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UNITED STATES MILITARY RAILROADS.

REPORT

OF

BVT. BRIG. GEN. D. C. M^cCALLUM,

DIRECTOR AND GENERAL MANAGER,

FROM 1861 TO 1866.

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REPORT
OF
BREVET BRIG. GEN. D. C. McCALLUM.

OFFICE OF DIRECTOR AND GENERAL MANAGER
MILITARY RAILROADS UNITED STATES,
Washington, D. C., May 26. 1866.

SIR: I have the honor to submit the following report upon the military railroads of the United States under my charge during the war.

On the 11th day of February, 1862, I received the following order :

WAR DEPARTMENT,
Washington City, D. C., February 11, 1862.

Ordered, That D. C. McCallum be, and he is hereby, appointed military director and superintendent of railroads in the United States, with authority to enter upon, take possession of, hold and use all railroads, engines, cars, locomotives, equipments, appendages, and appurtenances, that may be required for the transport of troops, arms, ammunition, and military supplies of the United States, and to do and perform all acts and things that may be necessary and proper to be done for the safe and speedy transport aforesaid.

By order of the President, commander-in-chief of the Army and Navy of the United States.

EDWIN M. STANTON,
Secretary of War.

Upon assuming the duties indicated by the above order I found only one railroad in possession of the Government, that from Washington to Alexandria, seven miles long, and in charge of Captain R. F. Morley, assistant quartermaster.

Under an order from the War Department, dated January 10, 1862, the track had been relaid with new T-rails, the entire road-bed repaired, and a track laid across Long bridge, over the Potomac River.

Previously all passengers and freight had been transferred across the bridge by horse-power.

In Alexandria the tracks had been laid through the city to form a junction with the Orange and Alexandria Railroad.

The road was used regularly and continuously without interruption

from this time forward until the close of the war, and on the 7th day of August, 1865, was surrendered to the Alexandria, Washington and Georgetown Railroad Company.

During the period of its military occupation the value of construction and repairs made upon it not properly chargeable to the cost of operation amounted to \$107,328.88.

The transportation from February 9, 1862, to August 7, 1865, three years, five months and twenty-eight days, was as follows:

Number of engines run over the road for other than local construction purposes	8,983
Number of loaded cars	30,457
Number of empty cars	20,699
Total number of cars.....	<u>51,139</u>

In March, 1862, Major General McClellan instructed me to have a line examined for a railroad from Winchester, the terminus of the Harper's Ferry and Winchester Railroad, to Strasburg, a station of the Manassas Gap Railroad in the Shenandoah Valley, and to make an estimate of the cost. This was completed early in April, but the railroad was not built.

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 Peninsular campaign. They were purchased from Northern railroad companies, loaded as directed, and remained on the vessels until early in May, when they were sent to White House, Virginia, and placed upon the Richmond and York River Railroad.

Another engine was added in June to the number, and all employed in transporting supplies between White House and four miles from Richmond. Upon the withdrawal of the Army of the Potomac to Harrison's Landing, June 23, all the rolling stock was destroyed, or damaged as far as practicable, to prevent it from falling into the hands of the enemy.

Near the close of March, 1862, the Orange and Alexandria Railroad was opened to Manassas Junction, 26 miles from Alexandria, and in April to Warrenton Junction, 39 miles. In August, after relaying six miles of track and bridging Rappahannock River, the road was opened to Culpeper, 61 miles, which, at the time, was the main depot of supplies for the Army of Virginia. A few trains were run to the Rapidan River, 80 miles. Upon the retreat of General Pope, in the last days of August, the road was entirely abandoned, with the loss of seven locomotives and 95

cars. In November it was reopened for a few days to Bealton, 46 miles, and to the town of Warrenton, to supply the Army of the Potomac on its march from Antietam to Fredericksburg.

The Manassas Gap Railroad was opened early in April, 1862, to Strasburg, sixty-one miles from Manassas and eighty-seven miles from Alexandria. It was operated only a very short time to Strasburg, but continued in use to Front Royal, fifty-one miles from Manassas, through May and part of June, when it was abandoned. In November, 1862, trains were run over it to Front Royal for a few days with supplies for General McClellan's army.

The Alexandria, Loudon and Hampshire Railroad was opened, in the spring of 1862, to Vienna, fifteen miles from Alexandria, and used for transporting supplies to the fortifications south of Washington and the camps along its line. During the first two weeks of September it was the principal line of supply for the Army of the Potomac when encamped near Washington, after the second battle of Bull Run, and previous to the Antietam campaign.

These four railroads comprise all that were operated as military lines from Alexandria and Washington. They were subsequently used more or less at various times, as will be mentioned hereafter, and continued to play an important part in the operations of the Army of the Potomac.

In April, 1862, the Richmond, Fredericksburg and Potomac Railroad was opened from Aquia Creek to Fredericksburg, fifteen miles, and operated to supply the forces stationed at Fredericksburg. The road was abandoned September 7, with the loss of one engine, fifty-seven cars, and a small quantity of material. On the 18th of November, repairs were again commenced, and the road was opened on the 28th to Falmouth, opposite Fredericksburg, and was used to supply the Army of the Potomac until June, 1863. A very large amount of work was required, not only to the railroad, but to the wharves at Aquia Creek, all of which had been burned when this line was abandoned by our forces.

The limited accommodations for receiving and delivering freight and passengers at Aquia rendered an increase of wharf-room and tracks necessary, and a new wharf, afterward named "Yuba Dam," was completed in February, one mile below the Aquia Creek wharf, and the necessary tracks laid from the main road to it. Vessels drawing ten and a half feet of water could land at the new wharf at low tide, while there was only eight and a half feet at high water at the old one.

This improvement proved to be a valuable acquisition to the means of supplying the army. The road continued to be used without interruption until June, 1863, when it was abandoned with a small loss of material, but

the bridges, buildings, and wharves were soon afterward burned by the enemy.

The eastern portion of the Norfolk and Petersburg Railroad was taken in charge July 22, 1862, and the gauge at once changed from five feet to four feet eight and one-half inches for forty-four miles. At Suffolk, twenty-three miles from Norfolk, this line crosses the Seaboard and Roanoke Railroad, running from Portsmouth, opposite Norfolk. A connecting track was laid between the two roads in August, 1862, and these lines were afterwards operated together.

In May, 1863, about fifteen miles of track was taken up on the Norfolk and Petersburg Railroad west of Suffolk, by order of Major General Dix, and about the same length on the Seaboard and Roanoke. The two roads were afterwards operated to Suffolk, until the close of the war, for local military purposes, and were not identified with any of the great military operations or campaigns. From July 22, 1862, to June 30, 1863, the transportation over them was as follows:

Troops, 107,359 men; quartermaster's stores, 23,757 tons; subsistence stores, 9,043 tons; ordnance stores, 2,353 tons. Total stores, 35,153 tons.

In April, 1863, the Orange and Alexandria Railroad was opened to Bealton, and used a few days to supply a force on the Rappahannock. The portion south of Bull Run was then abandoned, and about the 15th of June the whole road outside the defenses of Washington was evacuated. July 18, repairs were recommenced and continued till the road was opened to Culpeper. Not having been much damaged by the enemy, the amount of work necessary to put it in running order was small. It was used until the first of October to supply the army of General Meade after its return to Virginia from the Gettysburg campaign.

Early in October it was again abandoned south of Bull Run, and was thoroughly destroyed by the enemy from Manassas Junction nearly to Brandy Station, about twenty-two miles. Repairs were commenced October 23, and the damaged road opened October 30, to Warrenton Junction, eleven miles, and to Culpeper November 16, to which point it was operated during the winter, and until the final advance under Lieutenant General Grant of the Army of the Potomac, May 4, 1864, when it was abandoned beyond Burke's Station, fourteen miles from Alexandria. Rappahannock River bridge, 625 feet long and 35 feet high, was rebuilt in nineteen working hours. The Army of the Potomac remained in winter quarters on the south side of the Rappahannock, and received all its supplies for men and animals during the winter and spring over this single-track road.

The Manasses Gap Railroad was reopened to White Plains, 23 miles

from Manassas, in August, 1863, and used for a few days to deliver supplies for General Meade's army on the march from Gettysburg to Culpeper.

On the 2d day of July, 1863, military possession was taken of the Western Maryland Railroad from Baltimore to Westminster, in Maryland, 36 miles, which, from its position, had become the line of supply for the army of General Meade at Gettysburg. Sufficient locomotives, cars, fuel, supplies, and the men to operate it were brought from the military railroads of Virginia, the equipment belonging to the road itself being wholly inadequate. The road was restored to the owners July 7, the army having moved to the line of the Baltimore and Ohio Railroad.

July 9, 1863, full military possession was taken of the railroad from Hanover Junction to Gettysburg, 30 miles, and it was operated as a military line until August 1, to remove the wounded from the field of battle to distant hospitals. During military occupation about 15,580 wounded men were transported over it. The equipment and men for this work were likewise furnished from the military railroads of Virginia.

During the rebel occupation of central Pennsylvania, in June, all the bridges were destroyed by them on the Northern Central Railroad between Hanover Junction and Harrisburg, and several miles of track torn up on the Cumberland Valley and Franklin railroads, between Harrisburg and Hagerstown, Maryland. The Virginia military railroad construction corps rebuilt the bridges of the Northern Central Railroad. The materials for the same were furnished from the Government yard at Alexandria, Virginia. The railroad company afterwards returned an equal quantity of material, the lumber amounting to 150,000 feet, board measure. The same construction corps also relaid a portion of the damaged track of the Cumberland Valley and Franklin railroads.

As the war progressed the nature, capacity, and value of railroads were better understood on both sides, and more systematic and determined efforts were made by the enemy against the lines used for transporting supplies to our armies. The destruction of track and bridges was greater each subsequent time the roads passed within their military lines, and it became apparent that extraordinary preparations must be made to meet it. Early in 1863 a small construction corps was formed, consisting of about 300 men, which was the beginning of an organization afterwards numbering in the East and West nearly 10,000. The design of the corps was to combine a body of skilled workmen in each department of railroad construction and repairs, under competent engineers, supplied with abundant materials, tools, mechanical appliances, and transportation. They were formed into divisions, gangs, and squads, in charge, respectively, of su-

pervisors, foremen, and sub-foremen, furnished with tents and field equipment. Storehouses were established at principal points, with an ample stock of tools and materials.

