common tent for every other commissioned officer; 1 shelter-tent for every 2 non-commissioned officers, soldiers, servants, and camp followers.

VI. For a full battery of artillery: Three wagons; 1-2 horse ambulance; 3 wall tents for officers.

VII. For each regiment of cavalry: Two wagons and 66 pack-mules; 3 2-horse ambulances; 3 wall tents for officers.

VIII. The supply trains of each infantry *corps d'armee*, composed of three divisions, and the supply train for the Cavalry Corps will not exceed 5 wagons for each regiment in said corps. Such supply trains will remain consolidated, or be distributed to divisions or brigades, as the corps commander may direct.

IX. The chief quartermaster of *corps d'armee* will cause wagons to be assigned in their respective corps as follows: One wagon, on the requisition of the senior medical of each brigade, for brigade hospital purposes; 1 wagon, on the requisition of the brigade commissary of subsistence, to haul supplies for the sale of officers; 4 wagons to every 1,000 men to haul small-arms ammunition; 2 wagons to each division to haul forage for ambulance animals. The wagons allowed to a regiment, battery, or squadron must carry nothing but forage for the teams, cooking utensils, and rations for the troops, hospital stores, and officers' baggage. One wagon to each regiment will transport exclusively hospital supplies, under the direction of the regimental surgeon; the one for regimental headquarters will carry the grain for the officers' horses, and the three allowed for each battery will be at least half loaded with grain for their own teams. Stores in bulk and ammunition will be carried in the regular or special supply trains.

X. Wagons for the Reserve Artillery ammunition, the signal corps, and balloon party will be assigned from this office, and drawn from the general depot on the requisitions of the chief of artillery and chief signal officer, respectively.

XI. The chief quartermaster of *corps d'armee* will be held responsible that these allowances are not exceeded; that they be immediately reduced in accordance with this order, and that all excess be properly disposed of forthwith.

XII. It is especially enjoined on all officers of the quartermaster's department that they transact all of their legitimate duties promptly, and in each case finely at the time, so far as proper or practicable. While it is an essential duty and an evidence of real business qualifications to refer to higher authorities all matters requiring their advice, revision, or approval, it is, on the contrary, a most reprehensible practice, showing lack of fitness and self confidence, to refer constantly to such authorities' ordinary business matters. For instance, officers should not refer an employee or claimant from one office to another on trivial pretexts,

thus annoying the person, delaying justice, and manufacturing a business now very common and unnecessary.

XIII. It is imperatively demanded of all officers of the quartermaster's department that they shall keep themselves acquainted with the wants of their respective commands, and that they shall give timely notice thereof to this office, through the chief quartermasters of the respective *corps d'armee*. They will be held in strict responsibility for any disobedience of these orders.

XIV. The circular of October, 22, 1862, in reference to allowances of transportation, &C., is cancelled.

By order of General Hooker:

RUFUS INGALLS,

Chief Quartermaster, Army of the Potomac

Memorandum from Brigadier-General Rufus Ingalls to Brigadier-General Montgomery C. Meigs, dated January 15, 1863, Subject: Transportation Capability of the Army of the Potomac

Headquarters, Army of the Potomac,
Office of Chief Quartermaster,

Camp near Falmouth, Va., January 15, 1863

Brig. Gen. M. C. Meigs,

Quartermaster-General, U. S. Army, Washington, D. C.:

General: I have the honor to submit herewith a memorandum taken from the reports just received from the different quartermasters, showing the number of men, horses, mules, wagons and ambulances now present with this army. The figures in red ink show the number here now. The number of animals is larger, probably, than you supposed. There have been great additions to the cavalry and artillery horses. The pontoon train has been much increased, in fact, created, since last report. Many mules have been received to convert the four-mule teams into six. The increase is thus accounted for mainly. Of course, there have been received an additional number of wagons, in order to equalize the transportation in the grand divisions, and to furnish ammunition trains. The means of transportation is in most excellent condition. No army in the world ever had so good as this now has. The cavalry and artillery horses are in fair condition, considering that the quality of the animals was never first-rate. First-class horses have never yet found their way into this army. Many of them have been "doctored up" by contractors and sold into our hands, and the first service has discovered their unfitness. They have received as much care and attention as animals generally do.

This army, as you know, has never been delayed a moment on account of want of preparations on the part of the Quartermaster's Department. I am aware that its outfit is most liberal and perfect, and that the cost of maintaining it is, and has been, enormous. When resting in camp the expenses are far greater than when in motion. The army is large, well organized, and powerful, but it will soon melt away as the terms of enlistment expire. It is able to save our cause, however, if kept in motion and properly directed, as, doubtless, it will be.

Very respectfully, your obedient servant,

RUFUS INGALLS

Chief Quartermaster, Army of the Potomac

	Number of men present for duty	Means of transportation				Horses		Number of Animals
		Horses	Mules	Wagons	Ambulances	Cavalry	Artillery	
RIGHT GRAND DIVISION								
Second Corps	19,742	1,425	2,725	649	185	112	915	
Ninth Corps	17,566	1,086	2,112	514	123	141	934	13,730
Pleasanton's cavalry	3,807	327	198	113	21	3,585	170	
LEFT GRAND DIVISION								
First Corps								
Sixth Corps	48,370	3,506	4,880	1,427	406	4,357	2,292	15,035
Gregg's Cavalry								
CENTER GRAND DIVISION								
Third Corps								
Fifth Corps	42,700	2,732	4,848	1,249	357	3,399	2,130	13,109
Averell's cavalry								
Artillery Reserve	1,734	462	1,039	367	11		1,434	2,935
Army headquarters	1,049	669	1,036	355	19	1,020		2,725
Engineer Brigade	1,976	1,146	284	113	8			1,430
Eleventh Corps	19,858	1,740	1,213	539	117	2,647	894	6,494
	156,802	13,093	18,335	5,326	1,247	15,261	8,769	55,458
Twelfth Corps	23,000	1,030	1,199	447	110	82	747	3,058
General Kenly's brigade	5,856	160	309	103	22	1,512	339	2,320
1st New York Cavalry								
17th Pennsylvania Cav	1,073	125	75	40	5	1,294		1,494
TOTAL	186,731	14,408	19,918	5,916	1,384	18,149	9,855	62,330

Note: The subtotal for the means of transportation of the Left Grand Division are consolidated on the Sixth Corps Line. In the Center Grand Division, the means of transportation for the Third

and Fifth Corps and Averell's Cavalry are consolidated on the Fifth Corps line. The totals for the 1st NY Cavalry and 17th PA Cavalry are consolidated on the 17th PA Cavalry line. The blank line below the Eleventh Corps line is the number of the means of transportation present with the Army of the Potomac.

The Battle of Chancellorsville

April 30 – May 6, 1863

**Data regarding the movement of the Army of the Potomac
for eight days without wagons during the
CHANCELLORSVILLE CAMPAIGN²⁴⁴**

Camp Near Falmouth, VA.,
May 15, 1863

Major General Burnside,
Commanding, &c.:

GENERAL: I enclose herewith copies of correspondence between General M. C. Meigs and myself, as follows, viz:

A. Letter from General Migs regarding movement of Army of the Potomac for eight days without wagons.

B. Reply thereto.

C. Circular order for the march.

D. Proceedings of a board specially convened with instructions to report upon practicability, &c.

E. Enclosure of General Meigs.

I have thought that the information and results of experience set forth in the correspondence and enclosures might prove of service or at least of interest to you.

²⁴⁴ O.R. Series 1, Volume 25, Part 2, Chapter XXXVII, pp. 485 – 492.

I am, very respectfully, your obedient servant,

DANL. BUTTERFIELD
Major-General Volunteers, Chief of Staff

Please acknowledge.

[Enclosure B]

Quartermaster-General's Office,
Washington City, May 11, 1863

Major General D. Butterfield,
Chief of Staff, Army of the Potomac:

MY DEAR GENERAL: I send you another copy of the circular of January 2, 1862, in regard to flying columns of troops. It is reported that the Army of the Potomac has just made a movement of eight days' duration, carrying with it all necessary supplies, and yet with it no more baggage trains. If this be literally true, it has changed the whole character of the war on our side, and has done much for our cause. For the benefit of the service, I desire to have all the information I can collect upon the outfit and equipments and the actual performance of the troops on this march.

* * * * *

I will be obliged to you for copies of any orders issued by the headquarters describing the equipments and arrangements for the march, and any observations upon the actual performance of the men. How much and what did they carry? What did they throw away? Were they well fed to the end of the movement?

* * * * *

Yours, truly and respectfully,

M. C. MEIGS,
Quartermaster-General
[Enclosure B]

Brigadier General M. C. Meigs,
Quartermaster-General:

SIR: Your favor of the 11th May received. In reply to the inquiries therein contained, the troops marched with eight days' rations, provided in this way: Three days' cooked rations in haversacks; in the knapsacks one change of underclothing, five days' hard bread, sugar, coffee and salt; and five days' fresh beef on the hoof accompanying the columns. No wagons except the ammunition for the artillery, with the supplies of forage, and a very few wagons with forage for officers' horses. The extra ammunition for the infantry was carried on pack-mules. Two

pack-mules to each regiment were allowed, to carry rations and shelter tents for officers. There were no complaints of any lack of provisions, or scarcity. The eight days' rations, so far as any reports have been received, seem to have held out well; but when the troops came into action the knapsacks were invariably taken off, and in most instances abandoned and thrown away.

I enclose printed copy of proceedings of a board which was specially convened with a view to marching the troops with a larger supply than three days'.

The movements incident to General Hookers operations could not have been accomplished if the troops had been compelled to march with three days' rations only, and carrying the balance on wheels.

My judgment of the result of this experiment is, that of long marches are to be made without expectation of encountering the enemy before the supplies in the knapsacks are consumed, seven days' can be carried with perfect ease; that where the troops are to be put in action, it is not wise or judicious to put them in with this heavy load on them. Most of the officers speak very favorably of the facility of movement of heavy columns divested of huge trains. I think modern science could easily provide a concentrated ration, where the troops, without carrying any extra load, could carry ten days' rations in concentrated form. It would enable them to march light and comfortably.

I enclose copy of the *Moniteur de l'Armee* with Cholet's advertisement [not included].

The cavalry moved, by orders, without wheels, except batteries. They found no scarcity, but, on the contrary, a great abundance of corn, bacon, flour, and hay through the country in which they operated, and captured a sufficient number of horses to remount all that gave out or were broke down *en route*, and only complain of their horses being leg-weary and wanting shoes on their return. They did not complain of lack of supplies or forage.

While I am writing on his subject, excuse me for making a diversion. How can you expect to retain such valuable men as Ingalls in your department, unless you secure them some promotion, when they daily see their comrades who have left the department, and gone into the line, rising to brigades, divisions, and corps, and they doing the drudgery of the army and gaining no substantial rewards?

Hastily and sincerely, yours,

DANL. BUTTERFIELD
Major-General, Chief of Staff

[Enclosure D]

Special Orders }
No. 65 }

Headquarters Army of the Potomac

Camp near Falmouth, Va., March 7, 1863

* * * * *

II. A board, to consist of the following named officers, is hereby appointed to meet at the headquarters of Brigadier General Pratt, at 10 a. m. on Monday the 9th day of March, 1863, or as soon thereafter as practicable, for the purpose of taking into consideration the practicability and means of carrying an increased amount of rations by the troops over the three days' usually carried.

The board will consider and experiment upon the best method, and report in detail their proceedings and views. They will have in view the marching of troops without encumbrance of extra clothing or shelter tents, the use of desiccated vegetables or flour, and the carrying of fresh beef on the hoof, and the omission, in consequence, of beef or pork from the ration.

Detail for the board – Brigadier General C. E. Pratt, volunteer service; Colonel T. S. Allen, Fifth Wisconsin Volunteers; Captain O. O. Potter, Thirty-first New York Volunteers; Captain Horace Walker, Fifth Wisconsin Volunteers; First Lieutenant Joseph G. Roberts, Sixth Maine Volunteers.

By command of Major General Hooker

S. WILLIAMS
Assistant Adjutant General

* * * * *

In pursuance of Special Orders, No. 65, from headquarters Army of the Potomac, the board therein detailed assembled, and proceeded to make the experiment required, and arrived at the conclusion herein stated.

In order to ascertain the amount of weight usually carried by soldiers in this army, average knapsacks were weighed, with the contents contained therein and blanket rolled on top, and the mean weight was found to be 15½ pounds.

We then took out the contents of the knapsack, and packed inside ten days' rations of hard bread, to wit:

	Pounds
100 biscuits and ten days sugar and coffee, and then it weighed, with blanket.....	17
Without blanket.....	11¾
With a change of clothing – shirt, drawers, and socks.....	18½
With coffee, sugar, and desiccated vegetables.....	20½
Three days' rations of biscuit, bacon, and small stores were put into a haversack, and it weighed.....	5¾
The average weight of blanket.....	5¼
The average weight of overcoat.....	5¼
The average weight of shelter-tent.....	1¾
The average weight of change of clothing.....	2

It was found that the knapsacks would easily contain one hundred crackers, and that it was better to place at least as much as one shirt in the part of the knapsack next to the soldiers back, in order that the biscuit might not chafe the skin, and that so long as the weight of the knapsack is carried neither the weight of the extra clothing nor the space occupied by it was sufficient to justify with dispensing with the same; in fact, it can be carried better than not.

It is also observed that ten biscuits, although called a days' ration, are not sufficient upon the march, when no other articles, such as beans, rice and desiccated vegetables, are issued.

The board further placed five days' rations of bacon in a haversack, with ten days' coffee and sugar, and that amount was tied upon a soldier and worn without difficulty. But it should be

stated here that the haversack is found, when loaded to its capacity, to fatigue the men in moderate or cold weather more than a knapsack with 15 pounds inside.

The board, after numerous experiments, and from their previous experience with troops in the field, agreed upon the following conclusions: As a maximum, the men, by dispensing with extra clothing, except one extra shirt, drawers, and socks can carry in their knapsacks one hundred biscuits and eight days' small stores, and, in the haversacks, two days' cooked rations, which, with eight days' fresh beef on the hoof, will make ten days' full rations. Two days' only are put in the haversack, for the reason that the weight is more easily carried upon the back.

The board also thought that if two pack-mules with pack-saddles were furnished to each regiment, a sufficient number of camp kettles might be carried, with rations of rice, beans and desiccated vegetables sufficient to cook the fresh beef properly, and furnish the necessary quantities of soup upon all occasions, and make the one hundred biscuits last ten days instead of eight, as stated above.

The question creating most embarrassment in the minds of the board was how to provide for line officers who have no knapsacks, but it is considered that all difficulties can be obviated under ordinary marches if each line officer is required to employ the servant for which he is paid. The officer himself can carry his blanket and two days' rations, and the servant the balance; it being understood that his necessary baggage and mess chest should be carried in a reserve column of transportation.

The forgoing is stated to show what can be carried under the most favorable circumstances, but considering the climate, the state of the roads, and the fact that three days' rations has heretofore been the maximum amount, the board recommend as follows:

1. That all extra clothing, except a change of underclothing, be stored.
2. That five days' rations of bread and small stores be placed in the knapsack.
3. Three days' cooked rations in the haversack, and five days' fresh beef upon the hoof.
4. Two mules per regiment to carry camp kettles, rice, beans, &c.

Each soldier will carry –

	Pounds
Haversack.....	5¾
Knapsack.....	6
Blanket.....	5¼
Clothing.....	<u>2</u>
Total.....	19

Making 13¼ pounds in the knapsack, being 2¼ pounds less than the weight usually carried by soldiers in this army in their knapsacks.

RECAPITULATION

	Days
Maximum, with 2 mules' transportation	12
Maximum without transportation.....	10
Mean	8

All of which is respectfully submitted.

C. E. Pratt,

Brigadier General, U. S. Volunteers.
T. S. Allen,
Colonel Fifth Wisconsin.
O. O. POTTER,
Captain, Thirty-first New York
HORACE WAALKER,
Captain Fifth Wisconsin
J. G. ROBERTS,
First Lieutenant Sixth Maine, Recorder of Board.

[Enclosure E]

Quartermaster-General's Office
Washington City, January 2, 1862

The following paper is translated from a sketch of the organization of a light moveable column of troops by Mr. Alexis Godillot, an extensive manufacturer of clothing and equipments for the French army.

Mr. Godillot's great experience (being, it is understood, the principal contractor for clothing and equipping the army of France) gives his opinion great value.

I have thought his ideas of sufficient interest to endeavor to make them known to some of our intelligent officers. They may bear fruit.

The use of hand-mills for grinding corn would enable a column of men to dispense with flour or wheat bread during a march of some extent. They could be carried on the pack mules or horses.

M. C. MEIGS
Quartermaster-General

[Sub – Enclosure]

Flying Column

2,000 infantry (officers on foot)
400 cavalry
2 pieces of artillery
50 led horses (conducted by men on foot) carrying litters, cacolets, and officers' tents

DETAILS FOR EIGHT DAYS

For each man, empty entirely the knapsack, and refill it with small linen bags containing coffee, tea, sugar, rice, salt, pepper, and Cholet's desiccated and compressed vegetables. Take plenty of lard or suet in the small gamelle or mess-pan with which each man is furnished.

Plenty of cartridges – 60 in the knapsack, 40 in the cartridge-box. Each man must have, besides, 7 pounds of sea-biscuit, enclosed in a wrapper and placed in the knapsack under the cover, in the place where the folded coat is usually carried (see the drawings in the album of the

packed knapsack, and the instruction which has been given to every sergeant and corporal of the regiments which have received French equipments.

Tell off the men into squads of eight each, and give, beside the regular equipment of each of them, to one a marmite (or covered kettle), to another a large gamelle, to another an ax, to another a pick, to another a shovel. (These articles are to be fastened under the large strap of the knapsack.) One man in each company should carry the hospital knapsack, and it is well understood that each man ought to carry, folded, a blanket, and his share of the shelter-tent.

The cavalry should be furnished as the infantry but carry, in addition, pickets and grain for their horses.

Thus do away with all wagons.

To make a fire, it is sufficient to make a trench in the ground narrower than the bottom of the kettle, arrange the marmites of large kettles of a whole company side by side, and slip the wood under them. The kettles have covers, serving as stew pans. The men ought, without cooks, to make a soup and another mess of some kind in fifteen minutes.

Everything being arranged, put the column in motion. Encamp the first night, and see that you have everything in order. After this, march forward, overthrow the enemy, take his works, and establish yourself.

This done, while some entrench, others prepare the food, others pitch the tents, &c.

On the following day, from the depot, the wagons are sent forward, accompanied by detachments, to revictual the column. Go on thus, advancing always. Alarm the enemy, break up his camps, and keep always advancing. These are the tactics which the French army employs with success.

THE SHELTER TENT

The shelter tent is of much use to the soldiers.

1. It serves, buttoned up, as a bag, in which a man sleeps, under the large tent, or anywhere.
2. It serves as a bag to collect provisions and forage.
3. The men, buttoning them together, make of them tents or galleries, under which they are protected from the cold and rain. The more men unite, the better the tent, but eight men together can make an excellent tent.

Correspondence related to the use of pack trains and the soldier's load during the CHANCELLORSVILLE CAMPAIGN

**Authored by General Rufus Ingalls and corps quartermasters of the
Army of the Potomac, Dated May 29, 1863, Camp Near Falmouth, VA.
From Ingalls to Meigs²⁴⁵**

GENERAL: I have the honor to acknowledge the receipt of your communication of the 12th instant requesting a report of the operations of the quartermaster's department during the late campaign, and answers to certain inquiries.

²⁴⁵ O.R. Series 1, Volume 25, Part 2, Chapter XXXVII, pp. 544-563.

I have required a report from each of the chief quartermasters of the different corps. They are herewith enclosed, marked from A to H. I beg you will give these reports a close perusal, because they are very full, and contain much valuable information for our department touching the movement of troops in the field. In submitting these papers, I shall deem it necessary to give my views very briefly.

A copy of the report prepared by General Pleasonton, now commanding the Cavalry Corps, showing its present condition, is submitted, marked I. Also a copy of the proceedings of the board detailed to determine how many days' rations, clothing, &c., can be carried by troops on their persons on a march without wagons, herewith, marked K.

I will reply to your questions as follows:

Question 1. "The orders for the outfit and equipment."

Answer. It was ordered mainly that each man should carry eight days' short rations of provisions, one change of underclothing, and 60 rounds of ammunition on his person. He was also to carry his blanket or overcoat, his musket, and accouterments. In many instances both blanket and overcoat were carried, but it was not the intention.

Question 2. "The details of the outfit and equipment; the burden carried by each soldier, and its weight, &c."

Answer. The total weight carried by each soldier was 45 pounds. It consisted of his knapsack, haversack, subsistence, and change of underclothing, overcoat or blanket, arms and accouterments, and one piece of shelter-tent. Eight days' short rations stowed as follows: Five days' in the knapsack and three days' in the haversack; 40 rounds of ammunition were carried in the cartridge boxes, and 20 rounds in the pockets of the man's clothing. The total weight carried by the men, as reported by the different corps quartermasters varies somewhat. The amount stated by me, however, is the correct figure.

Question 3. "Same as to officers."

Answer. Each officer was responsible for his own outfit. It was to be carried by himself or servant. In some instances a few pack animals were used.

Question 4. "What tents were taken with the troops, and how transported?"

Answer. Shelter-tents were taken by the troops, each soldier carrying a piece.

Question 5. "What wagons, if any, accompanied the marching columns?"

Answer. No wagons followed the main column over the river at first. Some ammunition wagons were brought up, but not necessarily.

Question 6. "What pack trains?"

Answer. Pack-mules were used to transport reserve ammunition, and to pack up other supplies from the wagon parks.

Question 7. "The details of loading each wagon and pack mule."

Answer. A six-mule wagon will carry 1,400 rations of provisions, bread, coffee, sugar, salt, and soap, and eight days' rations of short forage for the six mules, or 25 boxes small-arms ammunition. A good pack mule could carry two boxes small-arms ammunition and six days' oats for himself, or an equivalent in weight of subsistence for men.

Question 8. "The organization of the teams."

Answer. The teams and pack trains were distributed to the corps and other commanders on the basis in my circular of March 10, 1863, marked L. It was ordered that mules for packing should be drawn from the ammunition and supply trains when necessary, but never more than two from any one team, thus leaving 4 mules for the wagon. By this arrangement, all the wagons could move forward when required, with moderate loads, while pack trains were being used.

Question 9. "The actual supply of ammunition and of rations accompanying the marching column."

Answer. The troops carried eight days supply of provisions and 60 rounds of ammunition on their persons.

Question 10. "The supplies moved from Falmouth and following in the rear of the army."

Answer. On the wagons and pack-mules there must have been at least six or eight days' more, all loaded and ready for the road. There was a plentiful supply of ammunition.

Question 11. "What did the troops carry on the campaign? Did they throw away overcoats, &c.?"

Answer. The troops carried through the campaign only those things necessary for their constant use. On the second and third days many abandoned overcoats and blankets, as the weather was warm. Very many abandoned their knapsacks on going into action. The impulse with the soldiers to throw off all impediments, under such circumstances, is almost irresistible. With proper discipline, soldiers can be made to take care of their knapsacks and all other property put on their persons. On the late campaign a blanket should have been taken, but no overcoat. Both weigh a man down too heavily, and are not necessary in moderate weather. When men become heated or fatigued, they will throw away such articles as are not imperatively needed. On short campaigns, or marches of four or five days without wagons, I would not take a knapsack at all, but would put the rations in the haversacks, and other things in the blanket, well folded, and thrown over the right shoulder and looped under the left arm. But if knapsacks containing rations, &c., are worn by troops, they should be made to fight with them on; or, if that be deemed inadvisable, great care should be taken, before putting them in action, to have the knapsacks stowed away properly in the rear. On the late campaign, the army abandoned in battle about 25 percent of the whole number. With due precaution, these might, of course, have been saved. Along the roads and at camp-grounds I saw many parts of blankets, overcoats, &c., discarded. The accompanying reports will show quite clearly how much clothing was used up and abandoned in the campaign.

The army was perfectly equipped at the commencement in every particular, so far as concerned our department. The issues made immediately after were to supply deficiencies, which arose in the interim. On future marches this army will correct the errors referred to.

Question 12. "Have the men shown ability to carry those supplies without injury to health?"

Answer. The troops exhibited adequate strength to carry all the articles composing their outfit.

Marches were never made with more cheerfulness, vigor and regularity. The army should have marched the eight days without embarrassment, so far as supplies were concerned. While at Chancellorsville, no difficulty was experienced by our department in bringing forward all that was required. At no time did I feel that there could be any failure to supply the army on either side of the Rappahannock.

Question 13. "What are the daily marches? A map or itinerary of each brigade's or division's march would be of value?"

Answer. A sketch is enclosed, marked M (not available), showing the theater of operations. The system of transportation adopted with this army works admirably, and experience and observation have suggested no further change. I am satisfied with it, and I believe this army is. The number of ambulances is now reduced to two in each regiment.

The pack mule system cannot be relied on for long marches with heavy columns. I shall have few hereafter, and intend to make them auxiliary simply to wagons, for short distances over rough country, where there are few and bad roads.

The new standard of means of transportation for the cavalry is as follows:

- Four wagons to each 1,000 men for small-arm ammunition.
- One wagon for hospital supplies for each regiment
- One wagon for regimental headquarters.
- One wagon and two pack-mules for each company.

I do not consider that this scale can be amended. I desire to state that all the animals belonging to our department are now in splendid condition, except the pack-mules, most of which are in good order as to flesh, but have been galled badly in packing.

I wish to call your attention to General Pleasonton's report, in order that you may perfectly understand why I call for so many cavalry horses. The report explains the case briefly. You will recollect that just before our late cavalry raid there was a review of the whole corps by His Excellency the President of the United States. It was admitted on all sides that the corps was then in fine condition. There were present for duty at that time at least 10,000 horses. Today, not more than 5,000 serviceable ones can be mustered in the corps.

There has been no complaint of extraordinary marches or want of forage. What, then, has temporarily destroyed these horses? If we inflicted a proportional loss on the enemy, he has suffered terribly.

There was too much weight carried on the cavalry horses after leaving the Rappahannock; they were not unsaddled, perhaps, and groomed at intervals, to say nothing of watering and feeding, &c.

I am, very respectfully, your most obedient servant,

RUFUS INGALLS

Brigadier-General and Chief Quartermaster of the Army of the Potomac

[Enclosure A.]

Office Chief Quartermaster First Army Corps

May 24, 1864

Colonel R. Ingalls

Chief Quartermaster Army of the Potomac:

COLONEL: In reply to your circular of May 22, requiring information on certain points pertaining to the recent movements, I have the honor to state that the number of baggage wagons which accompanied the First Corps was 405; the number of pack-mules was 330. The wagons were loaded with ammunition, artillery, and small arms, officers' baggage, camp and garrison equipage, subsistence and forage, and hospital stores.

Two mules to each regiment were loaded with officers' tents and subsistence; the remainder of the mules were loaded with small arms ammunition.

Average weight carried per wagon, in pounds, was 2,705; average weight carried per mule, in pounds, was 200; average number of days' of subsistence carried in wagons, 5; average number days' forage carried in wagons, 6; number of rounds carried in wagons, 1,208,000¹;

number of rounds small ammunition on mules, 520,000; number of days' marching rations carried per man when march commenced, 8; number of rounds of ammunition carried per man when march commenced, 60; average weight in pounds carried by each man, exclusive of musket, 40.

The amount of clothing carried per man was generally one change of underclothing, one blanket, one overcoat, in some cases one extra pair of shoes, one piece of shelter-tent. In one division (the Third) no overcoats are reported as carried by the men.

In the Third Brigade of the First Division, composed mostly of New Jersey troops (nine-months' men), about half of their knapsacks, &c., were thrown away, as well as a large amount of overcoats, about 100 haversacks, and 50 canteens. In Second Division, about 80 knapsacks and contents were thrown away. In First Brigade, Third Division, 7 knapsacks and some clothing (amount not ascertained) were thrown away. In the Second Brigade, Third Division, in which it may be remarked the men are reported as having been more heavily loaded than in the First Brigade, about 300 knapsacks and nearly two-thirds of their clothing were thrown away.

The pack-mules used for transportation of officers' baggage, &c., have proved advantageous.

The mules used for packing ammunition have suffered very much, from the fact that the men in whose charge they were have not the requisite amount of experience in such matters, and also from the fact that the mules were unavoidable kept saddles and packed for a long time continuously, in momentary expectation of moving.

The result of the experience we have had with the ammunition pack train induces me to report against its use as a permanent thing. In my opinion, if pack saddles could be carried in wagons, the lead mules of each 6-mule team might be made use of to carry ammunition from the train to the front when necessary, in addition to which there might with advantage be a few broken pack-mules with each ammunition train apart from the teams. Six mules can haul at least 25 boxes of small arms ammunition, besides forage for the team; they can pack but 12 boxes. On marches similar to those recently made, it is my opinion that the knapsacks had best be stored under guard in some locality easily accessible during the days of active operation, and returned to the troops when circumstances would justify it. So far as my experience goes, troops, both regular and volunteer, will throw away their knapsacks before any other articles of equipment, even on comparatively short marches.

I am, colonel, very respectfully, your obedient servant,

J. J. DANA

Lieutenant Colonel, Chief Quartermaster First Army Corps

P. S. – It may be proper to add that the strength of the First Army Corps, at the commencement of the movement, was, in round numbers, 17,000 officers and men.

[Enclosure B.]

Headquarters Second Army Corps

May 23, 1864

Colonel R. Ingalls

Chief Quartermaster Army of the Potomac:

COLONEL: In accordance with your instructions of yesterday, I have the honor to submit the following report:

The First and Third Divisions of the Second Army Corps moved from this place to Banks' Ford on Tuesday, April 28, with three days' rations in haversack, five days hard bread, coffee, and sugar in knapsack; 60 rounds ammunition on the person, 80 rounds small arm, and 150 rounds to the gun of battery ammunition, were carried in a train of 70 wagons. In addition to which there were 45 supply teams – one for each division and brigade headquarters, and one for each regiment – loaded with forage and hospital stores; making 115 6-mule teams and 100 2-horse ambulances. Six days' forage for the whole command being taken, the remainder of the trains were parked near the railroad, and were loaded with five days of field rations, two days of forage for the whole command, and eight for the teams remaining in park, camp and garrison equipage, and baggage; making a total supply of thirteen days of subsistence stores and eight of forage.

Wednesday, two days of rations and forage were sent forward and issued, the wagons returning to the park after being reloaded at the depot, and the command moved toward United States Ford.

Thursday, the troops crossed the river to Chancellorsville, followed by the ammunition train and six ambulances, the balance being left on this side of the river.

Friday, the ammunition train was ordered back from Chancellorsville to the vicinity of the ford.

Saturday, two days' rations were sent over on pack-mules, and two days' forage was sent by wagons, and issued, making complete the eight days' rations and six days' forage with which the command started.

On Monday, all the trains left in park at Falmouth were ordered to United States Ford, and on Tuesday the whole of the transportation was returned to its present camp, where the troops arrived the following morning.

Since the return, 2,195 knapsacks, 2,084 haversacks, 2,373 blankets, and 2,085 shelter-tents have been drawn, to supply the place of those lost or abandoned on the battlefield, being an average loss of about 25 percent, for those who returned. The clothing taken in the knapsack consisted of the overcoat, blanket, shelter-tent, shirt, one pair drawers and socks. The average weight carried by each man in addition to his equipment was nearly as follows:

Hard bread, 8 pounds; pork, $2\frac{1}{4}$ pounds; coffee, one-half pound; sugar and salt, $1\frac{1}{4}$ pounds; overcoat, $5\frac{1}{4}$ pounds; blanket, 5 pounds; shelter-tent, $1\frac{1}{2}$ pounds; shirt drawers, and socks, 2 pounds; making a total of $25\frac{3}{4}$ pounds.

For a protracted movement it is of great advantage to have the troops carry the knapsacks, but it cannot be done without necessarily causing much fatigue, and it would be impossible for the men to endure it in the present hot weather.

We had but 35 pack saddles to each division, which were carried in the ammunition train, and they were found to be of so much service in moving ammunition and supplies from the river to the front that I have since made requisitions for and drawn 50 additional to each division. The teams were all 6-mule and intended to be loaded with an average weight of from 2,200 to 2,300 pounds each.

On arriving at United States Ford, Wednesday night, the officer in charge of the pontoon train reported that, owing to the poor condition of his team, he was unable to get his train forward in season. I ordered the teams attached to the ammunition train sent back to the pontoons, and moved them to the point selected.

The Second Division was left to guard the line of the river, and its transportation was not moved from the vicinity of the old camp.

I am, colonel, very respectfully, your obedient servant,

R. N. BATCHELDER
Lieutenant Colonel and Chief Quartermaster

[Enclosure C.]

Office Chief Quartermaster Third Army Corps

May 24, 1864

Colonel R. Ingalls

Chief Quartermaster Army of the Potomac:

COLONEL: In reply to your circular of the 22nd instant, I have the honor to report as follows:

That when the recent operations began, the trains of this corps were consolidated near these headquarters, and were, on Wednesday, 29th, moved to the vicinity of Franklin's crossing, under the direction of the then chief quartermaster of this corps, Lieutenant Colonel W. W. Morford. The total train of the corps was composed as follows:

	<u>Wagons</u>
Supply train	119
Ammunition train, heavy and light	121
<u>Baggage train</u>	<u>282</u>
TOTAL	522

This train reached its destination by 12 m. on Wednesday, the 29th ultimo; was then placed in park, and remained there until Thursday afternoon following. At that time this army corps was ordered to move rapidly to the right, to unite with and support the Second, Fifth, Eleventh, and Twelfth Corps, then at or near United States Ford, and the trains were ordered to follow as rapidly as possible. We broke park about 5 p. m., and when we reached these headquarters received orders to park the baggage and supply trains, and push forward at all hazards the ammunition trains. The general supply trains and baggage trains of the corps never left this vicinity afterward, though a part of the supply trains were detached and sent to the front, as occasion required. The roads were very heavy in the vicinity of the river, and events proved that great wisdom was manifested in leaving the trains so far in the rear.

The trains with full teams were loaded with average weight of from 2,000 to 2,500 pounds, respectively, as follows: Ammunition train, with ammunition, light and heavy, and eight days' rations of grain; supply train, with subsistence stores and eight days rations of grain; baggage train, with private baggage, general camp and garrison equipage, and eight days' rations of grain.

In all our trains carried: Forage, heavy, eight days' rations; subsistence, five days' rations; ammunition, 40 rounds per man.

In accordance with orders from headquarters Army of the Potomac, the troops carried 40 rounds of ammunition in their boxes and 20 about their persons. In addition to this, they carried

an eight days' supply of marching rations, three of cooked in their haversacks, and five of hard bread, coffee, and sugar in their knapsacks – fresh bread being supplied on the hoof as it was required. Of clothing, they carried but little, as the principal amount they had was stored at Potomac Creek, in accordance with orders prior to the movement. They were limited to one great coat, one extra shirt, one pair of drawers, and one extra pair of stockings, and few carried more than this, though some regiments in part retained their blankets. Therefore the average weight carried by the men, independent of their arms and accouterments, I judge to be about 30 pounds.

In the matter of carrying knapsacks on such marches, my opinion is that it depends entirely upon the nature of the movement. If the march is to be short and rapid or severe, then knapsacks are purely *impedimenta*. But in such a movement as I understood the recent one was intended to be, they were really essential. So far as my observation extends, the chief fault lies in the immediate commanders ordering their men to unslung their knapsacks, and thus causing them to be abandoned when there is really no necessity for it. The result is, that when the line is driven back, or if it is shifted, or if it actually advances, the knapsacks are never recovered, or, if recovered, are found to be plundered, and then at the first lull in operations a new supply of knapsacks and clothing has to be issued. During the Peninsula Campaign, last summer, I knew this to be done no less than three times in three consecutive months, in different months in different divisions. Of course, this loss falls upon the private soldier, as there is no provision in the Regulations for a new issue or reimbursement, and Congress should relieve him from this hardship, by providing either proper officers to command him or just compensation for losses occurring mainly through the want of such.

In the matter of pack trains, I would state that we had in all a pack train of pack-mules, 285, devoted exclusively to the transportation of small arms ammunition and their own necessary forage. It was intended in orders that these mules should carry an average of two and a half boxes of ammunition and a supply of grain for eight days. But it was found on trial that the class of mules we possessed could scarcely carry more than an average of two boxes each and a supply of forage for four days. As you were aware, we were ordered to detach mules from the ammunition wagon trains, and thus compose the pack trains. These mules were many of them light and unfit for such service, and, when returned to the wagon trains, many were found with backs so sore and in such a debilitated condition that they had to be turned in for rest and treatment and others drawn in their stead. When these mules were detached from the ammunition wagon trains, we were ordered to detach others from the supply trains, so as to make up 4-mule teams all around, and thus move everything, if possible. Had these 4-mule teams been thus constituted a sufficient time to have become broken and manageable, they would no doubt have proven tolerably serviceable. But, as it was, they were mixed, green, and unbroken throughout all the movement, and few were capable of transporting more than from 1,500 to 1,600 pounds. When the order came to send forward the ammunition at all hazards, even these were broken up, for the emergency required that every wagon going to the front should have at least 6 mules to it. This stripped the supply trains almost entirely, and would have proven most disastrous had events compelled us to move such trains as a whole.

I studied the pack mule system carefully during the recent operations, because a new system, and the result of my observation is that a pack train for ammunition would be invaluable to an army operating in a wooded country like this, provided it was organized entirely independent of the wagon trains. This would, of course, involve considerable expense, but it

would be an expense amply repaid by the results produced. If not independent of the wagon trains, but composed of animals detached therefrom, then it is a nuisance and an evil, a positive curse to any moving army, which cannot be abated too speedily. Detaching mules from the wagon trains, as in the last movement, positively demoralizes all the trains, and produces at last a pack train which is practically worthless for such a purpose, because green and undisciplined. But a pack train for ammunition properly organized, composed of stout, sturdy, serviceable animals, kept for no other purpose, and disciplined to their work, will enable the Army of the Potomac to move and fight on any ground, and yet to be thoroughly supplied with powder and ball. I would move the wagons as far to the front on all occasions as would be safe or practicable, then load up the pack trains with boxes of ammunition and the necessary forage, and push them right after the troops, with orders to follow them everywhere. Each division should have its own train, and this train, if not unduly loaded, would be able to follow its division through woods and morasses wherever troops are capable of marching.

Holding these views, I cordially recommend the retention of the pack mule system, provided it can have its own independent organization; otherwise the sooner it is abolished the better for the service.

Submitting the above as the best that I can hastily give you, I have the honor to remain, very respectfully, your obedient servant,

JAS. F. RUSLING
Captain, and Acting Chief Quartermaster

[Enclosure D.]

Headquarters Fifth Army Corps

May 25, 1863

Brigadier General R. Ingalls,
Chief Quartermaster Army of the Potomac:

GENERAL: In compliance with your letter, 22nd instant, directing me to furnish information on the following points, I have the honor to report:

That the whole number of baggage wagons with the marching column of our troops was 19; ambulances, 18; spring wagons, 10; total 47; and were loaded with forage and officers' rations. The whole number of pack-mules was 325, hauling forage and ammunition. The average weight carried in the wagons was 2,500 pounds, and by the mules 250 pounds each.

The number of days' subsistence carried in the wagons was five days and the number of rounds ammunition 2,300,000, and on pack-mules about 365,000 rounds. The men carried eight days' rations and 60 rounds of ammunition. It is impossible to furnish any reliable estimate of the amount of clothing carried by the men. The average weight carried by each man was 45 pounds.

The amount of knapsacks, &c., thrown away is as follows:

Command	Knapsacks	Haversacks	Canteens	Shelter tents
First Division	752	107	78	107
Second Division	4,272	1,574	799	2,502
Third Division	357			1,282
Total	5,381	1,681	877	3,891

In a fatiguing march of the character as the last, it is a disadvantage to have the men carry knapsacks. It would be better for the men to carry only haversacks, canteens, blankets and shelter-tents.

The pack mule system is of advantage so far as the transportation of small stores from the trains to the commands on short marches, but will not be of any great benefit, and will render useless many animals now doing good service.

Respectfully, yours,

JOHN F. CASLOW

Captain, and Acting Chief Quartermaster Fifth Army Corps

[Enclosure E.]

Headquarters Sixth Corps, Chief Quartermaster's Office

May 23, 1863

Brigadier General Ingalls

Chief Quartermaster Army of the Potomac:

GENERAL: In compliance with your circular of the 22nd, directing a report of the movements of the quartermaster's department of this corps in the recent operations, and calling for information on various subjects, I have the honor to make the following report:

The movements of this corps were somewhat peculiar and not well adapted to test the operation of some of the methods of equipment and supply adopted. The actual marching during the ten days' operations was only about 15 miles, and during the advance of the corps it was engaged in almost incessant conflict. These peculiarities, however, furnished evidence which could not be obtained under ordinary circumstances relative to the plan of carrying rations in knapsacks and ammunition on pack-mules. To these matters I will allude below.

The corps left its camps in the vicinity of White Oak Church on the 28th of April, and marched about 5 miles to the bluffs bordering on the Rappahannock. I selected a field about a mile in the rear of the bluffs for the parking of the trains, and the entire trains of the First and Second Divisions and the Light Brigade were parked there on the following morning. The train of the Third Division remained in its previous situation, about a mile to the rear.

The First Division crossed the river the same night, and laid on the opposite bank during April 29 and 30, and May 1 and 2, being reinforced on the 1st by the Light Brigade. The entire corps did not cross until May 2nd.

On the 1st, I concentrated the whole train in the field mentioned above. During this time wagons were sent to the front as supplies were needed, carrying chiefly forage and articles needed by the staffs of the various brigades and divisions. No wagons remained across the river or upon the front. The officers on the opposite shore were not supplied with camp equipage.

On the night of May 2, the corps, having crossed, marched to Fredericksburg (about 3 miles) and captured the enemy's fortifications.

On the 3rd, it proceeded about 4 miles on the Chancellorsville Plank road, meeting constant opposition, and late in the afternoon having a severe engagement. I had, during the day, moved the trains of the corps to the fields adjoining the Lacy house, opposite Fredericksburg. The pack-mules, with ammunition, forage, and officers' baggage, had accompanied the troops. But few wagons accompanied the column, only a portion of those belonging to the batteries and the various general headquarters. Supplies of ammunition and forage were sent to the front in wagons on the night of the 3rd, returning early on the 4th. The enemy having sent a force in the rear to the heights of Fredericksburg, captured 6 teams and a number of pack-mules as they were returning to the river. The wagons containing hospital supplies were left at the hospitals, in charge of the medical department.

On the afternoon of the 4th, the corps had another severe engagement, and during the night recrossed the river at Banks' Ford, a point distant by the road on this side of the river about 6 miles from the park of the train.

Ammunition and supply wagons were now sent up in considerable numbers. A large proportion of the rations carried by the men had been lost, and the wagons were in constant requisition during the three days the corps remained in position at Banks' Ford. It then returned to its previous camps, and the train rejoined the divisions. The wagons were exposed at Banks' Ford to the artillery fire of the enemy, but no damage of any consequence was caused, and they were removed from danger without confusion.

Previous to the march, the troops had been supplied, as directed by orders from the headquarters of the army, with eight days' rations, carrying prescribed potions in the knapsacks. They also carried a blanket, shirt, pair of stockings, pair of drawers, half of a shelter-tent, and 60 rounds of ammunition. The average weight carried by the men is estimated at 56 to 60 pounds. The supply wagons were loaded with from three to five days' rations and eight days' short forage. The average weight upon these wagons was 2,000 pounds. The wagons were, of course, inadequate to carry the accumulated quantity of forage ordered to be kept on hand, but it was brought up to the various parks as opportunity permitted. As fast as supplies were exhausted, they were replenished from the depots at Falmouth, so that when the movement was completed the quartermaster's department was as well prepared for a march as at the beginning. All the transportation was in good and efficient condition, and no animals were lost excepting those noticed above as captured.

The number of rounds carried in wagons and on pack mules was 140; of these, the pack mules carried two boxes each. The pack mules also carried as much forage as could be properly loaded upon them. Two hundred and eighty-five pack mules were used for ammunition and 153 for forage and baggage. Their average load was over 220 pounds.

I think it is generally considered by officers in this corps that a partial use of pack-mules is advantageous; that a number of mules not connected with the regular trains should be allotted to the staff and regimental officers for transporting their necessary baggage. For this purpose a portion of the saddles should be provided with panniers.

The use of mules for transporting ammunition is not advantageous. Probably no occasion can arise when more difficulties will occur in the use of wagons for supplying ammunition than were presented in the recent movement of this corps, yet at no time, had the dependence been on wagons alone, would there have been a deficiency. The ammunition galls the mules, overweights them, so that an abandonment of the forage for their own supply is necessary, and deranges the trains. A modification of the system adopted would, I think, be beneficial. Each

ammunition wagon might carry a couple of saddles, so that boxes might be forwarded to the front when necessary.

I believe it is generally considered that the troops can march with more ease having their shelter-tent and underclothing rolled in their blankets and looped over the shoulder than with knapsacks. These can only be necessary if they are used for carrying rations, the transportation of which might be better performed by pack-mules when an extra supply for a hasty movement is required. In simple marching, without conflict, troops can carry rations for eight days, but in an engagement they must necessarily abandon a considerable portion of their burdens (as was the case in the movements of this corps) and rely upon the supply train for subsistence.

No accurate statement of the number of knapsacks and the amount of clothing lost can be made. Requisitions have been submitted for 3,887 knapsacks since the movement. Our total number of killed, wounded, and missing was over 4,900. As the knapsacks of these men were also in most instances lost, a total of 8,787 is presented. But some 3,000 men have left the corps in regiments whose term has expired, for whom no requisitions have been made, a portion of whom undoubtedly lost their knapsacks and clothing. The only approximation to the loss by abandonment is the number 3,887, given above, but no estimate can be made as to the proportion abandoned through indolence and the exigencies of battle respectively. In the formation of storming columns the knapsacks were ordered to be dropped, and opportunity was not afterward presented for the recovery of all of them.

Very respectfully, your obedient servant,

C. W. TOLLES

Lieutenant Colonel, Chief Quartermaster Sixth Corps

[Enclosure F.]

Office Chief Quartermaster Eleventh Army Corps

May 24, 1863

GENERAL: In answer to the inquiries in your telegram of the 23rd instant, I beg leave to make the following brief report:

The number of wagons which accompanied the marching column on the late march was, from camp to Kelly's Ford, 58 wagons, part of which were loaded with the knapsacks of the First Brigade, Second Division, then at Kelly's Ford.

The number of pack mules as above was 197, of which number 146 were loaded with ammunition and 51 ridden by the pack-mule drivers.

Average weight to each wagon, 1,800 pounds; to each pack mule, 220 pounds.

Ten days' subsistence carried in all; 60 rounds of ammunition carried by the wagons, 20 rounds by the pack mules, and 60 rounds by the men.

Eight days' rations carried by the men; also extra clothing, one shirt, one pair of drawers, one pair socks and one blanket. About one-half of the corps carried overcoats.

Average total weight carried by the men: Gun, 14 pounds; 60 rounds ammunition, 6 pounds; knapsack and haversack, with clothing and rations, 27 pounds; total, 47 pounds, including blanket and overcoat.

Clothing, &c., thrown away: 1,824 caps, 3,602 trousers, 6,937 shirts, 2,638 blouses, 4,686 drawers, 2,560 wool blankets, 3,432 rubber blankets, 6,009 knapsacks, 3,242 haversacks,

2,271 canteens, 3,636 shoes, 252 boots, 13,123 stockings, 189 dress coats, 1,752 great-coats, 4,255 shelter tents.

“Are knapsacks an assistance on the march?” Yes. I know of nothing better than the knapsacks. The kind in use is, I think, very faulty, and should be remedied.

“Will the men carry the knapsack and eight days’ rations without unusual fatigue?” They will, if not loaded with other baggage, but should be practiced in drill with the knapsack every day, else the shoulders will be worn raw.

“Is the pack mule system advantageous to the service?” Yes.

A supplemental report will be sent forward tomorrow. The time is too short to make a satisfactory report.

Very respectfully,

WM. G. LE DUC

Lieutenant Colonel and Chief Quartermaster Eleventh Corps

Office Chief Quartermaster Eleventh Army Corps

May 25, 1863

Brigadier General R. Ingalls

Chief Quartermaster Army of the Potomac

GENERAL: I desire to add, as supplemental to my report of yesterday, the following:

On the first of the two days’ march, to wit, up to Kelly’s Ford, scarcely an article of clothing was lost or abandoned by the Eleventh Corps. The camps of the Twelfth and Fifth Corps, near Mount Holly Church, which I passed directly after they had been abandoned by the troops, were covered with blankets and overcoats, and the road was lined with abandoned property, which was being collected by the inhabitants of the country, and I doubt not a search of their houses and out-buildings would repay the provost marshal, and secure many wagon-loads of clothing and blankets.

The figures in the report of yesterday are indicative of the amounts drawn and distributed to the troops since their return, and are the nearest approximation of losses I could make hastily in answer to your questions. They should probably be varied somewhat – caps, shirts, blouses, boots, shoes, and stockings should probably be reduced by two-fifths. Wool blankets, haversacks, knapsacks, canteens, dress coats, great-coats, and shelter tents, are probably nearly correct, as the troops were all well supplied when they marched from camp.

A number of pack-mules in each division can be made, I am convinced, of great utility, and, as an adjunct to wagon transportation or as a sole means of transportation in winter and spring campaigns or sudden movements, are very desirable. The last march was by no means a test of the value of pack mules, as the mules were not sufficiently accustomed to the packs and the drivers were all green hands.

1. Pack mules can go with the troops; and wherever troops can go pack-mules, properly loaded and conducted, can accompany them.

2. They can be employed successfully in transporting rations and forage to and from and through difficult places, when it might be otherwise impossible to carry supplies.

3. By the use of pack-mules the supply trains of wagons can be left at places more remote from danger and out of the way. In case of advance or retreat, the mules can march as fast as the troops and not materially obstruct the road.

4. The pack-mules used in the late movement were not only not trained, and the packers not expert, but the ordnance officers in charge were utterly regardless of their animals, and neglected to have their trains watered, fed, or unpacked. They seemed to be utterly ignorant of the equine necessity of daily oats, and to have used their trains without any judgment or mercy. The ordnance sergeant of the Second Division reports that the mules of his train were without forage four days, and on the fourth day they were so weak it was almost impossible to get them to stand up and go along; also that the saddles were off only a few hours in seven days; that the backs of some were scalded and fairly rotten. The First and Third Divisions trains experienced similar neglect. The First Division had 59 mules packed with two boxes each small arm ammunition, and 19 were ridden by the drivers. Their train returned with a loss of 3 animals, and 13 were subsequently condemned and turned into the depot at Aquia on account of sore backs. Two days and one night they were entirely without food and with their packs on. This train and some of the other divisions were unloaded and crossed the United States Ford, packed with a load of hard bread to the troops, and subsequently ammunition from the wagons in camp, when wagon trains could not possibly have gone through. The Third Division train consisted of 56 serviceable mules. Of these, 36 were packed with ammunition, 6 with oats, 2 without packs, and 12 ridden. One mule died on the march, 1 stolen in the night on the field at Chancellorsville, 1 strayed and lost, and 1 abandoned.

The ordnance officer should be made responsible for the correct management and use of the trains to the quartermaster's department, and should be compelled to instruct and drill drivers in the performance of their duties.

As to knapsacks, I think the present form clumsy, uncomfortable, expensive, and entirely too large. A man on the march should not be allowed to start with anything not absolutely necessary to his comfort and efficiency. A smaller knapsack, resting high upon the shoulders, curved so as to clear the middle of the back, and leave the spine cool, with flat, padded spring-curved hooks to hang it from the shoulders, could be made, which would be easier and better every way, as well as lighter and cheaper, than the present knapsack.

From conversation with the infantry officers, I learn that they are of the opinion that 60 rounds of cartridges are too many to carry on the person, except on express occasions. The 20 extra are 2 pounds' extra weight.

Neither pack trains nor wagons should be permitted to remain strung out on the road. When stopped from any cause, the mules and wagons should be drawn up in park in convenient fields, shortening the length of the line as much as possible, and every advantage should be taken to park near water, and the teamsters made to improve every moment in watering and feeding their animals, taking care never to delay the advance of the train thereby. Teamsters should be made to take some hay in their hands or oats in a bucket, and give their animals a bite on a long or severe march, whenever they are stopped a sufficient time. In this way they keep the animals in good heart. If a bad place or broken bridge be in the way, by closing up the line of teams the train is brought farther on the journey, and the teamsters are brought together to assist in removing obstructions or repairing roads. Trains should not leave camp until they have a clear road, if possible. To wait on the hot and dusty road with the harness on, is nearly as fatiguing as to march with the loading. Teams that are fairly loaded and have a clear road will make on occasion long marches without injury. For instance, on the 29th of April, at 9 p. m., near Berea Church, I received an order dated Kelley's Ford, 4 p. m., "to have 6,000 rations of forage at Kelley's Ford by tomorrow morning without fail." I started a forage train at 10 p. m.; took charge of it myself, and before the troops were moving the next morning, had the forage at Kelly's Ford,

having made 22 miles (part of the road over very bad roads and in the night) in six hoursⁱⁱ. The train was unloaded and returned to camp before 10 o'clock the same day, making 44 miles in twenty-four hours, and the next day the mules were ready for service.

SUMMARY STATEMENT OF MY OWN MOVEMENTS

The troops marched at 5 a. m., with the wagons allowed accompanying. The ammunition and the entire transportation of the corps, other than above mentioned, was ordered to march at 11 a. m., and to encamp at the forks of the road, about one mile east of Berea Church. They were encamped at the place indicated in the order of General Howard; the ammunition train and the different brigade and division trains in the same order as when marching. I was ordered to remain in this camp, and to keep on hand five days' rations, and hold myself ready to forward any rations or forage, or all of the train, at a moment's notice. I kept the camp supplied with the necessary forage and rations, and sent them forward to the troops from time to time as ordered, using the wagons when possible and the pack mules at times when the bridge was impassible for wagons.

The corps was kept well supplied with forage, rations, and ammunition while on the march and while at Chancellorsville, and were encumbered with no unnecessary wagons except those which were with the First Brigade, Second Division, at Kell's Ford, and which accompanied the troops on the march, and were finally sent out of the way to the east side of the Rappahannock.

Respectfully,

WM. G. LE DUC

Lieutenant Colonel and Chief Quartermaster Eleventh Corps

[Enclosure G]

Office Chief Quartermaster Twelfth Army Corps

May 23, 1863

Colonel R. Ingalls,

Chief Quartermaster Army of the Potomac:

Sir: In compliance with your telegraphic orders of the 22nd instant, I herewith render a report relative to the quartermaster's department on our late movement, and answer your questions in order in the following tables and remarks.

The marching column of the Twelfth Army Corps left Stafford Court House, Virginia, on the 27th of April last, marching due west to Hartwood Church.

The following is a list of transportation that accompanied the marching column:

Trains, &c.	Number of army Wagons	Number of pack mules	Number of pounds carried by each	Total number of pounds carried	Number of rounds small-arms ammunition carried
Corps headquarters wagons, with baggage and provisions	4		2,500	10,000	
Supply train with forage	3		2,500	7,500	
Division headquarters wagons, with forage and provisions	11		2,200	24,200	
Ordnance train, with forage for pack mules	5		2,300	11,500	
Regimental officers baggage and provisions		23	150	3,450	
Ordnance train, small-arms ammunition		193	202	38,986	389,860
Total for brigade pioneer companies		5	150	750	
Total transportation and loading	23	221	10,002	96,386	389,860
Average load on each wagon	2,313				
Average load on pack-mule	195.4				

The balance of the train and reserve, consisting of headquarters, regimental, supply, ordnance, and ambulance trains, together with four batteries of artillery, moved from Stafford Court House on the 27th of April, p. m. towards Banks' Ford, and connected with the marching column at United States Ford on the 1st of May.

The following is a list of the transportation accompanying the reserve train:

Trains, &c.	Number of army wagons	Number of pounds carried by each	Total number of pounds carried	Number of rounds small arms ammunition carried	Number of rounds artillery ammunition carried
Division and brigade headquarters	13	2,400	31,200		
Hospital stores, one wagon per regiment	28	2,400	67,200		
Regimental officers' baggage, camp and garrison equipage	56	2,400	134,400		
Regimental wagons, with forage and rations	49	2,400	117,600		
Five batteries with forage and provisions	15	2,500	37,500		
Supply train with six days' rations	71	2,300	163,300		
Supply train, with forage	33	2,400	79,200		
Supply train, with entrenching tools	7	2,400	16,800		
Supply train, with medical stores	6	2,400	14,400		
Stores for sales to officers	6	2,400	14,400		
Division ordnance train, small-arms ammunition	49	1,898	93,002	833,000	
Division ordnance train, artillery ammunition	20	1,840	36,800		2,976
Total transportation and loading	353	27,738	805,802	833,000	2,976
Average load on each wagon	2,283				

	Pounds
Each person carried in his knapsack and on his person eight days marching rations	16
60 rounds of ammunition	6
1 blanket, 1 overcoat (or rubber blanket), one-half shelter tent, 1 shirt, 1 pair drawers, 1 pair socks, 1 knapsack, and 1 haversack	11
<u>Gun and accoutrements</u>	<u>11</u>
Total weight carried by each man	44

For the purpose of estimating the loss in clothing, camp and garrison equipage thrown away and left in the field, I accompany this report with a list of these articles supplied on requisition from the date of the return to this camp (May 7) to the present date, at which time the men are fully supplied.

The loss in overcoats was probably the greatest, but as the men do not require for the loss, at this season, it does not appear [*sic*]. The best criterion by which to judge of the waste of blankets, the amount drawn for being 3,011. Our effective force now being 8,000, three-eighths of the men have lost one blanket each. The knapsacks drawn amount to 4,616, showing more than half lost, probably on the battlefield, by being relieved of them during action.

Four thousand shelter-tents have been supplied, one-fifth lost; 2,980 haversacks supplied, three-eighths lost; 3,017 rubber blankets supplied, three-eighths lost. The balance, being articles of clothing supposed to be worn out, are not notices.

Not having been with the marching column, I cannot decide from observation on the question of the advantage of loading the men heavily and with knapsacks. Reliable officers inform me that the men, though much fatigued, did not straggle, and that the result of the last march is more successful than former marches, when the roads were encumbered by trains. I consider the experiment of using pack-mules successful, and, with the experience we have had in the last march, it will prove an important part of the transportation.

Respectfully submitted by your obedient servant,

W. R. HOPKINS

Lieutenant Colonel, and Chief Quartermaster Twelfth Army Corps

*List of clothing, camp and garrison equipage, required for the Twelfth Army Corps,
and drawn from the 7th to the 23rd of May, 1863*

Shelter-tents	4,001
Wool blankets	3,011
Knapsacks	4,616
Canteens	1,768
Haversacks	2,980
Rubber blankets	3,017
Pantaloon	4,225
Socks	11,816
Bootees	4,298
Blouses	2,173
Jackets	181
Forage caps	1,449
Camp kettles	32
Mess pans	32
Woolen shirts	427
Cotton shirts	6,462
Infantry coats	178
Common tents	12
Wall tents	8
Overcoats	172
Drawers	3,804

Headquarters Cavalry Corps

Near Potomac Creek, May 24, 1864

Lieutenant Colonel R. Ingalls,

Chief Quartermaster, Army of the Potomac:

COLONEL: In reply to your telegram dated May 22, calling for information on certain points connected with the late movement against the enemy, of this corps, I have the honor to reply as follows, viz:

This command left its camp near Falmouth on the 13th of April, and marched in the direction of Rappahannock Station, taking with it six days' rations of subsistence and five days' short forage on the horses of the troopers, on the pack-mules, and in the supply wagons, which were taken with each brigade for the first two days; except in the Regular Reserve Brigade (General Buford's), which carried with it eight days' subsistence and only four days' short forage. An extra supply train took out to Morrisville an additional supply of three days' subsistence and short forage for the whole command, which was all issued on the 15th of April, at Bealeton. The wagons were then all sent back to Falmouth, and an additional supply of forage and subsistence was sent up and issued at Morrisville on the 19th of April; enough to last the command until noon of the 24th of April. By reason of several severe storms, which completely flooded the country and rendered all the rivers and small streams impassable for cavalry, the command was deterred from crossing the Rappahannock until the 28th of April, and on the 22nd of April was concentrated on the Orange and Alexandria Railroad, near Warrenton Junction, to which point full supplies of long and short forage and provisions were sent by the Orange and Alexandria Railroad from Alexandria.

On the evening of the 27th of April, the command started for Kelly's Ford, on the Rappahannock, taking with it, on the horses of the troopers, three days' rations of subsistence and three days' forage; the pack mule train carrying, in addition, three days' rations, subsistence, and two days' short forage. On the morning of the 29th of April, all the pack-mules with the command were sent back to the main army, and the command crossed the Rapidan with only what could be taken on the horses of the officers and men; this was about three days' subsistence and short forage; 40 rounds of carbine and 20 rounds of pistol cartridges to each man were also taken. No more supplies were drawn by this command until the evening of the 7th of May, on which day we re-crossed the Rappahannock at Kelly's Ford, and marched to Bealeton Station on the Orange and Alexandria Railroad, where we found supplies of forage and subsistence.

You direct in our telegram that I state whether it is considered an advantage for knapsacks to be carried on such a march, and whether it can be done without causing unusual fatigue. In reply, I would state that the command with which I was, was composed entirely of cavalry, with six pieces of artillery, and no knapsacks are ever carried by either. From my former experience with infantry, however, I am of the opinion that in such a march as that lately made by this army knapsacks are the great encumbrance to the men, and should not be carried.

The amount of clothing taken by the command was one suit, which each man wore, and in most cases one blanket was taken, beside the saddle blanket. No clothing was thrown away during the march.

With reference to the use of pack-mules as a means of transportation instead of the army wagons, my experience and observations lead to the belief that for cavalry operations in this country they are not advantageous to the service, although it is my opinion that a few mules, say 12 to each regiment, could be retained, and might frequently be of great service in taking forage and subsistence to regiments on picket and at a considerable distance from depots.

My reasons for this opinion are the following, viz:

1. It is impossible to find a sufficient number of men in the ranks who have had any experience in packing mules, and packing is an art which can be learned by actual and long experience.

2. The pack-mule system takes away largely from the effective military strength of the command. To manage properly the pack-mule train, it has been found necessary to detail at least one man to every 2 mules; in many regiments 1 man to each mule has been detailed to pack, take care of the mules, and keep them closed up on the road. To carry subsistence for 400 mounted men, and short rations of forage (10 pounds to the horse), the number of mules required is as follows:

	Pounds
400 rations hard bread, coffee, sugar, and pork, 2½ pounds to the ration ⁱⁱⁱ	1,000
<u>400 short rations grain, 10 pounds each^{iv}</u>	<u>4,000</u>
TOTAL	5,000

At 200 pounds to the mule, this requires 25 mules. This amount could be transported by two army wagons drawn by 12 good mules, and requiring the attention of only two teamsters, thus saving the service of 11 men and 13 mules.

A pack train of 25 mules stretches out over about 75 yards, while two 6-mule teams closed up occupy a short space of only 24 yards^v. The delays with a large pack train are very numerous. The train is constantly being disarranged, and interferes in no small degree with the marching of the troops. The wastage in the transportation of the supplies transported is much greater than when carried in wagons, particularly of grain, and when traveling with a cavalry command, on an expedition similar to the one similar to the one lately made by a portion of this corps, it is frequently necessary to keep the packs on the mules for a long time, which increases very much their liability to sore backs.

Nearly two-thirds of the pack-mules in this corps are now more or less broken down and rendered temporarily unserviceable, on account of sore backs. This, however, is in part owing to the inferior quality of the pack-saddles used (the McClellan pattern), and the unsuitable kind of saddle blankets, which are little better than cotton rags.

I have given above all of the information asked for in your telegram. I am preparing a more detailed report of operations of the quartermaster's department during the late cavalry operations of General Stoneman's command, and will send you a copy as soon as completed, which will be in a day or two. The scattered condition of this command since our return has prevented my obtaining all the data necessary to a full report before.

I am, colonel, very respectfully, your obedient servant,

C. G. SAWTELLE
Lieutenant Colonel, Chief Quartermaster Cavalry Corps

[Enclosure L.]

Circular.]

Headquarters Army of the Potomac,
Camp near Falmouth, Virginia, March 10, 1863

The following is published for the information and guidance of all officers doing duty in the quartermaster's department of this army:

It is hereby ordered:

I. That hereafter the maximum allowance of means of land transportation and of camp equipage shall not exceed as follows: For headquarters Army of the Potomac, including the chiefs of all the various staff departments, with their *aides de camp*, employees, servants, retainers, and camp-followers, such wagons for baggage and supply trains, ambulances, spring wagons, extra saddle horses, with equipments complete for contingent wants and camp equipage, as may be, from time to time, actually required.

II. For headquarters of a *corps d'armee*: Four wagons for baggage; 2 2-horse ambulances; 2 2-horse spring wagons for contingent wants; 5 extra saddle-horses for contingent wants; 1 hospital or other large tent for office of commanding general; 1 wall tent for personal use of commanding general; 1 wall tent for every two officers of his staff.

III. For headquarters of a division: Three wagons for baggage; 2 2-horse ambulances; 1 2-horse spring wagons for contingent wants; 2 extra saddle-horses for contingent wants; 1 wall tent for office of commanding general; 1 wall tent for personal use of commanding general; 1 wall tent for every two officers of his staff.

IV. For headquarters of a brigade: Three wagons for baggage; 2 2-horse ambulances; 1 2-horse spring wagons for contingent wants; 2 extra saddle-horses for contingent wants; 1 wall tent for office of commanding general; 1 wall tent for personal use of commanding general; 1 wall tent for every two officers of his staff.

V. For each regiment of infantry, with 700 men and upward present, 6 wagons; for each regiment of infantry, with 500 men, and not to exceed 700 men present, 5 wagons; for each regiment of infantry, with less than 500 men present, 4 wagons; 3 2-horse ambulances; 3 wall tents for the field and staff officers; 1 shelter or common tent for every other commissioned officer; 1 shelter-tent for every 2 non-commissioned officers, soldiers, servants, and camp followers.

VI. For a full battery of artillery: Three wagons; 1 2-hors ambulance; 3 wall tents for officers.

VII. For each regiment of cavalry: Two wagons and 66 pack mules; 3 2-horse ambulances; 3 wall tents, for field and staff officers.

VIII. The supply trains of each infantry *corps d'armee*, composed of three divisions, will not exceed 120 wagons, and the supply train for the Cavalry Corps will not exceed at the rate of 5 wagons for each regiment in said corps. Such supply trains will remain consolidated, or be distributed to divisions or brigades, as the corps commander may direct.

IX. The chief quartermasters of *corps d'armee* will cause wagons to be assigned in their respective corps as follows: One wagon, on the requisition of the senior medical officer of each brigade, for brigade hospital purposes; 1 wagon, on the requisition of the brigade commissary of subsistence, to haul supplies for sales to officers; 4 wagons to every 1,000 men to haul small-arms ammunition; 2 wagons to each division to haul forage for ambulance animals. The wagons allowed to a regiment, battery, or squadron must carry nothing but forage for the team, cooking

utensils, and rations for the troops, hospital stores, and officers' baggage. One wagon to each regiment will transport exclusively hospital supplies, under the direction of the regimental surgeon; the one for regimental headquarters will carry the grain for the officers' horses, and the three for each battery will be at least half loaded for their own teams. Stores in bulk and ammunition will be carried in the regular or special supply trains.

X. Wagons for the Reserve Artillery ammunition, the signal corps, and balloon party will be assigned from this office, and drawn from the general depot on the requisitions of the chief of artillery and chief signal officer respectively.

XI. The chief quartermasters of *corps d'armee* will be held responsible that these allowances are not exceeded; that they be immediately reduced in accordance with this order, and that all excess be properly disposed of forthwith.

XII. It is especially enjoined on all officers of the quartermaster's department that they transact all their legitimate duties promptly, and in each case finally at the time, so far as proper or practicable. While it is an essential duty and an evidence of real business qualifications to refer to higher authorities all matters requiring their advice, revision, or approval, it is, on the contrary, a most reprehensible practice, showing lack of fitness and self confidence, to refer constantly to such authorities' ordinary business matters. For instance, officers should not refer an employee or claimant from one office to another on trivial pretexts, thus annoying the person, delaying justice, and manufacturing a business now very common and unnecessary.

XIII. It is imperatively demanded of all officers of the quartermaster's department that they shall keep themselves acquainted with the wants of their respective commands, and that they shall give timely notice thereof to this office, through the chief quartermasters of the respective *corps d'armee*. They will be held in strict responsibility for any disobedience of these orders.

XIV. The circular of October 22, 1862, in reference to allowances of transportation, &c., is cancelled.

By order of Major General Hooker

RUFUS INGALLS
Chief Quartermaster, Army of the Potomac

[Enclosure]²⁴⁶

Headquarters Cavalry Corps, Army of the Potomac,

May 27, 1863

Brigadier General S. Williams,

Adjutant-General, Army of the Potomac:

GENERAL: I assumed command of this corps on the 22nd instant, relieving Major-General Stoneman, and I desire to submit to the major-general commanding the Army of the Potomac the condition of the cavalry as it comes under my command:

First Division, late my own command: First Brigade, 1,546 serviceable horses, 371 unserviceable; Second Brigade, 1,228 serviceable horses, 364 unserviceable.

Second Division, Colonel Duffe commanding.

²⁴⁶ O.R. Series 1, Volume 25, Part 2, Chapter XXXVII, pp. 533 – 434.

Third Division, Brigadier General Gregg commanding.

Of these two divisions, General Gregg reports “that a close inspection of the horses of these two divisions” on the 31st ultimo will show one-half of the whole number of horses unfit for “active offensive operations.” The average of each of these divisions is about 3,000 men; consequently the two have only about that number fit for service.

The Reserve Brigade, under Brigadier General Buford, is reported as follows: “There are 549 horses in the command” that cannot be recruited in a month. It will require 1,396 horses to “mount the whole command.” This brigade on the last of March had 2,226 serviceable horses. The difference leaves only 830 horses fit for service at this time.

RECAPITULATION

Serviceable horses:

First Division.....	2,774
Second Division.....	1,212
Third Division.....	1,861
Reserve Brigade.....	<u>830</u>
	6,677
Deduct Kilpatrick’s force and detachments, say.....	<u>2,000</u>
Effective strength.....	4,677

The effective strength of the corps by the March return was upward of 12,000 men and horses. It is now only one-third of that strength, and, so far as I can ascertain, is not fitted to take the field.

In taking this command, I cannot do myself such an injustice as to remain silent as to the unsatisfactory condition in which I find this corps. I shall use every exertion to bring it to a state of efficiency at the earliest possible moment, but the responsibility of its present state, it is proper the major-general should know, does not belong to me.

I am, general, very respectfully, your obedient servant,

A. PLEASANTON

Brigadier General, Commanding Cavalry Corps

The Battle of Gettysburg

July 1 – July 3, 1863

Circular from Major-General Joseph Hooker, commanding, by Seth Williams, Assistant Adjutant General dated June 18, 1863, requesting the transportation capability of the Army of the Potomac just before the Gettysburg Campaign²⁴⁷

The major-general commanding desires a field return of your approximate strength to be sent in tonight. He desires to know the full capacity of your transportation, when filled up with supplies and forage. He desires that the supplies be kept up fully; not more than two days salt beef be carried in the wagons; that rations of hard bread, sugar coffee and salt only be carried

²⁴⁷ O.R. Series 1, Volume 27, Part 3, Chapter XXXIX, pp. 197 – 198.

until further orders, depending upon fresh beef for supplies, excepting the two days of salt beef mentioned.

He directs that you cause all your trains to be thoroughly examined and inspected, and exclude all excess of personal baggage. All useless and cumbersome articles of wooden benches, bedsteads, and cooking stoves must be destroyed or thrown out of the train. The utmost vigilance is required of you to correct abuses in this respect, and you are held responsible therefore. No hospital tents will be carried, excepting those of the medical department.

Cumbersome mess arrangements must not be permitted. Ambulances permitted at corps, division and brigade headquarters, by order of March 10, must be reduced as follows: One instead of two spring wagons at corps headquarters; one instead of two ambulances at brigade headquarters. The surplus must be turned in. The use of ambulances for carrying baggage for citizens, women, &c., on marches must be stopped. If division, brigade, or other commanders violate this rule, corps commanders will cause the ambulances to be taken up from them and turned in, and the officers court martialed for disobedience of orders. Private vehicles, sutlers' wagons, and all irregular transportation must be excluded entirely from the column. Each teamster must carry three days' forage for his team under the seat of his wagon. Animals must be grazed whenever opportunity occurs, and forage from the country when practicable.

You will seize guides whenever necessary, to conduct your columns and post you in regard to roads. Topographical officers must make constant surveys and reconnaissances of the country, and send in information to the chief topographical officer.

The general headquarters will be at Fairfax Court House tonight. Telegraphic communication will be established to General Reynolds' camp near Guilford Station.

The Twelfth Corps is at Leesburg; the Eleventh on Goose Creek, near Trappe Rock, 4 miles from Leesburg; the Fifth Corps, General Meade, at Gum Springs; cavalry in the vicinity of Aldie; the Sixth Corps at Germantown; Second Corps at Sangster's Station. General Pleasanton engaged Fithugh Lee's brigade, of Stuart's cavalry, at Aldie yesterday, capturing 9 officers and 74 men.

By command of Major-General Hooker:

S. WILLIAMS

Assistant Adjutant-General

Army of the Potomac
Correspondence from Brigadier-General Rufus Ingalls to
Major-General Daniel Butterfield, Camp near Fairfax Court House, June 19, 1863,
Reporting the Transportation Capability of the Army of the Potomac before the
Gettysburg Campaign²⁴⁸

GENERAL: I have the honor of transmitting herewith a statement showing the number of officers and men, cavalry and artillery horses, means of transportation with this army. It is compiled from the last reports received from the various commands, the date of which is noted. Some of the commands at the present time have less than the amount found in the statement, on account of troops being discharged from the service and their transportation turned in.

²⁴⁸ O.R. Series 1, Volume 27, Part 3, Chapter XXXIX, pp. 212 – 213.

Our attention is respectfully called to the reports of the First, Second, Eleventh and Twelfth Corps, which show the amount present on the first day of June. The number of officers and men may not be exactly correct, but the number of animals and wagons is reliable.

By comparing the amount with the different corps, above named, it will be seen that the Eleventh Corps is more liberally supplied with transportation than any other corps in the army. I enclose herewith the report made by the chief quartermaster, which shows in detail how the transportation is distributed. When you have examined this report sufficiently, will you please return it to this office.

RUFUS INGALLS

Brigadier-General, and Chief Quartermaster, Army of the Potomac

Date 1863	Command	Number of officers, men, and means of transportation in each command									
		Number of officers	Number of men	Means of transportation					Horses		Pack mules
				Horses	Mules	Army wagons	Wagons, two horse	Ambulances	Cavalry	Artillery	
June 1	First Corps	949	14,237	393	2,578	404	6	67	120	543	
June 1	Second Corps	1,039	14,572	670	2,795	496	7	117	110	455	
May 1	Third Corps	1,212	20,864	951	2,826	525	13	98	141	1,130	
May 1	Fifth Corps	1,050	18,324	879	2,621	496	7	166	9	850	
May 1	Sixth Corps	1,483	26,041	1,001	2,633	557	11	167	159	1,034	
June 1	Eleventh Corps	621	12,616	1,100	1,549	414	10	83	204	467	216
June 1	Twelfth Corps	530	9,401	897	1,480	365	12	94	102	397	
May 1	Cavalry Corps	719	11,687	1,085	2,404	313	4	86	12,386	699	
May 1	Artillery Reserve	51	1,408	489	1,307	291	3	15	1	1,499	
May 1	Engineer Brigade	83	2,115	757	326	120	2	12	12		
May 1	Patrick's Brigade	138	1,865	67	24	21	1	4	4		
May 1	Headquarters, Army of the Potomac	62	1,031	600	1,085	300	13	19	65		
TOTAL		7,937	134,161	8,889	21,628	4,302	89	928	13,313	7,074	216

		Officers and men
First Corps	1 Wagon to	37.6
Second Corps	1 Wagon to	31.5
Third Corps	1 Wagon to	42.0
Fifth Corps	1 Wagon to	39.1
Sixth Corps	1 Wagon to	49.4
Eleventh Corps	1 Wagon to	32.0
Twelfth Corps	1 Wagon to	27.2
Cavalry Corps	1 Wagon to	39.6
Artillery Reserve	1 Wagon to	5.0
Engineer Brigade	1 Wagon to	18.3
Patrick's Brigade	1 Wagon to	95.4
Headquarters, Army of the Potomac	1 Wagon to	3.6
Average		33.0

Letter, dated July 11, 1863, from Brigadier General Rufus Ingalls, Chief Quartermaster, Army of the Potomac to Brigadier General S. Williams, Adjutant General, Army of the Potomac, Subject: Transportation Allowance²⁴⁹

General: Since the issue of my circular of March 10, 1863, regulating the allowance of transportation and camp and garrison equipage to this army, several orders have been issued from this office changing it, and I have found it necessary in the late movements of our army to make still further changes.

I have the honor, therefore, to request that my circular may be cancelled, and the following allowance of transportation and camp and garrison equipage may be established, and that the order regulating it may be issued from your office:

I. For headquarters Army of the Potomac, including the chiefs of the various staff departments, with their aides-de-camp, employees, servants, retainers, and camp followers, such wagons for baggage and supply trains, ambulances, spring wagons, extra saddle-horses, with equipments complete, for contingent wants, and camp equipage, as may be from time to time actually required, provided it does not exceed the allowance as established by existing orders.

II. For the headquarters of an army corps: 5 wagons for baggage, forage, subsistence, &c.; 1 two-horse spring wagon for contingent wants; 5 extra saddle-horses for contingent wants; 1 wall tent for personal use and office of commanding general; 1 wall tent for every two officers of his staff.

III. For the headquarters of a division: 4 wagons for baggage, forage, subsistence, &c.; 1 two-horse spring wagon for contingent wants; 2 extra saddle-horses for contingent wants; 1 wall tent for personal use and office of commanding general; 1 wall tent for every two officers of his staff.

IV. For the headquarters of a brigade: 3 wagons for baggage, forage, subsistence, &c.; 1 wall tent for personal use and office of commanding general; 1 wall tent for every two officers of his staff.

²⁴⁹ O.R., Series 1, Volume 27, Part III, Chapter XXXIX, pp. 652-653.

V. For each full regiment of infantry and cavalry of 1,000 men; 6 wagons for baggage, equipage, &c. For each regiment of infantry less than 700 men and more than 500 men, 5 wagons. Less than 500 and more than 300 men (infantry), 4 wagons. Less than 300 men (infantry), 3 wagons. For each regiment of infantry and cavalry, 3 wall tents for field and staff; 1 shelter-tent for every other commissioned officer; 1 shelter-tent for every 2 non-commissioned officers, soldiers, servants, and camp followers.

VI. For each battery of six guns: 3 wagons for baggage, commissary stores, forage, &c.; 4 wagons for ammunition; 2 wagons for supply train; 3 wall tents for officers. For each battery of four guns: 2 wagons for baggage, commissary stores, forage, &c.; 3 wagons for ammunition; 2 wagons for supply train; 2 wall tents for officers. Shelter-tents for non-commissioned officers, &c., same allowance as in infantry regiments.

VII. The supply train for forage, subsistence, quartermaster's stores &c., to each 1,000 men, cavalry and infantry, 7 wagons. To every 1,000 men, cavalry and infantry, for small-arms ammunition, 4 wagons. To each 1,500 men, cavalry and infantry, for hospital supplies, 3 wagons. To each brigade, cavalry and infantry, for commissary stores for sale to officers, 1 wagon. To each division, cavalry and infantry, for hauling forage for ambulance animals, portable forge, &c., 1 wagon. It is expected that each ambulance will carry the forage necessary for its own team.

VIII. The chief quartermaster of army corps will be held strictly responsible that these allowances are not exceeded; that the means of transportation, &c. now in the respective corps, be at once reduced to conform to the forgoing, and that all be immediately turned in to the nearest quartermaster's depot.

Very respectfully, your obedient servant,

RUFUS INGALLS

Brigadier General and Chief Quartermaster, Army of the Potomac

Army of the Potomac

Circular, dated July 17, 1863, from Brigadier General Rufus Ingalls, Chief, Quartermaster, Army of the Potomac, Subject: Transportation Allowance²⁵⁰

The following is the allowance of transportation and camp and garrison equipage established for this army:

1. For headquarters Army of the Potomac, including the chiefs of the various staff departments, with their aides-de-camp, employees, retainers, and camp followers, such wagons for baggage and supply trains, ambulances, spring-wagons, extra saddle-horses, with equipments complete for contingent wants, and camp equipage as may be from time to time actually required, provided it does not exceed the allowance as established by existing orders.

2. For the headquarters of an army corps, 5 wagons for baggage, forage subsistence, &c.; 1 two-horse spring wagon for contingent wants; 5 extra saddle-horses for contingent wants; 1 wall tent for personal use and office of commanding general; 1 wall tent for every 2 officers of his staff.

3. For the headquarters of a division, 4 wagons for baggage, forage subsistence, &c.; 1 two-horse spring wagon for contingent wants; 2 extra saddle-horses for contingent wants; 1 wall

²⁵⁰ O.R., Series 1, Volume 27, Part III, Chapter XXXIX, pp. 718-719.

tent for personal use and office of commanding general; 1 wall tent for every 2 officers of his staff.

4. For the headquarters of a brigade, 3 wagons for baggage, forage subsistence, &c.; 1 two-horse spring wagon for contingent wants; 1 wall tent for personal use and office of commanding general; 1 wall tent for every [2] officers of his staff.

5. For each full regiment of infantry and cavalry of 1,000 men, 6 wagons for baggage, camp equipage, &c. For each regiment of infantry less than 700 men and more than 500 men, 5 wagons; less than 500 and more than 300 men (infantry), 4 wagons; less than 300 men (infantry), 3 wagons. For each regiment of infantry and cavalry, 3 wall tents for field and staff, 1 shelter-tent for every 2 non-commissioned officers, soldiers, servants and camp followers.

6. For each battery of six guns, 3 wagons for baggage, commissary stores, forage, &c.; 4 wagons for ammunition; 2 wagons for supply trains; 3 wall tents for officers; shelter-tents for non-commissioned officers &c., same allowance as in infantry regiments.

7. The supply train for forage, subsistence, quartermaster's stores, &c., to each 1,000 men, cavalry and infantry, 7 wagons. To every 1,000 men, cavalry and infantry, for small arms ammunition, 4 wagons. To each 1,500 men, cavalry and infantry, for hospital supplies, 3 wagons. To each brigade, cavalry and infantry, for commissary stores for sales to officers, 1 wagon. To each division, cavalry and infantry, for hauling forage for ambulance animals, portable forge, &c., 1 wagon. It is expected that each ambulance will carry the forage necessary for its own team. Every wagon, whether in baggage, supply, or ammunition train, will carry the supply of forage necessary for its own team.

8. The chief quartermasters of army corps will be held strictly responsible that these allowances are not exceeded; that the means of transportation &c., now in the respective corps be at once reduced to conform to the foregoing; and that all excess be immediately turned in to the nearest quartermaster's department.

By command of Major-General Meade:

S. WILLIAMS
Assistant Adjutant-General

Correspondence from Brigadier General Hunt, Chief of Artillery, to Brigadier General Rufus Ingalls, Chief Quartermaster, dated September 30, 1863, Subject: Transportaton of Ammunition²⁵¹

Artillery Hdqrs, Army of the Potomac
Camp near Culpeper, Va., September 30, 1863,

Brig. Gen. R. Ingalls²⁵²

Chief Quartermaster, Army of the Potomac:

General: In relation to the transportation of ammunition for the army, I have always been of the opinion that it should be transported in caissons. These carriages are constructed specially to transport ammunition and for this reason alone it might safely be assumed that they are well

²⁵¹ O.R., Series 1, Volume 29, Part II, Chapter XLI, pp. 237-238.

²⁵² See Ingalls report, Series 1, Volume 19, Part I, p. 105.

adapted to the service and possess special advantages. My impression on this subject has been confirmed by experience.

The system of transporting ammunition in the ordinary wagons has led to grave inconveniences. The ammunition trains are apt to be mixed up with the other supply trains.

Forseeing this, I took special pains in the organization of the Artillery Reserve supply train in the Peninsula. I obtained orders from General McClellan that the wagons should be covered with black water-proof covers, in order that they might be distinguished at a glance. These orders were not complied with by your predecessor, and the result was much confusion. I took special pains to keep a hundred wagon loads of artillery ammunition of the Artillery Reserve always available. At Malvern Hills, the trains of the divisions having become mingled with the other trains it was generally found impracticable to find them. I ordered my hundred wagons upon the hill, with directions to issue to all who needed. The consequence was that battery after battery of the different corps, whose supplies were exhausted and which could not find their own trains, had their chests replenished, and were sent to the field again. I believe this circumstance, the careful watchfulness over this train, and bringing it on to the field of battle, was one of the main causes of our success.