With the opening of the campaign in Virginia in May, 1864, under Lieutenant General Grant, the Alexandria railroads ceased to bear any important part. The Orange and Alexandria line was opened to Rappahannock River, 50 miles, between September 28 and October 2, 1864, but at once abandoned back to Manassas. It was operated to that station until November 10, when it was abandoned back to Fairfax, 16 miles from Alexandria. It was operated for that distance until the close of the war, and June 27, 1865, was surrendered to the Board of Public Works of Virginia.

The Manassas Gap Railroad was opened from Manassas to Piedmont, 34 miles, between October 3 and 11, and operated until October 27, 1864. Between that date and November 10 the rails were taken up between the above-named stations and carried to Alexandria.

On the 9th of May, 1864, repairs were again commenced on the railroad at Aquia Creek, and it was opened to Falmouth, 14 miles, May 17. Potomac Creek bridge, 7 miles from Aquia, 414 feet long and 82 feet high, was built, ready for trains to pass, in 40 working hours. The road was operated until May 22, principally for removing the wounded of the battles at Spottsylvania Court-House. On that day it was abandoned, and not afterward used as a military line.

The Richmond and York River Railroad was opened about the first of June from White House to Dispatch, 14 miles, and operated until June 10, when it was finally abandoned, the track taken up by order of Lieutenant General Grant and the materials removed to Alexandria.

Rolling-stock for the Aquia Creek and York River railroads was sent from Alexandria, on barges prepared with tracks for the purpose, and taken away in the same manner, without loss or injury, when the roads were abandoned.

Near the close of June, 1864, the City Point and Petersburg Railroad was occupied to Pitkin Station, 8 miles from City Point. During the fall and winter of 1864-5, 18 miles of new railroad were built, passing around to the south and southwest of the city of Petersburg, by which the armies of General Grant were principally supplied.

The Richmond and Petersburg Railroad was opened April 4, 1865, from Petersburg to the south bank of James River, opposite Richmond, 21 miles, and was operated by this department until July 3, when it was turned over to the Virginia Board of Public Works.

The Petersburg and Lynchburg Railroad was repaired between April

4 and 11, to Burkesville, 62 miles from City Point, and used for a short time to supply the armies of General Meade and the paroled soldiers of General Lee's army. The gauge originally was five (5) feet, but not having proper rolling-stock at hand, it was changed to four feet eight and one-half inches. It was operated as a military road until July 24, when it was turned over to the Board of Public Works.

Shortly after the surrender of General Johnston's army the Richmond and Danville Railroad was opened to Danville, 140 miles, and operated for military purposes until July 4, 1865, when it was also surrendered to the Board of Public Works.

The Winchester and Potomac Railroad was repaired from Harper's Ferry to Halltown, 6 miles, between August 14 and 19, 1864, to Stevenson, 28 miles, between November 2 and 24, and was used to supply the army of General Sheridan, operating in the Valley of Virginia. The iron used in the reconstruction of this line was principally that taken from the Manassas Gap Railroad. The bridges were all rebuilt. The road remained in charge of this department until January 20, 1865, when it was restored to the railroad company.

The railroads in Virginia, Maryland, and Pennsylvania, used at any time during the war as military lines, the terminal stations on each, while so used, and number of miles operated, were as follows :

Names of lines.	Terminal stations.		Length of line.
	From—	To—	
Alexandria and Washington	Alexandria	Washington	7
Alexandria, Loudon and Hampshire	Alexandria	Vienna	15
Orange and Alexandria	Alexandria	Mitchell's	68
Warrenton Branch	Warrenton Junction	Warrenton	9
Manassas Gap	Manassas	Strasburg	62
Richmond, Fredericksburg and Potomac.	Aquia Creek	Fredericksburg	15
Richmond and York River	White House	Fair Oaks	20
Richmond and Petersburg	Manchester	Petersburg	22
Clover Hill Branch	Clover Hill	Coal Mines	18
Richmond and Danville	Manchester	Danville	140
South Side	City Point	Burkesville	62
Army Line and Branches	Pitkin, &c	Humphrey, &c	18
Norfolk and Petersburg	Norfolk	Blackwater	44
Seaboard and Roanoke	Portsmouth	Suffolk	17
Winchester and Potomac	Harper's Ferry	Stevenson	28
Western Maryland	Baltimore	Westminster	36
Hanover Branch and Gettysburg	Hanover Junction	Gettysburg	30
Total miles			611

The following tabular statements exhibit—

1st. The number of persons employed, the greatest number employed in any one month of each year, the average monthly number for the year, and amount paid for their services.

2d. The number of locomotive engines, how procured, number added each year, and final disposition made of them.

3d. The number of cars, &c.

4th. The length of bridges and tracks, built or rebuilt.

1. *Number of persons employed, and amount paid for services.*

Year ending—	Persons employed monthly.		Amount paid for services.
	Greatest number in one month.	Average number in one month.	
June 30, 1862 -----	1,730	750	\$345,743 50
June 30, 1863 -----	2,721	1,974	777,628 31
June 30, 1864 -----	3,160	2,378	1,277,968 34
June 30, 1865 -----	4,542	3,060	2,296,145 73
Nine months ending March 31, 1866	1,360	417	162,475 07
Total -----	4,542	1,906	4,859,960 95

2. *Locomotive engines provided, and final disposition made of them.*

Year.	Locomotives procured.					Locomotives disposed of.			
	Purchased.	Built.	Captured.	Total.	Lost or destroyed in service or in transit.	Sold.			Total.
						For cash.	To Southern railroads, under Ex. orders of Aug. 8 and October 14.	Returned to former owners.	
1862 ..	48	1	5	54	2				2
1863 ..	18			18		3			3
1864 ..						9			9
1865 ..						51		3	54
1866 ..						4			4
Total.	66	1	5	72	2	67		3	72

3. *Cars provided, and final disposition made of them.*

Year.	Cars procured.				Lost or destroyed in service or in transit.	Cars disposed of.			
	Purchased.	Built.	Captured.	Total.		Sold.			Returned to former owners.
						For cash.	To Southern railroads, under Ex. orders of August 8 and October 14.	Total.	
1862	503	-----	13	516	458	-----	-----	-----	458
1863	704	-----	-----	704	15	10	-----	-----	25
1864	68	30	-----	98	57	126	-----	-----	183
1865	415	-----	-----	415	20	958	38	13	1,029
1866	-----	-----	-----	-----	-----	38	-----	-----	38
Total	1,690	30	13	1,733	550	1,132	38	13	1,733

In addition to the rolling-stock belonging to the department, in cases of emergency, the railroads north of Washington were freely drawn upon for a supply, particularly in the early part of the war.

4. *The length of bridges and track built or rebuilt.*

The total length of bridges built and rebuilt upon the Virginia railroads, including those rebuilt in 1863 in Maryland and Pennsylvania, was as follows :

Trestle or temporary bridges, 33,336 lineal feet; truss or permanent bridges, 1,595 lineal feet. Total, 34,931 lineal feet, or 6 miles and 3,251 feet.

The total length of track laid upon the same railroads was 177 miles and 2,961 feet. During the war, and after its close, 128 miles and 5,163 feet were taken up

The following is a list of the principal officers of military railroads of Virginia during the war.

1862.

J. H. Devereux	-----	Superintendent of railroads running from Alexandria.
E. L. Wentz	-----	Engineer of repairs of railroads running from Alexandria.
J. J. Moore	-----	Engineer of repairs of railroads running from Alexandria.
A. Anderson	-----	Engineer of repairs of railroads running from Alexandria.
W. W. Wright	-----	Engineer and superintendent of Aquia Creek Railroad.
E. L. Wentz	-----	Engineer and superintendent of Richmond and York River Railroad.
E. L. Wentz	-----	Engineer and superintendent of Norfolk railroads.

1863.

- J. H. Devereux Superintendent of Alexandria railroads.
 J. J. Moore Engineer of repairs of Alexandria railroads.
 W. W. Wright Engineer and superintendent of Aquia Creek Railroad.
 E. L. Wentz Engineer and superintendent of Norfolk railroads.
 A. Anderson Chief engineer military railroads of Virginia.
 J. B. Clough Construction engineer military railroads of Virginia.

1864.

- E. L. Wentz Chief engineer and general superintendent of military railroads of Virginia to November 1.
 J. J. Moore Chief engineer and general superintendent of military railroads of Virginia after November 1.
 M. J. McCrickett Superintendent of Alexandria railroads to October 10.
 P. McCallum Superintendent of Alexandria railroads after October 10.
 P. McCallum Superintendent of Norfolk railroads to October 10.
 H. F. Woodward Superintendent of Norfolk railroads after October 10.
 G. M. Huntingdon Superintendent of City Point Railroad.
 C. L. McAlpine Engineer of repairs of City Point Railroad.
 J. G. Beggs Superintendent Harper's Ferry Railroad. (Winchester and Potomac.)

1865.

- J. J. Moore Chief engineer and general superintendent of military railroads of Virginia.
 P. McCallum Superintendent of Alexandria railroads to March 10.
 W. H. McCafferty Superintendent of Alexandria railroads after March 10.
 G. M. Huntingdon Superintendent of City Point Railroad.
 C. L. McAlpine Engineer of City Point Railroad to May 1.
 T. D. Hays Engineer of City Point Railroad after May 1.
 H. F. Woodward Superintendent of Norfolk railroads to March 1.
 P. B. Tompkins Superintendent of Norfolk railroads after March 1.
 O. H. Dorrance Superintendent of Harper's Ferry railroad to April 20.
 D. T. Shaw Superintendent of Harper's Ferry railroad after April 20.
 O. H. Dorrance Superintendent of Richmond and Danville Railroad.

MILITARY RAILROADS OF THE SOUTHWEST.

In obedience to War Department Special Order No 562, dated December 19, 1863, paragraph 33, I proceeded to Tennessee and examined the condition of the railroad lines operated to supply the armies then encamped in the vicinity of Chattanooga, and submitted the following report :

CHATTANOOGA, *January 19, 1864.*

SIR: I am instructed by Major General Halleck to report the present condition of affairs connected with the United States military railroad service in the Department of the Cumberland, and, in doing so, I beg to state that while the duty is an unpleasant one, the interest of the service and my personal reputation demand a plain statement of the case.

By order of General M. C. Meigs, Quartermaster General, a large number of men were engaged and forwarded, with tools and equipments to Nashville, Tennessee, there to report for duty. Having myself been ordered to report to General Meigs at Chattanooga, I called upon Mr. J. B. Anderson, general manager, &c., Nashville, Tennessee, and informed him that I had been ordered to aid him in repairing the railroad between Bridgeport and Chattanooga.

This I at once proceeded to do. When this duty was completed, presuming that the whole force would then be put upon the whole line between Nashville and Chattanooga, it was tendered to Mr. Anderson, but for some reasons to me unknown, he declined to adopt this course; it was therefore ordered by Major General Thomas, with the concurrence of Mr. Anderson, that the force be taken from the Nashville and Chattanooga line and put upon the repairs of the road between Chattanooga and Knoxville, Mr. Anderson taking the whole responsibility of repairs of the road in use, and to make such requisitions for men and tools as might be in my power to meet.

The road between Nashville and Chattanooga is still in bad condition, and, in my opinion, no energetic means have been taken to put it in repair; the iron and cross-ties on the McMinnville and Trenton branches are to be taken up and used in repairing the main lines, but as yet, as far as my knowledge extends, no movements of that sort have been made; and although the trains are run only at the rate of eight miles per hour between Nashville and Chattanooga, accidents are frequent. In my opinion it will be true economy to relay the whole line with new rails as soon as the latter can be procured.

I would recommend that the rolling-mill partially constructed by the rebels at this place be completed as soon as possible, for the purpose of re-rolling the worn-out rails, coal being contiguous and abundant. This would not only be economy, but would enable the Government to have rails on hand for any probable contingency. The cost of re-rolling the old iron would not be greater per ton than the expense of transporting new rails from the seaboard to this point, thus saving the original cost of the iron, besides the great advantage of having the rails on hand when and where required. It is reasonable to assume that the railroads south of this are badly worn out, which furnishes an additional argument in favor of the rolling-mill. I am informed that this point will be used as an important base of supplies; this will cause a large amount of rolling stock to center here, requiring the necessary shops and machinery for repairs. I cannot discover that measures have been taken to meet this want. The shops at Nashville are very deficient, and immediate means should be taken to increase the facilities there.

When the Northwestern Railroad and the line from Chattanooga to Knoxville are completed, the following lines will be in operation:

	<i>Miles.</i>
Northwestern Railroad, from Nashville to the Tennessee River.....	72
Nashville to Chattanooga	151
Nashville to Stevenson <i>via</i> Decatur.....	185
Chattanooga to Knoxville	111
Whole distance.....	519

To work these lines I am informed there are on hand, or will be soon, seventy (70) locomotives and six hundred (600) freight cars. This supply is entirely inadequate. I may say here that on certain emergencies we have had in use between Washington and

Culpeper sixty (60) locomotives and eight hundred (800) cars—a distance of seventy miles. It is true this was an extreme case, but one not unlikely to occur on all military railroads. The railroad from Aquia Creek to Falmouth, distance fourteen (14) miles, required at times fourteen locomotives and one hundred and sixty-five (165) cars.

The ordinary supply of rolling stock in use upon the various railroads in this country will average one (1) locomotive and twelve (12) freight cars to every two miles in length of road in use, and on many lines the supply is even greater.

Thus, according to the above statement, the seventy locomotives will be barely sufficient to stock one hundred and forty (140) miles, and six hundred cars sufficient only to stock one hundred (100) miles of railroad; add to this the liability of destruction by raids, and the necessity of being prepared, if possible, for sudden and rapid movements, it is apparent that with the present equipment no advance of the army can be made, if I am correct in assuming that it must depend upon railroads for supplies. There should be on hand in this department not less than two hundred (200) locomotives and three thousand (3,000) cars, which should be added to as the army advances southward from Chattanooga.

I regret to be compelled to report the railroad organization of this department as decidedly defective, and, as far as I have been able to discover, there is a lack of well-directed energy and seeming want of ability to comprehend the magnitude of the undertaking. The experiment of supplying an army over a long line of railroad through an enemy's country is yet to be tested.

The most perfect organization and the best practical talent in the country will be indispensable to success. A construction corps of at least one thousand (1,000) men, under a competent head, with a full supply of tools and materials, will be as essential as the permanency of the roadway. The line should be worked in divisions of proper length, each division put in charge of an experienced officer directly responsible to the head of the operating department, with such a system of reports by telegraph and otherwise as will at once detect delinquencies and as will insure perfect discipline and full co-operation throughout.

In conclusion, permit me to say that I have thus briefly given my views in the case, which nothing but a plain sense of duty to the War Department and the service could have induced me to do.

I am, sir, very respectfully, your obedient servant,

D. C. McCALLUM, *Colonel, A. D. C.*

Hon. E. M. STANTON, *Secretary of War.*

The following order was received on the 4th of February, 1864:

[General Orders No. 3.]

HEADQUARTERS MILITARY DIVISION OF THE MISSISSIPPI,
Nashville, Tennessee, February 4, 1864.

By authority of the Secretary of War, Colonel D. C. McCallum, aide-de-camp, United States Army, is hereby appointed general manager of all railways in possession of the Government, or that may from time to time be taken possession of by military authority in the departments of the Cumberland, the Ohio, the Tennessee, and of Arkansas, with all the powers and authorities conferred and duties imposed upon and invested in John B. Anderson, as general manager of said railways, by special order of the Secretary of

War, of date War Department, Louisville, Kentucky, October 19, 1863 (as modified by paragraph four, General Orders No. 13, from these headquarters), and will at once enter upon the discharge of the duties of general manager of railways, as aforesaid.

John B. Anderson is hereby relieved from duty as general manager of said railways, and from all connection with the same, and will turn over to said Colonel McCallum all property, moneys, contracts, and papers, of every kind and description, belonging to Government, or in anywise appertaining to or concerning said railways.

By order of Major General U. S. GRANT:

T. S. BOWERS, *Assistant Adjutant General.*

Upon assuming the duties thus imposed, I found most inadequate means to accomplish the purposes for which the railroads had been opened. The main army was at Chattanooga and its vicinity, and all its supplies for men and food for its animals were received from Nashville, one hundred and fifty-one miles distant, over the Nashville and Chattanooga Railroad.

This road was necessarily the main line of supply during the subsequent campaigns from Chattanooga toward Atlanta, and from Knoxville toward southwestern Virginia, and at this time was in the worst condition. The track was laid originally on an unballasted mud road-bed in a very imperfect manner, with a light U-rail on wooden stringers, which were badly decayed and caused almost daily accidents by spreading apart and letting the engines and cars drop between them. The total length of the roads in use was as follows:

	<i>Miles.</i>
Nashville to Chattanooga	151
Nashville (south) to Darks' mill	39
Stevenson to Huntsville	60
Chattanooga to Charleston	42
 Total	 292

Upon examination it was found there was on the above roads the following rolling stock:

- 47 United States military railroad locomotives that could be made available.
- 3 locomotives borrowed from Louisville and Nashville Railroad.

 Total, 50 locomotives, of which eleven (11) were disabled and in the shop for repairs,
 leaving fit for service thirty-nine (39).
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- 437 United States military railroad freight cars.
- About 100 cars borrowed from Louisville and Nashville Railroad.

 Total, 537 cars, of which four hundred (400) were in running order, the remainder
 being disabled.

My attention was first directed to the most efficient organization of the men employed. Two distinct departments were projected—the “transportation department,” embracing the operation and maintenance of all the lines in use, and the “construction corps,” for the reconstruction of the railroads which might fall into our hands as the army advanced.

The following orders and instructions were issued to the principal officers in charge of these respective organizations :

[General Orders No. 1.]

OFFICE OF GENERAL MANAGER MILITARY RAILROADS U. S.,
Nashville, February 10, 1864.

A. Anderson is hereby appointed general superintendent of transportation and maintenance of roads in use, and W. W. Wright chief engineer of construction in the military division of the Mississippi. They will be respected accordingly.

D. C. McCALLUM,
Colonel, U. S. Army, General Manager Railroads U. S.

Approved:

U. S. GRANT, *Major General.*

OFFICE OF GENERAL MANAGER MILITARY RAILROADS U. S.,
Nashville, Tennessee, February 11, 1864.

SIR: You are hereby appointed general superintendent of transportation on United States military railroads in the military division of the Mississippi.

Your duties will be confined to the management of transportation on all railroads in use in this military division, together with all necessary repairs of the same.

You will have, with the approval of general manager, full authority to engage the services of all persons for whose acts you are held responsible, and will have full power to dismiss any subordinate when, in your judgment, the interest of the service will be promoted thereby.

You will also, with the approval of the general manager, have authority to establish rates of compensation of all persons serving under you.

You will, at an early day, present to the general manager, for his approval, a plan of the organization of your department.

You will have authority to make requisitions for supplies upon the assistant quartermaster detailed to service on military railroads in the military division of the Mississippi.

You have power to make requisitions for men and materials, or both, upon the chief engineer in charge of construction in this division, when, in your opinion, the emergency calls for such assistance.

As the duties of the general manager will occasionally cause his absence from this military division, you will at such times, and in order to insure prompt action, obey any order emanating from the General-in-chief of this military division, or Generals in command of the departments of the Cumberland, the Ohio, and the Tennessee, in all matters appertaining to the branch of duties in your charge.

Very respectfully, your obedient servant,

D. C. McCALLUM,
Colonel, U. S. Army, Military Director and General Manager Railroads U. S.

A. ANDERSON, Esq.

OFFICE OF GENERAL MANAGER MILITARY RAILROADS U. S.,
Nashville, Tennessee, February 11, 1864.

SIR: You are hereby appointed chief engineer of United States military railroads in the military division of the Mississippi.

Your duties will be confined more especially to the reconstruction and opening of new lines of railroad. For this purpose you will have the entire charge of the construction corps. You will have authority, with the approval of the general manager, to engage all persons for whose acts you are held responsible, and will have full power to dismiss any person employed under you when, in your judgment, the interest of the service will be promoted thereby.

You will, with the approval of the general manager, have power to establish rates of compensation of your subordinates, and will, at an early day, report to the general manager for his approval a plan of organization of all the forces in your charge.

You will have authority to make requisitions for supplies, tools, &c., upon the assistant quartermaster detailed to special duty in the military division of the Mississippi, and located at Nashville.

It will also be your duty to honor requisitions made upon you for men and materials by the general superintendent of United States military railroads in the military division of the Mississippi for the purpose of repairs of lines in use, but you will in no case withdraw your forces for said repairs without the consent and approval of the General in command of the department where your forces may be located, or the General-in-chief of this military division.

In order to ensure prompt action, you will, in the absence of the general manager, obey the orders of the General-in-chief of this military division, or the Generals in command of the departments of the Cumberland, the Ohio, and the Tennessee.