I have frequently seen that trains could not be found when most needed when a battle was going on. It is important that this evil should be removed; the substitution of caissons for army wagons would remove it. On the day of battle, trains of caissons could be easily found and would have unquestioned precedence of movement.

There would be numerous other advantages; the ammunition could always be inspected. Boxed up as it is now such inspection is impossible. It would be better protected. Wagons are now often unloaded of their ammunition that they may be used for other purposes, the ammunition being put in the mud or on wet ground, or, left exposed to the weather, rain beats in at the ends of the wagons, and the covers often leak.

In fine, there can be no security for the condition of the ammunition as long as it is carried in wagons. On the field of battle the boxes must be taken from the wagons, unscrewed, and the ammunition transferred to the caisson, a waste of time when time is too precious to waste, and delay may cause disaster. If transported in caissons, a team from a battery can hitch in and gallop off with a new supply, exchanging an empty caisson for a full one.

There is another point. Each wagon carries 325 pounds of ammunition boxes (14 boxes). The boxes are lost, but the great evil is in the transportation of so much unnecessary weight, 23 pounds for each 8 shots. All this would be saved by the use of caissons. About one wagon in six now transport boxes. At need, each caisson can be drawn by a team and one driver as in a wagon, for the train caissons do not maneuver.

For the train, the Gribeauval caisson could be used to advantage if the ordinary wagon team should be found unsuited to the caisson of the present system, but I apprehend no difficulty on this subject. Forges are often drawn by such teams with but one driver, and their limbers are the same as those of the caissons.

I believe, also that for the same reasons and stronger ones, caissons could be used with advantage for the transport of small-arms ammunition. The present caisson can be arranged with trays for the chests, so as to transport from 25,000 to 30,000 musket cartridges. Properly manned, these caissons could be galloped upon the field and take their places behind infantry brigades, replenish the cartridge boxes with the help of the file closers, and leave again in ten minutes. There would be no further reports of regiments leaving the field for want of ammunition; the men would not be weighted down with an oversupply and the consequent waste

would be prevented. This, however, would require a higher organization than is required for the transport and supply of artillery ammunition, and that companies of foot artillery should be furnished to act as drivers and guards for the trains. I think this could be done with decided advantage, and the whole ammunition train composed of caissons.

I will add that the subject has been several times brought to the attention of higher authorities, but so far without results. Your department is interested in the subject, and I am certain you will find on examination that the transport of ammunition may be more safely, surely, and economically provided for than by the present system.

Respectfully, your obedient servant.

HENRY J. HUNT
Brigadier-General, Chief of Artillery

Circular and related correspondence, Artillery Headquarters, Army of the Potomac, dated October 1 & 25, 1863, Subject: Transportation Allowance²⁵³

October 1, 1863

Circular to Chiefs of Artillery of Corps:

The allowance of wagons for the artillery brigades is as follows:

For headquarters of brigade, 1 wagon for baggage, 1 wagon for forage and supplies, 1 wagon for sales to officers, and 1 wagon for hospital stores.

For each battery of four guns, 4 wagons for baggage, rations forage, &c., and for each six-gun battery, 5 wagons, being 1 to each battery in addition to the number heretofore authorized.

You will please have the necessary requisitions made out. This is to enable each battery to transport six days' forage in the wagons.

By command of General Hunt:

JNO. N. CRAIG
Assistant Adjutant-General

Correspondence, Transportation Capacity, Army of the Potomac, dated November 18, 1863 & 25, 1863, from Ingalls to Seth Williams²⁵⁴

Headquarters Army of the Potomac,
Office of Chief Quartermaster,
Camp near Brandy Station, November 18, 1863

Brig. Gen. S. Williams,

Asst. Adjt. Gen., Army of the Potomac

General: I have the honor to report for the information of the commanding general, that I have examined the capacity of our wagon trains as now allowed by existing orders for carrying

²⁵³ O.R., Series 1, Volume 29, Part II, Chapter XLI, pp. 241 & 383-384.

²⁵⁴ O.R., Series 1, Volume 29, Part II, Chapter XLI, pp. 241 & 472-473.

of supplies, and find, in round numbers, that each corps can carry ten days' short rations of subsistence and forage in the baggage and supply trains, in addition to the most necessary articles of baggage, camp equipage, &c. To do this, less small-arms ammunition should be carried in the wagons. I would suggest that only three wagons, instead of five, be allowed each 1,000 men for that purpose.

I enclose a memorandum of what a wagon can carry, also a memorandum of the wagons in Sixth Corps and what they can carry. I am of the opinion that a wagon cannot carry over 1,000 rations of subsistence, and, say, 600 pounds of grain. This will make the load over 2,000 pounds. The general depot can furnish wagons enough to carry two days' hard bread and four of salt for the army. This will give twelve days' in wagons, with an allowance of salt.

If the men can carry eight days' on their persons there will be twenty days in all. I would remind the general commanding that experience has shown that there is no military advantage in loading the men heavily. They become quickly fatigued and waste the rations. In case of battle they abandon them. If eight days' are carried, hardly more than five can be calculated upon.

In any military operations based on amount of supplies carried in wagon trains, calculations must be made for a fresh supply from some reliable source at the expiration of, say, fifteen days.

The army can be furnished with all its prescribed supplies on or before Friday evening.

I am, very respectfully, your obedient servant,

RUFUS INGALLS

Brig. Gen., and Chief Q. M., Army of the Potomac

[Inclosure]

Capabilities of supply of the Sixth Corps, excluding the artillery, computing rations for 18,000 men, at 1,500 pounds weight for 1,000 rations (1½ pounds to a ration), and forage for 2,500 animals, at 10 pounds each. This number of animals includes only those attached to the supply trains and 300 others, estimated not to be provided for otherwise.

	Pounds
18,000 rations weigh.....	27,000
2,500 animal's forage.....	<u>25,000</u>
Daily supply.....	52,000

The number of wagons procurable for supply trains is 226. Estimating their capacity at 2,500 pounds each, makes 565,000 pounds. Divide this by 52,000 gives ten days' and a fraction of about four fifths.

All the wagons in the supply trains cannot be devoted to rations and forage. Quartermasters are obliged to carry their blacksmiths' and harness-makers' shops, and commissaries their scales &c. About ten day's would seem, therefore to be the full capacity of supply. The same number of days' rations can be carried by the artillery supply train, but not more than five days forage can be carried in wagons.

One wagon will carry 1,200 rations hard bread; 2,000 rations of coffee (1 barrel); 1,800 rations of sugar (1 barrel); 300 rations (2/8 pound) pork (1 barrel, 1 box, 25 pounds); 36 rations (9 pounds to ration) oats (3 sacks); gross weight 2,674 pounds.

Weight of 1,200 rations, two-eighths pounds pork, 2,520 pounds; weight of 1,200 pounds of rations, short, 1,800 pounds; weight of ten days' rations, forage, 600 pounds.

The Overland Campaign

May – June, 1864

Capacity of Wagon Trains

“HDQRS. ARMY OF THE POTOMAC,
OFFICE OF CHIEF QUARTERMASTER,
Camp near Brandy Station, November 18, 1863.”

Brig. Gen S. Williams,
Asst. Adj. Gen., Army of the Potomac

GENERAL: I have the honor to report, for the information of the commanding general, that I have examined the capacity of our wagon trains as now allowed by existing orders for carrying of supplies, and find, in round numbers, that each corps can carry ten days’ short rations of subsistence and forage in the baggage and supply trains, in addition to the most necessary articles of baggage, camp equipage, &c. To do this, less small-arms ammunition should be carried in wagons. I would suggest that only three wagons, instead of five, be allowed each 1,000 men for that purpose.

I enclose a memorandum of what a wagon can carry, also a memorandum of wagons in Sixth Corps and what they can carry. I am of the opinion that a wagon cannot carry over 1,000 rations of subsistence, and say, 600 pounds of grain. This will make the load over 2,000 pounds. The general depot can furnish wagons enough to carry two days’ hard bread and four of salt for the army. This will give twelve days’ in wagons with an extra allowance of salt.

If the men carry eight days’ on their persons there will be twenty days’ in all. I would remind the general commanding that experience has shown that there is no military advantage in loading the men heavily. They become quickly fatigued and waste the rations. In case of battle they abandon them. If eight days’ are carried, hardly more than five can be calculated upon.

In any military operations based on amount of supplies carried in wagon trains, calculations must be made for a fresh supply from some reliable source at the expiration of, say, fifteen days.

The army can be furnished all its prescribed supplies on or before Friday evening.

I am, very respectfully, your obedient servant,

RUFUS INGALLS

Brig. Gen., and Chief Q. M., Army of the Potomac

[Inclosure]

Capabilities of supply of the Sixth Corps, excluding the artillery, computing rations for 18,000 men, at 1,500 pounds for 1,000 rations (1½ pounds per ration) and forage for 2,500 animals at 10 pounds each. The number of animals includes only those attached to the supply train and 300 others, estimated to be provided for otherwise.

	Pounds
18,000 rations weigh.....	27,000
2,500 animal’s forage.....	<u>25,000</u>
Daily supply.....	52,000

The number of wagons procurable for supply trains is 226. Estimating their capacity at 2,500 pounds each, makes 565,000 pounds. Divide this by 52,000, gives ten days and a fraction of almost four-fifths.

All the wagons included in the supply trains cannot be devoted to rations and forage. Quartermasters are obliged to carry their blacksmiths' and harness-makers' shops, and commissaries their scales, &c. About ten days' would seem therefore, to be the full capacity of supply. The same number of days' rations can be carried by the artillery supply train, but not more than five days' forage can be carried in wagons.

One wagon will carry 1,200 rations hard bread; 2,000 rations coffee (1 barrel); 1,800 rations sugar (1 barrel); 300 rations (two-eighths pound) pork (1 barrel, 1 box, 25 pounds); 1,200 rations salt (1 box, 45 pounds); 36 rations (9 pounds to rations) oats (3 sacks); gross weight, 2,674 pounds.

Weight of 1,200 rations, two-eighths pork, 2,5020 pounds; weight of 1,200 rations, short, 1,800 pounds; weight of ten days rations, forage, 600 pounds."²⁵⁵

Pioneers & Wagon Train Guards

“HDQRS. ARMY OF THE POTOMAC, OFFICE OF CHIEF Q.M.,
Camp near Brandy Station, February 26, 1864.

Maj. S. F. Barstow,

Asst. Adjt. Gen., Hdqrs, Army of the Potomac:

MAJOR: I have the honor to call the attention of the general commanding to the subject of pioneers and wagon train guards with this army. I can find no order regulating the manner of detail or the number of pioneers to a division or corps.

I have an order regulating the number of tools to be carried by the pioneers, viz: One-half to have axes and the others to have two spades or shovels to one pick, which answers all purposes. I would respectfully recommend that 10 men be detailed from each regiment in a division, with a proper number of officers and non-commissioned officers, to serve as pioneers and train guards to the division trains on marches. All these men will carry their arms and such tools as the nature of the roads may require.

It is believed that such a force with all the trains will give very important advantages and secure our trains against delays and losses by bad roads or the enemy. In past campaigns the want of uniformity and system as to such details was often embarrassing. Officers in charge of pioneers should comply with requisitions of quartermasters for working parties to repair roads, &c., and should superintend the work. I would also ask that 1 lieutenant, 2 sergeants, 2 corporals, and 25 privates may be selected from the pioneers of the divisions, mounted and put under the orders of the chief quartermasters of corps, to go in advance of the trains or to distant points for the repair of roads, &c. This party of 30 in all will be of great service on marches. They can be readily mounted with means at the command of the department.

I am, very respectfully, your obedient servant,

RUFUS INGALLS,

Brig. Gen. and Chief Quartermaster, Army of the Potomac

[Inclosure]

²⁵⁵ O.R. Series 1, Volume 29, (Part 2.) pp. 472-473. (Digitized by Making of America
<http://cdl.library.cornell.edu/moa/>)

1. Each brigade commander of this army will detail from his command 1 lieutenant, 3 non-commissioned officers, and a number of privates equal to 2 per cent of his effective force, to form his brigade pioneer party. Each division will detail a captain, who, when the brigade parties in the division are consolidated, will command the whole, and who will, when the brigade parties are separated, remain with the party belonging to his own brigade.

2. These officers, non-commissioned officers, and men will be selected for their fitness for pioneer service.

3. One-half of the privates will carry axes, one-third shovels, one-sixth picks; their knapsacks will be carried in wagons when practicable. The quartermaster's department, on requisition, will furnish horses and equipments for officers.

4. On the march the pioneers of the division will be consolidated and be directly under the control of the division commander; their place will be at the head of the column.

5. The duties of pioneers will be the construction and repair of roads, bridges, and such temporary defenses as the division commander shall direct. The officers, by inquiry and personal examination, will obtain all possible information about the roads over which the division is to pass. The efficiency of the pioneers will depend very largely on their energy and good judgment.²⁵⁶

Transportation Planning for the Overland Campaign

“HEADQUARTERS. ARMY OF THE POTOMAC,
OFFICE OF CHIEF QUARTERMASTER,
Camp near Brandy Station, April 13, 1864.”

General Seth Williams,
Adjutant-General Army of the Potomac:

GENERAL: I have the honor herewith to submit a memorandum, for the consideration of the commanding general, on the subject of land transportation, in order to bring about a further modification of orders Number 100, of last November the 5th.²⁵⁷

In the memorandum I have assumed that each infantry corps has 33,000 men and the cavalry has 15,000. The proposed supply trains were based on that assumption. I have supposed that about eight and one-half wagons to every 1,000 men will carry ten days' subsistence of short rations and ten days' grain for the team animals.

If 100 rounds small-arm ammunition per man must be carried in wagons it will require five for every 1,000 men. The wagons for this purpose and for carrying the additional three days' subsistence can be obtained by restricting each regiment of infantry and cavalry to two wagons for baggage, mess stores, &c. The batteries then should be limited to one for the same purpose.

The Cavalry Corps has not the means at present of transporting more than two days' supply of forage for the horses on a campaign. It is the intention to load the depot train with

²⁵⁶ O.R., Series 1, Volume 33, p.596. (Digitized by Making of America <http://cdl.library.cornell.edu/moa/>)

²⁵⁷ See Annex C, p.____, and O.R., Series 1, Volume 29, Part 2, pp. 420-422. (Digitized by Making of America <http://cdl.library.cornell.edu/moa/>)

forage, medical stores, &c., for use on the march. I would recommend that the wagons now on hand be assigned as indicated in the memorandum. No additional ones need be asked for.

I would also recommend that for a short campaign no extra clothing or overcoats be carried by the men on their persons; that they carry blankets, five days' rations in the knapsack, and three in the haversack. Some extra shoes, underclothing and overcoats should be carried in the trains. All other property not immediately needed should be sent to the rear.

I am, very respectfully, your obedient servant,

RUFUS INGALLS,

*Brig. Gen. and Chief Quartermaster, Army of the Potomac*²⁵⁸

“HEADQUARTERS. ARMY OF THE POTOMAC,
OFFICE OF CHIEF QUARTERMASTER,
Camp near Brandy Station, April 13, 1864.”

Memorandum for General Meade:

3 infantry corps, 33,000 men each.....	99,000
1 cavalry corps, 15,000 men.....	15,000
Artillery, with corps in reserve.....	6,000
Aggregate of officers and men present.....	120,000

Allowance of wagons

4 corps headquarters:	
2 wagons each for baggage, mess stores, &c.....	8
3 wagons for subsistence, forage, &c.....	12
14 division headquarters:	
1 wagons each for baggage, mess stores, &c.....	14
2 wagons for subsistence, forage, &c.....	28
1 wagon each for armorers' tools.....	14
Artillery Reserve	
1 wagons each for baggage, mess stores, &c.....	1
2 wagons for subsistence, forage, &c.....	2
39 infantry and cavalry brigades	
1 wagon each for baggage, mess stores, &c.....	39
1 wagon for subsistence, forage, &c.....	39
1 wagon for sales to officers.....	39
7 brigades of artillery	
1 wagon each for baggage, mess stores, &c.....	7
1 wagon for subsistence, forage, &c.....	7
1 wagon for sales to officers.....	7
3 infantry corps, for entrenching tools, 6 wagons each.....	18
182 regiments infantry, 2 wagons each for baggage, mess stores, &c., for field, staff and line officers.....	364
33 regiments cavalry, same as above.....	64
Each corps of infantry, for a supply train to carry ten days' subsistence for the officers and men of the corps and 10 days' forage (10 pounds of grain per day to each animal) for the team animals, 280 wagons.....	840

²⁵⁸ O.R. Series 1, Volume 33, p. 852. (Digitized by Making of America <http://cdl.library.cornell.edu/moa/>)

The cavalry corps, for a supply train to carry ten days' subsistence for the officers and men of the corps and 10 days' forage (10 pounds of grain per day to each animal) for the team animals, 150 wagons.....	150
To each cavalry division, a forage supply train for cavalry horses, 50 wagons each.....	150
For every 1,000 men, infantry and cavalry, for carrying 100 rounds per man of small-arm Ammunition, 5 wagons.....	600
14 divisions infantry and cavalry, for forage and ambulance trains, 2 wagons each.....	28
To every 1,500 men for hospital supplies, 3 wagons.....	240
30 six-gun batteries:	
For baggage, mess stores, &c., 1 wagon.....	30
For subsistence, forage, &c., 4 wagons.....	120
8 four-gun batteries:	
For baggage, mess stores, &c., 1 wagon.....	8
For subsistence, forage, &c., 3 wagons.....	24
6 six-gun horse batteries batteries:	
For baggage, mess stores, &c., 1 wagon.....	6
For subsistence, forage, &c., 4 wagons.....	24
6 four-gun horse batteries batteries:	
For baggage, mess stores, &c., 1 wagon.....	6
For subsistence, forage, &c., 4 wagons.....	24

Ammunition

134 12-pounder guns, 124 x 122 / 112.....	135
98 rifled guns, 98 x 50 / 140.....	35
44 rifled guns, horse battery, 44 x 100 / 140.....	31
Fuses, primers, powder, &c.....	2
Six 20-pounders:	
For baggage, &c., 1 wagon each.....	6
For subsistence, forage, &c., 3 wagons each.....	18
For ammunition for same.....	12
For every 25 wagons ammunition train for forage, &c., 5 wagons, 255 wagons... <u>51</u>	
Total number.....	3,205

NOTE – The supply trains of infantry are supposed to carry, each wagon, 1,800 pounds subsistence, equal to 1,200 short rations and 600 pounds grain; each wagon of cavalry supply train, 1,500 pounds subsistence and 600 pounds grain. The loads of all other wagons will exceed 2,000 pounds. This memoranda does not include the army headquarters, provost-marshal-general's department, Engineer Brigade, nor the repair depot, all of which now have about 434 wagons.

At these headquarters there are 110 wagons, twenty-five for officers' baggage, mess stores, office property, and papers (generally over 50 officers on duty here); twenty-five wagons for subsistence; the balance to feed about 800 animals, and for extra clothing and quartermasters' stores generally.

The provost-marshal-general has a train of forty-seven wagons for baggage, subsistence, forage, &c. He has several regiments on duty with him, and frequently has many prisoners.

	Wagons
The Engineer Brigade has.....	57
The Engineer Battalion has.....	20
The Signal Corps has.....	20
The general repair depot has.....	<u>180</u>
	434

Those at the repair depot and part of those at these headquarters are loaded for general use on marches, mostly with forage.

My last report shows about 3,600 wagons on hand in the army. The infantry corps average now about 760 wagons each.

If existing orders are modified as to allow five wagons to each 1,000 men for small-arm ammunition, eight and one-half for supply train for subsistence, and only two to each regiment for baggage, mess stores, &c., the means of transportation now on hand will answer to carry ten days' subsistence and forage in wagons.

In the Second Corps, for instance, one wagon is allowed to the field and staff and one to the line officers of each regiment for the purpose of transporting baggage, camp equipage, desks, papers and mess stores. The balance of the regimental wagons are loaded with three days' rations of subsistence, quartermasters stores, and forage, and the average weight of each load is from 2,800 to 3,000 pounds

	Pounds
The gross weight of 1,000 marching rations, without meat, will be.....	<u>1,565½</u>
1,500 rations without meat, will be.....	2,348
1,500 rations, with meat, two-sevenths pound.....	<u>358</u>
	2,706

That is calculating pork for twice in seven days. The other meat will be driven on the hoof.

The following is the gross weight of 1,000 rations

	Pounds
1,000 rations pork.....	1,253
1,000 rations hard bread.....	1,211
1,000 rations sugar.....	161
1,000 rations coffee.....	102
1,000 rations salt.....	40½

It will be seen that a wagon can haul from 1,200 to 1,400 rations of provisions, without salt meat. It can also haul enough forage for its team for ten days.

Three wagons for a brigade of 1,500 men is ample to carry its hospital supplies. An increase of one wagon for every 500 men is too great; I would suggest that four wagons be allowed for a brigade not less than 2,000 or exceeding 2,500; five wagons for 3,000 and not exceeding 4,000. A hospital tent complete only weighs 175 pounds; one wagon can carry the hospital tents of an entire brigade, with its quota of forage; two or three wagons should carry the balance of supplies.

The ammunition, heavy and small-arm, is assigned on actual weight of over 2,000 pounds to each wagon.

Respectfully submitted,

RUFUS INGALL

Annex E

Reports of Logisticians

Report of Mr. Tucker, Assistant Secretary of War, to Mr. Stanton, Secretary of War, relative to the McClellan expedition²⁵⁹

War Department

Washington City, D.C., April 5, 1862

Sir: I beg permission to make the following report relative to the transportation of troops, horses, wagons, batteries and usual equipments, recently shipped at this city, Alexandria and Perryville.

I was called to Washington by telegraph on the 17th January last by Assistant Secretary of War Thomas A. Scott. I was informed that Major General McClellan wished to see me. From him I learned that he desired to know if transportation in smooth water could be obtained to move at one time for a short distance (from Annapolis to the mouth of the Rappahannock River) about 50,000 troops, 10,000 horses, 1,000 wagons, 13 batteries and the usual equipment of such an army. He frankly stated to me that he always supposed such a movement entirely feasible

²⁵⁹ _____. (1863). The Reports of Committees of the Senate of the United States for the Third Session of the Thirty-Seventh Congress, Washington DC. Government Printing Office. pp. 328-329.

until two experienced quartermasters had recently reported it impracticable in their judgment. A few days later, I reported to Major General McClellan that I was entirely confident the transports could be commanded, and stated the mode by which his object could be accomplished. A week or more afterwards I had the honor of an interview with the President and General McClellan, when the subject was further discussed, and especially as to the time required. I expressed the opinion that as the movement of the horses and wagons would have to be made chiefly by schooners and barges; that as each schooner would have to be properly fitted for the protection of the horses, furnished with a supply of water and forage, and also each transport for the troops provided with water, I did not deem it prudent to assume that such an expedition could start within thirty days from the time the order was given. The President and General McClellan both urgently stated the vast importance of an earlier movement. I replied that if favorable winds prevailed, and there was great dispatch in landing, the time might be materially diminished.

On the 14th February you advertised for transports of various descriptions, inviting bids. On the 27th of February I was informed that the proposed movement by water was decided upon. That evening the quartermaster general was informed of the decision. Directions were given to secure the transportation and my assistance was tendered. He promptly detailed to this duty two most efficient assistants in his department. Colonel Rufus Ingalls was stationed at Annapolis, where it was then proposed to embark the troops, and Captain Henry C. Hodges was directed to meet me in Philadelphia, to attend to chartering the vessels. With these arrangements I left Washington on the 28th February. Aware that the movement of horses and wagons would be the chief cause of delay, I had previously corresponded with Mr. M. S. Buckley, superintendent of the Philadelphia and Reading Railroad Company, at Port Richmond, with whom I had been officially connected for twelve years, to ascertain how many schooners and barges could be at once commanded. I telegraphed him to meet me on my arrival. I knew that I could rely on his good judgment, energy and strict integrity to serve the government and myself without compensation or profit, direct or indirect. He, under me, had been daily familiar with a business requiring transportation by water, which for many years had exceeded the entire foreign tonnage of the port of New York. I requested Mr. Buckley not only to give full notice of all vessels at his depot that the government required such transports, but to oblige me personally by visiting the wharves in Philadelphia generally, and especially those of the Schuylkill Navigation Company, to inform the owners and captains of schooners and barges that the government desired to charter them. After remaining two days in Philadelphia, with much satisfaction in our progress, Captain Hodges and myself went to New York. *All* parties who offered suitable transports in reply to your advertisement had been requested to meet me. With few exceptions, such vessels were taken, and generally at a reduction from the bids. These, however, were by no means sufficient. As much publicity as possible was given, without further resort to the newspapers, that the government was in the market to charter vessels. In fact, with your advertisement and our action, it was notorious. Every owner of a vessel had the opportunity to deal directly with the representatives of the department. It was publicly avowed that the government preferred this course. When, however, a transport was offered, I did not stop to ask the party whether he was the sole owner, part owner, or merely represented the owners. Time being such an important element, it was enough for me to know (or I thought it was) that the party had proper authority to charter, that the vessel was suitable, and offered at the current fair price. To have refused suitable vessels till I could have ascertained who were the owners, or because they preferred to send an agent or even pay a ship-broker, might have taken weeks, instead of days, to have secured the required tonnage, and also greatly increased the cost, by having a part of the fleet

under charter waiting for the balance. I am induced to make these remarks in consequence of the objections which I have recently heard urged against the interference of agents or ship-brokers. It may not be fully understood that in all great maritime cities negotiations for the sale, charter, and freighting of vessels are carried on, to a considerable extent at least, through ship-brokers – a business class as firmly established as stock, land, money, or merchandise brokers. In New York they are well known as a class comprising many men of integrity and intelligence, whose services are not ignored by ship-brokers. In France Belgium, Prussia, and many other places, the charges for their services are regulated by a legalized tariff, from which the broker is not allowed to deviate. In Great Britain and the United States he is paid a commission, which, in the absence of a special agreement with the owner for whom he is acting, is regulated by custom and sanction of local chambers of commerce, boards of trade, &c.

In the case under consideration, however, no application was made to ship-brokers, no commission tendered or asked, and no preference shown. The wants of the government were made public. Every party interested had the opportunity of direct negotiation. The business was conducted with entire fairness to the owners of vessels, and with fidelity to the government. I beg to hand herewith a statement, prepared by Captain Hodges, of the vessels chartered, which exhibits the prices paid and the parties with whom the contracts were made. From this it is shown there were engaged:

113 steamers, at an average price per day of.....	\$218.10
188 schooners, at an average price per day of	\$24.45
88 barges at an average price per day of.....	\$14.27

In thirty-seven days from the time I received the order in Washington (and most of it was accomplished within thirty days) these vessels were laden at Perryville, Alexandria, and Washington (the place of embarking the troops having been changed after all the transports had sailed, which caused confusion and delay,) with 121,500 men, 14,592 animals, 1,150 wagons, 44 batteries, besides pontoon bridges, ambulances, telegraph materials, and the immense quantities of equipage, &c. required for an army of such magnitude. The only loss of which I have heard (and I am confident there is no other) is eight mules and nine barges, which later went ashore in a gale within a few miles of Fort Monroe, the cargoes being saved. With this trifling exception, not the slightest accident has occurred, to my knowledge.

I respectfully but confidently submit that, for economy and celerity of movement, this experience is without parallel.

I remain, sir, very respectfully, your most obedient servant,

JOHN TUCKER, *Assistant Secretary of War.*

Hon. Edwin M. Stanton, *Secretary of War*

Army of the Potomac
Report of Brigadier General Stewart Van Vliet, U. S. Army, Chief Quartermaster
of operations from July 27, 1861, to July 10, 1862²⁶⁰

GENERAL: I have the honor to submit a brief report for the information of the general commanding, of the operations of the quartermaster's department in connection with the Army of the Potomac from the commencement of its organization until its arrival on the banks of the James River at the termination of the sanguinary battles in front of Richmond:

²⁶⁰ O.R. Series 1, Volume 11, Part 1, Chapter XXIII, pp. 156 – 161.

The general commanding arrived in Washington and assumed command of the troops around that city toward the end of July, 1861, and I was detailed by him as chief quartermaster on the 27th of the same month. But a few weeks previous to this these troops had been defeated at Bull Run, where much of the material of the army had been lost, and almost everything required in the organization of a large army had to be provided. As soon as I had entered upon the discharge of my duties I commenced making preparations to collect together the vast and various supplies required by a large army. The depot for quartermaster's supplies in this city, under the able administration of Colonel D. H. Rucker, of the Quartermaster's Department, had to be much extended to enable me to collect the requisite material, and notwithstanding the prompt approval of my requisitions by the Chief of the Quartermaster's Department, General Meigs, there were many obstacles to the successful discharge of these duties. Probably the greatest difficulties I had to encounter arose from the inexperience of the newly appointed officers who were placed under me and of the new regiments.

The first thing to be done was to provide transportation. As the difficulties of subsisting the large number of animals required by the Army in Washington were very great, owing to the want of sufficient channels of communication with it, it was decided to establish a depot of transportation at some point in the rear. In consultation with the general commanding, Perryville, on the left bank of the Susquehanna, at the point where the railroad connecting Baltimore and Philadelphia crosses that stream, was selected as the most suitable place, as it could be reached by both railroad and water, and was removed from all chance of interruption by the enemy. In accordance with this decision, Captain C. G. Sawtelle, assistant quartermaster, was ordered on the 8th of August to take post there and organize a train of 1,500 wagons.

New regiments from the loyal states were now arriving in great numbers, and were immediately furnished with supplies and put in camp around Washington. Transportation &c., were issued to them as far as possible on the war allowance. Four wagons, drawn by either four horses or mules, were allowed each full regiment, one for the medical supplies of the regiment and one for the regimental headquarters, making in all six wagons to a regiment, and this was substantially the regimental allowance during the campaign, varied occasionally, however, by the exigencies of the service. Besides these wagons there were large trains organized for the transportation of subsistence, ammunition, pontoons, &c. An immense depot for clothing, camp and garrison equipage was likewise established in Washington, and vast amounts of these articles were hurried forward from New York and Philadelphia.

On the 19th of October the Potomac River, by which channel we had received most of our supplies, was closed by the enemy's batteries. From this time until the latter part of February, 1862, all the supplies, forage, subsistence, clothing, &c., required for the army, and all the supplies required for the city of Washington, were brought across the single-track railroad connecting Baltimore with Washington. The capacity of the road was taxed to the utmost, but the work was satisfactorily done. Some conception of the amount of work done may be formed when it is known that of forage alone some 400 tons were required daily.

In the latter part of February it was decided that the Army of the Potomac should move on Richmond by way of the Peninsula. This made it necessary to produce a large number of vessels to transfer the army to its new base, Fortress Monroe, and the procuring of these vessels was entrusted to the Honorable John Tucker, Assistant Secretary of War.

Lieutenant Colonel Ingalls, who had reported to me for duty soon after my arrival in Washington, and had been by me assigned as chief quartermaster to the troops on the south bank of the Potomac, was ordered to report to Mr. Tucker, for the purpose of taking the immediate

charge of the transports chartered, and to superintend the embarkation of troops. As the Potomac was still closed by the guns of the enemy, arrangements were made for embarking the troops at Annapolis and Baltimore. I had the wharves at the former place enlarged, and the transports had commenced to arrive when the movements of the army opened the Potomac. Orders were immediately issued for the transports to rendezvous at Alexandria, and arrangements were pushed forward rapidly to embark the troops at that point. Everything was ready for a movement as regards the troops, but the transports, many of which were sailing vessels, could not reach Alexandria in sufficient numbers to move a division until the middle of March. On the 9th of March there had rendezvoused at Annapolis ten side-wheel steamers and five propellers.

On the evening of March 16th or morning of the 17th the troops commenced embarking at Alexandria, and in about twelve days the bulk of the Army of the Potomac, with its vast material, was transferred to the Peninsula. I had previously ordered Captain Sawtelle to break up his depot at Perryville, and to transfer the wagons, ambulances, animals, &c. to Fortress Monroe. Some two or three months previous to this I had ordered a large amount of forage to be purchased and stored in the city of New York. This had been put afloat just before the embarkation of the troops, and the vessels directed to repair to Fortress Monroe and keep their cargoes on board until further notice. In the mean time I had ordered Captain C. W. Thomas, assistant quartermaster, to Fortress Monroe to take charge of the depot to be established there for the army.

As soon as everything was embarked at Alexandria I proceeded to Fortress Monroe and rejoined the general commanding, who had preceded me to that place. The magnitude of the movement can scarcely be understood except by those who participated in it. Each division took with it its own transportation as far as it was practicable, and the remainder, together with the supply trains, were pushed forward as rapidly as possible.

When the campaign of the Peninsula commenced the Army of the Potomac had with it 3,600 wagons and 700 ambulances and spring wagons, and this transportation remained complete until the army arrived on the bank of the James River, with the exception of ordinary losses and the loss of a few wagons by the raids of the enemy and on the march to the James River. In transferring the army and its material, and furnishing it with supplies during the campaign, the following number of vessels were employed, viz: 71 side-wheel steamers, 29,071 tons; 57 propellers, 9,824 tons; 187 schooners, brigs and barks, 36,634 tons, and 90 barges, 10,749 tons, making in all 405 vessels, of a tonnage of 86,278 tons. Many of these vessels were discharged after the army was transferred to the Peninsula, but it was necessary to retain the greater number of them, as our supplies were obliged to be kept afloat to follow the advance of the army. Though Fortress Monroe was our main depot, the nature of the country and the condition of the roads rendered it impossible to haul our supplies by wagons from that point. As soon as the leading divisions landed at Fortress Monroe they were pushed forward, and the enemy retiring behind their lines, stretching from the James River to Yorktown, opened to us the York River and its tributaries as far as Yorktown, enabling us to establish our depot at the mouth of Cheeseman's Creek and at Ship Point, near the mouth of the Poquosin River, which was done on the 6th of April.

I beg here to submit a copy of a letter to the Quartermaster-General (marked A), which will show the positions of these points and the difficulties which had to be overcome in supplying the army.

These depots remained unchanged during the siege of Yorktown, but when the enemy evacuated that place they were immediately broken up and everything was transferred by water

at once to Yorktown. As the army advanced up the Peninsula our depots were successively changed from Yorktown to the south bank of the York River, opposite West Point, thence to Cumberland, on the Pamunkey, and finally, on the 20th of May, they were established at White House, the point where the railroad from Richmond crosses the Pamunkey River, 23 miles from Richmond.

Extensive wharves were constructed by throwing our barges and canal-boats ashore at high water and bridging them over. The railroad bridge across the Pamunkey had been burned by the enemy, and the rolling stock of the road removed. From a reconnaissance in front the railroad was found to be uninjured, with the exception of two or three small bridges, which had been burned. In anticipation of moving along this road to Richmond rolling stock for the road had been purchased, and a competent force employed to work it. Working parties were immediately put on the road and the engines and cars landed, and in a few days the road was again in running order, and cars loaded with supplies were constantly running to the front. The real troubles in supplying the army commenced at this point, owing to the condition of the roads, rendered almost impassible by frequent and long-continued storms. In reference to this I beg to submit copies of three reports, marked B, c, and D, made to the Quartermaster General. At this point, our large depots remained until the battle of Gaines' Mill, the 27th of June. During this time the army was in front of Richmond, from 15 to 20 miles in advance, and all of its immense supplies were thrown forward by the railroad and the large supply trains of the army. The frequent and heavy rains, by injuring the railroad and impairing the wagon roads, rendered it a matter of great difficulty at times to transport the large amount of necessary material and supplies. Of forage and material alone over 500 tons were required daily by the army. Adding to this the other necessary supplies swelled this amount to over 600 tons, which, rain or shine, had to be handled at the depots each day and forwarded to our lines. The difficulties of supplying an army of 100,000 are not generally comprehended. Each man consumes 3 pounds of provisions per day, and every horse 26 pounds of forage. One hundred thousand men would therefore eat up 150 wagon loads of subsistence daily, and it can therefore be readily seen that an army of this size could leave its depots but a short distance in the rear in marching through a country destitute of supplies and depending on carrying everything with it.

The affair at Gaines' Mill occurred on the 27th of June. Several days previous to that date the indications were that a decisive battle would be fought, and the general commanding directed me to take the necessary steps to prevent the immense supplies at our depot at White House from falling into the hands of the enemy, and to have a certain amount of forage and supplies transferred to the James River for the use of the army should it be found necessary to move it to the Chickahominy to that river. On the 23rd of June I telegraphed to Colonel Ingalls, the quartermaster in charge of the depot at White House, as follows: "I want you to designate some forage vessels which have on board about 25,000 bushels of oats, and 10,000 bushels of corn, and 400 tons of hay to be sent immediately to the James River. Between 500,000 and 600,000 rations now afloat will be designated by Captain Bell to be sent to the same place. Towing should be gotten ready at once."

At the same time I telegraphed, by the direction of the commanding-general, to Commodore Goldsborough, to convoy these vessels to the gunboats then in the James River at or near City Point. I also directed Colonel Ingalls to throw to the front by railroad and wagons (the latter to come by way of Bottom's Bridge) all the supplies he possibly could, so as to have a sufficient amount with the army should our lines of communication be cut.

On the 25th of June I again telegraphed to Colonel Ingalls as follows: "You will have your whole command in readiness to start at any moment. Please consult with Lieutenant Nicholson, of the Navy, to have his vessels placed in such a position that he can protect our depot. There will be no attempt to turn our flank for a day or two, but from all information we have it is supposed that Jackson will be coming down very soon."

On the 26th of June I telegraphed Colonel Ingalls as follows: "Don't fail to send down into the broad river all the vessels in the Pamunkey that are not required soon. Three or four days' forage and provisions are all that should remain afloat at White House. This is a precautionary measure entirely, but must be attended to at once."

It will be seen from this that everything had been carefully considered, and that every precaution taken to guard against our supplies falling into the hands of the enemy, should it be found necessary for the army to fall back on the James River. The battle of Gaines' Mills rendered this movement necessary. On the evening of the day on which that affair occurred, in consultation with the general commanding, it was determined to put our transportation in motion for the James River with the view of saving it, and not to destroy it unless it was absolutely necessary to do so to prevent it falling into the hands of the enemy. Accordingly the trains were immediately started, and on the afternoon of the 29th were all safely across White Oak Swamp. Final orders were also given to Colonel Ingalls to break up the depot at White House and remove it to the James River. This was most satisfactorily accomplished. All our vessels dropped down the river in safety; the rolling stock of the railroad was destroyed, and nothing was left for the enemy except the charred timbers of the White House, to which some incendiary, in positive disobedience of orders, had applied the torch.

Early the next morning the trains were again put in motion, the enemy shelling the rear, but doing little or no damage, and in the evening I had the satisfaction of seeing them parked on the banks of the James River in the vicinity of Malvern Hill. The enemy again shelled the rear of the train at Malvern, but with little effect. In this most difficult movement every officer of our department, as far as I could ascertain, did his duty well; but I beg to call particular attention to Captain Bliss, assistant quartermaster, who was at that time serving on my staff. He was continually riding along the lines, rendering most valuable service in regulating the trains and preventing unnecessary alarm among the employees of the department. Captains Batchelder and Norton, and Lieutenant Tolles, acting assistant quartermaster, were also very efficient, and rendered important service. On arrival at James River I found that Colonel Ingalls had arrived by water with our store vessels, and steps were immediately taken to supply the army from Haxall's Landing. After the battle of Malvern Hill, July 1, it was decided to move down the river to Harrison's Bar, which movement was commenced that night, and the next day found the entire army in camp at that point, with the great bulk of its transportation and material, a few wagons being delayed by the muddy roads until the 3rd.

I cannot close this report without calling particular attention to the very valuable assistance I received on all occasions from Colonel Rufus Ingalls, the officer of the Quartermasters Department next to me in rank with the Army of the Potomac. Of indomitable energy and great resource, he was always ready and prompt in the discharge of his duty. I would beg to also recommend to favorable consideration Captain Sawtelle, assistant quartermaster, and Captain Rankin, acting assistant quartermaster, who rendered most valuable assistance during the campaign of the Peninsula. Always in responsible and important positions, they discharged their duties alike creditably to themselves and advantageously to the service.

I am, very respectfully, your obedient servant,

STEWART VAN VLIET
Brigadier-General and Quartermaster

[Enclosure A]

Camp Winfield Scott, Va.,
In front of Yorktown, April 28, 1862.

GENERAL: With regard to the operations of our department as connected with this army I have the honor to report that I believe that everything is working very satisfactorily. We have had great difficulties to encounter, but they have been overcome, and the wants of the army have been and are supplied promptly. The best evidence of this is that there have been no complaints. Our army is stretched across the Peninsula, the right resting near Yorktown and the left near James River. All our supplies are drawn from the depots at Cheeseman's Creek and Ship Point, except for a small portion of the left wing, which are obtained from Fortress Monroe. The only difficulties have arisen from the character of the country, which is nearly level and covered with a dense growth of pines. The surface of the country is sandy, resting on quicksand, and during rainy weather the roads are soon rendered impassable, empty wagons even sinking to their beds. Nearly every foot of the roads has been corduroyed. A great many of these roads have been badly made and are exceedingly rough, and the consequence is that the wear and tear of our transportation has been very great. Large working parties are now on them, and if we have any good weather they will soon be much improved.

I find that mules are the only animals fit for this rough service. Our horse teams suffer severely, and I would recommend that hereafter no more horse teams be provided for our armies, no matter in what part of the country they may be serving, as mules are far more serviceable and economical. Our main depots are at Fortress Monroe, Cheeseman's Creek, and Ship Point. I have placed Captain Sawtelle in charge of the depot at the fortress, assisted by Captain Thomas, and Colonel Ingalls in charge of that at Cheeseman's Creek, assisted by Captain Rankin, acting assistant quartermaster, Captain Pinner, brigade quartermaster, and Captain Wagner, brigade quartermaster. The latter is in charge of the clothing and camp and garrison equipage. The bulk of the clothing, &c. is kept at Old Point, as I do not desire to accumulate any great amount of stores here, as it would embarrass our movements when we advance. Ship Point is at the mouth of the Poquosin River, and is used exclusively as the depot for subsistence stores. Cheeseman's Creek depot is about one mile to the west of Ship Point at the junction of Cheeseman's and Goose Creeks, and is used for forage, quartermaster's stores, and camp and garrison equipage. This depot is about four miles from headquarters, and the supplies from it have to be transported a distance of 3½ to 7 miles. There is a small depot on Back Creek, from which General F. J. Porter's division is supplied, the distance of land transportation being about the same as from Cheeseman's Creek. There is another small creek (Wormley's), which empties into the York River about 2½ miles below Yorktown. This creek has 4½ feet of water, and heavy ordnance is sent into it in barges. It is, however, under fire of the enemy's guns, and can be used only at night.

Yesterday one of our barges loaded with four hundred 13-inch shells was delayed until daylight, when the enemy opened fire on the boat, and burst a 100-pound shell in it and sunk it.

The shells will be saved. I send you a map of the scene of our operations with the roads plainly delineated.

I beg to state that I have received the most cordial and efficient assistance from the officers of our department in charge of the depots at Fortress Monroe and Cheeseman's Creek, and that Colonel Crossman and Major Belger, as well as Colonel Rucker, have filled all my requisitions with greatest promptness. I feel under many obligations to them for it. I forward you herewith a copy of a circular which I have issued to the officers of our department on duty with the army.

I am, very respectfully, your obedient servant,

STEWART VAN VLIET
Brigadier-General and Quartermaster

[Enclosure B]

Within Two Miles of the Chickahominy
May 23, 1862

GENERAL: Since my last communication I have established our final depot at White House, the point where the West Point Railroad crosses the Pamunkey River, 23 miles from Richmond. The army now occupies the line of the Chickahominy from 16 to 18 miles in advance. Supplies are hauled by from the depot, and owing to the nature of the roads it is about the utmost limit at which an army of this size can be supplied by wagon transportation. I trust, however, that in two days I shall have the railroad in running order, when all anxiety with regard to supplies may be dismissed. I have had all of the rolling stock of the railroad ordered to the White House instead of West Point. About twenty-five cars are now landed, and two engines will be put upon the track this evening. The bridge-builders and carpenters only reached the White House last evening. They are now building the two small bridges between White House and Chickahominy which were burned by the rebels. These will be finished by to-morrow evening, when supplies can be brought on the road to within 7 miles of our extreme right wing. Our left will have to haul only about 2 miles. Only one span of the Chickahominy Bridge has been burned. The bridge across the Pamunkey and one short bridge near West Point will be rebuilt as soon as the road in front is put in running order. When that is done, West Point can be made a depot also. It possesses many advantages. There is a good wharf and 20 feet of water can be carried there, up one of the finest rivers I have ever seen. Two or three days would have been gained in putting the road in order had the proper vessels been forwarded from Baltimore. By some mistake, the vessels which should have sailed first sailed last.

I am, very respectfully, your obedient servant,

STEWART VAN VLIET
Brigadier-General and Quartermaster

[Enclosure C]

Camp near Chickahominy
June 5, 1862

GENERAL: I have the honor to acknowledge receipt of your communication of the 21st ultimo in regard to taking horses from the teams for artillery purposes. This is impracticable at the present time, as our transportation is insufficient, owing to the very bad condition of the roads. I have never seen worse roads in any part of the country. Teams cannot haul over half a load, and often empty wagons are stalled. Our loss of animals is very great. The railroad is of great assistance, but it does not allow us to dispense with our wagons, as with the exception of very few the troops are not on it. The heavy rains of yesterday have injured the railroad very materially, having washed it away in several places. Heavy working parties are on it, and I hope to have it in running order again to-day. The difficulties under which our department has to labor, owing to the frequent and heavy rains and the nature of the country in which we are operating are very great.

Very respectfully, your obedient servant,

STEWART VAN VLIET
Brigadier-General and Quartermaster

[Enclosure D]

Camp near Chickahominy
June 9, 1862

GENERAL: In view of the reinforcements ordered to this army (twenty-three regiments), seven of which have already arrived, I have the honor to state that I this day telegraphed you for one hundred and fifty wagons and teams complete. This should be in addition to the teams in McCall's division, which is supposed he will bring with him. It now requires every means of transportation we possess, both rail and wagon, to keep the army supplied with forage and subsistence. Had we had such weather as we had reason to expect at this season of the year we should have had no difficulty whatever in supplying every want, but we have had one continued series of storms ever since we landed on the Peninsula. Notwithstanding this drawback, however, I believe I can assert that no army of this size, under similar circumstances, or any other, has been better or more regularly supplied. The railroad is in good working order from the depot on the Pamunkey to our front, though the recent heavy rains damaged it to a considerable extent. This road of course assists us vastly, though a small portion of our force only is immediately on it. Most of our supplies are obliged to be transported by wagons.

Our transportation as a general thing is still in fair condition, but if the rains continue we be injured very materially. It is often the case that empty wagons stall, and no teams can ever haul more than 1,000 pounds. Casey's division lost a few wagons in the recent battles, but nothing to embarrass us. It lost, however, all of its shelter-tents, knapsacks, canteens, &c. These articles are being replaced from the White House depot. The railroad bridge across the Pamunkey is being rebuilt, and could be finished in a few days, but I am delaying it, as we want for the present the river above the bridge, as we have a forage station at Garlick's Landing for the right wing of the army. The moment the army crosses the Chickahominy the road can be put in running order to West Point, if we desire to use it. At present the depot at White House answers our wants. When we get possession of Richmond our supplies, a portion at least, can

come by Fredericksburg and the James River, though the latter will be rather unsafe unless we clear the southern bank of guerrillas, which can be very easily done.

I am, very respectfully, your obedient servant,

STEWART VAN VLIET
Brigadier-General and Quartermaster

Army of the Potomac
Report of Brigadier-General Rufus Ingalls for the fiscal year ending
August, 1861 – September 2, 1862
Camp near Falmouth, Virginia, February 17, 1863²⁶¹

GENERAL: I have the honor to acknowledge the receipt of your communication of the 20th ultimo, asking for a report of the operations of the quartermaster's department from the time I succeeded General Van Vliet to the date of transfer of the command by General McClellan.

I desire to state that I have been connected with this army from its first organization; that I was chief quartermaster on the south side of the Potomac while our forces were in front of Washington until March last, when I took charge at Alexandria of the embarkation of the army to the Peninsula; that I followed it there and established successively depots of supply, first at Fort Monroe, afterwards at Cheeseman's Creek, Yorktown, Wormley's and Queen's Creeks, Franklin's Landing opposite West Point, Eltham, Cumberland, and White House, on the York and Pamunkey Rivers, and Harrison's Landing on the James.

It is presumed that my predecessor's report will explain the methods and principles on which the quartermaster's department was organized. Operations so extensive and important as the rapid and successful embarkation of such an army, with all its vast equipments, its transfer to the Peninsula, and its supply while there, under many vicissitudes, had scarcely any parallel in history, certainly no precedent in our country. Several of our depots had to be established under many embarrassments. At Cheeseman's Creek the harbor was exceedingly small, the channel was narrow, and the water at low tide was very shallow. The roads leading to Yorktown were fearfully muddy and full of quicksand. Still the army was mainly supplied from that point until the evacuation of Yorktown. Wharves were constructed of canal boats and barges, vessels towed in and out at flood tides, and the roads were corduroyed, and the depot was made quite equal to meet all requirements. The depot at White House was made very perfect and efficient. Ten or twelve barge wharves were constructed for use of the various staff departments. The railroad was put in thorough repair, and the army on the Chickahominy was kept well supplied.

On the 28th of June, in execution of orders given by General McClellan, instructing me what to do in certain contingencies, I abandoned the White House depot, leaving no public property behind of any value or use. At the moment of departure the rebels had possession of our railroad, had cut our communications with the army, and were in march to the Pamunkey. I succeeded in removing all the transports (over four hundred) from that narrow and tortuous river without accident or delay, and conducted them immediately to Fortress Monroe, thence up the James River, to meet the army upon its arrival. I reached Haxall's on the evening of the 30th, some two hours before the general commanding, to whom I reported my arrival with the supplies. It was decided to take up a position on the left bank of the James River a short distance

²⁶¹ OR, Series 1, Volume 11, Part 1, Chapter XXIII, pp. 164 – 166.

below the mouth of the Appomattox, consequently on the 1st of July I established the depot at Harrison's Landing. It seems almost a miracle, our successful escape from White House. Had our vessels got entangled on the bar at Cumberland, had the enemy interrupted our passage at some of the narrow bends, the consequences to the army would have been fatal. My safe exit from York and prompt arrival on James River was most singularly opportune and providential, and I count those days of service from the 28th June to the 1st July, 1862, as the most important and valuable of my life.

On the 10th of July following I was announced the chief quartermaster in place of General Van Vliet, who retired at his own request, and who while with this army rendered arduous and responsible service, and from whom I parted with sincere regret. The battles before Richmond during the latter part of June rendered a reorganization of the quartermaster's department necessary. Inspections were immediately made, and reports obtained of all means of transportation, clothing, and forage on hand with the troops, and prompt measures were adopted at once to supply all deficiencies and necessary wants. It appears from my records that on the 20th following there were present with the army about 3,100 wagons for baggage and supplies, 350 ambulances, 7,000 cavalry, 5,000 artillery, and 5,000 team horses and 8,000 mules. Upon the river was a large fleet of transports, having on board an abundance of supplies of all kinds. The army was then perfectly equipped so far as I observed, and was in condition, except in point of numbers – of which I was not the judge – to move forward.

The withdrawal of the army having been ordered in early August, preparations were perfected to secure our trains from attack by the enemy while evacuating the place and at the same time from obstructing the passage of our troops. One corps having been thrown across the Chickahominy near its mouth over a pontoon bridge of some 2,000 feet in length, the supply trains were then driven over without delay, and sent forward rapidly on the roads to Yorktown and Fortress Monroe. After having given all proper orders in regard to the breaking up of the depot I left with the general commanding, and supervised the withdrawal of the trains. The march was conducted with great order and celerity, without the loss or abandonment of any public property of any further use. The fleet of transports was conducted to Fortress Monroe by Lieutenant-Colonel C. G. Sawtelle, assistant quartermaster, in a most skillful and successful manner. This officer broke up the depot at Harrison's Landing on the morning of the 16th of August, the same day the general commanding left by land and moved toward the Chickahominy. Colonel Sawtelle performed this duty with marked ability, and rendered most valuable assistance in the evacuation of White House, and constantly since to the present time.

On arrival at Yorktown and Fortress Monroe the troops were embarked as rapidly as our means of transportation would allow for Aquia and Alexandria, in order to unite with the forces under General Pope. The cavalry and means of land transportation were the last to be shipped. Much of the cavalry did not arrive until after Pope had fallen back on the defenses and had been relieved in command. Many of the baggage trains were still behind, and did not come up until this army was reorganized by General McClellan after Pope's reverses, and had reached the Antietam. Great exertions were required and made to supply the army on its march in the Maryland campaign.

I am, general, very respectfully, your most obedient servant,

RUFUS INGALLS
Chief Quartermaster Army of the Potomac

Army of the Potomac
Report of Brigadier-General Rufus Ingalls for the fiscal year ending
September 2, 1862 – November 9, 1862
Camp near Falmouth, Virginia, February 17, 1863²⁶²

GENERAL: I have the honor to acknowledge the receipt of your communication of the 20th ultimo, asking for a report of the operations of the quartermaster's department from the time I succeeded General Van Vliet to the date of transfer of the command by General McClellan.

On arrival at Yorktown and Fortress Monroe the troops were embarked as rapidly as our means of transportation would allow for Aquia and Alexandria, in order to unite with the forces under General Pope. The cavalry and means of land transportation were the last to be shipped. Much of the cavalry did not arrive until after Pope had fallen back on the defenses and had been relieved in command. Many of the baggage trains were still behind, and did not come up until this army was reorganized by General McClellan after Pope's reverses, and had reached the Antietam. Great exertions were required and made to supply the army on its march in the Maryland campaign.

So soon as General McClellan was invested the command of the army for the "defenses of Washington," I ordered all quartermasters to make requisitions for such supplies as would be necessary to put the troops in condition to take the field. The army was then resting near its great depots. Most of the troops were well supplied for that occasion, but some commands, owing to the suddenness of the march, having left their clothing on vessels at Harrison's Landing to be brought to Alexandria, neglect, or inexperience of staff officers, subsequently were subjected to some privations.

It was at this point that General McClellan organized and put in motion a grand army that expelled the enemy from Maryland. This army moved early in September toward Frederick by way of Rockville and Urbanna. I left on the 8th and joined headquarters at Rockville. Until the army reached the vicinity of railroads, it was supplied exclusively by our wagon trains direct from Washington. At that season of the year it was not difficult to do this at a distance of 20 or 30 miles from our base, the roads then being good. Our first supplies by rail came to the Monacacy, on the Baltimore and Ohio Railroad. So soon as the bridge was finished, the depot was moved into the city of Frederick. After the battle of South Mountain, the country was opened to Hagerstown, on the Cumberland Valley Railroad, where another depot was immediately established.

With these depots the army from Williamsport to Poolesville was supplied with all its material wants, except as hereafter referred to in this report. The labor, however, of arranging and perfecting this system of transportation, of bringing each depot the requisite amount, and the details of trains for the distribution of these vast supplies to the different portions of the army, was excessively onerous night and day. Immediately after the battle of Antietam, efforts were made to supply deficiencies in clothing and horses. Large requisitions were prepared and sent in. The artillery and cavalry required large numbers to cover losses sustained in battle, on the march, and by disease. Both of these arms were deficient when they left Washington. A most violent and destructive disease made its appearance at this time, which put nearly 4,000 animals out of service. Horses reported perfectly well one day would be dead or lame the next, and it was difficult to see where it would end or what number would cover the loss. They were attacked in

²⁶² OR, Series 1, Volume 19, Part 1, Chapter XXXL, pp. 94 – 98.

the hoof and tongue. No one seemed able to account satisfactorily for the appearance of the disease. Animals kept at rest would recover in time, but could not be worked. I made application to send West and purchase horses at once, but it was refused on the ground that the outstanding contracts provided for enough; but they were not delivered sufficiently fast nor in sufficient numbers until late in October and early in November. I was authorized to buy 2,500 late in October, but the delivery was not completed until November, after we had reached Warrenton.

There was great delay in receiving our clothing. The orders were promptly given by me and approved by General Meigs, but the roads were slow to transport, particularly the Cumberland Valley road. For instance, clothing ordered to Hagerstown on the 7th of October for the corps of Franklin, Porter, and Reynolds, did not arrive there until about the 18th, and by that time, of course, there were increased wants and changes in the position of troops. The clothing, however, arrived in great quantities near the last of October, almost too late for issue, as the army was crossing into Virginia. We finally left 50,000 suits at Harper's Ferry, partly on the cars just arrived and partly in store.

During the whole of September and October we increased our stock of animals all in our power. In the beginning of October my records show that there was with the army immediately present with General McClellan about 3,219 baggage and supply wagons, some 7,880 artillery, 8,142 cavalry, and 6,471 team horses, and 10,392 mules, making some 32,885 animals in all. Many additional were absolutely necessary to move the army.

About the 1st of November following there was much improvement. My records show that, exclusive of the forces about Washington, there were 3,911 wagons, 907 ambulances, 7,139 artillery, 95,582 cavalry, and 8,693 team horses, and 12,483 mules, making 37,897 in all. This exhibits the number on hand when General McClellan was relieved. Of course these figures show the whole number of animals for which forage had to be provided. I am aware that during October and November my returns showed a much larger number of horses on hand than were reported fit for active service by the corps commanders. Forage was necessarily provided for all, while many of the cavalry and artillery horses present were unfit for a march. Subsequently our trains were increased to near 3,000 wagons and 6,000 animals of all kinds, after the Eleventh and Twelfth Corps had joined. We could then have ten days' supplies.

Near the last of October, preparations were made to cross the Potomac at Berlin, a few miles below Harper's Ferry. Supplies of subsistence, forage, ordnance and hospital stores were loaded in our wagons to meet our wants until we should reach the Manassas Gap Railroad and Salem and Rectortown, to which point stores were sent direct from Washington and Alexandria. Our trains at this time could not carry supplies of provisions and short forage for the army, with the necessary ordnance, hospital stores, camp equipage, &c., for more than six or eight days. A wagon drawn by six mules over good roads can haul 1,200 short rations of provisions (bread, sugar, coffee, salt, and soap) and six days' ration of grain for mules. Over hilly or muddy roads the weight would be correspondingly reduced. It can thus be easily seen how far from our depots an army can be supplied by wagons. When the supplies in trains become exhausted, an army must be at or near another source of supply, as a matter of course.

The march from the Potomac at Berlin to Warrenton, where General McClellan left the army, was a magnificent spectacle of celerity and skill. It was near Rectortown, on the 7th of November 1862, that the general was relieved. At this time the department was well organized. The officers had become well instructed, experienced, zealous, and practical. But for their

untiring energy and implicit obedience to orders, such an army on the march, with constantly changing depots, could never have been furnished with necessary allowances.

The great success attending our marches is due in part to the intelligence, fidelity, and perseverance of the officers of the Quartermaster's Department, to whom I owe much and to whom my gratitude is due. I am bound, also, to bear testimony to the promptness of the Quartermaster-General and all his depot officers, all of whom have invariably desired to assist me all in their power. I must also call the attention of General McClellan to the merits of those officers in my department who have served at our great depots. It was on these officers we mainly relied for our supplies. Lieutenant Colonel Frederick Myers, aide de camp and quartermaster, joined me in the march into Maryland, and has had particular charge of transportation. His services have been laborious and valuable. It was Colonel Myers who took charge of and successfully brought in the trains after Pope's defeat. I was then at Alexandria and knew the fact, though General Pope did not refer at all to his name in his report, and his services recently have not been rewarded. I feel greatly indebted to Colonel Sawtelle, to whom I have already referred. My thanks are also due to Captains Rankin, Wagner, Pierce, Pitkin and Bliss.

I am, general, very respectfully, your most obedient servant,

RUFUS INGALLS
Chief Quartermaster, Army of the Potomac

**Report of the means of transportation, &c. with the Army of the Potomac, on October 1,
1862**

Command	Number of men	Means of transportation				Horses		Number of animals
		Horses	Mules	Wagons	Ambulances	Cavalry	Artillery	
Army Headquarters	1,000	229	254	120	6	500		983
First Army Corps	13,707	1,496	703	463	168	180	860	3,239
Second Army Corps	16,083	338	1,798	440			1,040	3,176
Fifth Army Corps	30,926	882	2,243	605	119	34	1,980	5,139
Sixth Army Corps	18,743	654	999	363		85	1,200	2,938
Ninth Army Corps	12,860	922	1,317	400		217	1,080	3,536
Twelfth Army Corps	17,159	1,146	1,523	360		76	1,080	3,825
Fourteen regiments of cavalry	7,000	520	780	260		7,000		8,300
Four batteries of horse artillery	600	80		20			640	720
General Couch's division	9,740	204	775	188	22	50		1,029
TOTAL	127,818	6,471	10,392	3,219	315	8,142	7,880	32,885

Report of the means of transportation, &c. with the Army of the Potomac, on November 1, 1862

NOTE: Headquarters, Army of the Potomac, had 98 officers, 2,154 enlisted men, 343 horses, 553 mules, 165 army wagons, 21 two-horse wagons, 10 ambulances, 1,062 cavalry horses, a total of 1,958 animals.

First Army Corps	Number of men	Number of enlisted men	Means of transportation					Horses		Number of animals
			Horses	Mules	Wagons	Two-horse wagons	Ambulances	Cavalry	Artillery	
Corps Headquarters	13	30	33	16	9		3			
1st Division, Gen. Doubleday	370	7,072	758	329	207	4	78	456		
2nd Division, Gen. Ricketts	375	7,598	398	428	147		57	226		
3rd Division, Gen. Meade	357	7,283	579	279	164	1	62	364		
1st CORPS TOTAL	1,115	21,983	1,768	1,052	527	5	200	1,046	0	

Second Army Corps	Number of men	Number of enlisted men	Means of transportation					Horses		Number of animals
			Horses	Mules	Wagons	Two-horse wagons	Ambulances	Cavalry	Artillery	
Corps Headquarters	11	89	16	32	7		1	94		
1st Division, Gen. Hancock	391	8,264	240	582	161		25		215	
2nd Division, Gen. Gorman	385	8,561	146	992	196	2	5	6	336	
3rd Division, Gen. French	427	8,516	135	528	151		4	6	223	
2nd CORPS TOTAL	1,214	25,430	537	2,134	515	2	35	106	774	3,551

Fifth Army Corps	Number of men	Number of enlisted men	Means of transportation					Horses		Number of animals
			Horses	Mules	Wagons	Two-horse wagons	Ambulances	Cavalry	Artillery	
Corps Headquarters	23	272	38	63	15		2	185		
1st Division, Gen. Sykes	162	4,235	148	605	128		33		195	
2nd Division, Gen. A.A. Humphries	311	7,268	409	178	138		33	12	162	
3rd Division, Gen. Morell	573	13,054	238	1,037	228	5	14		446	
Artillery Reserve, Col. Hayes	31	931	327	102	100		8		788	
5th CORPS TOTAL	1,100	25,760	1,160	1,985	609	5	90	197	1,591	4,933

Sixth Army Corps	Number of men	Number of enlisted men	Means of transportation					Horses		Number of animals
			Horses	Mules	Wagons	Two-horse wagons	Ambulances	Cavalry	Artillery	
Corps Headquarters	19	203	247	13	30		2	99		
1st Division, Gen. W.T.H. Brooks	439	9,614	633	453	219	2	38	4	473	
2nd Division, Gen. W.F. Smith	554	13,623	238	859	190		44		444	
3rd Division, Gen. Newton	584	12,605	166	951	211	3	19	5	192	
Maryland Brigade, Gen. Kenly	179	3,755	58	242	70	1	1	58	106	
6th CORPS TOTAL	1,775	39,800	1,342	2,518	720	6	104	166	1,215	5,241

Ninth Army Corps	Number of men	Number of enlisted men	Means of transportation					Horses		Number of animals
			Horses	Mules	Wagons	Two-horse wagons	Ambulances	Cavalry	Artillery	
Corps Headquarters	8	43	212	32	5	1	101	18		
1st Division, Col. Fenton	293	6,503	236	407	106	6	1	6	140	
2nd Division, Gen. Sturgis	275	6,571	302	437	164	6	23	16	308	
3rd Division, Gen. Getty	225	5,246	87	548	114	4	5		175	
4th Division, Gen. Stoneman	616	11,714	753	746	194	5	90	757	298	
9th CORPS TOTAL	1,417	30,077	1,590	2,170	583	22	220	797	921	5,478
Twelfth Army Corps	Number of men	Number of enlisted men	Means of transportation					Horses		Number of animals
			Horses	Mules	Wagons	Two-horse wagons	Ambulances	Cavalry	Artillery	
Corps Headquarters										
& 1 and 2 DIVARTY	38	1,170	106	459	121	8	10	54	747	
1st Division, Gen. Williams	572	13,374	444	551	188	1	61	23		
3rd Division, Gen. Geary	436	8,501	480	189	128	1	39	5		
4th Division, Gen. Whipple	272	5,508	171	331	79	23	10	7	215	
12th CORPS TOTAL	1,318	28,553	1,201	1,530	516	33	120	89	962	3,782

Grand Total Army of the Potomac November 1, 1862										
Army of the Potomac	Number of men	Number of enlisted men	Means of transportation					Horses		Number of animals
			Horses	Mules	Wagons	Two-horse wagons	Ambulances	Cavalry	Artillery	
Headquarters	98	2,154	343	553	165	21	10	1,062	0	1,958
First Corps	1,115	21,983	1,768	1,052	527	5	200	102	1,046	3,968
Second Corps	1,214	25,430	537	2,134	515	2	35	106	774	3,551
Fifth Corps & Artillery Reserve	1,100	25,760	1,160	1,985	609	5	90	197	1,591	4,933
Sixth Corps	1,775	39,800	1,342	2,518	720	6	104	166	1,215	5,241
Ninth Corps	1,417	30,077	1,590	2,170	583	22	220	797	921	5,478
Twelfth Corps	1,318	28,553	1,201	1,530	516	33	120	89	962	3,782
Cavalry & horse artillery	396	7,995	752	541	276		34	7,063	630	8,986
TOTAL	8,433	181,752	8,693	12,483	3,911	94	813	9,582	7,139	37,897

NOTE: The average is one wagon per 48.63 men and one animal per 5.02 men

**Army of the Potomac
Annual Report of Brigadier-General Rufus Ingalls for the fiscal year ending
1 July 1862 - June 30, 1863
Camp near Culpepper, Virginia, September 28, 1863²⁶³**

GENERAL: In compliance with your General Orders, No. 13, of last July, the 23rd, I have the honor to submit the following report on the operation of the quartermaster's department of the Army of the Potomac during the fiscal year ending on the 30th June, 1863:

On the first day of the fiscal year, I established the great depot on James River at Harrison's Landing, at and around which point General McClellan concentrated his army after the eventful seven days' battles about Richmond. On the 28th of June preceding, I had broken up the depot at White House, on the Pamunkey, in execution of orders received from the General Commanding and General Van Vliet, then chief quartermaster of the army, and had successfully removed all the transports containing the public supplies – more than five hundred vessels of all descriptions – from the York to James River. I arrived at Haxall's, above City Point, on the left bank of the James, near June of the 30th of June, and reported in person to General McClellan when he came to the river some two or three hours later in the day, and while the first great fight at Malvern Hills was raging.

The army was destitute of supplies; my arrival was exceedingly fortunate and opportune. Temporary barge wharves were at once constructed at Harrison's landing, the transports were brought along side, and the subsistence, ordnance, hospital, and quartermaster's departments

²⁶³ OR, Series 1, Volume 19, Part 1, Chapter XXI, pp. 99 – 106.

were prepared for the issue of the necessary supplies on the arrival of the troops. We found in the vicinity a few old wharves, which contributed greatly to the accommodation of the commissary, ordnance, and hospital departments, but generally we had to rely on our own resources in the construction of landings or wharves at our various depots.

At the commencement of the movement to the Peninsula, I was placed in charge of assembling of transports, fitting them for the voyages, and embarking the troops. I took post at Alexandria, by order of the War Department, so soon as the blockade of the Potomac was raised, and remained there from the 18th of March until the 3rd of April, 1862, up to which time I had personally superintended the embarkation of more than 70,000 men of the Army of the Potomac.

It was my duty, while on the Peninsula, to establish the depots of supply for the army, and to see that all proper stores were provided and issued. This duty was excessively laborious and responsible, especially at Cheeseman's Creek, Yorktown, and White House, during the night as well as day. There were few officers of experience in the quartermaster's department at that time with the army, either in the regular or volunteer service. The magnitude of operations far exceeded what any quartermaster had ever before witnessed, or, indeed, read of. The sites of the depots at Cheseman's Creek, and White House were selected by me, and the landings constructed under my immediate superintendence, and sometimes with the assistance of my own hands. I was up to that date almost alone, so far as good officers were concerned. Proper measures had been taken by General Van Vliet to have an abundance of forage, clothing, &c., afloat, and in readiness to be issued at the depots. The subsistence department, also from the first to the present time, has always been well prepared with stores and employees.

In the mean time officers were acquiring the requisite experience, and by the 1st of July the army possessed very many well trained and efficient quartermasters, so that at Harrison's Landing, for instance, I was relieved of an onerous load of duty by officers whom I had selected on account of their great merit. I made the following assignments at this depot, holding the general superintendence myself, viz:

Captain C. G. Sawtelle (now lieutenant colonel and chief quartermaster, Cavalry Bureau), in special charge of water transportation and other branches; Captain L. H. Peirce, in charge of land transportation; Captains C. B. Wagner and A. Bliss, in charge of clothing; Captain P. P. Pitkin, in charge of employees; and Captain J. B. Winslow, in charge of forage. In twenty-four hours after the establishment of this depot, every duty was performed with great punctuality and accuracy. All issues were made on prescribed requisitions and necessary supplies called for.

A record of all arrivals and departures of vessels was kept by the harbormaster. Regular mail and freight boats were put on the route to Fortress Monroe, and vessels were constantly plying between the depots and the principal seaport cities.

I will here remark that I must refer you to the detailed reports of my subordinate officers, who have been in charge of special branches of our department, for information called for under the second, sixth, seventh, eighth, ninth, and tenth paragraphs of your order. These reports will serve to remind you of a portion of the stupendous operations of our department during the past fiscal year, conducted under your orders.

On the 10th of July, by the voluntary retirement of General Van Vliet, I was announced the chief quartermaster of the Army of the Potomac, a position which I have had the honor to hold to the present time, and which has confined me generally to headquarters. My duties since that period have been supervisory and administrative. I have continued to provide for the wants of the army on all its campaigns, and have established the depots and lines of supply in all instances, but have placed suitable officers at the different points to execute the instructions

given by me to meet the wishes of the general commanding. You will receive the reports of these officers.

It is due to my predecessor to record my regret at his leaving an army to which he was devotedly attached, and for which he has labored so assiduously and with such great talent.

It must be borne in mind that war on a scale inaugurated by the rebellion was decidedly new to us, if not to the civilized world.

Easy as it may seem now, after the lapse of two years, to organize the transportation of a great army, and provide its supplies with the known means we now have, there were few men at that day in the republic who could have accomplished the task sooner than it was. It required the united abilities and exertions of our whole department, aided by the loyal producers and manufacturers of the country, to meet the public wants; and, if there were temporary failures, the department should stand excused, for its labors have been unparalleled and gigantic. Perhaps the failures in our department have been fewer than in fighting the troops.

I had no data left me to show what means of transportation and other quartermaster's property were still with the army after its severe battles and change of base. Inspections were immediately made throughout. It was found that there were in the service, about the last of July 3,100 wagons, 17,000 horses, 8,000 mules and 350 ambulances. I have no means of knowing the original number. The supply of clothing, camp and garrison equipage, &c., was good. In the river at the depot were bountiful supplies of forage, subsistence, and hospital stores.

The general commanding received orders early in August to evacuate the Peninsula. About the middle of the month one corps was thrown across the Chickahominy near its mouth, over a pontoon bridge of 2,000 feet in length; another command was pushed out toward New Kent Court House over Bottom's Bridge; both with a view of protecting our trains, which were now sent forward rapidly in advance of the remainder of the army, by the pontoon bridge. They all passed in safety, and proceeded to the point of embarkation at Yorktown, Newport News, and Fortress Monroe. The transports were withdrawn under the direction of Colonel Sawtelle, who was my principal at White House, and whose sagacity, zeal, promptness, and experience qualify him for any position in your department. The headquarters left Harrison's Landing on the morning of the 16th of August, and the depot was broken up and abandoned, without loss, on the evening preceding. The march was a rapid and orderly one. I arrived at Fortress Monroe on the 18th by water from Yorktown. Fitz John Porter's corps should embark at Yorktown; Keyes' should remain there; that Franklin should embark at Newport News, and Sumner at Fortress Monroe.

Leaving Colonel Sawtelle at the later point to provide transports and push forward the troops, cavalry, horses, and artillery, I returned to Yorktown to hasten the embarkation of the Third Corps.

I finally left Fortress Monroe with General McClellan and staff on the 23rd of August, and arrived off Aquia early on the 24th instant, where we remained on the transports sixty hours awaiting orders. I left Aquia on the 26th instant, and arrived at Alexandria on the 27th, where headquarters went into camp near the city.

After the evacuation of Harrison's Landing the troops were pushed forward as rapidly as our means would permit. The officers and men seemed anxious and impatient to reach the scene of conflict in front of Washington, where it was known great battles must be fought, on which mighty national interests were staked.

I know the officers of our department used untiring exertions to expedite the embarkation; but it is now apparent that either we did not leave Harrison's Landing soon enough, or that General Pope did not fall back without risking a general engagement, as perhaps he might have done, at least earlier in the campaign, until more forces should arrive. I allude to the matter only in justice to our own department, which has sometimes been accused of tardiness and having inadequate means of transportation on that occasion. Our means were ample and as great as the country could afford. Transport were assembled, as far as possible, from all available sources. It was not to be expected that there should be transports enough to move 100,000 men, with the artillery, cavalry, and trains, at once. It had required more than a month to transport the army from Alexandria to the Peninsula. It could not be brought back in a day. It did absorb three weeks' time to bring all back. Many of the wagon trains and a portion of the cavalry did not arrive until the army had left Washington on the Maryland campaign. Indeed, some did not join until after the battles of South Mountain and Antietam.

It is fresh in your memory how Pope's campaign resulted. Disorganized trains and wearied and dispirited troops were crowded in on Washington and Alexandria during the latter days of August.

General McClellan was invested on the 4th of September with the command of the "defenses of Washington." At the same time I ordered all quartermasters to draw supplies, to place their commands in marching condition, and to reorganize their trains at once.

These orders were obeyed very promptly. There was probably some 2,500 wagons conducted in by Colonel Frederick Myers to Alexandria, which he saved from the recent retreat of General Pope. These, added to what had arrived from the Peninsula and what General Rucker could spare from the Washington depot, made up the train for the Maryland campaign.

It was soon ascertained that portions of the rebel army had crossed the Potomac, and had entered Maryland above Harper's Ferry. On the 5th and 6th of September, our army was put in March toward Frederick City, by Rockville and Urbana.

I left Washington on the 7th instant, and joined headquarters same day at Rockville. We remained there two or three days, while our cavalry and advanced infantry and artillery commands were gaining information of the enemy and feeling of his position. Meantime General McClellan became possessed of the plans of the rebel general, and the army was pushed on through Frederick to the gorges of South Mountain, where the rebels made their first stand of any importance.

The battle of South Mountain was fought on the 13th and 14th of September. The victory opened the Cumberland Valley. The army followed rapidly and came up with the entire rebel army in position on the heights of Sharpsburg on the 15th instant.

The battle of Antietam was fought on the 17th, and resulted in favor of our arms, freeing Maryland completely of the enemy, and compelling him to retreat into Virginia.

The army was supplied by our wagon trains exclusively, until we recaptured Frederick. The enemy had burned the railroad bridge over the Monocacy, but a depot was established on the left bank while the bridge was being rebuilt, and supplies of subsistence and forage were brought up over the Baltimore and Ohio Railroad; Captain J. C. Crane, assistant quartermaster was placed in charge. The commands within reach sent wagons to this depot for what they required. Wagon trains were also kept plying between Washington and the army until after it passed South Mountain. A depot was established at Hagerstown, under Captain George H. Weeks, assistant quartermaster, and supplies of clothing, subsistence, and forage were brought over the Cumberland Valley Railroad.

These supplies came mainly from Washington, but forage and clothing were frequently brought direct from New York City, Philadelphia, and Baltimore. After the battle of Antietam the arms assembled about Harper's Ferry. The canal was now available; with all these sources of transportation we had no embarrassment, save in the extreme slowness, in some instance, with which stores turned over to the railroad for transportation were delivered at their destinations. From this cause we were unfortunately very late in receiving clothing, and much of it arrived at Berlin too late for issue, as the army was already on its march to White Plains, Warrenton, &c.

Generally, however, the railroads did splendid service. I always found the principal officers and agents of the roads extremely obliging, courteous, and energetic.

Our wagon trains had been much increased. About the 1st of November, they numbered 3,911 wagons, 8,693 horses, 12,483 mules, 907 ambulances, 7,139 artillery horses, and 9,582 cavalry. We had sufficient to haul seven days' supplies for the army, besides its baggage, camp equipage, &c. The army crossed the Potomac over pontoon bridges at Berlin the last of October.. I crossed on the 1st of November and reached Salem, on the Manassas Gap Railroad on the 3rd following. Supplies had already been ordered by this road direct from Washington and Alexandria.

On the 9th of November General Burnside assumed command of the army, and soon after he moved it to Falmouth, in front of Fredericksburg. On the 13th I left the army at Warrenton, with orders to proceed to Washington and Alexandria, thence to Aquia Creek, and to take measures for the support of the army by the Aquia and Fredericksburg Railroad. On the 16th, in company with Generals Woodbury and Haupt, I went to Aquia and Belle Plain on a reconnaissance. We found the old wharf and entire depot at Aquia a mass of ruins, and the interior of the country still in the hands of the enemy. It was decided to create temporary landings at both Aquia and Belle Plain, to land supplies and haul them to the army on its arrival with wagons, while permanent arrangements on a proper scale could be made.

The plan was most successfully executed. I returned to Belle Plain about the 19th, and joined headquarters at Falmouth. The depot at Aquia was made as spacious and commodious as any one we have ever had. Large wharves were constructed and storehouses erected to accommodate all departments. I placed Captain T. E. Hall, assistant quartermaster, in charge, with several officers to assist him. Captain Hall was finally succeeded by Lieutenant Colonels A. Thompson and Painter, assistant quartermasters. Frequent inspections were made by myself and Colonels Sawtelle, Myers, and Painter. General Haupt placed Mr. W. W. Wright at the place as railroad agent. He was an exceedingly energetic, gentlemanly, and business-like officer. Stations were established at convenient points along the road for the delivery of supplies - the principal one having been at Falmouth, under Captain L. H. Pierce, assistant quartermaster, now assistant chief quartermaster of this army. His report will show you the immensity of his business during the past year. I regard him as one of the best quartermasters in the service.

The land transportation of the army was reorganized while at Falmouth, and to-day corresponds precisely with the standard prescribed in Orders, No. 83.

The rule will be found useful if applied to our other armies. There would be, besides, the advantage of uniformity. Our supply trains are calculated for seven days' subsistence, three of salt meat, six of short forage, and 100 rounds of small-arm ammunition to be hauled in wagons. By our system, knowing the number of men, we can at once determine the number of wagons.

The battle of Fredericksburg was fought on the 13th of December, 1862. General Hooker assumed command of the army January 26th, 1863.

To show what our custom was on the eve of battles with regard to our trains, I take the liberty to enclose a copy of my report of our arrangements during the Chancellorsville campaign, herewith, marked B. This report and its accompanying papers, now in your office, will give you full and valuable information.

The battle of Chancellorsville and second battle of Fredericksburg were fought from the 2nd to the 4th of May, 1863. In a forward movement our trains are never in the way of the troops; on the contrary, each corps has its train which follows it on the march, and which forms its indispensable, moveable magazine of supplies. Wagon trains should never be permitted to approach within the range of battle-fields. They should be parked in safe and convenient places out of risk, and well guarded. Troops should go forward to battle lightly loaded, and without wagons except for extra ammunition. If they are successful, the trains can be brought up very quickly. If defeated, they will find an unobstructed road, and will get back to their wagons soon enough.

In all our engagements this precaution has been observed. At the battles of Fredericksburg and Chancellorsville wagons were not permitted to cross the river except on special order and for some pressing necessity.

At the great battle of Gettysburg I had the trains of the whole army parked at Westminster, on the Baltimore Branch Railroad and pike at a distance of 25 miles from the field, guarded by cavalry and artillery. It would appear that the Army of the Cumberland could not have observed this essential rule, since reports show a great loss of trains during the recent conflicts between Chickamauga and Chattanooga.

The experiences of this army by land and water during the past two years give it some right to speak with weight on the subject of transportation. On the 14th of June we broke up our headquarters camp near Falmouth, and pursued the route by Dumfries, Fairfax, Leesburg, Edwards Ferry, and Poolesville, to Frederick City, on our second Maryland campaign. The army was in excellent condition, our transportation was perfect, and our sources of supply same as in the first campaign. The officers in our department were thoroughly trained in their duties. It was almost as easy to maneuver the trains as the troops. It is, therefore, unnecessary to go further into the details of the march.

The rebel army had again invaded Maryland, and had advanced as far as Carlisle and York, in Pennsylvania. The Army of the Potomac was again in pursuit of its inveterate foe, and finally met him in pitched battle of three days' fighting, and compelled him again to re-cross the Potomac.

General Meade, justly the conqueror and hero of Gettysburg, assumed command of the army on the 28th of June.

On the last day of the fiscal year, two days later, I was at Tanneytown with headquarters of the army.

I have been in the battles of South Mountain, Antietam, Fredericksburg, and Chancellorsville during the year ending June 30, 1863.

While on Peninsula affairs, I omitted to state that white laborers were soon found to give out from sickness and exhaustion at our depots on the Peninsula. While at White House I took effective measures to secure the services of contrabands, drawn mostly from the vicinity. They proved invaluable, though we thus became encumbered with many women and children. On the evacuation of White House I took away all my colored force, and increased it very considerably while at Harrison's Landing by sending for Negroes to Williamsburg, Charles City, Norfolk, &c. On the evacuation of the Peninsula I must have taken away 2,500 males. The women and

children were provided for near Fortress Monroe. Many of these Negroes have other situations now; but we still retain, at our depots her, some 1,50; they are industrious, obedient, and tractable. They are considered free, and obtain \$20 per month for their services. This narrative covers the chief events of this fiscal year.

On the 20 th of June, 1862, I had on deposit with the Treasury	\$172,991.47
I received the year ending June 30, 1863.....	<u>\$2,509,383.13</u>
Total to be accounted for	\$2,682,374.60
Amount of disbursement during the year.....	<u>\$2,416,237.60</u>
Balance due United States June 30, 1863	\$266,137.00

Of this balance \$265,687.51 was deposited with the Treasurer of the United States and \$449.49 in New York City with the assistant United States treasurer. Of \$2,416,237.60 disbursed during the year, \$2,406,285.21 was transferred to officers of my department for disbursements in corps. The balance, \$9,952.39, was expended for articles of stationary, &c., purchased, and payment of employees. To the great credit of the quartermasters of this army, I have to report only one instance of defalcation and want of integrity. That is the case of Captain John Howland, assistant quartermaster volunteers, who received from me in March last \$16,470.04, as acting chief quartermaster of the Fifth Corps, for distribution to the subordinate officers to pay teamsters. He deserted and carried away with him the whole sum, but was subsequently arrested and brought to Washington by some of the acute and efficient agents of the provost-marshal of the War Department. Colonel Baker received \$10,279 of the sum embezzled, and turned the same over to me. Captain Howland has been brought before a court-martial for this offense. The sentence is not yet promulgated.

There were no outstanding debts in this army on the 30th of June, 1863. I do not mean unsettled claims for forage, &c., in Maryland. I left Captain John McHarg, assistant quartermaster, at Frederick, with funds to pay all such legitimate accounts. He is still there on this duty.

There will be suggestions for the improvement of our means of transportation, workshops, &c., by some of my experienced subordinate officers. I request you will give the matter your attention. There should be at once, above all other things, a special wagon or caisson for carrying all extra or reserve ammunition. This matter is very important. It should be for small arm as well as for artillery ammunition.

I have the honor to include herewith a forcible letter on the subject, marked C, to which I invite your attention, from General Hunt, chief of artillery.

I should not close this report without acknowledging the uniform generosity which you have extended to me, and the great support you have invariably given me. I also wish to acknowledge my great obligations to General Rucker, and the officers who have served under him. He has had daily contact and business with, and on account of, this army, and has, in all instances, fully met our expectations with much courtesy and forbearance. For all that has been accomplished there is credit due many who have labored together instead of arraying obstacles. I have not permitted myself to have difficulties with anyone who had any will or capacity to serve this army.

To the quartermasters of this army I feel much attached and under a weight of indebtedness, especially to those who have had charge of the great depots. I have referred to them in the body of this report; still, I would be doing much injustice if I did not mention Captain

P. P. Pitkin, assistant quartermaster, who, similar to Captain Pierce, has had charge of great depots, and whose business for the year has been extremely heavy. He is a most meritorious, energetic, and trustworthy officer. Captain William G. Rankin, Thirteenth Infantry, and acting assistant quartermaster, has also served with much credit. He was in charge of land transportation at White House, and acquitted himself with satisfaction. Lieutenant Colonel Frederick Myers, assistant quartermaster, served with the army from Pope's retreat until after Fredericksburg. He was most of the time my chief assistant. like Colonel Sawtelle, he is invaluable as a quartermaster and superior business man. I trust these officers will receive the advancement they merit.