Very respectfully, your obedient servant,

D. C. McCALLUM,

Colonel, U. S. Army, Military Director and General Manager Railroads U. S.

W. W. WRIGHT, Esq.

The transportation department embraced the following divisions or sub-departments:

1. Conducting transportation or managing the movements of trains.
2. Maintenance of road and structures, or keeping the roadway, bridges, buildings, and other structures in repair, building new structures, rebuilding old ones when and where necessary.
3. Maintenance of rolling stock, keeping in order the locomotives and cars, and managing the shops where such work was done.

For conducting transportation, each principal line was operated by a superintendent of transportation, who was held responsible for the movement of all trains and engines over it.

Subordinate to the superintendent were one or more masters of transportation, according to distance operated, who were constantly moving over the road to see that the employés attended properly to their duties while out with their trains. At principal stations, where locomotives

were changed or kept in reserve, an engine dispatcher was stationed to see that the locomotives were in good order for service, that they were properly repaired and cleaned when at the station; to supervise and control the engineers and firemen, and to assign the requisite crews to engines.

Maintenance of road and structures for each line was in charge of a superintendent of repairs, with the necessary supervisors, road-masters, foremen, &c.

Maintenance of rolling stock was in charge respectively of the master machinist, who managed repairs of locomotives, and the master of car repairs, under whose charge all repairs to cars were made.

The above officers were independent of each other and reported directly to the general superintendent.

The maximum force employed at any one time in the transportation department of the military division of the Mississippi was about twelve thousand men.

Allusion has already been made, in reviewing the Virginia railroads, to the circumstances under which the first construction corps originated. In the present case it was found to require a much broader development than it had previously received at the east, in order to insure beyond contingency the prompt rebuilding in the shortest possible time of any length of road that might pass into our hands.

The construction corps of the military division of the Mississippi was organized in six divisions under the general charge of the chief engineer, and at its maximum strength numbered nearly five thousand men.

To give the corps entire mobility, enable it to move independently, and perform work at the same time at widely different points, each division was made a complete whole in itself, and equipped with tools, camp equipage, and field transportation, in order that the whole or any part of the same might be moved at once in any direction where ordered, and by any mode of conveyance—by rail, with teams and wagons, or on foot.

The following is the organization of one division of the construction corps, United States military railroads, as it existed in the military division of the Mississippi.

The number of divisions was increased or diminished to suit the requirements of military movements.

Each division was under the command of a division engineer and was divided into subdivisions or sections. Each subdivision was under the immediate command of a supervisor. The two largest and most important subdivisions in a division were the track-layers and bridge-builders. A subdivision was composed of gangs, each under a foreman. Gangs were subdivided into squads, each under a sub-foreman.

A division completely organized was composed of the following-named officers and number of men :

	<i>No. of men.</i>
Division engineer.....	1
Assistant engineer.....	1
Rodman.....	1
Clerk.....	1
Messengers.....	2

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Subdivision No. 1.

Supervisor of bridges and carpenter work.....	1
Clerk and time-keeper.....	1
Commissary.....	1
Quartermaster.....	1
Surgeon.....	1
Hospital steward.....	1
Foremen (one for each 50 men).....	6
Sub-foremen (one for each 10 men).....	30
Mechanics and laborers.....	300
Blacksmith and helper.....	2
Cooks.....	12

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Subdivision No. 2.

Supervisor of track.....	1
Clerk and time-keeper.....	1
Commissary.....	1
Quartermaster.....	1
Surgeon.....	1
Hospital steward.....	1
Foremen (one for each 50 men).....	6
Sub-foremen (one for each 10 men).....	30
Mechanics and laborers.....	300
Blacksmith and helper.....	2
Cooks.....	12

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Subdivision No. 3.

Supervisor of water stations.....	1
Foreman.....	1
Mechanics and laborers.....	12
Cook.....	1

 15

Subdivision No. 4.

Supervisor of masonry.....	1
Foreman.....	1
Masons and helpers.....	10
Cook.....	1

 13

<i>Subdivision No. 5.</i>		<i>No. of men.</i>
Foreman of ox brigade.....		1
Ox drivers.....		18
Cook.....		1
		<hr/> 20
<i>Train crew.</i>		
Conductors.....		2
Brakemen.....		4
Locomotive engineers.....		2
Firemen.....		2
Cook.....		1
		<hr/> 11
Total.....		<hr/> <hr/> 777

The commissaries had charge of drawing, caring for, and issuing rations.

The quartermaster had charge of tools, camp equipage, &c.

Each foreman was responsible for the tools and other Government property issued to his gang.

Each supervisor reported the time made by the men in his subdivision, through his division engineer, to the chief time-keeper, who was stationed at the headquarters of the chief engineer.

The surgeons were appointed by the chief engineer, and were paid out of a private fund voluntarily contributed by the men for hospital purposes.

Sub-foremen were appointed by the foremen, subject to the approval of the division engineer. Foremen were appointed by the division engineer, subject to the approval of the chief engineer.

Division and assistant engineers were appointed by the chief engineer, subject to the approval of the general manager.

After completing the organization of the working forces my attention was next directed to providing an adequate supply of locomotives and cars, with the necessary shops, tools, and materials to keep them in working order. In my report of January 19, 1864, I had estimated the rolling stock necessary for the business anticipated on the lines that would probably be operated from Nashville at 200 locomotives and 3,000 cars, while only 47 available locomotives and 437 cars were on hand. From the imperative necessity of providing the additional equipment at the earliest possible time, the following order was given by the Hon. Secretary of War to the locomotive manufacturers of the country :

WAR DEPARTMENT,

Washington City, March 23, 1864.

GENTLEMEN: Colonel Daniel C. McCallum, general manager of Government railways in the Department of the Cumberland, of the Ohio, and of the Tennessee, has been authorized by this Department to procure locomotives without delay for the railways under his charge.

In order to meet the wants of the military departments of the Government you will deliver to his order such engines as he may direct, whether building under orders for other parties, or otherwise the Government being accountable to you for the same. The urgent necessity of the Government for the immediate supply of our armies operating in Tennessee renders the engines indispensable for the equipment of the lines of communication, and it is hoped that this necessity will be recognized by you as a military necessity, paramount to all other considerations.

By order of the PRESIDENT:

EDWIN M. STANTON,

Secretary of War.

It is proper and just to state that the requisitions of this order were met by all in a spirit of zealous patriotism. The manufacturers at once placed all their available force at work upon the engines and cars ordered, which were completed and delivered in an unprecedented short time.

The following table shows the rate of delivery at Nashville of engines and cars from the manufacturers:

Months.	Received.		Months.	Received.	
	Locomotives.	Cars.		Locomotives.	Cars.
1864.			1864.		
February-----	13	158	October-----	19	195
March-----	7	183	November-----	1	132
April-----	10	334	December-----	1	101
1865.			1865.		
May-----	23	244	January-----		85
June-----	24	132	February-----		85
July-----	26	182	March-----		78
August-----	8	267	April-----		100
September-----	8	231	May-----		66
			Total-----	140	2,573

Notwithstanding the large additions made to the rolling stock in February, March, and April, it was still inadequate to supply the wants of the service, and it was necessary to use extraordinary measures to increase it. The gauge of the Tennessee railroads being five feet, and only the roads in Kentucky having a corresponding gauge, they were the

only source from which rolling stock could be obtained, and their engines and cars were temporarily impressed into the Government service and sent south of Nashville.

The following number of engines and cars were thus obtained, and used through May and during parts of April and June :

	Engines.	Cars.
Louisville and Nashville Railroad -----	17	120
Louisville and Lexington Railroad-----	2	15
Kentucky Central Railroad -----	2	60
Total -----	<u>21</u>	<u>195</u>

The fifteen cars belonging to Louisville and Lexington Railroad, and the sixty cars of the Kentucky Central Railroad, were subsequently purchased by the Government.

To maintain the locomotives and cars in good working order extensive machine and car shops were built at Nashville and Chattanooga. These shops were supplied with machinery partly seized or purchased in the country, and partly obtained from northern manufacturers.

The shops at Nashville particularly were on a large scale, as at times one hundred engines and more than one thousand cars were there at once, it being the main terminal station of five hundred miles of road running from it east, south, and west. Extensive storehouses were also built at Nashville and Chattanooga, and kept supplied with all necessary materials to rebuild or repair track, bridges, buildings, engines, or cars to any reasonable extent.

The general intention was to make these two cities the great centers toward which all operations should converge ; where supplies of all kinds could be obtained in case the roads were cut in their rear ; where repairs of any kind or to any extent could be made, and in case communication was destroyed between them, operations could be conducted from either with facility in any direction.

The following tabular statement exhibits the development of these lines during the five months from February 4 to June 30 :

UNITED STATES MILITARY RAILROADS, MILITARY DIVISION OF THE MISSISSIPPI.

Statement of lines operated from February 4, 1864, to June 30, 1864.

Name of line.	In use February 4, 1864.		In use June 30, 1864.		In use at any time from February 4, 1864, to June 30, 1864.	
	From—	To—	Miles	From—	To—	Miles
Nashville and Chattanooga	Nashville	Chattanooga	151	Nashville	Chattanooga	151
Shelbyville Branch				Wartrace	Shelbyville	9
McMinnville and Manchester				Tullahoma	McMinnville	35
Nashville, Decatur and Stevenson.	Nashville	Dark's Mills	39	Nashville	Stevenson	200
Nashville, Decatur and Stevenson.	Stevenson	Huntsville	60			
Mt. Pleasant Branch				Columbia	Mt. Pleasant	12
Nashville and North Western				Nashville	Tennessee River	78
Chattanooga and Knoxville	Chattanooga	Charleston	42	Chattanooga	Chattanooga	112
Knoxville and Bristol				Knoxville	Bull's Gap	56
Chattanooga and Atlanta				Chattanooga	Big Shanty	107
Cleveland and Dalton				Cleveland	Dalton	27
Rome Branch				Kingston	Rome	17
Louisville City				River Land- ing.	L. & N. R. R. Depot.	2
Total			292			806

Besides the lines mentioned above, the Memphis and Charleston Railroad was opened from Memphis to Grand Junction, fifty-two miles, and the Mobile and Ohio railroad had been used from Columbus to Union City, twenty-six miles. The operations in Western Tennessee and Kentucky and in North Mississippi were distinct and separate from those at Nashville, and although under the control of the general superintendent at the latter point, they required and received very little attention as compared with the lines leading to the front.