The chief quartermasters of the corps are all finely educated gentlemen and highly experienced quartermasters, and there are many quartermasters now serving with divisions and brigades who are well qualified for higher positions.

In conclusion, I wish to bring to your notice the admirable administration and executive ability of Captains Ferguson and Stoddard, quartermasters at Alexandria. Their duties have been very onerous and accumulated, and have been most efficiently performed. They both occupy high and important positions, and the Army of the Potomac is indebted to them in part for many of its supplies.

I am, general, your most obedient servant,

RUFUS INGALLS

Army of the Potomac
Report of Operations by Brigadier-General Rufus Ingalls
Covering the Period of General Burnside's Command of the Army
from November 9, 1862 to January 26, 1863²⁶⁴

Headquarters Army of the Potomac,
Office of the Chief Quartermaster,
Camp near Brandy Station Va., March 19, 1864

GENERAL: In compliance with your verbal request that I shall furnish you with a report of the operation of the quartermaster's department of this army while you were in command, I have the honor to represent that that I have rendered one to General McClellan to cover the period during which I was his chief quartermaster, from July 10 to November 9, 1862, and that I have also rendered an annual report to General Meigs, Quartermaster-General, for the fiscal year ending June 30, 1863. I take great pleasure in submitting to you the substance of the reports referred to, so far as relates to the time you were in command.

At the time you assumed command of this army, November 9, 1862, my records show that, exclusive of the force about Washington, there were present 3,911 army wagons, 907 ambulances, 7,139 artillery, 9,582 cavalry, 8,693 team animals, and 12,483 mules, making 37,897 animals. The army had recently crossed the Potomac at Berlin, marching by way of Salem and Rectortown.

On the 9th the headquarters were at Warrenton. It was well supplied with means of transportation, clothing and forage. Our supplies had been received during October by the canal,

²⁶⁴ O.R. Series 1, Volume 21, Chapter XXXIII, pp 145-148.

Baltimore and Ohio Railroad, and the Cumberland Valley Railroad, while the army stretched from Williamsport to Berlin.

On arriving at Warrenton our supplies were sent on the Alexandria Railroad and on the Manassas Gap and Warrenton branches. This road was in bad condition, and those best acquainted with its capacity, from actual experience and observation, as General Haupt and Lieutenant Colonel F. Myers, reported that it could not be safely relied on to supply so large an army. After passing over the road I was of the same opinion.

It is proper to remark, however, that since then the road has been vastly improved. New ties and rails have been put in where necessary; new bridges have been built; the rolling stock has been increased, and the road has been conducted by Colonel J. H. Devereaux, a most energetic, systematic, and skillful superintendent, so that to-day the road can supply an army of 150,000 men certainly as far as Culpepper. At that time, the Third, Eleventh, and Twelfth Corps were not serving immediately with the army. It is necessary to be reminded of this, in order to understand the comparatively small number of wagons, horses, and mules on hand when you assumed command.

In my report to General McClellan, I state “that subsequently our trains were increased to near 6,000 wagons and 60,000 animals of all kinds. After the Eleventh and Twelfth Corps had joined, we could then haul ten days’ supply.”

The following is my recapitulation of transportation present with the forces when you relinquished command, January 26, 1863:

Command	Wagons	Ambulances	Teams and ambulance horses	Cavalry horses	Artillery horses	Mules	Total animals
Headquarters Army of the Potomac and depot	367	21	606	1,675		1,108	3,389
Right Grand Division (Sumner's)	1,294	329	2,687	3,836	2,019	5,116	13,658
Left Grand Division (Franklin's)	1,426	406	3,506	4,357	2,292	4,880	15,035
Center Grand Division (Hooker's)	1,250	361	2,732	3,336	2,030	4,990	13,088
Eleventh Corps (Sigel's)	549	117	1,744	2,647	894	1,257	6,542
Twelfth Corps (Slocum's)	470	125	1,185	171	656	1,270	3,282
Artillery Reserve (De Russy's)	367	12	462		1,434	1,039	2,935
Kenly's brigade	103	22	160	1,512	339	309	2,320
Detached cavalry (North Mountain)	41	2	157	1,345		12	1,514
Engineer Brigade (Woodbury's)	113	8	1,146			284	1,430
Grand total in Army of the Potomac	5,980	1,403	14,385	18,879	9,664	20,265	63,193

It having been decided to move the army by Fredericksburg on the Aquia and Fredericksburg railroad, I was directed by you, on November 13, to proceed to Washington, and thence to Aquia and Belle Plain, and to make all necessary and proper arrangements for the support of the army by that route.

On the 16th, in company with Generals Woodbury and Haupt, I went to Aquia and Belle Plain on a reconnaissance. We found the old wharf and entire depot a mass of ruins, and the interior of the country still in the hands of the enemy.

It was decided to erect temporary landings at both Aquia and Belle Plain, to land supplies and haul them to the army on its arrival, while permanent arrangements on a proper scale could be made. The plan was most successfully executed.

I returned to Belle Plain about the 19th, and joined your headquarters, near Falmouth, where you had just arrived.

Supplies of subsistence and forage were landed at Aquia and Belle Plain, and were ready for delivery as soon as the wagons arrived.

The wharves were constructed of barges and trestle work, and answered every purpose. Meantime the depot at Aquia was made as spacious and commodious as any one we have ever had. Large wharves were constructed and store-houses erected to accommodate all departments. I placed Captain T. E. Hall, assistant quartermaster of volunteers, in charge, with several other officers to assist him. Captain Hall was finally succeeded by Lieutenant Colonel A. Thompson, assistant quartermaster and aide-de-camp, and afterwards by Lieutenant Colonel Painter. Frequent inspections were made by myself and Colonels Sawtelle and Myers.

General Haupt placed Mr. W. W. Wright at Aquia as superintendent of the railroad. His management was vigorous and most business-like and efficient. *Entrepots* or stations were established along the line of the road at convenient points for the delivery of supplies, the principal one having been at Falmouth, under Captain L. H. Peirce, assistant quartermaster of volunteers. His duties were very laborious and responsible, and he performed them with signal credit.

The depot at Belle Plain was kept up all winter, under Captain P. P. Pitkin, assistant quartermaster of volunteers, who for more than two years past has exhibited remarkable energy, sagacity, and untiring zeal as a depot quartermaster.

Most of the Eleventh Corps and a portion of the cavalry were supplied from a depot on Aquia Creek, at Hope Landing. This place was under Captain J. G. C. Lee most of the time. Captain Lee proved himself to be a most excellent officer.

It will be seen that to supply so large an army from these points required not only a perfect system but also great labor. Take, for instance, the item of forage; the full allowance required the daily receipt, distribution, and issue of some 800 tons of grain and hay. In addition, were subsistence, ordnance, hospital, and quartermaster stores generally. It was difficult to provide hay enough during early winter. The contractors were ample, but contractors found it difficult to find transports sufficient, besides the weather was unpropitious; but after the beginning of February the full ration was furnished. I am aware of no time when there was suffering among the troops and animals for want of any supplies which I had the power to provide.

The battle of Fredericksburg was fought on December 13, 1862. Before the battle, arrangements had been made to send all surplus property to the rear, to free our depots, in order that they might be abandoned without loss, and to put all our necessary supplies of forage, subsistence, ammunition, and medical stores in our trains, which were carefully packed and well guarded at selected points. These trains were not to cross the river with the army, but were to be held in readiness to move at the proper moment.

In all of our campaigns our trains, though large, have never impeded the progress of the army to my knowledge; nor need they if proper disposition be timely made in orders by the general in command and the quartermasters perform their duties.

In all the principal battles of this army our trains have been well guarded at a distance from the field, and no disasters have ever happened to them. Situated as you were in

Fredericksburg, the trains, in case of success, would have constituted your only magazines of supply for several days. The land transportation was considerably reorganized while you were in command, but the amounts allowed for baggage and supplies have been gradually and constantly reduced to the present time.

The allowances to-day are prescribed in General Orders No. 100...The rule established in this order will be found useful if applied to our other armies. There would be besides, the advantage of uniform system.

I am, very respectfully, your obedient servant,

RUFUS INGALLS

Brigadier-General, Chief Quartermaster, Army of the Potomac.

Seven Days' Battle
(June 25 – July 1, 1862)
Report of Lieutenant-Colonel R. N. Batchelder, Assistant Quartermaster,
II Corps, Army of the Potomac, on operations conducted between July 1, 1862
and June 30, 1863²⁶⁵

Sir: In compliance with General Orders No. 13, from Quartermaster-General's Office, I have the honor to submit the following report of the transactions connected with my duties as assistant quartermaster for the fiscal year ending June 30, 1862:

During the year 1862 I was employed as the assistant quartermaster of the Second Division, Second Corps, Army of the Potomac. On the morning of July 1 the trains of this division were parked at Haxall's Landing, on the James River, about three miles from the battlefield of Malvern Hill. In accordance with orders received during the afternoon the ammunition trains of the division (consisting of fifty wagons) were sent to Malvern Hill. During the night orders were received to move to Harrison's Landing in the following order: First artillery; second troops; third trains. The artillery and troops having left the field the ammunition was moving into the road, when, under the direction of an officer of General McClellan's staff, eleven teams that were in the rear were drawn together and blown up, saving only the saddle mules of each team. The remainder of the trains reached Harrison's Landing without accident early in the day and remained at this point until the 15th day of August when we marched at 5 p. m., having previously shipped all of the knapsacks belonging to the men and all the surplus baggage upon transports for the Potomac. The march was continued slowly during the night and the next day without halting, crossing the Chickahominy River on a pontoon bridge at 5 o'clock in the afternoon and encamping on the opposite bank. On the morning of the 17th resumed the march for Hampton, arriving there at 3 a. m. of the 19th. On the 23rd the transportation moved to Newport News, where the troops were embarked on the 25th, the trains being left for want of transportation. The troops reached Aquia Creek on the morning of the 27th, and were mostly disembarked when orders were received to reship and proceed to Alexandria, where we arrived during the evening, and the next day went into camp about four miles from the city on the Centreville road. On the 30th the transportation began to arrive, which was immediately unloaded. The troops moved to Tennallytown and from thence to Centerville, returning on the 3rd of September and encamping near Tenallytown. The transportation was ordered from Alexandria to Georgetown, and the knapsacks and stores shipped to Harrison's Landing were

²⁶⁵ OR, Series 1, Volume 51, pp 100 – 103

received. On the 5th, the troops moved to Rockville, followed by the transportation on the 8th. The command resumed the march on the morning of the 9th, reaching Frederick City on the 14th. On the following day moved to the vicinity of the battle-field of Antietam, arriving at 2 a. m. on the 16th. The enemy opened fire on the train at daylight, when, after issuing rations to the troops, the teams moved back on the Boonsborough road about two miles, where they remained until the 19th, when they moved up to the battle-field.

On the 23rd the command marched to Harper's Ferry, fording the Potomac River and encamping on Bolivar Heights, remaining here until the 30th day of October, when crossing the Shenandoah River and moving down the line of the Blue Ridge by easy marches, arrived at Warrenton on the 9th day of November. On the 15th of the month the troops started on the march for Falmouth Va., arriving within one mile of that place on the afternoon of the 17th, where they remained in camp until the 11th day of December. On this day the trains of the division were loaded ready for a march and parked with the trains of the corps about two miles in the rear of Falmouth, remaining there until after the battle of Fredericksburg. They then returned to their former camping ground.

By Special Orders, No. 10, from War Department, January 8, 1863, I was assigned to the Second Army Corps, Army of the Potomac, as chief assistant quartermaster, Maj. Gen. D. Couch commanding. On assuming the duties of that position, my attention was given to the general improvement of the transportation belonging to the corps, believing it to be essential to the general interest and a necessary auxiliary to the successful movement of the army that this department is at all times in good condition. Every effort was made to accomplish that object, and the result, after long and fatiguing marches over rough and precipitous roads, bears ample evidence that these efforts were not made in vain. On Wednesday, the 29th day of April, the First and Third Divisions of this corps, with seventy wagons loaded with ammunition, forty-five with supplies, and thirty with hospital stores and forage, moved from Falmouth to a point on the Rappahannock River near Banks' Ford. The remainder of the train, consisting of 351 teams^{vi}, was parked at Falmouth. Each division train was supplied with thirty-five pack saddles. On the following day the command moved to United States Ford. On the 1st of May the troops moved across the Rappahannock River on a pontoon bridge at United States Ford, followed by the ammunition train, and encamped near the battle-field of Chancellorsville. During the several days' engagements I was employed superintending the movements of the trains, in forwarding ammunition and supplies to the front as they were required. The roads, which at this time were nearly impassable for heavy teams, were made worse by the heavy transportation that was constantly passing over them, and which rendered it necessary to resort to the pack-mule system as a more ready means of transportation, and for several days all the small arms ammunition and supplies were conveyed on pack-mules. Impressed with the important and timely service rendered by this system of transportation, I improved the first opportunity to increase the supply. On Wednesday, the 6th day of May, all the transportation in this command returned to Falmouth in good condition and ready for active and immediate service. The trains remained at this place until the 14th of June. Early on that day they moved forward by way of Stafford Court-House and Dumfries, arriving near Fairfax Station on the following Wednesday, where supplies were obtained. On the 19th the Command moved to Centreville; on the next day to Thoroughfare Gap over the Warrenton turnpike, the Third Division remaining at Gainesville to protect the lines of the railroad. The First and Second Divisions moved on, arriving at the gap about midnight on the 20th. The several trains remained at the respective places until the morning of the 25th, when they moved to Gum Springs and were joined by the Third Division train. When passing through

Haymarket the enemy's cavalry in considerable force made some demonstration on our rear, but no loss or injury was sustained by the train. On the 26th the march was continued, arriving at Edwards Ferry early in the afternoon, when we crossed the Potomac River on pontoon bridges and parked the teams in the vicinity of Poolesville, Md. Forage and supplies were obtained here. The next day the train moved on through Poolesville, Barnesville, and Hyattsville, parking at Urbana. On the 28th moved on to and parked at Monocacy Junction, near Frederick City. On the 29th the command moved at 8 a. m., passing through Liberty and Johnsville, arriving at Uniontown at 11 p. m., having marched thirty-one miles during the day^{vii}. Here the train remained in park to the end of the month. No better evidence of the condition of the trains could be given than that during this march, embracing a period of seventeen days and accomplished under many difficulties, no serious accident or delay occurred. The amount of transportation allowed by general orders, headquarters Army of the Potomac, has been strictly adhered to, and I would respectfully suggest the following changes, which, in my opinion, would add much to the efficiency of the movements of the troops and the safety of the trains:

I. During a campaign the amount of necessary transportation could be materially reduced by allowing no wagons for officers' baggage or supplies, compelling them to transport their shelter-tents, rations, &c., by their horses [and] servants. The adoption of some plan of this character would reduce the transportation of the army fully 20 percent and very sensibly increase its power of rapidity of motion.

II. The quantity of small-arms ammunition transported is largely in excess of the amount required. For instance, at the battle of Chancellorsville, out of fifty teams loaded with small-arms ammunition, but nin loads were expended, and at the battle of Gettysburg, Pa., where this corps lost nearly one-half of its whole number in killed and wounded, but fourteen loads were used out of sixty. Three wagons of the five for every 1,00 men, now required by existing orders, would be sufficient to transport more ammunition than has been expended in any two battles during the war.

III. The transportation assigned to the hospital supplies is about 12 percent of the whole amount. It can and should be reduced at least one-half.

IV. Every person connected with the train should be well armed with navy revolvers or carbines, so that every train will be able to protect itself and relieve a large number of soldiers who are assigned for guard duty.

V. Brakes that can be operated by the teamsters while upon his team should be placed upon all the wagons. Much time and a large amount of wear and tear could be saved thereby.

R. N. BATCHELDER,
Lieutenant-Colonel and Assistant Quartermaster of Volunteers

Seven Days' Battle
(June 25 – July 1, 1862)
Report of Lieutenant-Colonel William H. Owen, Assistant Quartermaster
III Corps, II Corps & V Corps, Army of the Potomac on operations conducted between
July 1, 1862 and June 30, 1863²⁶⁶

²⁶⁶ OR, Series 1, Volume 51, pp 103 – 108.

GENERAL: In accordance with General Orders, No. 13, from your office, dated July 22, 1863, I have the honor to make the following report:

On the 30th day of June 1862, I was acting as assistant quartermaster with the Second Brigade, First (Kearny's) Division, Third Army Corps, Army of the Potomac, the same brigade to which I had been attached in the same capacity since its formation in August, 1861. It was commanded by Brigadier General D. B. Birney, and consisted of five regiments, viz, Third and Fourth Maine, Thirty-Eighth, Fortieth, and One hundred and first New York. About 8 p. m. of the evening of Saturday, June 28, I received orders to move the train of the brigade across White Oak Swamp, to abandon all tents and camp equipage except what was absolutely indispensable, and to carry all the subsistence stores possible. Throughout the brigade about thirty wall and a few common tents and a small amount of clothing and camp equipage (the precise amount and value of which were never reported to me) were destroyed. The train, consisting of forty-two army wagons, left camp about 9 p. m. and took up the line of march toward White Oak Swamp, which was crossed about daylight without accident except the loss of one wagon (for which I was not responsible), which broke down beyond repair. We halted about 9 a. m. (Sunday 29th) at Charles City Cross Roads to await orders, in company with the greater part of the transportation of the army, which had crossed the swamp during the night.

Meanwhile the battles of Peach Orchard and Savage Station, the cannonading of which was plainly audible, were being fought. During the day and night we remained in the same place, vainly seeking orders and vainly attempting to ascertain the route to be taken and the time to take it. Experience had not then taught, what it has since, the value of organization and the importance on a march of moving large trains, the trains of a division, or even a corps, as a unit, in one body, with one director. Generally brigade trains were moved as units, without connection with other brigades of the same division. In the same corps, therefore, there were nine distinct and independent trains instead of one, or at most three. The confusion arising from conflicting orders and conflicting interests multiplied in similar proportion^{viii}.

Monday morning, the 30th, without orders or definite information, we joined the current of wagons setting toward Malvern Hill after a hard fight for the road, no officer being present with authority to prescribe the route that trains should take or the order of march. At all narrow places or cross-roads, where other trains came in, there was the usual conflict, cutting in and breaking up the trains, degenerating sometimes into personal contests between officers, teamsters, and wagon-masters, and very often in the breaking of wagons and the killing or maiming of public animals. With infinite labor I at last got my train into the road and together, and after a few hours' march we reached Malvern Hill, on the summit of which, overlooking the valley of James River, I parked my train. Our forces having retreated from Savage Station on Sunday night, made a stand at Charles City Cross-Roads, where on Monday, the 30th, was fought the battle of Glendale or Nelson's Farm, while the trains were moving from that place to Malvern Hill. During the night the troops again retreated and once more made a stand at Malvern Hill, and on Tuesday, July 1, was fought the last and severest of the seven-days' battles. My train had by this time united with that of the Third Brigade (the First having gone off to Harrison's Landing by another route on its own account), and both were now under the direction of Captain M. Pinner, division quartermaster. Nearly the whole transportation of the army was parked on the great plateau of Malvern Hill during Monday night, and remained there Tuesday morning in plain view of the enemy and within easy reach of his shells. It was not until this began to be demonstrated that the trains commenced to move down the hill out of range. I could not learn, though I sought the information in many quarters, that any orders whatever were given

about the trains. It seemed that each quartermaster acted on his own responsibility and according to the best of his judgment, unenlightened by any knowledge of the roads, the position of the enemy, or the intended future movements of our own troops. Our own train did not get in range until late in the afternoon. It was fortunately hidden from the enemy by a clump of trees, and though some shells fell in close proximity, no damage was done. The teamsters, partly citizens (white and partly soldiers, showed no timidity or disposition to abandon their teams. We parked that night about two miles beyond Malvern Hill, near Haxall's Landing, having been informed that that line of defense would be held and this would be the base of supplies. That night it was decided otherwise, and before morning nearly the whole army had passed us, going toward Harrison's Landing. We had no notification of the fact.

At daylight Wednesday, the 2nd, we fell in with the line of wagons, marching that day about four miles, the single road being blocked with troops, artillery, and army wagons, and now became almost impassable by reason of the heavy rain and the passage of the immense artillery trains. We passed that night in the road without unhitching the teams or unsaddling horses, expecting momentarily to move on, but unable to do so, the roads being blocked in front. Thursday, July 3, found us still in the road not ten feet from where we were at dark the night before. A gloomy and unpromising prospect was before us. We were six miles from Harrison's Landing. The whole army had passed. Not a corporal's guard was left for rear defense. At least 1,500 wagons in a dozen long lines, pointing toward a narrow road (possible but for a single line), struggled for precedence and neutralized each other's efforts in the struggle. The mud was almost unfathomable. As the day advanced with scarcely a diminution in the almost interminable string of wagons, matters began to grow more critical. The gun-boats were shelling the woods in our rear. The enemy might be expected momentarily. There was nothing to prevent them, if they had chosen to come. Five hundred mounted resolute men might, in my opinion, have captured 1,000 prisoners and half the transportation of the army. Almost a panic ensued. Many wagons stuck in the mud, which might have been extricated with a little effort, were abandoned, and their loads. Many one-horse ambulances were burned. An immense quantity of public stores and private baggage was thrown out of the wagons and plundered and destroyed by stragglers. Several companies of cavalry sent to hurry up the wagons, and to assist them, I suppose, employed their time, with the exception of a few men who worked of their own accord, in breaking open and rifling trunks and other private baggage, undeterred by their officers, who either could not or would not control them, and were deaf to all entreaties for assistance. I saw wagons stuck in the mud block the road for half an hour in front of a large squad of these men without their making the least effort to extricate them, the commanding officer of the regiment at the same time saying that he had orders to destroy every wagon that had not passed that point by a given time. I sent forward to the brigade for a detail of fifty men. They came promptly. By their aid, I not only got my own train through without loss of any kind, but was able to render assistance to many others. As the enemy did not advance on this road most of the wagons were saved, but it might have been easily otherwise. Thursday afternoon I reached the landing with my train and there parked. The following day, July 4, joined the troops, which were parked in camp about one mile distant.

The next six weeks were occupied in reorganizing the broken and scattered army, in recruiting the physical forces of the men and refurnishing them with the clothing and camp equipage, the arms and material which had been lost, abandoned, and lavishly wasted. The transportation, so far as my brigade is concerned, was good, and have suffered very little detriment on this severe march, but during our stay at Harrison's Landing much of the forage

was ad, the hay rotten, the corn mouldy. The animals suffered accordingly; many died. The troops were supplied with an almost new outfit of clothing and camp equipage. Such had been the severity of the march and of the fighting that all encumbrances had been abandoned or thrown away – everything but the arms of the men and the clothes they stood in. Thursday, August 14, the movement to evacuate the Peninsula, ordered some time previously, was commenced. August 15, the Third Corps broke up camp and took the road toward Williamsburg. August 17, reached Williamsburg. August 18, marched to Yorktown. August 20, the troops embarked and sailed for Alexandria. September 5-7, the animals and wagons were embarked on different transports. September 8, sailed for Alexandria. September 11, reached Alexandria. The wagons remained at Yorktown until September 5, no transportation being provided for them.

Without of course knowing all the causes, and therefore being incompetent to judge whether or not the delay in furnishing transportation for the wagons and animals at Yorktown might have been prevented, it was certainly an unfortunate circumstance, involving serious results to the troops and causing great loss in animals on account of the scarcity and poor quality of the forage furnished. With scarcely an exemption, the hay was rotten, and the grain, kept for many months in the same vessels, was so mouldy as to cause fatality among the animals that fed upon it. My own losses were very serious at this time, though my mules were not inferior in condition to any in the army. September 12 – 14, the wagons were disembarked at Alexandria, and immediately joined the troops then stationed in the vicinity of Fort Barnard. Not having been with the troops during the operations under Pope that occurred from August 25 to September 1, I cannot, of course, speak of them from my own knowledge, nor as far as I am aware, did anything occur during those operations connected with my own brigade pertinent to the present narrative. From the nature of the case during the momentous period of forced marching and desperate fighting, the troops unfortunately derived very little assistance from our department. After the death of Kearny, General Birney took over command of the division, and Colonel Ward, of the Thirty-eighth New York, of the brigade. After September 12, General Stoneman relieved General Birney, and the division was ordered to Poolesville to guard the lower fords of the Potomac. We left camp on the evening of September 15, and reached Poolesville without particular event in three days march. The brigade remained at Poolesville about one month, during which nothing of special moment occurred. October 18, the brigade moved about four miles to the vicinity of White's Ford, where it remained ten days. October 29, the division crossed the Potomac at White's Ford and encamped upon the right bank. October 30, marched to Leesburg. November 2, left Leesburg and commenced the march, which, with a temporary delay at Warrenton, was continued till we reached Falmouth. November 5, the division reached Carter's Run, in the neighborhood of Waterloo, where we again united with the main body of the army, which had crossed the Potomac at Berlin and Harper's Ferry.

During the march some private and public property, principally medical stores, was left under guard in the little village of Mount Gilead for want of transportation, fifteen of the brigade teams having been ordered back to the river for subsistence stores. This property was afterwards captured by the enemy, together with the guard left over it. The incident shows the importance of division supply trains, which had not at that time been organized, at least not throughout the army.^{ix} November 14, General Stoneman having been placed in command of the Third Corps, General Birney took command of the First Division, and I commenced to act as the division quartermaster. November 15, the army left Warrenton for Fredericksburg. The Third Corps, taking the road by Bealton Station, reached Falmouth November 20, and went into camp. On this march through Virginia, extending over a period of twenty days, the division to which I was

attached had no engagement with the enemy. At Warrenton, the division for the first time received a supply train. Made up as it was of convalescent horses and unbroken mules, direct from the corals at Washington, it was nevertheless of assistance, and was the beginning of that system which after much experience has at length been reduced to great perfection, and been productive of the most beneficial results. November 20 to December 10 no movement took place. The time was occupied in supplying the division with clothing, none having been received since we left White's Ford. December 10, the first movement against the enemy at Fredericksburg commenced and was disastrously completed by the withdrawal of our army across the Rappahannock on the 16th. During this time the trains were moved down the river a few miles without crossing, but again returned to the old camping ground. Nothing further of importance occurred during the year. December 27th, I was transferred to the Second Division, Second Corps, Brigadier-General Howard commanding. January 20, the second attempt to cross the river was commenced, commonly called the "mud march". The Second Corps took no part in that march. From this time until April 27 the army remained in winter quarters. Early in the winter the soldiers had made the usual preparations to protect themselves against the inclemency of the weather, and were very comfortable. Huts of logs plastered with mud and covered with D'Abri tents were the shelter universally adopted. They answered every purpose, and were not unhealthful. The mules and other animals were usually protected by close hedges of pine, mostly uncovered. They not only did not suffer, but grew fat. April 27, commenced the celebrated movement, eventuating in the battle of Chancellorsville and the withdrawal, a second time, of our army from the right bank of the Rappahannock. My division co-operated with the Sixth Corps under General Sedgwick on that occasion. Crossed the river at Fredericksburg, assisted in storming the heights, and was left to guard the town, which, after the disastrous result of the battle at Chancellorsville became known, was again evacuated and the river recrossed. We returned to our old camping ground or near it. May 22, I was assigned by the War Department to the Fifth Corps, Major-General Meade commanding, as chief quartermaster, and entered upon the discharge of my duties there, June 1. June 5, the Fifth Corps (one division having already moved) left Stoneman's switch and was posted along the Rappahannock River to guard the fords from Bank's to Kelly's, drawing its supplies from Bealton. June 13, the corps commenced moving northward, passing through Morrisville, Catlett's Station, Manassas Junction, Gum Spring and Aldie, reaching the latter place June 19. While at Aldie, the corps co-operated efficiently with Pleasonton in his operation against the rebel cavalry. June 26, left Aldie, marching through Leesburg, crossing the Potomac at Edwards Ferry, and camping near the mouth of Monocacy, a march of about twenty miles. June 27, marched to Ballinger's Creek, within three miles of Frederick City. June 28, General Meade assumed command of the army, and the next day the corps, under Major-General Sykes, commenced its march northward, camping that night at Liberty. June 30, continued the march, passing through Uniontown and camped at Union Mills after a march of twenty miles. The corps during the next four days marched to Hanover in Pennsylvania, thence to Gettysburg, where it occupied the extreme left of our line, and took prominent part in the battle fought there. The trains had been turned back, July 1, from Hanover and sent to Westminster, twenty-three miles from Gettysburg, where they remained till after the battle, and again rejoined the corps at Middletown. This brings me to the end of the fiscal year and consequently of my narrative.

W. H. OWEN

Lieutenant-Colonel and Assistant Quartermaster of Volunteers

Army of the Potomac
Annual Report of Brigadier-General Rufus Ingalls,
City Point Virginia, August 28, 1864²⁶⁷

“On July 1, the headquarters remained at that point (Tanneytown, Maryland), while the army was being concentrated at Gettysburg. The First and Eleventh Corps opened the great battle of Gettysburg on that day. The wagon trains and all impedimenta had been assembled at Westminister, on the pike and railroad leading to Baltimore, at a distance of about 25 miles in rear of the army. No baggage was allowed in front. Officers and men went forward without tents and with only a short supply of food. This arrangement, which is always made in this army on the eve of battle and marches in presence of the enemy, enables experienced and active officers to supply their commands without risking the loss of trains or obstructing roads over which the columns march. Empty wagons can be sent to the rear, and loaded ones, or pack trains, brought up during the night, or at such times and places as will not interfere with the movement of troops.

On this campaign, from the Rappahannock to the James, our trains, large as they necessarily were, being over four thousand heavy wagons, never delayed the march of a column, and, excepting small ammunition trains, were never seen by our troops. The main trains were conducted on roads to our rear and left without the loss of a wagon.

On the morning of July 2, I arrived at Gettysburg and was present during the battle which resulted so favorably to our arms. Arrangements were made to issue supplies at Westminister, brought over the branch railroad from Baltimore, and at Frederick by the Baltimore and Ohio Railroad. Telegraphic communications extended from these points to Baltimore, Washington, &c., and our army communicated every third hour by means of relays of cavalry couriers. Ample supplies of forage, clothing, and subsistence were received and issued to fill every necessary want without in any instance retarding military movements. All stores were thrown forward over these routes and not issued were returned to the main depot at Washington, and again forwarded on the Ohio and Alexandria Railroad after the army had crossed to the south side of the Potomac.

After the retreat of the rebel army from Gettysburg, General Meade on July 6 ordered the concentration of the Army of the Potomac at Middletown on the evening of the 7th. The trains were directed to join their respective corps; all those that were at Westminister to pass through Frederick, to enable them to fill up with supplies. The headquarters were in Frederick the night of the 6th.

The army was moved on the 9th from Middletown to the vicinity of Boonesborough. The order of the day directed that no trains but ammunition wagons, medical wagons, and ambulances should accompany the troops. Supply and baggage wagons were to be parked in the Middletown Valley, on the roads taken by their respective corps. No special guards were to be left with the trains. Every man able to do duty was required to be in the ranks.

It was known to the general commanding that the enemy had not crossed to the south bank, as had been rumored, but was entrenched on the north bank, from Williamsport to Shepherdstown; hence the precautions in regard to the trains and preparations for battle.

²⁶⁷ O.R., Series I, Volume 27, Part 1, Chapter XXXIX, pp. 221-225

On the 10th, 11th, 12th and 13th, the Army of the Potomac was engaged in taking up positions in front of the enemy and in making reconnoissance. During this time the trains remained in Middletown Valley. Our headquarters were on the Antietam, upon the road from Boonesborough to Williamsport. The army was kept supplied with all that was essential and nothing more. At our headquarters, for example, we had only a few tent flies, blankets, a few small portable paper cases, and two or three days' cooked food.

On the night of the 13th, the rebel army crossed into Virginia. This fact was established in the mind of the general commanding the Army of the Potomac by 12 o'clock on the 14th. He issued orders on that day, moving the army on the 15th as follows: The Twelfth and Second Corps to move [by way] of Downsville, Bakersville, Mercersville, Sharpsburg, and the Antietam Iron Works, and encamp in Pleasant Valley, near Harper's Ferry. The Fifth and First Corps by Williamsport and Boonesborough road, via Jones' Cross-Roads; thence to Keedysville by the road between the Sharpsburg Pike and the Antietam to Keedysville; thence through Fox's Gap to Burkittsville by the road nearest the mountain (the shortest road), and thence to Berlin. The Sixth and Eleventh Corps, via Funkstown and Boonsboro, through Turner's Gap to Middletown; thence to Petersville and Berlin. The Artillery Reserve to move by way of Boonsborough pike, through Turner's Gap to Middletown, and thence to the vicinity of Berlin by Petersville; to take precedence as far as Middletown, after which to march between the Sixth and Eleventh Corps. The trains to join their respective corps at their camps in the vicinity of Harper's Ferry and Berlin. The corps to move in the order named, and the corps in advance to march at early daylight, and to be followed by the next corps when the road is clear. Headquarters to be at Berlin on the night of the 15th.

I have indicated this movement of the 15th in detail in order to exhibit in this report the usual manner of moving a large army and concentrating it at a particular point.

On the 16th, orders were issued to the army to replenish its supplies from the depots which I had established at Berlin, Sandy Hook, and Harper's Ferry, and to be quickly prepared to continue the march with three days' cooked rations in haversacks, three days hard bread and small rations in the regimental wagons, and, in addition two days' salt meat and seven days' hard bread and small rations in the wagons of the supply trains. The army was supplied with clothing, fresh horses, and mules. Our lines of supply were the Chesapeake and Ohio Canal and Baltimore and Ohio Railroad. The supplies furnished here were expected to answer until we could reach the Manassas Gap road at Gainesville and White Plains, and the Warrenton branch at Warrenton.

The Third and Fifth Corps having crossed into the Piney Run Valley near Lovettsville, the rest of the army followed on the 18th and 19th.

The Second and Twelfth Corps crossed at Harper's Ferry, and the First, Sixth and Eleventh Corps, Artillery Reserve, and headquarters at Berlin, each command followed by its own trains. The rear guard of the cavalry crossed at both points after the Sixth and Twelfth Corps. It will be seen by my reference to my last annual report that General McClellan made the passage of this river at the same points with the same army, marching in the same direction, in pursuit of the same enemy, on the last of October and the first of November the preceding year. General Meade pursued the same routes as far as Warrenton as were taken by the army in November, 1862. Some of his corps deviated somewhat and made demonstrations at Manassas Gap, &c., but not materially different in results from the year before.

I left the army at Berlin, and went to Washington to make arrangements for supplies over the Orange and Alexandria Railroad. Having perfected the arrangements and submitted

requisitions, I proceeded by rail to White Plains, on the Manassas Gap Railroad, on the 24th, and rejoined headquarters at Warrenton on the evening of the 25th.

The campaign ended here, and our army shortly took up a line across the Orange and Alexandria Railroad, near the Rappahannock, the right of our infantry resting at the Waterloo Crossing, the left at Ellis Ford. Cavalry was on both flanks and in rear. Our lines of communication were protected by the Department of Washington to the Bull Run Bridge, and by the 11th Corps from that point to Catlett's.

The headquarters were at Germantown, on the railroad, about 3½ miles south of Warrenton Junction, Warrenton, and Bealeton.

The army remained in this position until the middle of September.

I am, very respectfully, your most humble and obedient servant,

RUFUS INGALLS

*Brigadier-General, and Chief Quartermaster,
Armies operating against Richmond*

Army of the Potomac

Report of Brigadier General Rufus Ingalls, Chief Quartermaster of the Army of the Potomac, dated August 28, 1864, at City Point, Va. including operations between July 25 and December 2, 1863²⁶⁸

GENERAL: In compliance with your General Orders, No. 29, of the 6th ultimo, calling for an annual report for the fiscal year ending June 30, 1864, I have the honor to submit the following:

I left the army at Berlin, and went to Washington to make arrangements for supplies over the Orange and Alexandria Railroad. Having perfected the arrangements and submitted requisitions, I proceeded to White Plains on the Manassas Gap Railroad, on the evening of the 25th [July, 1863]. The campaign ended here, and our army shortly took up a line across the Orange and Alexandria Railroad, near the Rappahannock, the right of our infantry resting at the Waterloo Crossing, the left at Ellis' Ford. Cavalry was on both flanks and rear. Our line of communications was protected by the Department at Washington to the Bull Run bridge, and by the Eleventh Corps from that point to Catlett's.

The headquarters were on the railroad, at Germantown, about 3½ miles south of Warrenton Junction. The depots were established at Warrenton Junction, Warrenton, and Bealeton.

The army remained in this position until the middle of September.

ORANGE AND ALEXANDRIA RAILROAD

During Pope's campaign it was thought by many that the Orange and Alexandria Railroad could not supply a column of over 40,000 men at Warrenton, and that when General McClellan reached that point in November, 1862, it was unsafe to rely on it for the supply of the army at a point so distant from his base.

The road had been for some time in an unused and bad condition, and I was very doubtful of its capacity to transport the supplies for so large an army. General Burnside, the successor of

²⁶⁸ O.R. Series I, Volume 29, Chapter XLI, pp. 227 – 229.

General McClellan, did not give it a fair trial. He soon moved the army to Falmouth, where it was supplied as described in the report herewith. It became necessary now, however, to make such arrangements as would sufficiently enlarge the power of this road to carry the necessary freight. Under the orders of Colonel McCallum, the able Superintendent of Military Railroads, and the immediate charge and direction of Colonel Devereux, the superintendent at Alexandria, the road was soon made one of the most systematically managed and efficient I have ever seen. By making the proper repairs, and frequent sidings for intermediate telegraph and freight stations, the capacity of the road was greatly increased. From Alexandria to Culpepper is 62 miles. In this distance there were at least fourteen stations, with telegraphic communications at each, and sidings for trains to pass each other. This railroad was capable of working sixty engines and six hundred cars, and could have supplied an army of 300,000 men at Culpepper.

When it is mentioned that the Army of the Potomac required daily of the single item of forage, last winter, over 654 tons of hay and grain, some idea may be given of the immense work performed by this road. It was very successfully guarded by troops.

On the retrograde movement of the army from Culpepper to Centreville, near the middle of October, and while it was massed at Centreville, the rebel army destroyed the road from Broad Run to the Rappahannock. Colonel McCallum came up promptly with a large construction force and repaired it in a very short time, constructing 20 miles of the road and rebuilding the bridges destroyed in twenty-six days. The army was at no time embarrassed for supplies. While the road was being rebuilt our depots were at Manassas and Gainesville, and the army occupied a line embracing Warrenton, Warrenton Junction, and advanced positions at Bealton, &c.

CULPEPPER CAMPAIGN

On the 15th of September, the army was advanced to Culpepper and vicinity, where it remained until the 11th of October, when the movements of the rebel army induced a rapid march of the Army of the Potomac to Centreville, as alluded to above. As this movement was a retrograde one, it became necessary to secure our trains by sending them to the rear in advance of the columns. Therefore all the trains, except the ammunition and ambulances, fell back on the evening and night of the 10th beyond the Rappahannock, and parked on the two roads adjoining the railroad. The army was put in motion on the 11th, the ammunition wagons and ambulances preceding their respective commands.

It was found that the enemy was marching on a line to our left nearly parallel with our own, and that the two armies were liable to come in conflict at any moment. Each appeared to be struggling to reach Centreville before the other. Under these circumstances our trains were obliged to pass on roads to our right, and to make night marches to keep well in advance. On the 13th, headquarters were at Catlett's. All the trains were concentrated in one grand park at Weaverville, and ordered to make a continuous march night and day, by way of Brentsville, to Maple Valley; thence north, by Wolf Run shoals, to Fairfax Station. They were much exposed in making this wide circuit, and were attacked on two or three occasions by guerrillas, but succeeded most splendidly in reaching Fairfax as soon as we concentrated at Centreville.

Fairfax Station was now our depot, and our wagons were in the right place. This march was conducted under the immediate supervision of Lieutenant Colonel C. Tolles, chief quartermaster, Sixth Corps.

The rebel army retreated, not daring to attack our position, and, tearing up and destroying the road from Broad Run to the Rappahannock, retired behind the latter stream.

The army moved again on the 19th of October, and on the 22nd occupied positions as follows:

First Corps at Georgetown; Second Corps, where the Warrenton Branch Railroad crosses Turkey Run; Third Corps, at Catlett's Station; Fifth Corps, at New Baltimore; Sixth Corps, at Warrenton; Cavalry Corps on flanks; Artillery Reserve near New Baltimore; headquarters, near Warrenton.

On the 7th of November, the army was put in motion again, and on the evening of that day captured the enemy's works on the Rappahannock, forced the passage of that river, pursued the enemy to the Rapidan, and on the 9th took up positions in the vicinity of Culpepper similar to those formerly occupied. Headquarters went into camp near Brandy Station, which was our principal depot on the railroad.

The Mine Run Campaign came next, and was opened on the 23rd of November. The baggage of officers and men was reduced to the minimum marching allowance. All unserviceable and extra property, trunks, &c., were sent to the rear.

The troops were ordered to take eight days' rations on their persons. The supply trains were loaded with ten days' rations of subsistence and forage, and the depots were broken up.

The army crossed the Rapidan in three columns; the right by Jacob's ford, the center by Germanna Ford, and the left by Culpepper Ford.

Only one-half of the ammunition wagons and ambulances accompanied the troops. All the other trains were assembled at Richardsville, and, as usual, placed under my immediate control. None of the wagons were permitted to cross the Rapidan except by special orders from the general commanding.

While the army remained at Mine Run, it was supplied, as it had been at Chancellorsville, Gettysburg, &c., by bringing up wagons and pack-mules in the night or when roads were not occupied by troops on the march.

The campaign was not successful. The army fell back on the 1st of December, and the troops went into their old camps on the 2nd.

I am, very respectfully, your most obedient servant,

RUFUS INGALLS

Brigadier-General and Chief Quartermaster.

Army of the Potomac

Report of Brigadier General Rufus Ingalls, Chief Quartermaster, Army of the Potomac, for the period beginning May 4 to December 12th, 1864²⁶⁹

GENERAL: In compliance with your General Orders, No. 29, of the 6th ultimo, calling for an annual report for the fiscal year ending June 30, 1864, I have the honor to submit the following:

As my last annual report was submitted on the 28th of September, 1863, during your absence in the field, and, so far as I have learned, not made of any particular service or reference by the officer acting as the Quartermaster-General at that time, and as it contains all material information relative to the organization of the quartermaster's department in the Army of the Potomac, with some useful statistical facts which will much reduce the length of this report, I

²⁶⁹ O.R. Series 1, Volume 36, Part 1, Chapter XLVIII, pp. 276-279

herewith enclose a copy , marked I. (Note: See Report of Operations by Brigadier-General Rufus Ingalls Covering the Period of General Burnside's Command of the Army from November 9, 1862 to January 26, 1863 from O.R. Series 1, Volume 21, Chapter XXXIII, pp 145-148 reproduced earlier in this paper.)

The army was essentially quiet and at rest until the commencement of the grand campaign on the 4th of May, 1864. During this interval the army was made comfortable in pleasant and healthy cantonments. Supplies of all kinds were issued in ample quantities. The troops were recruited, reorganized, and thoroughly disciplined. The means of transportation were also reorganized, and reduced to correspond very nearly with the present allowance (Note: Orders No. 8. containing Special Orders, No. 44, Office of the Chief Quartermaster, Armies Operating Against Richmond, City Point, Virginia, June 29,1864). The cavalry and artillery arms were well supplied with horses. Probably no army on earth ever before was in better condition in every respect than was the Army of the Potomac on the 4th of May, 1864.

I have already given many detailed statements showing in what manner the trains of this great army have been conducted., under almost every variety of circumstances. You have seen us on the advance, in close pursuit of the enemy, in battle, in retreat, and on flank movements. I have shown what duties the officers of your Department are called on to perform, and how impossible it is for any army to succeed with a badly organized and inefficient quartermaster's department. I have shown how admirably the quartermasters of these armies have uniformly performed their duties, and to what high degree of accomplishment they have attained. I have reported to you in minute detail the preparations and equipment for an active campaign – Chancellorsville, for instance – what the troops and trains were made to carry. I have described our lines of supply, the establishment of depots, and the manner of supplying a large army.

Copies of my principal orders and reports are on file in your office. Therefore I shall give only a general and brief view of the operations of our department for the remainder of the fiscal year.

“The grand campaign,” from the Rapidan to the James, opened on the 4th of May, 1864, under the immediate presence and supervision of Lieutenant-General Grant, commanding Armies of the United States. Major-General Meade commanded the Army of the Potomac. This campaign, for convenience of reference, is divided (by the direction of General Meade) into five epochs, as follows:

First epoch: The crossing of the Rapidan and the battles of the Wilderness.

Second Epoch: The march to Spotsylvania and the operations in front of that place.

Third Epoch: The march to the North Anna, and the operations on that river.

Fourth Epoch: The march across the Pamunkey, including operations on the Totopotomy and at Cold Harbor.

Fifth Epoch: The march across the Chickahominy and the James, including the assault on Petersburg, July 30.

The forces that composed the armies on the Rapidan were as follows: The Second, Fifth, and Sixth Corps, the cavalry, and the Artillery Reserve and Engineer Brigade constituted the Army of the Potomac, under General Meade, and the Ninth Corps under General Burnside, making about 125,000 effective men.

There were 4,300 wagons, 835 ambulances, 29,945 artillery, cavalry, ambulance, and team horses; 4,046 private horses; 22,538 mules; making an aggregate of 56,499 animals.

It was ordered that the troops should take with them “50 rounds of ammunition upon the person; three days' full rations in their haversacks; three days' bread and small rations in their

knapsacks, and three days' beef on the hoof. The supply trains were loaded with ten days' forage (grain) and ten days of subsistence. One-half of the ammunition, entrenching tools, and ambulance wagons, a few light spring wagons and pack wagons only, were allowed to accompany the troops. All other trains were assembled at Richardsville, and placed, as heretofore, under my direction, with a view to crossing the Rapidan by bridges at Ely's Ford and Culpepper Mine Ford.

The army was put in motion on the 4th. On that day the depot at Brandy Station and other points on the railroad, as far as the Rappahannock, were broken up, and all other surplus property, with the depot officers and employees were sent in to Alexandria. These officers were directed to await orders, and are the same that subsequently took positions and opened our flying depots at Aquia, Belle Plain, Fredericksburg, Port Royal, White House, and City Point, as the army fought its bloody way along and approached within striking distance of these points. So soon as the army made the passage of the Rapidan into the Wilderness the trains were immediately crossed at the fords before mentioned and parked near that river. The crossing was hastened in consequence of the movements of the enemy's cavalry on the north side.

The battles of the Wilderness at once threw many thousand wounded upon our department for transportation to the rear. The medical department had no more ambulances than were absolutely necessary on the fields of battle. My first effort was to send the wounded in our empty wagons to Rappahannock Station to meet cars for which I had telegraphed you; but, after the trains were actually loaded with wounded, and after you had dispatched cars, it became necessary to send them in to Fredericksburg, on account of the presence of rebel cavalry at Ely's Ford.

Communications were quickly opened with Aquia and Belle Plain and in a few days the navy cleared the river of obstructions to Fredericksburg. Our wounded were first sent to Belle Plain, and thence by water to the various hospitals. The most severe cases were kept in Fredericksburg some time. In a few days, the Aquia railroad was repaired to the north bank at Fredericksburg, and was used to take away many wounded. Vessels ascended the Rappahannock for the same purpose. The same system of transportation for wounded was pursued throughout the campaign as in the Wilderness. Our empty wagons, as a rule, carried most of the wounded from the field hospitals to the depots, and returned laden with forage and subsistence.

During the first epoch – from May 4 to 13, inclusive – our trains occupied the plank road from Chancellorsville via Alrich's to Tabernacle Church, and to the south at Piney Branch Church and Alsop's, changing parks according to the movement of our troops and the enemy. On the evening and night of the 13th, the army made its first flank movement to Spotsylvania, and the trains were concentrated on the 14th on the bluffs at Fredericksburg.

During the second epoch – from the 14th to the 20th, inclusive – the trains were parked at Fredericksburg, and our depots remained unchanged. Several trains of wounded were sent in under the direction of myself and the medical officer.

The third epoch embraces the interval of time between the 21st and 26th, inclusive. The line of Fredericksburg, Belle Plain, and Aquia was now abandoned, and the depot established at Port Royal. On the 20th, the main trains were assembled near Guiney's Station, under the immediate charge of Captain L. H. Pierce, assistant chief quartermaster, Army of the Potomac, and were conducted by him, under my daily orders, by Bowling Green to Milford Station, where they arrived on the 22nd. On the 23rd, they were crossed over the Mattapony, and parked in the open ground between the river and Wright's Tavern. On the same day our forces reached the North Anna, and commenced to cross at Jericho and other places. Our wounded were sent to

Port Royal, and supplies received from that depot. On the 24th, the army was across the North Anna, and there was heavy skirmishing with the enemy, who was in position between the two Annas, at Hanover Junction. The Ninth Corps was attached to the Army of the Potomac on this day. Headquarters crossed at Jericho Ford and encamped on the south side.

The fourth epoch began on the 27th. The army was put in motion toward Hanover town, and Nelson's and Hundley's Ferries, on the Pamunkey River. The trains recrossed the Mattapony, and passed to the rear some distance, and then advanced on the road to Dunkirk, lower down, and to our left on the Mattapony. The army crossed the Pamunkey on the 28th, and took up position toward Cold Harbor. On the same day I sent a staff officer to White House, distant 15 miles from Hanover town, to ascertain if Smith had arrived with the Eighteenth Corps, and if Captain Pitkin had arrived from Port Royal with his employees and supplies. The officer returned safely at midnight and reported no arrivals. The trains arrived promptly at Hanover town, by way of Dunkirk, crossed the Pamunkey on the 31st, and parked near Mrs. Newton's house. Captain Pitkin arrived at White House the same day and established the depot. On June 1, the trains were moved to New Castle and Old Church. All empty wagons were sent to White House for supplies. On the 2nd, our troops took up positions in front of the enemy at Cold Harbor. Headquarters were moved to that point, and the trains sent to the vicinity of Parsley's Mill, on the road to White House. On the 3rd, an assault was made on the enemies' entrenchments, but without success. The railroad from White House to Dispatch Station was rebuilt while the army remained here, and was dismantled and the material removed before the 12th, when the fifth epoch commenced.

Very respectfully, your obedient servant,

RUFUS INGALLS

Brigadier General, C. Q. M. of Armies Operating Against Richmond

Report of Brigadier General Rufus Ingalls, Chief Quartermaster of the Armies Operating Against Richmond for the period between June 12, 1864 and including the assault on Petersburg, July 30, 1864²⁷⁰

GENERAL:

On the 12th [June] the army began another flank movement, to cross the Chickahominy at Long and Jones' Bridges, over pontoons laid by our engineers, and the James, at Fort Powhatan, another pontoon bridge, and to advance rapidly on Petersburg. The trains were conducted by Taastall's Station on roads to White House and New Kent, thence by Slatersville, Barhamsville, and Diascond, to Cole's Ferry, where they crossed the Chickahominy over a pontoon bridge, constructed by the engineers, of more than 2,000 feet in length. They were then conducted to Charles City and down the neck to Douthat's, opposite Fort Powhattan, where they crossed the James over the pontoon bridge at that place, commencing at 2 p.m. on the 15th and closing at 7 a.m. on the 17th. This movement was very complicated, difficult, and arduous. It was one of the most important on record; but it was conducted with a skill and vigor by Captain Pierce that crowned it with magnificent success.

²⁷⁰ O.R. Series 1, Volume 40, Chapter LII, pp.37-42

On reaching the James and coming in contact with the command of Major-General Butler, I was announced on the 16th as “chief quartermaster of the armies operating against Richmond,” and immediately took up post at City Point, which had been indicated as the principal depot by Generals Grant and Meade.

After crossing the James over the pontoon bridge and by the ferries, the troops pressed forward into positions in front of Petersburg. The trains were placed in parks between the depot and those positions convenient to the railroad. Improvements were commenced at once to make the depot efficient and ample. Wharves and store-houses were constructed; the railroad to Petersburg was put in order up to our lines; and supplies were brought to the depot in the required quantities, and issued. A uniform system of supply was put in force in both armies.

Such was the posture of affairs on the 30th of June, 1864.

My money accountability for the fiscal year is correctly stated below:

On hand July 1, 1863	\$266,137.00
Received from officers during the year	\$12,603.40
Received from Treasury Department during the year	\$1,100,000.00
Received from other sources during the year	\$146.44
	<hr/>
	\$1,378,886.93
Expended during the year	\$2,144.09
Transferred to others during the year	\$1,376,742.84
	<hr/>
	\$1,378,886.93

According to the report of Mr. E. L. Wentz, chief engineer and superintendent of railroads, 57 miles of railroads have been constructed and repaired, as follows: 20 miles of the Orange and Alexandria Railroad relaid with new track; 15 miles of the Richmond, Fredericksburg and Potomac Railroad repaired; 4 miles of the Richmond and York River Railroad relaid with new track, and 13 miles repaired (13 miles of the Richmond and York River Railroad was afterwards taken up and the iron removed to Alexandria); 5 miles of the City Point and Petersburg Road was relaid with new track; all making a total as follows:

	Miles
New track laid	29
New track repaired	28
New track taken up	13

On one railroad large construction parties have been constantly employed making repairs.

It is reported that about 345 miles of telegraph lines have been constructed, though it is difficult to obtain an accurate statement. As a rule, our headquarters have been in telegraphic communication with headquarters of each corps, with our depots, and Washington. Constantly changing positions has rendered it necessary to construct an unusual extent of telegraph lines.

I have during the year frequently reported my views as to the best and proper means of transporting an army. I do not think that the kind and amount now furnished and allowed these armies can be improved upon. The common six-mule wagon has proved to be the most economical and durable for years past of any ever tested. Pack trains should be provided in the order herewith marked A (Note: Ingalls refers here to Orders No. 8 / Special Order No. 44, dated June 28, 1864, which is reproduced in Annex A of this chapter). A special wagon or caisson should be furnished to carry all ammunition, small-arm as well as artillery. I forwarded a sketch of the carriage, with an explanatory letter of General Hunt, with my report of last year. The

mules should be hitched to this wagon as they are to the common army wagon, with one driver, and not as in the artillery service.

Our troops are undoubtedly loaded down on marches too heavily even for the road, not to speak of battle. I have witnessed great loss of knapsacks and articles of clothing on the routes taken by our troops at the commencement of campaigns. In my report of the Chancellorsville campaign I showed you that the loss of knapsacks of those actually engaged was at least twenty-five percent. I am in favor of putting the lightest possible weight on the soldier, consistent with his wants and the character of the service. I do not think that the knapsack should be dispensed with altogether, for it should, ordinarily, form a part of the equipment, but on short campaigns, and on the eve of battle, and when near the supply trains, a blanket rolled up and swung over the shoulder and looped up under the arm is sufficient without knapsack or overcoat. The soldier can carry three days' cooked food in his haversack. If necessary, he can carry two or three days' bread and some underclothes in his blanket. Our men are generally overloaded, fed, and clad, which detracts from their marching capacity, and induces straggling. I do not propose any modification, however, as our commanders understand these matters better than I do, probably; at any rate, they know what they want, and have the power to make such changes as they deem proper.

The reports referred to in paragraphs 2,3,5 and 7 of your orders will be furnished you in detail by the officers who have served under me.

I desire to remind you of my profound obligations for the very prompt, cheerful, and powerful support you have uniformly extended to me. My warmest thanks are also due to General Rucker and his depot officers, who have always responded to my requisitions.

To the soldierly and accomplished quartermasters serving with the armies I owe the deepest gratitude. They have performed their laborious and responsible duties, without exception, with unexampled zeal, energy and intelligence. You have been good enough to cause many of them to be promoted.

In the closing paragraph of my last report I called your attention to the merits of Captains Ferguson and Stoddard, then on duty at Alexandria. I am pained to know that both of us were deceived, and that our confidence was misplaced.

There has been no instance of embezzlement or misappropriation of public monies during the past fiscal year, so far as I have the means of being informed.

I am, very respectfully, your most obedient servant,

RUFUS INGALLS
*Brigadier-General and Chief Quartermaster of
Armies Operating Against Richmond*

**Annual Report of the Quartermaster General of the Armies Operating Against Richmond
for the fiscal year ending June 30, 1865²⁷¹**

GENERAL: I have the honor to submit my annual report for the fiscal year ending June 30, 1865, called for in your General Orders, No. 39, of July 1, of the present year.

²⁷¹ O.R. Series 1, Volume 51, Chapter LXIII, pp. 251 - 256

By reference to my report last year, rendered on the 28th of August 1864, and which you did me the honor to publish with your own, together with my report for the previous fiscal year, and the Chancellorsville campaign, it will be observed that on the 1st of July, 1864, I was on duty at City Point Va., at the headquarters of the Lieutenant General commanding the Armies of the United States, as chief quartermaster, Armies operating against Richmond. These armies were composed of the Army of the Potomac and the Army of the James, and our lines extended from the north side of the James River near Richmond, to the southeast of Petersburg, a distance of over twenty-five miles, along the whole length of which was almost constant skirmishing night and day. Several attempts had been made before the 1st of July to carry the enemy's works, and to find and turn his flanks, sometimes bringing on severe conflicts, but without material success on our side. I refer to the attacks of the 16th, 17th, 18th, of June, and to General Wilson's and Kautz's expedition to Ream's station, June 22 to 28, more particularly. It became manifest that the defense of Richmond and Petersburg would be as protracted and stubborn as the resources and abilities of the rebel commander could render it. I proceeded, therefore, under the written orders of the lieutenant-general to create suitable depots for receiving, storing, and issuing necessary supplies for the armies. The principal depot was established at City Point, on the James, at the mouth of the Appomattox, and was made one of the most convenient, commodious, economic and perfect ever provided for the supply of armies. I have already rendered you a special report, on the 24th of June last, of this depot, showing amount of wharfage, store-houses, railroad shops, tracks &c., with a recommendation how to dispose of the same. A secondary depot was kept up at Bermuda Hundred, and a still lesser one at Deep Bottom, more especially for the Army of the James. There was an average of some 40 steam-boats of all sorts, including tugs, 75 sail vessels, and 100 barges daily in the James River engaged in the transportation of supplies and plying between that river and the Northern ports. With such facilities an army of 500,000 men could have been fully supplied within any reasonable distance of our base. I do not know the whole number of vessels employed in our supply. A daily line of boats was established between City Point and Washington for mail and passenger service. Besides this, our transport fleet was constantly engaged in bringing cavalry and artillery horses, mules, clothing, ammunition, subsistence, &c., and in carrying back to Washington broken-down animals and other unserviceable property. The depot was put in charge of Colonel P. P. Pitkin, who held the position of chief quartermaster of the depot until November 7, 1864, when he resigned to accept the position of quartermaster-general of the state of Vermont, and was succeeded by Colonel George W. Bradley. Both of the gentlemen who highly experienced, vigorous, and accomplished officers, and performed their very arduous and responsible duties with great credit to themselves and advantage to the service. The chief quartermaster at the principal depot always kept direct charge of the water transportation in the James River. The other branches of the department, however, such as employees, forage, clothing, and railroad transportation, which in charge of subordinate quartermasters, selected for peculiar fitness, subject to the supervision of the chief depot quartermaster, who was required to report to me in writing every day, such as arrivals and clearances of shipping, receipts and issues of clothing, forage, &c. The chief quartermaster of each army was required to render, on or before the 25th of every month, a detailed consolidated estimate, revised and approved by the army commander, of the supplies required for issue to the army the month following. Upon this data I prepared and submitted my estimate for the combined forces on or before the 1st of each month. This method had many good results. It compelled all interested to ascertain the real wants of the troops and to secure their regular and prompt supply. No quartermaster's stores were permitted to be sent to the

armies except over my signature. The funds were generally deposited to the credit of Brevet Lieutenant Colonel William T. Howell, on duty in my office as disbursing officer, on my requisition, and distributed by him to division and brigade quartermasters, on their estimates, duly approved by the various commanders and countersigned by me. My printed orders and circulars in the hands of my subordinates prescribed the manner in which they should perform their duties on all points where the regulations and general orders were silent.

An extensive repair depot was established near City Point and placed in charge of Brevet Lieutenant Colonel E. J. Strang, who received all serviceable animals and means of transportation from the Washington depot, and made the issues to the armies, and who received from the armies unserviceable stock, wagons, ambulances, &c., and shipped back all that could not be repaired in his shops. He employed a force of about 1,800 carpenters, wheelwrights, blacksmiths, saddlers, corral hands, teamsters, laborers, and guards.

During the year ending June 30, 1865, he had repaired 3,653 army wagons and 2,414 ambulances. He had shod 19,618 horses and 31,628 mules. He received 27,116 serviceable horses and 10,893 mules, 436 wagons and 36 ambulances. He received from the troops 16,344 unserviceable horses, 9,684 mules, 1,392 wagons, and 400 ambulances. He received also by the surrender of Lee's army 400 horses, 1,300 mules, 101 wagons, and 90 ambulances. He issued to the troops 31,386 horses, 18,891 mules, 1,536 wagons, and 370 ambulances. He sent back for recuperation and repair 13,575 horses, 4,313 mules, 743 wagons, and 36 ambulances, besides a great amount of harness and other property. I mention these items simply to convey an idea of the duties to be performed at depots. This was only one branch. As soon as we occupied City Point General McCallum, the able officer in charge of U.S. Military Railroads, had a strong construction corps on the spot prepared to rebuild the railroad up to our lines near Petersburg; and afterwards, as fast as the army gained ground to the southeast, a temporary extension was laid close to our forces, until finally it extended to Hatcher's Run, a distance of about nineteen miles. Along this road were stations, as described in my last report on the Orange and Alexandria Railroad, where sidings and platforms were made for the prompt distribution of supplies to the different commands. This road saved much wear and tear of the wagon trains, and enabled the lieutenant general to concentrate troops rapidly at any desirable point. After the surrender of Lee, this road – the new portion – was dismantled and the material placed in the depot, to be disposed of in proper time. The great field hospital at City Point has been described in other reports. It was a very perfect one for the purpose. The medical officers in charge exercised great taste and judgment in its management. There was a somewhat similar field hospital for the Army of the James at Point of Rocks, on the Appomattox. The medical department of each army had its own wharves, store-houses, transports, and hospitals, under the control of its medical officers. The ordnance and subsistence departments had special wharves and store-houses; so also had General Abbot, who had charge of siege guns and material for the entire line – all constructed by the quartermaster's department.

On the first of the fiscal year the organization of the quartermaster's department in the "Armies operating against Richmond" was complete, and never for a moment has it failed during the year to meet the orders and expectations of the lieutenant-general and the principal officers in the field, so far as I have had the opportunity of being informed.

It is undeniable that the officers of the Quartermaster's Department, both in the field and at our depots, have been charged with most important and responsible duties during the rebellion. Had they failed at any time we had no general who could have moved an army. I submit that more consideration is due to a department upon which so much is devolved, and higher grades

should be created in order that the chief officers may have a rank that corresponds more nearly with that held by those who fight the troops. It is a noticeable fact that no quartermaster who as served as such during the war has risen by substantial promotion above the old grade. And still there are quartermasters who have done the Army and Republic as great service as any brigadier-general, and, very few exceptions, any major general. Officers of the department who are old, too infirm, inert, or otherwise disqualified to take their tours of hard work in the field and on frontier stations should at least be retired, in order that the active and business quartermasters who have borne the brunt of the service during the war may have the rank due the positions they have occupied.

I bed to suggest you will deem it expedient to recommend an increase of the Quartermaster's Department in your annual report to the Honorable Secretary of War – such an increase as will meet the wants of a peace establishment. There have been 400 or 500 volunteer quartermasters appointed during the war. According to the statues the last of these will go out of service in one year after the termination of the war, which is not yet, however, proclaimed at an end. The increase which I would suggest, and which would be satisfactory, in my opinion, to the principal officers of the department, and would be sufficiently large for the Army as it will probably stand in a year's time, is as follows:

- One Quartermaster-General U.S. Army, rank of major-general.
- Three division quartermaster-generals, rank of brigadier-general.
- Three assistant quartermaster-generals, rank of colonel.
- Four deputy quartermaster-generals, rank of lieutenant-colonel.
- Twelve quartermasters, rank of major.
- Forty-eight assistant quartermasters, rank of captain.

This would add only one major-general, two brigadier-generals, and one major to the present establishment. I suggest three brigadier-generals as “division quartermaster-generals” for the three grand divisions, to wit, the Atlantic Division, Mississippi Division, and Pacific Division. The list of majors will be an increasing one under the law that promotes assistant quartermasters for fourteen consecutive years of service. Such promotions will, of course, create vacancies in the list of captains.

On the 1st of July, 1864, there were on hand in the Armies operating against Richmond means of land transportation as follows: 41,329 horses, 23,961 mules, 4,440 army wagons, 57 two-horse light wagons, and 915 ambulances.

At the beginning of the last campaign my returns show on hand as follows: 24,192 horses, 23,356 mules, 4,071 army wagons, 144 two-horse light wagons, and 907 ambulances.

After the close of the final campaign – say on May 1, 1865 – the means of transportation were as follows: 33,948 horses, 25,093 mules, 4,207 army wagons, 140 two-horse light wagons, and 820 ambulances.

This property was used as prescribed in the orders of the lieutenant-general, a copy of which accompanied my last report, and most of it came to Washington with the troops last May and June, and was turned into the depot, as the troops were discharged, for final disposition under your orders. This transportation was in most excellent condition, and rendered services of vital

importance on the last grand campaign from Petersburg and Richmond to Appomattox Court House.

There were many partial movements of the armies from July 1, 1864, to the opening of the last campaign, but they did not render many new dispositions in our department as to transportation.

On the 30th of July the “battle of the Mine” was fought. On the 9th of August, near noon, there occurred a fearful explosion in the midst of the City Point depot, killing and wounding some 250 employees and soldiers, throwing down over 600 feet in length of warehouses, and tearing up some 180 linear feet of the wharf. It was found that a barge laden with ordnance stores had been blown up. Immense quantities of shot and shell were thrown into the air, and much of it fell in the encampment of the lieutenant-general, wounding, however, only one – Colonel Babcock, of his staff. The lieutenant-general himself seems proof against the accidents of flood and field. It was assumed at the time that the accident was the result of carelessness on the part of some one in or near the barge, but the developments made in the trial of the assassins of the late President would show that it was the dastardly work of that infernal rebel “torpedo bureau” in Richmond. The damages of the depot were soon repaired.

August 18 to 20 the Weldon road was seized and thereafter held. An attempt was also made on our right at Deep Bottom. September 30 the Fifth and Ninth Corps, of the Army of the Potomac, were engaged at Poplar Grove Church, and the Army of the James captured Fort Harrison and one line of works. October 24 [27] and 25 [28] the Army of the Potomac was engaged at Hatcher’s Run. December 5 [7] the Fifth Corps, supported by the Ninth, made a march toward Weldon. On such occasions, the moving columns were generally directed in orders to be provided with a small stated allowance of subsistence, forage, and ambulance wagons and ambulances. The main trains remained parked in safe and convenient positions near the outer defenses of the City Point depot, but always loaded and fully prepared to move forward whenever and wherever needed. It was the rule after having passed the James in June, 1864, that each corps should generally be followed by its own trains.

On the evening of the 23rd of January, 1865, it was known that the rebels were apparently preparing to make a raid down the James, with their fleet of iron-clads and wooden boats, for the purpose of destroying our depots on the river, particularly the great one at City Point, where supplies had been accumulated and stored to meet the wants of the armies in case the James River and Northern ports should be closed by ice. The weather was already very inclement, and the Potomac and Delaware were then, or shortly afterward, rendered entirely unnavigable by ice. Early on the 24th the rebel fleet approached our obstructions and one of the iron-clads passed them, but the one following got foul upon them. Our batteries made obstinate resistance and blew up one of the smaller gun-boats. Our men even were led with great effort to the bank of the river and pored volleys of musketry into the ram that had passed the obstructions. The navy at that point was not prepared at the moment for any effective resistance. Had the rebels persisted at any time they could, had they succeeded, have inflicted upon us incalculable losses, the result of which no one can pretend now to estimate; but most fortunately for us they abandoned the raid and retired to their former position. Two or three days later it was impossible for these boats to make a descent. The navy was thoroughly prepared, and I had sent, by order of the lieutenant-general, my *aide-de-camp*, Brevet Captain J. W. French, Eight Infantry, up the river with vessels laden with coal, who sunk two on the night of the 25th to fill up the hole made in the obstructions. He performed the service under the enemy’s guns with great gallantry.

Our lines were extended to Hatcher's Run on the 7th of February. The enemy attacked and carried Fort Stedman, within the lines of the Ninth Corps, on the morning of the 25th of March, but were shortly driven out with a loss of some 4,500 killed, wounded, and prisoners. Meantime the lieutenant-general was preparing to strike the decisive blow of the whole war. The sick were sent to the rear. The different staff departments were ordered to be in readiness with all necessary supplies for the expected march. The arrangements made by me were similar to those described in my reports of other great battles. The trains were laden with ten days' subsistence and forage and sixty rounds per man of ammunition. The troops were fully supplied and clothed, and were required to carry five days' subsistence and forty rounds of ammunition on their persons. The trains were to remain in park, as usual, until the results of the attack should be known.

The movement commenced by the left on the 29th of March. On the evening of April 1 Sheridan overthrew the enemy at Five Forks and gave us possession of the South Side road. On the next night and morning the Sixth Corps, under General Wright, carried the enemy's works in its front. The enemy was driven from his works around Petersburg and Richmond and fled toward the Danville Road. He was pursued with such vigor that our forces reached Burkeville Junction in advance of him, and obliged him to attempt some other road. At Amelia Court House he lost many of his wagons and troops. Our cavalry hung on his rear and destroyed a great amount of his transportation. The rebel army became utterly demoralized, beaten, dispirited, and was surrendered entire to the lieutenant-general at Appomattox Court-House on the memorable 9th of April.

Immediately after the surrender I inspected the rebel trains and saw that they were in a horrible condition. I gave orders for the supply of forage to the animals, and that the transportation should be sent in to the City Point depot. Permission had been given that all private mules and horses might be taken away by their owners. I was not greatly surprised afterward to learn that the greater portion of all the animals, particularly all the good ones, were taken away on this pretext. It was very natural to expect it, and I am told the same was observed after the surrender of other rebel armies.

There finally reached the City Point depot from General Lee's army only 400 horses, 1,300 mules, 101 wagons, and 90 ambulances.

Doubtless many animals, wagons, and ambulances were loaned to Confederate officers to enable them to reach certain points, where they probably turned them over.

Having made all the necessary dispositions, the lieutenant-general left on the 10th to return to City Point. On the 3rd I had directed the superintendent of the railroad to repair it at once as far as Burkeville Junction, a distance of fifty-four miles. The gauge had to be reduced to four feet eight and one half inches from Petersburg. When the lieutenant-general and staff reached Burkeville, at noon on the 11th, a special train was waiting for us, and we arrived at City Point the same night. Supplies were forwarded and the sick and wounded were taken in at once over this road. Subsequently the road was worked by the Government to Danville and Lynchburg.

It is proper to record that I personally accompanied the lieutenant-general and staff on all the campaigns of the year past, and was present in all the principal engagements and battles.

I remained on duty at City Point, directing the reduction of employees, the discharge of transports, and the diminution of expenses generally in the Quartermaster's Department, until the 8th of May, when I received a telegraphic order from the lieutenant-general to report in person to him in Washington. I reported accordingly on the 10th, and since that date have held myself directly subject to his orders from day to day. I established an office for the settlement of outstanding accounts of the armies lately operating against Richmond, and continued it until yesterday, when Colonel Howell, who was my disbursing officer, was ordered to report to you. The office is no longer necessary for that purpose.

The Treasury Department is now engaged in the settlement of my accounts, which have not been entirely settled since 1856. I request the privilege of attending to this duty before I am again assigned to any permanent station outside of this city. It is important to me and to the Government that my accounts shall be closed. I am not responsible now, according to my returns, for any public funds or property, so a better opportunity can never be presented for the settlement. I have stated to you that in addition I will cheerfully attend to any duty in this city, such as service on boards, to which you may wish to have me assigned.

My money accounts for the fiscal year are correctly stated below as follows:

On hand July 1, 1864:

Received from officers during the year	\$12,000
<u>Treasury Department</u>	<u>\$300,000</u>
Total	\$312,000

Expended during the year:

Transferred to other officers during the year	\$312,000
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The officers who served under me will furnish all of the information called for by paragraphs 2, 3, 5, 6, 7, 8, 9, and 11 of your orders. My duties have been chiefly administrative.

As all the data for a "statistical report" should be in your office, and as such a report of the operations of the Quartermaster's Department during the war would be of great interest and value, I would respectfully suggest that two or more competent officers be charged with the duty of compiling it. My observations during the past year have only confirmed me in the opinions expressed in previous reports relative to the outfit of our troops and our means of land transportation.

Brevet Brigadier General R. N. Batchelder succeeded me as chief quartermaster of the Army of the Potomac, and continued on that duty until the disbandment of that army. He merited the very high commendations awarded him by all his superiors. He, like myself, has served continuously in the field during the war.

Colonel Charles E. Fuller was acting chief quartermaster of the Army of the James on our arrival at James River. Subsequently, and at different dates, Colonel J. B. Howard and Brevet Brigadier General George S. Dodge were chief quartermasters of that army, and gave me cordial support. I am very thankful to all the quartermasters who served under me for the uniformly cheerful cooperation extended to me. I have mentioned them more particularly in a special letter asking for brevets, &c.

I beg to repeat my obligations to you and General Rucker and the officers of the Quartermaster's Department in Washington, for the support and attention given me in the transaction of my official business during the fiscal year.

With high respect, I am your most obedient servant,

RUFUS INGALLS

*Brevet Major General of Volunteers, Chief Quartermaster of the Armies before
Richmond*

**Report of the Chief Quartermaster of the Army of the Potomac, Colonel Richard N.
Batchelder, of operations June 30, 1864 to June 30, 1865²⁷²**

General: In compliance with General Orders, No. 39, from the Quartermaster-General's Office, I have the honor to submit the following report as Chief Quartermaster of the Army of the Potomac for the fiscal year ending June 30, 1865. The report for the previous year of the operations of the Second Army Corps and Army of the Potomac, while chief quartermaster, was transmitted on the 15th of September 1864. On the 1st of July, 1864, the Army of the Potomac lay before Petersburg, confronting the Army of Northern Virginia, commanded by General Lee. The long and wearisome march from the Rapidan, the sanguinary battles of that campaign, and the continued operations before Petersburg had produced no decisive results. On the 1st of July, 1864, the Army of the Potomac numbered as follows: Commissioned Officers, 5,237; enlisted men, 109,011; private horses, 4,044; public horses, 29,564; mules, 21,171; ambulances, 755, and army wagons, 3,777; being 90,685 infantry, 17,370 cavalry, and 6,194 artillery. The unit of organization for the ambulance trains was by corps; for the supply and ammunition trains by divisions. Seven wagons for supplies and three for ammunition were allowed for every 1,000 men present armed and equipped for duty, being ten days' rations and 100 rounds of ammunition per man. The entrenching tools, consisting of 1,000 each of axes and spades and 300 picks, were required to be kept at corps headquarters. The most of July was devoted by the army in strengthening the line of entrenchments from the Jerusalem plank road to the Appomattox with redoubts and siege batteries. In the meantime the attention of officers of the Quartermaster's Department was given to the general improvement of the trains, which were held in readiness at all times for any immediate operations of the army. A large force of the construction corps was engaged in repairing the railroad from City Point. Corduroy roads were also built from the several commands to the main roads and thence to City Point, where all supplies were obtained. On the 26th of July the line of defense was held by the Fifth and Ninth Corps. The Second Corps, with two divisions of cavalry under the command of General Hancock, crossed the James River at Deep Bottom, where the enemy's works were carried; four guns and several prisoners captured. The trains belonging to the commands accompanied under the cover of darkness. This demonstration on our part drew to the north side of the river a large portion of Lee's army, presenting a favorable opportunity for exploding the mine that had been prepared by the Ninth Corps under one of the enemy's batteries. To this end, preparations were made, General

²⁷² O.R. Series I, Volume 51, Chapter LXIII, pp. 256 – 261

Hancock withdrawing under cover of darkness on the night of the 29th from the north side of the James, accompanied by his trains. On the morning of June [July] 30, at 4.30 a.m., everything being ready, the mine was exploded, and immediately the Ninth Corps made an assault on the enemy's works in front. The enemy, however, rallied his troops at the point of attack and rendered further efforts of no avail. During these operations the trains of the whole army were loaded, hitched up, and awaiting events of the day. During the month of July the Sixth Army Corps was ordered to Washington and was followed by General Sheridan with the First and Third Divisions of the Cavalry Corps. On the 14th of August the Second Corps and Second Division of Cavalry, under command of General Hancock, again crossed to the north side of the James at Deep Bottom, on pontoon bridges, their trains accompanying, under cover of darkness. The Fifth Corps was now relieved by a portion of the Ninth, and for a time massed in the rear. From this position the Fifth Corps moved to the left, for the purpose of destroying the Weldon railroad, near Globe Tavern. In this they were aided by a portion of the Ninth Corps. The enemy now beginning to mass his troops, the remainder of the Ninth Corps was sent to their aid, arriving in time to participate in repulsing the enemy. Heavy rains now set in, rendering it impossible to forward supplies by the ordinary method. Recourse was had to the pack-mules which were required to be kept by each division. During these operations the main trains remained loaded with the prescribed amount of supplies and ammunition in their respective parks. The Second Corps having withdrawn from the north side of the James, moved on the 22nd to the left of the line of works at Reams' Station, on the Weldon railroad, followed the next day by the Second Division of Cavalry, and were successful in destroying several miles of railway, but on the 25th the enemy appeared in force and checked further operations. They now charged upon our troops with great fury, causing considerable loss on our side, and nine pieces of artillery fell into the enemy's hands. Until the month of October nothing worth of note occurred along the lines. During the intervening time the railroad was completed along our lines from City Point, thus giving ample means to provide for the wants of the army. Depots were located at convenient point, and officers of this department placed in charge to promptly and properly distribute the supplies to the various commands. In order to secure system and dispatch daily estimates of forage were required to be made upon the chief quartermaster of the army, and requisition by him was made upon the principal depots at City Point for the different stations upon the road. Monthly estimates for all the stores required for the use of the army were made in this way, thus securing such articles as were required for immediate use, and providing against any accumulation. On the 1st day of October a portion of the Second, Fifth, Ninth Corps, and Second Division of Cavalry, under their respective commanders, made a demonstration on the extreme left, near Poplar Springs Church. Hard fighting ensued and the enemy driven from his position. On this reconnaissance the troops took four days' rations and sixty rounds of ammunition upon the person. All the trains were loaded with six days' rations and forage to their utmost extent, hitched up and ready to move upon immediate notice. The only transportation allowed with the troops was one-half of the ambulances, spring-wagons, and pack-mules belonging to headquarters. On the 27th of October another demonstration was made on the left, with a view of extending our lines. Portions of the Second, Fifth and Ninth Corps, and the Second Division of Cavalry moved early in the day. While the Fifth and Ninth Corps confronted the enemy, the Second Corps and the cavalry, under the command of General Hancock, crossed Hatcher's Run, on the Vaughan road. The Fifth Corps then moved up the stream, with the view of connecting with the Second Corps, but were unable to do so. The enemy taking advantage of our position, came down upon our troops with great impetuosity, but were repulsed with great

loss. On the 28th all the troops returned to their former camps. During these operations the wagons, containing entrenching tools, the ammunition, hospital stores, and forage, that were to accompany the troops, remained parked in a secure place, waiting the developments of the demonstration at Hatcher's Run. Four days' rations and sixty rounds of ammunition were taken upon the person, one-half of the cavalry small-arm ammunition and forty rounds of infantry were taken in wagons. One-half of the ambulances, one medical and one hospital wagon to each brigade, one forage and one battery wagon to every twelve guns, and such pack animals as were required to carry the rations of officers, accompanied the troops. The cavalry took no forage trains whatever, each cavalryman being required to carry sufficient forage to last during the operations. The general trains of the army were loaded with the prescribed amount of supplies and ammunition, and moved to City Point, within the fortification. All artillery animals in the enclosed works, not required, were sent to City Point to the Artillery Reserve ammunition train. The depots along the line of railroad were broken up and, to meet any emergency that might arise, all the employees of the quartermaster's department, with the exception of one man to every three teams, were organized, armed and equipped for duty, and placed under competent officers. By this arrangement a brigade of 2,724 men was obtained, and such were the preparations made and precautions taken by this department during the operations of the army that no special guards were required for the wagon trains. During the first week of December the Sixth Army Corps, commanded by General Wright, returned from the Shenandoah Valley, the transportation being shipped from Alexandria to City Point, Va. On the 25th of March the enemy concentrated his troops in front of the Ninth Corps, made a sudden and unexpected attack, and succeeded in breaking through the lines at Fort Steadman. They, however, were soon repulsed and driven back to great loss to his entrenchments, the works retaken and many prisoners captured. Preparations now commenced for the most brilliant and successful campaign of the war. The transportation of the whole army was in a perfect state of readiness, the wagons repaired, animals recuperated, and everything complete. On the 29th of March the Second Division of Cavalry was detached from the Army of the Potomac and joined the other two divisions under General Sheridan, who was to cooperate with the Army of the Potomac in its movements. The Army of the Potomac then numbered as follows:

Arm of Service	No. of each class			Avg. per 1,000 men	
	Men	Animals	Wagons	Animals	Wagons
Infantry	97,921	15,949	1,756	163	18
Artillery	6,792	7,439	495	1,095	73
Engineers	3,064	2,408	197	786	64
Total	107,777	25,796	2,448	239	23

The Second and Fifth Corps moved from their works to the left, the Sixth and Ninth Corps occupying their line. The troops were supplied with four days' rations and fifty rounds of ammunition upon the person, eight days' supplies for men and animals being taken in the supply and sixty rounds per man in the ammunition trains. The Fifth Corps moved westerly to the junction of the Old Stage and Vaughan roads, supporting the Second Corps. The latter, taking the Vaughan road, crossed Hatcher's Run and communicated with the Fifth Corps. The Sixth and Ninth Corps remained in their line of works before Petersburg, the surplus artillery being placed in their rear. The ammunition train of the artillery reserve did not accompany the troops, but remained in park at City Point. All sick and wounded were removed to the hospital at City Point. The supply trains of the Second and Fifth Corps not accompanying the troops remained in

park near Hatcher's Run. Each corps had five four-gun batteries, one battery wagon, entrenching tools, and half the ambulances, one medical and one hospital wagon to each brigade, and one with forage for each division ammunition train that accompanied the troops. The remaining ambulances were parked with the general trains of the Second and Fifth Corps. Twelve wagons, with twenty rounds of ammunition per man, were taken with each division. On the 30th the trains of the Fifth Corps moved to the north side of Gravelly Run, the other trains moving on the Vaughan Road. Heavy rains now set in and continued unceasingly for forty-eight hours, rendering the roads impassable for heavy trains and artillery, the trains of the Fifth Corps being fifty-six hours in making the distance of four miles. During the day the enemy made an attack upon the Fifth Corps, forcing them back, and then immediately turned upon the cavalry, which retired to the vicinity of Dinwiddie Court House. The Fifth Corps moved to the support of the cavalry, reporting to General Sheridan, and succeeded in checking the farther advances of the enemy. The ambulances of the Sixth Corps were used to convey the wounded of the cavalry to the railroad, from whence they were conveyed to City Point Hospital. On the morning of the 2nd of April an attack was made along the front line, which was broken by the Sixth Corps pressing rapidly forward, cutting the enemy's line in the center, forcing a part back into Petersburg, and drove the balance up the line of the South Side Railroad, where they were closely followed by the Second Corps. All the available ambulances were sent to convey the wounded to the hospitals. During the night Richmond and Petersburg were evacuated by the enemy, the Second and Sixth Corps following the retreating army, giving them no time to rest or entrench. The trains, replenished with the prescribed amount of supplies, moved toward Burke's Station, on the Cox Road, at such a distance as would not embarrass the movements of the troops. On the 4th of April heavy rains set in, rendering the roads almost impassable for heavy teams. Men were detailed from the several commands to corduroy the roads and otherwise aid in moving forward. On the 6th the enemy still continued his retreat by the Richmond and Danville Railroad toward Deatonville. At Salem [Sailor's] Creek the enemy endeavored to make a stand, but were soon driven by the Second Corps across the creek to the Appomattox, capturing 350 wagons, which were burned, and about 1,500 prisoners. On another portion of the line the Sixth Corps also attacked and drove the enemy, capturing several thousand prisoners, and continued the pursuit toward Farmville. The empty supply wagons were used to convey the wounded of their respective corps to Burke's Station. On the 7th the pursuit was still kept up with renewed vigor, the enemy abandoning and destroying wagons, caissons, and stores along the line of march. Our forces, losing no time, moved to the enemy's right, left, and center, keeping him constantly compelled to defend his trains, and on the 9th had so completely surrounded him that when the head of his column reached Appomattox Court House the cavalry and Fifth Corps were there to confront him. All hopes to extricate his army having fled, General Lee accepted the terms offered, and surrendered all the forces known as the Army of Northern Virginia. The formal surrender took place on the 10th of April. All the ordnance stores resulting from the surrender were taken possession of by the chief of ordnance at army headquarters, and were transported to Burke's Station by the quartermaster's department of the Army of the Potomac. All of the quartermaster's property received from the surrender was turned over to the chief quartermaster Army of the James. The reports of the chief quartermasters of the several corps of the army will give in detail their operations during the year. Immediately after the surrender all the transportation of the army moved to the vicinity of Burke's Station. The Ninth Corps guarded a portion of the line of railroads to Petersburg until the 20th of April, when it was detached from the Army of the Potomac and ordered to Washington D. C. On the 23rd of April the Sixth Corps,

and twelve days' marching rations and the full amount of ammunition, with a pontoon train, started for Danville where they arrived on the 27th. On the 2nd day of May the Army of the Potomac started its homeward march for Washington, arriving at Richmond on the 4th and 5th of May. On the 6th the whole army (save the Sixth Corps) passed in review at Richmond, and moved directly for Washington with the trains, by way of Hanover Court House, Fredericksburg, Fairfax Court House, arriving near Fort Albany on the 11th of May. The Sixth Corps, returning from Danville by the same route, arrived a few days later. Soon after the arrival of the army before Washington orders were received from the War Department to muster out a large portion of its troops. Accordingly, on the 28th of June, that portion of the army not mustered out was converted into the provisional corps, commanded by General Wright, and the Army of the Potomac ceased to exist. I should fail doing justice to many worthy officers serving in the Army of the Potomac did I not acknowledge their signal ability on every occasion during the late campaign and the interest and zeal they have ever manifested in the performance of the duties devolving upon them, nor should I fail to acknowledge the ready and unceasing cooperation I have received in my official position from the chief quartermaster of the armies operating against Richmond, Major General Rufus Ingalls. Accompanying this report will be found a table showing the distance traveled daily by the Army of the Potomac as indicated by the odometer, and a statement of the amount of public money received, transferred, and remaining on hand during the fiscal year ending June 30, 1865.

Respectfully submitted.

R. N. BATCHELDER,

Colonel and Chief Quartermaster, Army of the Potomac

Annex F

Strength Reports

1. **November 12, 1861**²⁷³: Consolidated Morning Report of the Army of the Potomac.

Stations	Commands	Aggregate present for duty, equipped			Aggregate present	Pieces of Artillery
		Infantry	Artillery	Cavalry		
Near Muddy Branch	Bank's Division	14,353	374	375	14,882	18
Hunter's Chapel	Blenker's Division	7,738	302	75	8,354	13
Washington	Casey's Division	6,909	340	152	13,240	0
Washington	City Guard (A. Porter)	1,078	0	123	1,418	6
Seminary	Franklin's Division	9,411	446	447	11,440	18
Fort Lyon	Heintzelman's Division	6,929	251	417	19,896	12
Near Blandensburg	Hooker's Division	6,775	0	519	8,342	16
Near Washington	Keyes' Division	9,902	249	92	11,062	12
Camp Pierpont, VA	McCall's Division	9,377	395	763	12,391	17
Arlington	McDowell's Division	9,615	381	750	11,471	18
Hall's Hill	Porter's (F.J.) Division	11,298	406	879	13,948	18
Camp Griffin	Smith's (W.F.) Division	9,964	0	946	13,184	0
Poolesville, MD	Stone's Division	9,346	360	471	11,639	18
Camp Duncan	Artillery Reserve (H.J. Hunt)	0	996	0	1,068	42
Washington and Ball's Cross Roads	Cavalry (Stoneman)	0	0	4,755	8,125	0
Annapolis, MD	Burnside's command	0	0	0	5,746	0
Cambridge, MD	Camp of Instruction (Lockwood)	0	0	0	1,228	0
Fort Ellsworth	Garrison	0	0	0	401	0
	Naval Battery	0	0	0	143	0
	Miscellaneous	2,075	2,359	0	4,847	115
	Miscellaneous	0	0	0	5,469	
TOTALS		114,770	6,859	10,764	178,294	323

²⁷³ O.R. Series 1, Volume 5, p.650.

2. **March 31, 1862**²⁷⁴: Abstract from the returns of the Army of the Potomac.

Command	Present for duty		Aggregate present	Aggregate present and equipped	Pieces of artillery
	Officers	Men			
General Staff	73	0	73	73	0
First Army Corps (McDowell's) ¹	1,391	32,119	35,943	38,454	68
Second Army Corps (Summner's) ²	1,247	25,531	27,937	31,637	60
Third Army Corps (Heintzelman's) ³	1,370	31,677	35,842	38,849	61
Fourth Army Corps (Keyes') ⁴	1,439	31,489	34,798	37,910	60
Fifth Army Corps (Banks) ⁵	944	21,759	23,607	32,625	50
Military District of Washington (Wadsworth's)	821	18,678	20,795	22,410	6
Military District of Alexandria (Viele's)	56	1,230	1,404	1,459	0
Provost-marshal guard (A. Porter's)	32	542	633	711	0
Regular Infantry (Sykes')	153	3,752	4,142	4,765	0
Regular Cavalry (P. St. George Cooks')	99	2,502	2,771	3,141	0
Artillery Reserve (Hunt's)	127	2,604	2,900	3,116	100
U.S. Engineer troops (Dunne's)	4	224	237	288	
Headquarters Cavalry escort (McIntyre's)	4	104	113	145	
Total	7,760	172,211	191,195	215,583	405

Note #1: McDowell's corps was composed of Franklin's, McCall's and King's divisions.

Note #2: Summner's corps was composed of Richardson's, Blenker's and Sedgewick's divisions.

²⁷⁴ O.R. Series 1, Volume 11, Part 3, p.53

Note #3: Heintleman's corps was composed of Fitz John Porter's, Hooker's, C.S. Hamiltons divisions and Averell's Third Pennsylvania Cavalry

Note #4: Keyes' corps was composed of Couch's, W.F. Smith's and Casey's divisions.

Note #5: Bank's Corps was composed of A.S. Williams and Shield's divisions

3. **April 1, 1862**²⁷⁵: The numerical strength of that part of the Army of the Potomac designed by MG McClellan for operations upon the Virginia Peninsula.

	Aggregate present for duty	Aggregate on special duty, sick and in arrest	Aggregate absent	Total aggregate present and absent
1st Corps, McDowell's	33,548	2,395	2,511	38,454
2nd Corps, Sumner's	26,778	1,129	3,130	31,037
3rd Corps, Heintzleman's	33,047	2,795	3,010	38,852
4th Corps, Keyes's	32,924	1,874	3,112	37,910
Regular Infantry	3,905	237	623	4,765
Regular Cavalry	2,601	170	370	3,141
Artillery reserve	2,731	175	210	3,116
Provost guards, U.S. engineers, HQ cavalry escort	910	73	161	1,144
Grand aggregate	136,444	8,848	13,127	158,419

4. **April 13, 1862**²⁷⁶: The numerical strength of that part of the Army of the Potomac after its disembarkation on the Virginia Peninsula.

²⁷⁵ Report of the Joint Committee on the Conduct of the War, GPO, Washington, 1863, p.315

²⁷⁶ O.R. Series 1, Volume 11, Part 3, p.97.

	Aggregate present for duty	Aggregate on special duty, sick and in arrest	Aggregate absent	Total aggregate present and absent
Major General McClellan, general staff and unassigned troops	14,333	567	2,511	17,411
Second Corps (General Sumner)	18,778	919	2,251	21,948
Third Corps (General Heintzelman)	34,628	1,207	3,798	39,633
Fourth Corps (General Keyes)	33,231	1,572	3,926	38,729
Grand Aggregate	100,970	4,265	12,486	117,721

5. April 30, 1862²⁷⁷: The number of men composing the Army of the Potomac on this date:

²⁷⁷ O.R. Series 1, Volume 11, Part 3, p.130. & Report of the Joint Committee on the Conduct of the War, GPO, Washington, 1863, p.323

	Aggregate present for duty	Aggregate on special duty, sick and in arrest	Aggregate absent	Total aggregate present and absent
General staff, engineers and engineer brigade, cavalry division, escort to headquarters and provost guard	13,787	798	2,672	17,257
2nd Corps, General Sumner	19,054	887	2,061	22,002
3rd Corps, General Heinzelman	34,633	2,009	3,068	39,710
4th Corps, General Keyes	33,586	1,886	4,089	39,561
Franklin's division	11,332	270	846	12,448
Grand aggregate	112,392	5,850	12,736	130,978

6. **Troops of the Army of the Potomac sent to the Peninsula in March and early in April, 1862²⁷⁸**:

At general headquarters: Two companies, 4th U. S. Cavalry, one company Oneida cavalry (New York volunteers) and one company Sturgess' rifles (Illinois volunteers)

Cavalry Reserve: Brigadier General P. St. George Cook

Emory's Brigade

5th U. S. Cavalry

6th U. S. Cavalry

6th Pennsylvania Cavalry

Blake's Brigade

1st U. S. Cavalry

8th Pennsylvania Cavalry

Barker's Squadron, Illinois Cavalry

Provost Guard: 2nd U. S. Cavalry and battalions of the 8th and 17th U. S. Infantry

Artillery Reserve (Total = 100 guns): Colonel Henry J. Hunt

Graham's Battery (K and G), 1st U. S. (6 Napoleon guns)

Randol's Battery (E), 1st U. S. (6 Napoleon guns)

Carlisle's Battery (E), 2nd U. S. (6 20-pounder Parrot guns)

Robertson's Battery, 2nd U. S. (6 3-inch ordnance guns)

Benson's Battery (M), 2nd U. S. (6 3-inch ordnance guns)

Tidball's Battery (A), 2nd U. S. (6 3-inch ordnance guns)

Edward's Battery (L and M), 3rd U. S. (6 10-pounder Parrott guns)

Gibson's Battery (C and G), 3rd U. S. (6 3-inch ordnance guns)

²⁷⁸ O. R., Series 1, Volume 5, pp. 19-21.

Livingston's Battery (F and K) 3rd U. S. (4 10-pounder Parrott guns)
Howe's Battery (G), 4th U. S. (6 Napoleon Guns)
DeRussy's (K), 4th U. S. (6 Napoleon guns)
Weed's Battery (I), 5th U. S. (6 3-inch ordnance guns)
Smead's Battery (K), 5th U. S. (4 Napoleon guns)
Ames' Battery (A), 5th U. S. (4 10-pounder Parrott & 2 Napoleon)
Diedrich's Battery (A), New York artillery battalion (6 20-pounder Parrotts)
Voegellie's Battery (B), New York artillery battalion (4 20-pounder Parrotts)
Knieriem's Battery (C), New York artillery battalion (4 20-pounder Parrotts)
Grim's Battery (D), New York artillery battalion (6 32-pounder howitzer)

Artillery troops with siege trains: 1st Connecticut Heavy Artillery, Colonel Tyler

Volunteer Engineers: General Woodbury
15th New York Volunteers
50th New York Volunteers
U. S. Engineers, Captain Duane, Companies A, B, and C

Infantry Reserve (Regular Brigade): General Sykes
Nine companies, 2nd U. S. Infantry
Seven companies, 3rd U. S. Infantry
Ten companies, 4th U. S. Infantry
Ten companies, 6th U. S. Infantry
Eight companies, 10th and 17th U. S. Infantry
Six companies, 11th U. S. Infantry
Eight companies, 12th U. S. Infantry
Nine Companies, 14th U. S. Infantry
5th New York Volunteers (Colonel Warren)

II Corps (General Sumner)

Cavalry – 8th Illinois Cavalry (Colonel Farnsworth) and one squadron 6th New York Cavalry

Richardson's Division, II Corps

Artillery (Total = 24 guns)

Clarke's Battery (A and C), 4th U. S. (6 Napoleon guns)
Frank's Battery (G), 1st New York (6 10-pounder Parrott guns)
Pettit's Battery (B), 1st New York (6 10-pounder Parrott guns)
Hogan's Battery (A), 2nd New York 6 10-pounder Parrott guns)

Infantry

Howard's Brigade, Richardson's Division, II Corps – The majority of the brigade (the 81st PA and the 61st NY) embarked on the *Spaulding* at Alexandria on April 4, 1862 (Note – Six

companies of the 5th NH embarked in the Donaldson and the four remaining companies embarked in the Croton. The 64th NY was detached from the brigade.), sailed at 1310 hours, arrived at Fort Monroe at 0730 hours on the morning of April 5th, 1862 and at Ship Point at 1515 that same day.

- 5th New Hampshire
- 81st Pennsylvania
- 61st New York Volunteers
- 64th New York Volunteers

Meagher's Brigade (The Irish Brigade), Richardson's Division, II Corps

- 69th New York Volunteers
- 63rd New York Volunteers
- 88th New York Volunteers

French's Brigade, Richardson's Division, II Corps

- 52nd New York Volunteers
- 66th New York Volunteers
- 53rd Pennsylvania Volunteers

Sedgwick's Division, II Corps

Artillery (Total = 24 guns)

- Kirby's Battery (I), 1st U. S. (6 Napoleon guns)
- Tompkin's Battery (A), 1st Rhode Island (4 10-pounder Parrotts, 2 12-pounder howitzers)
- Bartlett's Battery (B), 1st Rhode Island (4 10-pounder Parrotts, 2 12-pounder howitzers)
- Owen's Battery (G), (6 3-inch ordnance guns)

Infantry

Gorman's Brigade, Segwick's's Division, II Corps

- 2nd New York State Militia
- 15th Massachusetts Volunteers
- 34th New York Volunteers
- 1st Minnesota Volunteers

Burn's Brigade, Segwick's Division, II Corps

- 69th Pennsylvania Volunteers
- 71st Pennsylvania Volunteers
- 72nd Pennsylvania Volunteers
- 106th Pennsylvania Volunteers

Dana's Brigade, Segwick's Division, II Corps

- 19th Massachusetts Volunteers

20th Massachusetts Volunteers
7th Michigan Volunteers
42nd New York Volunteers

III Corps (General Heintzelman)

Cavalry – 3th Pennsylvania Cavalry (Colonel Averell)

Porter's Division, III Corps

Artillery (Total = probably 24 guns)

Griffin's Battery (D), 5th U. S. (6 10-pounder Parrott guns)
Weeden's Battery (C), Rhode Island
Martin's Battery (C), Massachusetts (6 Napoleon guns)
Allen's Battery (E), Massachusetts (6 3-inch ordnance guns)

Infantry

Martingale's Brigade, Porter's Division, III Corps

2nd Maine Volunteers
18th Massachusetts Volunteers
22nd Massachusetts Volunteers
25th New York Volunteers

Morrell's Brigade, Porter's Division, III Corps

14th New York Volunteers
4th Michigan Volunteers
9th Massachusetts Volunteers
62nd Pennsylvania Volunteers

Butterfield's Brigade, Porter's Division, III Corps

17th New York Volunteers
44th New York Volunteers
12th New York Volunteers
83rd Pennsylvania Volunteers
Stockton's (16th) Michigan Volunteers

1st Berdan Sharpshooters

Hooker's Division, III Corps

Artillery (Total = 20 guns)

Hall's Battery (H), 1st U. S. (4 10-pounder Parrotts and 2 12-pounder howitzers)

Smith's Battery, 4th New York (6 10-pounder Parrott guns)
Bramhall's Battery, 6th New York (6 3-inch ordnance guns)
Osborn's Battery (D), 1st New York Artillery (4 3-inch ordnance guns)

Infantry

Sickle's Brigade (The Excelsior Brigade), Hooker's Division, III Corps

1st Excelsior New York Volunteers
2nd Excelsior New York Volunteers
3rd Excelsior New York Volunteers
4th Excelsior New York Volunteers
5th Excelsior New York Volunteers

Naglee's Brigade, Hooker's Division, III Corps

1st Massachusetts Volunteers
11th Massachusetts Volunteers
26th Pennsylvania Volunteers
2nd New Hampshire Volunteers

Colonel Starr's Brigade, Hooker's Division, III Corps

5th New Jersey Volunteers
6th New Jersey Volunteers
7th New Jersey Volunteers
8th New Jersey volunteers

Hamilton's Division, III Corps

Artillery (Total =18 guns)

Thompson's Battery (G), 2nd U. S. (6 Napoleon guns)
Beam's Battery (B), New Jersey (4 10-pounder Parrotts & 2 Napoleons)
Randolph's Battery (E), Rhone Island (4 10-pounder Parrotts & 2 Napoleons)

Infantry

Jameson's Brigade, Hamilton's Division, III Corps

105th Pennsylvania Volunteers
63rd Pennsylvania Volunteers
57th Pennsylvania Volunteers
87th New York Volunteers

Birney's Brigade, Hamilton's Division, III Corps

38th New York Volunteers
40th New York Volunteers
3rd Maine Volunteers
4th Maine Volunteers

____ Brigade, Hamilton's Division, III Corps (*Is this the Iron Brigade??*)

2nd Michigan Volunteers

3rd Michigan Volunteers

5th Michigan volunteers

37th New York Volunteers

IV Corps (General Keyes)

Couch's Division, IV Corps

Artillery (Total = 16 guns)

McCarthy's Battery (C), 1st Pennsylvania (4 10-pounder Parrott guns)

Flood's Battery (D), 1st Pennsylvania (4 10-pounder Parrott guns)

Miller's Battery (E), 1st Pennsylvania (4 10-pounder Parrott guns)

Brady's Battery (F), 1st Pennsylvania (4 10-pounder Parrott guns)

Infantry

Graham's Brigade, Couch's Division, IV Corps

67th (1st Long Island) New York Volunteers

65th (1st U. S. Chasseurs) New York Volunteers

23rd Pennsylvania Volunteers

31st Pennsylvania Volunteers

61st Pennsylvania Volunteers

Peck's Brigade, Couch's Division, IV Corps

98th Pennsylvania Volunteers

102nd Pennsylvania Volunteers

93rd Pennsylvania Volunteers

72nd New York Volunteers

55th New York Volunteers

____ Brigade, Couch's Division, IV Corps

2nd Rhode Island Volunteers

7th Massachusetts Volunteers

10th Massachusetts Volunteers

36th New York Volunteers

Smith's Division, IV Corps

Artillery (Total = 22 guns)

Ayres' Battery (F), 5th U. S. (4 10-pounder Parrott & 2 Napoleon)
Mott's Battery, 3rd New York (4 10-pounder Parrott & 2 Napoleon)
Wheeler's Battery (E), 1st New York (4 3-inch ordnance guns)
Kennedy's Battery, 1st New York (6 3-inch ordnance guns)

Infantry

Hancock's Brigade, Smith's Division, IV Corps

5th Wisconsin Volunteers
49th Pennsylvania Volunteers
43rd New York Volunteers
6th Maine Volunteers

Brook's Brigade, Smith's Division, IV Corps

2nd Vermont Volunteers
3rd Vermont Volunteers
4th Vermont Volunteers
5th Vermont Volunteers
6th Vermont Volunteers

Davidson's Brigade, Smith's Division, IV Corps

33rd New York Volunteers
77th New York Volunteers
49th New York Volunteers
7th Maine Volunteers

Casey's Division, IV Corps

Artillery (Total = 22 guns)

Regan's Battery, 7th New York (6 3-inch ordnance guns)
Fitch's Battery, 8th New York (6 3-inch ordnance guns)
Bates' Battery (A), 1st New York (6 Napoleon guns)
Spratt's Battery (H), 1st New York (4 3-inch ordnance guns)

Infantry

Keim's Brigade, Casey's Division, IV Corps

85th Pennsylvania Volunteers
102nd Pennsylvania Volunteers
103rd Pennsylvania Volunteers
96th New York Volunteers

Palmer's Brigade, Casey's Division, IV Corps

85th New York Volunteers
98th New York Volunteers

92nd New York Volunteers
 81st New York Volunteers
 93rd New York Volunteers

____ Brigade, Casey's Division, IV Corps
 104th Pennsylvania Volunteers
 52nd Pennsylvania Volunteers
 56th New York Volunteers
 100th New York Volunteers
 11th Maine Volunteers

7. **May 31, 1862**²⁷⁹: The number of men composing the Army of the Potomac on this date:

	Aggregate present for duty	Aggregate on special duty, sick and in arrest	Aggregate absent	Total aggregate present and absent
General staff, engineers and engineer brigade, cavalry division, escort to headquarters and provost guard	4,767	248	1,333	6,348
2nd Corps, General Sumner	17,412	703	2,571	20,686
3rd Corps, General Geintleman	16,999	1,502	3,910	22,411
4th Corps, General Keyes	17,132	1,074	7,111	25,317
5th Provisional Corps, General Porter	17,546	976	4,394	22,916
6th Provisional Corps, General Franklin	19,580	737	3,928	24,245
General Van Allen (Yorktown and vicinity)	1,139	32	125	1,296
Advance guard	2,221	69	302	2,592
Third and Fifth Pennsylvania Cavalry	1,212	33	110	1,355
Grand aggregate	98,008	5,374	23,784	127,166

8. **June 1, 1862**²⁸⁰: The Department of Virginia (Fort Monroe and vicinity) was added to Major General McClellan's command on this date. The department, commanded by Major General Wool, had 11,514 aggregate present for duty; 1,483 aggregate on special duty, sick and in arrest; 1,010 aggregate absent; giving a total aggregate present and absent of 14,007.

9. **June 20, 1862**²⁸¹: The number of men composing the Army of the Potomac on this date:

²⁷⁹ O.R. Series 1, Volume 11, Part 3, p.204.

²⁸⁰ O.R. Series 1, Volume 11, Part 3, p.204.

²⁸¹ O.R. Series 1, Volume 11, Part 3, p.238.

			Bar Chart			
	Officers	Men				
General Staff	48	0	0	48	57	0
U.S. Engineers (Durne)	4	190	194	291	288	0
Engineer Brigade (Woodbury)	58	1,251	1,311	1,461	1,651	0
Division of Cavalry (Cook)	90	2,048	2,083	2,338	2,763	0
Escort to Headquarters (McIntyre)	4	101	103	111	144	0
Post and Guard (A. Potter)	53	927	973	1,094	1,311	0
Total	215	4,525	4,672	5,304	6,223	0
Second Army Corps (Sumner's)						
General Staff	1			1		
First Division (Richardson's)	388	7,685	8,144	8,742		16
Second Division (Sedgewick's)	380	8,784	8,681	9,733		15
Artillery (Gutlett)	14	341	353	380		16
Total	773	16,790	17,181	18,855	16	46
Third Army Corps (Heintzelman's)						
General Staff	1			1		12
Cavalry (Averett)	28	723	751	799		871
Reserve Artillery (De Russy)	14	364	378	422		449
Second Division (Hooker's)	356	8,388	8,978	11,091		13,099
Third Division (Kearny's)	364	7,984	8,323	9,337		13,051
Total	773	18,037	18,428	21,666	27,474	40
Fourth Army Corps (Keyes)						
General Staff	7		7	8		10
Cavalry (Gregg)	24	619	643	701		788
First Division (Couch's)	375	7,933	8,311	9,353		11,901
Second Division (Casey's)	248	5,042	5,245	6,590		11,131
Reserve Artillery (West)	13	341	356	493		481
Total	667	13,941	14,558	17,151	24,329	36
Fifth Provisional Army Corps (Potts)						
General Staff	3			3		3
Division (Merrill's)	493	10,946	12,011	12,626		14,796
Division (Sykes)	268	5,477	5,745	6,441		7,950
Artillery Reserve (Hunt)	85	2,023	2,101	2,320		2,763
Cavalry (Farnsworth)	42	629	671	720		819
Total	891	19,069	20,536	22,110	26,333	132
Sixth Provisional Army Corps (Franklin)						
General Staff	10		10	10		10
Division (Stocum)	393	8,853	9,245	9,841		11,071
Division (W.F. Smith)	401	8,907	9,305	10,336		12,843
Cavalry (McReynolds)	44	797	841	871		981
Total	848	18,557	19,405	21,052	24,911	40
Advance Guard (Sonman)	5	59	62	66		94
Quartermaster's Guard (Ingalls)	51	1,050	1,091	1,218		1,461
Fort Monroe, VA (Dix)	453	8,824	9,245	10,112		11,021
Division (McCull)	382	9,133	9,501	9,778		12,263
Total	891	19,065	19,902	21,176	24,843	22
GRAND TOTAL	5,118	109,984	114,691	127,328	134,124	316

10. July 20, 1862²⁸²: The number of men composing the Army of the Potomac on this date:

²⁸² Report of the Joint Committee on the Conduct of the War, GPO, Washington, 1863, p.323

	Aggregate present for duty	Aggregate on special duty, sick and in arrest	Aggregate absent	Total aggregate of present and absent
General staff, engineers and engineer brigade, cavalry division, escort to headquarters and provost guard 1st Connecticut Artillery, chief quartermaster	8,735	1,448	2,157	12,340
2nd Corps, General Sumner	16,952	2,866	5,665	25,483
3rd Corps, General Heinzeleman	16,276	3,180	7,080	26,536
4th Corps, General Keyes	14,490	2,627	8,756	25,873
5th Provisional Corps, General Porter	21,077	3,900	8,962	33,939
6th Provisional Corps, General Franklin	14,014	2,749	5,407	22,170
7th Corps, General Dix	9,997	1,042	737	11,778
U.S. Signal Corps	150	16	29	195
Grand Aggregate	101,691	17,828	38,793	158,314

11. **September 20, 1862**²⁸³: The number of men composing the Army of the Potomac on this date:

²⁸³ Report of the Joint Committee on the Conduct of the War, GPO, Washington, 1863, p.492

	Aggregate present for duty	Aggregate on special duty, sick and in arrest	Aggregate absent	Total aggregate of present and absent
General McClellan and staff, &c.	1,393	226	949	2,568
1st Corps, General Meade	12,237	856	18,490	31,583
2nd Corps, General Sumner	13,604	2,465	11,701	27,770
General Couch's division, 4th Corps	7,219	771	4,417	12,407
5th Corps, General Porter	19,477	1,383	11,819	32,679
6th Corps, General Franklin	11,862	1,504	9,990	23,356
9th Corps, General Burnside	10,734	1,329	12,282	24,345
12th Corps, General A.S. Williams	8,383	1,632	7,144	17,159
General Pleasonton's cavalry division	4,543	515	2,628	7,686
General Allen, Frederick City	1,110	292	861	2,263
General Kenley, Williamsport, MD	2,269	258	1,174	3,701
Major Scott, Boonsboro MD	318	41	83	442
General Banks, defences of Washington plus 3rd & 11th Corps	71,210	13,043	23,586	107,839
Grand Total	164,359	24,315	105,124	293,798

12. **September 30, 1862**²⁸⁴: The number of men composing the Army of the Potomac on this date:

²⁸⁴ Report of the Joint Committee on the Conduct of the War, GPO, Washington, 1863, p,507

	Aggregate present for duty	Aggregate on special duty, sick and in arrest	Aggregate absent	Total aggregate of present and absent
General McClellan and staff	1,171	266	1,037	2,474
1st Corps, General Reynolds	14,102	2,014	15,971	32,587
2nd Corps, General Sumner	15,378	3,159	13,315	31,152
5th Corps, General Porter	17,268	3,268	11,152	31,688
6th Corps, General Franklin	22,568	2,937	13,907	39,412
9th Corps, General Burnside	15,361	2,473	9,964	27,798
11th Corps, General Williams	8,383	1,632	7,144	17,159
General Pleasonton, cavalry division	4,543	515	2,628	7,686
Colonel Allen, Frederick City	1,052	343	811	2,206
Major Scott, Boonsboro	318	41	83	442
General Banks, defences of Washington, including 3rd & 11th Corps	73,601	11,810	25,744	111,155
GRAND TOTAL	173,745	28,458	101,756	303,759

13. October 10, 1862²⁸⁵: The number of men composing the Army of the Potomac on this date:

²⁸⁵ O.R. Series 1, Volume 19, (Part 2), p.410

Command	Present for duty		Aggregat Present	Aggregate Present & Absent	Pieces of Artillery		Aggregate Present & Absent Last Return
	Officers	Men			Heavy	Field	
Headquarters, Staff, escorts, &c.	179	1,300	1,773	2,881			2,474
1st Corps, BG Reynolds	722	13,951	17,805	32,804		40	32,087
2nd Corps, MG Couch	819	15,527	20,138	32,578		42	31,852
5th Corps, MG Porter	790	17,287	21,648	30,613		71	31,688
6th Corps, MG Franklin	1,177	23,879	29,112	41,974		56	39,412
9th Corps, MG Burnside	592	13,135	15,879	24,083		35	27,798
12th Corps, BG Williams	605	13,618	17,646	25,509		57	17,159
Cavalry Division, BG Pleasonton	194	4,349	5,058	7,686			7,686
Frederick City, COL Allen	49	1,133	1,448	2,184			2,206
Boonsboro, COL Murphy	12	301	355	440			442
Total army in the field	5,139	104,480	130,862	200,752	0	301	192,804
Total defenses of Washington	3,212	76,323	95,242	128,127	429	4	111,155
GRAND TOTAL	8,351	180,803	226,104	328,879	429	305	303,959

14. October 20, 1862²⁸⁶: The number of men composing the Army of the Potomac on this date:

²⁸⁶ Report of the Joint Committee on the Conduct of the War, GPO, Washington, 1863, p.534 & O.R. Series 1, Volume 19, (Part 2), p.454.

	Aggregate present for duty	Aggregate on special duty, sick and in arrest	Aggregate absent	Total aggregate of present and absent
General McClellan and Staff, &c.	1,655	327	921	2,903
1st Corps, General Reynolds	17,810	3,554	13,994	35,358
5th Corps, General Porter	18,042	3,955	8,707	30,704
6th Corps, General Franklin	27,794	4,292	11,319	43,405
Cavalry & Horse Artillery, General Buford	6,724	897	3,290	10,911
Colonel Allen, Frederick City	1,086	455	778	2,319
Colonel Murphy, Boonsboro	392	54	74	457
General Burnside, defences of Harpers Ferry including the 2nd, 9th & 11th Corps	60,003	12,883	33,055	105,941
General Banks, defences of Washington	73,593	15,881	19,137	108,611
GRAND TOTAL	207,099	42,298	91,275	340,609

15. November 10, 1862²⁸⁷: The number of men composing the Army of the Potomac, MG Burnside, commanding, near Warrenton VA:

²⁸⁷ O.R. Series 1, Volume 19, (Part 2), p.569.

Command	Present for duty		Aggregat Present	Aggregate Present & Absent	Pieces of Artillery		Aggregate Present & Absent Last Return
	Officers	Men			Heavy	Field	
Headquarters, Staff, escorts, &c.	219	2,024	2,499	3,315			3,348
1st Corps, BG Reynolds	977	16,843	20,518	35,389		54	34,774
2nd Corps, MG Couch	885	14,854	18,170	30,305		48	30,784
5th Corps, MG Porter	916	18,157	21,481	31,202		77	30,192
6th Corps, MG Franklin	1,248	24,731	28,803	38,520		52	38,985
9th Corps, BG Wilcox	682	13,541	16,195	24,687		36	25,293
12th Corps, BG Slocum	573	10,757	14,864	21,257		51	21,317
Division, BG Whipple	224	3,885	4,670	6,121		18	6,146
Division, BG Stoneman	530	8,746	10,615	15,646		16	16,052
Cavalry Division & Horse Artillery, BG Buford	277	6,035	7,181	11,143		22	9,295
Defenses, Upper Potomac, MG Morrell	224	4,220	5,445	7,370			7,370
Total army in the field	6,755	123,793	150,441	224,955	0	374	223,556
Total defenses of Washington	3,431	77,558	98,738	114,972	526	0	114,585
GRAND TOTAL	10,186	201,351	249,179	339,927	526	374	338,141

16. December 10, 1862²⁸⁸: The number of men composing the Army of the Potomac, MG Burnside, commanding:

²⁸⁸ O.R. Series 1, Volume 21, p.1121.

Command	Present for duty		Aggregat Present	Present for duty equipped						Pieces of Artillery	Aggregate present
				Infantry		Cavalry		Artillery			
	Officers	Men		Officers	Men	Officers	Men	Officers	Men		
General Staff	67	1	68	0	0	0	0	0	0	0	
Escort (McIntyre)	7	148	170	0	0	7	148	0	0	0	
Provost Guard (Patrick)	55	1,040	1,332	0	0	13	190	0	0	0	1
Regular Engr. Bn. (Cross)	2	379	433	2	266	0	0	0	0	0	
Vol. Engr. Bde. (Woodbury)	34	914	1,107	52	1,453	0	0	0	0	0	2
Quartermaster's Guard (Ingalls)	26	233	343	0	0	14	137	0	0	0	
Signal Corps (Cushing)	39	111	171	0	0	0	0	0	0	0	
Right Grand Division (Sumner)	1,741	29,918	37,432	1,088	25,293	3	85	39	1,228	90	57
Center Grand Division (Hooker)	2,132	38,264	47,952	1,881	33,724	118	2,269	66	1,926	104	67
Left Grand Division (Franklin)	2,388	44,509	53,543	2,151	39,053	151	2,900	81	2,556	118	76
11th Corps (Sigel)	688	14,874	18,266	605	12,620	9	125	22	875	42	22
12th Corps (Slocum)	614	11,548	15,584	534	9,541	6	125	33	972	55	21
Defenses Upper Potomac (Morrell)	280	5,302	6,342	0	2,825	0	2,513	0	234	0	7
Defenses of Washington (Heintzleman)	2,005	44,383	63,068	0	0					273	70
GRAND TOTAL	10,078	191,624	245,811	6,313	124,775	321	8,492	241	7,791	682	328

Note #1: The Right Grand Division was composed of the Second and Ninth Corps. The Right Grand Division was at Fredericksburg.

Note #2: The Center Grand Division was composed of the Third and Fifth Corps. The Center Grand Division was at Fredericksburg.

Note #3: The Left Grand Division was composed of the First and Sixth Corps. The Left Grand Division was at Fredericksburg.

Note #4: The Eleventh Corps was at Fairfax Court House.

Note #5: The Twelfth Corps was at Harper's Ferry

17. January 20, 1863²⁸⁹: The number of men composing the Army of the Potomac, MG Burnside, commanding, near Falmouth VA

Abstract from consolidated morning report of the Army of the Potomac, MG Ambrose E. Burnside, commanding, for January 20, 1863; headquarters camp near Falmouth VA.

Command	Present for duty		Aggregate Present	Aggregate present and absent	Aggregate last report	Pieces of Artillery	Present for duty equipped						
	Officers	Men					Infantry		Cavalry		Artillery		
							Officers	Men	Officers	Men	Officers	Men	
General & Staff	63	2	65	65	65	0	0	0	0	0	0	0	0
Escort, CPT McIntyre	6	134	154	215	215	0	0	0	6	134			
Provost Guard, BG Patrick	163	2,718	3,395	4,633	4,244	0	137	1,995	20	663			
Reg. Engr. Bn., LT Cross	2	397	434	491	491	0	2	397	0	0			
Vol. Eng. Bde., BG Woodbury	28	515	661	2,114	2,095	0	28	515	0	0			
Quartermaster, BG Ingalls	31	437	609	686	405	0	0	0	19	425			
Signal Corps, CPT Cushing	28	82	145	201	229	0	0	0	0	0			
Artillery Reserve, CPT De Rusey	53	1,407	1,651	1,866	1,559	64	4	89	0	0	49	1,318	
Right Grand Division, MG Sumner	1,844	33,727	43,897	65,755	66,634	98	1,547	28,144	158	3,168	50	2,000	
Center Grand Division, MG Hooker	1,839	34,196	42,485	62,826	64,671	102	1,625	29,423	96	2,178	63	1,992	
Left Grand Division, MG Franklin	2,235	41,853	52,233	73,301	72,855	118	1,936	35,235	172	3,270	74	2,411	
Grand Reserve Division, MG Sigel	1,577	29,179	35,345	48,470	25,090	76	1,341	25,129	140	2,417	40	1,436	
Defenses of Washington, MG Heintzelman	2,109	43,230	62,388	69,475	70,465	638	1,016	21,667	47	458	357	8,380	
Defenses of Upper Potomac, MG Morell	0	0	0	0	7,596		0	0	0	0			
12th Corps, MG Slocum	0	0	0	0	22,740		0	0	0	0			
18th Pennsylvania Cavalry, COL Gregg	0	0	0	0	1,108		0	0	0	0			
GRAND TOTAL	9,978	187,877	243,462	330,098	340,462	1,096	7,636	142,594	658	12,713	633	17,537	

²⁸⁹ O.R. Series 1, Volume 21, p.987.

18. **January 31, 1863²⁹⁰**: The number of men composing the Army of the Potomac, MG Hooker, commanding, headquarters near Falmouth VA:

Command	Present for duty		Aggregate present	Aggregate present and absent	Aggregate last return	Pieces of Artillery	Present for duty equipped					
	Officers	Men					Infantry		Cavalry		Artillery	
							Officers	Men	Officers	Men	Officers	Men
General & staff	61	2	63	63	65	0	0	0	0	0	0	0
Escort, CPT Motley	3	71	83	101	0	0	0	0	3	71	0	0
Squadron of Cavalry, CPT McIntyre	0	0	0	0	215	0	0	0	0	0	0	0
Provost Guard, BG Patrick	160	2,670	3,374	4,520	4,633	0	134	1,900	19	656	0	0
Reg. Engr. Bn., LT Cross	1	360	430	486	491	0	1	360	0	0	0	0
Vol. Engr. Bde., BG Woodbury	25	492	630	2,102	2,114	0	25	492	0	0	0	0
Quartermaster, LTC Ingalls	28	451	608	687	686	0	0	0	14	437	0	0
Signal Corps, CPT Cushing	27	81	138	202	201	0	0	0	0	0	0	0
Artillery Reserve, CPT De Russy	47	1,381	1,632	1,886	1,866	62	2	87	0	0	45	1,294
Right Grand Division, MG Couch	1,862	33,406	42,827	64,709	65,755	98	1,589	27,960	153	3,423	44	1,574
Center Grand Division, MG Meade	1,844	34,129	42,970	62,616	62,826	60	1,582	28,878	133	2,940	57	2,033
Left Grand Division, MG Smith	2,183	40,817	50,282	71,368	73,301	112	1,918	34,599	172	3,162	68	2,311
Grand Reserve Division, MG Sigel	1,541	27,881	34,306	47,814	48,467	76	1,303	23,833	147	2,250	41	1,434
Defense of Washington, MG Heintzleman	2,028	42,510	62,077	70,205	69,475	640	949	20,206	40	452	358	8,341
GRAND TOTAL	9,810	184,251	239,420	326,759	330,095	1,048	7,503	138,315	681	13,391	613	16,987

19. **February 10, 1863²⁹¹**: The number of men composing the Army of the Potomac, MG Hooker, commanding, headquarters near Falmouth VA:

²⁹⁰ O.R. Series 1, Volume 25, (Part 2) p.15.

²⁹¹ O.R. Series 1, Volume 25, (Part 2) p.65-66

Command	Present for duty		Aggregate present	Aggregate present and absent	Aggregate last return	Pieces of Artillery	Present for duty equipped						
	Officers	Men					Infantry		Cavalry		Artillery		
							Officers	Men	Officers	Men	Officers	Men	
General & staff	22	2	24	25	63	0	0	0	0	0	0	0	0
Escort, CPT Motley	2	71	81	101	101	0	0	0	2	71	0	0	0
Squadron of Cavalry, CPT McIntyre	6	134	154	215	0	0	0	0	0	0	0	0	0
Provost Guard, BG Patrick	181	2,941	3,725	4,927	4,520	0	159	2,209	18	639	0	0	0
Reg. Engr. Bn., LT Cross	2	352	418	474	485	0	2	352	0	0	0	0	0
Vol. Engr. Bde., BG Woodbury	33	861	1,063	2,103	2,102	0	33	861	0	0	0	0	0
Quartermaster, LTC Ingalls	0	0	0	0	687	0	0	0	0	0	0	0	0
Signal Corps, CPT Cushing	19	70	123	196	202	0	0	0	0	0	0	0	0
Artillery Reserve, CPT De Russey	48	1,451	1,698	1,963	1,886	65	2	80	0	0	46	1,371	0
1st Corps, MG Reynolds	759	13,249	16,794	24,781	0	50	689	11,778	2	106	30	1,010	0
2nd Corps, MG Couch	888	14,928	19,842	31,969	0	48	837	14,005	3	32	21	895	0
3rd Corps, BG Birney	992	17,463	22,094	30,694	0	60	880	15,766	0	0	37	1,165	0
5th Corps, MG Meade	705	14,145	17,869	26,980	0	42	693	13,363	0	0	18	783	0
6th Corps, MG Sedgewick	1,111	22,256	26,605	35,317	0	60	1,071	20,866	2	59	34	1,119	0
11th Corps, MG Sigel	659	13,387	16,191	21,134	0	42	641	12,434	0	0	39	844	0
12th Corps, MG Slocum	664	12,186	15,088	21,860	0	34	624	11,328	9	173	17	590	0
Cavalry Corps, BG Stoneman	517	10,593	13,452	17,166	0	12	17	278	389	8,553	8	442	0
Right Grand Division, MG Couch	0	0	0	0	64,709	0	0	0	0	0	0	0	0
Center Grand Division, MG Meade	0	0	0	0	71,368	0	0	0	0	0	0	0	0
Left Grand Division, MG Smith	0	0	0	0	62,616	0	0	0	0	0	0	0	0
Grand Reserve Division, MG Sigel	0	0	0	0	47,814	0	0	0	0	0	0	0	0
Defense of Washington, MG Heintzleman	0	0	0	0	70,203	0	0	0	0	0	0	0	0
GRAND TOTAL	6,608	124,089	155,221	219,905	326,756	413	5,648	103,320	425	9,633	250	8,219	0

20. **February 28, 1863²⁹²**: The number of men composing the Army of the Potomac, MG Hooker, commanding, headquarters near Falmouth VA:

²⁹² O.R. Series 1, Volume 25, (Part 2) p.111-112

Command	Present for duty		Aggregate present	Aggregate present and absent	Aggregate last return	Pieces of Artillery	Present for duty equipped						
	Officers	Men					Infantry		Cavalry		Artillery		
							Officers	Men	Officers	Men	Officers	Men	
General & staff	64	2	66	66	66	0	0	0	0	0	0	0	0
Oneida Cavalry Company, CPT Ma	2	32	35	78	198	0	0	0	2	35	0	0	0
Provost Guard, BG Patrick	151	2,144	2,706	3,421	3,623	0	148	2,076	0	0	0	0	0
Reg. Engr. Bn., LT Cross	2	360	423	474	471	0	2	360	0	0	0	0	0
Vol. Engr. Bde., BG Woodbury	31	802	976	2,073	2,085	0	31	802	0	0	0	0	0
Signal Corps, CPT Kendall	22	69	126	196	196	0	0	0	0	0	0	0	0
Artillery Reserve, CPT De Russey	42	1,286	1,502	1,706	1,950	58	4	92	0	0	38	1,094	
1st Corps, BG Wadsworth	955	15,482	20,171	28,166	27,903	52	881	14,171	5	150	28	999	
2nd Corps, MG Couch	929	14,658	19,976	30,963	31,311	48	870	13,801	4	7	19	905	
3rd Corps, BG Sickles	967	16,900	21,223	29,329	30,309	60	898	15,266	0	0	34	1,155	
5th Corps, MG Meade	798	14,862	18,830	26,411	26,749	42	763	13,836	0	0	20	816	
6th Corps, MG Sedgewick	1,132	21,682	26,617	34,618	35,004	60	1,092	18,633	3	103	33	1,204	
11th Corps, BG von Steinwehr	650	13,337	16,643	20,996	21,250	42	587	11,909	3	2	23	855	
12th Corps, MG Slocum	637	11,446	15,160	21,252	21,495	34	615	11,205	9	180	12	590	
Cavalry Corps, BG Stoneman	599	12,265	15,755	20,420	17,292	22	0	0	379	8,325	45	459	
Company F., 1st Mass. Cav. CPT M	0	0	0	0	101	0	0	0	0	0	0	0	
GRAND TOTAL	6,981	125,327	160,209	220,169	220,003	418	5,891	102,151	405	8,802	252	8,077	

21. **March 31, 1863**²⁹³: The number of men composing the Army of the Potomac, MG Hooker, commanding, headquarters near Falmouth VA:

Command	Present for duty		Aggregate present	Aggregate present and absent	Aggregate last return	Pieces of Artillery	Present for duty equipped					
	Officers	Men					Infantry		Cavalry		Artillery	
							Officers	Men	Officers	Men	Officers	Men
General & staff	66	2	68	68	67	0	0	0	0	0	0	0
Det. 6th PA Cavalry, CPT Starr	0	0	0	0	137	0	0	0	0	0	0	0
Provost Guard, BG Patrick	159	2,345	3,082	3,755	3,290	0	130	1,839	2	85	0	0
Reg. Engr. Bn., CPT Reese	2	351	419	468	469	0	2	351	0	0	0	0
Vol. Engr. Bde., BG Benham	28	544	684	2,041	2,050	0	28	544	0	0	0	0
Signal Corps, CPT Cushing	22	77	134	180	191	0	0	0	0	0	0	0
Artillery Reserve, CPT De Russy	53	1,362	1,561	1,745	1,944	58	4	88	0	0	45	1,274
1st Corps, MG Reynolds	972	15,586	20,216	27,011	27,320	52	911	14,270	4	103	27	1,004
2nd Corps, MG Couch	1,013	15,893	20,581	29,268	29,745	48	943	14,833	4	19	21	930
3rd Corps, MG Sickles	1,064	17,591	21,560	28,306	28,577	60	933	16,195	0	0	30	1,156
5th Corps, MG Meade	845	15,786	19,594	25,796	25,990	42	810	14,996	0	0	17	864
6th Corps, MG Sedgewick	1,204	22,384	27,077	33,635	33,798	58	1,155	20,847	3	109	37	1,173
11th Corps, MG Schurz	643	13,224	16,517	20,117	20,300	36	604	12,315	4	32	14	588
12th Corps, MG Slocum	711	12,452	15,466	20,126	20,639	34	688	11,857	0	0	15	595
Cavalry Corps, BG Stoneman	524	11,811	16,046	22,251	22,201	22	0	0	535	9,947	8	472
GRAND TOTAL	7,306	129,408	163,005	214,767	216,718	410	6,208	108,135	552	10,295	214	8,056

22. **April 30, 1863**²⁹⁴: The number of men composing the Army of the Potomac, MG Hooker, commanding:

²⁹³ O.R. Series 1, Volume 25, (Part 2) p.180

²⁹⁴ O.R. Series 1, Volume 25, (Part 2) p.320

Command	Present for duty			Aggregate present	Aggregate present and absent	Present for duty equipped						Number of Guns
	Officers	Men	Aggregate			Infantry		Cavalry		Artillery		
						Officers	Men	Officers	Men	Officers	Men	
General and staff	66	0	66	67	70	0	0	0	0	0	0	
Provost guard	167	2,491	2,658	3,202	3,757	117	1,751	3	92	7	247	10
Engineer Brigade	33	774	807	950	2,476	0	0	0	0	0	0	0
Signal Corps	29	154	183	202	209	0	0	0	0	0	0	0
Guards and orderlies	16	44	60	64	89	0	0	0	0	0	0	0
Artillery Reserve	63	1,547	1,610	1,776	1,992	19	301	0	0	44	1,246	58
First Corps	1,132	15,998	17,130	19,595	26,347	1,054	14,728	2	63	34	1,027	52
Second Corps	1,150	15,686	16,836	19,051	26,975	1,194	14,713	4	5	30	947	48
Third Corps	1,127	17,859	18,986	20,795	27,323	1,077	16,491	0	0	32	1,121	54
Fifth Corps	938	14,982	15,920	18,292	24,342	878	13,989	0	0	27	830	42
Sixth Corps	1,305	22,425	23,730	25,496	32,920	1,245	21,182	4	100	33	1,103	54
Eleventh Corps	702	12,837	13,539	15,412	19,180	626	11,544	5	45	26	731	36
Twelfth Corps	770	12,685	13,455	14,895	18,910	751	12,178	0	0	14	507	28
Cavalry Corps	620	12,778	13,398	17,193	22,038	0	0	556	10,523	11	451	22
GRAND TOTAL	8,118	130,260	138,378	156,990	206,628	6,961	106,877	574	10,828	258	8,210	404

Note²⁹⁵: “Present for duty equipped. The instructions printed on the original return require that under this heading should be given ‘only those who are actually available for the line of battle at the date of the regimental return.’”

23. **May 10, 1863**²⁹⁶: The number of men composing the Army of the Potomac, MG Hooker, commanding:

²⁹⁵ O.R. Series 1, Volume 25, (Part 2) p.320

Command	Present for duty		Aggregate present	Aggregate present and absent	Pieces of Artillery	Present for duty equipped					
	Officers	Men				Infantry		Cavalry		Artillery	
						Officers	Men	Officers	Men	Officers	Men
General and staff	67	0	68	72	0	0	0	0	0	0	0
Provost guard (Patrick)	115	1,624	2,000	2,342	0	69	1,094	0	0	0	0
Engineer Brigade (Benham)	56	1,230	1,485	2,470	0	0	0	0	0	0	0
Aquia Creek defenses (Van Alen)	40	567	668	780	12	28	812	0	0	8	255
Signal Corps (Fisher)	22	97	151	185	0	0	0	0	0	0	0
Guards and Orderlies (Ingalls)	17	46	67	89	0	0	0	2	50	0	0
Artillery Reserve (Tyler)	71	1,662	1,872	2,101	63	19	301	0	4	45	1,357
First Army Corps (Reynolds)	1,089	15,200	18,554	25,680	52	1,005	13,356	2	63	31	1,009
Second Army Corps (Couch)	1,034	13,509	16,834	25,391	48	950	12,404	4	85	24	812
Third Army Corps (Sickles)	851	13,538	16,231	24,996	55	786	12,026	0	0	35	1,202
Fifth Army Corps (Meade)	852	13,452	16,371	22,748	42	819	12,707	0	0	25	821
Sixth Army Corps (Sedgewick)	1,126	17,428	20,440	29,578	54	1,079	15,508	4	113	38	1,102
Eleventh Army Corps (Howard)	605	10,677	12,826	17,411	28	522	9,620	5	50	21	750
Twelfth Army Corps (Slocum)	616	10,073	11,944	17,430	26	609	10,073	0	0	0	0
Cavalry Corps (Stoneman)	620	12,778	17,193	22,038	22	0	0	556	10,523	11	451
GRAND TOTAL	7,181	111,881	136,704	193,311	402	5,886	87,901	573	10,888	238	7,759

24. **May 31, 1863**²⁹⁷: The number of men composing the Army of the Potomac, MG Hooker, commanding:

Command	Present for duty		Aggregate present	Aggregate present and absent	Aggregate last rep	Pieces of Artillery
	Officers	Men				
General and staff	55	0	55	62	66	
Provost guard (Patrick)	111	1,704	2,041	2,624	1,415	
Engineer Brigade (Benham)	61	1,584	1,954	2,459	2,463	
Signal Corps (Fisher)	5	28	38	49	183	
Guards and Orderlies (Ingalls)	2	42	51	75	91	
Artillery Reserve (Tyler)	146	3,752	4,227	4,770	4,738	151
First Army Corps (Reynolds)	871	12,651	15,987	21,585	23,727	28
Second Army Corps (Couch)	838	11,715	14,858	22,284	22,343	24
Third Army Corps (Sickles)	738	12,588	15,196	23,022	23,039	30
Fifth Army Corps (Meade)	607	9,844	12,358	16,810	17,345	25
Sixth Army Corps (Sedgewick)	912	16,274	19,648	26,973	27,895	50
Eleventh Army Corps (Howard)	496	10,459	12,931	17,601	17,436	24
Twelfth Army Corps (Slocum)	436	8,261	10,274	14,698	14,731	20
Cavalry Corps (Pleasanton)	566	9,626	12,162	20,417	21,572	22
Batteries at Aquia Creek	7	240	267	286	0	12
GRAND TOTAL	5,851	98,768	122,047	173,715	177,044	386

25. **First Week of July, 1863**²⁹⁸: The number of men composing the Army of the Potomac, MG Meade, commanding:

²⁹⁷ Battles and Leaders of the Civil War. Volume 3, NY NY, Thomas Yoseloff Inc. p. 440.

²⁹⁸ O.R. Series 1, Volume 27, part 3 p.806.

26. **July 31, 1863**²⁹⁹: The number of men composing the Army of the Potomac, MG Meade, commanding:

Command	Present for duty		Aggregate present	Present for duty equipped						Pieces of Artillery
	Officers	Men		Infantry		Cavalry		Artillery		
				Officers	Men	Officers	Men	Officers	Men	
General headquarters	40	0	40	0	0	0	0	0	0	0
Provost guard (Patrick)	102	1,693	2,003	0	0	0	0	0	0	0
Engineer Brigade (Benham)	23	320	452	0	0	0	0	0	0	0
Engineer Battalion (Mendell)	7	310	379	0	0	0	0	0	0	0
Guards and orderlies (Ingalls)	2	45	57	0	0	0	0	0	0	0
Signal Corps (Norton)	6	0	6	0	0	0	0	0	0	0
First Army Corps (Newton)	530	6,910	9,032	472	6,128	0	0	16	515	23
Second Army Corps (Hays)	525	7,151	8,933	516	6,426	0	60	13	527	22
Third Army Corps (French)	764	12,731	15,129	716	10,761	0	0	27	929	48
Fifth Army Corps (Sykes)	603	9,016	11,430	585	8,041	0	0	10	257	28
Sixth Army Corps (Sedgewick)	867	12,833	15,513	825	11,787	5	110	21	755	42
Eleventh Army Corps (Howard)	542	9,711	11,857	497	8,793	4	37	9	548	25
Twelfth Army Corps (Slocum)	445	7,328	8,950	412	6,925	0	0	12	870	20
Cavalry Corps (Pleasanton)	598	10,715	13,934	0	0	508	8,138	20	754	48
Artillery Reserve (Tyler)	91	2,160	2,437	18	265	2	47	60	1,750	80
GRAND TOTAL	5,145	80,923	100,152	4,041	59,126	519	8,392	188	6,905	336

26. **August, 1863**³⁰⁰: The number of men composing the Army of the Potomac, MG Meade, commanding:

²⁹⁹ O.R. Series 1, Volume 27, part 3 p.806.

³⁰⁰ O.R. Series 1, Volume 29, Part 2 p.118.

Command	Present for duty		Aggregate present	Aggregate present and absent	Pieces of artillery	
	Officers	Men			Heavy	Field
General headquarters	133	1,324	1,672	2,177		
Engineer troops	44	1,172	1,494	1,790		
Artillery Reserve	106	2,622	2,984	3,627	14	74
First Army Corps	506	7,854	9,985	18,323		24
Second Army Corps	427	7,171	8,554	20,247		26
Third Army Corps	595	10,578	13,198	22,289		42
Fifth Army Corps	496	7,724	9,461	14,976		28
Sixth Army Corps	686	10,965	13,156	21,759		42
Eleventh Army Corps	282	4,853	6,509	11,936		25
Twelfth Army Corps	306	6,125	7,132	14,812		20
Cavalry Corps	616	11,634	14,905	24,984		62
GRAND TOTAL	4,197	72,022	89,050	156,920	14	343

27. **August 10, 1863**³⁰¹: The number of men composing the Army of the Potomac, MG Meade, commanding:

Command	Present for duty		Aggregate present	Present for duty equipped						Pieces of Artillery	Aggregate present and absent
	Officers	Men		Infantry		Cavalry		Artillery			
				Officers	Men	Officers	Men	Officers	Men		
General and staff	41	0	41	0	0	0	0	0	0	0	62
Provost Guard (Patrick)	72	971	1,192	0	0	0	0	0	0	0	1,914
Engineer Brigade (Benham)	36	803	1,021	0	0	0	0	0	0	0	1,389
Engineer Battalion (Mendell)	7	308	382	0	0	0	0	0	0	0	436
Guards and orderlies (Ingalls)	2	48	54	0	0	0	0	0	0	0	75
Artillery Reserve (Tyler)	76	1,718	1,934	15	265	2	49	50	1,400	80	2,985
Signal Corps (Norton)	6	0	6	0	0	0	0	0	0	0	6
First Army Corps (Newton)	483	6,380	8,552	453	5,823	2	48	16	509	23	17,451
Second Army Corps (Hays)	469	6,868	8,728	416	5,629	0	0	14	514	22	19,627
Third Army Corps (French)	655	11,546	14,105	591	9,013	0	0	23	741	42	25,939
Fifth Army Corps (Sykes)	605	9,148	11,478	503	8,322	0	0	15	436	28	19,692
Sixth Army Corps (Sedgwick)	791	11,721	14,387	739	10,715	5	110	26	771	42	20,866
Eleventh Army Corps (Howard)	349	5,697	7,504	821	4,952	5	40	8	541	25	12,716
Twelfth Army Corps (Slocum)	404	7,125	8,887	369	6,735	0	0	11	361	20	14,477
Cavalry Corps (Pleasanton)	535	8,979	12,251	3	0	470	8,808	1	0	30	25,694
GRAND TOTAL	4,531	71,312	90,522	3,910	51,454	484	9,055	164	5,273	312	163,329

28. **December, 1863**³⁰²: The number of men composing the Army of the Potomac, MG Meade, commanding:

³⁰¹ O.R. Series 1, Volume 29, Part 2 p.28.

³⁰² O.R. Series 1, Volume 29, Part 2 p.598.

Command	Present for duty		Aggregate present	Aggregate present and absent	Pieces of artillery	
	Officers	Men			Heavy	Field
General headquarters	71	743	947	1,970	0	
Engineer troops	37	1,041	1,358	1,843	0	
Artillery Reserve	85	2,649	3,015	3,501	8	78
First Army Corps	516	11,081	13,443	21,161	0	28
Second Army Corps	587	10,505	12,382	22,340	0	31
Third Army Corps	655	14,688	17,474	26,294	0	46
Fifth Army Corps	582	11,086	12,914	19,618	0	32
Sixth Army Corps	676	13,429	16,530	23,558	0	46
Cavalry Corps	494	12,889	16,068	25,923	0	30
GRAND TOTAL	3,703	78,111	94,131	146,208	8	291

29. January, 1864³⁰³: The number of men composing the Army of the Potomac, MG Meade, commanding:

³⁰³ O.R. Series 1, Volume 33, p.462.

Command	Present for duty		Aggregate present	Aggregate present and absent	Pieces of artillery	
	Officers	Men			Heavy	Field
General headquarters	93	954	1,230	2,387	0	0
Engineer troops	29	911	1,279	1,877	0	0
Artillery Reserve	60	1,884	2,167	2,696	8	44
Horse Artillery	26	1,222	1,408	1,637	0	60
First Army Corps	470	10,519	12,857	20,361	0	28
Second Army Corps	521	9,906	11,719	22,183	0	31
Third Army Corps	616	14,025	16,924	28,064	0	46
Fifth Army Corps	495	9,477	11,125	19,408	0	32
Sixth Army Corps	435	10,138	12,632	24,015	0	40
Cavalry Corps	428	10,801	13,960	25,831	0	0
GRAND TOTAL	3,173	69,837	85,301	148,459	8	281

30. March, 1864³⁰⁴: The number of men composing the Army of the Potomac, MG Meade, commanding:

³⁰⁴ O.R. Series 1, Volume 33, p.777.

Command	Present for duty		Aggregate present	Aggregate present and absent	Pieces of artillery	
	Officers	Men			Heavy	Field
General headquarters	130	1,486	2,040	2,901	0	0
Engineer troops	39	2,092	2,456	2,928	0	0
Artillery Reserve	132	4,227	4,868	5,775	8	54
Horse Artillery	29	1,033	1,236	1,594	0	60
Second Army Corps	1,015	22,862	26,507	43,035	0	26
Fifth Army Corps	1,065	21,812	28,650	40,025	0	64
Sixth Army Corps	974	22,546	27,883	33,823	0	52
Cavalry Corps	477	13,249	17,181	28,458	0	0
GRAND TOTAL	3,861	89,307	110,821	158,539	8	256

31. April 30, 1864³⁰⁵: The number of men composing the Army of the Potomac, MG Meade, commanding:

Command	Present for duty		Aggregate present	Aggregate present and absent	Pieces of Field Artillery	Present for duty equipped								
	Officers	Men				Infantry		Cavalry		Artillery		Total		
						Officers	Men	Officers	Men	Officers	Men	Officers	Men	
Commanding general and staff	43	0	43	46		0	0	0	0	0	0	0	0	0
Provost guard (Patrick)	69	1,057	1,513	2,264		52	737	18	311	0	0	70	1,048	
Engineer Brigade (Benham)	45	1,917	2,413	2,557		0	0	0	0	0	0	0	0	
Engineer Battalion (Mendell)	5	309	354	428		0	0	0	0	0	0	0	0	
Guards and orderlies (Ingalls)	2	59	91	98		0	0	2	59	0	0	2	59	
Artillery (Hunt)	141	4,446	5,722	6,475	92	59	2,391	0	0	64	2,052	123	4,443	
Signal Corps (Fisher)	14	207	233	296	0	0	0	0	0	0	0	0	0	
Second Army Corps (Hancock)	1,345	27,330	35,474	46,584	54	1,276	25,405	0	0	53	1,602	1,329	27,007	
Fifth Army Corps (Warren)	1,267	24,740	32,341	41,675	48	1,227	22,898	0	0	45	1,525	1,272	24,423	
Sixth Army Corps (Sedgewick)	1,052	22,986	28,449	35,302	48	1,003	21,581	2	48	43	1,536	1,048	23,165	
Cavalry Corps (Sheridan)(15,036 serviceable horses)	616	15,209	20,838	30,032	32	0	0	585	11,839	21	839	606	12,678	
GRAND TOTAL	4,599	98,260	127,471	165,757	274	3,617	73,012	607	12,257	226	7,554	4,450	92,823	

³⁰⁵ O.R. Series 1, Volume 36, part 1, p.198.

32. **May 31, 1864**¹: The number of men composing the Army of the Potomac, MG Meade, commanding:

Command	Present for duty		Aggregate present	Aggregate present and absent	Pieces of artillery	
	Officers	Men			Heavy	Field
General headquarters	53	0	53	53	0	0
Provost guard (Patrick)	79	1,203	1,553	2,279	0	0
Engineer Brigade (Benham)	46	1,809	2,122	2,604	0	0
Engineer Battalion (Mendell)	6	321	371	432	0	0
Artillery (Hunt)	29	586	695	812	0	30
Guards and orderlies	3	56	88	96	0	0
Signal Corps (Fisher)	15	211	238	284	0	48
Second Army Corps (Hancock)	1,292	25,688	31,153	53,831	0	48
Fifth Army Corps (Warren)	878	17,355	22,887	38,541	0	48
Sixth Army Corps (Wright)	961	21,635	26,830	38,069	0	46
Ninth Army Corps (Burnside)	883	19,047	23,071	35,408	0	22
Cavalry Corps (Sheridan)	674	14,592	20,559	31,209	0	0
GRAND TOTAL	4,919	102,503	129,620	203,618	0	242

33. **June, 1864**²: The number of men composing the Army of the Potomac, MG Meade, commanding:

¹ O.R. Series 1, Volume 36, part 1, p.426.

² O.R. Series 1, Volume 40, part 2, p.542.

Command	Present for duty		Aggregate present	Aggregate present and absent	Pieces of artillery	
	Officers	Men			Heavy	Field
General headquarters	55	0	55	57	0	
Provost guard (Patrick)	85	1,214	1,670	2,324	0	
Engineer Brigade (Benham)	45	1,801	2,149	2,611	0	
Engineer Battalion (Mendell)	5	306	367	424	0	
Artillery (Hunt)	5	0	5	5	0	
Guards and orderlies	3	56	88	28	0	
Signal Corps (Fisher)	16	196	223	262	0	
Second Army Corps (Hancock)	888	16,313	22,613	49,658	0	56
Fifth Army Corps (Warren)	869	17,078	23,234	40,523	0	54
Sixth Army Corps (Wright)	797	17,514	23,014	35,317	0	48
Ninth Army Corps (Burnside)	671	15,343	19,663	35,896	0	46
Cavalry Corps (Sheridan)	630	12,720	19,397	32,625	0	24
GRAND TOTAL	4,069	82,541	112,478	199,730	0	228

34. **July, 1864¹**: The number of men composing the Army of the Potomac, MG Meade, commanding:

¹ O.R. Series 1, Volume 40, part 3, p.728.

Command	Present for duty		Aggregate present	Aggregate present and absent	Pieces of artillery	
	Officers	Men			Heavy	Field
General headquarters	55	0	55	58	0	0
Provost guard (Patrick)	58	895	1,343	1,872	0	0
Engineer Brigade (Benham)	43	1,719	2,180	2,586	0	0
Engineer Battalion (Mendell)	7	282	351	424	0	0
Artillery (Hunt)	66	1,007	1,838	2,950	0	0
Guards and orderlies (Ingalls)	3	89	85	95	0	0
Signal Corps (Fisher)	13	186	210	251	0	0
Second Army Corps (Hancock)	876	13,981	20,950	46,377	0	58
Fifth Army Corps (Warren)	882	15,882	22,320	38,791	0	54
Ninth Army Corps (Burnside)	499	10,741	16,872	34,689	0	52
First Cavalry Division (Torbert)	213	4,074	5,639	10,150	0	0
Second Cavalry Division (Gregg)	182	4,033	6,766	11,325	0	0
Third Cavalry Division (Wilson)	151	2,458	4,035	8,967	0	0
Horse Artillery Brigade (Robertson)	25	544	654	905	0	27
GRAND TOTAL	3,073	55,891	83,298	159,440	0	191

35. August, 1864¹: The number of men composing the Army of the Potomac, MG Meade, commanding:

¹ O.R. Series 1, Volume 42, part 2, p.611.

Command	Present for duty		Aggregate present	Aggregate present and absent	Pieces of artillery	
	Officers	Men			Heavy	Field
General headquarters	36	0	36	39	0	0
Provost guard (Patrick)	51	870	1,353	1,935	0	0
Engineer Brigade (Benham)	41	1,618	2,124	2,574	0	0
Engineer Battalion (Mendell)	6	298	343	405	0	0
Artillery (Hunt)	38	1,210	1,383	1,675	0	44
Guards and orderlies (Ingalls)	3	80	85	96	0	0
Signal Corps (Fisher)	11	151	183	220	0	0
Second Army Corps (Hancock)	721	12,512	19,233	45,021	0	45
Fifth Army Corps (Warren)	675	11,652	18,418	33,595	0	54
Ninth Army Corps (Parke)	433	10,621	15,461	33,199	0	26
First Cavalry Division (Torbert)	0	0	0	0	0	4
Second Cavalry Division (Gregg)	146	3,695	6,237	11,012	0	0
Third Cavalry Division (Wilson)	0	0	0	0	0	0
Horse Artillery Brigade (Robertson)	0	0	0	0	0	0
GRAND TOTAL	2,161	42,707	64,856	129,771	0	173

36. **September, 1864**¹: The number of men composing the Army of the Potomac, MG Meade, commanding:

¹ O.R. Series 1, Volume 42, part 2, p.1150.

Command	Present for duty		Aggregate present	Aggregate present and absent	Pieces of artillery	
	Officers	Men			Heavy	Field
General headquarters	38	0	38	42	0	0
Provost guard (Patrick)	45	1,001	1,494	2,014	0	0
Engineer Brigade (Benham)	36	2,269	2,813	3,213	0	0
Engineer Battalion (Mendell)	5	241	285	346	0	0
Artillery (Hunt)	39	1,128	1,245	1,540	0	40
Guards and orderlies (Ingalls)	1	45	97	162	0	0
Signal Corps (Fisher)	9	134	163	198	0	0
Second Army Corps (Hancock)	795	16,316	22,725	46,844	0	54
Fifth Army Corps (Warren)	637	13,568	19,080	32,829	0	44
Ninth Army Corps (Parke)	530	14,747	19,551	35,640	0	26
First Cavalry Division (Torbert)	0	0	0	0	0	0
Second Cavalry Division (Gregg)	146	4,524	6,387	11,136	0	4
Third Cavalry Division (Wilson)	0	0	0	0	0	0
Horse Artillery Brigade (Robertson)	0	0	0	0	0	0
GRAND TOTAL	2,281	53,973	73,878	133,964	0	168

37. **October, 1864**¹: The number of men composing the Army of the Potomac, MG Meade, commanding:

¹ O.R. Series 1, Volume 42, part 3, p.457.

Annex F
Order of Battle

Annex G

HINTS

ON

ARMY TRANSPORTATION

BY

N. S. DODGE,
Quartermaster 119th N. Y. V.

ALBANY
CHARLES VAN BENTHUYSEN, PRINTER,
1863

ARMY TRANSPORTATION

Army transportation, on a grand scale, is a new thing in this country. It is not surprising, then, that the system at present in use in our armies is in many respects defective.

No statistics have yet been given to the public, from which data to estimate the comparative cost of our army transportation can be obtained. That is immense, we know: necessarily so, from the wide domain and imperfect roads traversed by our armies; but, far beyond this, from the unwillingness of our soldiers to come down to the actual wants of men in the field in time of war. Who that has seen the trains of army wagons winding through the streets of Washington at all hours of the day and night, during every day of the week, and Sundays most of all; or has witnessed, in the innumerable camps of the grand army of the Potomac, the inevitable parks of vehicles attached to every regiment, brigade, division, corps d'armee and grand division; or has ridden back and forth along that white line, miles in extent, which stretches like the tail of a paper kite in the rear of an army on the march, can wonder at any sum of money that transportation may cost the Government, or at any failure to reach a specified locality or overtake a defeated army within reasonable time?

Major General Halleck, in his report on military operations the last season, says, wisely,

'It is seen from this brief summary of military operations during the last three or four months, that while our soldiers have generally fought with bravery, and gained many important battles, these victories have not produced the usual results. In many instances the defeated foe was not followed from the battle-field; and even where a pursuit was attempted, it almost invariably failed to effect the capture or destruction of any part of the retreating army. This is a matter which requires serious and careful consideration. A victorious army is supposed to be in a condition to pursue its defeated foe with advantage, and, during such pursuit, to do him serious if not fatal injury. This result has usually been attained in other countries. Is there any reason why it should not be expected in this?'

The answer to General Halleck's question is brief. What he, in common with the whole country asks, can never be had until our means of transportation for army luggage is largely reduced and better managed. If we will still persist in requiring for the tent the comforts of the drawing room, and, in the management of our armies, act upon the assumption that our volunteers are a class of soldiers demanding new and more careful treatment under all circumstances; if the cant of the stump about American soldiers is to affect the decisions of councils of war, and public opinion about what the soldier ought to enjoy is to be the measure of what he ought to achieve; and if furthermore the practical wisdom of the shop and the field is never to be introduced into the army, the only result will be that the failures of the past year will be reproduced in the present.

The end desired is the rapid mobility of an army train. The hints suggested towards this end are,

First: Upon the amount of the means of transportation required; and,

Secondly: Upon the management of those means.

First. The amount of means of transportation required by an army.

At the present time, upon the latest orders of the Commander-in-chief of the Army of the Potomac, to every infantry regiment of 1,000 men there are allowed six 4-horse (or its equivalent 6-mule) wagons. Passing by for the moment the important fact that whilst there are very few regiments in the field which retain their maximum strength, there are very many at this time in the Army of the Potomac which fall far below it; and that nevertheless every regiment, whatever may be its numbers, has gotten, keeps, and daily uses its wagons; let us look at the real need which a regiment of 1,000 men, infantry, has for six 4-horse wagons. As the necessity for means

of transportation is greatest when an army is moving, we will take the most frequent case, of a five days' march, on which the men carry three days' cooked rations, and the wagons two uncooked.

The way in which the six wagons are employed is usually as follows, viz:

Wagon number one is put at the disposal of the Surgeon, to haul medical stores.

Wagon number two takes the three wall tents allowed by regulation, and the personal luggage of the field and staff officers.

Wagon number three takes the personal luggage of the line officers.

Wagon number four, the kettles and pans of the ten companies.

Wagons number five and six, the commissary stores for the march.

Wagon number one is put at the disposal of the Surgeon of the regiment. This is done by special orders. It is supposed to be packed with surgical instruments, and medical and hospital stores. A Government wagon, drawn by four horses, over good roads, ought to carry 2,800 pounds avoirdupois, and make an average distance of two and a half miles an hour. But suppose the weight put down to 2,000 pounds, a weight considerably less than is usually drawn by the wagon put at the disposal of the Surgeon, will any member of the faculty kindly explain of what it is made up? Not of sick men, for they are either transported in the ambulances or left behind in the hospital; nor of the knapsacks of invalids, for to carry these on the hospital wagon is expressly forbidden; nor of the stretchers, for these are fastened by the side of the ambulances. The surgical instruments, splints, bandages, etc., the medicine chest and medicine boxes, and the hospital comforts, all that are really needed on a march made, it must be remembered, by men in health, do not exceed in weight 125 pounds; to which, if the hospital tent, weighing less than 185 pounds, be added, the gross weight of surgical, medical and hospital supplies for an infantry regiment of 1,000 men, required during a march or on a field of battle, does not reach 320 pounds. The hospital mess chest is excluded as unnecessary. The blankets clothing and rations of stewards and nurses, detailed as these men are from the ranks, should be carried by themselves in knapsacks and the cooking utensils by the hospital cooks. The personal baggage of the Surgeons, as members of the staff, should be carried by Wagon number two, where it can be subjected to the same rules as to weight and measurement as that of the others. These articles, and whatever may be contraband, being removed, and the requisite medical and surgical stores divided equally between the two 2-horse ambulances, also allowed to each regiment of 1,000 men, and ample room and power to carry them; then Wagon number one, which only a recent order, and one that must have been issued under misapprehension of the necessities of the case, assigned to the Medical Department, is dispensed with, and thus one-sixth of the means of transportation used by a regiment is saved.

Wagon number two, in which, besides the personal baggage of the field and staff officers and the tents, the regimental books and papers are carried, cannot well be reduced in the amount of gross weight, say 2,200 pounds, which it conveys.

Wagon number three is not more than sufficient to carry the personal luggage of the thirty line officers of a full regiment, even when reduced to the minimum weight allowed to each officer.

Wagon number four carries the Companies' kettles and pans. The cooks from each company, from three to five in number, carry, or need to carry, no muskets, cartridge boxes or ammunition. Hence why they should ever have been relieved of transporting such cooking utensils of their respective companies as are necessary in the field, it is hard to see. Every soldier, with his canteen and tin cup, has the means of making coffee whenever there is a halt;

which, with the contents of his haversack, renders him independent of the cook. At night, two kettles for procuring water, two for cooking, and four stew-pans are sufficient for all the needs of so many of the 100 men as do not prefer to cook for themselves (more than one half invariably do this); and these together will weigh less than two muskets, belts and filled cartridge boxes. As a proof that the reduction in number of cooking utensils carried on a march would be considered no hardship by the men, it may be stated, that on the march of the 11th Corps of the Army of the Potomac from Centerville to Falmouth and back to Stafford Court House, the writer frequently noticed not only that the kettles and pans were not taken at night from the wagon, but they were often left behind; a thing hardly likely to have happened, had there been pressing need for their use. If then, without suffering to the soldiers or unusual burden to the cooks, Wagon number four can be dispensed with, another sixth, or one full third, of the means of transportation allowed to a full regiment of infantry is saved.

Wagons number five and six are used to haul commissary stores and forage; in other words, the two days' rations for the men, and the five days' forage for the cattle. Practically each teamster, for convenience, takes his own forage, leaving only commissary stores and forage for two teams in these two wagons. The full ration is as follows, viz:

Hard bread.....	1 pound
Salt pork.....	$\frac{3}{4}$ pound
Beans.....	64/100 gills
Rice.....	1-6/100 ounces
Coffee.....	1-6/100 ounces
Sugar.....	2-4/100 ounces
Vinegar.....	32/100 gill
Candles.....	16/100 ounces
Soap.....	64/100 ounces
Salt.....	14/100 gills

together with fresh potatoes, desiccated vegetables and onions when procurable. Twenty-two ounces of soft bread in place of the one pound of the one pound of hard biscuit, and salt beef or bacon in place of salt pork are sometimes substituted. On a march, the men invariably refuse to carry any part of their rations besides pork and bread, coffee and sugar; knowing that these are ample for all their needs. There is no exception to this: beans, rice and potatoes they will not take; the two wagons, on the contrary, take everything. Suppose, then, that the Government, taking the hint from the soldier who ought to be the best judge, should, on a five days' march, transport only the ration of pork and bread, sugar and coffee, and would thus save one half or more of the weight, is there any hardship to the soldier? The truth may as well be told, that upon marches there is a hundredfold more beans, rice and vinegar abandoned than of anything else; and this, though rarely reported, is perfectly well known to every regimental quartermaster. Let it then be understood, and an order issued to the effect, that upon every march the wagons are to carry only pork and bread, sugar and coffee, with a little salt; and another wagon is dispensed with. We have thus three wagons made to answer all the purposes of transportation required in an infantry regiment of 1,000 men.

Mention has already been made of the terms of the General Order, reducing the number of wagons allowed to each regiment of 1,000 men to six; and it has been stated that in practice the order was construed so as to give every regiment, irrespective of its force, the same number. Of this fact (it is not known to the writer that there is a solitary exception), there is no doubt; nor is there any of the corresponding fact, that very few regiments retain anything like that number

of men. Had there been, at the time it was issued, a judicious enforcement of the true meaning of that General Order, there can be no doubt that it would have reduced the 54,000 animals stated by General Halleck to be in use in the Army of the Potomac and among the troops near Washington, by a very large percentage. For wise purposes, the exact numbers in this Army are not allowed to be publicly stated; but if there were now a General Order issued, stating the ration in which the reduction of wagons allowed to each full regiment should follow its reduced numbers, and it were rigidly enforced in every brigade, a long step would be taken in the right direction.

Second. The management of an army train.

The train of a Corps d'Armee consists of the ambulances and wagons for the headquarters of the corps; of the ambulances and wagons for the headquarters of each division (two or three of which compose a Corps d'Armee); of the ambulances and wagons for the headquarters of each brigade (four or five of which compose a division); of the ambulances and wagons of each regiment and battery; of the ambulances and wagons of the medical department; of the small arms ammunition wagons; of the wagons to haul forage for the ambulance cattle; of the wagons for the reserve artillery ammunition; of the wagons for the Signal corps, and of the wagons for the supply train; the number may be put at 500, more or less. The order of march may be all together in the rear of the Corps d'Armee, or it may be so divided that each division train follows its own division, or subdivided so that each brigade train follows its own brigade. The ambulances have the advance, and next following are the wagons belonging to the various headquarters, those of the Corps d'Armee preceding those of the divisions, and those of the brigades. The regimental wagons and supply wagons come last. The wagons are drawn by four horses or by six mules, and the ambulances by two horses or two mules: in the former case, the teamster riding the near wheel animal, and guiding the others by voice, whip, and check-line, assisted by a man on foot to urge forward the leaders in ascending and to lock the wheels in descending hills; in the latter, driving the animals from the box. Accompanying each six teams of the regiment is the regimental quartermaster and his sergeant, both mounted; and accompanying the teams of the brigade is the brigade quartermaster and the wagon-master, both also mounted. Mounted wagon-masters, and perhaps other officers, accompany the ambulances. A pioneer corps attends the train, and a guard, specially detailed for the purpose, both accompanies it and follows it. In the midst of the train, as one watches it winding over the hills and on the edge of the pine forests, stretching along the road for miles appear now and then the 'spring wagons for contingent purposes' – so the order reads – allowed to generals and their staffs, and the sutlers' leather-covered carts, conspicuous as the only black spots in the long thread of white.

The train starts in the morning at a given hour: on a long day's march it is usually early, sometimes before light. From the various bivouacs, as the regiments wheel into the line of march, the teams emerge and stand under charge of their quartermasters until their place in the line comes. If an ambulance is too late to fall in, or a staff wagon is not ready, the whole train is delayed. At * * * , on the march to * * * , in the grey frosty morn, with the roads enough stiffened to bear up the wheels, and with teamsters impatient to improve them, the whole train was delayed nearly two hours because a belated staff wagon failed to be ready. It is not unusual, in the course of the day, to see 200 teams and more standing still, because an ambulance, most likely with a drunken driver, has stuck in the mud. The Archbishop of Canterbury could not be more jealous of his primacy, than is the conductor of what pertains to the medical staff of priority on all occasions; so that for a wagon, under any circumstances to precede an ambulance would

be stoutly resisted. This trait, it must be allowed, however, is shared very much in common. Every teamster is tenacious of his place in the line, even though his team is unable to keep up; and so seldom is it that other teams are ordered to pass by him, that gaps, sometimes of half a mile in length, occur in the line. The delays arising from this cause are great. Again, in bivouacking for the night, when the regiments have taken their various positions along the fields and hill-sides, sometimes before nightfall, it is often ear midnight before the teams come up; and in case rations are due, the men have to go supperless to sleep.

Why this last mentioned delay should so uniformly occur, it is not difficult to see. The miles of marching troops, when halted for the night, double up within the length of one or two furlongs; the fields and hills over which fires are instantly lighted can be reached by the wagons only from some lateral point on the road, where there are not ditches to obstruct a passage; the location of the regiment, which each six wagons desire to reach, is unknown until guides are sent back, a thing rarely done; the rearward teamsters, becoming impatient at the delay of those in front, jam forward their wagons within the narrow road; the air resounds with imprecations; the difficulties continually increase, until utter confusion is the result; and this, by a judicious system might be wholly avoided, is allowed to occur every night of a march.

Another and perhaps the greatest hindrance to the mobility of an army train, is the method of watering the animals. Each wagon and every ambulance is furnished with its bucket, hanging beneath, and yet nineteen teamsters out of every twenty insist upon allowing their animals to drink in the stream they are crossing. It will be easily seen that when by an imperative rule, absolutely enforced, six teams on each side of the stream, twelve teams in all might be watered by the driver and his assistant, much valuable time is lost by the present method. It is hardly too much to estimate its average, day after day at an hour and a half a day.

Again, in our Volunteer Army, the Pioneer Corps is not what it ought to be on the march. The Revised Regulations for the Army defines the duties of pioneers to be, 'to mend roads, remove obstacles and erect defenses.' For this purpose they should be both in advance of the train, and at sort intervals along its line. They should also be practically, during the march, not an independent command, but part and parcel of the train. If a bridge is to be thrown across a stream, or a causeway repaired, or a new road opened – all which imply skill – the Pioneer Corps is at hand and ready to work with a will; but to mend an impassible gully, or fill up a slough of mud, or remove rocks and trees from a blocked road, work much more frequently required and quite as necessary to the mobility of a train, they are rarely to be found.

With all these hinderances to encounter, our armies, on a five days' march make from ten to fifteen miles daily in the winter, and from fourteen to seventeen miles in the summer. But for the delay of the train, there is no doubt that the average daily distance attained would be six miles more. The calculation is equally accurate when applied to forced marches; for though twenty and even twenty-two miles may be made for each of three consecutive days, respect must at last be had to the arrival of the wagons. How man millions of money six miles added to the present daily advance of our armies would save to the Treasury; how many victories it might win on the battlefield how many retreating armies of the enemy it might overtake and capture, or seriously damage, let members of the Cabinet and our Commanding Generals decide.

How, then, should an army train be managed to overcome these delays? It is replied,

First. Over every Army train of wagons and ambulances, pioneers and guard, quartermasters and sergeants, wagon-masters and teamsters, all considered during the march as one separate body, distinct from the Army to which it belongs, and which is preceding it, governed by its own laws and held to its own responsibility, LET THERE BE ONE HEAD, no matter

by what name it is called, who shall by himself or deputy be always present, and to whom shall be entrusted for the time being a power as absolute as that possessed by the Major General commanding. If it be once known in an Army train that such a Head, instead of being miles in advance with the Army, is actually present, to issue orders, listen to appeals, and make and enforce decisions on the spot, one great step will be taken in the right direction.

Secondly. Whatever subordinates the Head of the train may appoint to assist and support him – and they should under no circumstances be brigade or regimental quartermasters who are interested parties in the teams under their regular commands – to every twelve vehicles, whether ambulances or wagons, there should be a mounted Conductor, receiving instructions from and reporting directly to the Head, entrusted with ample power, always present, and held responsible for the men and teams under him.

Thirdly. No teamster should ever be permitted to water his animals in a stream. The twelve teams, under one conductor, half on one side of the stream and half on the other, should always be watered at once by bringing the water in buckets.

Fourthly. No ambulance or wagon should be allowed to stop the train *en-route*: if unable to proceed or keep up, it should instantly make way for those behind.

Fifthly. Immediately on bivouacking for the night, each Commander of a regiment or battery should send back an orderly to conduct the teams belonging to such battery or regiment to its place of encampment.

Sixthly. In starting upon the march in the morning, if any teams whether belonging to corps, division, brigade, or regimental staffs, or to any other portion of the train, are behind time, they should lose their places in the train.

It will be apparent that all these suggestions resolve themselves into the first. Give to every Army train a Head: this done, the details necessary to increase in an eminent degree the speed and effectiveness of our means of Army transportation will follow as a matter of course.