The Nashville and Chattanooga Railroad, 151 miles, was the great main line, over which passed all the supplies for the armies of the Cumberland, the Ohio, and the Tennessee, through the campaigns which terminated with the occupation of Atlanta. Over this single line of railroad the provisions, clothing, and camp equipage of the men, forage for animals, arms, ammunition, and ordnance stores, reinforcements, and all the varied miscellaneous supplies required for a great army engaged in an active campaign, were sent to the front, and by it were returned the sick, wounded, disabled and discharged soldiers, refugees and freedmen, captured prisoners, and materials deemed advisable to send to the rear.

Portions of the road had been in use for military purposes since April, 1862, but I have not in my possession any data of the operations of this or any other military line of the Southwest prior to February, 1864.

About 115 miles of track were relaid with new iron, cross-ties, and ballast, from February, 1864, to the close of the war. Sidings were put in at intervals, to be not more than eight miles apart, each capable of holding five to eight long freight trains, and telegraph stations were established at most of them. In all, nineteen miles of new sidings were added to this road and forty-five new water-tanks erected.

During the spring and summer of 1864 a few occasional guerilla raids were made upon it, but they caused little damage to property or detention to transportation. About September 1, 1864, the rebel General Wheeler destroyed seven miles of the road between Nashville and Murfreesboro'. In December General Hood destroyed seven and three-fourths miles of track and five hundred and thirty feet of bridges between the same stations. In both cases the road was promptly repaired, and trains were running in a few days.

The road was turned over to the company September 15, 1865.

The next railroad in importance for military purposes was the Western and Atlantic, from Chattanooga to Atlanta, 136 miles. It was opened to Ringgold, Georgia, twenty-one miles from Chattanooga, in March, 1864. Early in May the work of reconstruction was commenced south from Ringgold, and kept pace with the movements of Sherman's army. The

line was opened through to Atlanta in August, 1864, immediately after the evacuation of the town by the rebel army. In the reconstruction of this road 22½ miles of track and 4,081 lineal feet of bridges were rebuilt.

The most important single structure was Chattahoochee bridge, 780 feet long and 92 feet high, which was completed by the construction corps in four and a half days. While occupied as a military road, this was more infested by guerillas than any other during the war. Every device possible to apply was used to throw trains from the track, and though occasionally successful, the preparations to guard against such attempts were so complete that few of them caused loss of life or more than a few hours' detention.

Early in October, 1864, General Hood passed around General Sherman's army and fell upon the railroad at several points in its rear. He destroyed 35½ miles of track and 455 lineal feet of bridges; but in thirteen days after he left the line it was repaired, and trains were run over its entire length. Twenty-five miles of the track and 230 feet of bridges in one stretch between Tunnel Hill and Resaca were reconstructed in seven and a half days. This was accomplished by working from each end of the break, and at the same time working both ways from Dalton, which was reached by trains with material by way of Cleveland after relaying 1½ miles of track.

When General Sherman commenced his march to Savannah, in November, the road between Atlanta and Dalton, 100 miles, was abandoned. The track from Atlanta to Etowah River, 46 miles, was torn up and destroyed, and from Resaca to Dalton, 16 miles, the rails were taken up and carried to Chattanooga.

By order of Major General Thomas the road from Dalton to Atlanta was reconstructed, and between May 10 and July 4, 1865, 66 miles of track were laid, 36 miles repaired, and 3,553 lineal feet of bridges rebuilt.

On the 25th day of September, 1865, it was turned over to the State of Georgia, to whom it originally belonged.

The East Tennessee and Georgia Railroad, from Chattanooga to Knoxville, 112 miles, was opened through in May, 1864, upon completion of Tennessee River bridge at Loudon. It had been used for three months previous by transshipping stores and passengers across the river in flat-boats. It was operated with great regularity during the entire military occupation of that region, except in August and September, 1864, when General Wheeler tore up twenty-five miles of track. It was speedily repaired, and not molested afterward.

The Dalton branch, from Cleveland to Dalton, 27 miles, was operated

in connection with the main line, and was of great service on several occasions.

On the 28th day of August, 1865, the road and branch was restored to the company.

The East Tennessee and Virginia Railroad from Knoxville to Bristol was used and abandoned for short distances near Knoxville during 1864. The farthest point reached during the year was Bull's Gap, 56 miles from Knoxville.

By order of Major General Thomas repairs were commenced near Knoxville, March 4, 1865, and the road opened to Carter's Station, 110 miles, April 23. Between those dates 12 miles of track were rebuilt, 94 miles repaired, and 4,400 lineal feet of bridges constructed.

It was turned over to the company August 28, 1865.

Nashville, Decatur and Stevenson line, 200 miles.—This is formed of the Nashville and Decatur Railroad, 120 miles from Nashville, south, to Decatur, on Tennessee River, together with the eastern portion of the Memphis and Charleston Railroad from Decatur to Stevenson, 80 miles. Stevenson is at the junction of the latter railroad and the Nashville and Chattanooga, being 113 miles distant from Nashville. Although the distance *via* Decatur is 87 miles greater than by the direct road, such was the pressure for transportation it was necessary to send return trains by that route from the front until the capacity of the Nashville and Chattanooga line was sufficiently increased to accommodate the business. In June, 1864, all through trains were transferred to the main line.

The Nashville, Decatur and Stevenson road was used for local purposes during the summer of 1864. About the 1st of September General Wheeler tore up several miles of the track between Nashville and Columbia, and late in September General Forrest destroyed several bridges and tore up a portion of the track between Athens and Pulaski. The whole length of track destroyed in the two raids was $29\frac{1}{2}$ miles. That between Nashville and Columbia was at once repaired, but between Pulaski and Athens it was not rebuilt until February, 1865. During Hood's Nashville campaign, in November and December, 1864, all the bridges then standing between Nashville and Decatur were destroyed, with six miles of track. The work of reconstruction was commenced December 19, three days after the battle of Nashville, and completed to Pulaski February 10, 1865. In addition to relaying the track, 7,055 lineal feet of bridges were built, consuming 1,045,675 feet timber, board measure.

Near the close of February, and again in March, most of these bridges were swept away by extraordinary floods, and were rebuilt, some of them

twice and many of them three times, and they were finally replaced by permanent truss bridges.

The road from Stevenson to Decatur was restored to the company September 12, and between Nashville and Decatur September, 15, 1865.

Nashville and Northwestern, 78 miles.—At the beginning of the war this road had been completed to Kingston Springs, 25 miles from Nashville, and some work had been done upon it thence to Tennessee River.

It remained in this condition until after the following order was issued :

[Special Order.]

WAR DEPARTMENT,

Louisville, Kentucky, October 22, 1863.

Ordered: 1. That the construction of the Northwestern Railroad from Nashville to the Tennessee River, at Reynoldsburg, as a military railroad, for the transportation of troops, army supplies, and for other military purposes, be placed in charge of Andrew Johnson, Military Governor of Tennessee, with full power to procure material, to employ a competent engineer, and other officers, agents, and workmen necessary to complete said line of railroad without delay. All officers, agents, and workmen, and contracts for materials necessary to the construction of said road, shall be under his general direction and control, subject to the approval of the Quartermaster General.

2. Officers of the quartermaster's department shall be designated by the Quartermaster General to draw rations and provide supplies for the forces engaged upon the work and the expenses incurred from time to time under this order, when properly certified by the engineer in charge of the work and by Andrew Johnson, Military Governor of Tennessee.

3. Chief officers of the commissary department at Nashville will furnish such rations and supplies for the forces engaged in constructing the Northwestern Railroad as may be necessary upon requisition from the quartermaster referred to in this order.

4. The general manager of the military railways will provide, upon the requisition of Andrew Johnson, Military Governor of Tennessee, such engines and cars (so far as it may be consistent with the transportation of army supplies) for construction purposes as may be necessary, and also to move fuel and other supplies to Nashville for the Government, and such other purposes, and on such terms as may be approved by the Quartermaster General.

5. As soon as the line is connected through between Nashville and Reynoldsburg it shall be turned over to the general manager of Government railways as a military road, and be used for military purposes in the same manner as other railroads in the possession of the Government are, or may be, hereafter operated under orders of the Government as military lines.

6. Major General Grant will furnish such military forces as may be necessary for the protection of the road and the working parties engaged thereon.

EDWIN M. STANTON,

Secretary of War.

On the 17th day of February, 1864, the supervision of the work of construction was placed in my charge by order of Major General Grant, (Special Order 43, headquarters military division of the Mississippi, 1864.)

The road was connected through between Nashville and Tennessee River on the 10th day of May, 1865. On the 9th of August it was turned over to this department to be operated as a military line by an order of Major General Sherman, issued by the authority of the President of the United States. At the terminus on Tennessee River, named Johnsonville, extensive arrangements were made to receive and transfer freight from steamboats to cars. Ample buildings and platforms were erected, and powerful hoisting machinery introduced. During the months of August, September, and October, the season of low water in the Cumberland River, large quantities of supplies for the army were received and shipped over this road. It was very much exposed to attacks from guerillas, who at times inflicted considerable damage and interfered with its operation. On the 4th of November General Forrest planted batteries on the west bank of Tennessee River, and succeeded in destroying all the valuable buildings at Johnsonville, with their contents. On the 30th of November the road was entirely abandoned and the movable property on it taken to Nashville. During General Hood's occupation of the country, from December 1 to 16th, all the bridges were destroyed. Repairs were commenced January 2, and the road was completed through February 13. Two thousand two hundred lineal feet of bridges were rebuilt. In February, March, and April most of these bridges were swept away by floods, and rebuilt—some of them three times. In May and June, 1865, all were replaced by permanent truss bridges.

On the first of September, 1865, the road was turned over to the railroad company.

Nashville and Clarksville, 62 miles.—This line was formed of the Edgefield and Kentucky Railroad, 47 miles from Nashville, and 15 miles of the Memphis, Clarksville and Louisville Railroad. It was repaired and opened in August, 1864, by order of Major General Sherman, in order to have another railroad communication with water navigable in summer to aid in supplying the Nashville depot.

Important bridges were destroyed by floods at various times and rebuilt, until in April, 1865, when its use as a military road was abandoned, except on the 28 miles nearest Nashville. It was turned over to the company September 23, 1865.

After the war was closed, the railroads leading south from Nashville were kept in active operation for some months transporting paroled prisoners to their homes and returning those who had been confined in camps north of the Ohio River, together with the movement of the Union troops to be mustered out or take up new positions in Tennessee and Georgia.