Annex H

The Quartermaster Guide

Colonel Theodore S. Case, A. Q. M.
Head Quarters, State of Missouri
Office of the Quartermaster General
St. Louis, December 22, 1865

Colonel: Rail Road, New York

I transmit herewith a copy of the "Quartermaster's Guide" of which I beg your acceptance.

I should be under obligation to you for any suggestion for its improvement which may occur to you that I may avail of them in any future edition that I may publish.

I should also feel greatly indebted [to] you for a list of the Quartermasters serving in your Department with their post office addresses.

Very respectfully Colonel

Your Obedient Servant

THEO. S. CASE

COL. Quartermaster

THE
QUARTERMASTER'S GUIDE

BEING A SUMMARY OF THOSE PORTIONS OF

THE ARMY REGULATIONS

OF 1863

AND

GENERAL ORDERS FROM THE WAR DEPARTMENT

FROM MAY 1, 1861, TO APRIL 10, 1865

WHICH AFFECT THE

QUARTERMASTER'S DEPARTMENT

WITH

FULL INSTRUCTIONS FOR MAKING RETURNS, &C.; ALSO ALL GENERAL ORDERS
FROM THE Q. M. GENERAL'S OFFICE TO APRIL 10, 1865.

By Col. THEO. S. CASE, A. Q. M.,

Quartermaster General of Missouri, and late Chief Q. M/ District Cent'l Missouri

SAINT LOUIS
PUBLISHED BY P.M. PINCKARD, 80 PINE STREET
1865

PREFACE

This little work, written at intervals, in the leisure moments of an extensive business, is only intended as a book of “ready reference,” and as such the writer lays little claim to originality, either in design or execution. He, however, is satisfied that that it will be found a great convenience to all, and a decided help to many of the younger officers in the army. He has labored diligently to make it as perfect as possible, and believes that it embraces everything in the Revised Army Regulations of 1863, and the General Orders of the War Department, from May, 1861, to March 8, 1865, which in any way affect the service of the Quartermaster’s Department, as well as many useful hints not found in either. To this he has added a complete file of the General Orders from the Quartermaster-General’s Office to March 18, 1865. He has been induced to perform this labor and offer the result to the military public in consequence of his remembrance of the many difficulties he has himself had to encounter from want of experience, inability to procure and preserve copies of General Orders, &c., &c., If it prove to be a success, and meet the approbation of those who read it, the writer will be well satisfied with the result of his labors.

St. Louis, March 21, 1865

TABLE OF CONTENTS

A FULL INDEX WILL BE FOUND AT THE END OF THIS WORK

PART I.

CHAPTER I.

Organization of the Quartermaster's Department

CHAPTER II.

General Duties of Quartermasters

CHAPTER III.

Baggage and Quarters

CHAPTER IV.

Commutation of Quarters and Fuel

CHAPTER V.

Fuel

CHAPTER VI.

Army Transportation: Transportation of Officers, Troops and Baggage –
Water Transportation – Transportation of Supplies – Railroad Transportation
– Management of Wagon Trains – Allowance of Transportation

CHAPTER VII

Mileage and Actual Transportation

CHAPTER VIII

Straw

CHAPTER IX

Forage

TABLE OF CONTENTS

Horses and Public Animals	CHAPTER X
Stationary and Printing	CHAPTER XI
Expenses of Courts-Martial, Military Commissions, &c.	CHAPTER XII
Apprehension of Deserters	CHAPTER XIII
Mortuary Records	CHAPTER XIV
Working Parties	CHAPTER XV
Veterinary Surgeons	CHAPTER XVI
Payment of Postage and Telegraphic Communication	CHAPTER XVII
Clothing, Camp and Garrison Equipage	CHAPTER XVIII
Monthly Money and Property Returns	CHAPTER XIX
Boards of Survey	CHAPTER XX General Instructions
	CHAPTER XXI

TABLE OF CONTENTS

Property to be Condemned

CHAPTER XXII

Contracts

CHAPTER XXIII

Miscellaneous Items

CHAPTER XXIV

Forms for Making Returns

PART II.

General Orders from Quartermaster-General's Office of
1863 and 1864, and to April 10, 1865

PART III.

Additional Items of Value to the 10th April, 1865

APPENDIX.

THE QUARTERMASTER'S GUIDE

PART I.

Chapter I.

ORGANIZATION OF THE QUARTERMASTER'S DEPARTMENT

The Quartermaster's Department is organized as follows:

One Quartermaster-General, with the rank of Brigadier-General in the Regular Army.

Three Assistant Quartermasters-General, with the rank of Colonels in the Regular Army.

Four Deputy Quartermasters-General, with the rank of Lieutenant-Colonels in the Regular Army.

_____ Quartermasters, with the rank of Majors in the Regular Army.

_____ Assistant Quartermasters, with the rank of Captains in the Regular Army.

Six Inspectors of the Quartermaster's Department, with the temporary rank of Colonels.

Ten Senior or Chief Quartermasters, with the temporary rank of Colonels.

One Division Quartermaster to each Division, with the temporary rank of major.

_____ Assistant Quartermasters of Volunteers, with the rank of Captains.

Twelve Military Store-keepers, with the nominal rank of Captains, and pay at the rate of \$1,400 per annum.

One Regimental Quartermaster to every regiment, with rank and pay of First Lieutenant.

Any Captain and Assistant Quartermaster in the Regular Army, who has served continuously for fourteen years as Captain, is thereby entitled to the rank of Major and Quartermaster.¹

Of the Inspectors of the Quartermaster's Department, Senior or Chief Quartermasters and Division Quartermasters above mentioned, two-thirds are by law selected from the Quartermasters of the Volunteer service; and all of these officers return to their lineal rank in the Department when relieved of the duties of their respective positions.

By the provisions of an act of Congress, approved July 4, 1864, the following nine divisions have been established in the office of the Quartermaster General,² to exist during the present Rebellion, and for one year thereafter:

First division, of supply of public animals. Second division, of clothing and equipage. Third division, of ocean and lake transportation. Fourth division, of rail and river transportation. Fifth division, of regular supplies of the Quartermaster's Department. Sixth division, of barracks and quarters. Seventh division, of military trains and incidental allowances. Eighth division, of inspection. Ninth division, of records and correspondence.

¹ Act Congress, Aug. 3^d, 1861

² W.D. G.O., 231, 1864

These divisions are for the purpose of facilitating and simplifying the vast business of the Quartermaster-General's office. The duties of the officers in charge are set forth in General Orders No. 62, Quartermaster General's Office, Dec. 23, 1864. (See Part III.)

The objects of the above organization and division are to ensure the prompt and faithful performance of duty and a systematic operation of the various branches of labor connected with the Department throughout all its ramifications, by holding every officer to an accountability for the execution of the duties imposed upon him; the Regimental Quartermaster being immediately controlled by the Brigade Quartermaster; the Brigade by the Division Quartermaster; the Division by the Department Quartermaster, and the Department Quartermaster by the Quartermaster-General of the Army. All business being thus conducted, checks to irregularities and abuses are imposed which might otherwise acquire serious magnitude and importance before reaching the notice of the Head of Department. With this object in view, superior officers in the department require certain reports and returns to be made to them, as well as all requisitions, estimates, &c., in order that they may be kept apprised of the manner in which their subordinates transact the business entrusted to them, and its extent; also for the purpose of correcting any errors arising from inexperience or want of information.

Chapter II.

GENERAL DUTIES OF QUARTERMASTERS

The first duty of a newly-appointed officer of the Quartermaster's Department, or one just promoted, is to give to the United States a good and sufficient bond,¹ renewable every four years, for the faithful performance of his duties, in such sum as the Secretary of War may direct. The amount of the bond usually required of an Assistant Quartermaster is ten thousand dollars, and this amount is increased with his promotion, or with an increase in the trust reposed in him. The army regulations require that the sureties² to this bond shall be bound jointly and severally for the whole amount of the bond, and each surety shall make an affidavit that he is worth, over and above his liabilities, the amount of the bond, or such sum as he shall specify. The sureties must jointly be worth at least double the amount of the bond, and should state their places of residence, giving town, county, and State in their affidavits, which should be written on the back of the bond; and the competency of the officer before whom the affidavits are made, to administer oaths, certified by proper authority. The Quartermaster himself must state in the body of the bond the town, county and State of which he is a resident.

An approval of a Judge of a Circuit or District Court of the *United States*, upon personal examination of the sureties, or other satisfactory evidence of their sufficiency, is also required. The official signature of the Judge must be certified under seal by the Clerk of the Court. Erasures or interlineations must be noted before signing. The bond requires a Revenue stamp of one dollar, and each certificate a five cent stamp.

¹ Par. 989, Rev. Reg's., 1863.

² Par. 990, Rev. Reg's., 1863.

Having given the bond, the Quartermaster is ready to enter upon the duties of his office, which are manifold and perplexing. Among the most important of these¹ are furnishing quarters and transportation for the army; storage and transportation for all army supplies; army clothing, camp and garrison equipage; the purchase of artillery and cavalry horses and mules; forage, fuel, straw, materials for bedding, stationary, building materials, &c. The Quartermaster also pays such incidental expenses² as the per-diem of extra-duty men; postage and telegraphing on public business; the expenses of courts martial, military commissions and retiring boards; the pursuit and apprehension of deserters; the burial of officers and soldiers. Including cost of registered head-boards; of hired escorts, expresses, interpreters, spies, guides, veterinary surgeons and horse medicines; of supplying posts with water; and generally the proper and authorized expenses of the movements and operations of an army not expressly assigned to any other department.

The baggage trains, ambulances (except in army corps where an ambulance corps exists), and all other *means of transportation*³ continue in the charge of the proper officers of the Quartermaster's Department; and it is their duty to see that all orders and regulations in regard to the kind and amount of baggage and stores to be transported are strictly carried out.

On the march it is the duty of the Quartermaster to select the camping places,⁴ which should always be chosen with reference to their healthy location and convenience of water, fuel, forage, &c.

*In sieges*⁵ the Quartermaster establishes the Hospitals, and furnishes the Medical Department the means of transporting wounded to them.

The Quartermaster makes a *personal report* to the Quartermaster-General and Adjutant-General of the Army,⁶ on the first day of each month, stating the order under which he is serving, giving his Postoffice address, and the duty he has performed since the last report. He also, at any time, reports to the Quartermaster-General, useful information in regard to routes,⁷ means of transportation and of supplies, and should personally attend to the reception and issue of supplies⁸ for his command, and keep himself well informed of the condition of depots, roads and other communications.

All Staff officers *report to their immediate commander*⁹ the state of the supplies, and whatever affects the service under their direction; receive their orders and communicate to them those they receive from their superior in their own Department; and the senior officer of the different Staff Departments serving at Chief Headquarters in the field, makes to the Bureau of his Department at Washington, at the close of the campaign, and at such other times as the Commander in the Field may approve, a full report¹⁰ of the operations of his department, and whatever information to improve its services he may be able to furnish.

¹ Par. 1064, Rev. Reg's., 1863.

² Par. 1103, Rev. Reg's., 1863.

³ Par. 1065, R.R., 1863

⁴ Par. 499, R.R., 1863

⁵ Par. 797, R.R., 1863

⁶ W.D.G.O., 165, 1863, & W.D.G.O., 244, 1863

⁷ Par. 1175, R.R., 1863

⁸ Par. 32, App. B.

⁹ Par. 489, R.R., 1863

¹⁰ Par. 490, R.R., 1863

Chief Quartermasters of Departments and Armies are required to report monthly to the Quartermaster General all the officers to whom money or stores have been furnished, in order that any delinquency in making their returns may be reported to the Paymaster-General and their pay stopped.¹

Disbursing Quartermasters must always pay cash² where practicable, and not open an account.

All orders and circulars from General, Department, Division, or Brigade Headquarters should be fastened together in book form and properly indexed as they are received, and afterward bound in volumes of convenient size.³ The date of receipt of all letters and orders should be endorsed upon them. *Letters* should be numbered⁴ to correspond with a similar index, and filed in regular succession for easy reference.

In transmitting rolls or returns, a *letter of transmittal*⁵ should in all cases accompany them, describing them, and referring to no other object.

In forwarding communications which have been written to them for this purpose, or which require the action of another officer, an *endorsement*⁶ of the forwarding officer's remarks or opinions is sufficient without a letter of transmittal.

Letters on *official subjects* should refer to one subject only;⁷ should be written on letter paper, and should be folded in three folds, parallel to the writing, enclosed in an envelope marked "Official Business," and forwarded through the proper official channels.

In *reviews* the Quartermaster takes his position according to rank;⁸ if he have the grade of a field officer, with the rank of Lieutenant-Colonels or Majors; if below that grade, with the rank of Company officers.

In selecting a camping ground the Quartermaster calls for the camping party, and is accompanied, if necessary, by the engineer, to propose the defenses and communications.⁹ The watering places are examined, and signals placed at those which are dangerous; such work as is necessary to render them accessible is performed by the Quartermaster's men. If the camping party does not precede the command, the Quartermaster will attend to these things as soon as he arrives in camp.

In the camp of an Infantry regiment, the Quartermaster's tent¹⁰ is on the left, twenty paces in rear of Company officer's tent, and twenty-five paces in front of baggage trains. In the camp of a Cavalry regiment, the Quartermaster's position¹¹ is on the right of the Lieutenant Colonel, thirty paces in rear of the Captains' line of tents, and sixty paces in front of the line of baggage and forage.

¹ Q.M.G., G.O. No. 1, 1864.

² Par. 1008, R.R., 1863

³ Par. 87, R.R., 1863

⁴ Par. 88, R.R., 1863

⁵ Par. 453, R.R., 1863

⁶ Par. 454, R.R., 1863

⁷ Par. 455, R.R., 1863

⁸ Par. 367, R.R., 1863

⁹ Par. 502, R.R., 1863

¹⁰ Par. 518, R.R., 1863

¹¹ Par. 534, R.R., 1863

In *battles*, before the action, the Quartermaster, in the absence of an organized ambulance corps, makes all the necessary provision for the transportation of the wounded.¹ He establishes the ambulance depots in the rear, and gives his assistants the necessary instructions for the service of the ambulances, wagons, and other means of removing the wounded.

If the enemy endanger the *depots*, the Quartermaster takes the order of the General to remove the stores or strengthen the guard.²

If any property be *captured*, the Quartermaster collects it,³ except ordnance and munitions of war, and makes returns to Headquarters.

An officer *draws pay* from the date of his acceptance of his appointment,⁴ or from the date of his promotion.

Officers of the Quartermasters' Department, though eligible to command, according to the rank they hold in the army of the United States, can not assume command of troops,⁵ unless put on duty under orders which specifically so direct, by authority of the President.

When an officer of the Quartermasters' Department is *relieved*,⁶ he must turn over to his successor all orders in force at the time, and all public property and funds pertaining to his command or duty, and take duplicate receipts showing the condition of each article.

When an officer in charge of public property is *removed* from the care of it⁷ (by arrest or otherwise), the Commanding officer designates an officer to take charge of it, or takes charge of it himself, until a successor is regularly appointed. The usual course in such cases is for the Commanding officer to order a Board of Survey to take an inventory of the property, which inventory the successor of the officer removed uses in lieu of duplicate invoices.

Before the *resignations* of disbursing officers can be approved,⁸ Commanding Generals must cause all public money and property in their hands to be turned over to some proper officer, and endorse upon the resignation the fact that this has been done, and also report to the chief of the proper Staff Department at Washington. Resignations of volunteer officers are only accepted upon their exhibition of satisfactory evidence of having settled with the Ordnance Department, and that they are not indebted to the United States on account of Ordnance.

An officer *resigning and retiring* from service must also make affidavit to pay his account⁹ and the certificate annexed to it, and state his place of residence, and the date when his resignation or removal takes effect.

On being discharged, the *allowance as travel pay* is calculated by the shortest mail route,¹⁰ and where there is no mail route, by the shortest practicable route.

¹ Par. 735, R.R., 1863

² Par. 739, R.R., 1863

³ Par. 741, R.R., 1863

⁴ Par. 1346, R.R., 1863

⁵ Par. 14, R.R., 1863

⁶ Par. 17, R.R., 1863

⁷ Par. 1038, R.R., 1863

⁸ W.D., G.O. 238, 1863

⁹ Par. 1343, R.R., 1863

¹⁰ Par. 1370, R.R., 1863

All applications of Quartermasters for *changes of stations*,¹ or to be exempt from the operation of orders of assignment to stations, on the score of ill health, are to be taken as confessions of inability to perform official duty on account of physical incapacity, and equivalent to tenders of resignations. The officers concerned will, in ordinary course, be mustered out of service, as in cases of accepted resignations.

When an officer of the Quartermasters' Department is unable, from sickness, death or capture, to perform his duties,² the Chief Quartermaster of the Department, Corps, or Station, will immediately report the facts to the Quartermaster-General's office.

Leaves of absence are considered, unless otherwise specified, as commencing on the day that the officer is relieved from duty at his post.³

An officer becoming sick is entitled to medical treatment in any *Officer's General Hospital*,⁴ at a cost of one dollar per day for himself, and thirty cents per day for an extra attendant, if he have such. Company officers of volunteers while in such Officer's General Hospitals are considered "on detached service without troops.

Chapter III.

BARRACKS AND QUARTERS

Under this head are included the permanent buildings for the use of the Army,⁵ as barracks, quarters, store-houses, offices and stables. These buildings are under the control of and are allotted⁶ by the Quartermaster, subject to the orders of the commanding officer. They must also be kept in good condition by the Quartermaster by *timely* repair, for which purpose he should make and forward to the Quartermaster-General an annual estimate of the of the probable amount and cost of such repairs. If an appropriation for such work be not made by Congress, it must be done by the labor of the troops.⁷

When an officer is ordered to a station on duty, he must, upon arriving, make his requisitions upon the Quartermaster for fuel and quarters,⁸ furnishing him with a copy of the order putting him on duty at that station. If he be in command of troops, his requisition will be for the whole number, designating the number and names of officers of each grade, and the number of non-commissioned officers, of soldiers, servants and laundresses. If there are public quarters at the station, the Quartermaster will assign to the officers and men rooms, and furnish them fuel in accordance with the following table:⁹

¹ W.D., G.O. 258, 1863

² Q.M.G.G.O.23, 1863

³ Par. 176, R.R., 1863

⁴ W.D., G.O. 127, 1864

⁵ Par. 1066, R.R., 1863

⁶ Par. 1067, R.R., 1863

⁷ Par. 1093, R.R., 1863

⁸ Par. 1066, R.R., 1863

⁹ Par. 1068, R.R., 1863

	Rooms			Cords of wood per month	
	As quarters	As kitchen	As office	From May 1 to Sept. 30	From Oct. 1 to April. 30
A Major-General	5	1		1	5
A Brigadier-General or Colonel	4	1		1	4
A Lieutenant-Colonel or Major	3	1		1	3-1/8
A Captain or Chaplain	2	1		3-4	3
Lieutenant	1	1		1/2	2
Military store-keeper	1	1		1/2	2
The General commanding the army			3		3
The commanding officer of a division or department, an assistant or deputy Quartermaster-General, Assistant Commissary General of Subsistence; Assistant Surgeon General, Medical Inspector-General, Medical Inspector, Assistant Judge Advocate-General			2		2
The commanding officer of a regiment or post, Quartermaster, Assistant-Quartermaster or Commissary of Subsistence, Assistant Commissary of Subsistence, and Medical Director			1		1
The Senior Ordnance Officer stationed at the Headquarters of a Military Department			1		1
The Assistant Adjutant General at the Headquarters of the Army, the Assistant Adjutant General, the Medical Director, the Medical Purveyor of a military department, each...			1		1
Officers of the Pay Department			1		1
An Acting Assistant Quartermaster, when approved by the Quartermaster-General			1		1
Wagon and Forage Master, Sergeant-Major, Ordnance Sergeant, Quartermaster-Sergeant, Medical Cadet, Principal Musician and Hospital Steward, each...	1			1/2	1
Each non-commissioned officer, musician, private officer's servant washerwoman, citizen employee in the Quartermaster and Subsistence Department				1-12	1-6
Each necessary fire for the sick in hospital, to be regulated by the Surgeon and commanding officer, <i>not exceeding</i>				1/2	2
Each guard-fire, to be regulated by the commanding officer, <i>not exceeding</i>					3
A commissary or quartermaster's store house, when necessary, <i>not exceeding</i>					1
A regiment or post mess	1				1
To every six non-commissioned officers, musicians; and privates, servants and washerwomen, 225 square feet of room north of 38 deg. N., and 256 square feet south of that latitude.					

The allowance of rooms as quarters for officers may be increased¹ by order of the Commanding Officer, where there is an excess of quarters at the station, and it may be diminished *pro rata* when the number of officers and troops render it necessary. In cases of an increase, the Quartermaster is required to forward a copy of the order of the commanding officer

¹ Par. 1071, R.R., 1863

to the Quartermaster-General, and in that case the commanding officer must apply for authority to hire quarters, to the Department commander, who must report the facts and his own action to the Quartermaster-General.

In allotment of Quarters, an officer shall have choice of the sets of rooms¹ assigned to each quarters by the Quartermaster, according to rank, and may even displace a junior² officer in his first selection, but cannot do so a second time at the same post, unless he be himself displaced by a senior. The commanding officer may interfere with the selection made, so far as to order the Quartermaster to quarter officers convenient to their troops.

At a Chaplain post, a set of rooms will be selected by the Quartermaster for the Chaplain,³ who is not to be disturbed in them, except in case of a general reduction of quarters at the post.

Officers cannot choose different rooms in different sets of quarters⁴ after the sets have been arranged by the Quartermaster and Commanding officer.

When the majority of the officers of a post or regiment unite in a mess, a suitable room may be furnished them,⁵ and also fuel (see table), (which cannot be issued for any other purpose or at any other place), but never to less than three officers, nor to any who live at hotels or boarding-houses. The Quartermaster may also assign any spare buildings in his charge to the sutler,⁶ who must keep in repair, and who does not thus acquire any claim for commutation of quarters or any other allowance.

Furniture for officer's quarters⁷ can be provided when special appropriations are made for the purpose. At posts where neither furniture nor the material for making it can be purchased, the Quartermaster is permitted to sell such materials to officers at cost.

The furniture allowed for each office⁸ consists of two common desks or tables, six common chairs, one pair common and-irons, and shovel and tongs.

Upon allotting quarters for troops, it is the duty of the Quartermaster to make, in connection with the commanding officer, an inspection of all buildings so allotted, and furnish a statement to the Quartermaster-General of the conditions of the buildings, and the furniture and fixtures in each room.⁹ This report is subject to the revision of the commanding officer, and should be made in triplicate, the commander and Quartermaster each retaining one copy.

Similar inspections must be made monthly,¹⁰ and whenever buildings used as quarters for officers and troops are vacated, in order that any damages caused by carelessness or neglect of either, may be assessed, and the amount collected from them.

Damages are to be promptly repaired when the Quartermaster has the means.¹¹

¹ Par. 1076, R.R., 1863

² Par. 1076, R.R., 1863

³ Par. 1070 R.R., 1863

⁴ Par. 1078-9 R.R., 1863

⁵ Par. 1072 R.R., 1863

⁶ Par. 215 R.R., 1863

⁷ Par. 1089 R.R., 1863

⁸ Par. 1088 R.R., 1863

⁹ Par. 1090 R.R., 1863

¹⁰ Par. 1091 R.R., 1863

¹¹ Par. 1091 R.R., 1863

At the end of June, each year, the Quartermaster and Commanding officer are required to inspect the public buildings¹ at the station, and report all the alterations, additions and repairs that have been made during the year, as well as their present capacity and condition; also all alterations, repairs, &c., which will be required during the coming year, with plans and estimates in detail.

A similar inspection must be made of any private buildings² used as quarters, or barracks, barracks, and of lands used for encampments, where the same are located, and a report of the injuries done them, made to the Quarter-master General. By a recent decision of the Quartermaster-General, rent shall not be paid³ for vacant and unoccupied lots used for military purposes during the exigencies of this year.

The benches, tables, bunks, &c., furnished for the soldier's barracks, are not to be removed from them except by the Quartermaster of the Station,⁴ or on order of the Commanding officer, and are not to be removed from the station, except by order of the Quartermaster General. The same rule applies to furniture in Hospitals, which in this report are in charge of the Quartermaster.

For plans and directions for building hospitals, barracks and stables, see General Order No. 17, Quartermaster-General's Office, April 27, 1864, (Part III)

Suitable warehouses and sheds for subsistence stores, and tarpaulins to protect them when exposed to the weather must be provided by the Quartermaster's Department.⁵

Chapter IV.

COMMUTATION OF QUARTERS AND FUEL

When public quarters cannot be furnished to officers at stations without troops⁶, or to enlisted men at General or Department Headquarters, quarters will be commuted at a rate fixed by the Secretary of War, and fuel at the market price delivered.

The following rates of monthly commutation of quarters,⁷ when officers serving without troops, and at posts where there are no public quarters which they can occupy, have been established.

1. At Boston, New York, Philadelphia, Baltimore, Washington City, Charleston, Key West, Mobile and New Orleans, and at all posts and stations in Texas, and in the territories of New Mexico, Oregon, and Washington; \$9 per room.

2. At Detroit, Chicago and St. Louis, and at all places east of the Rocky Mountains, not heretofore enumerated, \$8 per room.

¹ Par. 1092 R.R., 1863

² Par. 1092 R.R., 1863

³ Q.M.G.G.O.8, 1864.

⁴ Par. 1087 R.R., 1863

⁵ Par. 1189 R.R., 1863

⁶ Par. 1080 R.R., 1863

⁷ Par. 1081 R.R., 1863

3. At San Francisco, \$20 per room, and in all other places in California, \$12 per room.

Staff and Acting Staff Officers, such as Chief of Cavalry, &c., at Department or District Headquarters, are regarded as "serving without troops."

An officer temporarily absent on duty¹ is not deprived of his quarters and fuel or commutation thereof; but an officer absent from his appropriate duty for a period exceeding six months,² whether on leave or not, loses his commutation of quarters and fuel, as well as other allowances.

Officers and troops in the field³ are not entitled to a commutation of quarters and fuel.

Chaplains are not entitled to commutation of quarters and fuel.⁴

Officers and enlisted men quartered in structures and tents in possession of the United States, even though confiscated property, are deemed furnished with quarters,⁵ and are not entitled to commutation of quarters and fuel.

No commutation of rooms or fuel is allowed for offices or messes.⁶

Wood is the standard of commutation. Coal is commuted only at stations where wood is exceedingly high and difficult to procure.

Chapter V.

FUEL

The allowance of fuel to officers, soldiers, servants, laundresses and citizen employees (W.D., G.O. 39, 1864), as well as the allowance of space in barracks for enlisted men, servants and laundresses is given in the above table.⁷ At stations between the 39th and 43^d degree of North latitude, the allowance of fuel is increased⁸ one-fourth in November, December, January and February, and at stations North of the 43^d degree, one-third. Merchantable hard wood is the standard,⁹ but at the discretion of the Department Commander, provided the cost be not greater, two chords of pine wood may be issued for fuel in lieu of one cord of oak. Or coal may be issued at the rate of 1,500 lbs. of anthracite, or thirty bushels (2,400 lbs.) of bituminous, to the cord.¹⁰ 128 cubic feet is the cord.

Fuel is to be issued only in the month when due,¹¹ and is public property, whether issued to officers or soldiers. Any surplus, therefore, not consumed¹² at the end of the month, must be

¹ Par. 1082 R.R., 1863

² Par. 1083 R.R., 1863

³ Par. 1084 R.R., 1863

⁴ W.D., G.O. 158, 1864

⁵ W.D., G.O. 208, 1864

⁶ Par. 1080 R.R., 1863

⁷ Par. 1068 R.R., 1863

⁸ Par. 1074 R.R., 1863

⁹ Pars. 1068 and R.R., 1863

¹⁰ Par. 1068 R.R., 1863

¹¹ Par. 1075 R.R., 1863

¹² Par. 1073 R.R., 1863

turned over to the Quartermaster and taken up on his property return. The fuel issued to troops, and not actually consumed in quarters, may be used in baking their bread.

Chapter VI.

ARMY TRANSPORTATION

This term applies to every variety of means of moving troops and supplies, including transports, railroads, stage coaches, wagons, ambulances, horses, mules and oxen, which, together with harness wagon timbers, jackscrews, water buckets, wagon sheets, pack saddles, &c., are classed under the general head of "Means of Transportation".

TRANSPORTATION OF OFFICERS, TROOPS AND BAGGAGE

When troops are to be transported, or officers travel with escorts or stores, the means of transportation are furnished for the whole command.¹ Proper orders in the case and an exact return of the command, including officers' servants and company women, are to be furnished to the Quartermaster who is to furnish the transportation.

Where officers' horses are to be transported, it must be authorized in the order for the movement; and when officers ordered, without troops, from one Department to another, apply for transportation at public expense for their authorized horses,² they must accompany the application with a certificate that the horses for which transportation is asked are their private property, purchased at a distance from the seat of war, and that they have never been the property of the United States. Without such certificate no such application for transportation of horses is to be considered.

Orders for transportation of officers' horses traveling without troops are granted only in special cases,³ and where the public service seems to require or justify them; but for officers transferred from one Department to another, at their own request, such transportation cannot be allowed.⁴

The baggage to be transported is limited⁵ to Camp and Garrison equipage and officers baggage, which latter must not exceed (mess chest and personal effects included) the following rates:

	In-the field	Changing stations
General officers.....	125 pounds	1,000 pounds
Field officers.....	100 “	800 “
Captains.....	80 “	700 “
Subalterns.....	80 “	600 “

¹ Par. 1096, R.R., 1863

² Par. 1096, R.R., 1863

³ W.D., G.O. 171, 1863

⁴ Par. 1117, R.R., 1863

⁵ Par. 1098, R.R., 1863

Also, the Regimental and Company desks, the necessary books, and papers, and instruments of Staff Officers, and the medical chest of Medical officers.¹

This amount may be reduced by the Commanding officer when necessary, and increased on transports, when proper, by the Quartermaster-General.

Vouchers for the movement of troops should be accompanied by the order for the movement, and the receipt of the officer highest in command for the actual number of officers and men, servants, horses and mules, guns, caissons, ambulances and weight of stores transported. *The distance actually transported should also be stated.*

In changing stations, when the transportation furnished is by stage coach, or other similar conveyance, the amount of baggage, over and above what is allowed to each passenger by the rules of the transportation company, should be stored by the Quartermaster until he can send it by public conveyance.

WATER TRANSPORTATION

In the transportation of troops and supplies by water, it is the duty of the Quartermaster to exercise the greatest care that the vessels employed are seaworthy,² and that proper means are used to secure the health and comfort of the troops.

In the loading of transports,³ where such business is made the duty of the Quartermaster, he should so apportion the loading that there should be in each vessel an assortment of the various stores likely to be needed upon landing, and the supplies should be so stored that he will know in what part of the vessel any required articles may be found. When he does not superintend the loading of the vessels, he should require a list of the stores, showing their respective places in each vessel.

The vessels should also be measured to avoid fraud, and the rules for this measurement are given in General Orders No. 4, Quartermaster-General's office of 1864, (see Part III.)

Cabin passage will be provided for officers,⁴ and reasonable accommodations for the men, and, when practicable, separate apartments for the sick.

In order to preserve discipline and provide against disaster on board transports,⁵ the senior officer in the military service of the United States present is required to assume command, unless he find on board a commander already designated by competent authority. He should divide the troops into companies and detachments, and assign officers to each, and take all necessary measures to put his command into the most efficient condition for any emergency. This order applies to all troops on board transports, whether on duty, on furlough, or in separate detachments.

(For "Rules and Regulations for preventing collisions on the water," see W.D., G.O. 246, 1864, Part III, following General Orders from the Quartermaster-General's office of 1864.)

¹ Par. 1098, R.R., 1863

² Par. 851, R.R., 1863

³ Par. 879, R.R., 1863

⁴ Par. 1108, R.R., 1863

⁵ W.D., G.O. 276, 1863.

On steamboats on the Western rivers, officers traveling on cabin transportation passes are entitled thereby to a berth in a stateroom, if not previously engaged, free of charge,¹ and to meals at 75 cents each, or two dollars per day, as they may select on coming on board.

Officers, soldiers and citizen employees, traveling at their own expense, are entitled to cabin transportation, with stateroom and subsistence, at rates not exceeding three and one-fourth cents per mile when the distance exceeds 250 miles; and for deck passage, without meals, at the rate of one cent per mile for any distance less than three hundred miles, and one-half cent per mile for all additional distance traveled over three hundred miles. No distance traveled is to be computed at less than forty miles.

Passes indorsed "Cabin Passage," should have the signature of the Quartermaster to such endorsement.

Commissioned Officers, Mail Messengers, Quartermaster's Clerks and Agents, U.S. Military Telegraph Operators and Hospital nurses are entitled to cabin passage.

All other civilians traveling on Government business are not entitled to Cabin Passage, unless so stated on the face of the pass.

Non-commissioned Officers, Musicians and Privates, Quartermaster's Employees and refugees are entitled only to deck passage.

Recruits will be transported from place of muster-in to camps of rendezvous, after they have been organized and mustered into service,² by the Quartermaster's Department; payable by the Quartermaster at the latter station, at the rate of two cents per mile for railroad travel, and current rates for stage and steamboat fare.

Volunteer regiments whose terms of service have expired are to be furnished transportation to the states in which they were organized³ by the Quartermaster's Department; but the officers and men are not to be allowed any travel-pay on final settlement.

Furloughed men and soldiers on sick leave may be furnished transportation to and from their regiments or hospitals,⁴ the cost of which is to be charged upon their descriptive lists, and stopped against their pay, for which purpose the Quartermaster immediately notifies their commanding officer or surgeon, who will make the proper charge on the pay roll or descriptive lists.

The sick are transported⁵ upon the application of the Medical Officer; Sanitary stores, upon the requisition of the Medical Director,⁶ who also makes estimates for the means of transportation for the Hospital service,⁷ which the Quartermaster furnishes upon the approval of the Commanding officer.

Clothing and other military supplies, when sent from arsenals and depots to Provost-Marshals of Congressional Districts, for the recruiting service, are transported by the Quartermaster's Department¹ until they have been delivered to the Provost-Marshals.

¹ G.O. Div. West Mis., 1863.

² W.D., G.O. 266, 1863.

³ W.D., G.O. 216, 1863

⁴ W.D., G.O. 51, 1863 and W.D., G.O. 179, 1863

⁵ Par. 1100, R.R., 1863

⁶ Par. 74, App. B.

⁷ Par. 1099, R.R., 1863

Persons not belonging to the United States service cannot be permitted to take passage in any public transport, without special permission from the War Department.²

Transportation for the agents and stores of the Christian Commission upon Military railroads and steamers in employment of the Government may be furnished³ when practicable, but the Quartermasters Department cannot be put to any expense for objects of this nature.

Stores, including books, from the United States Commission for the relief of freed-men, are transported at public expense,⁴ upon the approval of the Military Commander; and the Quartermaster at the Post for which they are designed will turn them over to the proper agents, after examination and approval by the Post Commander or Provost-Marshal. The agents and teachers of the Commission, traveling under orders, will, upon papers approved by the Commanding officer, be permitted to travel on Government railroads and steamers, but cannot be transported at the expense of the United States.

All such materials as the Ordnance Department shall require to be transported,⁵ no matter of what character they may be, are to be transported by the Quartermaster's Department, if practicable, when the Ordnance Department cannot readily procure the transportation otherwise.

Chapel tents, when furnished by the regiments, will be transported by public conveyance, in the same manner as tents furnished by the Government for the use of the soldiers.⁶

Quartermaster's wagons or conveyances of any kind, are not to be used for the transportation of sutlers' supplies.⁷

Upon the approval of the commanding officer, captured, abandoned and confiscated property may be transported to market,⁸ for the Treasury Department, by the Quartermaster's Department. All expenditures incurred by the Quartermaster's Department in this way will be reported to the Quartermaster-General, and by him charged to the Treasury Department.

The officers, agents and employees of Benevolent, Religious, Charitable, and Educational Associations, may, when operating on proper military authority within rebel districts, upon application to the War Department, receive permits for transportation.⁹ To and from seaports between which steam transports ply in the service of the War Department, at half the rates charged to civilians and others traveling not on duty nor under orders. This privilege is not extended to railroads or steamers on Western waters.

Veteran Volunteers are entitled to free transportation to and from their places of enlistment, on the thirty days furlough allowed them by General Orders, No. 376, War Department, 1863.

Recruiting officers¹⁰ are entitled to transportation when proceeding to the station to which they are assigned on duty, and when rejoining their commands, after being relieved.

¹ Q.M.G., G.O. 9, 1863.

² Par. 1102, R.R., 1863

³ Q.M.G. Circular, April 4, 1863.

⁴ W.D. G.O. 296 and 306, 1864.

⁵ Q.M.G., G.O. 15, 1863.

⁶ Par. 10, App. B.

⁷ W.D., G.O. 27, 1862

⁸ W.D., G.O. 285, 1864.

⁹ W.D., G.O. 262, 1864.

¹⁰ Par. 949, R.R., 1863.

Contract Surgeons are entitled to transportation (in kind only); also Private Surgeons and nurses, to attend sick and wounded soldiers after battles, upon the order of General Commanding Department or army in the field.¹

Assistant Surgeons and military cadets are entitled to transportation in the execution of their first order to duty.²

The insane of the military service, and their necessary attendants, are entitled to transportation to the Government Hospital, in Washington,³ and return transportation for their attendants.

TRANSPORTATION OF SUPPLIES

When a Commissary of Subsistence, Ordnance Officer, or other officer, requires public stores of any kind to be transported, he must furnish the Quartermaster who is to provide the transportation duplicate invoices of them,⁴ enumerating the packages and their contents, and giving the marks on each and their weight. He must, also, deliver the packages to the Quartermaster in good condition for shipping, well secured, and with their weight, contents and address plainly marked. The Quartermaster gives receipts for the packages, stating their condition. He then forwards them by the proper conveyance to the Quartermaster or some other officer at the designated station, or at some point as near their final destination as possible, taking from the agent of the railroad or steamboat, or from the wagon-master of the train conveying them, triplicate receipts or bills of lading, one of which the agent sends or carries with the goods, one is forwarded to the receiving officer, by mail, and one retained by the Quartermaster himself. The receiving officer, whether it be the one for whose use the stores are intended or the one who forwards them on to their final destination, signs the original bill of lading held by the agent, who hands it to the Quartermaster who pays the freight bill, or, in case of a wagon-master, to the Quartermaster to whom he is responsible for the safe transmission of the stores. The receiving officer also signs the bill of lading mailed to him, and returns it to the Quartermaster who forwarded the stores. The receipts to the bills should state the condition of the packages upon their arrival, as well as any deficiency in the number, and the value of the articles missing.

Transportation by express is prohibited, except in cases of great emergency.⁵

RAILROAD TRANSPORTATION

In the transportation of supplies by railroad, the following classification of freight has been adopted:

¹ W.D., G.O. 122, 1864.

² Par. 1116, R.R., 1863.

³ Par. 6, App. B.

⁴ Par. 1107, R.R., 1863.

⁵ W.D.G.O., 1, 1863.

FIRST CLASS	SECOND CLASS
Drums, (twice first class,) Haversacks, Canteens, Camp Kettles and Mess Pans, Wagon Covers, Furniture and Camp Stools, Hard Bread, Buckets, Clothing, Blankets, Boots, Shoes, Hats, Caps, etc. Dry Goods, in boxes, bales and trunks, Lemons, sacked, Liquors, in glass, Metallic coffins, Musical Instruments, Porter and Ale, in glass. Printed Matter, in sheets, boxed, Trunks, Tin Ware, boxed, Travelling Bags, Wine, in boxes or baskets, Powder, in secure packages, marked powder. Cots and Mattresses.	Gun Carriages, Caissons, Forges, Light Artillery, mounted. Army Wagons, Hospital Wagons, Ambulances. Loaded car, 28 feet in length, estimated at 12,000 lbs., other lengths of Cars in proportion, Tents and Tent poles, Sabres, in boxes. Cattle and Horses, reckoned at 18,000 lbs to a load for a car 28 feet long, and other sizes of cars in proportion. Bagging, Burlaps, Copper and Brass Vessels, in boxes and casks. Coffee, ground in boxes or barrels, Candles, Cutlery, Drugs and Medicines, Guns, Rifles, and other firearms, Lead, in bars, Paper in boxes, Sadlery and Harness, Wheelbarrows.
THIRD CLASS	FOURTH CLASS
Fixed Ammunition, Small Arms Ammunition, Sibley Tent Stoves, Axes, Hardware, Lead in pigs, Shovels and Spades, Hoes and Picks, Liquor, in barrels	Cannon and Mortars, not mounted, Cannon Balls and Shells, Lumber and Timber, Flour, Beef, Pork, Hay (hay reckoned at 18,000 lbs. to a car load.) Coffee, in double sacks, Coffee, in single sacks, at owner's risk. Horse Shoes, in packages, Iron bar, pig, band and boiler, Iron Nuts and Rivets, Iron Bolts and Washers, in boxes or casks, Nails and Spikes, Railroad Iron, Railroad Chairs and Spikes, Rope, Soap, common, Leather in rolls and boxes, Salt, Rice, Portable Forges, Grain, Salted and Smoked Meats, White Leads and Zinc Points. Oils, Sugar, Beans, Molasses, Potatoes, Telegraph Wire

GOVERNMENT CLASSIFICATION OF FREIGHT

An ordinary stock car will carry fourteen horses or fifteen mules; a flat car will carry two loaded army wagons or four wagons taken apart, or one piece of artillery and one caisson; capacity of a box car is 1,300 cubic feet, or about twenty tons of weight.

All passes for railroad transportation of passengers must fully explain, in the case of officers, the necessity of the journey and the nature of the service, and must be accompanied by the order, or an extract from it, upon which the pass was given. In the case of enlisted men, the order, or a copy, must be attached, and the number of men stated; also, whether recruits or not; and if recruits, whether the transportation is furnished prior or subsequent to the muster-in of the organization to which the recruits belong.¹

WAGON TRANSPORTATION

When wagon transportation is made use of for the conveying of military supplies, the Quartermaster should always require a sufficient escort to render the stores and teams safe, and should take pains to see that the wagons, animals, harness, etc., are in good order. Every train should be supplied with axes, picks, shovels and spare timbers, such as tongues and coupling poles, and a few suitable tools for fitting them to the wagons. Extra hame stings, open links, etc., should always be kept in the front box of each wagon, as they may frequently save the detention of a whole train for hours.

¹ W.D.G.O, 366, 1863.

The dimensions of an army wagon are one hundred and fourteen (114) inches long, forty-two (42) inches wide, and twenty-two (22) inches deep, inside measurement; and packages put up for transportation should be adapted to this measurement as nearly as possible.

The table, of rations in bulk, which follows,¹ will enable the Quartermaster to determine at a glance how many wagons he will require to transport any invoice of subsistence stores:

¹ Altered from Form on page 304, R.R. 1863.

TABLE SHOWING THE WEIGHT AND BULK OF RATIONS

NO. OF RATIONS	Net Weight Pounds	Gross Weight in Pounds	Bulk in barrels	Remarks
1,000	2,391.25	3,047.18(?)1	11.8224	Pork, Flour. Beans and Small Rations
1	2.39125	3.0471	6.1182	do. do. do. do. do.
1,000	2,016.25	2,419.2468	16.2656	Bread, (12 oz.), bacon and do.
1	2.01625	2.41925	0.01627	do. do. do. do. do.
1,000	2,266.25	2,726.4757	19.2827	Bread (16 oz.) do. do.
1	2.26625	2.72648	0.01928	do. do. do. do. do.
1,000 Rations	Net Weight Pounds	Gross Weight in Pounds	Bulk in barrels	Remarks
Pork	750	1,218.75	3.75	
Bacon Sides, Shoulders and Hams	750	903.1861	4.9019	
Salt Beef	1,250	0.2239		
Flour	1,125	1,234.0561	5.7397	
Hard Bread, in barrels	1,000	1,211	11.111	
Hard Bread, in boxes	1,000	1,229.9156	12.048	
Beans and Peas	155	177.3187	0.7142	
Rice and Hominy	100	114.500	0.4629	
Coffee, green	100	122.000	0.6453	
Coffee, roasted	80	108.000	0.8326	
Coffee, roasted and ground	80	102.000	0.7592	
Tea	15	19.000	0.16	
Sugar	150	135.625	0.5	
Vinegar	92.5	107.5	0.333	
Candles, adamantine	12.5	16.5	0.888	
Soap	40	46.8965	0.1877	
Salt	33.75	38.6328	0.1562	
Pepper	2.5	4.000	0.3666	

In calculating the bulk of Subsistence Stores for Storage or Transportation, six and one-fourth (6-1/4) cubic feet are considered to be a barrel.

If it be found impossible to save the whole convoy¹ or train from the hands of the enemy, the most valuable portion may sometimes be saved by abandoning the rest. If, however, all efforts fail, and there is no hope of relief, the wagons should be set on fire and the animals killed.

None but the authorized wagons are allowed to march with the trains,² and all the wagons of different Headquarters, Regiments, etc., should be conspicuously marked. The wagons are to be loaded and unloaded,³ as far as possible, by convalescents and men not effective in the ranks, and by dismounted men of the Cavalry force.

MANAGEMENT OF WAON TRAINS ON THE MARCH

On the march, the Quartermaster has control of the transportation of the Division, Brigade, or Regiment,⁴ and cannot be interfered with in his management of it, except by the orders of the commanding officer.

The proper distance between wagons, on the road, is four paces,⁵ and when they become much separated, the foremost team should be halted, in order to allow them to close up. A halt of a few minutes, every hour, should be ordered for this purpose,⁶ and to let the animals take breath. The slowest and weakest teams should always be put in front, to give the rate of travel to the whole train.

Generally, munitions of war are at the head of the train;⁷ next, subsistence stores. And then other supplies; the Sutler last; but those stores most important to the command should be in the safest position.

If a wagon break down, it should be at once removed to the side of the road and repaired.⁸ If this be impracticable, the loading and animals should be transferred to other wagons.

On going into camp,⁹ the wagons should be parked in ranks, axle to axle, with the animals between the ranks. If an attack be anticipated, they should be parked in a square or "corralled," with the hind wheels outside and the animals inside. If the enemy appear on the march, the train is to be closed up,¹⁰ and the escort so disposed as to afford the greatest protection; but it (the escort) is not to pursue the train to pursue the enemy, nor stop it unless an attack is actually made, in which case,¹¹ the train will be parked to the best advantage for defense, and so as to block up the road. The drivers dismount and stand at the head of their teams, and must not be permitted to run away.

In case of prairie fires threatening the safety of the train, the grass should be set on fire to the leeward of it and the wagons moved upon the burnt space. Men should also be sent to repel

¹ Par. 771, R.R., 1863

² Par. 775, R.R., 1863

³ Par. 776, R.R., 1863

⁴ Par. 773, R.R., 1863

⁵ Par. 754, R.R., 1863

⁶ Par. 766, R.R., 1863

⁷ Par. 755, R.R., 1863

⁸ Par. 764, R.R., 1863

⁹ Par. 766, R.R., 1863

¹⁰ Par. 768, R.R., 1863

¹¹ Par. 768, R.R., 1863

the approaching fire, by beating out the flames with brush, or, if necessary, with their jackets or blankets. In case a wagon takes fire,¹ it should be immediately removed from the vicinity of the others, or if this cannot be done, the ammunition wagons should be moved first, and then those to the leeward of the fire.

Unless otherwise ordered, each Division is followed by its own train² the Regimental trains uniting at the Brigade rendezvous. The several trains march in an order analogous to the rank of the Generals and the order of battle of the troops to which they belong. Trains are not allowed, in any case, to be in the midst of the troops, or to impede the march of the troops.³

The Quartermaster should also cause the wagon-masters to exercise the necessary restraint over their teamsters and servants who leave their teams, or who do not properly conduct them,⁴ or who ill-treat their animals, or who attempt to pillage or run away in case of attack. Such employees are liable to arrest and trial by Military Commission, and severe punishment, in addition to loss of pay and allowances, for any refusal to go to the front, or to obey any lawful order.⁵

ALLOWANCE OF TRANSPORTATION

The amount of transportation at present allowed *in the field* is as follows, and includes the total amount allowed for all personal baggage, mess chests, cooking utensils, desks, papers, etc., viz.:⁶

To Headquarters of an Army Corps,	2	wagons	or	8	pack animals.
“ Division or Brigade,	1	“	or	5	“
“ Field and Staff of Regiment,	1	“	or	4	“
Every three company officers,				1	“
“ twelve “ “	1	“	or	4	“
“ two Staff Officers, not attached to any Headquarters,				1	“
“ sixteen non-commissioned officers and privates,				1	“
“ eighty non-commissioned officers and privates,				1	“

All wagons in excess of the above allowance are to be turned in to the trains, which are prohibited from transporting anything but stores in bulk.

¹ Par. 773, R.R., 1863

² Par. 777, R.R., 1863

³ Par. 47 App. B.

⁴ Par. 778, R.R., 1863

⁵ W.D. G.O., 175, 1864

⁶ W.D. G.O., 274, 1864

Depot Quartermasters must provide storage for a reasonable amount of officers' surplus baggage,¹ and the extra clothing and knapsacks of the men, who carry their own blankets and shelter-tents.

The ordinary allowance of transportation is as follows:²

For Headquarters train of an Army Corps, *four* wagons; of a Division or Brigade, *three*; for a full Infantry regiment, *six* wagons; and for a Battery of Light Artillery or Squadron of Cavalry, *three*. One wagon of each regimental train is to be used exclusively for transporting hospital supplies, and the balance for nothing except transporting forage, cooking utensils and rations for the men, and officers' baggage.

Ambulances are intended exclusively for the transportation of the sick and wounded. The following amount and kind of transportation, for the sick and wounded, may be provided for troops on marches and in campaigns against Indians:³

1. For commands of less than five companies, to each company, one two-wheeled ambulance.
2. For a battalion, of five companies, one four-wheeled and five two-wheeled ambulances.
3. For a regiment, two four-wheeled and ten two-wheeled ambulances.

The following schedule of transports for the sick and wounded, and for hospital supplies, will be adopted for a state of war with a civilized enemy:

1. For commands of less than three companies, one two-wheeled transport cart for hospital supplies; and to each company, one two-wheeled ambulance.
2. For commands of more than three and less than five companies, two two-wheeled transport carts; and to each company, one two-wheeled ambulance.
3. For a battalion of five companies, one four-wheeled ambulance, five two-wheeled ambulances and two two-wheeled transport carts. For each additional company less than ten, one two-wheeled transport cart.
4. For a regiment of ten companies, two four-wheeled ambulances, ten two-wheeled ambulances, and four two-wheeled transport carts; and for greater commands in proportion.

The management of the ambulances in an army corps⁴ has been placed in the hands of an "Ambulance Corps," by Act of Congress, approved March 11, 1864, which also prescribes the allowance of ambulances to each command in the army corps.

No officer of the army is allowed to use any horse, ambulance, spring wagon, or vehicle of any kind, which is the property of the Government of the United States,⁵ whether for the transaction of his official or private business, without an order in writing from the Adjutant-General authorizing such use.

This order does not apply to officers entitled to be mounted, under General Order, War Department, No. 2777, of August 8th, 1864.

Every officer of the army, other than of the Quartermaster's Department, and the chief medical officer of Departments, armies, and army corps, who has in his possession, or under his

¹ Par. 45 App. B.

² Par 41, App. B.

³ Par. 1329, R.R., 1863

⁴ W.D. G.O. 106, 1864

⁵ Par. 1104, R.R., 1863

control, any horse, ambulance, spring-wagon, or vehicle of any kind, belonging to the Government of the United States, whether used in the performance of his public or private duties, is required immediately to turn the same to the Quartermaster's Department.

For the first violation of this order the penalty is a public reprimand, and for the second, dismissal from the service.

In all cases of transportation, whether of troops or stores, an exact return¹ of the amount and kind of transportation employed should be made to the Quartermaster-General, accompanied by the orders for the movement, a return of the troops, and an invoice of the stores.

A Quartermaster furnishing transportation, except for supplies, should take a copy of the order upon which he furnishes it, certify to it, and write his own order upon the same paper. The receipt of the party receiving the transportation should also be taken on the same paper, and he should also receipt for the transportation upon the original order in the possession of the Quartermaster, or, if none be furnished, upon a certified copy, to be retained by the Quartermaster as his voucher. The Quartermaster should also endorse upon the order in the possession of the person to whom the transportation is furnished, the date and fact of such transportation having been furnished.

Wagons, harness, and other means of transportation, should be kept in good order by timely repairs, painting, oiling, etc., which is done by the Quartermaster's Department.

Saddlers' tools, except such as are needed for work in the Quartermaster's Department and for issue to officers of the Quartermasters Department for similar work, belong to ordnance stores and are not to be issued by Quartermasters for the use of mounted companies.

Chapter VII.

MILEAGE AND ACTUAL TRANSPORTATION

An officer who travels not less than ten miles without troops,² escort, or military stores, and under special orders in the case from a superior officer, or a summons to attend a military court, is entitled to six cents mileage, or, if he prefer it, the actual cost of his transportation and of the transportation of his allowance of baggage, for the *whole journey*; provided, he has traveled in the customary, reasonable manner, and has not used Government conveyances.

When, however, an officer is ordered from a station east of the Rocky Mountains³ to one west of the same mountains, or *vice versa*, he is allowed by law ten cents mileage.

Armory officers and hired men in the ordnance service⁴ are also entitled to mileage when traveling on duty under orders.

Mileage is not allowed when Government transportation is used.

Mileage is computed by the shortest mail-route¹ and the distance by the General Postoffice book; but if the distance cannot be so ascertained, it is to be reckoned, subject to the decision of the Quartermaster General.

¹ Par. 1104, R.R., 1863

² Par. 1109, R.R., 1863

³ R.R., Page 537.

⁴ Par. 1441, R.R., 1863

Orders detaching an officer from his command for any special service imply, unless otherwise stated, that he is to *return* to his command when the special service has been performed;² and any order requiring an officer to make a tour of travel on duty, must designate the troops and posts he is to visit,³ the order in which he shall visit them, and the route of travel.

If the journey be to cash Government drafts,⁴ only the necessary and actual cost of transportation can be allowed; and the account must set forth the amount of the draft and the items of expense, supported by a certificate that the journey was necessary to cash the draft at par.

When it happens that an officer is compelled to travel on urgent public duty without orders,⁵ he may be allowed actual cost of transportation, upon the approval of his account by the officer who had authority to give orders in the case.

Officers entitled to mileage or cost of transportation in changing stations,⁶ are entitled to the cost of their transportation of their authorized servants. Also, officers entitled to transportation, who, by reason of sickness or wounds, require the attendance of one servant, are allowed the cost of his transportation. The same rule applies to Inspector-Generals⁷ who are obliged to take a servant with them on tours of Inspection.

A Paymaster's Clerk is to be reimbursed for any necessary outlay for transportation⁸ while traveling on duty, under orders, upon his affidavit to the account of expenses and the certificate of the Paymaster that he was on duty.

Citizen witnesses before Courts Martial or Military Commissions are paid their transportation, fees, etc., upon similar vouchers. (See Form 18½, Part II.

Citizens receiving military appointments join their stations without expense to the public.⁹

Chapter VIII.

STRAW

In barracks, twelve pounds of straw per month, for bedding, will be allowed to each man, servant and company woman.¹⁰

The allowance and change of straw for the sick is regulated by the Surgeon.¹¹

One hundred pounds per month is allowed for each horse in the public service.¹²

¹ Par. 1111, R.R., 1863

² Par. 174, R.R., 1863

³ Par. 445, R.R., 1863

⁴ Par. 1110, R.R., 1863

⁵ Par. 1111, R.R., 1863

⁶ Par. 1113, R.R., 1863

⁷ Par. 1114, R.R., 1863

⁸ Par. 1118, R.R., 1863

⁹ Par. 1115, R.R., 1863

¹⁰ Par. 1126, R.R., 1863

¹¹ Par. 1127, R.R., 1863

¹² Par. 1128, R.R., 1863

At posts near prairie lands, owned by the Government, hay may be used instead of straw and provided by the troops.¹

Straw not actually used as bedding must be accounted for as other public property.

Chapter IX.

FORAGE

The daily ration of forage² for horses and oxen is fourteen pounds of hay and twelve pounds of corn, oats, or barley. For mules, it is fourteen pounds of hay and nine pounds of grain, except where the exigencies of the service require them to be used by mounted officers³ in place of horses, when the ration is the same as that of horses.

This allowance may be increased by the Quartermaster-General as much as three pounds per ration,⁴ upon the recommendation of the Quartermaster serving in a military Department or with an army in the field. It may also be diminished⁵ by order of the commanding officer, when the state of the supplies demand it, and the order should specify the proportion which shall be thereafter issued.

The allowance of forage to officers,⁶ which can only be drawn for the animals actually kept by them, at their proper stations and during the month drawn for, is as follows: In time of war, Major-Generals, forage for five horses; Brigadier-Generals, for four; Colonels, who have the cavalry allowance, two; Captains, who have the cavalry allowance, including Chaplains⁷ and the Provost-Marshal, Surgeon and Citizen-at-large, forming the Enrolling Board of Congressional District, (Q.M.G.O. 8, 1863,) two; and officers of the Signal corps, according to rank, Acting and Staff Surgeons and Surgeons in civil life,⁸ for one horse. All other officers entitled to forage, two; and in time of peace,⁹ General and field officers, for three horses; officers below the rank of field officers, in regiments of dragoons, cavalry, mounted riflemen, two; all other officers entitled to forage for one horse.

No officer shall sell the forage issued to him.¹⁰ Forage issued to public horses and cattle is public property, and what is not consumed by them should be properly accounted for.

When forage in kind cannot be furnished to an officer who is entitled to it, he may commute it at the rate of eight dollars per month for the authorized number of horses he has actually in service,¹¹ upon the certificate of the Quartermaster, or in his absence, that of the

¹ Par. 1129, R.R., 1863

² Par. 1121, R.R., 1863

³ Par. 1122, R.R., 1863

⁴ Par 53, App. B

⁵ Par. 1125, R.R., 1863

⁶ R.R., Page 536, Sec. 2

⁷ W.D. G.O. 158, 1864

⁸ W.D. G.O. 222, 1864 and R.R., Par 69, App. B

⁹ Par. 1123, R.R., 1863

¹⁰ Par. 424, R.R., 1863

¹¹ Par 25, App. B

commanding officer, that it was impracticable to issue forage in kind to him. If the officer is on detached service, his own certificate to that fact, and that there was no Quartermaster or commanding officer serving with him, will enable him to commute the forage.

An officer absent on leave¹ is not entitled to forage or commutation therefor.

An officer absent from troops, with or without leave, for over six months, is not entitled to forage, servants, transportation of baggage, fuel and quarters, either in kind or commutation; but an officer on leave of absence, under orders from competent authority, provided such absence does not exceed, in the aggregate, thirty days² in one year, may be absent without deduction from his pay and allowances.

Chapter X.

HORSES AND PUBLIC ANIMALS

The supply of Public Animals is entrusted to the First Division.

Horses for the light artillery and mules are inspected and purchased by the Quartermaster's Department; cavalry horses are inspected by the Cavalry Bureau, and purchases, subsisted, and transported by the Quartermaster's Department, under direction of the Chief of the Cavalry Bureau,³ which bureau has charge of the organization and equipment of the cavalry forces of the army, and of the provision of the mounts and remounts of the same.

The following from the instructions in regard to the purchase and inspection of cavalry horses, published by the Cavalry Bureau, February 5th, 1864, is reprinted for the benefit of Quartermasters purchasing horses.

* * * * *

II. The inspections will be conducted with the view of obtaining sound and serviceable horses, and in such a way to make it to the advantage of the parties offering horses to identify their interests with those of the Government, and to this end the Inspectors will provide themselves with a pair of shears and clip every horse *Rejected* for prominent defects or unsoundness, *on the left jaw*. Any horse presented the second time bearing this mark, shall be branded on the shoulder with the letter "R":

III. Horses that are rejected for being under age, in poor condition, or temporarily injured by transportation or otherwise, shall be lightly branded on the right fore hoof with the letter "R," not to exceed in length three-fourths of an inch. Should any horse thus marked become fit for service, he may be again presented for inspection.

IV. All horses rejected will be removed as they pass the hands of the Inspector, from the immediate vicinity of the corral.

¹ Par. 26, App. B., R.R., 1863

² W.D., G.O. 216, 1864

³ W.D., G.O. 236, 1863 and W.D., G.O. 162, 1864

V. A doubtful horse will be in all cases clipped. No mares will be accepted.

VI. In the inspection of horses, Inspectors will proceed as follows: The horses will be led one by one, as fast as needed, from the receiving yard, by a halter or snaffle bridle, without blinds or saddle; then ascertain his height by actual measurement. He should be between fifteen (15) hands and sixteen (16) hands high. Discretion is, however, given the Inspector, which must be cautiously used, to receive well-formed, strong-boned horses, which, from general appearance and action, are fitted for the service, two inches under this standard. Examine his mouth and ascertain his age, and that his teeth are sound. When the teeth have been filed or otherwise tampered with, to conceal his age, he shall be treated as an attempt at fraud, and branded R on the left shoulder. No horse under size, or less than five years of age, or over nine (9) should be received, except when he is in every other respect suitable for cavalry service. Look at his eyes and see that they are sound. Examine his ears, and see that they are clear; particularly on the inside. Examine his head carefully in other respects, and see that there are no natural material imperfections. Inspect his legs closely for spavins, splints, sprains, curbs, and other imperfections.

VII. Each foot should be carefully examined, to see that there are no cracked, split, or pumiced hoofs, corns, or evidence of acute founder. The feet should be sound in all respects. Next examine the general appearance of the horse; that his coat is sound and good, withers not too high nor too heavy; that the length of the loins is in proportion to the rest of the body; the back sound and free from knots and old sores temporarily healed, the belly large and not pinched up. After having gone through the foregoing, the horse should be led off, first at a walk, then at a trot. Observe how he moves, that his feet do not interfere, and that his motion is free from stiffness. He should be turned short around to the right and left, to ascertain any injury of the chest or shoulders. He should then be mounted and vigorously exercised for several minutes, and jumped over a bar or ditch, to see that his wind is good; that he has strength to carry his rider; does not stumble, and has been properly broken.

VIII. These means having been resorted to, and no serious defect discovered, the horse must be returned to the stand of the Inspector, and, under his observation, branded on the left fore shoulder with U.S. in the usual manner. The initials of the name of the inspector shall also be branded on the neck, under the mane, in such a manner that each horse can be traced to the Inspector by whom he was brought into service. This brand should not be too large; should be placed on the flat of the neck.

IX. All branding-irons, when not in use, must be kept under lock and key, in charge of the Quartermaster receiving the animals.

* * * * *

It is forbidden to purchase horses without ascertaining the right of the party to sell.¹ Stolen horses must be returned to their proper owners, upon sufficient proof, and his receipt, with the proofs attached, used as vouchers to Abst. L.

Estrays in the enemy's country, when the owner is not discovered, shall be taken for the use of the army. The horses of prisoners of war and deserters from the enemy¹ are also taken for

¹ Par. 786, R.R., 1863

the army, branded U.S., and turned over to the corps most needing them. Deserters are compensated for such horses by the Quartermaster's Department, according to appraisement.

Horses captured from the rebels, which have been taken by them from loyal citizens, are to be returned to the owners,² on proof of ownership and of loyalty, or paid for at not exceeding the average price of the District. Receipts should be taken in all cases.

All public animals purchased by the Quartermaster's Department must be branded conspicuously on the left shoulder with the letters U.S.,³ and in addition⁴ with the addition of the purchaser upon the neck. Mules for teams should not be less than fourteen hands high, and for the saddle or pack trains, not less than fourteen and a half hands high; they should be sound and strong, over two years old, which is indicated by their having shed their two front colts' teeth on each jaw, and developed the permanent teeth corresponding.

Public horses are allowed, in addition to the ration of forage, one hundred pounds of forage monthly for bedding, and all public animals are allowed one-half pound of salt monthly,⁵ which is to be drawn from the Subsistence Department, on a provision return approved by the commanding officer.

The following is the quarterly allowance of horse medicines adopted by the War Department:

Standard Supply Table

ARTICLES	QUANTITIES FOR THREE MONTHS							
	For Field Service				For Hospital Service			
	100 Horses	200 Horses	500 Horses	1,00 Horses	100 Horses	200 Horses	500 Horses	1,00 Horses
Aloes.....oz.	1	2	3	4	2	4	6	8
Alcohol.....gals.	1/4	1/2	1	1 3/4	1/2	1	2	3 1/2
Asafoetida.....lbs.	1/4	1/2	3/4	1	1/2	1	1 1/2	2
Alum.....lbs.	1	2	4	8	2	4	8	16
Blister liquid.....qts.	1/2	1	2	3	1	2	4	6
Blue stone.....lbs.	1/2	3/4	1	2	1	1 1/2	2	4
Borax.....lbs.	1	1 1/2	3	4	2	3	6	8
Calomel.....lbs.	1/8	1/4	1/2	3/4	1/4	1/2	1	1 1/2
Castle soap.....lbs.	10	15	20	30	20	30	40	60
Ground Flaxseed.....lbs.	8	10	15	20	16	20	30	40
Hartshorn.....gals.	1/4	1/2	3/4	1	1/2	1	1 1/2	2
Lunar caustic.....oz.	1/4	1/2	3/4	1	1/2	1	1 1/2	2
Laudanum.....qts.	1	1 1/2	3	4	2	3	4	8
Simple cerate.....lbs.	2 1/2	5	5	10	5	10	10	20

¹ Par. 785, R.R., 1863
² Q.M. G.O. 18, 1863
³ Par. 1016, R.R., 1863
⁴ Q.M. G.O. 19, 1863
⁵ Par. 1205, R.R., 1863

Standard Supply Table (Continued)

ARTICLES	QUANTITIES FOR THREE MONTHS							
	For Field Service				For Hospital Service			
	100 Horses	200 Horses	500 Horses	1,00 Horses	100 Horses	200 Horses	500 Horses	1,00 Horses
Mecurial ointment.....	1/2	1	1-1/2	2	1	2	3	4
Mustang linament.....	2	3	4	6	4	6	8	12
Olive oil.....	1/2	1	2	3	1	2	4	6
Oil, linseed.....	1/2	1	2	3	1	2	4	6
Oil turpentine.....	1/4	1/2	1	1-3/4	1/2	1	2	3-1/2
Powells linament.....	2	3	4	6	4	6	8	12
Resin.....	1/2	1	1-1/2	2	1	2	3	4
Salts.....	2	3	4	6	4	6	8	12
Sulphur.....	1/4	1/2	1	2	1/2	1	2	4
Saltpetre.....	1	2	3	5	2	4	6	10
Sweet spirits nitre.....	1/2	1	2	3	1	2	4	6
Sugar lead.....	1	2	4	5	2	4	8	10
Tar.....	1/4	1/2	1	1-3/4	1/2	1	2	3-1/2
Tartar emetic.....	1/4	1/2	3/4	1	1/2	1	1-1/2	2
DRESSINGS								
Adhesive plaster.....	1	1-1/2	2	4	2	2	4	8
Muslin (coarse).....	10	12	15	20	20	24	30	40
Red flannel (coarse).....	2	3	4	6	4	6	8	12
Sponge.....	3/4	1-1/2	3	4	1-1/2	3	6	8
Silk for ligature.....	1/4	1/4	1/2	1	1/2	1/2	1	2
INSTRUMENTS								
Abscess knife (two-blade).....	1	1	1	1	2	2	2	2
Bell forceps.....	1	1	1	1	2	2	2	2
Corscews.....	1	1	1	1	2	2	2	2
Funnels.....	1	1	1	1	2	2	2	2
Graduate glasses.....	1	1	1	1	2	2	2	2
Mortar and pestles (iron).....	1	1	1	1	2	2	2	2
Needles.....	1/2	1/2	1/2	1/2	1	1	1	1
Probes.....	1	1	1	1	2	2	2	2
Rowling needles.....	1	1	1	1	2	2	2	2
Scales and weights.....	1	1	1	1	2	2	2	2
Syringes.....	1	1	1	1	2	2	2	2
Spring lancet.....	1	1	1	1	2	2	2	2
Straight scissors.....	1	1	1	1	2	2	2	2
Spatulas.....	1	1	1	1	2	2	2	2
Trocar.....	1	1	1	1	2	2	2	2
Tenaculum.....	1	1	1	1	2	2	2	2

II. *Regulations for the Veterinary Service*

1. The standard of Horse Medicine for the Army in the field, and the hospitals, is the supply table.

This table will not be deviated from except in extreme emergencies, and then only for hospital use, where the reasons must be clearly and satisfactorily stated.

2. Requisitions will be made quarterly, and in duplicate, conforming strictly to the standard supply table.

3. Quartermasters responsible for Medicine and Dressings will take care that these articles are used for their legitimate purpose, and will hold the Veterinary Surgeon strictly accountable for their loss or damage through neglect, &c.

The Quartermaster should see that his teamsters and stable men feed, water and groom their horses and mules regularly, and that the animals are sheltered against stormy weather as thoroughly as practicable.

The proper dimensions and plans of stables are given in General Orders No. 17, Quartermaster-General's office, April 27, 1864 (Part III.)

In transporting horses by water,¹ care should be taken in fitting up the vessel, so that they may be fed and attended to with convenience, and that the ventilation is as complete as possible.

In hoisting them on board² the fastenings should be made by an expert hand, so that they will be secure, and at the same time easily loosened. A halter should be put on the horse before he is lifted from the ground. He should be hoisted up quickly to prevent his plunging, and should be steadied by guy ropes.

Horses should not be put on board while heated, or after severe exercise.

On board, the horses should not be over-fed, six pounds of oats, and ten of hay, and one-half peck of bran daily, being an ample allowance; and bran should form part of their regular rations. Six gallons of water daily is sufficient, and even this can be reduced without injury to the horse, by using a portion of it for wetting up his bran, oats and hay before feeding. Their faces, eyes and nostrils should be washed at the usual stable hours and occasionally their nostrils sponged with vinegar and water. The mangers should also be kept clean by occasional washing.

One stall on each side of the transport should be left vacant, in order that the horses may be shifted in succession to be groomed. A very efficient means for resting and supporting weak horses on ship board is found in the canvas sling, by which, in calm weather, the horse may be gently raised, but not entirely taken off his feet.

In transporting animals by rail, they should be watered and fed just previous to shipping, and not crowded too closely in the cars. Fourteen horses, or sixteen mules to an ordinary stock car, is about the proper number.

Horses and mules in the public service, including officers' horses, are shod by the Quartermaster's Department,³ except company horses in companies or batteries where there is an enlisted farrier. In winter, when horses require to be "sharp shod," the corks on the outer side of the shoes should be sharpened in the line of the horses foot, and those on the inner side

¹ Par. 876, R.R., 1863

² Par. 877, R.R., 1863

³ Par. 1143-4, R.R., 1863

crosswise. This prevents slipping in either direction, and the inner corks cannot cut the other feet.

In the field, on the frontier, or in active service, the commanding officer may authorize a mounted officer to take from the public stables one or two horses,¹ at a price one-third greater than the average cost of the lot from which he selects, or the actual cost of the horse, when it can be ascertained, providing he shall not take the horse of any trooper. *But* if an officer who has availed himself of this privilege *shall* afterward be *relieved* from duty in the field,² transferred to a distant department, discharged from the service, or detached in any way from the army in active service, he must turn over this horse to the Chief Quartermaster, who will allow him the value of the horse at the time that it is returned, to be determined by a board of officers, to be appointed by the commander of the troops present. In no case can the officer be paid more than he originally paid the Quartermaster for the horse.

Officers employed temporarily upon special duty, which requires them to be mounted, may, upon their certificate to that effect, and order of the highest independent commander present, being not less than a brigade commander, be provided with the requisite horses and equipments³ by the Quartermaster's Department. These must be receipted and accounted for by the officer receiving them, and must be turned in again to the Quartermaster's Department when the mounted service for which they were drawn has terminated.

Surgeons from civil life, who tender their services to the sick and wounded in the field, under the invitation of the Secretary of War, also discharged Regimental Surgeons⁴ employed on contract by Medical Directors of an army in the field, will each be allowed, while so employed, the use of a public horse, tent, servants, &c.

The horses of mounted officers held as prisoners of war by the enemy, or absent from their commands by reason of sickness or wounds, must be taken possession⁵ of by the Quartermaster's Department, and branded U.S., and the officer allowed the value thereof, to be determined by a board of officers appointed by the commanding officer of the troops present. The officer may afterwards reclaim the horse, upon refunding the amount paid him.

No officer having selected and purchased a horse under the privileges of paragraph 1143, Revised Army Regulations, is allowed to exchange or return him.⁶ Nor is he permitted to sell the animal, except to the Quartermaster's Department, as provided above.

Cavalry officers are held responsible that the horses of their commands are not broken down by carrying extra baggage,⁷ or by any other ill usage; and are liable to be dismissed from the service for inefficiency or inattention resulting in deterioration of the public animals under their charge.

Commanding Generals of armies and military departments have authority to dismount and transfer to infantry regiments any man whose horse has become unfit for service through his own fault or neglect,⁸ or even to dismount and employ as infantry any cavalry *regiment* which

¹ Par. 1143, R.R., 1863

² W.D., G.O. 171, 1863

³ W.D., G.O. 277, 1863

⁴ W.D., G.O. 222, 1864

⁵ Q.M.G., G.O. 24, 1864

⁶ Par. 1143, R.R., 1863

⁷ W.D., G.O. 274, 1863

⁸ W.D., G.O. 119, 1864

has been neglectful or wasteful of its horses, or has proved inefficient in the field, and transfer the horses to other regiments.¹

In marches, led horses of officers and of dismounted men follow their regiments.

If a horse branded U.S. be taken from an officer by writ of replevin, he should at once employ council and contest the title,² at the same time reporting the case (pursuant to the Army Regulations, Par. 1461) to the War Department, which will assume the defense of the action.

Horses having any contagious disease, as glanders, should be ordered shot at once to prevent the spread of this disease. Such as are broken down and unserviceable as cavalry horses, may be turned in to the Quartermaster's Department to be used as draft horses, or for recuperation. If they can not be recuperated, they should be condemned and sold.

Chapter XI.

STATIONARY

Issues of stationary are made in amount as follows:³

	Quires of writing paper	Quires of envelope paper	Number of quills	Quires of wafers	Quinces of sealing-wax	Papers of ink-powder	Pieces of office tape
Commander of an army, department, or division, (what may be necessary for himself and staff for their public duty.)							
Commander of a brigade, for himself and staff	12	1	50	1	8	2	2
Officer commanding a regiment or post of not less than five companies, for himself and staff	10	1	10	1	6	2	2
Commanding officer of a post of more than two and less than five companies	8	1/2	30	1/2	5	1	1
Commanding officer of a post of two companies	6	1/2	25	1/2	4	1	1
Commanding officer of a post of one company or less and commanding officer of a company.	5	1/2	20	1/2	3	1	1
A Lieutenant Colonel or Major not in command of a regiment or post	3	1/4	12	1/4	2	1	1
Officers of the Inspector-General's, Pay and Quartermaster's Departments, and Commissaries of Musters and their Assistants, when approved by Commanding officer, (the prescribed blank books and printed forms, and the stationary required for their public duty.)							

¹ W.D., G.O. 174, 1864

² Circular, Q.M.G.O., July 8, 1864

³ Par. 1130, R.R., 1863

	Quires of writing paper	Quires of envelope paper	Number of quills	Quires of wafers	Quinces of sealing-wax	Papers of ink-powder	Pieces of office tape
required for their public duty.) All officers, including chaplains, not enumerated above when on duty and not supplied by their respective departments.	1 1/2	1/8	6	1/8	1	1/2	1/2

Steel pens, with one holder to twelve pens, may be issued in place of quills, and envelopes in place of envelope paper, at the rate of 100 to the quire.¹ Red ink and muelage have forced themselves into use and are apparently allowed.

When an officer is relieved in command, he must transfer the office stationary to his successor.²

To each office table is allowed one inkstand, one stamp, one paper folder, one sand box, one wafer box, and as many lead pencils as may be required, not exceeding four per annum.³

Necessary stationary for military courts and boards is furnished on the requisition of the recorder, approved by the presiding officer.⁴

The commander of an army, department or division, may direct orders to be printed,⁵ when the requisite dispatch and the number to be distributed make it necessary. The necessity must be set out in the order for the printing, or certified on the account.

Regimental, company and post books, and printed blanks for the officers of the Quartermaster and Pay Departments, are procured by requisition⁶ on the Quartermaster-General, through the Chief-Quartermaster of the army or department.

All stationary is drawn upon Form 38, except supplies for issue by officers of the Quartermaster's Department.

Printed matter procured by the Quartermaster General for use, out of Washington, may be procured elsewhere,⁷ at a cost not to exceed the rates prescribed by Congress for the public printing, increased by the cost of transportation.

The printing of letter heads, envelopes, special orders, &c., not being authorized by Army Regulations,⁸ the bills for such printing, if paid, will be charged to the officer who ordered the work done.

With all bills for job printing, a sample of the work must be sent, and all such bills are required to be submitted to the Assistant Secretary of War, prior to being paid.⁹ When the job is

¹ Par. 1130, R.R., 1863

² Par. 1131, R.R., 1863

³ Par. 1132, R.R., 1863

⁴ Par. 1133, R.R., 1863

⁵ Par. 1134, R.R., 1863

⁶ Par. 1135, R.R., 1863

⁷ Par. 1136, R.R., 1863

⁸ W.D., G.O. 264, 1864

⁹ W.D., G.O. 260, 1864

of the character of book or pamphlet printing, the account must specify the amount of matter, material and presswork, and the rate per 1000 em's per quire and per token; and in all jobs the bill must be clearly made out as to amount, class and rate, so that the composition can be readily reviewed. The amount is to be put on the proper forms, and certified to in the usual manner, by the officer ordering the work, before it is forwarded to the Assistant Secretary of War for his action. (See form in Part II.)

Accounts for newspaper advertising must be rendered in duplicate, with copies of the advertisement appended, and state upon their face the name of the publisher, the title of the paper, and the place of publication; the dates between which inserted, the amount of matter, the number of insertions charged for, and the rate per square or line, and must be accompanied by a full schedule of the customary advertising rates of the paper, unless the same has been previously filed with the Assistant Secretary of War.¹

Advertisements copied from other papers, without authority from the Secretary of War, will not be paid for.

Officers advertising in news papers are required, at the same time, to send to the Assistant Secretary of War, copies of the same, and state the name of the paper, and the number of insertions ordered; also explain why the particular official paper or papers selected have been chosen, and the advertisement not published in all the official papers of the locality.

If the number of insertions be not correctly charged, state the fact as to each item in the certificate.

When accounts are presented for advertisements which the officer did *not* order published in the newspaper charging the same, he must certify the facts as to its official publication in other newspapers, naming the papers and the number of insertions ordered.

Every account presented to an officer for advertising must be made out substantially as above, *without alteration in the printer's charges*, and certified to according to the facts, and must be submitted to the Assistant Secretary of War to be audited, prior to being paid, with a letter of transmittal, describing the account.

List of newspapers authorized by the Secretary of War to publish advertisements for all the Bureaus of the War Department:

¹ Secretary of War Circular, June 20, 1864. See, also, Circular of Secretary of War, January 1, 1865, modifying same. Appendix.

NAMES	WHERE PUBLISHED	NAMES	WHERE PUBLISHED
Press	Portland, Maine	Daily Commercial	Pittsburg, Pa.
Whig and Courier	Bangor, Maine	Journal and Statesman	Wilmington, De.
Independent Democrat	Concord, N.H.	American	Baltimore, Md.
Mirror and American	Manchester, N.H.	Baltimore Weekly	" "
Journal	Providence, R.I.	Daily Chronical	Washington, DC.
Watchman	Montpelier, Vt.	Intelligencer	Wheeling, W. V.
Press	Hartford, Ct.	Ohio State Journal	Columbus, Ohio
Journal	Boston, Mass.	Gazette	Cincinnati, Ohio
Transcript	" "	Volksblatt	" "
Traveler	" "	Leader	Cleveland, "
Saturday Evening Gazette	" "	Herald	Steubenville "
Mercury	N. Bedford, Mass.	State Journal	Indianapolis, Ind.
Evening Post	New York	Tribune	Chicago, Ills.
Tribune	" "	Tribune and Advertiser	Detroit, Mich
Scientific American	" "	State Journal	Madison, Wisc.
Times	" "	Press	St. Paul, Minn.
Democrat (German)	" "	Hawkeye	Burlington, Iowa
Abend Zeitung	" "	Democrat	St. Louis, Mo.
Mess'r Franco-Ameri'o	" "	Daily Union	" " "
Era	" "	Daily Evening News	" " "
Daily Times	Troy, N.Y.	Missourian	Springfield, Mo.
Daily Union	Brooklyn, N.Y.	Tribune	St. Joseph, Mo.
Morning Herald	Utica, N.Y.	National Union Press	Louisville, Ky
Democratic American	Rochester, N.Y.	Union	Nashville, Tenn.
Advertiser	Newark, N.J.	Cleveland Daily Journal	Cleveland, Ohio
State Gazazette & Republican	Trenton, N.J.	Chicago Journal	Chicago, Ills.
New Jersey Frei Zeitung	Trenton, N.J.	Chambersburg Repository	Chambersburg, Pa.
Press	Philadelphia, Pa.	Baltimore Daily Clipper	Baltimore, Md.
Inquirer	" "	Minnesota State Zeitung	St. Paul, Minn.
N. American & U.S. Gazette	" "	Freiheits Freund	Pittsburg, Pa.
Die Freie Press, (German)	" "	Lebanon Republican	Lebanon, Ky.
City Item (Fitzgerald's)	" "	Frederick Examiner	Frederick, Md.
Daily News	" "	Somerset Herald	Princess Ann C.H., Maryland
Sunday Transcript	" "	Nebraska Republican	Omaha, N.T.
Evening Telegraph	" "	Illinois State Zeitung	Chicago, Ills.
Universe	" "	Peoples' Press	Nebraska City
Gazette	Pittsburg, Pa.	Evening Express	Rochester, N.Y.
Dispatch	" "		

Chapter XII.

EXPENSES OF COURTS MARTIAL, MILITARY COMISSIONS, &C.

An officer who attends a General Court Martial,¹ Court of Inquiry or Military Commission,² convened by authority to order a General Court Martial, and members of retiring boards (W.D., G.O. 367, 1863), will be paid, if the court is not held at the station where he is at the time serving, one dollar a day while attending the Court and traveling to and from it, if entitled to forage, and one dollar and twenty-five cents if not entitled to forage.

The Judge Advocate or Recorder of any of the above named tribunals will be paid, *besides*,³ a per diem of one dollar and twenty-five cents for every day he is necessarily employed in the duty of the Court. When it is necessary to employ a clerk to aid the Judge-Advocate, the Court may order it – a soldier to be procured when practicable.

A citizen witness⁴ before any of the military tribunals mentioned above⁵ is paid his actual transportation or stage fare, and three dollars a day while attending the Court, and traveling to and from it, counting the number of days actually required to perform the journey⁶ in no case at a rate less than fifty miles a day. When the witness is in attendance in more than one case, he will be allowed mileage and per diem in but one. (See Form 18½, Part II.)

The certificate of the Judge Advocate is the evidence of the time of attendance on the Court, and of the time⁷ he was necessarily employed in the duty of the court; of the time occupied in traveling, each officer will make his own certificate, and each witness his affidavit.

When a Court Martial or Military Tribunal adjourns without day,⁸ the members return to their respective posts and duties, unless otherwise directed.

In important cases, and where the other duties of the Judge Advocate will not permit him to take down the evidence in the usual manner, he may employ a phonographic reporter,⁹ at a rate not exceeding ten dollars per day, and traveling expenses, when the place of holding the court is changed. Members of Military Tribunals are not entitled to commutation of quarters and fuel.¹⁰

¹ Par. 1137, R.R., 1863

² Par. 30, App. B., R.R., 1863

³ Par. 1138, R.R., 1863

⁴ Par. 1139, R.R., 1863

⁵ Par. 63, App. B., R.R., 1863

⁶ W.D., G.O. 278, 1864.

⁷ Par. 1140, R.R., 1863

⁸ Par. 900, R.R., 1863

⁹ W.D., G.O. 208, 1863

¹⁰ W.D., G.O. 289, 1863

Chapter XIII.

APPREHENSION OF DESERTERS

A reward of thirty dollars will be paid for the apprehension and delivery of a deserter¹ to an officer of the army, at the most convenient post or recruiting station. Rewards thus paid must be promptly reported by the disbursing officer to the officer commanding the company in which the deserter is mustered, and to the authority competent to order his trial. The reward of thirty dollars includes the remuneration of all expenses incurred for apprehending, securing and delivering a deserter.

The evidence of desertion, apprehension and delivery² will be the certificate of a Provost Marshal or a commissioned officer at a military post or depot, to whom the deserter may be delivered, which certificate should be in substance as follows:

I certify that _____ has apprehended, and this day delivered to me, at _____, Sergeant, Corporal, or Private (as the case may be), _____, of Company _____, _____ Regiment of _____, a deserter from the military service of the United States, and that _____ is entitled to the reward authorized for such service.

(Place and date of certificate)

A _____ B _____,
Provost-Marshall _____ District, State of _____,
(Or rank, regiment and corps to which he belongs.)

Of course, officers, soldiers and persons in the military service, at a stated salary, are not entitled to any reward for such services,³ nor are Provost-Marshals or their deputies; but enlisted men, when sent in pursuit of deserters, are repaid all the necessary expenses incurred by them, which is reported by the disbursing officers, as in cases of rewards paid.

Chapter XIV.

MORTUARY RECORDS

Are to be kept at every General and Post Hospital, for the purpose of preserving accurate and permanent records of deceased soldiers, and their place of burial.⁴ The proper forms are furnished by the Quartermaster-General. The Quartermaster's Department is required to furnish registered head-boards,⁵ to be secured at the head of each soldier's grave.

¹ W.D., G.O. 325, 1863

² Q.M.G., G.O. 7, 1863

³ W.D., G.O. 325, 1863

⁴ W.D., G.O. 33, 1863

⁵ Par 49, App. B

Chapter XV.

VETERINARY SURGEONS

Each regiment of cavalry has a Veterinary Surgeon, with the rank of Sergeant-Major, and pay at the rate of seventy-five dollars per month.¹ He is selected by the Chief of the Cavalry Bureau, upon the nomination of the Regimental Commander, founded upon the recommendation of the candidate by a regimental board of officers, to consist of the three officers next in rank to the commander of the regiment.² The appointment is made by the Secretary of War.

Chapter XVI.

WORKING PARTIES

When it is necessary to employ the army at work on fortifications, in surveys, in cutting roads, and other constant labor of not less than ten days,³ the non-commissioned officers and soldiers so employed are enrolled as extra-duty men, and are allowed twenty-five cents a day when employed as laborers, and forty cents a day when employed as mechanics, clerks, store keepers, &c., at all stations east of the Rocky Mountains, and thirty-five and fifty cents per day, respectively, at all stations west of those Mountains. But no man must be rated and paid as a clerk or mechanic who is not skilled in his particular employment, nor any man as a storekeeper, &c., whose trust is not of sufficient importance. Mere strikers, inferior workmen, &c., shall be rated as laborers. Commanding officers are required particularly to see to this; and no soldier must be rated at the higher pay, except by their order.

Enlisted men of Ordnance and Engineer Departments,⁴ and artificers of artillery, are not entitled to this allowance when employed in their appropriate work.

Soldiers are not to be employed as extra-duty men for any labor in camp or garrison which can properly be performed by fatigue parties.⁵

No extra-duty men, except those required for the ordinary service of the Quartermaster, Commissary and Medical Departments, and saddlers in mounted companies, and armorers for repairing arms of regiments, serving as infantry or cavalry, are permitted to be employed⁶ without previous authority from Department Headquarters, except in case of necessity, which must be promptly reported to the Department Commander.

A day's work⁷ is ten hours in summer, and eight in winter. Soldiers are paid in proportion for any greater number of hours that they are employed each day. Summer is

¹ W.D., G.O. 110, 1863

² W.D., G.O. 259, 1863

³ Par. 902, R.R., 1863

⁴ Par. 903, R.R., 1863

⁵ Par. 904, R.R., 1863

⁶ Par. 905, R.R., 1863

⁷ Par. 909, R.R., 1863

considered to commence on the first of April, and winter on the first of October. Extra-duty pay of cooks and nurses in the hospital service is to be paid by the Quartermaster,¹ in the absence of a medical disbursing officer, and refunded by the Medical Department.

The following section of an Act of Congress, approved March 2, 1863, is construed to prohibit the payment of *per diem* to enlisted men on extra-duty, and no extra-duty men are paid, except such as are detailed as clerks and messengers in the military offices at Washington, and at the several Geographical and Division Headquarters,² viz:

Section 35. *And be it further enacted*, That details for special service shall only be made with the consent of the commanding officer of the forces in the field; and enlisted men now or hereafter detailed to special service shall not receive any extra pay for such service beyond that allowed to other enlisted men.

Triplicate rolls³ of the extra-duty men, to be paid by the Quartermaster's Department, are required to be made monthly, and certified by the Quartermaster or officer having charge of the work, and countersigned by the commanding officer. One of these will be transmitted direct to the Quartermaster-General with the monthly returns, another filed in support of the payroll and sent to the Third Auditor with the money account, and the third retained by the officer himself.

The monthly report of the extra-duty men (Form 3,) should be made to the Quartermaster-General regularly, just as before the passage of the above Act of Congress.

Chapter XVII.

PAYMENT OF POSTAGE AND TELEGRAPHIC COMMUNICATIONS

Money paid for postage and telegraphic dispatches, on public business,⁴ by an officer is refunded to him on his certificate to the account (Form 20,) and to the necessity of the communication by telegraph. The amount for postage and for telegrams should be stated separately. The telegraph should be used only in cases of urgent and imperative necessity, when the delay of the mail would be prejudicial to the public interests. Copies of telegrams must accompany vouchers for their payment, where they can be procured. If they cannot be procured,⁵ the account may be paid by the Quartermaster, upon the certificate of the Commanding General of the Department, or the commanding officer of the post, showing that the telegrams were upon public business, and that the matter telegraphed required this means of communication.

The following Act of Congress, in regard to official correspondence with Heads of Executive Departments, etc., sets aside all other laws and regulations in regard to the franking of public communications, viz.:

¹ Par. 907, R.R., 1863

² W.D., G.O., 192, 1863

³ Par. 58, App. B., R.R., 1863

⁴ Par. 1142., R.R., 1863

⁵ Par. 59, App. B., R.R., 1863

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That all communications relating to the official business of the Department to which they are addressed, of whatever origin, addressed to the Chiefs of the several Executive Departments of the Government, or to such principal officers of each Executive Department, being heads of bureaus or chief clerks, or one duly authorized by the Postmaster-General to frank such official matters, shall be received and conveyed by mail, free of postage, *without being indorsed "Official Business," or with the name of the writer.*

Chapter XVIII.

CLOTHING, CAMP AND GARRISON EQUIPAGE

This Branch is assigned to the Second Division of the Quarter-Master General's Office.

Supplies of clothing and camp and garrison equipage are sent by the Quartermaster-General, from the general depot to the officers of his department stationed with the troops.¹

The content of each package, and the sizes of clothing in it, are marked on it.²

The Receiving Quartermaster is required to give duplicate receipts for the clothing as invoiced to him, if the *packages* as received and marked agree with the invoice and *appear* rightly marked, and in good order.³ If otherwise, an examination must be made by a Board of Survey, whose report, in case of damage or deficiency, will be transmitted, one copy to the Quartermaster-General, and one to the officer forwarding the supplies. In case of damage, the Board will assess the damage to each article.

Allowances of camp and garrison equipage:⁴

¹ Par. 1145., R.R., 1863

² Par. 1146., R.R., 1863

³ Par. 1147., R.R., 1863

⁴ Par. 65, App. B., R.R., 1863

	In Permanent Camp				In Camp, Garrison or in the field						In The Field	
	Wall Tent	Sibley Tent	Common Tent	French Tents, O. P.	Spades	Axes	Picks	Hatchets	Camp Kettles	Mess Pans	Shelter Tents	Wall Tents
A General Officer	3					1		1				
Field or Staff, above the rank of Captain	2					1		1				
Other Staff officers or Captains	1					1		1				
Subalterns of company, to every two	1					1		1				
To every 15 foot or 13 mounted men				1	2	2	2	2	2	5		
To every 20 foot or 17 mounted men		1										
To every 6 foot or 4 mounted men			1									
To General commanding corps, division or brigade												1
To every two officers of his staff												1
Colonel, field and staff of a regiment											1	
To each company officer											1	
To every two noncommissioned officers, enlisted men, officer's servants and authorized camp followers												1

In active campaign in the field, troops must be prepared to bivouac on the march, and the allowance of tents is limited as above.¹

One hospital tent is allowed for office purposes² at corps headquarters, and one wall at those of a division or brigade. All tents beyond this allowance must be left at the depot.

When troops refuse to accept shelter tents,³ they are not to be furnished with any. Troops in garrisons, at stations, or in detachments, can construct huts, if they prefer them to shelter tents. Quartermasters are prohibited from issuing tents other than the kind provided for, no matter by whom the requisitions are approved, or by whose order the issues are directed to be made, until otherwise ordered through the Adjutant-General of the army.

Hospital tents⁴ are for the sick and wounded, and, except those allowed for Army Corps headquarters, must not be diverted from their proper use.

Under ordinary circumstances the allowance of hospital tents is as follows.⁵

¹ Par. 43 App. B.

² Par. 43 App. B.

³ W.D., G.O. 189, 1864

⁴ Par. 46 App. B.

⁵ Par. 1386., R.R., 1863

Commands	Hospital Tents	Sibley Tents	Common Tents
For one Company		1	1
For three Companies	1	1	1
For five Companies	2	1	1
For seven Companies	2	1	1
For ten Companies	3	1	1

Bed sacks are provided for troops in garrison, and iron pots may be furnished to them instead of camp kettles.¹ Requisitions must be sent to the Quartermaster-General for the authorized flags, colors, standards, guidons, drums, fifes, bugles and trumpets.

ALLOWANCE OF CLOTHING

A soldier is allowed the uniform clothing stated in the following table,² or articles thereof of equal value. When a balance is due him at the end of the year, it is added to his allowance for the next:

	First	Second	Third	Fourth	Fifth	Total for five years
Cap, with trimmings complete (Light Artillery)	1	1	1	1	1	5
Plume, red horse hair	1		1			2
Cover for Artillery cap	1	1	1	1	1	5
Hat, with trimmings complete	1	1	1	1	1	5
Forage cap	1	1	1	1	1	5
Coat or jacket	2	1	2	1	2	8
Trousers	3	2	3	2	3	13
Drawers	3	2	2	2	2	11
*Bootees, pairs of	4	4	4	4	4	20
Stockings, pairs of	4	4	4	4	4	20
Leather stock	1		1			2
Great coat	1					1
Stable frock (for mounted men)	1		1			2
Fatigue overalls (for Engineers and Ordnance)	1	1	1	1	1	5
Blanket, woolen	1		1			2
Blanket, waterproof, (for foot troops)	1	1	1	1	1	5
Ponchoes, waterproof, (for mounted men)	1	1	1	1	1	5
Gaiters, (for foot troops)	1	1	1	1	1	5
Flannel sack coat	2	2	2	2	2	10

*Mounted men may receive one pair of "boots" and two pairs of "bootees" instead of four pairs of bootees.

The allowance for each soldier of the regular army, for each year during his enlistment of three years, will be the exact proportion laid down for each of the first three years in General Orders, No. 220, W. D., 1864, and not the ratio of one-fifth of the full five years' allowance.³

¹ Par. 1149., R.R., 1863

² Par. 63, App. B

³ W.D., G.O. 266, 1863

One sash¹ is allowed to each company for the First Sergeant, and one knapsack, with straps, haversack, and canteen with straps, to each enlisted man. These and the metallic scales, letters, numbers, castles, shells and flames, and the camp and garrison equipage, will not be returned as "issued," but borne on the return while fit for service. They will be charged to the person in whose use they are, when lost or destroyed by his fault.

Commanders of companies, who are paid \$10 per month extra for the responsibility of clothing, etc., draw the clothing² of their men, and the camp and garrison equipage for the officers and men of their company.

The camp and garrison equipage of other officers is drawn on their own receipt.

When clothing is needed for issue to the men,³ the company commander procures it from the Quartermaster, on requisitions approved by the commanding officer.

Ordinarily, the company commander procures and issues clothing⁴ to his men twice a year; at other times, when necessary in special cases.

Such articles of clothing as the soldier may need are issued to him.⁵ When the issues equal in value his allowance for the year, further issues are extra issues.

Waterproof ponchoes⁶ are issued to mounted troops as articles of clothing, and charged to them in their respective clothing accounts. Waterproof blankets are, in like manner, issued to foot troops, and charged to the soldiers who receive them.

¹ Par. 1151., R.R., 1863

² Par. 1152., R.R., 1863

³ Par. 1153., R.R., 1863

⁴ Par. 1154., R.R., 1863

⁵ Par. 1155., R.R., 1863

⁶ Par. 67, App B

THE QUARTERMASTER'S GUIDE

*STATEMENT of the Cost of Clothing, Camp and Garrison Equipage for the Army of the United States,
Until further orders – (W.D., G.O. No 2. 1865)*

	Engineer Troops	Hospital Stewards	Ordnance Sergeants	Ordnance Mechanics	Cavalry	Light Artillery	Artillery	Infantry	Veteran Reserve Corps
Uniform Hat.....	\$2.25	\$2.25	\$2.25	\$2.25	\$2.25	\$2.25	\$2.25	\$2.25	\$2.25
" " Feather.....	\$0.15	\$0.15	\$0.15	\$0.15	\$0.15	\$0.15	\$0.15	\$0.15	\$0.15
" " Cord and tassel.....	\$0.16	\$0.16	\$0.16	\$0.16	\$0.16	\$0.16	\$0.16	\$0.16	\$0.16
" " Eagle.....	\$0.02	\$0.02	\$0.02	\$0.02	\$0.02	\$0.02	\$0.02	\$0.02	\$0.02
" " Castle.....	\$0.14								
" " Shell and flame.....			\$0.04	\$0.04					
" " Crossed sabres.....					\$0.02	\$0.02			
" " Crossed cannon.....							\$0.02		
" " Bugle.....								\$0.02	\$0.02
" " Letter.....					\$0.01	\$0.01	\$0.01	\$0.01	\$0.01
" " Number.....					\$0.01	\$0.01	\$0.01	\$0.01	\$0.01
" " Cap (Light Artillery).....						\$3.50			
" " Tulip.....						\$0.12			
" " Cord and tassel.....						\$1.00			
" " Plate.....						\$0.06			
" " Rings, pairs of.....						\$0.06			
" " Hair plume.....						\$1.00			
Forage Cap.....	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00
" " Cover.....	\$0.25	\$0.25	\$0.25	\$0.25	\$0.25	\$0.25	\$0.25	\$0.25	\$0.25
Uniform Coat, Musicians.....	\$13.25						\$13.25	\$13.25	
" " Privates'.....	\$12.50	\$12.50	\$12.50	\$12.50			\$12.50	\$12.50	
" " Jacket, Musicians.....					\$10.25	\$10.25			

THE QUARTERMASTER'S GUIDE

Uniform Jacket, Privates.....					\$9.25	\$9.25			\$6.50
Chevrons, pairs, non-commissioned staff.....			\$0.85		\$0.85		\$0.85	\$0.85	
" " 1st Sergeants.....	\$0.40				\$0.40	\$0.40	\$0.40	\$0.40	\$0.40
" " Sergeants.....	\$0.27				\$0.27	\$0.27	\$0.27	\$0.27	\$0.27
" " Corporals.....	\$0.20				\$0.20	\$0.20	\$0.20	\$0.20	\$0.20
Caduceus.....		\$0.95							
Shoulder scales, pairs, non-commissioned staff.....		\$1.00	\$1.00		\$1.00		\$1.00	\$1.00	
Shoulder scales, pairs, Sergeants'.....	\$0.90				\$0.90	\$0.90	\$0.90	\$0.90	
Shoulder scales, pairs, Privates'.....	\$0.70			\$0.70	\$0.70	\$0.70	\$0.70	\$0.70	
Trousers, Sergeants'.....	\$5.00	\$5.00	\$5.00		\$6.15	\$6.15	\$5.00	\$5.00	\$5.00
" Corporals'.....	\$4.85				\$6.00	\$6.00	\$4.55	\$4.85	\$4.85
" Privates'.....	\$4.75			\$4.75	\$5.00	\$5.00	\$4.75	\$4.75	\$4.75
Sash.....	\$2.60	\$2.60	\$2.60		\$2.00	\$2.00	\$2.00	\$2.00	\$2.00
Flannel Sack Coat (unlined).....	\$4.00	\$4.00	\$4.00	\$4.00	\$4.00	\$4.00	\$4.00	\$4.00	\$4.00
" " " (lined).....	\$4.80	\$4.80	\$4.80	\$4.80	\$4.80	\$4.80	\$4.80	\$4.80	\$4.80
" Shirt.....	\$2.32	\$2.32	\$2.32	\$2.32	\$2.32	\$2.32	\$2.32	\$2.32	\$2.32
Knit ".....	\$2.25	\$2.25	\$2.25	\$2.25	\$2.25	\$2.25	\$2.25	\$2.25	\$2.25
Flannel Drawers.....	\$1.60	\$1.60	\$1.60	\$1.60	\$1.60	\$1.60	\$1.60	\$1.60	\$1.60
Knit ".....	\$1.75	\$1.75	\$1.75	\$1.75	\$1.75	\$1.75	\$1.75	\$1.75	\$1.75
Stockings, pairs of.....	\$0.48	\$0.48	\$0.48	\$0.48	\$0.48	\$0.48	\$0.48	\$0.48	\$0.48
Bootees, sewed.....	\$2.70	\$2.70	\$2.70	\$2.70	\$2.70	\$2.70	\$2.70	\$2.70	\$2.70
" pegged.....	\$2.25	\$2.25	\$2.25	\$2.25	\$2.25	\$2.25	\$2.25	\$2.25	\$2.25
Boots, sewed.....					\$4.65	\$4.65			
" pegged.....					\$4.00	\$4.00			
Great Coats.....	\$12.00	\$12.00	\$12.00	\$12.00	\$14.50	\$14.50	\$12.00	\$12.00	\$12.00
" " Straps, pairs of.....	\$0.12	\$0.12	\$0.12	\$0.12			\$0.12	\$0.12	\$0.12
Blankets, woolen.....	\$7.00	\$7.00	\$7.00	\$7.00	\$7.00	\$7.00	\$7.00	\$7.00	\$7.00
" painted.....	\$2.65	\$2.65	\$2.65	\$2.65			\$2.65	\$2.65	\$2.65
" rubber.....	\$4.40	\$4.40	\$4.40	\$4.40			\$4.40	\$4.40	\$4.40
Poncho, painted.....					\$3.00	\$3.00			
" rubber.....					\$5.90	\$5.90			
Leather Stock.....	\$0.14	\$0.14	\$0.14	\$0.14	\$0.14	\$0.14	\$0.14	\$0.14	\$0.14
Leggins, leather.....	\$1.70	\$1.70	\$1.70	\$1.70			\$1.70	\$1.70	\$1.70
" linen.....	\$1.00	\$1.00	\$1.00	\$1.00			\$1.00	\$1.00	\$1.00
Overalls.....	\$2.45			\$2.45					
Stable Frocks.....					\$2.10	\$2.10			

Camp and Garrison Equipage

Knapsack and straps.....	\$3.10	Drum snares, sets.....	\$0.28
Haversacks, unpainted.....	\$0.65	" cases.....	\$0.68
" enameled and painted....	\$0.95	Wall tent.....	\$75.00
Canteens, complete.....	\$0.65	" " fly.....	\$29.00
" straps, leather.....	\$0.20	" " poles, sets.....	\$1.80
Bedsack, single.....	\$3.50	" " pins.....	\$0.48
" double.....	\$3.85		\$106.28
Mosquito bars.....	\$2.00	Sibley tent.....	\$102.50
Axe.....	\$1.65	" " poles and tripod.....	\$4.50
" helve.....	\$0.20	" " pins, sets.....	\$0.32
" sling.....	\$0.70		\$107.32
Hatchet.....	\$0.81	" " stoves.....	\$4.65
" helve.....	\$0.07	Hospital tent.....	\$175.00
" sling.....	\$0.55	" " fly.....	\$60.00
Spade.....	\$1.37	" " poles, sets.....	\$3.85
Shovel.....	\$1.32	" " pins.....	\$1.10
Pickaxe.....	\$1.50		\$239.95
" helve.....	\$0.16	Common tent.....	\$38.50
Camp kettle.....	\$1.00	" " poles, sets.....	\$1.15
Mess pan.....	\$0.45	" " pins.....	\$0.30
Iron pot.....	\$1.85		\$39.95
Garrison flag.....	\$125.00	Shelter tents, complete.....	\$9.80
" " hallards.....	\$3.70	Tent pins, hospital, large.....	\$0.04
Storm flag.....	\$36.50	" " wall.....	\$0.03
Recruiting flag.....	\$10.00	" " common, small.....	\$0.02
" " hallyards.....	\$0.30	Regimental book, order.....	\$3.40
Guidon.....	\$10.00	" " letter.....	\$3.40
Camp color.....	\$1.77	" " index.....	\$1.95
Standard, for mounted regiments.....	\$22.50	" " descriptive....	\$4.75
National color, artillery and infantry.....	\$62.00	" " general ord...	\$3.50
Regimental " " " ".....	\$77.50		\$17.00
Color belt and sling.....	\$3.52	Post book, morning report.....	\$0.90
Trumpet, with extra mouth-piece.....	\$3.25	" " guard.....	\$1.70
Bugle, " " " ".....	\$3.65	" " order.....	\$1.00
Cord and tassel, for trumpet or bugle..	\$1.02	" " letter.....	\$1.00
Fife "B" or "C".....	\$0.39		\$4.60
Drum, complete.....	\$7.75	Company book, clothing acc't....	\$3.00
" head, batter.....	\$1.10	" " descriptive.....	\$1.60
" " snare.....	\$0.42	" " order.....	\$1.25
" sling.....	\$0.40	" " morning report..	\$2.25
" sticks, pair.....	\$0.28		\$8.10
" " carriage.....	\$0.50	Record book, for target practice	\$0.75
" cord.....	\$0.35		

TABLE specifying the money value of Clothing allowed to the Army of the United States

	NON-COMMISSIONED STAFF								FIRST SERGEANT				SERGEANT			
	Cavalry	Light Artillery	Artillery and Infantry	Chief Musicians			Ordnance Sergeants	Hospital Stewards	Engineers	Cavalry	Light Artillery	Artillery and Infantry	Engineers	Cavalry	Light Artillery	Artillery and Infantry
				Cavalry	Light Artillery	Artillery and Infantry										
First year	\$104.33	\$107.76	\$103.10	\$105.17	\$108.60	\$103.44	\$103.10	\$103.30	\$104.65	\$103.43	\$106.86	\$102.20	\$104.39	\$103.17	\$106.60	\$101.94
Second year	\$62.74	\$65.17	\$63.89	\$63.16	\$65.59	\$64.06	\$63.89	\$63.99	\$65.89	\$62.29	\$64.72	\$63.44	\$65.76	\$62.16	\$64.59	\$63.31
Third year	\$88.23	\$91.66	\$89.38	\$89.07	\$92.50	\$89.72	\$89.38	\$89.58	\$90.99	\$87.33	\$90.76	\$88.48	\$90.67	\$87.07	\$90.50	\$88.22
Fourth year	\$62.74	\$65.17	\$63.89	\$63.16	\$65.59	\$64.06	\$63.89	\$63.99	\$65.80	\$62.29	\$64.72	\$63.44	\$65.76	\$62.16	\$64.59	\$63.31
Fifth year	\$78.99	\$81.42	\$82.24	\$79.83	\$82.26	\$82.58	\$82.24	\$82.44	\$83.70	\$78.09	\$80.52	\$81.34	\$83.53	\$77.83	\$80.26	\$81.08
	\$397.03	\$411.18	\$402.50	\$400.39	\$414.54	\$403.86	\$402.50	\$403.30	\$411.03	\$393.43	\$407.58	\$398.90	\$410.11	\$392.39	\$406.54	\$397.86

TABLE specifying the money value of Clothing, etc. (Continued)

	CORPORALS				MUSICIANS				ARTIFICERS AND PRIVATES				
	Engineers	Cavalry	Light Artillery	Artillery and Infan	Engineers	Cavalry	Light Artillery	Artillery and Infan	Engineers	Ordnance	Cavalry	Light Artillery	Artillery and Infan
First year	\$103.80	\$102.58	\$106.01	\$101.35	\$104.60	\$103.88	\$107.31	\$102.15	\$103.10	\$103.10	\$101.88	\$105.31	\$100.65
Second year	\$65.39	\$61.79	\$64.22	\$62.94	\$65.74	\$62.39	\$64.82	\$63.29	\$64.99	\$64.99	\$61.39	\$63.82	\$62.54
Third year	\$90.08	\$86.48	\$89.91	\$87.63	\$90.88	\$87.78	\$91.21	\$88.43	\$89.38	\$89.38	\$85.78	\$80.21	\$86.93
Fourth year	\$65.39	\$61.79	\$64.22	\$62.94	\$65.74	\$62.39	\$64.82	\$63.29	\$64.99	\$64.99	\$61.39	\$63.82	\$62.54
Fifth year	\$82.94	\$77.24	\$79.67	\$80.49	\$83.74	\$78.54	\$80.97	\$81.29	\$82.24	\$82.24	\$76.54	\$78.97	\$79.79
	\$407.60	\$389.88	\$404.03	\$395.35	\$410.70	\$394.98	\$409.13	\$398.45	\$404.70	\$404.70	\$386.98	\$392.13	\$392.45

The allowance to volunteer troops is at the rate of \$42 per annum.

All officers receiving clothing or camp and garrison equipage, must render monthly returns of it to the Quartermaster-General.⁵⁴⁸

Commanders of companies take the receipts of the men for the clothing issued to them,⁵⁴⁹ on a receipt roll, witnessed by an officer, or, in the absence of an officer, by a non-commissioned officer; the witness to be witness of the fact of the issue and the acknowledgement and signature of the soldier. The several issues to a soldier are to be entered separately on a roll, and all vacant spaces on the roll to be filled with a cipher. This roll is a voucher for the issue to the monthly return of the company commander.

Each soldier's clothing account⁵⁵⁰ is kept by the company commander in a company book. This account sets out only the money value of the clothing which he received at each issue, for which his receipt is entered into the book, and witnessed as in the preceding paragraph. "Extra issues" should be made on separate receipt-rolls, and the amount charged on the next muster-roll, to be deducted from his pay. These issues will be entered on the Clothing Book as "extra," noting the muster roll on which they have been paid.

When a soldier is transferred or detached,⁵⁵¹ the amount due to, or by him, on account of clothing should be stated on his descriptive list. In computing a soldier's clothing for his descriptive-roll, the extra issues which have not been paid for only are entered.

When a soldier is discharged,⁵⁵² the amount due to, or by him, for clothing, should be stated on the duplicate certificates given for the settlement of his accounts; if he has drawn more than his allowance, the difference should be entered, "Due to the United States for clothing overdrawn;" if he has drawn less than the allowance, the difference should be entered, "Due the Soldier for clothing not drawn."

A soldier frequently draws, on first joining the service, a years allowance of clothing, and before the end of one month, through the casualties of war, is disabled and discharged. If this be the case, through no indiscretion on his part, it seems but just to allow him pay in full for his services, considering his clothing account balanced. But if the soldier brought the disability into the service with him, or acquired it through his own misconduct, he should be charged the amount of the clothing drawn.

Deserters' clothing⁵⁵³ is to be turned into store. The invoice of it, and the Quartermaster's receipt for it, must state its condition, and the name of the deserter.

The report of a Board of Survey,⁵⁵⁴ on damaged clothing, should set out, with the amount of damage to each article, a list of such articles as are fit for issue, at a reduced price stated.

Commanding officers may order necessary issues of clothing to prisoners and convicts,⁵⁵⁵ taking deserters' or other damaged clothing when there is such in store.

Officers serving in the Quartermaster's Department are required to issue to Signal parties⁵⁵⁶ of the army, serving in their vicinity, such supplies as may be necessary for their proper equipment, on the requisition of the officer in charge of such parties.

⁵⁴⁸ Par. 1158., R.R., 1863

⁵⁴⁹ Par. 1159., R.R., 1863

⁵⁵⁰ Par. 1160., R.R., 1863

⁵⁵¹ Par. 1161., R.R., 1863

⁵⁵² Par. 1162., R.R., 1863

⁵⁵³ Par. 1163., R.R., 1863

⁵⁵⁴ Par. 1164., R.R., 1863

⁵⁵⁵ Par. 1165., R.R., 1863

The Quartermaster's Department is required to issue, upon the requisition of the medical officer in charge of any hospital or depot of sick and wounded soldiers, such regulation clothing necessary to their health⁵⁵⁷ and comfort as may be requisite to replace that lost from the casualties of war; the necessity of the issue to be certified by the surgeon, and the requisition to be approved by the Medical Director or Medical Inspector of the Station – such issue to be gratuitous and not charged to the soldier. The Quartermaster-General will cause blank requisitions (Form, No. 40, A.) to be furnished to the officers of the various hospitals upon their application.

With the exception of issues to patients in hospital, as provided for in the preceding paragraph (and of one pair of trousers, one pair of drawers, one pair of socks, one shirt, one blouse, and one cap, which may be issued to small pox patients⁵⁵⁸ discharged from hospital, free of charge), no gratuitous issues⁵⁵⁹ of clothing can be made without special order of the Secretary of War, based upon official reports of Boards of Survey in each case, setting forth the facts, with copies of the orders under which the clothing was lost, showing that it was lost, not by the fault of the men, but in obedience to orders given by sufficient authority; and that the issues should in no case exceed the actual necessities of the soldiers. No superfluities are to be replaced at the expense of the United States. Issues thus made must be of clothing in kind, not payments of money. The infected clothing of small pox patients, supplied as above, is to be burned.

Officers of the army may purchase, at regulation price,⁵⁶⁰ from the Quartermaster of the post, such articles of uniform clothing as they actually need, certifying that the articles so drawn are intended solely for their own personal use. (See Form in Part II.)

But, with the exception of underclothing and shoes,⁵⁶¹ of which, when there are no other means of procuring them, a reasonable quantity may, on the officer's certificate to that effect, be purchased for them from the Quartermaster, no officer's private servant, not a soldier, is permitted to draw or wear the uniform clothing issued to troops.

There is no authority in law or orders for the issue of clothing to citizen teamsters or other employees in the Quartermaster's Department. In the field, and at stations where clothing cannot be purchased by them, it may be admissible to issue to such persons necessary articles of clothing at regulated price, but the circumstances requiring it should be fully set forth in the Quartermaster's reports.

All officers transferring clothing, camp and garrison equipage,⁵⁶² are required to make the invoices thereof in triplicate, two copies of which are to be transmitted to the officer to whom the transfer is made, and the third is to be forwarded direct to the Quartermaster-General by mail. This applies to all officers, except company officers when issuing directly to their men.

Inasmuch as haversacks, knapsacks, painted blankets, and other painted articles of clothing and equipage are liable to spontaneous combustion,⁵⁶³ all packages containing such

⁵⁵⁶ Par. 54, App. B.

⁵⁵⁷ Par. 54, App. B.

⁵⁵⁸ W.D., G.O. 197, 1864

⁵⁵⁹ Par. 55, App. B, and Cir Q.M., G.O., Dec. 4, 1862

⁵⁶⁰ Par. 1166., R.R., 1863

⁵⁶¹ Par. 1167., R.R., 1863

⁵⁶² W.D., G.O. 357, 1863

⁵⁶³ Q.M.G., G.O. 34., 1864

articles should be stored separately from other goods, and in plain view of the person in charge of them. They should be inspected daily, to detect the first signs of heating. At all depots they should be stored in a separate building or out of doors.

In all cases of deficiency,⁵⁶⁴ or damages of any article of clothing, or camp or garrison equipage, the officer accountable for the property is required by law "to show, by one or more depositions, setting forth the circumstances of the case, that the deficiency was by unavoidable accident or loss in active service, without any fault on his part, and, in case of damage, that due care and attention were exerted on his part, and that the damage did not result from neglect."

In settling the accounts of the commanding officer of a company for clothing and other military supplies, the affidavit of any such officer⁵⁶⁵ may be received to show the loss of vouchers or company books, or any matter of circumstance tending to prove that any apparent existing deficiency was occasioned by unavoidable accident, or lost in service, without any fault on his part, or that the whole, or any part, of such clothing and supplies had been properly and legally used and appropriated; and such affidavit may be considered as evidence to establish the facts set forth, with or without other evidence, as may seem to the Secretary of War the case.

Chapter XIX.

MONTHLY MONEY AND PROPERTY RETURNS

An officer doing a general Quartermaster's business, involving responsibility for the disbursement of public money, for the receipt and issue of the thousand and one items of Quartermaster's property, and for the proper management of all the multifarious and troublesome cases which may arise, cannot avoid occasionally meeting with points which perplex him, and for which there is apparently no provision in the Regulations. In such cases, the temptation to "cut red tape" is very strong, and the officer may think that the exigencies of the case will shield him from censure and loss; but he will be mistaken. The Army Regulations are so well digested and so complete in every part, that it is scarcely possible to find a case to which they do not apply; and no officer can save himself from loss who attempts to set aside or evade any paragraph or provision in them. They are based upon the laws of the United States, and are equally as binding upon the accounting officers of the Treasury as upon the officer himself. The Quartermaster-General is required to give all returns and accounts which are forwarded to his office, a "rigid administrative scrutiny" before they are passed on for the action of the Treasury Department, where they pass through another scrutiny equally as rigid. Every error, great or small, is noticed and disallowed or suspended. No allowance is made for ignorance, inexperience, or the exigencies of the case, if the law and regulations are disobeyed. Many an officer has had his pay stopped for months for an irregularity in his accounts, which he might have avoided by ten minutes study of the Regulations, or by refusing to commit the irregular act knowingly.

⁵⁶⁴ Par. 1168, R.R. 1863

⁵⁶⁵ Par. 29, App. B.

The chapter on “public property, money and accounts,” when studied carefully, will be found to comprise rules which will cover almost every possible contingency which can arise in the transaction of an officer’s business, and all that the writer can do, in addition, is to amplify a few of the more concise and condensed paragraphs, in order to bring them more prominently to the reader’s notice.

All officers of, or acting in, the Quartermaster’s Department, and Regimental Quartermasters who receive public money which they are not authorized to retain as salary,⁵⁶⁶ pay or emolument, render their money accounts monthly, mailing or forwarding them addressed to the Third Auditor of the Treasury, at Washington, within ten days after the expiration of each successive month. The accounts and vouchers to be thus rendered are: Forms Nos. 10 to 22, inclusive, and Nos. 48 to 50, of the Revised Regulations of the United States Army. These accounts and vouchers are made up in duplicate; one copy of each to be retained by the officer for his own protection, the other copy to be forwarded, as above required, direct to the Third Auditor, and not to the Quartermaster-General.

Whenever an officer ceases, from any reason, to be a disbursing officer,⁵⁶⁷ he must immediately render his final accounts, with vouchers, to the Third Auditor.

The following Regulations take the place of paragraphs 1169, 1170, 1171, 1172 and 1173:

Property Returns (Forms Nos. 23 to 46, and Nos. 51 to 52) will be rendered monthly⁵⁶⁸ (not quarterly) to the Quartermaster-General direct, and not to the Auditor of the Treasury. They will be mailed, or otherwise forwarded, within ten days after the expiration of each successive month.

Monthly Statements, Returns, &c.,⁵⁶⁹ (Forms Nos. 1 to 9,) are for the Quartermaster-General’s office only, and will be mailed within five to ten days after the expiration of each month.

The Roll No. 3, and the Returns Nos. 23 and 51, will be made in triplicate; all other papers in duplicate. One copy of Roll No. 3 will be sent with the money accounts to the Treasury. Two Returns (Forms 23 and 51) will be sent to the Quartermaster-General – one with abstracts and vouchers and one without them.

Every Quartermaster is also required to report monthly to the Quartermaster-General copies of all contracts made, and all proposals received⁵⁷⁰ for supplies of any kind to be furnished. If this be neglected for one month, the officer’s pay will be stopped until he satisfactorily explains to the Secretary of War.

One complete set of accounts, returns, vouchers, and all papers pertaining thereto, should be retained by the officer for his own protection.

The monthly papers⁵⁷¹ (Forms 1 to 9), the returns of Quartermasters’ stores (Forms 23 to 51), and the returns of clothing, camp and garrison equipage, should each be accompanied by a

⁵⁶⁶ Par. 56, App. B

⁵⁶⁷ Par. 57, App. B

⁵⁶⁸ Par. 58, App. B

⁵⁶⁹ Par. 58, App. B

⁵⁷⁰ W.D., G.O. 231, 1864, Public Act 212, Sec. 5

⁵⁷¹ Par. 60, App. B

letter of advice, enumerating the papers therein enclosed; and if any of them are wanting, the reason of the omission should be stated.

All officers, including company commanders, who are accountable for any kind of public property⁵⁷² are required to make monthly returns of it, accompanied by the proper vouchers; and any officer failing in this, or who does not send an abstract of all his service or purchase vouchers to the Quartermaster-General, will be reported to the Paymaster-General and his pay stopped.⁵⁷³

The following "instructions for making returns" having been published in a circular issued July 1, 1863, by Colonel E. Anson More, late Quartermaster-General of the state of Missouri, are incorporated into this work on account of their great perspicuity and conciseness:

INSTRUCTIONS FOR MAKING RETURNS AND REPORTS

Reports and returns are made monthly. Quartermaster's stores are returned upon Form No. 23; clothing, camp and garrison equipage upon Form No. 51. Three copies of returns will be required – one copy to be retained by the officer making the return, and two copies (accompanied by one set of abstracts and vouchers) to be transmitted to the Quartermaster-General of the United States, Washington, D. C.

ABSTRACTS

Are to be made in duplicate – one to be retained by the officer, and one to accompany the returns for the Quartermaster-General.

Abstract "A," Form No. 11, is an abstract of all your cash purchases, and one copy of voucher No. 12 will support it. Consequently, you will enter upon this abstract each article contained in those vouchers, in columns properly headed, beginning with voucher of earliest date, upon the back of which you will endorse No. 1, and also enter in the margin of the abstract a corresponding number and date. The footings of the columns of this abstract will show the total amount of purchases for cash.

Abstract "B," Form No. 13, is an abstract of expenditures, and contains all payments of money, except for purchases, as above; vouchers No. 15 to 22 support this abstract. These two abstracts, with their vouchers, support your credit for cash disbursements (see Form No. 10), except transfers to officers, which are entered upon a separate abstract (B. b.), and supported by receipts for amounts so transferred.

Abstract "D," Form No. 24, comprises all purchases except clothing, camp and garrison equipage. You first copy into this all the purchases comprised in abstract A, the total being the amount paid for; then enter your purchases not paid for, which you support with voucher No. 25; the total shows all your purchases in the month for which you are responsible. No voucher supports that portion of this abstract of articles paid for; these are already vouched for in Abstract A.

Abstract "E," Form No. 26, is an abstract of articles received from officers, and is supported by invoices, Form No. 27.

⁵⁷² Par. 60, App. B

⁵⁷³ W.D., G.O. 392, 1863

Abstract "N," Form No. 45, is an abstract of articles manufactured, captured from the enemy, found at the post, &c.

Now enter in Return, Form No. 23, in columns properly headed, aggregate footings of columns of abstracts D, E and N, add up the returns, and you have the aggregate of all Quartermasters' stores for which you are accountable.

Now you come to abstract "F," of issues, Form No. 28, on which you enter your issues of fuel; Nos. 29 and 30 are your vouchers.

Abstract "G," Form No. 31, of forage issued and consumed, supported by vouchers No. 32, 33 and 34. No. 34 is your own certificate of forage consumed in the Quartermaster's Department.

Abstract "H," Form No. 35, in which you enter all requisitions for straw, vouched for by No. 36.

Abstract "I," Form No. 37. In this abstract you will enter all stationary issued on requisition, Form No. 38, and all consumed in the Quartermaster's Department; your own certificate will vouch for the latter.

Abstract "K," Form No. 39. On this you will enter all issues of stores for expenditure, (such as horse shoes, &c.,) issued on special requisitions, Form No. 40.

Abstract "L," Form No. 41. This abstract contains an account of all Quartermaster's stores expended in the public service, voucher No. 42; list of all articles lost or destroyed, No. 43; all property sold at public auction, No. 44.

Abstract "M," Form No. 45. This abstract is to account for articles that you turn over to other officers (to be accounted for by them), and their receipts to you will be vouchers to support the abstract. When receipts are not received in time to forward with your abstract, you will make a certificate that you have turned over the goods and no receipts have been received. Send with the certificates the bill of lading. As soon as the receipts are received, you will forward them and state what they are for.

Now enter in your Return, No. 23, under the proper heads, aggregate footings of these abstracts, (F, G, H, I, K, L and M.) Add up the return, and you have the total amount of articles issued and expended. Deduct these from the amount received, and you have the amount remaining on hand, and your returns are complete.

Clothing, Camp and Garrison Equipage are returned on Form No. 51. Enter first on the return your invoices, noting date, number of invoice, and from whom received, placing each article in the proper column. Add up the return, and you have the amount for which you are responsible.

Now enter your receipt rolls or requisitions, same as above, deduct the total of the issues from the total of the receipts, and your return is complete.

In case there are a greater number of invoices or receipts to enter than there are blank lines on the printed forms for such entries, they should be consolidated into an abstract, ruled in conformity with the return, the footing of which will be entered in the return.

Clothing is issued by commanders of companies, on their own receipt, taken on receipt roll, Form No. 52. Every signature must be witnessed by an officer, or, in the absence of an officer, by a non-commissioned officer, who will witness the fact of issue, and acknowledgement and signature of the soldier.

The footings of this roll are to be entered in the return, in the same manner as other issues, and the roll will be the voucher for the issue.

Company commanders should bear in mind that all property, except clothing, is *company property*, and will be under the control of the commander of the company, who is responsible for it. Company property will not be returned as issued, but borne on the return while fit for service. Haversacks, canteens, etc., will be charged to the soldier only when lost or destroyed through neglect.

Note 1. Care should be taken lest *Quartermaster's stores*, and *clothing, camp and garrison equipage*, are on the same requisition or receipt; each class must be on separate vouchers, so that the voucher can be filed with its appropriate abstract.

III. In signing returns, or any official document, the officer will state his rank, company and regiment. * * * * *

IV. Quartermaster's accounts may well be compared to a set of books, and viewed in this light, the requisitions, invoices, receipts, etc., are the day-book, or original entry, in which every fact important to be known, should be *clearly* and *distinctly* set forth. The *abstracts* correspond to the journal, in which each class of vouchers are arranged in proper form, and show each kind of transaction by itself. The *returns* are your ledger, into which you post your abstracts and consolidate all your accounts.

* * * * *

(Signed)

E. ANSON MORE,
Colonel and Quartermaster-General of Missouri

(For full instructions in regard to making returns of clothing, see Q.M.G., G.O. 11, 1863.)

It is more frequently the case, that the difficulty an officer meets with in settling his accounts with the Treasury Department arises from faults in the voucher rather than in the abstracts or returns.. To lessen the probability of this occurring to readers of this book, the forms in Part II are all properly filled up, full explanatory notes appended, the footings carried to the proper abstracts, and the abstracts entered upon the returns. They are also so arranged that the whole number of forms make up a complete and correct report, comprising what is usually known as the "Monthly Report," (because it has always been required monthly, while the returns were required only quarterly,) the return of the Quartermaster's property, the return of clothing, camp and garrison equipage and the money account. This feature, when taken in connection with Colonel More's instructions, will, it is believed, render many points clear to beginners, which otherwise might prove to be very perplexing and incomprehensible.

Chapter XX.

GENERAL INSTRUCTIONS

No Disbursing officer shall accept, or receive, or transmit to the Treasury to be allowed in his favor any receipt or voucher from a creditor of the United States, without having paid to such a creditor the full amount specified in such voucher or receipt,⁵⁷⁴ in such funds as he received for disbursement, or such funds as he is authorized to receive by Paragraph 993; and every such act will be deemed to be a conversion to his own use of the amount received in such receipt or voucher. And no officer in the military service, charged with safe keeping, transfer, or disbursement of public money, shall convert to his own use, or invest in any kind of merchandise or property, or loan, with or without interest, or deposit in any bank, or exchange for other funds, except as allowed in the preceding article, any public money entrusted to him; and every such act will be deemed to be a felony, and an embezzlement of so much money as may be so taken, converted, invested, used, loaned, deposited or exchanged. (Act, August 6, 1846.)

Any officer who directly or indirectly, sells or disposes of, for a premium, any Treasury note, draft warrant, or any other public security in his hands for disbursement,⁵⁷⁵ or sells or disposes of the proceeds or avails thereof, without making returns of such premium, and accounting therefore by charging it in his accounts to the credit of the United States, will forthwith be dismissed by the President. (Act, August 6, 1846.)

If any disbursing officer shall bet at cards or any game of hazard,⁵⁷⁶ his commanding officer shall suspend his functions, and require him to turn over all the public funds in his keeping, and immediately report the case to the proper Bureau of the War Department.

All officers are forbid to give or take any receipt in blank⁵⁷⁷ for public money or property; but in all cases the voucher shall be made out in full, and the true date, place, and the exact amount of money, in words, shall be written in the receipt before it is signed.

The receipt to a voucher must be signed, when practicable, by a principal.⁵⁷⁸ When this is not practicable, the officer will add to his own certificate a statement that the agent is duly authorized to sign the receipt.

When an individual makes "his mark," instead of signing his name to the receipt, it must be witnessed by a third person.⁵⁷⁹

No advance of public money shall be made;⁵⁸⁰ but in all cases for the performance of any service, or the delivery of articles of any description, payment shall not exceed the value of the service rendered, or the article delivered, previously to such payment.

No officer disbursing or directing the disbursement of money for the military service shall be concerned, directly or indirectly, in the purchase or sale, for commercial purposes, of any article intended for, making a part of, or appertaining to the Department of the public service in which he is engaged,⁵⁸¹ nor shall take, receive, or apply to his own use any gain or emoluments, under the guise of presents or otherwise, for negotiating or transacting any public business, other than what is or may be allowed by law.

⁵⁷⁴ Par. 994, R.R., 1863

⁵⁷⁵ Par. 995, R.R., 1863

⁵⁷⁶ Par. 996, R.R., 1863

⁵⁷⁷ Par. 997, R.R., 1863

⁵⁷⁸ Par. 963, R.R., 1863

⁵⁷⁹ Par. 963, R.R., 1863

⁵⁸⁰ Par. 999, R.R., 1863

⁵⁸¹ Par. 1000, R.R., 1863

No wagon-master or forage-master shall be interested or concerned, directly or indirectly, in any wagon or other means of transport⁵⁸² employed by the United States, nor in the purchase or sale of any property procured for, or belonging to, the United States, except as the agent of the United States.

No officer or agent in the military service shall purchase from any other person in the military service,⁵⁸³ whether officer, soldier or citizen, or make any contract with any such person to furnish supplies or services, or make any purchase or contract, in which any such person shall be admitted to any share or part, or to any benefit to arise therefrom.

No person, whether officer, soldier or citizen, in the military service, whose salary, pay or emoluments is or are fixed by law or regulations, shall receive any additional pay,⁵⁸⁴ extra allowance, or compensation in any form whatever, for the disbursement of public money, or in any other service or duty whatsoever, unless the same shall be authorized by law, and explicitly set out in appropriation.

All accounts of expenditures⁵⁸⁵ shall set out a sufficient explanation of the object, necessity and propriety of the expenditure.

The facts on which an account depends must be stated⁵⁸⁶ and vouched by the certificate of an officer, or other sufficient evidence.

If any account paid on the certificate of an officer is afterwards disallowed⁵⁸⁷ for error of facts in the certificate, it shall pass to the credit of the disbursing officer, and be charged to the officer who gave the certificate.

An officer shall have credit for an expenditure of money or property made in obedience to the order of his commanding officer.⁵⁸⁸ If the expenditure be disallowed, it shall be charged to the officer who ordered it; but this paragraph will not shield an officer who, even in obedience to an order from his commanding officer, shall disburse funds for purposes manifestly unlawful, or for private purposes.⁵⁸⁹

The following rules for the computation of time in paying employees of the Government apply to all payments made since October 1st, 1863:⁵⁹⁰

1. The law providing compensation having ignored unequal duration of months, by allotting the same pay to each; and the Pay Tables having, for convenience, subdivided each month's pay into thirty equal parts, thus paying, in twelve months of thirty days each, the full salary provided by law for the entire year, the months should be assumed, in computing pay, as they are by the law, to be of equal length, any duration than thirty days being ignored.

2. To conform with the foregoing, and in order to save the trouble and delay of four distinct calculations of monthly pay, in hereafter computing the time of service of Government officers and employees, thirty days will be assumed as the length of each and every month in the year.

⁵⁸² Par. 1001, R.R., 1863

⁵⁸³ Par. 1002, R.R., 1863

⁵⁸⁴ Par. 1003, R.R., 1863

⁵⁸⁵ Par. 1004, R.R., 1863

⁵⁸⁶ Par. 1005, R.R., 1863

⁵⁸⁷ Par. 1006, R.R., 1863

⁵⁸⁸ Par. 1007, R.R., 1863

⁵⁸⁹ Q.M.G., G.O. 10, 1863

⁵⁹⁰ Circular, Comptroller's office, September 1, 1863

3. For any full month's service performed by persons employed by the government at a stipulated monthly rate of compensation, (or yearly salary, if paid in installments,) payments will be made at such stipulated monthly rate, without regard to the number of days the month paid for may contain.

4. In cases when the service *commences* on an intermediate day of the month, and thus embraces only a fractional part thereof, thirty days will be assumed to constitute the entire duration of such month, whether the calendar length thereof be 28, 29, 30 or 31 days, and pay will be computed accordingly.

5. When the service *terminates* at an intermediate day of the month, and hence embraces but a fractional part thereof, the whole number of days during which service was rendered in such fractional part of a month will be allowed in making payments.

6. For convenience in calculating service embracing two or more months, or parts of months, but one fraction will be made. Thus, from the 21st of September to the 25th of November, *inclusive*, will be calculated – from 21st September to 20th October, *inclusive*, as one month; from October 21st to November 20th, *inclusive*, another month and from 21st to 25th November, *inclusive*, five days – making two months and five days.

7. When two fractions of months occur in any account for service, both together being less than a whole month, as from the 21st of August to the 10th of September, the calculation of time will be from August 21 to 30, *inclusive* (ignoring the 31st), ten days, and from the 1st to the 10th of September, *inclusive*, ten days – making the time to be paid for twenty days.

8. When accounts are hereafter rendered for service stated to have been performed from one date to another, one of the days named will be excluded, unless it is specified that the service rendered was “inclusive” of both.

9. Service commencing in February will be calculated as though that month contained thirty days; thus, from February 21 to the end of the month, *inclusive*, ten days will be allowed, though the actual time be but eight or nine days.

10. The foregoing rule does not apply to commutation of rations. In computing them, the actual number of days are to be ascertained and allowed,

When a disbursing officer is relieved, he shall certify the outstanding debts to his successor,⁵⁹¹ and transmit an account of the same to the head of the bureau, and turn over his public money and property, appertaining to the service from which he is relieved, to his successor, unless otherwise ordered.

When a hired person is discharged and not paid, a certified statement of his account shall be given him.⁵⁹²

Property, paid for or not, must be taken up on the return, and accounted for when received.⁵⁹³

All property captured by the army, or seized by any Provost-Marshal, or taken up estray, or taken from soldiers marching in the enemy's country, will be turned over to the Chief of the Staff Departments to which such property would appertain,⁵⁹⁴ on duty with the troops, and will be

⁵⁹¹ Par. 1009, R.R., 1863

⁵⁹² Par. 1012, R.R., 1863

⁵⁹³ Par. 1012, R.R., 1863

⁵⁹⁴ Par. 13, App. B., and G.O. 88, W.D., 1863

accounted for by them as captured property, and used for the public service, unless claimed by owners and ordered by the commanding officer to be returned. In such case, the receipts of the owners to whom the property is delivered will be taken therefore. Provost-M Marshals will make returns of all such property to the Adjutant-General of all such property, and of the disposition made of it, accounting on separate returns for ordnance, Quartermaster, subsistence, medical stores, etc., furnishing and procuring the usual invoices and receipts, and charging the officers to whom the property has been delivered with the same on the returns.

All property, public or private, taken from alleged enemies, instantly becomes public property, and must be inventoried and duly accounted for.⁵⁹⁵ If the property taken be claimed as private, receipts must be given to such claimants or their agents. Officers are held strictly responsible for all property taken by them or by their authority, and it must be accounted for the same as any other public property.

Every officer having money to account for, who fails to make his returns⁵⁹⁶ Therefore, with all the vouchers necessary to a prompt settlement, within three months after the expiration of the period specified by law, will be promptly dismissed the service, unless he can explain the default satisfactorily to the President. If he reside in a foreign country, he is allowed six months before dismissal.

After an officer's returns of property and money have been examined by the Quartermaster-General, they are passed by him to the proper Auditor of the Treasury Department, with his remarks on each satisfactory voucher. A copy of these remarks is furnished the Quartermaster who made the returns. After they have been examined by the proper Auditor, he forwards to the Quartermaster who made the returns his "statement of differences." in which each faulty voucher is named and its defects pointed out and explanations required.

To this "statement of differences" the Quartermaster is to reply at once through the office of the Quartermaster-General,⁵⁹⁷ giving full explanations and adducing the necessary proof to sustain his statements. In many cases, owing to the delay in receiving this "statement of differences" from the Auditor's office, it will be impossible to obtain the proper and necessary evidence; in such case, the officer's own affidavit to the facts will be the only recourse.

No officer has any authority to insure⁵⁹⁸ public property or money.

Disbursing officers are not authorized to settle with heirs, executors or administrators,⁵⁹⁹ except by instructions from the proper Bureau of the War Department, upon accounts duly audited and certified by the proper accounting officers of the Treasury.

The following instructions must be observed by parties who to seek procure payment for articles furnished or services rendered by persons who deceased without being paid for such articles or services:⁶⁰⁰

The application for payment must be made by the legal heir according to the following order:

⁵⁹⁵ Par 22, App. B.

⁵⁹⁶ Par. 1039, R.R. 1863

⁵⁹⁷ Par. 1042, R.R. 1863

⁵⁹⁸ Par. 1014, R.R. 1863

⁵⁹⁹ Par. 1015, R.R. 1863

⁶⁰⁰ Letter, Q.M.G.O, January 18,1865

First. If the deceased was married, payment will be made – first, to the widow; second, if no widow, to his child or children; (if minors, to a guardian).

Second. If he died unmarried – first, to the father; second, if the father is dead, to the mother; third, if both parents are dead, to the brothers and sisters collectively; lastly, to the heirs general.

The claimant or claimants under the law as above set forth under the order as above set forth, should make a written application, under oath, and over his, hers, or their own signatures, stating name, residence, connection held to the deceased, the name of officer under whose direction the services were rendered, the date of his death, and the nature of the pay claimed; which application must be supported by the deposition of two credible witnesses as to the facts set forth in the deposition. The application and depositions should also be subscribed and sworn to before an officer duly authorized to administer oaths, and stamped in accordance with the requirements of the Internal Revenue Law, and submitted to the officer of the Q. M. General for reference to the Second Controller of the Treasury.

The above instructions apply to such cases as the applications of legal heirs to be paid for the services of Government teamsters and employees who have died or been killed with pay due them. If the officer who had employed them has reported their death upon Form 8, (see Part II.,) there will be no difficulty in obtaining proper payment through the office of the Quartermaster-General, as no proof will then be required as to the amount and nature of services rendered, but only the fact of actual heirship,

Public horses, mules, oxen, tools and implements shall be branded,⁶⁰¹ conspicuously, U.S. before being used in service, and all other public property that it may be useful to mark; and all public property having the brand of the U.S. when sold or condemned, shall be branded with the letters I.C.

No public property shall be used, nor labor hired for the public be employed for any private use⁶⁰² whatsoever, not authorized by the regulations of the service.

Public property lost or destroyed⁶⁰³ in the military service must be accounted for by affidavit, or the certificate of a commissioned officer, or other satisfactory evidence.

Affidavits or depositions⁶⁰⁴ may be taken before any officer in the list, as follows, when recourse cannot be had to any before-named on said list, which fact shall be certified by the officer offering the evidence: 1st, a civil magistrate competent to administer oaths; 2nd, a judge advocate, 3rd, the recorder of a garrison or regimental court martial; 4th, the adjutant of a regiment; 5th, a commissioned officer.

As far as practicable, every officer in charge of public property, whether it be in use or in store⁶⁰⁵ will endeavor, by timely repairs, to keep it in serviceable condition, for which purpose the necessary means will be allowed on satisfactory requisition; and property in store so repaired will be issued for further use.

⁶⁰¹ Par. 1016, R.R., 1863

⁶⁰² Par. 1017, R.R., 1863

⁶⁰³ Par. 1030, R.R., 1863

⁶⁰⁴ Par. 1031, R.R., 1863

⁶⁰⁵ Par. 1025, R.R., 1863

Chapter XXI.

BOARDS OF SURVEY

When public property becomes damaged, except by fair wear and tear,⁶⁰⁶ or otherwise unsuitable for use, or a deficiency is found in it, the officer accountable for the same shall report this case to the commanding officer, who will, if necessary, appoint a board of survey.

Boards of survey are called for the purpose of establishing data by which questions of administrative responsibility may be determined, and the adjustment of accounts facilitated;⁶⁰⁷ as, for example -

1st. To assess the amount and kind of damage or deficiency which public property may have sustained from any extraordinary cause, not ordinary wear, either in transitu or store, or in actual use, whether from accident, unusual wastage, or otherwise, and so set forth the circumstances and fix the responsibility of such damage, whether on the carrier, or the person accountable for the property or having it immediately in charge.

2nd. To make inventories of property ordered to be abandoned, when the articles have not been enumerated in the orders.

3rd. To assess the prices at which damaged clothing may be issued to the troops, and the proportion in which supplies shall be issued, in consequence of damage, that renders them at the usual rate unequal to the allowance which the Regulations contemplate.

4th. To verify the discrepancy between the invoices and the actual quantity or description of property transferred from one officer to another, and ascertain, as far as possible, where and how the discrepancy has occurred, whether in the hands of the carrier or the officer making the transfer.

5th. To make inventories and report on the condition of public property in the possession of officers at the time of their death.

The action of the Board for these authorized objects will be complete, with the approval of the commanding officer; provided, that neither he nor any of the board are interested parties; but will be subject to revision by higher authority.

Boards of Survey are convened by the commanding officer present,⁶⁰⁸ and are composed of as many officers, not exceeding three, as may be present for duty, exclusive always of the commanding officer and the officer responsible in the matter to be reported on; but in case the two latter only are present, then the one not responsible will perform the duties, and the responsible officer will perform them only if there be no other recourse. The proceedings of the board will be signed by each member, and a copy forwarded by the approving officer to the Headquarters of the Department or army in the field, as the case may be, duplicates being furnished to the officer accountable for the property, one of which he forwards with his returns and retains the other.

⁶⁰⁶ Par. 1025, R.R., 1863

⁶⁰⁷ Par. 1019, R.R., 1863

⁶⁰⁸ Par. 1020, R.R., 1863

In no case will the report of a board of survey supersede the depositions which the law requires, with reference to deficiencies and damage.

When public property is received by any officer, he will make a careful examination to ascertain its quality and condition,⁶⁰⁹ but without breaking packages until issues are to be made, unless there should be cause to suppose the contents defective; and in any of the cases supposed in the preceding paragraph, he will apply for a Board of Survey for the purpose therein set forth.

If any article of public property be lost or damaged⁶¹⁰ by neglect or fault of any officer or soldier, he shall pay the value of such article, or amount of damage, or cost of repairs, at such rates as a Board of Survey, with the approval of the commanding officer, may assess, according to the place and circumstances of the loss or damage.

If any article of public property be embezzled,⁶¹¹ or, by neglect, lost or damaged, by any person hired in the public service (as for instance teamsters or carriers), the value of the damage, as ascertained, if necessary, by a Board of Survey, shall be charged to him, and act against any pay or money due him.

When stores received do not correspond in amount or quality with the invoice⁶¹² or bill of lading, they will be examined by a Board of Survey, and a copy of the report of the Board be communicated to the proper bureau, to the issuing and forwarding officer, and to the officer authorized to pay the transportation account.

Damages recovered from the carrier or other party liable will be refunded to the proper department.

On the death of any officer in charge of public property or money,⁶¹³ the commanding officer shall appoint a Board of Survey to take an inventory of the same, which he shall forward to the proper Bureau of the War Department, and he shall designate an officer to take charge of the said property or money till orders in the case be received from the proper authority.

Quartermasters receiving clothing will give duplicate receipts for the clothing as invoiced to them, if the packages, as received and marked, agree with the invoice, and appear rightly marked and in good order;⁶¹⁴ if otherwise, an inspection will be made by a Board of Survey, whose report, in case of damages or deficiency, will be transmitted, one copy to the Quartermaster-General, and one to the officer forwarding the supplies. In case of damage, the Board will assess the damage to each article.

The report on damaged clothing shall set out, with the amount of damage to each article, a list of such articles as are fit for issue at a reduced price stated.⁶¹⁵

The following will answer as an example of an order convening a Board of Survey:

⁶⁰⁹ Par. 1022, R.R., 1863

⁶¹⁰ Par. 1027, R.R., 1863

⁶¹¹ Par. 1029, R.R., 1863

⁶¹² Par. 1036, R.R., 1863

⁶¹³ Par. 1037, R.R., 1863

⁶¹⁴ Par. 1147, R.R., 1863

⁶¹⁵ Par. 1164, R.R., 1863

Headquarters, District.....
W....., Mo., Aug. 25, 1864

Special Orders, }
No. 101 }

I. A Board of Survey, to consist of the following officers, viz.:

Captain J..... S....., Co. "D," 2nd O. V. V.;
1st. Lieutenant W..... S....., Co. "B," 8th Iowa Infantry
1st. Lieutenant J..... T....., Co. "H," 5th Cav. M. S. M.,

Is appointed to meet in the office of Captain A..... B....., A. Q. M., at W....., Mo., at 2 o'clock P. M., on the 26th day of August 1864, to examine and report upon a lot of clothing for which he is responsible. The Board will be required to examine the property, and report upon whom the responsibility for its present condition should rest.

By order of Brigadier-General E..... F.....,

G..... H.....
Captain and A.A.G.

The following will answer as a pattern for a report of

THE PROCEEDINGS OF A BOARD OF SURVEY.

Proceedings of a Board of Survey convened at W....., Mo., by Special Order hereto attached. (Here insert the Order entire.

Present – Captain J..... S....., Co. "D," 2nd O. V. V.; 1st. Lieutenant W..... S....., Co. "B," 8th Iowa Infantry; 1st. Lieutenant J..... T....., Co. "H," 5th Cav. M. S. M.

The Board then proceeded to examine the condition of the articles submitted to them, and found as follows:

That a lot of stockings invoiced to Captain A..... B....., A. Q. M., at, by Captain C..... D....., A. Q. M as 642 pairs of good quality, consists of but 626 pairs, of which 594 pairs were good and fit for issue, and 132 pairs moth-eaten and worthless.

That a lot of Trousers invoiced to Captain A..... B....., A. Q. M., at, by Captain C..... D....., A. Q. M. at, as 242 pairs in good condition, consists of 242 pairs, of which but 145 pairs are in good condition and fit for issue, and 97 pairs are irregular (being of inferior quality and not the regulation color or pattern) and not fit for issue to troops, but only fit to be issued to prisoners.

That a lot of Great Coats invoiced to Captain A..... B....., A. Q. M., by Captain C..... D....., A. Q. M. as 132 Great Coats of good quality, consists of 132 Great Coats,

of which but 48 are of the regulation color and pattern and fit for issue; 20 are damaged by moths, but being not entirely worthless, it is recommended that they be issued at \$3.00 less than the price established by the Secretary of War; and 94 are of inferior quality, moth-eaten and not fit for issue.

The Board examined a number of witnesses, and are satisfied that the condition of the above articles was caused through no fault of Captain A..... B....., A. Q. M., and the responsibility for the deficiency in the number of articles invoiced, and for their present condition, rests, as far as the Board is able to determine, upon Captain C..... D....., A. Q. M.

J..... S....., Captain, Co. "D," 2nd O. V. V. ;
 W..... S....., 1st. Lieut. Co. "B," 8th Iowa Infantry
 J..... T....., 1st. Lieut. Co. "H," 5th Cav. M. S. M.

There being no more business for the Board to transact, it then adjourned.

J..... S....., Captain, Co. "D," 2nd O. V. V. ;
 W..... S....., 1st. Lieut. Co. "B," 8th Iowa Infantry
 J..... T....., 1st. Lieut. Co. "H," 5th Cav. M. S. M.

Approved

Commanding.

It is frequently necessary to have the action of a Board of Survey upon articles requiring to be condemned previously to submitting them to an Inspector, as in the case supposed above, in order that the officer who desires to rid his property return of a quantity of worthless articles may not be held accountable for becoming thus worthless while in his possession, as would naturally be the case, he having receipted for them as in good condition. In such cases, the report of the Board of Survey should be forwarded with the Inspector's Report.

Sometimes, in cases of apparently exorbitant charges against the Government in an account for articles furnished or services rendered, a Board of Survey may be convened to examine the account, inspect the articles, and estimate the value of the service, and report thereon, either confirming or reducing the account. This report, having been approved by the commanding officer, should, together with the order convening the Board, be attached to the voucher when forwarded by the disbursing officer in rendering his money accounts.

Boards of Survey have no power to condemn⁶¹⁶ property of any kind. This is only done after due inspection by an authorized Inspector, in manner as follows:

⁶¹⁶ Par. 1019, R.R., 1863

Chapter XXII.

PROPERTY TO BE CONDEMNED

A Quartermaster having stores on hand, which, in his opinion, should be condemned, makes out a list of all the articles and submits it to the inspecting officer, who examines each article named carefully, and decides upon the disposition which shall be made of it, branding or stenciling, or otherwise marking I. C. upon such articles as he deems fit for condemnation,⁶¹⁷ and writing opposite each article on the list – “to be sold,” “to be dropped,” “to be broken up,” (i. e., taken to pieces and the sound parts used,) or, “to be repaired and issued,” as his judgement may dictate.

The Quartermaster then makes out triplicate inventories of the articles “to be dropped,” “to be broken up,” “to be sold,” &c., each grade on separate sheets, enumerating the articles separately, according to the form in Part II. The Inspector then takes them, sets opposite each article a statement of its condition and the disposition which should be made of it. The Quartermaster signs the certificate attached to the inventory,⁶¹⁸ stating how long the property has been in use, from whom received, and that it has never before been condemned. The Inspecting officer signs the inspection report, setting forth the condition of each article, and his recommendation in regard to its disposition. He also certifies that it has been examined, and that its condition is as stated. This paper is then forwarded, in triplicate, for the orders of the Commanding General of the Department or Army in the field,⁶¹⁹ who will direct the articles to be sold, destroyed or repaired, in accordance with the Inspector's report, or as the case may require, the sale of Ordnance and Ordnance stores excepted, for which the orders of the War Department must always be taken.

When these inventories are returned by the Commanding General, his orders in the case are executed, and one of the inventories is retained by the quartermaster, one accompanies his returns, and one is sent, through Department or other superior Headquarters, to the Chief of the Staff Department to which the officer belongs.

No other persons than those designated in Par. 1023, or the General-in-Chief, can order the final disposition of condemned property,⁶²⁰ saving only in the case of horses which should be killed at once to prevent contagion, and of provisions or other stores, which are rapidly deteriorating, when the immediate commander may have to act per force.

Military stores and other army supplies regularly condemned and ordered for sale,⁶²¹ shall be sold for cash, at auction, on due public notice, and in such market as the public interest may require. The officer making the sale will bid in and suspend the sale, when, in his opinion, better prices may be got. Expenses of the sale will be paid from its proceeds. The auctioneer's certified account of the sale, in detail, and the voucher for the expenses of the sale, will be

⁶¹⁷ W.D., G. O. 193, 1863

⁶¹⁸ Par. 1022, R.R., 1863

⁶¹⁹ Par. 1023, R.R., 1863

⁶²⁰ Par. 1023, R.R., 1863

⁶²¹ Par. 1032, R.R., 1863

reported to the Chief of the Department to which the property belonged. The net proceeds will be applied as the Secretary of War may direct.

Medical Inspectors are the "authorized inspectors" of medical and hospital property.⁶²²

No officer making returns of property shall drop from his return⁶²³ any public property, as worn out or unserviceable, until it has been condemned, after proper inspection, and ordered to be so dropped.

Public animals will not be condemned for temporary disease or want of condition, but may, by order of the commanding officer, *after inspection*,⁶²⁴ be turned in for rest and treatment, if unfit for the service for which they are immediately required.

Every inspector, member of a board of survey and commander acting on their proceedings, is held answerable that his action has been proper and judicious, according to the Regulations and circumstances of the case.

Company officers are governed by the same rule, in regard to inspection of their unserviceable property, and should not turn over any such stores until they have been duly inspected and ordered by competent authority to be so turned over. In such transfers, the officer in charge should furnish the receiving officer with a copy of the inventory and inspection report upon which the order to transfer is made.

The following extracts from a circular issued by the Inspector General of the Department of the Missouri, June 17, 1864, are reprinted for the benefit of the uninformed:

"I. All public property belonging to the Quartermaster's and Ordnance Departments, either serviceable or unserviceable, not absolutely necessary at the point where it may be located, in the possession of either Staff or Line officers, will be inspected by the District Inspectors, who will make such recommendations for its disposition, as in their judgment, seems most advantageous to the interests of the public service.

* * * * *

"IV. Quartermaster's and Ordnance property and stores, which, by long use and wear, have become unfit for service, and incapable of being repaired with advantage, will be recommended by the Inspectors to be 'broken up, used in the repair of other property of the same character, and dropped from the property returns;' or the recommendation may be, that it be 'sold at public auction,' at such places as in the opinion of the Inspector will be most advantageous. If the property be worn out and actually worthless, the Inspector may then recommend it 'to be destroyed and dropped from the property return;' and when the property is of such a character as to make it economy to repair it, the recommendation should be to that effect, setting forth where and by whom repairs should be made.

"Quartermaster property, in most cases, can be repaired at principal depots of Districts, and the Inspector should so recommend; but as there are seldom facilities for the repair of Ordnance and Ordnance stores at these depots, all such properties should be sent to the Saint Louis Arsenal for that purpose, when the quantity and value of the property to be repaired, etc., will warrant the expense.

⁶²² W.D., G.O. 54, 1864

⁶²³ Par. 1033, R.R., 1863

⁶²⁴ Par. 1025, R.R., 1863

“V. In the inspection and condemnation of public animals, each particular one must be put down and described separately, and on a distinct line of the inventory and inspection report – as for instance: ‘*One bay horse,*’ and then should follow a complete history of the animal, according to the requirements of the inventory, etc.

“VI. Damaged uniform clothing, when condemned, and such as is not strictly uniform, although new, should be recommended by the Inspectors to be issued to prisoners. Clothing and the national flag cannot be sold.

“VII. Property which, by any circumstance, has become unreasonably damaged before it has been fairly worn out in service, should first be submitted to the action of a Board of Survey before being inspected for condemnation by any inspector, and a copy of the proceedings of the Board should accompany the inspection, inventory, etc.

“VIII. In connection with the foregoing instructions, the attention of Inspectors is called to the following regulations, etc., viz: Paragraphs 1018 to 1033, inclusive; paragraph 1165 and paragraphs 13 and 22, Appendix B, Army Regulations of 1863, and General Orders, No. 193, War Department, Adjutant General's office, June 25th, 1863; General Orders Nos. 52 and 95, Current Series, Department of the Missouri, and the Ordnance circulars therein republished.

“By command of Major-General Roscrans.

“(Signed) JAS. TOTTEN,
“Brig.-Gen., Inspector-General, Dep't of the Mo.,”

At a post where there is no Inspector, and in cases where immediate action is required, the commanding officer⁶²⁵ will make, or cause to be made, the inspection, according as he may be commander of the post only or have a higher command.

Chapter XXIII.

CONTRACTS

All purchases and contracts for supplies or services for the army, except personal services, when the public exigencies do not require the immediate delivery of articles or performance of the service, shall be made by advertising a sufficient time previously for proposals respecting the same,⁶²⁶ and, when the intended contract is considerable, a copy of the advertisement and report of case must be transmitted to the proper Bureau of the War Department.

Contracts will be made with the lowest responsible bidder who produces the proper article.⁶²⁷ But when such lowest bids are unreasonable, they will be rejected, and bids again invited by public notice; and all bids and advertisements shall be sent to the Bureau.

⁶²⁵ Par. 1022, R.R., 1863

⁶²⁶ Par. 1044, R.R., 1863

⁶²⁷ Par. 1045, R.R., 1863

When sealed bids are required, the time of opening them shall be specified, and bidders have privilege to be present at opening.⁶²⁸

When immediate delivery or performance is required by the public exigency, the articles or services may be procured by open purchase⁶²⁹ or contract, at the place and in the mode in which such articles are usually bought and sold, or such services engaged between individuals.

All contracts are required to be made in *quintuplicate*,⁶³⁰ of which four copies shall be disposed as follows, viz.: one to be kept by the officer who makes the contract, one by the contractor, and two to be sent to the Military Bureau. The fifth shall be sent to the Returns office of the Department of the Interior, by the officer making and signing the same, within thirty days after the contract is made, together with all proposals, and a copy of any advertisement published by him touching the same attached in the manner required by the act approved June 2nd, 1862.

All copies and papers in relation to each contract⁶³¹ are to be attached together by a ribbon and seal, and numbered in regular order, numerically, according to the number of papers making the whole return.

Before sending his fifth copy to the Returns office, it is the duty of the contracting officer to affix to the same his affidavit, in the following form, sworn to by some magistrate having authority to administer oaths: "I do solemnly swear (or affirm) that the copy of contract hereto annexed is an exact copy of a contract made by me personally with -----; that I made the same fairly, without any benefit or advantage to the said -----, or any other person; and that the papers accompanying include all those relating to the said contract, as required by statute in such case made and provided." And any officer convicted of falsely and corruptly swearing to such affidavit shall be subject to all the pains and penalties now by law inflicted for willful and corrupt perjury.

Any officer making contracts, as aforesaid, and failing or neglecting to make returns of the same, according to the provisions of this Act, unless from unavoidable accident and not within his control, shall be deemed, in every case of such failure or neglect, to be guilty of a misdemeanor, and, on conviction thereof, shall be punished by a fine of not less than (100) one hundred dollars, nor more than 500 hundred dollars, and be imprisoned for not more than six months, at the discretion of the court trying the same.

The contractor shall give bond,⁶³² with good and sufficient security, for the true and faithful performance of his contract; and each surety shall state his place of residence.

Non-fulfillment of a contract to furnish supplies is deemed a crime, and the contractor willfully failing or neglecting to fill his contract should be tried and punished by a Court-Martial.⁶³³

No contract shall be made except under a law authorizing it,⁶³⁴ on an appropriation adequate to its fulfillment, except contracts by the Secretary of War for the subsistence or

⁶²⁸ Par. 1047, R.R., 1863

⁶²⁹ Par. 1048, R.R., 1863

⁶³⁰ Par. 18, App. B. R.R., 1863

⁶³¹ Rev. Reg's, 1863, Page 533

⁶³² Par. 1050, R.R., 1863

⁶³³ W.D., Solicitor's Opinion No. 545, 1864

⁶³⁴ Par. 1052, R.R., 1863

clothing of the army, or the Quartermaster's Department, which shall not exceed the necessities of the current year.

Each copy of every contract for supplies is liable to a stamp duty of five cents⁶³⁵ for every sheet of paper upon which it is written, and each copy of the bond to these contracts is likewise liable to a stamp duty of twenty-five cents – the stamps to be furnished and affixed by the contractor. He also cancels each by writing upon its face his initials and the date.

All contracts shall expressly provide for their termination at such time as the Quartermaster-General may direct,⁶³⁶ and for the exclusion of any interest in them on the part of members of Congress,⁶³⁷ officers and agents of the Government, and all persons employed in the public service.

Chapter XXIV.

MISCELLANEOUS

An officer issuing stores⁶³⁸ shall deliver or transmit to the receiving officer an exact list of them, in duplicate invoices, stating the cost of each article, and the receiving officer shall return him duplicate receipts.

When an officer to whom stores are forwarded has reason to suppose them miscarried,⁶³⁹ he shall promptly inform the issuing and forwarding officer, and the bureau of the Department to which the property appertains.

When persons and articles hired in the Quartermaster's Department are transferred,⁶⁴⁰ a descriptive list (Form 53) will be forwarded with them to the Quartermaster to whom they are sent.

When practicable, persons hired in the military service, shall be paid at the end of the calendar month, and when discharged, separate pay rolls should be made for each month.

When a hired person is discharged and not paid,⁶⁴¹ a certified statement of his account shall be given him.

Public property shall not be transferred gratuitously⁶⁴² from one staff department to another; nor shall the funds of one be used to liquidate the debts of another.

All estimates for supplies of property or money⁶⁴³ for the public service, within a department, shall be forwarded through the commander of the department; and all such estimates

⁶³⁵ Par. 1081, R.R., 1863

⁶³⁶ Par. 1079, R.R., 1863

⁶³⁷ Par. 1051, R.R., 1863

⁶³⁸ Par. 1034, R.R., 1863

⁶³⁹ Par. 1035, R.R., 1863

⁶⁴⁰ Par. 1174, R.R., 1863

⁶⁴¹ Par. 1012, R.R., 1863

⁶⁴² Par. 1026, R.R., 1863

⁶⁴³ Par. 1056, R.R., 1863

shall go through the intermediate commander – if such there be – of the officer rendering the estimate, as of the post or regiment.

No permanent buildings for the army, as barracks, quarters, hospitals, store-houses, offices, or stables, piers, or wharves, shall be erected⁶⁴⁴ but by the order of the Secretary of War, and according to the plan directed by him, and in consequence of appropriations made by law. And no alteration shall be made in any such public building without authority from the War Department.

Losses and damages are not paid for by the Quartermaster's Department, but the Quartermaster-General is authorized to investigate all claims for Quartermaster's supplies⁶⁴⁵ furnished the army and not settled for, and if found by him to be correct and just, and that the claimants are loyal men, to report each case to the Third Auditor for settlement.

Claims for horses, mules, oxen, wagons, steamboats, railroad cars, etc., lost in the service of the United States,⁶⁴⁶ must be forwarded to the Third Auditor of the Treasury Department for settlement, accompanied with the strongest evidence, in all cases, that the United States is actually responsible for the loss of the article specified.

Fines imposed by sentence of a general court-martial are to be paid only to the chief officer of the Quartermaster's Department, at the place where the prisoner may be.⁶⁴⁷ Some of the money received thus are to be remitted at once to the Adjutant-General, at Washington with the name of the prisoner from whom received, and the number of the order promulgating the proceedings of the court. In case a draft for this money is sent, it should be made payable to the "Adjutant-General of the United States Army," or order, without inserting the name.

No officer, clerk or agent of the Government is permitted to receive any compensation⁶⁴⁸ for rendering any assistance in relation to any claim, contract, proceeding, etc., and in which the United States is a party, before any tribunal of any kind, civil or military, under penalty of fine, imprisonment and disqualification to hold any office thereafter under the Government of the United States.

On application of the Medical Director, approved by the commanding officer, the necessary policing at general hospitals may be done by employees of the Quartermaster's Department.⁶⁴⁹

Employees of the Quartermaster's Department captured by the enemy⁶⁵⁰, while in the performance of their duties, are entitled to pay at the rate they were employed when captured by the enemy, from the date of their capture to the date of their release, upon their own affidavit, or other satisfactory evidence setting forth when and where they were captured, and the time and place of their release; and also that they have not received pay or supplies of any kind in lieu thereof, from any source whatever, for any part of said time, or authorized anyone else so to do.

After such employees have been exchanged or paroled, the Government will not continue payment as above, unless the men perform service in the Department.

⁶⁴⁴ Par. 1060, R.R., 1863

⁶⁴⁵ Act of Congress approved July 4, 1864

⁶⁴⁶ W.D., G.O. 113, 1863

⁶⁴⁷ W.D., G.O. 258, 1863

⁶⁴⁸ W.D., G.O. 212, 1863

⁶⁴⁹ W.D., G.O. 222, 1863

⁶⁵⁰ Q.M.G. Circular, July 19, 1864

By the 123rd section of the Internal Revenue Act of June 30, 1864, the rate of tax upon salaries rendered after that date is fixed at five per centum.

The following regulations are for the guidance of disbursing officers:⁶⁵¹

1. The duty of five per centum is to be withheld from all salaries of officers or payments for services to persons in the civil, military, naval, or other employment or service of the United States, including Senators, Representatives and Delegates in Congress, when exceeding the rate of six hundred dollars per annum.

2. Where persons are transiently employed, the tax will be computed on a basis of three hundred working days each year. In such cases, the amount of two dollars per day will be exempt from taxation.

3. Each commissioned officer in the army receives from a Paymaster compensation at a rate exceeding six hundred dollars; therefore, all payments to commissioned officers made by a Quartermaster, or disbursing agent other than a Paymaster, will be in excess of the rate of six hundred dollars per annum, and the duty of five per centum must be withheld from such payments.

4. An accurate return should be made upon Form No. 10, which will be furnished by the office of Internal Revenue, showing the name of the person or persons to whom the payments were made, and from whom the tax was withheld, and also the month or months for which the salaries were due.

5. This return, in all cases accompanied by payment of the amount of tax, must be transmitted to the Commissioner of the Internal Revenue, at Washington (Hon. Joseph L. Lewis.)

6. If the payment is remitted by certificate of deposit with an assistant treasurer or designated depository of the United States, or with a National Bank duly authorized to receive such moneys, special care must be exercised to forward the proper certificate in accordance with the note upon its margin.

In taking the receipt of any person for money paid him, the signature and the name, as written at the head of the account or upon the receipt roll, must correspond exactly; thus, if the person's name is John A. Williams, and is so written at the head of the account, it will not answer for him to sign J. A. Williams; nor, if his name is Clark, will it answer for the voucher to be made in the name of Clarke.

In giving vouchers for purchases, the quantity of each item purchased and the rate allowed must be stated in every case.

Purchases for the hospital are made only on the requisition of the Medical officers (Form 49), and paid on his certificate as to the necessity of the purchase and the reasonableness of the price charged (Form 50). The articles are not taken up on the property return of the Quartermaster, nor accounted for by him in any way. When paid, the voucher is entered in abstract C.

Vouchers for the payment of transportation and supplies must be accompanied by the original bill of lading.

END OF PART I.

⁶⁵¹ Office of Internal Revenue, Circular of July 1, 1864

THE QUARTERMASTER'S GUIDE

General Orders, }
No. 1. }

Quartermaster-General's Office

Washington City, *January 2, 1863*

The following report from the Chief Quartermaster of the Depot of Washington is published, in order to make known to officers responsible for the care of horses some portion of the injury caused by want of skill and attention to the horses of the cavalry, artillery and trains of the army.

All officers of the Quartermaster's Department are called upon to use their utmost exertions to correct this evil, and save the country as much as possible of this enormous waste of its military resources and of its treasure.

M. C. MEIGS
Quartermaster-General

Office of the Depot Quartermaster,
Washington, D. C., *Dec. 22, 1862*

Brig. Gen'l M. C. Meigs
Quartermaster-General U. S. Army,

Sir: I have the honor to state that a very large number of unserviceable horses have been turned into this depot from the regiments, batteries, etc., in the field, within the past few months, I have caused inquiry to be made relative to the number turned in since September 1, 1862; the number returned to duty; and the probable causes which rendered these animals unserviceable. I find that from 1st September to December 18, 1862, there have been turned into this depot eleven thousand eight hundred and eleven (11,811) unserviceable horses, averaging about 109 horses daily. During the same period there have been returned to duty, fit for service, from this Depot, 5,701 horses, averaging about 53 daily. There have died, been shot by order of Inspectors, and to prevent contagion, during the same period, 2,834 unserviceable horses, a daily average of about 26. Until recently the extent of stable room has been insufficient to accommodate, except partially, the very large number of horses which have been sent here, and many of them were consequently out of doors, whose lives might, perhaps, have been prolonged under cover. We now have, or shall have within a few days, stabling sufficient for about 3,700 horses requiring medical treatment, leaving about 650 without shelter.

The horses used in the teams of this Depot have been furnished exclusively from those turned into this Depot, and which have been subsequently recruited. A portion of the horses turned in, as previously stated, are affected with diseases beyond the control of those who had them in charge; by far the larger proportion, however, are rendered unserviceable, my opinion, by hard and improper riding and want of proper attention, and by disease arising from neglect and ill treatment such as grease, quitter, thrush, foot-rot, poll-evil, fistula, lice, etc., etc., which might have been prevented by proper care. There are also occasional cases where improper

medicines have been administered. By the extension of our hospital stables, we are endeavoring to give as many horses as practicable the advantages of protection from the weather while under treatment, but, in view of the immense number turned in, it will be impracticable to care for all of them; and, unless more careful treatment can be exacted from those parties who have them in use previous to their arrival here, this great and unnecessary mortality of horses will continue to the serious detriment of the public service.

I am, sir, very respectfully, your obedient servant,

D. H. RUCKER
Quartermaster and Colonel

General Orders, }
No. 2. }

Quartermaster-General's Office

Washington City, *March* 10, 1863

“The Secretary of War decides that claims of Turnpike and Bridge Companies, for tolls on Government account, shall be settled ‘by paying fifty per cent upon the amount of legal tolls, proved by satisfactory evidence.

“In the settlement of such accounts, disbursing officers of the Quartermaster's Department will be governed by the above decision.