RAILROADS IN WESTERN TENNESSEE AND KENTUCKY.

In 1862 several lines and many miles of railroad were operated for military purposes from Memphis, Tennessee, and Columbus, Kentucky, but no reports or statements of their business have been in my hands.

No part of the road was in operation from Memphis when I took charge, but during the years 1864 and 1865 the western portion of the Memphis and Charleston Railroad and a part of the Mississippi Central were operated as follows :

		Miles.
1864.		
February	26. Opened to Germantown-----	15
March	26. Abandoned back to within 5 miles of Memphis.	
June	11. Opened to White's Station-----	10
June	29. Opened to Grand Junction-----	52
August	2. Opened to Holly Springs-----	75
August	6. Opened to Tallahatchie River-----	100
August	18. Abandoned to Grand Junction-----	52
August	23. Reopened to Tallahatchie River-----	100
August	24. Abandoned to Grand Junction-----	52
September	6. Abandoned to White's Station-----	10
October	15. Abandoned entirely.	
December	20. Opened to Colliersville-----	24
1865.		
January	1. Abandoned entirely.	
February	28. Opened to Germantown-----	15
March	4. Abandoned entirely.	
March	24. Opened to Colliersville-----	24
April	2. Opened to Lafayette-----	32
May	13. Opened to Moscow-----	39
May	14. Opened to La Grange-----	49
May	20. Opened to Grand Junction-----	52
June	30. Opened to Pocahontas-----	75
September	12. Turned over to the company.	

Each time it was abandoned it was badly damaged by the enemy ; bridges, trestles, and cattle-guards were burned and miles of track torn up.

At Columbus, Kentucky, I found the Mobile and Ohio Railroad open to Union City, 26 miles. It was abandoned about the first of May, 1864, at the time of Forrest's raid upon Union City, and not afterwards used, except in the immediate vicinity of Columbus, until May, 1865. It was reopened to Union City May 15, and to Crockett, 35 miles, May 31, and restored to the company August 25, 1865.

ARKANSAS.

The Memphis and Little Rock Railroad, between Duvall's Bluff and Little Rock, 49 miles, was the only line operated in this State. It did

not come under my control until May 1, 1864. It was then in very bad condition, in consequence of the nature of the soil and neglect or want of skill in keeping up the necessary repairs.

It was operated as a military line until November 1, 1865, when it was restored to the company.

Statement of railroads operated in Tennessee, Georgia, Mississippi, Kentucky, and Arkansas.

Name of line.	Number of miles operated with- in the following periods.					Greatest distance oper- ated.	Turned over to the owners.
	1864.			1865.			
	February 10.	June 30.	December 31.	June 30.	December 31.		
Nashville and Chatta- nooga.	151	151	151	151	151	151	September 15, 1865.
Nashville, Decatur and Stevenson.	99	200	200	200	200	200	September 15, 1865.
Nashville and North- western.	-----	-----	78	78	78	78	September 1, 1865.
Nashville and Clarks- ville.	-----	-----	62	62	28	62	September 23, 1865.
Shelbyville Branch-----	9	9	9	-----	-----	9	September 15, 1865.
McMinnville and Man- chester.	-----	35	-----	-----	-----	35	
Mount Pleasant Branch.	-----	12	-----	-----	-----	12	September 15, 1865.
Chattanooga and Knox- ville.	42	112	112	112	112	112	August 28, 1865.
Cleveland and Dalton---	-----	27	27	27	27	27	August 28, 1865.
Knoxville and Bristol---	-----	56	17	110	110	110	August 28, 1865.
Rogersville and Jeffer- son ^d	-----	-----	-----	12	12	12	
Chattanooga and At- lanta.	-----	107	136	136	136	136	September 25, 1865
Rome Branch-----	-----	17	17	17	17	17	
Atlanta and Macon-----	-----	-----	11	-----	-----	11	
Memphis and Charles- ton.	-----	52	52	75	75	75	September 12, 1865.
Mississippi Central-----	-----	-----	68	-----	-----	68	September 12, 1865.
Mobile and Ohio-----	26	26	-----	35	35	35	August 25, 1865.
Memphis and Little Rock	-----	-----	-----	49	49	49	November 1, 1865.
Louisville City-----	2	2	2	2	2	2	
Total-----	329	806	942	1,066	1,032	1,201	

UNITED STATES MILITARY RAILROADS

Division of the Mississippi, embracing the roads in Tennessee, Georgia, Kentucky, Alabama, Mississippi, and Arkansas.

In the following tabular statements are given—

1. The greatest number of persons employed in any month of the year, average monthly number, and amount paid for services.

2. The number of locomotive engines, how procured, number added each year, and final disposition made of them.

3. The number of cars, &c.

4. The length of track and bridges built or rebuilt.

1. *Number of persons employed, and amount paid for service.*

Year.	Persons employed monthly.		Amount paid for services.
	Greatest number in one month.	Average number per month.	
1864 -----	16,364	11,580	\$6,316,861 45
1865 -----	17,035	10,061	6,513,384 15
Total -----	17,035	10,787	12,830,245 60

2. *Locomotive engines provided, and final disposition made of them.*

Year.	Locomotives pro- cured.			Locomotives disposed of.				
	Purchased. [*]	Captured.	Total.	Lost of destroyed in service or in transit.	For cash	Sold. To southern railroads under Ex. orders of Aug. 8 and Oct. 14.	Returned to former owners	Total.
1862 -----	18	35	53					
1863 -----	20	14	34					
1864 -----	154	17	171	2				2
1865 -----	2		2			161	63	224
1866 -----					32		2	34
Total -----	194	66	260	2	32	161	65	260

3. *Cars provided, and final disposition made of them.*

Year.	Cars procured.			Cars disposed of.				
	Purchased.	Built.	Total.	Lost or destroyed in service or in transit.	Sold.		Returned to former owners.	Total.
					For cash.	To southern railroads under Ex. orders of Aug. 8 and Oct. 14.		
On hand February 1.			755					
1864	1,081		1,081	160				160
1865	1,522	25	1,547	243				243
1866				32	536	2,311	101	2,980
Total	2,603	25	3,383	435	536	2,311	101	3,383

4. *The length of bridges and tracks built and rebuilt.*

The length of bridges built and rebuilt was 97,544 lineal feet, or 18 $\frac{3}{4}$ miles.

The length of main track laid was 391 $\frac{1}{10}$ miles.

The length of sidings laid was 42 $\frac{3}{10}$ miles, making a total of 433 $\frac{4}{10}$ miles.

The following list embraces the names of the general officers.

1864.

A. Anderson, general superintendent, to November 1.

E. L. Wentz, general superintendent, after November 1.

W. J. Stevens, superintendent railroads running from Nashville.

Colonel L. P. Wright, superintendent railroads from Chattanooga, to July 1.

W. C. Taylor, superintendent railroads from Chattanooga, after July 1.

A. F. Goodhue, engineer and superintendent railroads at Memphis, Tennessee, and Columbus, Kentucky.

W. W. Wright, chief engineer.

John Trenbath, auditor.

Colonel John C. Crane, assistant quartermaster, disbursing officer.

1865.

W. J. Stevens, general superintendent.

R. B. McPherson, assistant superintendent.

J. B. Van Dyne, chief master of transportation.

A. W. Dickinson, superintendent Nashville railroads, to July 25.

George H. Hudson, superintendent Nashville railroads, after July 25.

W. R. Griffin, superintendent Nashville, Decatur and Stevenson Railroad.

A. A. Talmadge, superintendent Chattanooga railroads.

A. J. Cheney, superintendent Knoxville and Bristol Railroad, to September 1.

A. J. Cheney, superintendent Chattanooga and Atlanta Railroad, after September 1.

A. Hebard, chief engineer repairs, Nashville railroads.

A. F. Goodhue, engineer and superintendent of railroads West Tennessee, Kentucky, and Arkansas.

Colonel L. P. Wright, superintendent Memphis railroads.

W. W. Wright, chief engineer.

L. H. Eicholtz, acting chief engineer, January 1 to July 1.

John Trenbath, auditor.

Captain F. J. Crilly, chief quartermaster and disbursing officer.

MISSOURI.

In October, 1864, orders were received to have the bridges rebuilt on the Pacific Railroad of Missouri and its southwestern branch, which had lately been destroyed by the rebels. This work required the construction of 1,680 lineal feet of truss bridges, and was completed early in April, 1865, at an expense of \$170,564 65, including the cost of replacing trestles carried away by floods, and other incidental expenses.

NORTH CAROLINA AND ATLANTIC COAST.

Under orders received from Major General McClellan four locomotives and one hundred freight cars were sent to Major General Burnside, at Newbern, North Carolina, in the months of June and July, 1862. On the passage two locomotives were lost with the vessel off Cape Hatteras, and two others were afterward sent to replace them. One engine proving unserviceable was subsequently returned to Alexandria, Virginia, leaving three locomotives and one hundred cars for service. The road was worked under orders and by officers appointed by the General commanding the Department, and did not come under my jurisdiction. I am therefore unable to give any account of its operation.

When it was ascertained to what point of the coast General Sherman was directing his march from Atlanta, preparation was at once made to furnish him with railroad facilities. A portion of the construction corps from the division of the Mississippi that had rebuilt the railroads during the Atlanta campaign were ordered in December, 1864, to proceed to Baltimore by railroad from Nashville and embark for Savannah. Upon reaching Hilton Head, information was received that General Sherman would not use the railroads near Savannah, and orders were given to proceed to Newbern, North Carolina, and open the railroad to Goldsboro'.

Eleven miles of the Savannah and Gulf Railroad were opened and operated with rolling-stock captured at Savannah for local military purposes and to supply the citizens of the town with fuel. The tracks and buildings of the Georgia Central Railroad within the city limits also were used. Five serviceable and nine unserviceable locomotives and 213 cars, about one-half of them damaged and unfit for service, were captured at Savannah. On the 20th day of June, 1865, all the railroad property was restored to the original owners by order of the department commander.

A detachment of the Virginia construction corps was sent to North Carolina by order of General Grant and landed at Newbern January 30, 1865. The railroad at that time was in charge of the depot quartermaster at Newbern, and was in operation between Morehead City and Batchelor's Creek, 44 miles. This construction force at once commenced rebuilding the bridge over that stream. On the 6th day of February the detachment sent from the military division of the Mississippi landed at Morehead City and relieved the force from Virginia, which returned to City Point.