“M. C. MEIGS”
“Quartermaster General”

General Orders, }
No. 3. }

Quartermaster-General's Office

Washington City, *February* 7, 1863

The following extracts from the Tax Law of July 1, 1862, and the amendment in the act of July 14, 1862, and extracts from the act of December 25, 1862, and extracts from the act of March 3, 1863, and extract from decision of Commissioner of Internal Revenue of March 23, 1863; also extracts from a Solicitor of War Department 24th March, 1863, communicating the decision of Commissioner of Internal Revenue, dated M23, 1863, relating to stamps upon various papers, such as contracts, charter parties, etc., are published for information of officers of the Quartermaster's Department. Bonds, charter parties and contracts are frequently received at this office, which, for want of compliance with the requirements of this law, are rejected.

All officers and agents of the Quartermaster's Department will require a strict conformity to the law on the part of those who enter into contracts with them.

M. C. MEIGS
Quartermaster General

(Omitted as being repealed by act of 1864.)

Extract from Decision of March 23, 1863.

TREASURY DEPARTMENT
Office of Internal Revenue, March 23, 1863

“The regulations of the War Department, which have (as I suppose) the force of law, require each contract to be executed in five parts. It may be reasonably assumed, that it is the purpose of the regulation to make each part of full legal value. It therefore follows that the proper stamps should be affixed to each part of every contract.”

“All adhesive stamps must be furnished, affixed and cancelled by the contractor.”

WILLIAM WHITING
Solicitor of the War Department

March 24, 1863

General Orders, }
No. 4. }

Quartermaster-General’s Office

Washington City, *March 28, 1863*

I. The following extracts from an act of Congress, approved March 3, 1863, to promote the efficiency of the Corps of Engineers, and for other purposes, is published for the information of all officers and agents of the Quartermaster’s Department:

“Section 8. *And be it further enacted*, That the officers of the Medical Department shall unite with the line officers of the Army, under such rules and regulations as shall be prescribed by the Secretary of War, in supervising the cooking within the same, as an important sanitary measure; and that said Medical Department shall promulgate to its officers such regulations and instructions as may tend to insure the proper preparation of the ration of the soldier.

“Sec. 9. *And be it further enacted*, That cooks shall be detailed in turn from the privates of each company of troops in the service of the United States, at the rate of one cook for each company numbering less than thirty men and two cooks for each company numbering over thirty men, who shall serve ten days each.

“Sec. 10. *And be it further enacted*, That the President of the United States be, and he is hereby, authorized to cause to be enlisted for each cook two under-cooks of African descent, who shall receive, for their full compensation, ten dollars per month, and one ration per day; three dollars of said monthly pay may be in clothing.

II. It appears that some Quartermasters have heretofore employed colored persons, and reported them as cooks to volunteer companies. Their pay is not a proper charge against the appropriations for the Quartermaster’s Department; and Congress having now provided by law for the enlistment of two colored under-cooks for each company numbering less than thirty men, and of four such under-cooks for each company numbering over thirty men, the practice of reporting such cooks upon the roles of persons employed by Quartermasters should cease.

Enlisted men are not paid by this Department.

M. C. MEIGS
Quartermaster General

}

General Orders,

Quartermaster-General's Office

No. 5.

Washington City, *April 23*, 1863

Captain William Finkler, A.Q.M., U.S. Volunteers, having reported to the Quartermaster-General, under General Orders, No. 97, War Department, Adjutant-General's Office, April 15, 1863, is assigned to duty in the West, and will proceed to St. Louis and report to Colonel Robert Allen, Chief Quartermaster, for instructions.

M. C. MEIGS
Quartermaster General

General Orders, }
No. 6. }

Quartermaster-General's Office

Washington City, *May 11*, 1863

The following order is published for the guidance of the Disbursing Officers of this Department:

Previous to the settlement of claims of Turnpike and Bridge Companies for tolls on Government account, they should furnish the daily charges made upon their books, certified to by the gate-keeper; and affidavit of the President and Secretary, (made before a Justice of the Peace, the clerk of the county court to certify that he is a Justice,) that the Company was chartered by the State of _____, giving the date; that the accounts, as presented, are for tolls on Government wagons, etc.; that _____ is the gate-keeper regularly appointed by the Company.

The United States pays only one-half of the ordinary tolls.

M. C. MEIGS
Quartermaster General

General Orders, }
No. 7. }

Quartermaster-General's Office

Washington City, *June 17*, 1863

Accounts in favor of citizens for an authorized reward of five dollars allowed for the apprehension and delivery of a deserter from the military service of the United States, and for transportation and reasonable expenses incurred in the duty, as provided for in General Orders, No. 92, War Department, July 31, 1862, will continue to be paid by officers of the Quartermaster's Department, upon presentation of proper vouchers.

The evidence of desertion, apprehension and delivery will be the certificate of a Provost-Marshal, or a commanding officer at a military post or depot to whom the deserter may be delivered, which certificate should be in substance as follows:

I certify that _____ has apprehended, and this day delivered to me, at (name the place or military station) Sergeant, Corporal, or Private (as the case may be,) _____ (giving the name in full) of company _____, _____ regiment of _____, a deserter from the

military service of the United States, and that _____ is entitled to the reward authorized for such service.

(Place and date of certificate.)

A_____ B_____,

(Provost-Marsha, _____ District, State of _____,
or rank and regiment, or corps to which he belongs.)

The charge for transportation, and reasonable expenses of the duty, which will be stated in the same account as the charge for the apprehension and delivery of the deserters, must be supported by a detailed statement of the expenses incurred, showing where, when, to whom, and for what purpose the expenses were paid, and where the deserter was arrested. Receipts from the parties to whom the expenses were paid, should be filed as sub-vouchers; or, if such receipts cannot be procured, the claimant must make affidavit that the statement is correct; that he has paid the amounts charged to the persons, and for the purposes stated; that the expenses were actually and necessarily incurred in the apprehension and delivery to the nearest Provost-Marshal or military station, of the deserter or deserters named, and that it is impossible to obtain receipts therefore.

Rewards and expenses thus paid will be promptly reported, by the disbursing officer, to the officer commanding the company in which the deserter is mustered, and to the authority competent to order his trial.

Provost-Marshals or Deputy Provost-Marshals are not entitled to receive a reward for the apprehension of deserters.

When non-commissioned officers or soldiers are sent in pursuit of a deserter, whether successful or not in the pursuit, the expenses incurred will be paid, and reported as in the case of a reward.

M. C. MEIGS
Quartermaster General

General Orders, }
No. 8. }

Quartermaster-General's Office
Washington City, July 3, 1863

Officers of the Provost-Marshal's Bureau forming the Enrollment Board of each Congressional District are entitled to draw forage in kind from the Quartermaster's Department, upon the usual requisition, for each horse actually kept by them, where and at the place where they are on duty, not exceeding the number authorized by law, as follows:

The Provost-Marshal, (who has the rank, pay, and emoluments of a captain of cavalry,) and the Surgeon and Citizen at large, (who are, with the Provost-Marshal, to form the Enrollment Board, and who receive the compensation of an assistant surgeon of the army,) each for *two* horses.

The officer must certify that the requisition is correct and just; that he has not drawn forage, or received money in lieu of any part thereof, for any part of the time charged; and that the horse or horses for which forage is required has or have been actually kept by him when and at the place where he is on duty.

M. C. MEIGS

Quartermaster General

General Orders, }
No. 9. }

Quartermaster-General's Office

Washington City, *July 6, 1863*

When clothing or other military supplies are sent from Arsenals or Depots to Provost-Marshals of Congressional Districts, the transportation, drayage, and hauling of such supplies, until they are delivered to the Provost-Marshals, are a proper charge against the appropriation for the Quartermaster's Department; and when expenses are necessarily incurred for such service at stations where there is no officer of the Quartermaster's Department on duty, the accounts therefore, setting forth the object, necessity, and propriety of the expenditure, will be paid by the nearest disbursing Quartermaster, upon the certificate of the Provost-Marshal of the District where the account originated. At a place where there is an officer of the Quartermaster's Department on duty, the Provost-Marshal will make requisition upon the Quartermaster for the required service, instead of contracting for it himself.

M. C. MEIGS
Quartermaster General

General Orders, }
No. 10. }

Quartermaster-General's Office

Washington City, *July 7, 1863*

The following extracts from a decision of the Second Controller of the Treasury, dated from the 3rd instant, are published for the information of the officers of the Quartermaster's Department.

M. C. MEIGS
Quartermaster General

“There is no doubt that an order signed by the proper military representative of a Commanding-General, in the usual form, is to be considered as the act of the latter, both by himself and those to whom it is directed, and upon whom it operates. The well known principal that *‘qui facit per alium facit per se,’* applies in this case, and the same usage itself has become a part of military law, most orders being issued through a representative.” “The responsibility of the order to” _____ (the officer to whom it was directed) “must rest with _____ (the Commanding-General by whose command it was issued,) “unless it be shown that his Adjutant-General acted in that capacity without authority.”

“In interpreting Regulation 1007 of the Army Regulations, it should be borne in mind that, to entitle a disbursing officer to a credit for an expenditure of money or property by order of his Commander, such expenditure must be on public account and for the public service. For instance, if supplies not authorized by the Regulations be purchased for the use of the Army, and payment be made therefore by direction of the Commanding Officer, the disbursing officer is entitled to a credit for such expenditure, if disallowed, and the amount will be charged to the

Commanding Officer. But for an expenditure obviously unlawful, or for private purposes, the Regulations would not shield the disbursing officer from the responsibility, even when made by his Commander. A disbursing officer would not be entitled to a credit for paying out of public funds in his hands the private debts of his Commander, nor for paying a Private the pay and emoluments of a Colonel, merely because his Commanding Officer ordered it to be done. An unlimited and irresponsible authority to pay on the order of the Commanding Officer is not sanctioned by any just construction of the regulation, and would give full scope to collusion and fraud. It might even imperil the very existence of an army, by diverting the funds and supplies provided for its sustenance to unlawful and private ends.”

“I do not know all of the particulars of the case upon which Quartermaster _____ bases his questions; but I understand it to be one of *damages*, not provided for by any law or appropriation, and, therefore inadmissible; but equitable in itself, and undoubtedly to be paid finally by the United States.”

“(Signed)

“J. M. BROADHEAD,
“*Comptroller.*”

General Orders, }
No. 11. }

Quartermaster-General’s Office

Washington City, *July 10, 1863*

The following rules, relating to Returns of Clothing, and Camp and Garrison Equipage, and their rendition, are published for the information and guidance of all officers making Returns of Clothing and Equipage:

Officers receiving supplies of clothing, and Camp and Garrison Equipage, are required to render Monthly Returns of them to the Quartermaster-General, and in the prescribed form, for which see “Form No. 51, Revised Army Regulations of 1861.”

The returns should always be made out in triplicate, the vouchers in duplicate only. One complete set of these returns, with vouchers, should be retained by the officer for his own protection; the others, consisting of one copy of the returns with vouchers, and one without vouchers, should be sent to the Quartermaster-General.

The vouchers to these returns consist of invoices of the supplies received, and receipts for their issue or transfer, and such other papers as may be necessary to account fully for the property.

Copies of vouchers are of no validity in the absence of proof of loss of the originals, or of impracticability of producing them. When copies are used, they must, in all cases, be duly authenticated by affidavit.

When supplies received do not correspond in quantity or quality with the invoices, they should be examined by a Board of Survey. A copy of the report of the Board should accompany the Return (Army Regulation, par. 1036.)

An officer issuing supplies should deliver or transmit to the receiving officer invoices of them, and the receiving officer should return him receipts. (Par. 1034.)

Returns of Clothing, and Camp and Garrison Equipage, are to be restricted to that particular species of property, and the accompanying vouchers to be in like appropriate to it.

When Clothing, or Camp and Garrison Equipage, is needed for a Company, it is to be procured by the Company Commander, from the Quartermaster, on estimate and requisition approved by the Commanding Officer (Paragraphs 1152 and 1153).

The phraseology, Company Commander, as used here, is applicable to commissioned officers only, and does not include non-commissioned officers in temporary charge of a company.

For clothing issued to soldiers, their receipts will be taken on a roll (Form 52), in duplicate, for the *articles* or clothing in kind. These receipts will be witnessed separately by an officer, or, in the absence of an officer, by a non-commissioned officer, the officer making the issue and accountable for the property excepted as incompetent, on the ground of being an interested party. (Par. 1159.)

When a soldier can write his name legibly, he will be required to do so. It is only in cases in which he cannot write that his mark is to be substituted. In either case, the signature or mark must be duly witnessed. (Par. 1159.)

The receipts of the soldiers should be taken at the time the issue is made. In cases in which soldiers are charged on the roll with clothing, and have not signed it in acknowledgement of the receipt of the articles, evidence by affidavit in verification of the fact will be required.

Soldiers clothing accounts are to be kept in company clothing books, in which the money value only of the clothing received at each issue is set out, for which money value their receipts are entered in the books and witnessed as above. (Par. 1160.)

The allowance for clothing to non-commissioned officers and privates of volunteer forces is \$3.50 per month, or \$42 per annum.

Knapsacks, haversacks, canteens, and other articles of camp and garrison equipage, are not to be entered on receipt rolls or returned as *issued* to soldiers. Such articles are to be borne on the return as on hand in use, while fit for service, and not to be charged to the person in whose use they are unless lost or destroyed by his fault. (Par. 1151.) In case of such loss of property in the hands of soldiers, the charges against them must be made on the Muster Roll and exhibited on the return.

Soldiers leaving their companies to go into hospital should leave their knapsacks, haversacks and canteens with the company commander, who is accountable for them.

If, however, these articles are carried away by the soldier, they should be entered as a memorandum charge on his descriptive list, to be finally stopped against his pay if he does not return them, or file with his descriptive list a receipt for the articles from an officer empowered to receive them; if furnished proof, if lost or destroyed, that such loss or destruction was not through his neglect or fault.

No article of clothing, or camp and garrison equipage, will be dropped from the returns as worn out or unserviceable, until condemned after proper inspection, and ordered to be so dropped. (Paragraphs 1021, 1022, and 1033.)

Public property lost or destroyed by casualty may be accounted for by deposition setting forth the circumstances.

By Act of Congress approved February 7, 1863, and published in General Orders No. 40, War Department, February 11, 1863, it is allowed in the settlement of accounts of company commanders for clothing, and camp and garrison equipage, that the affidavits of such officers may be received, showing the loss of vouchers or company books, or other circumstances tending to prove that any apparent deficiency was occasioned by unavoidable accident or loss in

actual service, without fault on their part, or that the whole or any part of such clothing and supplies have been properly and legally appropriated.

Affidavits or depositions may be taken before any officer in the list enumerated in paragraph 1031, Army Regulations, and as there provided.

When an officer in charge of public property is removed from the care of it, the Commanding Officer shall designate an officer to receive it, or take charge of it himself until a successor be regularly appointed. When no officer can remain to receive it, the Commanding Officer will take suitable means to receive it, and report the facts to the proper authority. (Par. 1038.)

In the event of the death of an officer having charge of clothing, and camp and garrison equipage, a Board of Survey should be appointed to take an inventory of it, which will be forwarded to the Commanding Officer to the Quartermaster-General, at Washington, D.C. The property should be placed in charge of an officer designated for that purpose by the Commanding Officer (Par. 1037.)

Officers of the Army may purchase, at regulation price, from the Quartermaster of their post, such articles of uniform clothing as they may actually need (to be paid for at the time of purchase), certifying that they are intended solely for their own personal use.

Clothing for issue to the non-commissioned staff and regimental band is to be drawn on the requisition and receipt of the Adjutant, and to be issued by him. Receipts from non-commissioned officers for clothing, except for their individual use, will not be recognized. Issues to them are to be made as to other enlisted men under paragraph 1159.

Requisitions for clothing for sick and wounded soldiers are to be made by the medical officer in charge of the hospital or depot of sick and wounded. When the issues are gratuitous, the necessity for them is to be certified by the surgeon, and the requisitions to be approved by the medical director or inspector of the station (General Orders, No. 85, War Department, July 23, 1862.)

Issues made under General Orders, No. 85, are to be duly receipted for by soldiers to whom such issues are made, as in other cases; and returns in form will be rendered by the issuing officer to the Quartermaster-General.

With the exception of issues to patients in hospital, as provided for in General Orders, No. 85, War Department, July 23, 1862, no gratuitous issues are to be made without special order of the Secretary of War. Claims for relief in money can be provided for by special legislation only, as in other private claims. (Circular, Quartermaster-General, December 4, 1862.)

Issues of clothing to prisoners of war will be made only at stations where such prisoners are held, unless specially ordered by the General commanding an army in the field, in which case the provisions of the foregoing paragraph must be complied with.

Company commanders, and all other officers accountable for such property, are required by General Orders, No. 165, War Department, June 5, 1863, to render returns of clothing, and camp and garrison equipage *monthly*. They will be made out as hereinbefore directed, separate from all other returns or accounts, and sent direct to the Quartermaster-General, accompanied by a letter of advice from the officer, giving his postoffice or station.

All communications to the Quartermaster-General relating to "clothing and camp equipage," will be so endorsed on the envelope under the word "official," with the signature thereto of the officer writing the communication. Communications thus addressed and endorsed need no postage stamps.

Company commanders are reminded that it is their duty, not only to cause soldiers, who are guilty of violating the law “forbidding the sale, destruction, or negligent loss of clothing, arms, or other public property,” to be charged on the muster rolls with all the articles improperly lost or disposed of, but also to enforce such other punishment as the nature of their offense may demand.

M. C. MEIGS
Quartermaster General

General Orders, }
No. 12. }

Quartermaster-General’s Office

Washington City, *July 14, 1863*

All officers of the Quartermaster’s Department will prepare and transmit to this office, on the 1st day of October next, a correct list of the clerks, agents, wagon and foragemasters, superintendents and masters of public transports employed in the service of the United States, under their direction, on the 30th day of September, 1863; which list must exhibit the amount of compensation, pay and emoluments allowed to each, the State or country in which he was born, the State or county he was appointed from, and where employed.

The officers aforesaid will also prepare and transmit to this office, on the 1st day of October next, a correct list of all *printers* employed under their direction, which list must exhibit the amount of compensation allowed or payments made to each from the 1st day of October, 1861, to the 10th day of September, 1863, inclusive, whether for publication of advertisements or for other printing; and if for advertisements, the name of the newspaper in which the advertisements were inserted, and the town and State where the newspaper is published must also be set forth.

M. C. MEIGS
Quartermaster General

General Orders, }
No. 13. }

Quartermaster-General’s Office

Washington City, *July 22, 1863*

The Quartermaster-General desires, in making up the Annual Report of the Quartermaster’s Department, to give a clear and distinct account of the operations of the Department during the fiscal year ending on the 30th June, 1863.

To this end, he desires to receive, at the earliest possible moment, from each officer to whom this order is addressed, full information in a concise and clear style, on the following points:

1st. The station, marches and duties of the officer during the year.

Given in the form of a personal narrative report, stating at what places and with what command the officer has served; the dates, as far as preserved, of changes of station; the marches and journeys he has been engaged in; the battles, and sieges, and skirmishes in which he has borne a part; the property generally which he has received and issued; whether any property under his charge has been lost, destroyed or captured, and its value; what rebel property,

captured by the army, has fallen into his hands; what was its value, and what disposition has been made of it.

All of this in a narrative form.

2nd. What property has been purchased or otherwise provided by the officer during the year; what property was in his charge at the beginning of the year, and what remained in his charge at the end of the year, 30th June 1863. Give the principle and most important items only, according to the tabular form below:

ARTICLES	On hand June 30, 1863	Received by purchase	Received from capture or confiscation	Total received	Issued to officers or troops	Condemned and sold	Lost by capture or destroyed	Total issued, sold and lost	Remaining on hand June 30, 1863
Horses.....									
Mules.....									
Oxen.....									
Army wagons.....									
Light wagons.....									
Ambulances.....									
Wheel harness.....									
Lead harness.....									
Oats.....									
Corn.....									
Hay.....									

THE QUARTERMASTER'S GUIDE

3rd. What sums of money have been received, expended, transferred to other officers, or otherwise disposed of and accounted for during the year; what balance remained in his hands on the 30th June, 1863, and where kept or deposited.

4th. Any suggestions for improvements in the *personnel* or administration of the Quartermaster's Department; improvement in the outfit of the troops, in their clothing, camp and garrison equipage, wagon trains, pack trains. In this connection, the kind and quantity of transportation wagons, teams, pack animals, tents, camp and garrison equipage with troops with which the officer has served, should be stated, with remarks upon their mobility, comfort and health, as affected by extravagant or too limited supply of these aids or impediments of armies.

5th. Any suggestions which may occur to the officer as likely to aid the department in giving a clear view of the services of its officers.

6th. The officers in charge of the principal depots will give a particular statement of the number of horses, mules wagons, ambulances, harness, great coats, uniform coats, jackets, blouses, pantaloons, woolen blankets, water-proof blankets, shoes, boots, stockings, shelter tents, common tents, wall tents, Sibley tents, hospital tents, hospital tents and irregular tents, which they had on hand 30th June 1862; have purchased during the year; have received from other officers during the year; have issued to other officers or to troops; and the quantity remaining on hand on 30th June 1863.

7th. Officers who have been engaged in settling accounts for transportation by railroad will report the total amount paid by them for railroad or other land transportation during the year.

8th. Those who have been engaged in settling transportation accounts by water will report the amounts paid by them for transportation on the rivers or lakes, and separately for transportation by sail or steam vessels on the ocean.

9th. Officers furnishing transportation will report the total amount of transportation furnished; the number of troops transported; the quantity, in barrels or tons, as the case may be, of subsistence stores, ordnance stores, and quartermaster's stores transported; and whether by land, river, or lake, or by sea,

10th. The names, tonnage, and earnings of all steamers, sailing vessels, or steamboats chartered or employed during the year, should be transported in tabular form.

Prompt and complete, but concise and clear, reports upon these subjects will enable the Department to do justice to its many meritorious officers whose labors have been so important to the successful progress of the armies of the country.

The reports will be carefully preserved in the archives of this Department, and will serve for future reference as a record of meritorious services, and will guide the Department in its selections for future duties and in recommendations for promotion. Such extracts from these reports as may seem of sufficient interest will accompany the report of the Quartermaster-General and will probably be published.

A Joint Resolution of Congress, of 3rd March, 1863, requires copies of the Annual Reports of the Heads of the several Executive Departments, with the usual documents, to be delivered to the Superintendent of Public Printing on or before the first day of November of each year.

In order that the reports called for by this order may be duly examined and considered by the Quartermaster-General in preparing his Annual Report to the Secretary of War, they should be received here at the earliest possible moment. Such as are not received by the 30th of September can hardly be made available or useful.

M. C. MEIGS
Quartermaster General

General Orders, }
No. 14. }

Quartermaster-General's Office

Washington City, August 14, 1863

The following instructions, approved by the Secretary of War, *in reference to horses captured from the rebel armies*, are published for the information and government of officers of the Quartermaster's Department:

Where a horse is captured from the rebels is identified by sufficient proof as the property of a loyal citizen, the claim of such citizen to his property will be recognized by returning the horse to him; or, if the necessities of the service prevent such return, by paying for it at the value not exceeding the average Government price of the district. Receipts should be taken in call cases in duplicate.

M. C. MEIGS
Quartermaster General

General Orders, }
No. 15. }

Quartermaster-General's Office

Washington City, *August 22, 1863*

The reward of five dollars, for the apprehension and delivery of a deserter from the military service of the United States, is increased by General Orders, No. 222, from the War Department, to *ten dollars*, the increase to have effect from and after the 16th July, 1863.

General Orders, No. 7, from this office, of the 17th of June last, is modified accordingly; and accounts in favor of citizens for the authorized reward of ten dollars, and for transportation and reasonable expenses incurred in the duty, will continue to be paid by officers of the Quartermaster's Department, agreeable to the instructions contained in that order.

M. C. MEIGS
Quartermaster General

General Orders, }
No. 16. }

Quartermaster-General's Office

Washington City, *August 29, 1863*

The following extract from a decision of the acting Commissioner of Internal Revenue, dated the 25th instant, in reference to sales at auction of United States property by officers, agents, or clerks of an executive Department, is published for the information of the officers of the Quartermaster's Department:

CHAS. THOMAS
Colonel and Acting Quartermaster-General

* * * * * "Where property belonging to the United States is sold at auction, for the benefit of the Government, by the agents, officers, or clerks of an Executive Department, no license is required by the person making such sale; nor are such sales subject to the duty of one-tenth of one per cent imposed upon auction sales by the 76th section of the excise law."

(Signed)

EDWARD McPHERSON
Acting Commissioner

General Orders, }
No. 17. }

Quartermaster-General's Office

Washington City, *Sept. 1, 1863*

New blanks, Form No. 5, will be supplied as soon as possible.

Officers having and using the present form will alter it to conform to the following, and, under the head of "Remarks," state from whom received and to whom transferred, and include in the "Total to be accounted for" all captured property pertaining to Transportation:

MONTHLY RETURN of *Public Animals, Vehicles, Harness, and other means of Transportation,*
In possession of _____, Quartermaster, at _____, Department
of _____, during the month of _____, 186_____.

Date		Horses	Mules	Cavalry Horses	Unserviceable Horses	Unserviceable Mules	Army Wagons	2-horse Wagons	4-horse Ambulances	2-horse Ambulances	Wheel Harness, single sets	Lead Harness, single sets	Wagon Saddles	Riding Saddles	Riding Bridles	Remarks
	On hand															
	Purch'd during month															
	Received from officers during the month															
	Capt'd during month															
	Total to be accounted for															
	Transf'd during month															
	Sold " "															
	Worn out " "															
	Died " "															
	Lost " "															
	Total issued and exp'ed.															
	Remaining on hand															

I certify that the above return is correct.

 Quartermaster

NOTE – Alterations to the several headings, or other articles than those enumerated, will not be made on entered upon the return.

CHAS. THOMAS
Acting Q. M. Gen'l.

Quartermaster-General's Office

Washington City, *September 19, 1863*

General Orders, }
 No. 18. }

Whenever stores are transferred from one Quartermaster to another, or by a Quartermaster to any other officer, the price or cost should be entered in the invoice, as provided in Form twenty-seven, Regulations of the Quartermaster's Department. Invoices deficient in this should be returned for completion.

By order:

CHAS. THOMAS
Acting Quartermaster-General

}

General Orders,

Headq'rs, U. S. Quartermaster's Dep't.

No. 19.

Chattanooga, *September 22*, 1863

Herinafter the following specifications will govern in all contracts and purchases of mules for the Quartermaster's Department:

Mules for the wagon trains to be not less than (14) fourteen hands high. Mules for the saddle and mules for the pack trains to be not less than (14½) fourteen and one-half hands high.

All mules for the Army must be over (2) years of age; strong, stout, compact, well-developed animals, in full health, free from any blemish or defect which would unfit them for severe work, and must have shed the four front colt's teeth and developed the corresponding four permanent teeth – two in each jaw.

All mules, when inspected and accepted, must be branded with the letters U. S. on the near shoulder, and on the neck with the letters of the initials of the name of the officer purchasing.

All officers and inspectors will be held to a strict accountability for their purchases. The discovery in a train of any mule not having the above tooth-marks will be cause for the instant dismissal of the inspector who passed it, and the purchasing officer will be called upon for an explanation.

All officers receiving mules by transfer or invoice will, immediately upon receiving them, and before signing receipts, inspect them carefully, examining the mouth of every mule; and will enter upon their receipts the condition of the animals when received, and state whether any of them fail to fulfill the requirements of the above specifications, and wherein, if at all, they are deficient.

When mules unfit for the service are received, a full report will be made to the next superior Quartermaster, and a copy thereof will be sent, at the same time, to the Quartermaster-General, at Washington.

M. C. MEIGS
Quartermaster General

General Orders, }
No. 20. }

Headq'rs, U. S. Quartermaster's Dep't.

Chattanooga, *October 12*, 1863

It is reported that officers in this department have demanded and received from their subordinates receipts for a greater weight of forage than they have actually issued.

Such a practice is in violation of the Regulations, opens a door for extensive fraud, and is most reprehensible. Upon conviction, the severest measures will be taken with those who accept, and those who give such false receipts.

M. C. MEIGS
Quartermaster General

General Orders, }
No. 21. }

Headq'rs, U. S. Quartermaster's Dep't.

Chattanooga, *October 8, 1863*

I. The duties of the Chief Quartermaster of an Army, consisting of several Corps, Divisions, or other organizations, embrace all that is necessary for the regulation and control of operations of the Quartermaster's Department in the Army to which he is attached.

When an Army Corps is so far detached as to be without the limits of communication with the Headquarters of the Army of which it forms a part, or where an Army Corps is an independent command, the duties of the Chief Quartermaster of the Corps are the same as those of the Chief Quartermaster of an Army.

In the absence of the Chief Quartermaster from Headquarters for any length of time, his duties at Headquarters will be assumed and performed by the Senior Officer of the Quartermaster's Department present with the Army.

The Chief Quartermaster of an Army should require from all the officers of his Department serving under his direction reports of the condition of the property in their charge, at such times as he may think necessary.

Regular reports should be made on the last day of every month, and generally it will be well to require them also on the 15th of the month.

These monthly and semi-monthly reports should specify the number and condition of all wagons, animals, and other means of transportation; of all cavalry and artillery horses for which the Quartermaster is expected to provide forage.

They should state the condition of the clothing of the troops in each Regiment, and the number of articles of clothing and the quantity of other supplies needed to complete the equipment of the men, of the animals, and of the wagons, according to the Regulations and General Orders in force at the time.

In the Army of the Cumberland a very thorough system of semi-monthly inspections is carried out by the Inspector-General, and the information as to the wants of the troops obtained by these inspections is communicated to the Chief Quartermaster by the Inspector-General.

This should be used in correcting the reports received from the various subordinate Quartermasters.

Those reports should be made by Regimental Quartermasters, and by Acting Assistant and Assistant Quartermasters, to their next superiors in regular order.

Brigade, Division, and Corps Quartermasters will consolidate them and forward them to the Chief Quartermaster of the Army, giving in the consolidated reports the estimates in detail for each Regiment.

The strength report of the several organizations should be stated upon the several returns and estimates.

The reports should be submitted for approval, as provided by Army Regulations, to the several Commanders, Regimental, Brigade, Division, and Corps, in order.

The Chief Quartermaster will consolidate all the reports, and submit them to the Commanding General for approval, and for his orders.

Such supplies of clothing and other property as may be in the several depots under his control he will cause to be brought forwarded and distributed to the Corps Quartermasters, to be by them distributed to their subordinates for issue to the troops. The accumulation of surplus stores of any kind in the immediate fields of active operations embarrasses the army, lessens its

mobility, diminishes by the necessary guards its fighting strength, and leads to frequent abandonment or destruction of valuable property. It should be avoided.

Every Quartermaster competent for his office will be able to estimate, accurate enough for all practical purposes, the quantity of every kind of supply which his command will be likely to need within a fortnight. While forage and rations for several days' use should always be kept with the troops, so that they may be able to march at a moment's notice, as far as possible daily supplies should be brought up from the depot for daily issue and consumption. This will leave the supplies packed in wagons intact as a reserve to be used on the march.

With the monthly estimates forwarded on the last day of each month, there should be full estimates of funds for paying off any indebtedness then existing, and also for the expenses of the ensuing month; the items should be separately stated in the estimate.

These estimates for money should be consolidated, and forwarded by the Chief Quartermaster of the Army to the Supervising Quartermaster, who is charged with providing him with funds. Only in extraordinary cases should these estimates be sent direct to Washington from the Headquarters of the several armies where there is a Supervising Quartermaster.

The Supervising Quartermasters will forward the estimates, with their remarks, for the action of the Quartermaster-General.

They will supply such funds as are immediately needed, and will advise the Quartermaster-General's office, at Washington, of the best mode, at the time, of supplying the funds required, whether by transfer from the Supervising Quartermaster or by direct remittance to the Chief Quartermaster of the Army.

When an Army is concentrated there should be but one Disbursing Quartermaster, who is the Chief Quartermaster of the Army. He should furnish the Corps Quartermasters with the funds needed to pay off the pay-rolls of all persons employed by the Quartermaster's Department within their several commands, and should examine these pay-rolls and correct them before furnishing the funds.

When a body of troops is detached to a considerable distance, the funds necessary to pay for forage or supplies purchased from loyal citizens of the country in which they are operating, should be placed in the hands of the Senior Quartermaster accompanying them, who should always be a bonded Disbursing Officer, of the rank at least of Captain and Assistant Quartermaster.

Public money should not be placed in the hands of officers who have not given bonds. Therefore, if the command thus detached is to be absent for a considerable time, and is to operate at a distance, an officer of such rank should always be detailed to accompany the command.

Whenever a Corps is operating a distance from the Headquarters or main body of an Army, the Lieut.-Colonel and Chief Quartermaster of the Corps will be supplied with the necessary funds, and will perform the duties herein described for the Chief Quartermaster of an Army.

The general object of this instruction is to reduce as much as possible the number of officers charged with disbursement and keeping of public money, and thus diminish the risk of loss, waste, extravagance and wrong.

The monthly and semi-monthly estimates of clothing and other supplies needed should be forwarded to the Supervising Quartermaster, with remarks, showing what supplies are present at the depots within control of the Chief Quartermaster of the Army, what it is necessary to provide, and recommending the mode of providing them. These estimates should always be accompanied by a letter of advice, which should not be a mere form, but which should give all the information

needed to enable the Supervising Quartermaster to provide for the wants of the troops, and to correct any abuses or errors which may appear. These estimates, with the accompanying paper, will be forwarded to the Quartermaster-General, with remarks and letters of advice by the Supervising Quartermaster, which will enable the Department to take the necessary action.

The Chief Quartermasters of the Department of the East, of the Susquehanna, of the Monongahela, of West Virginia, of the Army of the Potomac, of the Departments of North Carolina, of the South, and of the Gulf, will forward their estimates direct to the Quartermaster-General's office at Washington. Those of the Ohio and of the Cumberland will forward them through Colonel Thomas Swords, Assistant Quartermaster-General, Senior and Supervising Quartermaster of those Departments.

Those of the North-west, of the Missouri, of the Tennessee, and of Kansas, will forward their estimates through Brig.-General Robert Allen, Senior and Supervising Quartermaster of those Departments.

II. The attention of officers of the Quartermaster's Department is called to the necessity for greater neatness and care of their animals and means of transportation. The Army has been long enough in the field to give all the necessary experience to officers and drivers.

Horses and mules thrive better, bear fatigue and exposure better, for good grooming and protection from the weather.

Wagons will do better service from being cleaned and occasionally painted.

Harness should be hung up and kept clean, washed with soap and water, and occasionally oiled, and should not be thrown upon the ground.

There is no sufficient excuse for the difference in grooming and cleanliness which is now too apparent between the animals and equipage of the Artillery and of the Quartermaster's Department.

To enforce attention in these respects, frequent inspections should be made, and the Chief Quartermaster of each Army and Army Corps should assign the necessary assistant Quartermasters for this purpose. Corps Quartermasters should inspect all their teams regularly at least once a week.

The duties of the Chief Quartermaster of an Army or of an Army Corps are intended to be supervisory and administrative. His time should not be occupied with accountability for property, and he should have an assistant who will receive, receipt for, and take charge of all property which comes into his hands.

He should himself be active in visiting the different columns and camps, and see with his own eyes the condition of troops and supplies.

He should be in daily communication with the Commanding officer of his command, and be prepared at all times to second his exertions for the comfort, safety, health, efficiency and mobility of the troops.

To this end, he should be accurately informed as to the supplies on hand, their position and condition; as to the means of transportation in the Regimental, Division, and General supply trains, and be prepared to supply any deficiency.

He should be habitually an out-of-doors man, not an office man.

III. All reports should be made, as far as possible, upon the blanks prescribed by the Army Regulations.

IV. There are abuses and irregularities in the employment of clerks. Some Quartermaster's employ a much larger number than is necessary for the transaction of the public business, and pay prices which are not authorized by the Department.

The attention of officers is called to this matter. It is the duty of every officer to correct this abuse in those under his command, according to rank.

V. The practice, which it is reported prevails to some extent, of accumulating surplus stores and animals, of being "ahead" is in violation of Regulations, is wrong, and leads to many abuses. No officer can properly be "ahead," for it is his duty to take upon his returns and account for all property which may be in his possession.

If he find a stray mule, he should report the time, place and manner in which it came into his possession, and should not use it to balance his return of property by substituting it for another animal which he has lost.

The loss of animals or of property should be reported, with explanation of the cause and manner of the loss, which, if according to Regulations and sufficient, will exonerate the officer from blame and settle his accounts for the property lost.

No officer has the right to appropriate the property strayed from another officer charged, to make up for deficiencies in his own.

VI. The attention of officers is called to the Revised Regulations of the Army in relation to public property, money, and accounts, as modified by General Orders and Circulars from the War Department, and from the Quartermaster-Generals office.

Officers who have not received full sets of General Orders of the Quartermaster's Office for the past year should apply for them direct to Washington, stating the cause, if known, of the failure, and calling for the particular orders needed to complete their files.

VII. Every wagon should be supplied with a shovel or spade, a pick, and an axe.

These tools should be habitually used to repair roads on the march of trains.

Half-an-hours labor of the wagon-master and teamsters of a train of 25 wagons will, under intelligent direction by their officers, repair places which, if not repaired, will delay the march of a large train for hours.

It is a disgrace for the Quartermaster to lie for days in camp with a large force of idle men under his command, while the road within sight of his camp is in such a condition as to delay and break down passing trains, and yet this is no uncommon sight.

VIII. Upon the energy, ability, fidelity, and foresight of the Chief Quartermaster of any body of troops the success of every march and every military operation undertaken by their Commander largely depends.

The Chief Quartermaster is upon the Staff of the Commanding Officer, and should be in the closest relations with him. He will generally have the right to give orders within his own Department in the name and by the authority of the Commander; and his authority over the trains, the property, and supplies is subordinate only to that of the Commander, and to that of his superior in his own Department.

If he is active and vigilant he can be of the greatest service to his Commander, and to the troops, and to his country. If he is careless, his example will corrupt the whole Department under his direction, the officers and drivers will become careless, inefficient, and wasteful; the equipage will become unserviceable, and the Government will be called upon to replace the animals ruined by neglect and inattention.

It is not too much to say that the Government has already been obliged to replace many thousands of horses and mules which, with proper understanding of attention to their duties on the part of the Chief Quartermasters, would have been at this moment in serviceable condition. Many thousands of animals purchased at the very beginning of the war are now in service, fat, and in good condition. Proper service does not necessarily destroy these animals.

Neglect and inattention and imbecility on the part of those in charge ruin and tax the Treasury.

IX. This Order will be printed and distributed to every officer serving in the Quartermaster's Department.

M. C. MEIGS,
Quartermaster-General, U. S.

General Orders, }
No. 22. }

Quartermaster-General's Office

Washington City, *November 27, 1863*

The following decision of the Secretary of War, relative to the payment of contrabands for services rendered by them, is published for the information of the officers of the Quartermaster's Department.

CHAS. THOMAS
Colonel and Acting Quartermaster-General

War Department, *November 24, 1863*

"The payment of contrabands for services rendered by them will be made by officers of the Departments in which they are employed, except that when they are employed by a Quartermaster, and work under his direction in the construction of fortifications or other engineer work, the payment will be made by the officer employing them, and the amount reimbursed by the Engineer Department. As far as practicable, however, the wants of each Department of the service will be provided for by timely requisitions, and the disbursements made by officers directly responsible to the Department in which the expenditure belongs.

"By order of the Secretary of War,
"(Signed)

"E. R. S. CANBY,
"Brigadier-General, A. A. G."

General Orders, }
No. 22½ }

Headq'rs U. S. Quartermaster's Dept.,
(In the Field,) Chattanooga, Tenn.,
December 9, 1863

The Government transportation on the Mississippi river and its tributaries having become so important and expensive a branch of the service, it is deemed essential, for conducting it efficiently and economically, that there should be unity of action in its management:

I. To secure this, an officer of the Quartermaster's Department will be assigned to the general supervision of the Western River Transportation. His headquarters will be at St. Louis; but he will, from time to time, as movements of importance require his attention, visit the various cities and ports upon the rivers.

II. All Quartermasters having charge of river transportation on the Mississippi and its tributaries will make reports to and act according to the instructions of the Quartermaster in charge of the Western River Transportation, in all matters pertaining to that branch of the

service; not, however, interfering with any reports now required by any army orders or regulations.

III. The Quartermaster-General will, from time to time, detail such suitable and experienced Assistant-Quartermasters for this specific service, at important points, as he shall think the good of the service may require.

IV. In order to furnish the necessary information by which to render the Western River Transportation more efficient, uniform and economical, all Quartermasters, in charge of River Transportation on the Mississippi and its tributaries, will immediately forward to the office of the Chief Quartermaster of Western River Transportation, at St. Louis, a list of all boats of every kind in Government service, under their orders or control on the 1st of December, 1863, in accordance with the blank forms herewith. They will also furnish like information semi-monthly, until further orders from the Quartermaster-General or Chief Quartermaster of Western River Transportation. They will also, at the same time, advise the office of such transportation as they are likely to require. Also, whether any changes can be made in the use of wharf or other boats, whereby expense can be diminished, and of any accidents in transportation by which Government property has been lost or damaged. Also of any wrecked or damaged property in their vicinity requiring attention. Also, of the amount paid or expended by them for and on account of Government transports, and to what boats. Also, the cost, quantity, and kind of fuel expended or received for steamboat use.

Though these reports may for a time occasion some trouble, yet it is believed that in a brief period such a system may be educed as will not only tend greatly to economy, but will facilitate and reduce the labor and perplexities of this important branch of the service.

V. Colonel Lewis B. Parsons, Quartermaster and A. D. C., is assigned to duty as Chief Quartermaster of Western River Transportation. He will act in this duty subject to the orders of Brig.-General Robert Allen, senior Quartermaster on the Mississippi, and to such instructions as may, from time to time, be issued from the office of the Quartermaster-General of the War Department.

M. C. MEIGS,
Quartermaster-General, U. S. A.

General Orders, }
No. 23. }

Quartermaster-General's Office

Washington City, *Dec. 23, 1863*

Whenever any officer of the Quartermaster's Department, by reason of death, sickness, or having been taken prisoner, is unable to continue his duties, the Chief Quartermaster of the Department, Corps, or Station, will, without delay, communicate the facts to this office.

CHAS. THOMAS
Army Quartermaster-General

Official:

General Orders, }
No. 24. }

Quartermaster-General's Office

Washington City, *Dec. 24, 1863*

The following instructions, approved by the Secretary of War, in reference to the private horses of officers who are taken and held as prisoners by the rebels, and of officers absent from their stations by reason of wounds or disability, are published for the information and government of officers of the Quartermaster's Department.

When a forage officer is a prisoner in the hands of the enemy, or when necessarily absent from his command by reason of wounds or disability, the authorized private horse which he may be thus compelled to leave behind may be taken and branded "U. S." by the Quartermaster's Department, and the officer allowed the value thereof, to be determined by a board of officers to be appointed by the officer in command of the troops present. Certified vouchers (Form 12 of the Quartermaster's Department) for the property thus taken shall be sent, by the receiving

THE QUARTERMASTER'S GUIDE

officer, to the officer who owned it, except in cases where the officer is a prisinor in the hands of the rebels, when said vouchers shall be sent to this office.

Officers shall have the right to reclaim any horse thus purchased by the government, to which they may attach special value, upon refunding the money received by them, or upon surrender of the vouchers issued therefore.

CHAS. THOMAS

Colonel, Acting Quartermaster-General

General Orders, }
No. 1. }

Quartermaster-General's Office

Washington, *January 8, 1864*

The Chief Quartermaster of each Army and Department will make out and transmit to the Quartermaster-General, as soon as possible after the first day of each month, a report of the officers to whom public moneys or military supplies have been transferred during the month next preceding the date of the said reports, agreeable to the form herewith.

This report is called for to enable the Quartermaster-General to report to the Paymaster-General, for suspension of pay, the name of every officer in the Quartermaster's Department who shall hereafter receive public moneys or military supplies, and fail to take up and account for the same, as required by Army Regulations.

CHAS. THOMAS

Colonel, Acting Quartermaster-General

THE QUARTERMASTER'S GUIDE

Monthly Report of Officers to whom Public Moneys or Military Supplies have been transferred during the month of _____, 186____, by officers in the Department (or Army) of _____.

No.	To Whom Transferred		By whom Transferred	When Transf'D	Money or Property Transferred		Remarks
	Officer's Names	Rank and Corps			Property	Money	
1	A _____, John	Maj., Q.M.D.	Col. T. S., A.Q.M.G.	Jan 2, 1864	Quartermaster's Stores		
2	B _____, Wm.	Capt. 1st N.Y. Arty.	Major W. H., Q. M.	" 4, 1864	Clothing and Equipage		
3	C _____, James	Capt. Q.M.D.	Brig. Gen. R.A., Chf. Q.M., etc.	" 6, 1864	Q.M.'s stores, cloth'g etc.		

(Station:) _____

(Date:) _____

(Signature.) _____

The names of the officers who draw fuel, forage, straw, and stationary, on *regular requisitions*, Forms No. 29, 30, 32, 33, 36, and 38.) and draw no other supplies, and on no other requisition, will not be entered on the report; the object of the report being to obtain a list of the officers who receive public moneys or supplies for which they are required to account to the Treasury.

THE QUARTERMASTER'S GUIDE

General Orders, }
No. 2. }

Quartermaster-General's Office

Washington, D. C. *Jan.* 8, 1864

In obedience to the following order from the Secretary of War, the undersigned has returned to Washington, and resumed charge of the Bureau of the Quartermaster's Department. All official letters and documents should be addressed to him at this office.

M. C. MEIGS,
Quartermaster-General

U. S. Military Telegraph,
December 28, 1863

By Telegraph from Washington, Dec. 26, 1863

To Brig. Gen. M. C. Meigs, Q. M. G.:

The operations of the active armies in the West being now suspended, your presence here will, in my judgment, be more advantageous to the service than any personal duty elsewhere. You will, therefore, return immediately to Washington and take charge of your Bureau. You will acknowledge receipt of this telegram.

EDWIN M. STANTON
Secretary of War

General Orders, }
No. 3. }

Quartermaster-General's Office

Washington, D. C. *Jan.* 21, 1864

All officers of the Quartermaster's Department having charge of hospitals, barracks, quarters, or other buildings intended for or occupied by troops, will send to this office, immediately after receipt of this order, drawings showing the location, extent and construction of the buildings.

These drawings should embrace a ground plan, a vertical section showing the general style and mode of construction, and, if it can be obtained, a sketch, either made by hand or by the photograph, giving a general view of the barracks from some one point.

If a photograph, it should not be mounted on stiff paper, but should be upon thin paper.

These drawings, except the photograph sketch, should be on sheets of paper not less than twelve by twenty inches, size of one-half sheet of common buff envelope paper, which may be used for the purpose.

ON THE BACK OF EACH DRAWING SHOULD BE A WRITTEN DESCRIPTION,
IN THE FOLLOWING FORM:

United States Quartermaster's Department

Barracks, *State of New York, county of Columbia;*
Location, *5 miles north of Hudson, on the North River R. R.;*
Capacity, *3,500 men and officers;*
Stables for *800 horses;*
Materials, *rough boards set upright and battened;*
Roof, *shingles;*
Built, *May, 1862;*
Occupied *19th January, 1864, by 2,700 drafted men an the 16th Regiment of New York Volunteer Cavalry, 800 strong, with 800 horses.*

This information is needed for immediate use.

The drawings should be prepared from the working drawings of the constructor, or from measurement by some competent person – a draughtsman, mechanic, or clerk – whose services may be available, and they should be made in duplicate: one copy to be retained by the officer, the other to be sent by mail to this office.

The drawings should be simple and inexpensive, but should give plans of every building occupied by the troops and under direction of the Quartermaster's Department.

Those officers who have already furnished drawings will report to this office the date under which they forwarded them, and will furnish the information called for above, and refer to the drawings already supplied, instead of sending new drawings, unless some addition or alteration in the building renders new drawings necessary.

M. C. MEIGS,
Quartermaster-General

General Orders, }
No. 4. }

Quartermaster-General's Office

Washington, D. C. *Jan'y 25, 1864*

Officers of the Quartermaster's Department in charge of, or responsible for, steamers or other vessels, the property of this Department, or under charter, will immediately, upon receipt of this order, make careful measurement of all such vessels within their control or responsibility, and send by the next mail full report to this office.

The measurement should be made according to the mode prescribed by laws of the United States, sec. 64, act March 5, 1799; chap. I, sec. 3, Regulations under the Revenue Laws, as follows:

“The officer measuring shall, if the ship or vessel be double-decked, take the length thereof from the forepart of the main stem to the after part of the stern post, above the upper deck; the breadth thereof at the broadest part above the main wales, half of which breadth shall be accounted the depth of such vessel, and shall then deduct from the length three-fifths of the breadth; multiply the remainder by the breadth, and the product by the depth, and shall divide this last product by ninety-five, the quotient thereof shall be deemed the true contents or tonnage of such ship or vessel; and if such ship or vessel be single-decked the said surveyor, or other person shall take the length and dept as above directed in respect to a double-decked ship or

vessel; shall deduct from the said length three-fifths of the breadth, and, taking the depth from the underside of the deck-plank to the ceiling in the hold, shall multiply and divide as aforesaid, and the quotient shall be deemed the tonnage of such vessel.”

The following particulars should be given, according to the tabular form herein. Where any item of the information called for cannot be obtained, insert in the appropriate column, “unknown”.

A separate report should be made for each vessel.

It is asserted that the recorded dimensions of many steam and other vessels are incorrect, and hence arise deception and fraud in their charters.

M. C. MEIGS,
Quartermaster-General

FORM OF TABULAR STATEMENT

Name of Vessel..... _____

Class or designation..... _____

Length – From forward side of stem to after side of stern
post on main deck..... _____ ft. _____ in.

Breadth of Beam – Extreme width outside of plank in the
widest part of the vessel..... _____ ft. _____ in.

Depth of Hold – From top of ceiling alongside the main
keelson to underside of deck plank..... _____ ft. _____ in.

Height between Decks – The height in the clear in double-
decked vessels between the decks..... _____ ft. _____ in.

Tons..... _____

Draught of water..... _____

Material..... _____

Where registered..... _____

Condition..... _____

Name of managing owner or agent..... _____

Date of charter or purchase..... _____

Rate of compensation..... _____ per day
_____ “ month
_____ “ voyage

Valuation in charter party or purchase money..... _____ Dollars, _____ Cents.

When built..... _____

When last rebuilt..... _____

Remarks _____

Give here any information of importance as to the time of putting in new boilers, engines, etc., or of excessive repairs.

Where an additional deck has been built or where the deck has been wholly or partially enclosed, adding to the capacity of the vessel without increasing her legal tonnage, the fact should be stated.

General Orders, }
No. 5. }

Quartermaster-General’s Office
Washington, D. C. *Jan’y 25, 1864*

A great number of official papers and returns are received at this office without the signatures of the officers by whom they are rendered.

This carelessness makes necessary much correspondence, and causes much delay in the settlement of accounts, as each paper thus deficient has to be returned to its author for completion before it can be filed.

The attention of officers is called to this subject.

M. C. MEIGS,
Quartermaster-General
U.S.Army

General Orders, }
No. 6. }

Quartermaster-General's Office

Washington, D. C. *Jan.* 29, 1864

Commanders of Independent Batteries, as well as all other officers, are accountable for all public property which may come into their possession from any source whatsoever, and should make returns for it to the proper bureau at Washington.

When Company Commanders receive public stores from the Quartermaster's Department and apply them to Ordnance purposes, they should take them up on the Return of Ordnance Stores made to the Ordnance Bureau. When used as Quartermaster's Stores, they should make their returns to the Quartermaster-General's Office, noting such articles as have been transferred to their Ordnance Return, that the proper charge may be made against that Department.

The same rule governs with regard to supplies furnished to and received from any other Department.

M. C. MEIGS,
Quartermaster-General

General Orders, }
No. 7. }

Quartermaster-General's Office

Washington, D. C. *Feb.* 1, 1864

A Circular was received from the War Department, dated August 28, 1863, which reads as follows:

“War Department, Adjutant-General's Office,
“*Washington, D.C., August 28, 1863.*

“Sir:

“The following instructions, received from the General-in-Chief, are furnished for your information and guidance, and are to be strictly observed:

“All men charged with desertion who belong to regiments whose terms of service have expired shall be examined by a Commission of from one to three officers, detailed by the officer (not including the Provost Marshals of Enrollment Districts) under whose command they may be

held in confinement, with a view to ascertain whether they are actually deserters; and if it should appear that they are not, their cases will be submitted to the Department Commander, that the penalty of desertion may be remitted without trial, under par. 159, Army Regulations, and the men sent to the mustering officer (under G. O., 108, of 1863) nearest the place of enrollment, to be mustered out of service.

“If the Commission should consider them deserters, or the men cannot clear themselves of the charges, they will be assigned and sent to one of the regiments from the same State, serving in the same Corps or Department in which the regiments to which they formerly belonged served, for trial, or such disposition as the Division, Corps or Department Commander may make of them, according to the Regulations, to serve out the time lost by desertion; the regiment to be designated by the officer who forwards them, and entered on their descriptive list, or muster and descriptive roll.

“The time to be made good will be the time from the date of desertion to the date of joining the regiment to which assigned.

“Provost Marshals of Enrollment Districts will forward deserters from regiments whose terms of service have expired in the same manner as others, with a view to carry out the above instructions.

“I have the honor to be sir,
“Your obedient servant,
“E. D. TOWNSEND,
“*Assistant Adjutant General.*”

“Official:

“*Assistant Adjutant General.*”

This circular has been transmitted to this office with the following endorsement:

Adjutant-General’s Office,
Washington, D. C. *Jan.* 28, 1864

“Respectfully referred to the Quartermaster-General, U.S.A.

“This circular appears to be misunderstood. It is not to include deserters, whose cases are decided upon by officers of the Provost Marshall’s Department, and the reward for whose apprehension should be paid on the Provost Marshall’s certificate. Please so instruct officers of the Quartermasters Department.

“E. D. TOWNSEND,
“*Assistant Adjutant General.*”

All officers and agents of the Quartermaster’s-Department will be governed accordingly.

M. C. MEIGS,
Quartermaster-General

General Orders, }
No. 8. }

Quartermaster-General’s Office
Washington, D. C. *Feb* ’y. 13, 1864

Officers of the Quartermaster-General's Department are not authorized to pay rent for vacant and unoccupied lots which may have been, or may be, taken and used for military purposes during the exigencies of this war.

M. C. MEIGS,
Quartermaster-General

General Orders, }
No. 9. }

Quartermaster-General's Office
Washington, D. C. *Feb'y.* 17, 1864

The following section of an act of Congress, dated July 1, 1862, published in a circular from this office, September 22, 1862, is republished for the information and guidance of officers in this Department.

M. C. MEIGS,
Quartermaster-General U. S. A

“Sec 86. *And be it further enacted,* That on and after the first day of August, eighteen hundred and sixty-two, there will be levied, collected, and paid on the salaries of officers, or payments to persons in the civil, military, naval, or other employment or service of the United States, including Senators and Representatives and Delegates in Congress, when exceeding the rate of six hundred dollars per annum, a duty of three per centum on the excess above the said six hundred dollars, and it shall be the duty of all paymasters and all disbursing officers under the government of the United States, or in the employ thereof, when making any payments to officers and persons as aforesaid, or upon settling and adjusting the accounts of such officers and persons, to deduct and withhold the aforesaid duty of three per centum, and shall, at the same time, make a certificate stating the name of the officer or person from whom such deduction was made, and the amount thereof, which shall be transmitted to the office of the Commissioner of Internal Revenue, and entered as part of the internal duties; and the pay roll, receipts or amounts of officers or persons paying such duty, as aforesaid, shall be made to exhibit the fact of such payment.”

An extract from a circular issued from the office of the Commissioner of Internal Revenue, dated October 8, 1862, reads as follows:

“5. Laborers and others in the service of the United States who are employed by the day, or for indefinite or uncertain periods of time, and who are not the occupants or holders of office under the Government, are not subject to the deduction of three per per cent on any excess of pay over the rate of \$600 per annum.

General Orders, }
No. 10. }

Quartermaster-General's Office
Washington, D. C. *Feb'y.* 24, 1864

The following named officers are announced as on duty in this office, and are empowered to conduct, under the direction and by the order of the Quartermaster-General, the ordinary correspondence connected with their respective divisions of duty, viz:

COLONEL CHARLES THOMAS, ASSISTANT QUARTERMASTER-GENERAL

The duties connected with contracts, and their examination; superintendence of the money and property accounts of the Quartermaster's Department, including the money accounts of the clothing and equipage, and of supplies and forage to the southern ports as far as New Orleans.

BREVET COLONEL E. S. SIBLEY, DEPUTY QUARTERMASTER-GENERAL

Duties connected with Quarters and Hospitals; estimates of funds and Quartermaster's supplies other than coal and forage for southern ports; and miscellaneous correspondence of the office.

COLONEL R. E. CLARY, QUARTERMASTER AND A. D. C.

The ordinary business connected with water transportation.

CAPTAIN A. J. PERRY, ASSISTANT QUARTERMASTER

The ordinary business connected with the clothing and equipment branch of this office.

CAPTAIN J. J. DANA, ASSISTANT QUARTERMASTER

The ordinary business connected with land transportation, as railways, bridges, and bridges, and also ferriages.

CAPT. BENJAMIN C. CARD, ASSIST. QUARTERMASTER

The ordinary business connected with miscellaneous claims.

CAPTAIN GEORGE V. RUTHERFORD, ASSISTANT QUARTERMASTER

The transmission of remarks on the accounts of officers; the examination of monthly reports, forms 1 to 9; personal reports; reports for the fiscal year; and the distribution of orders and blanks.

All official communications intended for this office should be addressed to the Quartermaster-General, and endorsed on the envelope "Official," with the signature thereto of the officer writing the communication.

M. C. MEIGS,
Quartermaster-General

General Orders, }
No. 11. }

Quartermaster-General's Office

Washington, D. C. *March 8, 1864*

The following memoranda of orders and instructions, during the month of February, 1864, is published for the information of officers of the Quartermaster's Department.

M. C. MEIGS,
Quartermaster-General
(Omitted as of no present value.)

General Orders, }
No. 12. }

Quartermaster-General's Office

Washington, D. C. *March 16, 1864*

The following Circular of the Second Comptroller, in relation to the Rules for the computation of time in making payments to employees of the Government, is published for the information of the officers and agents of the Quartermaster-General's Department. They will be governed accordingly.

M. C. MEIGS,
Quartermaster-General

[CIRCULAR.]

TREASURY DEPARTMENT,
Second Controller's Office,
Washington, March 1, 1864

The Rules for the computation of time in making payments to employees of the Government having been so construed as in many cases to operate unjustly against the Government, the following have been adopted and will be observed, when applicable, in all payments made hereafter:

1. The law providing compensation having inored unequal durations of months, by allotting the same pay to each; and the Pay Tables having, for convenience, subdivided each month's pay into thirty equal parts, thus paying, in twelve months of thirty days each, the full salary provided by law for the entire year, the months should be assumed, in computing pay, as they are by the law, to be of equal length, any other duration other than thirty days being ignored.

2. To conform with the foregoing, to secure greater accuracy in computation, and to save the trouble and delay of four distinct calculations of montly pay, in hereafter computing the time of service of Government officers and employees, thirty days will be assumed as the length of each and every month in the year.

3. For any full month's service performed by persons employed by the Government at a stipulated monthly rate of compensation, (or yearly salary if paid in regular monthly or bimonthly installments,) payments will be made at such stipulated monthly rate, without regard to the number of days the months paid may contain.

4. In cases where the service *commences* on an intermediate day of the month, and thus embraces only a fractional part thereof, thirty days will be assumed to constitute the duration of such month, whether the calendar length thereof be 28, 29, 30 or 31 days, and pay will be computed accordingly.

5. When the service terminates at an intermediate day of the month, and hence embraces but a fractional part thereof, the whole number of days during which service was rendered in such fractional part of a month will be allowed in making payments.

6. For convenience in calculating service embracing two or more months, or parts of months, but one fraction will be made. Thus, from the 21st of September to the 25th of November, *inclusive*, will be calculated – from 21st September to 20th October, *inclusive*, as one month; from October 21st to November 20th, *inclusive*, another month; and from the 21st to the 25th November, *inclusive*, five days – making two months and five days.

7. When two fractions of months occur in any account for service, both together being less than a whole month, as from the 21st of August to the 16th of September, the calculation of time will be from August 21 to 30, inclusive, (ignoring the 31st,) ten days, and from the 1st to the 10th September, inclusive, ten days – making the time to be paid twenty days.

8. Service commencing in February will be calculated as though that month contained thirty days; thus, from February 21st to the end of the month, inclusive, ten days will be allowed, though the actual time to be but eight or nine days; *provided*, that when service commences on the last day of February, payment will be made for only one day in that month.

9. The forgoing rules do not apply to commutation of rations; nor to laborers employed at a per diem allowance. In computing them, the actual number of days is to be ascertained and allowed.

10. Laborers employed by the month and actually performing their first day's labor on the 31st day of any month will be paid for that day.

11. Soldiers rendering little or no service on the day of enlistment or discharge, payment for both by the Government is unjust. The day of discharge, therefore, will hereafter be allowed, and the day of enlistment excluded.

12. Individual pay accounts and Company and Staff pay rolls should distinctly specify the exact time during which officers actually rendered service, under authority entitling to pay, in the grade for which pay is claimed.

13. When accounts are hereafter rendered for service stated to have been performed from one given date to another, one of the days claimed will be excluded, unless it is specified or clearly shown by the form of the account that the service rendered was "inclusive" of both.

J. M. BROADHEAD,
Comptroller

MEMORANDUM
TO
Gen'l Orders, No. 12, 1864

Quartermaster-General's Office

Washington, D. C. *April* 13, 1864

The 11th paragraph of the Circular of the Second Comptroller, March 1, 1864, republished in General Orders, No. 12, Current Series, has been changed to read as follows:

11. Soldiers rendering little or no service on the day of enlistment or discharge, payment for both by the Government is unjust. The day of *enlistment*, therefore, will hereafter be allowed, and the day of *discharge* excluded.

M. C. MEIGS,
Quartermaster-General

General Orders, }
No. 13. }

Quartermaster-General's Office
Washington, D. C. *April 5, 1864*

The following Memoranda of Orders and Instructions during the Month of March, 1854, is published for the information of officers of the Quartermaster's Department.

M. C. MEIGS,
Quartermaster-General

(Omitted as of no present value.)

General Orders, }
No. 14. }

Quartermaster-General's Office
Washington, D. C. *April 5, 1864*

The following Order from the War Department, in relation to bills for newspaper advertising, is published for information and guidance of officers of the Quartermaster-General's Bureau. They will be governed accordingly

M. C. MEIGS,
Quartermaster-General

WAR DEPARTMENT

Washington City, *April 8, 1864*

General:

Hereafter all bills for newspaper advertising, ordered by any officer in the service of the Quartermaster-General's Bureau, must be sent to the Assistant Secretary of War, to be audited previous to payment. In every case in which any officer advertises in only a part of the newspapers in his locality, selected to publish the advertisements of the War Department, he will state upon the bill his reasons for such departure from the standing order of the Department.

By order of the Secretary of War.

(Signed)

C. A. DANA,
Assistant Secretary of War

General Orders, }
No. 15. }

Quartermaster-General's Office

No. 15.

Washington, D. C. *April 9, 1864*

The Secretary of War directs that the Quartermaster's Department shall transport all such materiel as the Ordnance Department shall require to be transported, of whatever character they may be; provided, it be to places which the Quartermaster's Department can furnish transportation which could not readily be otherwise procured by the Ordnance Department.

M. C. MEIGS,
Quartermaster-General

General Orders, }
No. 16. }

Quartermaster-General's Office

Washington, D. C. *April 21, 1864*

The last paragraph of General Orders, No. 165, Adjutant General's Office, dated June 5, 1863, is published herein, and the particular attention of officers serving in this Department directed to the same.

(Signed)

M. C. MEIGS,
Quartermaster-General U. S. A.

5th. All officers doing duty in the Quartermaster's Department are also required to make out and forward to the Quartermaster-General, on the first day of each month, a personal report, giving their post office address, and a statement of the duty upon which they have been employed since their last report.

By order of the Secretary of War.

(Signed)

E. D. TOWNSEND
Assistant Adjutant-General

General Orders, }
No. 17. }

Quartermaster-General's Office

Washington, D. C. *April 27, 1864*

Officers of the Quartermaster's Department, ordered to construct temporary barracks, will be guided by the accompanying plans, Nos. 1 to 5.

M. C. MEIGS,
Quartermaster-General U. S. A.

(See Original Order)

Note. – Dimensions of Officer's Quarters, 67x33½ feet, two stories high.

Dimensions of barracks for two companies, 128x24 feet, two stories high, with Porch.

Dimensions of Hospital for one Regiment, 93x24, with Kitchen and Porch attached.

General Orders, }
}

Quartermaster-General's Office

No. 18.

Washington, D. C. *April 28, 1864*

Attention of officers of the Quartermaster's Department is called to General Orders, No. 177, War Department, Adjutant General's Office, April 28, 1864.

It is the duty of all officers of this Department to enforce this order within their respective spheres, notifying officers of its provisions, and reporting all instances in which it is not promptly complied with, through the usual official channels, to the Quartermaster-General at Washington.

The penalty for violation of General Orders, No. 177, is, for the first offense, public reprimand by the Commander of the Army Corps in which the officer may be serving at the time; and, for the second offense, dismissal from the service.

(Signed)

M. C. MEIGS,
Quartermaster-General

General Orders, }
No. 19. }

Quartermaster-General's Office

Washington, D. C. *May 10, 1864*

(This Order being merely memoranda of Orders and Instructions during the month of April, 1864, it is not printed here.)

General Orders, }
No. 20. }

Quartermaster-General's Office

Washington, D. C. *May 12, 1864*

The following opinion of the Solicitor of the War Department, in relation to non-performance of contracts, is published in General Orders for the information and guidance of the officers and agents of the Quartermaster's Department.

M. C. MEIGS,
Quartermaster-General

(No. 545)

OPINION

Non-performance of contracts to furnish supplies required in the field may endanger the safety of our army, or cause disasters by disabling the Quartermasters from promptly answering requisitions made upon emergencies. The Government looks with just indignation on contractors who have more regard to their pockets than to the safety of the country. Hence, non-fulfillment of a contract to furnish supplies is deemed a crime, and, if intentionally or willfully committed, subjects the offender to a disgraceful punishment. If the merchant makes a profitable contract with the United States, he is not prone to surrender it; if he make a losing contract, he cannot be allowed to repudiate it.

In the case of _____, who applies to be released from his contract with the United States to furnish axe-slings, on account of a rise in the price of labor and materials, he should be notified that he is required to comply fully with his agreement; that he is held personally liable for any pecuniary loss or damage to the United States caused by his failure; and that for any fraud or willful neglect on his part, he will be held for trial and punishment by Court Martial.

(Signed)

WILLIAM WHITING
Solicitor of the War Department

Brig. Gen. M. C. Meigs
Quartermaster-General

General Orders, }
No. 21. }

Quartermaster-General's Office
Washington, D. C. *May* 19, 1864

The following directions are published for the information and guidance of all officers of the Quartermaster's Department, doing duty in the Military Railroad Branch of the service.

M. C. MEIGS,
Quartermaster-General U. S. A.

The Secretary of War Directs that –

1st. The report of persons hired and employed in the Military Railway service of the United States shall be made out and certified by the Engineer or Superintendent of the railroad upon which they are engaged, and shall be approved by the Director and General Manager of U. S. Military Railroads, or by some officer or agent designated by him for this purpose.

2nd. The receipt-rolls on which payment is made to persons, and for the articles so employed, shall be certified to and approved in like manner, and presented to the Disbursing Quartermaster, in the Military Railroad service, for payment.

(Signed)

LOUIS H. PELOUZE,
Assistant Adjutant General

War Department, *May* 14, 1864

General Orders, }
No. 22. }

Quartermaster-General's Office
Washington, D. C. *May* 10, 1864

(This Order being merely memoranda of Orders and Instructions during the month of May, 1864, it is not printed here.)

General Orders, }
No. 23. }

Quartermaster-General's Office
Washington, D. C. *June* 18, 1864

The following act in relation to franked matter is published for the information of officers in this Department.

M. C. MEIGS,
Quartermaster-General U. S. A.

“Be it enacted, by the Senate and House of Representatives of the United States of America in Congress assembled, That all communications relating to the official business of the Department to which they are addressed, of whatever origin, addressed to the Chiefs of the several Executive Departments, being Heads of Bureaus or Chief Clerks, or one duly authorized by the Postmaster-General to frank official matter, shall be received and conveyed by mail free of postage, without being endorsed “official business,” or with the name of the writer.”

Approved June 1, 1864

General Orders, }
No. 24. }

Quartermaster-General’s Office
Washington, D. C. *June 24, 1864*

The following extracts from an opinion of the Third Auditor of the Treasury, dated June 20, 1864, in relation to the use of stamped or lithographed signatures, are published for the information of all officers and agents of the Quartermaster’s Department. They will be governed accordingly.

M. C. MEIGS,
Quartermaster-General

EXTRACTS

“Third Auditor’s Office,
June 20, 1864

“With every disposition to make allowance for pressure of business and the emergencies of the service, especially in the field, I do not see how it would be possible to recognize these stamped or lithographed signatures to anything in the nature of a voucher, or forming a basis or authority for the expenditure of money, without opening a wide door to fraud, and over throwing all the checks and guards imposed by regulations and the usages of the Department, in order to test the verity and genuiness of official transactions.

“These stamps are not, in a majority of cases, I apprehend, even affixed by the officer whose name is used, but by some subordinate. It, therefore, becomes impossible to hold such officers to the responsibility attaching to a written signature made by the officer in person.

“This is the kind of signature contemplated by law and regulations, and should not be dispensed with, except in the case of parties who, from the want of education, or disability, are unable to write, in which case the signature by X mark is authorized to be attested by a third party.

“There are, doubtless, many cases in which, for convenience and dispatch, and under proper guards and restrictions, officers may resort to the use of a stamp or lithographed signature; this, for transacting certain routine business between different officers, upon conditions mutually understood, and for various other purposes involving no liability of the

Government or expenditure of money, such arrangements may, perhaps, be made, facilitating business without detriment to the public interest.

“Beyond this, I think the practice referred to very unsafe and, in my opinion, it should be discouraged and broken up.

(Signed,)

“P. J. ATKINSON

Auditor

“Brig.-Gen. M. C. Meigs

Quartermaster-General

General Orders, }
No. 25. }

Quartermaster-General’s Office

Washington, D. C. *July 5, 1864*

(General Orders, No. 25, being merely a memorandum of instructions and orders during the month of June, 1864, is not printed here.

General Orders, }
No. 26. }

Quartermaster-General’s Office

Washington, City, *July 18, 1864*

The following Circular from the War Department, dated July 18th 1864, in relation to John B. Murray & Co., Bankers & Brokers, of New York, N. Y., is published for the information and guidance of officers of the Quartermaster’s Department.

M. C. MEIGS,

Brevet Major-General and Quartermaster-General

“War Department, Adjutant-General’s Office,

Washington, July 18, 1864

“CIRCULAR

“All officers connected with the Bureaux of the War Department are hereby instructed not to recognize the firm of John B. Murray & Co., Bankers & Brokers, of New York, N. Y., in any business transactions.

“The Chief of Bureaux will promulgate this order to their Officers, respectively.

“By order of the Secretary of War.

(Signed)

“E. D. TOWNSEND

Assistant Adjutant-General

Official copy, respectfully furnished for the information of the Quartermaster-General,
U. S. A.

General Orders, }
No. 27. }

Quartermaster-General's Office

Washington, City, July 29, 1864

The following extracts from the act of Congress, No. 122, in relation to the increase in pay of soldiers in the United States army, and for other purposes, approved June 20th, 1864, are published in General Orders, for the information and guidance of the Officers and Agents of the Quartermaster's Department. They will be governed accordingly.

M. C. MEIGS,

Brevet Major-General and Quartermaster-General

Act, No. 122 – (*Extracts*)

Sec. 8. *And be it further enacted*, That in all cases where the Government shall furnish transportation and subsistence to discharged officers and soldiers, to the place of their discharge to the place of their enrollment, or original muster into the service, they shall not be entitled to travel-pay, or commutation of subsistence.

Sec. 9. *And be it further enacted*, That so much of the fifth section of the act entitled "An act to authorize the employment of volunteers to aid in enforcing the laws, and protecting the public property," approved July twenty-second, one thousand eight hundred and sixty-one, as provides that each company officer, non-commissioned officer, private, musician, and artificer of cavalry, shall furnish his own horse and horse equipments, and shall receive forty cents per day for their use and risk, is hereby repealed, except only so far as the same may hereafter be made to apply and relate to mounted troops called into the service of the United States for a term not exceeding six months.

General Orders, }
No. 28. }

Quartermaster-General's Office

Washington, City, July 22d, 1864

The Secretary of War directs that there be collected from every person taking passage in any transport, mail boat, or dispatch boat in the service of the United States, plying between Baltimore and Fortress Monroe, the sum of five dollars passage money; and that the charge for passage between Baltimore and Point Lookout shall be three dollars.

Officers under orders, soldiers, and bona fide employees of the Government, traveling under orders in the discharge of their official duty, will alone be exempt from these charges.

It is reported that Quartermasters and Quartermaster's clerks have been in the habit of giving, without superior authority, free transportation to the ladies and others upon the boats plying upon the Chesapeake Bay. The Secretary of War directs that this practice be entirely discontinued, and that such orders for transportation be no longer recognized as valid.

It is also reported that transportation orders are given, with the signatures of the officers stamped instead of written. The Secretary of War directs that this also be discontinued.

Officers and agents of the Quartermaster's Department will govern themselves accordingly.

By order of the Secretary of War.

M. C. MEIGS,
Brevet Major-General and Quartermaster-General

General Orders, }
No. 29. }

Quartermaster-General's Office

Washington, July 6, 1864

(Being an order to the officers of the Quartermaster's Department to prepare and forward to the Quartermaster-General their annual report for the fiscal year ending June 30th, 1864, it is not printed here.)

General Orders, }
No. 30. }

Quartermaster-General's Office

Washington, July 20, 1864

The following Act of Congress (No. 212, approved July 4, 1864), in relation to the better organization of the Quartermaster's Department, is published in General Orders for the information of the officers and agents of the Quartermaster's Department.

M. C. MEIGS,
Quartermaster-General, Brevet Major-General

IV – Public – No 212

AN ACT to provide for the better organization of the Quartermaster's Department.

Be it enacted, by the Senate and House of Representatives of the United States of America in Congress assembled, That there shall be established in the office of the Quartermaster-General of the Army,

Annex I

Miscellaneous Related Documents

*Quartermaster's Department*⁶⁵²

“Let us first consider the *quartermaster's department*, which, from the character and diversity of its duties, the amount of its expenditures, and its influence upon military operations, may be ranked as among the most important. This department provides clothing, camp and garrison equipage, animals and transportation of all kinds, fuel forage, straw and stationary, an immense variety of the miscellaneous materials required by an army, and for a vast amount of military expenditures. It is, in fact, the great business operator of all military organizations. In an active army, the success of movements depends very much on its efficiency. Unless the troops are kept properly clothed, the animals and means of transportation maintained in good condition, and the immense trains moved with regularity and promptness, the best contrived plans will fail in their development and execution.

The department, at the commencement of the war, had supplies in store only for the current uses of the regular army. When the volunteer forces were organized it became necessary to make hasty contracts and purchases to a large amount; but as ever the best informed members of the government had no adequate prevision of the extent and duration of the war, and of the necessary arrangements for its demands, a considerable period elapsed before a sufficient quantity of the required materials could be accumulated. Those were the days of ‘shoddy’ cloth and spavined horses. The department, however, exhibited great administrative energy, under the direction of its able head, General M. C. Meigs, and has amply provided for the enormous demands upon it.

Depots for the reception of supplies are established in the large cities, whence they are transferred as required to the great issuing depots near the active armies, and from them to the depots in the field. Thus, the main depots of the Army of the Potomac are at Washington and Alexandria – a field depot being established at its center, when lying for any length of time in camp. Only current supplies are kept on hand at the latter, and no surplus is transported on the march, except the required amounts of subsistence and forage.

A great deal is said in connection with military movements, of ‘bases of supplies’. These are the points in the rear of the army from which it receives supplies and reinforcements, and with which its communications must at all hazards be kept open, except it has means of transportation sufficient to render it independent of its depots for a considerable period, or unless the counter traversed is able to afford subsistence for men and animals. When an army marches along a navigable river, its secondary base becomes moveable, and it is less confined to the necessity of protecting its rear. In Virginia, however, the connection of the Army of the Potomac with Washington is imperative, and this fact explains the contracted sphere of the operations of that army.

The transportation of supplies is limited by the ability of the Government to provide trains, and by the ability of the army to protect them; for large trains create large drafts on the troops for teamsters, pioneers, guards, etc. An army train, upon the most limited allowance compatible with freedom of operations for a few days, away from the depots, is an immense affair. Under the existing allowance, a corps of thirty thousand infantry has about seven hundred wagons, drawn by four thousand two hundred mules; the horses of officers and of the artillery will bring the number of animals to be provided for to about seven thousand. On the march it is calculated that each wagon will occupy about eighty feet – in bad roads much more;

⁶⁵² Tolles, LTC C. W. An Army: Its Organization and Movements, Second Paper, The Continental Monthly, Volume 6, Number 1, July 1874, pp. 2-4

consequently a train of seven hundred wagons will cover fifty-six thousand feet of road – or over ten miles; the ambulances of a corps will occupy about a mile and the batteries about three miles; thirty thousand troops need six miles to march in, if they form but one column; the total length of the marching column of a corps is therefore *twenty miles*, even without including the cattle herds, and trains of bridge material. Readers who have been accustomed to think that our armies have not exhibited sufficient energy in surmounting the obstacles of bad roads, unbridged streams, etc., will be able to estimate, upon the above elements, the immense difficulty of moving trains and artillery. The trains of an army have been properly denominated its *impedimenta*, and their movement and protection is one of the most difficult incidental operations of warfare – particularly in a country like Virginia, where the art of road making has attained no high degree of protection and where the forests swarm with guerrillas.

To an unaccustomed observer the concourse of the trains of an army, in connection with any rapid movement, would give the idea of inextricable confusion. It is of course necessary to move them upon as many roads as possible, but it will frequently happen that they must be concentrated in a small place, and move in a small number of columns. During the celebrated ‘change of base’ from Richmond to Harrison’s Landing, the trains were at first obliged to move upon only one road – across White Oak Swamp – which happened fortunately to be wide enough for three wagons to go abreast. There were perhaps twenty-five hundred vehicles, which would make a continuous line of some forty or fifty miles. While the slow and toilsome course of this cumbrous column was proceeding, the troops were obliged to remain in the rear and fight the battles of Savage Station and White Oak Swamp for its protection. A similar situation of trains occurred last fall when General Meade retired from the Rappahannock, but fortunately the country presented several practicable routes. It is on a retreat, particularly, that the difficulty of moving trains is experienced, and thousands of lives and much valuable material have been lost by the neglect of commanding officers to place them sufficiently far in the rear during a battle, so as to permit the troops to fall back when necessary without interruption.

A march being ordered, supplies according to the capacity of the trains, are directed to be carried. The present capacity of the trains of the Army of the Potomac is ten days’ subsistence and forage, and sixty rounds of small-arm ammunition – the men carrying in addition a number of days’ rations, and a number of rounds upon their persons. When the wagons reach camp each evening, such supplies as have been expended are replaced from them. As a general rule the baggage wagons camp every night with the troops, but the exigencies are sometimes such that officers are compelled to deny themselves for one or even two weeks the luxury of a change of clothing – the wagons not reaching camp, perhaps, till after midnight, and the troops resuming their march an hour or two afterward. Those who indulge in satires upon the wearers of shoulder straps would be likely to form a more correct judgment of an officer’s position and its attendant hardships, could they see him at the close of a fortnight’s campaign. Like the soldier, he can rely on nothing for food or clothing except what is carried by himself, unless he maintains a servant, and the latter will find a few blankets, a coffee pot, some crackers, sugar, coffee, etc., for his own and his employer’s consumption, a sufficient burden.

Let us see how the supplies of the quartermaster’s department are distributed.

At stated periods, if circumstances permit – usually at the first of each month – the regimental quartermasters, after consultation with the company officers, forward through their superiors to the chief quartermasters of corps, statements of articles required by the men. These are consolidated and presented to the chief quartermaster of the army, who orders them from Washington, and issues them from the army depot – the whole operation requiring about a week. The number of different *kinds* of articles thus drawn monthly is about five hundred; the *quantity* of each kind depends on the number of men to be supplied, and the nature of the service performed since the previous issue. If there has been much marching, there will be a great demand for shoes; if a battle, large quantities of all kinds of articles to replace those lost on the battlefield will be required.

An infantry soldier is allowed the following principal articles during a three years’ term of service:

	1 st Year	2 nd Year	3 rd Year
Cap,.....	1	1	1
Coat,.....	2	1	2
Trowsers,.....	3	2	3
Flannel shirt,.....	3	3	3
Drawers,.....	3	2	2
Shoes,.....	4	4	4
Stockings,.....	4	4	4
Overcoat,.....	1	0	0
Blanket,.....	1	0	1
India rubber blanket,.....	1	1	1

The prices of these are stated each year in a circular from the department, and, as the soldier draws them, his captain charges him with the prices on the company books. The paymaster deducts from his pay any excess which he may have drawn less than he is entitled to. The clothing is much cheaper than articles of the same quality at home. Thus, according to the present prices, a coat costs \$7.30; overcoat, \$7.50; trowsers, \$2.70; flannel shirt, \$1.53; stockings, 32 cents; shoes, \$2.05.

“The Quartermaster’s Department”⁶⁵³

“The department with widest range in an army is that of the Quartermaster. Upon its promptness and efficiency the success of all military operations in a great measure depends. The duties committed to its officers are more important, involving vast pecuniary responsibilities, and requiring for their faithful discharge the utmost energy and ability. The Quartermaster-General, in his late report, graphically and tersely sums up these duties as follows:-

‘Upon the faithful and able performance of the duties of the quartermaster an army depends for its ability to move. The least neglect of want or capacity on his part may foil the best concerted measures and make the best-planned campaigns impracticable. The services of those employed in the great depots in which the clothing, transportation, horses, forage, and other supplies are provided, are no less essential to success and involve no less labor and responsibility than those of the officers who accompany the troops on their marches and are charged with the care and transportation of all material essential to their health and efficiency. The quartermaster’s department is charged with the duty of providing the means of transportation by land and water for all the troops and all the material of war. It furnishes the horses for artillery and cavalry, and for the trains; supplies tents, camp and garrison equipage, forage, lumber, and all materials for camps; builds barracks, hospitals, wagons, ambulances; provides harness, except for artillery horses; builds or charters ships and steamers, docks and wharves; constructs or repairs roads, bridges and railroads; clothes the army; and is charged generally with the payment of all expenses attending military operations which are not expressly assigned by law or regulations to some other department.’

“The business of the department naturally divides itself into three sub-departments, as follows:-

1. Clothing, camp and garrison equipage.
2. Transportation by land and water, with all its means and supplies.

⁶⁵³ Fitch, John. (1864 & 2003). Annals of the Army of the Cumberland, Philadelphia PA & Mechanicsburg PA by Stackpole Books, pp. 265-271.]

3. Regular and contingent supplies for the army and the department.

The business which falls under the first head is immense; but only general statistics can be given with safety and propriety. Of tents, the regulations allow to each general in the field three; to each staff officer above the rank of captain, two; to each captain or other staff officer, one; to every two subalterns of a company, one; and to every fifteen foot or thirteen mounted men, one. The latter number is also entitled to two camp-kettles, five mess-pans, two hatchets, two axes, two pickaxes, and two spades.

Each soldier is allowed a uniform amount of clothing as stated in the published table in the regulations, or, in lieu thereof, articles of equal value. One sash is allowed to each company for the first sergeant, and one knapsack, haversack, and canteen to each enlisted man. Commanders of companies draw the clothing of their men, and the camp and garrison equipage for the officers and men of their company. Other officers draw their camp and garrison equipage upon their own receipts. When clothing is needed for the men, the company commander procures it from the quartermaster upon requisitions approved by the commanding officers. Clothing is usually drawn twice each year, but sometimes, in special cases, when necessary. The price at which each article of clothing is furnished is ascertained annually, and announced in orders from the War Department; and when any soldier has drawn more than the authorized allowance, the excess is charged upon his next muster-roll. Officers furnish their own clothing, but may purchase from the quartermaster, at the regulation prices, such articles as may be necessary for their own personal use, upon certifying to such fact. No officer's servant, however, unless a soldier, is allowed to draw or wear the uniform clothing issued to the troops, except under-clothing and shoes, of which, when there is no other means of procuring them, a reasonable supply may be purchased of the quartermaster upon the officer's certificate to that effect.