The railroad was repaired as fast as the army advanced, and was opened to Goldsboro', 95 miles, March 25, the day following the arrival of General Sherman and his army from Savannah.

To provide another line of supplies, the railroad from Wilmington to Goldsboro', 85 miles, was repaired and opened through April 4.

On the 10th of April movements were resumed toward the interior, and the railroad was opened April 19, to Raleigh, 48 miles from Goldsboro'. It was opened soon after to Hillsboro', and used until the parole of General Johnston's army was completed, when it was given up west of Raleigh.

The total length of railroads opened and used in this department was as follows:

Name of line.	Terminal stations.		Length in miles.	Transferred to company.
	From--	To--		
Atlantic and North Carolina	Morehead City	Goldsboro'	95	October 25, 1865.
Wilmington and Weldon	Wilmington	do	85	August 27, 1865.
North Carolina	Goldsboro'	Hillsboro'	88	October 22, 1865.
Raleigh and Gaston	Raleigh	Cedar Creek	25	May 3, 1865.
Total miles			293	

On these roads 25 miles 2,172 feet of main track were rebuilt, and 5 miles 1,460 feet side track were laid, or 30 miles 4,632 feet of track in all. On the same roads 3,263 lineal feet of bridges were built, consuming 825,750 feet timber, board measure. At Morehead City a wharf was built by the construction corps, covering an area of 53,682 square feet and consuming 700,000 feet timber, board measure.

In the following tabular statements are embraced the principal items of information in regard to these lines :

1. *Number of persons employed.*

The greatest number of persons employed monthly in the year 1865 was 3,387.

2. *Locomotive engines provided, and final disposition made of them.*

Year.	Locomotives pro- cured.			Locomotives disposed of.			
	Purchased.	Captured.	Total.	Lost or de- stroyed in service or in transit.	Sold.	Returned to former owners.	Total.
					For cash.	To Southern rail- roads under Ex. orders of August 8 and October 14, 1865.	
1862	5		5	2			2
1863	2		2				
1864							
1865	10	21	31		9	3	21
1866					3		3
Total	17	21	38	2	12	3	21

3. Cars provided, and final disposition made of them.

Year.	Cars procured.			Cars disposed of.				
	Purchased.	Captured.	Total.	Lost or destroyed in service or in transit.	Sold.		Returned to former owners.	Total.
					For cash.	To Southern railroads under Ex. orders of August 8 and October 14, 1865.		
1862	100	3	103	20				20
1863				38				38
1864								
1865	139	180	319	1		101	183	285
1866					79			79
Total	239	183	422	59	79	101	183	422

The following officers were directly in charge of operating the military railroads in North Carolina:

W. W. Wright, chief engineer and general superintendent, to July 1.

Colonel J. F. Boyd, general superintendent, after July 1.

J. B. Van Dyne, superintendent.

E. C. Smeed, engineer of repairs.

RAILS AND ROLLING-MILL.

The greatest necessity next to that of rolling stock was a supply of rails. These were obtained by purchase, manufacture, and by taking up lines unnecessary for military purposes.

The following roads were thus taken up entire for the distances specified:

Railroad.	From--	To--	Length.	
			Miles.	Feet.
<i>In Virginia.</i>				
Seaboard and Roanoke	Suffolk	Blackwater	14	
Norfolk and Petersburg	Suffolk	Blackwater	14	
Manassas Gap	Manassas	Piedmont	35	
Richmond and York River	White House	Chickahominy River	13	
<i>In military division of Mississippi.</i>				
Winchester and Fayetteville	Decherd	Fayetteville	41	2,640
McMinnville and Manchester	Near Manchester	McMinnville	26	2,760
Mount Pleasant Branch	Columbia	Mount Pleasant	12	2,165
Total			156	2,285

During the war the quantity of rails purchased and manufactured was as follows :

Year.	Quantity of rails.			
	Number of tons purchased.		Manufactured at the Chattanooga rolling-mill.	
	<i>Tons.</i>	<i>Pounds.</i>	<i>Tons.</i>	<i>Pounds.</i>
1862.....	6, 086	1, 723	-----	-----
1863.....	6, 030	1, 790	-----	-----
1864.....	8, 165	1, 446	-----	-----
1865.....	1, 500	1, 352	3, 818	1, 184
Total.....	21, 783	831	3, 818	1, 184

The price paid for purchased rails varied from \$40 per ton, the lowest price paid in July, 1862, to \$130 per ton, the highest price paid in June, 1864.

Soon after taking charge of the railroads in the Military Division of the Mississippi, the following communication was addressed to the Commanding General :

OFFICE OF GENERAL MANAGER MILITARY RAILROADS UNITED STATES,
Nashville, Tenn., February 17, 1864.

GENERAL: When the track of the Nashville and Chattanooga Railroad is relaid, we will have on hand three hundred and two miles of old rails, weighing eleven thousand eight hundred and sixty-four (11,864) gross tons. At present rates new rails delivered at Chattanooga will cost one hundred and forty-five (\$145) dollars per ton.

There is at Chattanooga a rolling-mill partially built by the rebels, which if completed—say at a cost of thirty thousand (30,000) dollars—these old rails can be re-rolled at a cost of about fifty (50) dollars per ton, coal being contiguous and abundant. This would not only be a large saving to the Government, but what, in my opinion, is of greater importance, the rails would be on hand ready for use when and where required. The following represents the case:

11,864 tons of new rails delivered at Chattanooga, at \$145 per ton.....	\$1, 719, 250
11,864 tons of old rails re-rolled at a cost of \$50 per ton.....	\$593, 200
Cost of mill estimated at	30, 000
	623, 200
In favor of rolling-mill.....	<u>1, 096, 050</u>

By advices recently received the stock of railroad iron in the market is small and the demand large. In fact, should an emergency arise requiring a large amount of iron, it is doubtful whether it could be had at any price. I therefore respectfully ask, unless military reasons forbid, your permission to complete the rolling-mill at Chattanooga.

I have the honor to be, very respectfully, your obedient servant,

D. C. McCALLUM,
Col. U. S. A., General Manager Military Railroads U. S.

Major General U. S. GRANT,
Commanding Military Division of the Mississippi, Nashville, Tenn.

The following order was the response to this letter :

[Special Order No. 43.]

HEADQUARTERS MILITARY DIVISION OF THE MISSISSIPPI,
Nashville, Tenn., February 17, 1864.

Colonel D. C. McCallum, general manager of military railroads within this military division, is hereby directed to proceed at once to complete and set at work the rolling-mill at Chattanooga, Tennessee.

By order of Major General GRANT :

T. S. BOWERS, *Assistant Adjutant General.*

Upon a more extended and thorough examination it was found that many important parts of the machinery provided by the rebels for the rolling-mill were not at hand. They were, in fact, still within their lines, and no probability existed of obtaining them uninjured within any reasonable time, if at all ; therefore it was decided to build entirely new machinery throughout, and of the most improved pattern used in rolling-mills of the North.

The mill building, partially completed by the rebels, was declared by the military authorities too far from the fortifications at Chattanooga to be safe, and after careful investigation of the question the building was abandoned and a new one erected in a secure location. To reach the site selected and properly accommodate the mill required building one and two-thirds miles of railroad. Thus, instead of completing a partially-built work, an entirely new and very superior rolling-mill, in point of machinery, was the result :

The total cost of the mill complete and ready for work was as follows :

Rolling-mill building.....	\$125, 857 81
Machinery, including transportation.....	120, 000 00
Quarters for workmen, officers, and other buildings.....	21, 212 00
Railroad to mill, materials, and labor.....	23, 259 70
Total cost	<u>290, 329 51</u>

The mill, with its out-buildings and railroads, were built by the construction corps ; all of the timber used was got out by them, and nearly all the work was done at times when there was a lull in active operations in the field. As this force was necessarily kept on hand for emergencies, and their legitimate place was at the front, the work done by them in building the mill may be regarded as almost clear gain to the Government. More than \$100,000 of the above sum was paid for labor thus expended.

Owing to the great pressure upon the manufacturers of machinery, the scarcity of labor, difficulty of obtaining proper materials and of procuring transportation to Nashville on the over-crowded railroad lines of the North, the mill did not go into operation until April 1, 1865.

It was employed in manufacturing rails for the United States until October 5, 1865, when it was sold to the highest bidder, after two months' advertisement, for \$175,000. It was in operation six months and five days, and in that time manufactured 3,818 tons and 1,184 pounds of new rails at a cost of:

For coal, 145,897 bushels	\$36,474 25
For labor.....	98,776 39
Total	135,250 64

Average cost per ton, \$35.42.

These were disposed of as follows:

	<i>Tons.</i>	<i>Pounds.</i>
To repair tracks	466	2,066
Sold to southern railroads.....	3,351	1,358
Total	3,818	1,184

The quantity sold realized in cash the sum of \$269,128.58.

ROLLING STOCK.

In the preceding statements an account is given of the quantity of rolling stock provided for each department and the final disposition made of it. Those statements embrace only the number in active service in each case. In the fall and winter of 1864 an additional supply was provided in view of probable wants for the spring campaign of 1865, but the close of the war rendered it unnecessary, and it was subsequently sold at the points where manufactured, or where it had been stored to await events. Thirty-five (35) locomotives, and four hundred and ninety-two (492) cars, of five-foot gauge, were built for the military division of the Mississippi and North Carolina. Fifty (50) cars, of four feet eight and one-half inch gauge, also, were provided for Virginia and North Carolina.

Ten (10) platform cars of four feet eight and one-half inch gauge had been purchased at an early day and used on the railroads of the western States, to transport cars of the five-foot gauge from the manufacturer's works to Jeffersonville, opposite Louisville.

Locomotives five-foot gauge, provided and not used, 35.

Cars, five-foot gauge, for military division Mississippi and North Carolina.....	519
Cars, four feet eight and a half inch gauge, for Virginia and North Carolina.....	50
Cars, four feet eight and a half inch gauge, for car transportation	10
Total.....	579

Of these engines and cars, one of the ten cars was destroyed in service and all the rest sold for cash.