Under the second division are included all the animals, wagons, ambulances, forage, steam and sail vessels, boats, railroads, and cars in use in the army. In the Army of the Cumberland there are about three thousand wagons, most of which are six-mule teams. One wagon is allowed to each regiment, ten to the brigade, and in the batteries one to each gun. In addition to these regular trains, there are also several extras. In the order of march, one hundred wagons extend over a mile of road; and if all of the wagons in this department were formed in one line, they would thirty miles. The number of ambulances is about six hundred. The horses and mules number about fifty thousand head. These are purchased at an average cost of one hundred and ten dollars for horses and one hundred and five dollars for mules, and are also impressed from the surrounding country. Within the last three months a great number have been obtained in this way, many of which have been used in mounting Colonel Wilder's brigade. Three regiments have been furnished thus, and the work is still going on. Only about one-fourth of these are paid for, - disloyal citizens not being compensated therefor. Large as is the number taken by our forces, it has been greatly exceeded by the rebels, who from the beginning have supplied their armies by a system of merciless impressments. The statistics of the losses of the animals are not ascertainable. At the battle of Stones River, it is estimated that over five hundred artillery horses were killed and over one thousand belonging to the cavalry and wagon trains.

Twelve pounds of hay and ten pounds of grain constitute the daily ration of each horse or mule. The amount necessary to supply such an army as that of the Cumberland is almost beyond belief and must be seen to be realized. At present (April 20, 1863) the quartermaster has on hand some twenty-four thousand bales of hay and some two hundred thousand sacks of grain, stored away in houses and piled up out-of-doors. The hay costs at base of supplies about twenty-five

dollars per ton, and corn one dollar and twenty-five cents per bushel. For three months the army was entirely supplied with forage from the country in which it was quartered. For everything thus taken receipts are to be given, and upon proof of loyalty, the party holding a receipt is entitled to a voucher for the amount. In many cases however, receipts are not given at all, or it is done in an improper manner, or they are lost; and the proportion really paid for will not exceed one-fourth of the whole. The average cost of the feed for each animal is about thirty cents per day.

The railroad from Murfreesboro to Nashville is a military road, and is operated entirely by the Government superintendent and the quartermaster. All of the freight for the army has been transported over it, and it has more than paid its way. Fifty carloads – or three hundred tons⁶⁵⁴ - are daily brought from Murfreesboro to Nashville. Over the Louisville and Nashville road, which is taxed to its utmost capacity in transporting Government freight, the regular rates are paid. The road from Murfreesboro to Nashville has been in constant operation since the 1st of March; has been interrupted only once, when a train was captured and burned by the rebels. For passage and freight private persons pay regular rates.

All steamboats are bought or chartered by the quartermaster. This branch of the business is mostly transacted at Louisville; but a number were purchased at Nashville, by the chief quartermaster, to be transformed into gunboats for the Cumberland River service. For this item alone an immense amount of money is expended, a large part of the supplies for this army having been brought to Nashville by river.

The third division includes the regular and contingent supplies of the department, - hospital, barracks, and quarters, fuel, stationary, secret service, and the numberless incidental expenses of the army.

Of fuel the consumption is enormous. Since the 1st of January one hundred and fifty thousand bushels of coal have been received at Nashville. It is estimated that six hundred thousand bushels will be used before the river rises, next winter; and this amount was contracted for, to be delivered before the water became too low for transportation. In this estimate the quantity needed to supply the two hundred and fifty forges in the field is not included. Since the army arrived at Nashville – November 1, 1862 – eighteen thousand cords of wood have also been consumed, and to this must be added the large forests that have been cut down and burned, of which no account is kept and for which no payment is made, and at least two hundred miles of fencing, mostly cedar rails. Board fences, and all lumber found in the country, are taken to make bunks, cots and coffins. The coal costs at Nashville about fifteen cents per bushel, and the wood four dollars per cord.

The quartermaster also furnishes the stationary used in every department of the army, builds the warehouses at every post, repairs, refits, and furnishes all homes and offices for army use, provides all hardware and such building materials as nails, glass, rope, &c., with all the machinery used, fits up hospitals for the sick, and furnishes coffins for the dead. He pays the mileage of officers, the expenses of courts-martial, the per diem of extra-duty men, postage on public service, the expenses incurred in pursuing and apprehending deserters, of the burials of officers and soldiers, of expresses, interpreters, veterinary surgeons, clerks, mechanics, laborers and cooks.

The secret service requires about ten thousand dollars per month. The Quartermaster's Department at Nashville employs in the neighborhood of three thousand men as mechanics and laborers. These are engaged in shoeing horses, repairing wagons, making and repairing harness,

⁶⁵⁴ An average of six short tons per carload.

and in diverse other ways. Probably an equal number are similarly employed at Murfreesboro. The wages of white teamsters are from twenty-five to thirty dollars per month. Negroes, or “contrabands,” are paid ten dollars per month. The latter are generally familiar with the management of mules, and are preferred by wagon-masters to careless white drivers. By their use in this service alone, nearly four thousand effective men have been added to the ranks of this army, and forty thousand dollars per month saved on their wages.

The policy in regard to the employment of negroes has been entirely changed. The principle now is, “keep all we get, and get all we can.” Many of them are good mechanics and very shrewd. Negro women are worth five dollars per month to wash and work for the hospitals. In the performance of this labor their services are invaluable, and the Government can well afford to board and clothe them and their children. Cooks are allowed to each company; and for this purpose negroes are also employed as fast as competent ones can be found.

Still, the number of citizens necessarily employed in the number of departments in the army is immense. Quartermasters, commissaries, provost-marshals, provost-judges, and chiefs of police, if not civilians, must have capable clerks who are, at wages varying from seventy-five to one-hundred dollars per month. Then there are wagon-masters, agents, teamsters, scouts, and spies, all of whom come under the supervision and pay of the quartermaster. The money with which these payments are made is sent to the chief quartermaster from the Treasury Department, in answer to his requisitions, which are sufficient in amount to meet the anticipated monthly expenses.

Full monthly reports are made to the chief quartermaster, by the corps quartermasters and each quartermaster in the service of the expenditures of that month and the requirements for the next. The system is an admirable one, enabling the head of the department to know at a glance the amount of expenditures, the amount of stores on hand, and the amount, both of money and stores, necessary to be supplied. Still, with all the care and system possible, the labors of the chief quartermaster are incessant. He must maintain a constant watch over the river and railroad transportation, and anticipate every want of the army. With the commissary and the ordnance officers, he has to administer the affairs of, and provide for, a city, as it were; but on him alone falls the duty of transporting the supplies and stores of the other two.”

*The Commissary Department*⁶⁵⁵

“The *commissary department* provides exclusively the subsistence of the troops. Each soldier is entitled to the following daily ration:

Twelve ounces of pork or bacon, or one pound four ounces of fresh beef.

One pound six ounces of soft bread or flour, or one pound of hard bread, or one pound four ounces of corn meal.

To every one hundred men, fifteen pounds of beans or peas, and ten pounds of rice or hominy.

To every one hundred men, ten pounds of green coffee, or eight pounds of roasted, or one pound eight ounces of tea.

To every one hundred men, fifteen pounds of sugar, four quarts of vinegar, one pound four ounces of candles, four pounds of soap, three pounds twelve ounces of salt, four ounces of pepper, thirty pounds of potatoes, when practicable, and one quart of molasses.

⁶⁵⁵ Tolles, LTC C. W. *An Army: Its Organization and Movements*, Second Paper, The Continental Monthly, Volume 6, Number 1, July 1874, pp. 4-6

Fresh onions, beets, carrots, and turnips, when on hand, can be issued in place of beans, peas, rice, or hominy, if the men desire.

They can also take in place of any part of the ration an amount equal in value of dried apples, dried peaches, pickles, etc., when on hand.

A whiskey ration of a gill per day per man can be issued on order of the commander, in cases of extra hardship. It is, however, rarely issued, on account of the difficulty of finding room for its transportation in any considerable quantities. Moreover, whiskey, in the army is subject to extraordinary and mysterious *leakages*, and an issue can scarcely be made with such care that some drunkenness will not ensue. When lying in camp, sutlers and others sell to the soldiers contrary to the law, so that old toppers usually find methods of gratifying their appetites – sometimes sacrificing a large proportion of their pay to the villains who pander to them. The utmost vigilance of the officers fails to detect the methods by which liquor is introduced into the army. When a cask is broached in any secluded place, the intelligence seems communicated by a pervading electrical current, and the men are seized with a universal desire to leave camp for the purpose of washing, or getting wood, or taking a walk, or other worthy purposes.

The total weight of a ration is something over two pounds, but in marching, some articles are omitted, and but a small quantity of meat is carried – fresh beef being supplied from the herds of cattle driven with the army. A bullock will afford about four hundred and fifty rations, so that an army of one hundred thousand men needs over two hundred cattle daily for its supply.

In camp the men can refrain from drawing portions of their rations, and the surplus is allowed for by commissaries in money, by which a company fund can be created, and expended in the purchase of gloves, gaiters etc., or luxuries for the table. A hospital fund is formed in the same way – by an allowance for a portion of the rations not consumed by the patients – and is expended in articles adapted to the diet for the sick. The rations are ample and of good quality, though the salt meat is rather tough occasionally, and the consistency of the hard bread is shot-proof. Company cooks are allowed, and in camp they contrive to furnish quite appealing meals. Their position is rather difficult to fill, and woe is the portion of the cook not competent for his profession. The practical annoyances to which he is subject make him realize to the fullest extent ‘the unfathomable depth of human woe.’ On the march the men usually prefer to boil their coffee in tin cups, and to cook their meat on ramrods – without waiting for the more formal movements of the cooks. To reach camp before sunset, after a twenty mile march, to pitch his little shelter tent, throw in it his heavy arms and accouterments, collect some pine twigs for a couch, wash in some adjacent stream, drink his cup of hot strong coffee and then wrap himself in his blanket for a dreamless slumber, is one of the most delicious combinations of luxurious enjoyment a soldier knows. Tomorrow, perhaps, he starts up at the early reveille, takes his hasty breakfast, is marshaled into line before the enemy, there is a shriek in the air rent by the murderous shell and the soldier’s last march is ended.

“A Word For the Quartermaster’s Department”⁶⁵⁶

Captain J. F. Rusling, A. Q. M.

I.

“The nation is now well into the fourth year of the War *for* the Union. Of the causes that led to the war, we do not propose here to speak; neither particularly of its progress or results. All of these topics have been widely, not to say searchingly discussed, both from the rostrum and by the press, and they all occupy already a full share of the public mind. For the purposes of this paper, it suffices to say that, three years ago, the armies of the Republic, scarcely certain at that time of either themselves or their leaders, were marshalling for combat on the banks of the Potomac and the Ohio; today, our victorious legions, under such unmistakable leaders as Grant and Sherman, have passed the James and the Chattahoochie, and ere long, let us hope, the ramp of their march will resound from the streets of Richmond and Mobile.

It matters not that paltry politicians, for party’s sake, ‘giving up to mere party what was meant for mankind,’ have agreed to call the war thus far ‘a failure.’ There stands the record of Antietam and Gettysburg, Vicksburg and Chattanooga, Atlanta and Winchester; and there it will stand forever! But, as we have said, we do not propose in this paper specially to recount the achievement of our arms, or to trace the flight of our triumphant eagles. We propose rather to give some notice of the *forethought*, the *preparation*, and the *organization* that have backed our armies in their vast operations, and without which the best of armies, though led by the greatest of captains, would soon only achieve disaster and defeat, retreat and ruin. Few people, in ordinary civil life, conceive of what an army really is. They look upon it merely as so many men, massed together for hostile purposes, and estimate its worth and its renown solely by its battles fought and victories won. They forget that it is in fact a vast community on legs, with all its institutions and appointments complete, here one day and the next day gone, bearing within itself all the elements of life and motion, and that its fights and sieges are only the net products of long weeks and months of laborious preparations beforehand. With a view to correct these false ideas, and to vindicate somewhat the worth and dignity of bureau work we have selected the Quartermaster’s Department, as the subject of this paper, because the most abused and the least understood of any in the army, though the most important by far of all the staff departments. We say this advisedly, in view of the vast responsibilities devolving upon it, and believe a candid consideration of its many, its complex, and its very onerous duties, will make good the assertion. Let us begin with the Regulations, the *vade mecum* of the Quartermaster and the *Code Napoleon* of the army. It coolly defines the Quartermaster’s Department (see page 159, Revised United States Army Regulations, 1863) as the one that ‘provides the barracks, quarters, hospitals storehouses, offices stables, and transportation (horses, oxen, mules, wagons, harness, &c.) of the army; storage and transportation of all army supplies; army clothing; camp and garrison equipage; cavalry and artillery horses; fuel; forage; straw; materiel for bedding; and stationary.’ A common man would be likely to think that this was about enough for one department to do, and that it would require a busy hand and active brain to be architect and carpenter, jockey and wheelwright, forwarding and commission merchant, shipper and teamster tailor and tent-maker, farmer and stationer, - all at the same time. And yet, not content with this the next paragraph

⁶⁵⁶ Rusling, CPT J. F. (1865) A Word for the Quartermaster’s Department, The United States Service Magazine, New York NY. Charles R. Richardson: Part I., pp. 57-67; Part II., pp. 133-143; Part III., pp. 255-259; Part IV., pp. 446-455.

turns the unlucky quartermaster into a tolerable paymaster also, by requiring him to pay the 'incidental expenses of the army,' such as 'per diem to extra duty men; postage on public service; the expenses of court-martial, of the pursuit and apprehension of deserters, of the burials of officers and soldiers, of hired escorts, of expresses, interpreters, spies and guides, of veterinarian surgeons and medicines for horses, and of supplying posts with water.' One would naturally suppose, that the duties of a quartermaster would end here, at least; but, as if determined to overwhelm and crush him, the Regulations next proceed to heap remorselessly upon him the shortcomings and failures of everyone else, by making him responsible also for 'generally the proper and authorized expenses for the movements and operations of an army, not expressly assigned to any other department!' Those who condemn the Quartermaster's Department for occasional failure should not talk about 'riding a free horse to death,' after this. In truth, from this statement in the rough, it is easy to be seen that one would have to be a Jack-of-all-trades and Master-of-all – a veritable Admirable Crichton, in order to be even a tolerable quartermaster. To be a great one, or even a good one, would require both the brain of Apollo, and the brute force of Hercules, and even then some aide-de-camp or doctor would be continually finding fault with and badgering him, though he performed the twelve labors of Hercules every day of his life, and every hour in the day.

The truth is, in the army, everybody (and his wife too, if he has one) goes to the Quartermaster's Department for everything he wants; and if he does not get it right off, *instantly*, and of the very best quality, no matter what the situation, the quartermaster is straight away branded as an imbecile or as a thief, and oftentimes as both. Nevertheless, the Quartermaster's Department, as we have already shown, houses and nurses the army; makes its fire and furnishes its bed; shoes and clothes; follows it up with its outstretched and sheltering arms, dropping only mercies wherever it goes; carries even to its most distant and difficult camps, the food it eats, the clothing it wears, the cartridges it fires, the medicines it consumes; and finally, when 'life's fitful fever' is over, constructs its coffin, digs its grave, conducts its burial, nay, even erects a head-board to mark the spot where 'sleeps well' the departed hero, and keeps besides, by special Act of Congress, a record of the time and place of his internment, for future reference of his friends or others.

Pleasantry aside, it will be seen at once that the duties of this staff department, from the very nature of the case, are vast and almost overwhelming; for, in addition to its own legitimate duties, it also has to provide transportation and storage for all the other departments, Pay, Subsistence, Ordnance, Medical &c., in fact, in many instances, it has to carry all these other departments literally on its shoulders, and to take good care of them first, before it dare spend time or labor to look after its own affairs proper at all. True, there is an old saw in the army, attributed to a former Quartermaster-General, that the first duty of a quartermaster is to make himself comfortable; that his second duty is to make himself *more* comfortable; his third duty, to make himself as comfortable as he *can*; and his fourth duty to make everyone else uncomfortable! But the story, if not apocryphal, is nevertheless so opposed to ordinary facts, that it is scarcely worth refuting. At the opening of the war, of course, the Quartermaster's Department was struck with the same paralysis and had the same difficulties to encounter that then beset the Government everywhere. It was literally bankrupt, and its head gone. Though not among the first of the old army officers to resign, yet long before the commencement of active hostilities, the Quartermaster-General threw up his commission and went over to rebeldom. He was no less a personage than the present rebel Lieutenant-General Joe. Johnston, whom we all remember as the able opponent of Sherman at first in his Atlanta campaign. The question at

once arose, who was to succeed him? A most grave and momentous question it was, too, in view of the great operations about to be undertaken. Our army heretofore had mustered but some thirteen thousand men, rank and file, all told; now half a million men were soon to take the field. Except the brief raid on Mexico, for half a century our troops had operated only within narrow and peaceful bounds; now vast regions were to be penetrated, inhabited by a brave and hostile people, and long lines of communication, by both rail and river, were to be opened up and maintained. We were without forage, clothing, animals, and means of transportation, to begin with; without accoutrements and equipage; without transports and storehouses; without barracks and hospitals; without depots and magazines; and worst of all, almost entirely without officers fit for the arduous and responsible duties soon to be assumed. To comprehend the importance, and to master the details of the vast business thus soon to be thrust upon him, and especially to select proper officers, and effect the necessary organization to carry affairs forward there was need of a man of high qualities, with a physical frame to back them, that no work could worry or break down. None but a broad and capacious brain could grasp the operations about to commence, and none but a Titan of endurance could bear the fret, and worry, and work, and ceaseless stretch of mind that were soon to begin.

The required conditions were thought to center in Captain M. C. Meigs, of the Engineer Corps, who for some time had superintended the construction of Public Works at Washington, and Mr. Lincoln accordingly soon called him to the post just vacated by Johnston. It was no child's play that the Quartermaster-General now sat down to, and although Meigs stripped himself for the work, we may well believe that he was oft beset by 'harsh fears and forebodings dire.' Over half a million men, fresh from civil life, unused to the hardships and economies of the soldier, were to be shod, clothed, and put in the field; were to be equipped with tools, tentage and transportation; furnished with subsistence, ammunition, and medicines; and when it was decided to move, were to be followed up along their lines of march, over mountain and stream, through valley and plain, with almost the anxious care of providence, and the inevitable certainty of faith. To assist him, he had – he knew not *whom*, until he had tried them; for treason was yet rife everywhere in the public service, and traitors in all the Staff Departments still 'went unwhipt of justice.' Even his course since then, too, must have been largely tentative; for his officers were few, if any, of them experienced in great affairs, and he himself originally could have known but little of the vast and intricate department committed to his hands. And yet, with all this, it must be frankly acknowledged, he has 'filled the bill;' has always, so far, sustained the army; has never failed to meet promptly all just and reasonable demands, in this the greatest war of modern times; and the verdict of impartial history will be, that he has exhibited a breadth of view, a fertility of resource, and a genius for hard work that justly entitle him to the thanks of the Nation.

As grounds for this judgment of Meigs and his department, let us consider somewhat how the Quartermaster's Department has borne itself, in connection with the chief movements of the war thus far. The war once begun, it will be remembered that all interest in the North soon centered in two chief points – Washington, in the East, and St. Louis, in the West. First of all, the Government was bound, by the most sacred of obligations – its fealty to a free people – to defend its own seat. Hence, at the first news from Charleston Harbor, troops at once began to collect in and about Washington, and with their first coming, the work of the Quartermaster's Department arduously commenced. We shall not attempt to portray its operation during the *quasi*-campaign that ended so gloomily at Bull Run. We prefer rather to draw a veil over that brief period, which appears to have had no organization anywhere, except a magnificent system of *sauve qui peut*, from beginning to end. In the Quartermaster's Department, especially,

clothing, equipage, transportation, all seem to have been issued quite *ad libitum*, on the principle of 'Keep all you have and get all you can,' and the outfit of a single regiment at Bull Run, it is well authenticated, in many instances equaled and surpassed the total equipment of a brigade or division as they now move and fight under Grant and Sherman. Coming then at once to the advent of McClellan, it was obvious from the start that two chief officers of the Quartermaster's Department would be immediately required; one to provide and issue supplies, in charge of the depot at Washington; the other to prescribe and regulate the kind and the amount, in charge of the troops in the field. Fortunately for the Government, the first of these officers was already in Washington, with some faults of manner, it is true, but with his heart in the right place; and the other was soon found, and ordered to duty without delay. Both of these officers took hold of business with a will, and in spite of the ignorance and chaos that then reigned supreme, as was to be expected from such raw and unformed material as the volunteer force at first, soon succeeded in reducing things to somewhat of order and system. The troops were adequately supplied, and no more; the allowance of tentage and transportation was regulated; and a system of reports was inaugurated, that promised data most valuable for the future. The chief object, at first, of course, was to regulate the army, and to accumulate stores at Washington and about there sufficient to warrant a forward movement. The supplies, of course, lay in the North, and from there but two lines of communication were open to Washington – the Potomac River, by far the best, and the Baltimore Railroad. Soon these two were reduced to one, the railroad, the rebels sealing up the river with their audacious batteries, not long after Bull Run; and over this slender line of iron, liable to be cut at any moment, all the vast supplies of the army, fuel, forage, clothing, tentage, subsistence, ammunition, &c., for months had to come. From Baltimore, however, three great lines of railroad, seeming no doubt to the Government at times almost like the beneficent arms of Providence, stretched away throughout the North, and the Chesapeake Bay, besides, was always ready to bear to her ample wharves the commerce of the seas. By all these channels, though for the last few miles on a single line of railway, the resources of the North were pored into Washington during the fall and winter of 1861-2, until supplies everywhere were piled mountain high, and the city and its environs became one enormous magazine. Thus passed the fall and winter of 1861-2, in organization and preparation, as we have said, with the Army of the Potomac still encamped about Washington.

But from the spring of '62, there came one day a General Order from the President, and soon the grand army was thoroughly in motion. As preliminary thereto, there was of course a general peeling for the campaign. Transportation was cut down to the lowest figure, and camp equipage and private baggage were reduced from the luxurious and comfortable to the absolutely essential. Then came the transfer of the army bodily, by the Quartermaster's Department, from Alexandria to Yorktown. If anybody supposes this a light job, to embark an army, horse, foot, and artillery, over a hundred thousand strong, with all its appliances for living, moving, and fighting complete, then to transport it a hundred and fifty miles down a fretful bay and up an uncertain river, and again disembark it in safety, in the midst of a Virginia wilderness of quicksands and mud, he is simply vastly mistaken. It required foresight and forethought of the highest order, and an organization Argus-eyed and Briarean-headed. At that time the Army of the Potomac was reputed to consist of at least one hundred and twenty thousand men, of all arms of the service; this would give, at the ratio of about two-thirds animal to the men, which has proven to be the usual ratio in American armies in this war, full seventy thousand animals of all grades – cavalry, artillery, private and draught. To this must be added fully thirty thousand men of all classes, such as employees of the various staff departments, servants, camp-followers, and

hangers-on generally. To move quickly such a prodigious multitude, with all their necessary appurtenances, and to keep up the necessary supplies from day to day of subsistence, clothing, forage, and ammunition, laid even the vast shipping of the commercial North under heavy contribution, and from April to July the lower Chesapeake, the York, and the James literally swam with craft of all descriptions. At all points where it became necessary to debark troops or supplies, floating wharves were extemporized by means of canal-boats or barges; pontoon boats also came in to good play for the same purpose, and there were instances, such as at Cheeseman's Creek, where the service thus rendered was, so to speak, incalculable. Yorktown evacuated, the army was at last fairly afoot, and then came the race for Richmond. Of the movement up the Peninsula, and the affairs at Williamsburg and Fair Oaks, as well as the so-called Seven Days' Fight, resulting in the retreat to the James River, it is foreign for our purpose to speak. We have only to say that, during all these operations, supplies met the troops regularly at all points, usually at a distance of but a few miles from the line of march, and that extraordinary as was the march to Harrison's Landing, the trains of the army, nevertheless, nowhere impeded or embarrassed the movement, and were all substantially gotten off safe, huge and unwieldy as they necessarily were. The movement of the trains June 29th and 30th, from the line of Fair Oaks to James River, was an experience never to be forgotten, we venture to say, by those who participated in it, as did the writer. The movement began, properly speaking, on Saturday night, June 28th, and continued on into Tuesday, July 1st. At times portions of the trains were badly under fire, as at White Oak Swamp on Sunday morning, and the enemy did not fail to pay the laggards his usual compliment of shot and shell. But notwithstanding this, scarcely a serviceable wagon, if any, was destroyed or left behind; and when at last they had all fairly debouched into the plain by Harrison's Bar – ammunition, ambulance, subsistence, and baggage-trains all complete – there was, stretching away in all directions, a perfect ocean of billowy wagon covers, among which stray donkeys here and there, after their kind, went cavorting about like porpoises 'on a bender,' with an occasional forlorn performance on their infernal horns of 'Whee-haugh,' 'Whee-haugh,' which, being interpreted, means, we suppose, 'Here's your mule! Here's your mule!' The march of the trains, subsequently, from Harrison's Landing to Yorktown, though excessively hot and dusty, was made without incident, as the enemy scarcely pursued, being well after Pope; and then came the transfer of the army again by water to Aquia Creek and Alexandria. Much as the army was reduced in numbers, this re-embarkation at Yorktown seemed almost interminable, although a large amount of its equipage and baggage had been sent down James River, before leaving Harrison's Landing. The artillery and land transportation especially, seemed as if they never *would* get off. They came in very slowly and chaotically at Alexandria and Washington, and doubtless much of McClellan's hesitation and delay in moving to the relief of Pope, after landing at Alexandria, arose from the fact that both his artillery and wagons, in the main, were yet down the Potomac. The Quartermaster's Department, to be entirely candid, was here no doubt considerably to blame. How far the Commanding General was responsible for this failure, by omitting to give timely notice to his staff of his intended movement, may well be considered. But the result was a deal of unkind censure of the original Chief Quartermaster – much of it clearly unjust – who had just been relieved, with scarcely time for his successor to arrange for the pending movement in view of the vastness of the project, and the multitudinousness of its details.

The Pope and Antietam campaigns were quickly over, with nothing especially noteworthy in the Quartermaster's Department except the great loss of teams and supplies 'gobbled up,' chiefly by Jeb Stuart and Stonewall Jackson. There was a story at the time about

General Rucker, the Chief Quartermaster at Washington, which is too good a commentary on the Pope campaign to be lost to history. It seems one day, when in a particularly ursine humor, he was presented by an officer with a requisition for one hundred teams to go to Warrenton, or Culpepper, or somewhere about there; the General read it slowly over, and looked stormily up, over his glasses, at the unlucky Quartermaster, growled fiercely out, as only Rucker can growl, 'What do you want of these teams?' The meek reply was 'For General Pope's army.' 'For Pope, do you? Well, you can have 'em! Take 'em along! Don't want your receipts either!' The officer, astonished, inquired what he meant by not wanting receipts. The answer was, in the same ursine growl, 'Where's the use of taking your receipts for what I know you won't keep? Jeb Stuart will have them all, to the last tar-pot and jackass, in the less than a week, and so I shall instruct Captain Dana to invoice them to Bob Lee or Jeff. Davis direct!'

After this, late in the fall, came the Burnside campaign, and the fiasco at Fredericksburg for want of the pontoons. Some people, only too eager to blame others for their own shortcomings, and wholly ignorant of army routine, at the time charged the non-arrival of the pontoons to the Quartermaster-General. The truth is, however, as will be seen on a moment's reflection, that neither Meigs nor Halleck, indeed, had anything whatever to do with the pontoons, nor will either of them be held so responsible by an impartial future. The duties of both were and now are, of a general, supervisory, administrative nature, at general head-quarters, Washington, and therefore they had, properly, no more to do with the particular job of getting pontoons to Fredericksburg for the Army of the Potomac, than they would have had with pitching tents at Nashville for the Army of the Cumberland, or driving a six-mule team, with one line, along the levee at New Orleans, for the Army of the Gulf. No, the Major-General Commanding had his own Chief Quartermaster, and should have looked to him, and to nobody else – had no right to look to anybody else – to get up his pontoon train in time. Disagreeable as it is to say, unfortunately for the country, the pontoon-failure at Fredericksburg was of an exact piece with the failure of the mine at Petersburg a year and a half afterwards – twin blunders of the same brain – 'Somebody else was expected to attend to it,' – and the unerring voice of history will not fail to pronounce them.

The long halt of the Army of the Potomac, in front of Fredericksburg, and the subsequent campaign to Chancellorsville and return, passed without matter of moment to the Quartermaster's Department. The depots of the army were first at Belle Plain and Aquia Creek, but a few miles away at worst, and the railroad to Aquia Creek being speedily reconstructed, supplies were conveyed by it almost into the very camps, at least into the very heart of the army. But subsequently, in June, '63, when Lee crossed the Potomac and advanced boldly into Pennsylvania, Hooker within twelve hours set his whole army in motion and then to Gettysburg and back again to Culpepper there came a time that 'tried men's souls' in the Quartermaster's Department to the utmost. The march across country and return necessitated a constant change of depots and lines of supplies, and it required all the consummate vigilance and energy of the Chief Quartermaster to keep things going. Considerable forage, and some animals, it is true, were picked up in Pennsylvania; yet, after all, it was found that the resources of the country availed but little in supplying such a prodigious multitude. The army was never less than one hundred thousand strong, and generally more, with an average of from fifty to sixty thousand animals; and then besides, the seesaw movement – first north, and then south – was, much of it, over almost identically the same line of march. When the army got back to Warrenton and Culpepper, so far as supplies are concerned it might as well have been in the middle of the Great Sahara. All that region had been campaigned over by both armies since the spring of '61, each

side alternately seesawing east or west, north or south, as the fortune of war demanded, until the whole region was literally stripped bare of everything available for either man or beast. The Gettysburg campaign, as we have said, was a hard one; nevertheless, the army was kept well supplied, and when at last it located at Culpepper, there was soon an abundance of everything essential.

The subsequent campaign of the Army of the Potomac, beginning with the movement from Culpepper last spring, and continuing down to the present writing, has been a severe one in all respects, for all branches of the service. From the outset General Grant has cut boldly loose from his line of supplies – the Orange and Alexandria Railroad – and trusted to luck and hard blows to find another. Loading up his wagons, he turned his army, though more numerous than ever before, into a moveable column, fighting as it marched, and resolved to depend for supplies on a base equally moveable. His first change of base was from Culpepper to Fredericksburg, or rather Belle Plain next to Port Royal, next to the White House, and then to City Point, or at least it is still here at this writing. All of these changes involved gigantic work on the part of the Quartermaster's Department, which was all the more onerous and harassing because no one could say how long it would prove available. Nevertheless, no sooner was Fredericksburg occupied, than men were set to work to rebuild and reopen the railroad to Aquia Creek, and the building of a bridge across Potomac Creek four hundred and twenty-two feet long, by eighty-two feet high, which was finished, it is said, in two and a half days, or forty working hours. The road was run for barely a week or so, when Grant cut loose from Fredericksburg, and the base of operations was switched to Port Royal. A few days sufficed for that line, when again the base was transferred to the White House. Scarcely twenty-four hours after our advance reached Bottom's Bridge, so as to cover the necessary work, locomotives were whistling on the York River Railroad and in less than a week the road to the White House, for all army purposes, was in full working condition. Then came the crossing of the James, and the halt at Petersburg; and, more recently, the attack on the Weldon Road, and the tenacious holding of it. This last move so strengthened his lines, that Grant called for a railroad to bring up his supplies, and almost before the country had fairly heard of the commencement of the work, a railroad ten miles long was in full blast from City Point to his extreme left. From this statement in the rough, hasty and imperfect as it necessarily is, it may well be believed that the work of thus following up and sustaining the Lieutenant-General's army has been no mere child's play. Half the job would be sufficient to engross the attention, and to tax to the utmost the energies of most men; and none but a really able man – of stout heart and fertile brain – could possibly have succeeded when assigned the whole. Any ordinary brigadier, such men as usually find their way into the command of brigades and divisions, would have broken down the campaign and starved the army long ago. That the army has *not* been starved, but well fed, and the campaign throughout stoutly maintained, let the country, in thanking others – alas, but too often far less deserving! – forget not to thank, at least half-way, the long-suffering, much –abused, but in most instances, hard-working officers of the Quartermaster's Department.

In our next article we will consider the operations in the west.

II.

With this hasty resume of operations in the East, let us now turn to operations in the West. As Richmond was the objective point in the East, so Vicksburg and Chattanooga were the objective points in the West. The one vital, as controlling the commerce of the Mississippi; the

other highly important, as the center and heart, so to speak of a great system of railroads. The natural bases of course were St Louis and Louisville or rather Cincinnati, as Louisville, in the beginning was in so-called neutral but practically hostile territory. Operations began first at St. Louis, and there for a time all interest centered. The young and buxom Northwest felt that the Mississippi of right belonged to her; that it had been so intended by the Creator from the beginning as her natural outlet to the ocean; and that, moreover, it had been fairly bought and paid for out of the National Treasury, to come with her as her special dowry when she gave her hand to the Union. She, therefore, felt in honor bound to reopen this pathway to the Gulf, and at the first call of the President for troops, her hardy sons sprang with but little more than their fowling-pieces, and their home-spun, but with a fierce determination burning in their hearts to clear the Mississippi of all obstructions, at whatever hazard and whatever cost. General Fremont was early assigned to the command, in the hope that his name would serve as a talisman to gather about him many that would otherwise be reluctant to quit their homes, and the event no doubt answered the expectation. For a time he was entirely successful, and the comprehensive policy and plans he inaugurated, most of which have since been adopted and carried out by his successors, though 'modified' at the time for reasons of State, will insure him full justice in the future, however much he may suffer now at the hands of his contemporaries. Of his subsequent removal, and of the causes that led thereto, it is not pertinent to this paper to speak. How far the failure of the Quartermaster's Department contributed to his failures is fairly a matter of consideration, though we do not propose here to dismiss the right or wrong of General McKinstry's trial and dismissal. McKinstry's successor at St. Louis was an old and experienced officer of the Quartermaster's Department, and a man of signal abilities in a variety of ways. With characteristic pluck and energy he went rapidly to work, and dismal as was the out-look at first, he soon succeeded in concentrating in the hands of the Government the whole available resources of the West. Its clothing, camp, and garrison equipage came mainly from the East; but subsistence and forage lay all around on the fruitful prairies, and all the Government had to do was reach forth its hands and grasp them. So, also, the bulk of its animals, and means of transportation generally, were close at hand. With these resources, the Quartermaster's Department faithfully followed up and supplied the troops in the minor movements in Mississippi in the fall of 1861, and subsequently in the spring of '62, when Halleck decided to send Grant against Forts Henry and Donelson, it placed the whole commercial marine of the Ohio and upper Mississippi at his disposal. The Tennessee and the Cumberland very speedily were covered with steamers and barges, conveying troops, animals, and supplies of all descriptions, and wherever Grant and his lieutenants found it necessary to move, the Quartermaster's Department promptly appeared, closely upon their heels. Nashville was soon occupied by Buell, and then came the movement down the Cumberland and up the Tennessee to Pittsburg Landing. Meanwhile our forces were slowly but surely descending the Mississippi, and with the spring of '63, began the siege of Vicksburg. The enemy here had undoubtedly a strong hand, and with characteristic recklessness staked his all on the turning of the cards; but the audacious strategy of Grant, in making the detour by Grand Gulf, and so to the rear of Vicksburg – unequalled save by Napoleon's passage of the Splugen – disconcerted all his arrangements, and in the end gave into our hands his boasted and the now world-renowned Gibraltar of the West. To the vast operations of the Quartermaster's Department here, we have space merely to allude. It will be remembered, that the rebels had concentrated at Vicksburg the resources of the Southwest, and besides had drawn all from Bragg all that could be spared without leaving him totally at the mercy of Rosecrans. A lieutenant-general commanded the stronghold, so important

was it considered, and a moveable column under Joe Johnston, a very prudent and able general as time has since disclosed, was left free to operate in the rear according to circumstances. To complete the situation, Jeff. Davis himself made a pilgrimage from Richmond to address and encourage the garrison, and when the drama at last began fairly to develop, the eyes of all Rebeldom and its sympathizers everywhere were fixed intently on its scenes. To oppose these, and to conduct vigorously the required siege, Grant weakened all other points, as far as they would bear it, and concentrated everything at Vicksburg as the one strong point, vital for us to win if we lost all others, because sure to involve the rest when itself should fall. His total force at Vicksburg and about there must certainly have averaged throughout nearly, if not quite, one hundred thousand men, with their usual complement of animals, wagons, equipments, etc., besides the additional *impedimentia* of entrenching tools and siege-trains. The immense work thus entailed upon the Quartermaster's Department – to embark and disembark an army almost at will, to keep its own supplies well up, and see that the supplies furnished by other departments came promptly forward, and to bring all of every kind, clothing, subsistence, forage, ammunition, etc., a thousand miles down a long and dangerous river, proverbially beset with snags and sawyers, currents and quicksands, the reader may possibly imagine, but we shall surely not attempt to describe. The sagacious forethought and the capacious plan, as well as the patient attention to detail, and the iron nerve that the job required were well found in the Chief Quartermaster at St. Louis, and for months the Mississippi from Cairo to Vicksburg, literally swam with crafts of all descriptions. Of course Vicksburg fell, for Grant was before it, inexorable as fate, backed by a Quartermaster that knew 'no such word as fail,' and with its fall our flag floated undisputed on the Mississippi from its sources to the Gulf.

Meanwhile, Rosecrans had fought at Murfreesboro, and now, after long, and, to some, unaccountable delay, was moving on Tullahoma and Stevenson. From Stevenson he set out to flank Chattanooga, but was brought to bay at Chickamauga by Bragg's superior numbers, and was forced back on Chattanooga with the loss of prestige, though not of honor, thanks to that sturdy soldier, George H. Thomas. It was not the first time we had reached the Hawk's-Nest, though it was the *first* that we had occupied it. Buell a year before had threatened it from Huntsville and Stevenson, and a portion of his column had even appeared before it across the Tennessee. But Bragg's bold march North, not surpassed in daring by any thing in this war, compelled him to retrace his steps to the Ohio, and the ground thus lost was now again but barely recovered. Flushed with his success at Chickamauga, the enemy followed close upon our heels as we withdrew to Chattanooga, and when it was found that we had decided to hold the town accepting the risks, Bragg deliberately hemmed it in on all sides, save the river to the rear of it, and evidently calculated with confidence on its surrender in the end. The situation was certainly critical, one full of hazard to the army, and not without cause for dismay to the country. A better man than either Rosecrans or Grant might well have quailed before its gloom. The troops, broken in spirit, barefoot, ragged, and soon on half rations, cowered in their meager entrenchments, while an exultant and insolent foe nearly if not twice their numbers, taunted them daily with their weakness from the surrounding eminences, from which our slightest movements were at all times to be seen. The river to Bridgeport was sealed against supplies that way by rebel sharpshooters and batteries, bristling on its bluffs or lining its banks. The surrounding country, never very prolific, had already been stripped bare by the retreat of one army and the advance of another. The fall weather was fast setting in with unwonted severity, and yet the only line of supplies for full fifty thousand men, and say thirty thousand animals, was by that terrible wagon-road over Waldron Ridge or by Raccoon Mountain – and so sixty-five miles to Stevenson of

itself certain destruction to the transportation of the army and liable at any hour to be interrupted by a foray of rebel cavalry. Nay, even Stevenson itself, whence the railroad ran to Nashville, and so to the Ohio, there was a wretched deficiency of supplies of all kinds, the average run of cars daily, even so late as November 1st, being less than half the number actually required to supply the army. The country has not yet forgotten, nor will it ever forget, the sad accounts we then had, of how at Chattanooga brave men lived on a cracker a day, gleaning the refuse of the camps for something additional, and how horses and mules, in the wretchedness of their hunger, gnawed trees, rails, boards, wagons, harness, any thing they could find, until they fell dead in their tracks by thousands from pure starvation. When the entire situation is thus taken in, with winter soon approaching; when the only line for supplies still open would cease to be practicable for anything but pack-trains; a ragged, hungry, not to say starving army on hand, with no prospect of improvement in the future, but rather of even worse – we may believe, as we reported at the time, then even brave spirits then at Chattanooga contemplated capitulation as among the ultimate possibilities, and evacuation and disastrous retreat to Nashville as among the immediate necessities of the hour. Whatever failures or shortcomings the Government may have been guilty of elsewhere in this war (and it must needs have been guilty of some, because a human government), let the nation not fail to remember that in this great crisis of affairs, so big with the destinies of us all, it acted with the utmost and most commendable promptness and energy. Nay, the people at Washington, from the President down, could not have done more than they did to strengthen and support and encourage, in every proper way, the then struggling army of the Cumberland. They seized the gallant Hooker and hurried him West with two corps from the Army of the Potomac, to open and protect new lines of supplies. They dispatched the Quartermaster-General direct to Chattanooga, with plenary powers to reform and reorganize, and then do generally about as he pleased, provided he supplied the army. They summoned the hero of Vicksburg, though scarcely yet recovered from a fit of sickness so as to sit his saddle, and authorized him to assume charge of everybody and everything West of the Alleghanies down to the Gulf, with the one sole charge to hold stoutly on to Chattanooga to the last, as with the unyielding grip of death, no matter what the hazard or what the cost. Then the Secretary of War himself left Washington and repaired to Louisville, and told Grant in person to go ahead as he pleased, and he would sustain him, provided he ‘filled the bill’. Our Lieutenant-General, then, however, only Major-General, did go ahead as directed, and with characteristic energy and earnestness. Forthwith he telegraphed to Thomas (Rosecrans was already relieved), ‘Hold on to Chattanooga at all hazards! You must not evacuate! Will be with you myself in three days, or as soon as I can get there.’ This meant work, and Thomas’s answer, bull-dog and plucky all through, must have secured him a warm place in Grant’s heart forever after. ‘Have no fears. Will hold the town till we starve!’ Next, Burnside was directed to hold Knoxville, at whatever risk, demonstrating to Chattanooga as he was able, and Sherman was ordered up from Memphis, to march overland to Bridgeport with all haste

These preliminaries once settled, the next thing was to find an officer to take charge at Nashville, the primary base, to accumulate supplies there as rapidly as possible by rail and river, from the North; to reform and repair (and reconstruct from Stevenson) the Nashville and Chattanooga Railroad; to open up new lines of supplies both to the front and rear, and to address himself generally to the work of relieving the army already at Chattanooga, as well as to provide for the additional force now hastening to concentrate in that important region. Fortunately, the Quartermaster-General was no without the man. He was already on hand at Baltimore, in charge of the middle department, and Meigs summoned him by telegraph from the West to repair to

Nashville and assume chief charge there, as Senior and Supervising Quartermaster of the Department of the Cumberland. As we have already intimated, there was evidently a heavy job of work on hand, and it remained to be seen whether the newcomer was equal to the occasion. A vast department, its ramifications extending through a great army, and over hundreds of miles of territory, was to be reformed and reorganized. Railroads were to be reopened and re-equipped. The Cumberland and Tennessee were to be navigated and patrolled. Animals, materiel, and supplies of all kinds, not only for present use at Chattanooga and Knoxville, but in anticipation of the great spring campaign on Atlanta, should Chattanooga be held, were to be accumulated and stored. It was idle to expect all this of one man. The brain of a Carnot even would have sunk beneath the task. The problem was simply too vast and grand for any single intellect to grasp and solve. Meigs was clear-headed enough soon to see this, and it was not long before he relieved the officer at Nashville of the immediate care of the troops at the front, and assigned another to take charge there as Chief Quartermaster of the army in the field. These were both old officers of the Quartermaster's Department, quiet in manner, but of distinguished ability, not afraid of hard work, and plenty of it, and they both buckled to the work of educing order out of chaos with a grim earnestness that promised well for the future. About the same time Meigs ordered General Allen from St. Louis to Louisville, and Colonel Swords, then at Louisville, to Cincinnati. With Swords thus at Cincinnati, Allen at Louisville, controlling also St. Louis and Cairo; Donaldson at Nashville, supervising also all beyond, and Easton well hold of the army – a regular quartermaster's four-horse team – the Quartermaster-General no doubt at last felt sure of his work, if any team of officers could do it. At all events he had selected the best men to be had, and all were soon working in thorough harmony, with a common system, for the same great end. The good results, of course, were not long in showing themselves. Supplies soon commenced to pour rapidly and steadily in and forward, and January had not set fairly in before the army was up again to full rations, and thus the question was settled as to whether the army could be sustained at Chattanooga, provided it could hold its own against the enemy. The defeat of Bragg at Lookout Mountain, and his subsequent overthrow on Missionary Ridge – perhaps the most disastrous defeat of the war – settled the problem at Chattanooga in all respects, and from that time on, the only remaining question was, as to whether the Quartermaster's Department would be equal to the requirements of the great proposed campaign of the spring against Atlanta. As to this the Quartermaster-General himself at first, so at least it was reported before the campaign opened, was not without his fears; but his own work West at least was done, and so he returned to Washington, assured that the officers he had installed would accomplish all possible things and attempt even the seemingly impossible, if they were at all achievable.⁶⁵⁷ Now began the great work of the winter of 1864. The railroad was opened from Chattanooga to Knoxville and beyond, one hundred and ten miles. The Memphis and Charleston Road from Stevenson, through Huntsville, to Decatur, eight-four miles, and the Tennessee and Alabama, from Decatur to Nashville, one hundred and twenty-two miles, were reconstructed – thus giving a double line from the front to the rear. Then came the completion of the Nashville and Northwestern Railroad, from Nashville seventy-eight miles to the Tennessee River at Reynoldsburg or Johnsonville – and the Edgefield and Kentucky Railroad, from Nashville sixty-five miles to the Cumberland River at Clarksville. These two last were to reach navigable waters, in even the dry season, when the Cumberland at Nashville was impracticable for boats, and together with the

⁶⁵⁷ General Sherman, in his official report, in speaking of his supplies, says, "I know that more solicitude was felt by the Lieutenant-General Commanding, and by the military world at large, on this, than on any other one problem involved in the success of the campaign."

Louisville and Nashville Railroad, it was thought, as it subsequently proved, would be sufficient to keep up supplies pretty well for the summer, even when no other lines for supplies were practicable. Meanwhile, the Chief Quartermaster at Louisville, with omnivorous hands, ransacked the Northwest, and all winter long, while the high water lasted, a perfect stream of transports loaded with material and supplies of all descriptions, came pouring down the Ohio and the Mississippi, and thronging up the Cumberland to Nashville. Nashville became a great *entrepot*, a vast granary and storehouse, filled to repletion in all its parts, and even then, though a hundred cars a day went regularly to the front and storehouses were built everywhere by the acre, great quantities of army stores were piled up almost mountain high out of doors, or with only such poor protection from the weather as paulins or wagon-covers could give them. When the spring rise was over, Louisville reported that the Northwest was empty; that all its available resources had been placed at Nashville; and that if General Sherman had not enough there, he could at least get no more until the new crops were grown and harvested. Nashville reported abundance to commence on, and sufficient to last, as was thought, if matters progressed well. So at least thought Sherman, when in May he started from Nashville to open the campaign from Chattanooga, though he was resolved to march any how when Grant crossed the Rapidan. 'Sir,' said he to the Quartermaster at Nashville, just before leaving for the front, at least it is so reported of him, 'I shall move from Chattanooga when the Lieutenant-General orders me; ready or not ready. And if you don't have my army supplied and keep it supplied, we'll eat your mules up, sir! Eat your mules up!' And William Tecumseh no doubt thoroughly meant it. For that's the style of the great Chieftain of the West. Nevertheless his army, huge as it was, though composed of the three great armies of the Ohio, the Cumberland, and the Tennessee, all consolidated into one, did *not* have to eat mules. On the contrary, from the hour he left Chattanooga, until our flag floated in triumph over the battlements of Atlanta, neither his men nor his animals, multitudinous as they were, ever wanted an hour for any thing of the great essentials. Clothing, subsistence, medicines, forage, ammunition, all were pushed rapidly and steadily forward to meet the troops as they required them, whether at Dalton or Marietta, the Etowah or the Chattahoochie, and the concurrent testimony of the army, as repeatedly telegraphed to the Secretary at the time by Sherman himself, was, 'No army was better supplied, all things considered, since the war began.'⁶⁵⁸ Burned bridges were rebuilt, and the railroad reconstructed behind him as he advanced, and the work was continually prosecuted, with such marvelous energy, that the troops were hardly ever in camp, for the night, before in the distance could be heard the welcome whistle of the coming locomotive.⁶⁵⁹ Of course a large portion of the work here spoken of was performed by officers of the Railroad Department; and to Colonel D. C. McCallum, General Manager United States Railroads, great praise is especially due; but then, it will be remembered, that the Railroad Department is only a branch of the Quartermaster's Department, merely one of its many auxiliaries, because all railroad men are hired materials provided, and expenses paid by the Quartermaster's Department.

When it is remembered that Sherman, according to his official report, already widely published, moved out from Chattanooga in May last with just less than a hundred thousand

⁶⁵⁸ Says Sherman in his official report: - "From that day to this (May 1st to September 15th), stores have been brought forward in wonderful abundance, with a surplus that has enabled me to feed the army well, during the whole period of time, although the enemy has succeeded more than once in breaking our road for many miles at different points."

⁶⁵⁹ Says Sherman in his official report, not published until after the above was written, "Bridges have been built with surprising rapidity, and the locomotive whistle was heard in our advanced camps almost before the echo of the skirmish-fire had ceased."

(100,000) effective men and a hundred guns, which means by the usual computation, say one hundred and fifty thousand souls and sixty thousand animals to provide for; that he was then one hundred and fifty-one miles from Nashville, his primary base, and fully two hundred more from his true bases at Louisville and St. Louis; that he afterwards steadily advanced, without a single retreat, one hundred and thirty-eight miles more, through a hostile country, fighting his way across the Etowah and Chattahoochie, up and into his objective point Atlanta; that throughout this whole period, over a slender line of railroad, amounting in all to just less than three hundred miles, his enormous supplies yet reached him regularly, day by day, right along; we say when all these things are considered, with their necessary adjuncts, we then may form some slight estimate of the vast and prodigious work performed by the Quartermaster's Department at Nashville and beyond, during the great campaign of Sherman so gloriously closed by the capture of Atlanta. To itemize a little: November 1st, 1863, the Quartermaster's Department employed at Nashville about five thousand men all told, of all classes of operatives; September 1st, 1864, it had over ten thousand. November 1st, 1863, it found one hundred and twenty-three miles of railroad in feeble operation, averaging only forty cars per day, for even that distance; September 1st, 1864, it had nine hundred and fifty-six miles in full blast, averaging one hundred and fifty cars per day to all points where stores were needed, whether at Huntsville or Chattanooga, Knoxville or Atlanta. During the same period it transported by railroad troops and freight to the front and rear, whose figures run up into the hundreds of thousands, and the figures as to animals, forage, subsistence, clothing, &c., would be quite bewildering, had we space or were it proper to recount them here. Of course, in accomplishing these prodigious results, the Quartermaster at Nashville owed much to his brother officers at Louisville, Cincinnati, and in charge of the armies in the field, as well as his own immediate subordinate officers, for their earnest and faithful cooperation. Without their cordial and magnificent backing, no doubt he would have failed, or at the best have succeeded but indifferently. Nevertheless, the chief responsibility and immediate work fell mainly on his shoulders; and to him, therefore, for high qualities, both of organization and administration, history will award the lasting honors. Had he not 'filled the bill,' Sherman would have had his head off in a whistle. As it was, he was forthwith brevetted Brigadier-General U. S. A., 'for meritorious and distinguished services in the campaign terminating with the capture of Atlanta.' This, though tardy justice, was yet eminently right and fitting in all respects, and the country and the Army alike will rejoice at such full recognition, at last, of so faithful and able a public servant. As the first great step toward recognizing the worth and dignity of bureau work as well as of mere field services, as a public writer we say sincerely, hail! And on the part of the Quartermaster's Department especially present to the government our unfeigned thanks. Now that the precedent is thus fairly set, let the War Office go ahead and reward other proper bureau officers in the same way, according as they deserve, and it will have achieved the lasting gratitude of the Army and the country. For why should not brains have its just and fitting reward as well as mere bravery? Both are alike essential to the success of our armies, and the one is always divine and rarest, while the other is often merely – so to speak – a bulldog quality, mostly common to all Americans, whether officer or private.

We would not close this article without calling attention to the brevet brigadiership conferred also on the Chief Quartermaster of General Sherman's army in the field. He, too, has one his 'stars' fairly, and we doubt not, will wear them worthily and well. To him and the Chief Quartermaster at Nashville, above all others, belongs the credit of having sustained by railroad, at an enormous distance from its base, for the first time in history, one of the largest armies of

modern times. The feat thus accomplished is unprecedented in the history of warfare, and has put at fault all the calculations of modern logistics. Meade, in the East, halts at Culpepper, not seventy-five miles from his base at Alexandria and Washington, the resources of his railroad quite exhausted. Sherman, in the West, moves and fights as he wills at Atlanta, full five hundred miles from Louisville and St. Louis.

We have thus sketched, very imperfectly, we know, some of the operations of the Quartermaster's Department as connected with the chief operations of the war. As will be noticed, we have grouped our remarks, apart from what pertains *ex necessitate* to the Quartermaster-General, around six (6) officers chiefly, because those officers, of all other quartermasters in this war, and the armies they have been connected with, stand out today most prominently before the country. In doing this, we must not be understood as reflecting upon other quartermasters or other movements, or as detracting in the least from their respective merits. On the contrary, we have several others in our mind now, as we write, who are indeed of very great and eminent ability. But in a paper like this, meant for a mere sketch, it is only possible to speak of what seems greatest and most conspicuous. The various expeditions along the Southern coast and to the Gulf, the side campaigns on West Virginia, Missouri, Kansas, and Arkansas, and the recent brilliant operations of Sheridan in the Valley of the Shenandoah, all of which involved heavy labor and responsibility on the part of various quartermasters, we must pass over entirely, as our paper has already swelled beyond the dimensions of one magazine article into two. Other matters, however, relating to real defects in the Quartermaster's Department, and some needed reforms, and especially the new organization at depots of quartermaster's employees into a military force, and a better reorganization of the department generally, we must not wholly omit, though they must all be reserved for a subsequent paper. We feel that our task is here wholly completed, if we have indicated somewhat the prodigious work, and consequent real, not to say rare, ability required of the Quartermaster's Department, and so led the reader to a better and kinder appreciation of its much abused officers.

III.

In opening this third paper on the Quartermaster's Department, in which we propose to glance at some of its alleged defects, and to consider some proposed reforms, we do not know better how to commence than to take up the subject of wagon transportation. It was the custom in the first years of the war, after each one of the Potomac failures, to charge the blame thereof to the unwieldiness of General McClellan's wagon trains. This was apparently a tolerably good excuse, though in reality a very bad one, as the transportation of the Army of the Potomac has never yet exceeded, nor even equaled that of most of our Western armies. In the campaign of the past summer, the Army of the Potomac, as near as we can arrive at the figures, appears to have numbered ordinarily about one hundred and twenty-five thousand (125,000) effective fighting men. Its transportation is reported to have consisted of about four thousand two hundred (4,200) wagons, eight hundred ambulances, thirty thousand (30,000) artillery, cavalry, ambulance and draught horses, four thousand five hundred (4,500) private horses, and twenty-two thousand (22,000) mules making an aggregate in all of some fifty-six thousand animals. This is just about one-third ($1/3$) animals to the men, about the same ratio as obtained during its Peninsula Campaign and ever since; whereas the ratio among Western armies, during the same time and always, has usually been one-half ($1/2$), and generally very nearly two-thirds ($2/3$) animals to the men. The figures in General Sherman's combined army, during the Atlanta campaign, footed up

generally as follows: One hundred and twenty thousand (120,000) effective fighting men, six thousand three hundred (6,300) wagons, nine hundred (900) ambulances, thirty-two thousand (32,000) artillery, cavalry, ambulance, and draught horses, four thousand five hundred (4,500) private horses, and thirty-six thousand mules, making an aggregate in all of some seventy-two thousand (72,000) animals.

These figures are simply enormous, and will give the reader some slight conception of what an army really is, if he will but consider them for a moment. For example, an army of one hundred and twenty-five thousand (125,000) men marching in column four (4) abreast, and the intervals but six feet apart, which is less than the usual interval of troops on the march, would extend over a distance of thirty-five miles,⁶⁶⁰ without making any allowance for the usual intervals between regiments, brigades, divisions and army corps. On good roads where trains are well closed up, it is calculated that each six-mule team will occupy on an average of about 60 lineal feet,⁶⁶¹ this would give about ninety teams to the mile,⁶⁶² a large average on most marches so that six thousand three hundred (6,300) teams would ordinarily require about seventy (70) miles. If the weather or roads are bad, of course they will straggle indefinitely, and thus require much more. An ambulance on the march usually occupies about forty (40) feet,⁶⁶³ so that nine hundred (900) ambulances would occupy a distance of about seven (7) miles. So, with the artillery, an army of one hundred and twenty-five thousand (125,000) men will usually have at least two guns to the thousand men,⁶⁶⁴ which would make two hundred and fifty guns, or say forty batteries of six pieces each.⁶⁶⁵ Now, a battery on the march, as a general thing, will occupy fully three hundred (300) yards,⁶⁶⁶ so that forty batteries alone would take up about seven miles. These figures, thus roughly taken, foot up one hundred and nineteen (119) miles, as the free and easy marching distance of an army the size of the two great ones that we have had operating in the East and West during the past campaign, and this too without counting in accurately our Bedouin Arabs, the cavalry, that always swarm along for miles together, besides, in apparently almost interminable columns. Of course, no General with a moderate stock of brains would ever think of marching his troops thus in one continuous line, and hence the necessity of parallel roads in moving an army, to keep your troops massed and well in hand.

From these calculations, thus roughly made, we think there are two conclusions fairly deducible. First, that the movement of large bodies of troops, under the best of circumstances, are *ex necessitate rei* slow and tedious; and second, that it is impossible for them to move at all without an adequate and well sustained Quartermaster's Department. How the Confederates have managed to get on these four years, the condition of Dixie generally considered, is one of the unexplained mysteries of Jeffdom so far, and fairly a prodigy of modern logistics. We commend the above calculations to our parlor soldiers, our carpet knights, and fireside critics

⁶⁶⁰ **Note:** Each soldier occupies .00028 miles in column under these conditions.

⁶⁶¹ **Note:** A six-mule heavy army wagon occupies 60 feet.

⁶⁶² **Note:** Eighty-eight (88) six-mule heavy army wagons per mile.

⁶⁶³ **Note:** A two-horse ambulance occupies 40 feet.

⁶⁶⁴ **Note:** Two artillery pieces per 1,000 men.

⁶⁶⁵ **Note:** Six guns per battery.

⁶⁶⁶ **Note:** A battery on the march occupies 900 feet of road space.

generally, and shrewdly suspect that these valiant stay-at-home Jominis would be a little more lenient in their fierce and learned military criticisms, were they to familiarize themselves just a little with the multiplicity and magnitude of details here involved, before sharpening again their 'grey goose quills.' Wagons, ambulances, horses, mules, harness, forage, subsistence, clothing, tentage, ammunition, all to be provided by one Department or another, and all to be transported in sufficient quantities, go where the army may, and in whatever weather, be it fair or foul. In fact, as we have already said in our January article, an army is simply 'a vast community on legs, with all its appointments and appurtenances complete, here one day and the next day gone, bearing within itself all the elements of life and motion,' and, when fairly considered in all its aspects, is in truth a most prodigious and wonderful machine. If well organized and thoroughly in hand, with the right men in the right places, and a controlling brain at the top, its Quartermaster's Department can be run as readily as a crack locomotive on the Hudson River Railroad; but without such a Department the finest army ever on the planet, no matter who commanded it, could never move materially from its base, and it would, in truth, soon go to pieces of its own weight, from the very nature and necessity of things. Bearing this well in mind, it is certainly at least creditable to our Quartermaster's Department that, with perhaps the exception of the Red River Campaign, our armies in this war have never anywhere been unduly hampered or embarrassed by our wagon trains huge and unwieldy as they necessarily appear. For nearly two years and half in this war, before coming to post duty, it was the fortune of the writer to march with them day after day, in summer and winter, over the vilest of secesh roads, from Yorktown to the front of Richmond and back again through Burnside's memorable campaign, and to Chancellorsville and back again, through Meade's movement from Culpepper to Centerville and back again; in fact, pretty much all about 'the sacred soil of Virginia,' where, after a half an hour's rain any day the bottom drops out, and your mules seem more likely to pay a visit to Pekin than to go ahead; and yet, he cannot now recollect an instance where the trains were ever unduly behind on a march, or, so to speak, badly in the way on a retreat. That they ever seriously impeded our armies in the East, on the Peninsula or elsewhere, so as to bring to naught some well conceived military movements, 'the time has come' for the country to know, has always seemed to those familiar with affairs a small excuse for great failures.

Thus much for wagon transportation, which, after much observation, mostly in the field, we are persuaded can scarcely be improved. The common wagon might possibly be made a little lighter in some respects, without impairing its strength or decreasing its durability; and it would, perhaps, be somewhat benefited for most purposes by an efficient lock, within the immediate reach and control of the driver, instead of the primitive lock-chains now in use, that compel him to stop and dismount whenever his wheels require to be locked or unlocked. Yet, take it all in all, with its six mule team well in hand, driven with one line by a detailed Yankee or a live contraband, seated securely on the rear tongue-mule, and brandishing his blacksnake as the scepter of his power, it is by far the best and cheapest species of land locomotion that was ever put into the hands of a modern army. So, too, with our ambulances. In the first year of the war we had all sorts and descriptions of ambulances of ambulances, except the right sort; from the lumbering four-horse coach style to the funny, teetering, tottering 'one-horse shay' style. But the common two-horse or two-mule ambulance carriage, as now in use in all our armies, strong and compact, without being unduly heavy, has long since superceded all others, and will no doubt long maintain its place, as a legitimate cousin of the army wagon.

In the matter of water transportation, however, we surmise there is probably room for considerable reform. The war has continued so long, and the transport service of the army has

been so extensive, that it is time the whole subject of sea-going vessels was at least tolerably reduced to order and system. The same remark will apply substantially to river transportation, though in a more limited sense, because the difference of depths in our rivers requires a greater variety in the vessels used. The expedition to Hatteras, to Port Royal, to New Orleans, to Texas, and now more recently to Wilmington, as well as the continuous work that resulted after most of these, together with our heavy operates on the James, the Cumberland, the Tennessee, and the Mississippi, have all given us a wide and rich experience, from which many lessons ought now to be drawn. The first and most obvious one, it seems to me, is that the time for make-shifts and experiments as to transport vessels is past and the time for uniformity as to character and equipment, some adaptation to the end desired, and much real comfort and security, as well as economy, has now come. Had the probable magnitude and extent of our marine service been rightly comprehended in the beginning of the war, and the Quartermaster's Department been directed to govern itself accordingly, the Government might have had ere now a magnificent fleet of National transports, built or at least adapted to their special service, lightly armed for whatever emergency might occur, and with officers and crews regularly commissioned and enlisted for the peculiar duty required of them.

It requires no extraordinary knowledge, we suppose, for anyone to perceive that an army transport, to be thoroughly effective, needs special adaptation to the end had in view. Transports merely for subsistence, forage, &c., of course, need not vary materially from ordinary sea-going vessels. But transports intended for troops and animals, it is obvious at a glance, require certain marked and peculiar features, without which it is simply impossible to secure the best and largest service in the shortest possible time. They must be, first, staunch and strong, without being clumsy, roomy and of moderate draft, but need not be swift, except in special instances; and, secondly, they should be so constructed and equipped, with bunks, gun-racks, water-tanks and fire-apparatus, &c., for troops, and stalls, feeding-troughs, water, &c., for animals, that the largest possible carrying capacity, compatible with comfort and security, may be always obtained from the smallest possible space afloat. Then again all Government transports, for whatever duty, it seems to us, should be of a peculiar build or finish, so as to be readily recognizable as public vessels, the same as our Navy, the country, and the ocean over. So, too, to our mind, each one should go equipped with a light armament of handy guns, ready for defense, or offense either, for that matter, on a moderate scale, should occasion require. One thing more is necessary to secure safe and thorough handling of such vessels, and that is, *well selected and well disciplined officers and crews*. These are only obtainable by a well digested system of commissions and enlistments, having in view the special service required of them, and 'to this complexion,' we predict, will our marine service 'come at last,' and thus rid itself of the nondescript, hybrid seaman, - neither sailor, soldier, nor yet civilian, - that so embarrass and, in too many instances, half paralyze us now. Some such plan (we care not for details), if adopted in time, would have been far cheaper to the nation in the long run, because by regulating every thing, it would have prevented, to a great extent, the ruinous prices we have often had to pay, and would have substantially abolished the wide discrepancies between charter parties, wages, etc., now frequently found existing among equal steamers belonging at least to adjacent, if not the same, ports. Such a plan, surely, it is obvious to every one, would have met, much more fully, the peculiar wants and necessities of the service, than our present slip-shod, incongruous, get-along-somehow, make-shift system, that gives the Government, at best, it is notorious, only hulks and tubs, instead of trim and serviceable transports, and, as is proven by the experience of Great Britain, in her East Indiamen, and otherwise, is entirely feasible, if only taken vigorously

in hand. We repeat, we doubt no that this will be ‘the conclusion of the whole matter’ in our own case, as it already has been, we believe, with most European nations; and then the Quartermaster’s Department will prove itself as free and independent on the river and the sea, as it is confessedly able and strong upon the land.

IV.

These remarks on water transportation conduct us naturally to the consideration of the whole system of *employees*, as now existing in the Quartermaster’s Department. We are constrained to say, that from what observation and experience of it we have had, we deem the system both faulty and bad, for a variety of reasons, but chiefly because, first, it results in such short periods of service – seldom more than six months, and usually less than three – and chronic discharges, with the consequent burden and cost to the Government of such multiplied transportation and subsistence; and, secondly, because, after all, it gives to the Government a man who, in truth, is neither a soldier nor yet a civilian, possessing the vices of both to a very great extent, with no assurance of the virtues of either. True, the Articles of War declare that all persons serving with the army, in whatever capacity, shall be held amenable to the ‘rules and disciplines of war’; but experience shows that this provision is mostly a mere *brutum fulmen* – practically a dead letter – at all posts and depots, and that Government employees, as a class, are the most unruly, improvident, not to say vicious and insubordinate men, within the lines of the army. When serving with troops in the field, as laborers, teamsters, or otherwise, they are often a source of perpetual trouble and annoyance to the officer in charge of them. Being better paid than the common soldier, without his direct liability to danger, there is always a festering quarrel between them that is continually breaking out into brawls and fights, where the employee, of course, as the feebler party, usually gets worsted. In camp, on the most frivolous pretexts, they are constantly seeking furloughs and discharges, especially if any active campaign, with its heavy marches and continual changes, appears to be impending. In time of danger, they are practically worthless, *vide* Bull Run, as they are sure to become demoralized at the first sight of cavalry, and to stampede for their lives at the first shriek of shell. Indeed, the concurrent testimony of officers, who have studied the subject at all, is that the best *employee* by far, for most ordinary duties, whether at post or in the field, is the detailed soldier; the next best, ‘the intelligent contraband’; and worst of all, infinitely and in all respects, except as required as *exports*, the hired civilian. The result is a constant fight, in most commands, between the Quartermaster and the Inspector-General – the one, with his eye keen to his own success, *resolved* that he will have all the detailed soldiers he can get, for the current purposes of his bedeviled department, as mechanics, teamsters, laborers, &c. – the other, with his mind bent on keeping the fullest ranks possible, equally *resolved* that the ‘d____d Quartermaster shan’t have any.’

Now the natural escape from all of this, and the true solution, as we believe, of the vexed *employee* question, lies undeveloped as yet in the new ‘Organization of Quartermaster’s Employees into a Military Force.’ This organization, as yet, is in its infancy, and, therefore, necessarily but rough and imperfect; but, it contains, we believe, the seeds of great and lasting results, if only logically developed and enforced, as to us seems possible enough anywhere, without much real difficulty. Some idea of such an organization, but of all civil employees in the Government, for military duty in cases of emergency, appears to have occurred to the people at Washington, so long ago as 1862; but it was without much practical result, until the summer of

1864, when Early crossed the Potomac and one fine morning menaced the capital from the north. Then the employees of the Quartermaster's Department there, and perhaps of some others to a limited extent, though we are without sufficient data to speak intelligently of any others, were hastily organized into two brigades, and incontinently hurried to the trenches. They were kept there several days, and, it is reported, behaved very well under fire, all things considered; at least so much was the Secretary pleased with their conduct, that he ordered the organization to be maintained, and soon after he tendered to its officers honorary commissions in the service of the United States. About the same time, but long after Sherman had moved out from Chattanooga, a similar military organization of the Quartermaster's employees, by the direction of General Thomas, was begun at Nashville, for local defense of the depot there against outbreaks or attack in case of necessity, the usual garrison at Nashville, and everywhere else throughout the Military Division of the Mississippi, having depleted to the utmost by General Sherman before starting for Atlanta, in order to swell the aggregate of his actual army in the field. By a general order from the Chief Quartermaster there, all able-bodied employees of the department, fit for military duty, were required to be organized into companies and regiments; and these were afterwards reduced to one division of three brigades, because of certain local peculiarities of the regimental organizations. Subsequently, when, late in August, Wheeler turned Sherman, then before Atlanta, and passed north by Chattanooga, and so around to near Nashville about the middle of September, this organization, on an hour's or so notice, put five thousand (5,000) men under arms, and of itself could have held Nashville against any force that Wheeler could then have brought against it. Later, in November, when Forrest attacked Johnsonville, and reinforcements for that post were not to be had anywhere, it sent nearly one thousand (1,000) infantry and a section of artillery, all volunteers, to aid in its defenses. Later still, when Hood appeared before Nashville, it promptly put over four thousand (4,000) men at work on the fortifications and would have mustered fully seven thousand (7,000) strong, had not one brigade been excused from duty, for special reasons. It kept them there nearly a fortnight, off and on; and so well did Thomas appreciate their worth and services, he specially assigned this organization of Quartermaster's forces, the same as any other body of troops, to hold a portion of his interior line. It happened that the organization was not brought further than this into action at Nashville; but had occasion required, it would, no doubt, have acquitted itself at least creditably, as fully one-half of its men, and more of its quasi officers, were old soldiers, or officers of the Army, honorably discharged or mustered out after due term of service.

If, then, such a military organization of Quartermaster's employees is possible at Washington and Nashville, why is it not also possible at other depots and posts, and, in short, everywhere? The working force of employees at any post or depot is, of course, always proportioned to its importance; and so, the importance of a post or depot always determines the strength of its garrison. The force of employees at Washington and Nashville during the past year was varied from ten thousand (10,000) to fifteen thousand (15,000), with a preponderance usually of a thousand or two in favor of Nashville. Of these, fully one-third, and generally one-half, have been ordinary able-bodied men, fit at least for such light military duties as mere local defense usually requires. The same is, of course, true, relatively, of all other posts and depots throughout the Union. If, then, these men were thoroughly organized, and tolerably drilled, so as to be fairly reliable, why might they not take the place of permanent garrisons everywhere, to all intents and purposes, except so much of the same as might be required for care of forts, and for special guard and provost duty? The number of troops thus specially required, as everybody knows, is comparatively small anywhere, and thus the swarms of our non-combatant soldiery,

the opprobrium of our muster rolls nowadays though withheld necessarily from duty in the field under existing circumstances, would soon be reduced at all points to the minimum. In other words, to state the case a little differently, the force of civil employees, at any given place, has to be always sufficiently large to make almost an adequate garrison for that place, if only fit to serve as soldiers. They *can* be made *fit* to serve as soldiers, as experience has demonstrated, if only well organized and tolerably drilled; and thus you would save to the army the bulk of our scattered garrisons, while at the same time you would secure to the public service the trusty soldier, instead of the nondescript insubordinate hybrid, yclept 'Government employee'.

In point of economy, we think it could be demonstrated, without difficulty, that the adoption of some such plan (details are not important) would result in a decided, not to say vast, saving to the Government. We have not the data by us now to give actual figures, but the facts involved can be readily illustrated. For example, suppose an important post or depot requires ordinarily a garrison of say five thousand (5,000) men. Such a post or depot, experience shows, would usually have a working force of from ten thousand (10,000) to twelve thousand (12,000) civil employees in the Quartermaster's Department alone. At least one-half of these may be relied on as fit for local military duty, and thus you have your garrison at once, composed of men who are convertible into either troops or operatives, as the occasion requires. One good regiment of infantry, a thousand or so strong, and a company or so of artillery, would ordinarily suffice at such a post or depot, for guard and provost duty, and necessary care of forts, and thus you release some four thousand (4,000) men instantly for duty in the field. Now, 'a penny *saved* is a penny *gained*,' and so four thousand (4,000) men saved by any means for field duty, are practically four thousand (4,000) men recruited for the army, with all the cost of recruiting, in the way of bounties, transportation, clothing, subsistence, pay, &c., the most of which items continue to run on throughout the entire term of enlistment, saved altogether to the Government. Of course, we would have clothing, subsistence, pay, &c., to provide for our employee force, if thus militarily organized; but all this, in some form or other, has to be provided for employees now, without any return of military services, and the usual pay of clerks, superintendents, foreman, &c., in the various staff departments, quite equals on the average, if it does not exceed, the established pay and allowance of commissioned officers of the line. In other words, to put the case a little differently, the same men that now, as civilians, do the work of artisans, mechanics, laborers, &c., would, as soldiers, at the same or less cost of wages, perform even better service, and at the same time would be available as an almost equivalent body of troops in case of emergency or necessity. From this approximation, however, the reader will recollect is to be deducted, of course, the value of the time spent in occasional drills, reviews, &c.; but this is a mere dribble, compared with the immense saving thus rudely indicated.

Holding these facts to be substantially indisputable, we return to the proposition we set out with, namely, that in some such military organization, and only in *such*, lies the true solution of the vexed employee question, as now existing in the Quartermaster's Department, and, for that matter, in all other staff departments as well. In other words, instead of employees being *hired*, as now, oftentimes at exorbitant wages, and generally for such short periods of service that usually their 'time is out' before getting to be worth much to the Government, we insist that all employees of whatever Staff Departments should be regularly enlisted or drafted, the same as soldiers – organized, clothed, armed, equipped and drilled, the same as soldiers – collected in central and convenient depots, for transfer on call, the same as soldiers – required to work ordinarily as employees, as now, with designated days and hours for drills and reviews, but held ready to shoulder the musket and fight as soldiers also, if necessary; in short, the same, in all

proper respects, for all current purposes of the army except positive field duty, as ordinary American soldiers. They might require a special uniform, or at least badge, to distinguish them from ordinary soldiers of the line, and the same proficiency in drill, &c., would not, of course, be expected of them; but these and other minor conditions are merely matters of detail, and would readily adjust themselves.

These remarks on the employee question have already been extended too far, in our eagerness thoroughly to elucidate the subject, and we have only to add further, by way of summing up, that the proposed reform, in our judgment, carries with it the following practical arguments: First, subordination and discipline among Government employees, now confessedly a sham in most instances; second, uniformity in time and wages the depots of the army over, instead of the strangest and most incongruous variety, as now; third, the abolition of the non-combatant garrisons, to a great extent, everywhere, and the keeping of almost the total effective strength of our armies constantly in the field, instead of frittering them away, as now, piecemeal, *pari passu*, as we penetrate into Rebel-dom; and fourth, increased economy in the public expenditures, in a variety of ways, not only in the first cost of such a force, as against the combined costs of *both* employees and soldiers, as now, but also in the better attention to duty, and less wear and tear of public property on the part of men long enough and tight enough in the public service to acquire the habits and instincts of the 'set-up' soldier. We need scarcely say that we deem the subject one of great importance, and as such commend the discussion of it to the attention of brother officers.

In taking up, next, the *appointment* of officers, we fee that we are entering on delicate ground. But the best friend of the department will scarcely deny that here also there is some room for improvement. In the first year or two of the war especially, many officers crept into the department, who, in our judgment, had much better remained elsewhere. Not that the Quartermaster's Department, in the main, suffered any more in this respect, perhaps, than other staff departments, or than the line either, for that matter; nevertheless, it *did* get some incompetents and *imbeciles*, not to say worse, that were, to say the least, very poor timber to make a quartermaster out of. We remember an amusing instance of one who, it is reported, after quartermastering for some months, being called on from Washington for some rendition of his accounts after puzzling his brains with the forms in the regulations for weeks without mentionable success, finally chucked his returns, invoices, receipts special regulations, and everything else of that nature into a barrel, and, heading it up, forwarded it to the Quartermaster General, with a letter of transmittal about as follows: Herewith General Meigs will please find my accounts. He can open the barrel at either end, and go through either way; but, if he can make any thing out of its contents, it is a thunderin' sight more than I can do.' We have heard of another, who forwarded his mixed-up accounts to Washington, with a polite request to General Meigs personally 'to please make out his first set of papers' for him, and he would compensate him liberally.⁶⁶⁷ We know of another, of our own acquaintance, a pretty good sort of individual, but of great innocence and stupidity, who, after a twelvemonth or so of much tribulation, because overwhelmed with a business he did not know anything about, finally tendered his resignation, and as explanatory thereof used to discourse to his acquaintances as follows: 'I have been a teacher and a minister of the Gospel for nearly twenty years, and know that I, of all others, ought not to speak so; and yet, after twelve months' hard experience of quartermaster's affairs, I must be allowed the expression, d---d the Quartermaster's Department.'

⁶⁶⁷ A somewhat similar story is told of the rebel General Marmaduke, when serving as a quartermaster in the old army.

Neither do we suppose, to return to our subject, that the officers appointed for the volunteer corps were as a class much poorer, if any, than those appointed for the regular corps; for, we have in our mind, as we write, at least three officers of the volunteer force who began the war as regimental quartermasters, and since then have passed successively up, through brigade, division, corps, and army, to Department Headquarters, and have maintained themselves at least creditably everywhere; while we know at least two regular army officers of several years standing who began the war at Army Headquarters, in some capacity or other, but who have since dropped down successively, through all the intermediate grades, until now the Chief Quartermasters of their Departments would not entrust either of them with even a petty post or brigade. But the facts as to much carelessness in the past, in the appointment of quartermasters, nevertheless as we have above stated them to be, and Congress fairly surpassed itself last summer when it passed an act providing for an Examining Board for all officers of the various Staff Departments, *now in the service*. This law is good, as it now stands, and we thus heartily commend it. But, in our judgment, it should go a step farther, and prohibit all staff appointments, no matter on whose recommendations, except after a satisfactory examination as to character and qualifications, first had before a board of competent officers.

We think Congress would do this thing if it would divest itself somewhat of politics, and look just a little into the heavy responsibilities, both pecuniary and otherwise, that are liable to devolve any moment upon officers of the Quartermaster's Department. Their direct *money* responsibility alone, in many instances we could name, amounts frequently to millions of dollars monthly; while their *property* responsibility, in the way of equipage, clothing, forage, animals, &c., pretty much always runs up into the almost the incalculable. All this alone, mark you, apart from the fearful responsibility of sustaining or ruining an army, according as the Quartermaster's Department bears itself well or ill. Now, in civil life, we all know, such grave responsibilities, such 'heavy jobs of work,' to be a little Carlylean, would be entrusted only to men of approved ability and unsullied character. Why, then, should not the same rule hold equally good, or rather, *more* so, in military life? Not that we think officers of the Quartermaster's Department any worse than other army officers, nor nearly so bad as men in civil life, of equal standing, entrusted with the same opportunities for 'bribery and corruption.' But, we submit that, at this stage of the war at least, when good men to choose from are as plentiful as blackberries in August, no man should be appointed as an assistant quartermaster, no matter what the influence of himself or friends, unless he can show a reputation, like Caesar's wife, 'above suspicion,' and has been amply tested as to his capacity either as a regimental quartermaster in the field, or as leading clerk at some important post or depot. Many of these last, from their varied and wide experience in the heaviest of Government transactions, possess splendid qualifications for making depot officers; and the department could not do a wiser thing than to recruit its depot officers, to a very great extent from this ready source. We know many chief clerks, faithful and able men, to whom their officers owe almost all the reputation they have as quartermasters, and who are the best of assistant quartermasters today in all but name, 'ready made' to its hands, if the Government were only shrewd enough to issue them commissions. In everything but commissions, they are *de facto* quartermasters today, and of themselves pretty much 'run the machines' of the officers they are serving with, except the mere mechanical signing of papers. If Mr. Lincoln and Congress do not know this, we think 'the time has come' for quietly telling them of it; and we know that Meigs and the Third Auditor would thank them ten thousand times a day, if, in making their future appointments they would only 'govern themselves accordingly'. A quartermaster manufactured from either of the classes indicated would be iron-clad to begin with, well posted

in the vast and intricate machinery of the most complex department of the Government, and in nine cases out of ten, would be worth at least a brigade of new appointees from the wards of New York or the prairies of Illinois.

In the matter of *rank*, concerning which the department had hitherto been badly off, Congress did something, and will probably do more, when it fairly wakes up. It did the right thing when it constituted Bureaus in the Quartermaster General's office, thus dividing and distributing the work, that no one human brain could possibly digest and dispose of promptly; and the good results are already apparent in greater system and much quicker work there. It was also a wise thing to create inspectors with the rank of colonel, though it should have at least double the number, and also to give increased rank to officers charged with the care of divisions in the field, important depots, armies, or departments. It has already, some two years before created sufficient rank for chief quartermasters of army corps. But it should also now at once proceed to provide additional rank for ALL officers serving at important depots, as well as the chief quartermasters thereof, and the departments will never rest content until this simple measure of justice is done. As it is now, subordinate officers at the largest depots, though charged in frequent instances with the care and responsibility of millions of dollars, of both money and property, are only entitled to the rank of captain; and for the absolutely priceless service thus rendered, they receive from the Government the petty pay and allowances of one hundred and twenty-five dollars and fifty cents (\$125.50) per month, tax off – *less*, by at least one-fourth, than they are allowed and usually compelled to pay their chief clerks and cashiers neither of whom, of course, has any direct responsibility whatever. Otherwise the Government will soon lose many of its best and worthiest officers, who are too proud to steal, and yet who will not consent much longer to starve. Indeed, it has already lost several that we could name, who have quit the service in disgust, while serving at important posts or depots, because of their humiliating rank and pay, so meanly disproportionate in all respects to the labor and responsibility exacted at their hands.

In this connection, while treating of *rank*, we must not forget to notice that the rank created by this recent legislation, above referred to, is, however, only temporary rank, and, *as such*, liable to lapse with change of position. Nevertheless, even with this proviso, it is a real step in the right direction, because of its future promise; for time will no doubt bring with it future legislation, to make absolute the rank thus conferred. It is a proverb, that 'great bodies move slowly,' and so 'great' a body as our modern Congress, must be given ample time for cogitation and reflection, before it can be brought to see what is just and right, where increase of rank or pay to officers is involved. No further action by Congress in the premises would be simply illogical, and, without additional legislation, its action already had would be the merest of mockeries and the cruelest of shams. Because, from the very nature and constitution of things, no officer can hold rank in the army, and be afterwards deprived of it, without being in a measure disgraced, no matter what his personal merit; and it is as cruel and unjust to expect a chief quartermaster, or inspector with the rank of colonel, to relapse to his captaincy again, when, in the course of events, by the whim of a new commanding or quartermaster general, or the decrease of his depot, or the dissolution of his command, he falls to a division or brigade again, as it would be for a brigadier-general to relapse to a colonelcy, when his commanding general prefers some other brigadier, or, by the fortune of war, his original brigade becomes depleted to the ordinary aggregate of a marching regiment. Rank, if *any* thing, and in the army it is *every* thing, must be fixed and absolute. You may adopt, but cannot possibly maintain any other rule. It is all very well for Burns to say:

‘Rank is but the guinea’s stamp,
A man’s a man for a’ that!’

But it is not *true* in army life, and in the very nature of things cannot be. A brigadier may be an ignoramus, and in many cases *is*; but he is a brigadier still, and all officers of inferior rank, no matter what their parts, must yield in everything to the glitter of his stars. ‘A man,’ in the army, is not ‘a man,’ is simply nothing without rank; and therefore, if you give it to him once, you cannot reduce him without inflicting the keenest of cruelties. The remedy is plain: and that is, give to every officer the rank he seems fairly entitled to; and if he proves incompetent, or you have no further use for him, no matter what his position, whether chief quartermaster or major general, muster him out or dismiss him incontinently. But, in the name of common sense, as well as common justice, do not reduce him, if you intend him to continue on in the service; for you cannot reduce an officer, no matter what his grade, without fixing on him a seeming stigma, that will goad, and harass, and annoy, if not – in the end – for all army purposes, ruin him forever. Better by far, a thousand times, return him to civil life, and let him begin anew.

We make these remarks thus earnestly, because we happen to know several excellent officers already who have been deeply injured for life by the working of this anomalous rank, without fault or cause on their part, in any way, but solely from the accident of an accident, so to speak, such as a change of commanding generals, or the dissolution of the command; and therefore we think the law referred to calls for speedy correction in the features indicated. But we have faith in the good sense and justice of Congress, to set this anomaly all right ultimately, and that right soon, and cannot believe that we are going to be disappointed. Meanwhile, let the Quartermaster’s Department thank our Solons for even this ‘half a loaf,’ which is evidently better than no bread at all, when a man is actually starving; especially, if it be but the first fruits of better things to come.

We have thus run hastily through the Quartermaster’s Department, distributing praise or censure, as we judged it due, and now conclude. There are several other topics we would like to discuss, especially the subject of United States Military Telegraphs and Railroads, but have no time for them now. Our work, we know, has been done inadequately, and very imperfectly; but we have done the best we could in the press of daily duty, and are wholly satisfied, if, by any things we have said, the reader has been brought to a juster and truer appreciation of the worth and dignity of mere Bureau work.