The following tabular statements exhibit the entire rolling stock of the military railroads during the war:

Year delivered.	LOCOMOTIVES.							
	How obtained.			How disposed of.				
	Purchased and built.	Captured.	Total.	Lost or destroyed.	Sold.			Total.
					For cash.	Under Ex. orders of Ang. 8 and Oct. 14.	Returned to former owners.	
1862.....	72	40	112	4				4
1863.....	40	14	54		3			3
1864.....	154	17	171	2	9			11
1865.....	47	35	82		95	164	101	360
1866.....					39		2	41
Total.....	312	106	419	6	146	164	103	419

Fiscal year.	CARS.									
	How obtained.					How disposed of.				
	Purchased.	Built.	Captured.	On hand in military division of Mississippi, Feb. 1, 1864.	Total.	Lost or destroyed.	Returned to former owners.	Sold.		Total.
								Under Ex. orders of Ang. 8 and Oct. 14.	For cash.	
1862.....	603		16		619	478				478
1863.....	704				704	53			10	63
1864.....	1,149	30		755	1,934	217			126	343
1865.....	2,655	25	393		3,073	265	213			478
1866.....						32	297	2,589	2,050	4,968
Total.....	5,111	55	409	755	6,330	1,045	510	2,589	2,186	6,330

NOTE.—The cars sold in the years 1863 and 1864 were damaged, disabled, and unfit for service.

In the above tables the rolling stock borrowed and impressed into service from northern railroads is not included.

In the general office of military railroads in Washington have been the following officers:

W. H. Whiton, in charge April 1, 1862, to July 1, 1865; H. K. Cooper, in charge after July 1, 1865; J. A. Lawrence, accountant to October 15, 1863; E. J. Kellogg, after October 15, 1863; Captain (now Brevet Brigadier General) H. L. Robinson, assistant quartermaster, has acted as disbursing and purchasing officer for the railroads in the east during the entire war.

GENERAL REMARKS.

With few exceptions, the operations of military railroads have been conducted under orders issued by the Secretary of War, or by army commanders in or out of the field.

It was made the duty of the director and general manager to arrange the military railroad organization upon a basis sufficiently comprehensive to permit the extension of the system indefinitely; to perfect the *modus operandi* for working the various lines; to determine as to the number of men to be employed in the several departments, and the compensation to be paid therefor; the amount and kind of machinery to be purchased, and the direction as to the distribution of the same.

The following important order of the Secretary of War, the wisdom of which has been so abundantly vindicated by experience, is here inserted as defining, in part, the position of the military railroad organization, which seems not to have been clearly understood by many, in and out of the service:

[Special Order No. 337—Extract.]

WAR DEPARTMENT, ADJUTANT GENERAL'S OFFICE.

Washington, November 10, 1862.

* * * * *

Commanding officers of troops along the United States military railroads will give all facilities to the officers of the roads, and the quartermasters, for unloading cars so as to prevent any delay. On arrival at depots, whether in the day or night, the cars will be instantly unloaded, and working parties will always be in readiness for that duty, and sufficient to unload the whole train at once.

Commanding officers will be charged with guarding the track, sidings, wood, water-tanks, &c. within their several commands, and will be held responsible for the result.

Any military officer who shall neglect his duty in this respect will be reported by the quartermasters and officers of the railroad, and his name will be stricken from the rolls of the Army.

Depots will be established at suitable points, under the direction of the commanding general, and properly guarded.

No officer, whatever may be his rank, will interfere with the running of the cars as directed by the superintendent of the road.

Any one who so interferes will be dismissed from the service for disobedience of orders.

By order of the SECRETARY OF WAR.

E. D. TOWNSEND,
Assistant Adjutant General.

The above order was given in consequence of several attempts having been made to operate railroads by army or department commanders, which had, without any exception, proved signal failures, disorganizing in tendency, and destructive of all discipline. The great benefit resulting from this order was more especially exhibited during General Sherman's campaign from Chattanooga to Atlanta, and in this, my final report, I desire to put on record, for the benefit of those who may be called upon to conduct military railroad operations in the future, the following:

Having had a somewhat extensive railroad experience, both before and since the rebellion, I consider this order of the Secretary of War to have been the very foundation of success; without it the whole railroad system, which has proved an important element in conducting military movements, would have been not only a costly but ludicrous failure. The fact should be understood that the management of railroads is just as much a distinct profession as is that of the art of war, and should be so regarded.

The difficulty of procuring a sufficient force of competent railroad men, both in the construction and transportation departments, was almost insurmountable. Owing to the peculiar nature of the service and the rapid expansion of the railroad system, the supply of railroad operatives in the country has always been limited; many had entered the army in various positions, thus diminishing the actual number in civil life, while the stimulus imparted by the war to the business of northern railroads had greatly enhanced the value of the services of those who remained at their posts, thus rendering the home demand for skillful labor far in advance of the supply. When the large number of men necessary to equip these military lines were sought for, it was extremely difficult to induce those who were really valuable to leave secure positions and enter upon a new and untried field of action.

The difference between civil and military railroad service is marked and decided. Not only were the men continually exposed to great danger from the regular forces of the enemy, guerillas, scouting parties, &c., but, owing to the circumstances under which military railroads must be constructed and operated, what are considered the ordinary risks upon civil railroads are vastly increased on military lines.

The hardships, exposure, and perils to which train-men especially were subjected during the movements incident to an active campaign were much greater than that endured by any other class of civil employés of the Government—equalled only by that of the soldier while engaged in a raid into the enemy's country. It was by no means unusual for men to be out with their trains from five to ten days, without sleep, except what could be snatched upon their engines and cars while the same were stand-

ing to be loaded or unloaded, with but scanty food, or perhaps no food at all, for days together, while continually occupied in a manner to keep every faculty strained to its utmost. Many incidents during the war, but more especially during the Atlanta campaign, exhibited a fortitude, endurance, and self-devotion on the part of these men not exceeded in any branch of the service. All were thoroughly imbued with the fact that upon the success of railroad operations, in forwarding supplies to the front, depended, in great part, the success of our armies; that although defeat might be the result, even if supplies were abundantly furnished, it was evident there could be no advance without; and I hazard nothing in saying, that should failure have taken place either in keeping the lines in repair or in operating them, General Sherman's campaign, instead of proving, as it did, a great success, would have resulted in disaster and defeat; and the greater the army to supply the more precarious its position. Since the end of the rebellion I have been informed by railroad officers who were in the service of the enemy during the war, "that they were less surprised at the success of General Sherman, in a military point of view, than they were at the rapidity with which railroad breaks were repaired and the regularity with which trains were moved to the front;" and it was only when the method of operating was fully explained that it could be comprehended.

In the beginning of the war military railroads were an experiment; and although some light as to their management had been gleaned by the operations of 1862 and 1863, yet so little progress had been made that the attempt to supply the army of General Sherman in the field, construct and reconstruct the railroad in its rear, and keep pace with its march, was regarded by those who had the largest experience, and who had become most familiar with the subject, as the greatest experiment of all. The attempt to furnish an army of one hundred thousand (100,000) men and sixty thousand (60,000) animals with supplies from a base three hundred and sixty (360) miles distant, by one line of single-track railroad, located almost the entire distance through the country of an active and most vindictive enemy, is without precedent in the history of warfare, and to make it successful required an enormous outlay for labor and a vast consumption of material, together with all the forethought, energy, patience, and watchfulness of which men are capable.

This line, from the fact of its great length, was imperfectly guarded, as troops could not be spared from the front for that purpose. This rendered the railroad service one of great risk and hazard, and at times it was only by the force of military authority that men could be held to service. As an item showing the real danger attending military railroad operations,

it may be stated that during the last six months of the fiscal year ending June 30, 1865, the wrecking train picked up and carried to Nashville sixteen (16) wrecked locomotives and two hundred and ninety-four (294) car-loads of car wheels, bridge iron, &c. These wrecks were caused by guerillas and rebel raids.

The Chattanooga and Atlanta, or Western and Atlantic Railroad extends from Chattanooga to Atlanta, 136 miles, with a branch from Kingston to Rome 17 miles long.

The reconstruction and maintenance of this line was, in many respects, the most difficult of any military railroad operations during the war. By it the Confederate army under General Johnston made its retreat from Buzzard Roost to Atlanta; and in falling back from one strong position to another it did such damage to the road as was supposed would delay or prevent Sherman's pursuit, but in this it was unsuccessful. However great the damage done, it was so speedily repaired that General Sherman soon ceased to fear any delay from this cause, and made his advance movements with perfect confidence that the railroad in his rear would be "all right."

Being, from the nature of the case, entirely ignorant of the obstacles to be encountered at each advance, the construction force was at all times prepared for any emergency—either to build bridges of formidable dimensions, or lay miles of track, or, perhaps, push back to some point on the line and repair damages done by guerillas or raiding parties. These attacks on the line to the rear were of such frequent occurrence, and often of so serious a character, that to insure speedy repairs it became necessary to station detachments of the construction corps at various points along the road, and also to collect supplies of construction materials, such as iron, rails, chairs, spikes, cross-ties, and bridge timber, at points where they would be comparatively safe and easily obtained when required. These precautionary measures proved to be of the utmost importance in keeping the road open.

The detachments stationed along the line were composed of bridge-builders and track-layers, with an ample supply of tools for all kinds of work. Each detachment was under the command of a competent engineer or supervisor, who had orders to move in either direction, within certain limits, as soon as a break occurred, and make the necessary repairs without delay, working day and night when necessary. Under this arrangement small breaks were repaired at once, at any point on the line, even when the telegraph wires were cut and special orders could not be communicated to the working parties. When "big breaks" occurred, one or more divisions of the construction corps were moved as

rapidly as possible thereto, either from Chattanooga or the front. Construction trains, loaded with the requisite tools and materials, were kept ready at each end of the road to move at a moment's notice.

Guerillas and raiding parties were more or less successful in destroying portions of track during the whole time we held this line; but the crowning effort was made by the enemy in October, 1864, when Hood, getting to Sherman's rear, threw his whole army on the road—first at Big Shanty, and afterward north of Resaca—and destroyed in the aggregate $35\frac{1}{2}$ miles of track and 455 lineal feet of bridges, killing and capturing a large number of our men. Fortunately, however, the detachments of the construction corps which escaped were so distributed that even before Hood had left the road two strong working parties were at work, one on each end of the break at Big Shanty, and this gap of ten miles was closed and the force ready to move to the great break of twenty-five miles in length north of Resaca as soon as the enemy had left it. The destruction by Hood's army of our depots of supplies compelled us to cut nearly all the cross-ties required to relay this track, and to send a distance for rails. The cross-ties were cut near the line of the road, and many of them carried by hand to the track, as the teams to be furnished for hauling them did not get to the work until it was nearly completed. The rails used on the southern end of the break had to be taken up and brought from the railroads south of Atlanta, and those for the northern end were mostly brought from Nashville, nearly two hundred miles distant.

Notwithstanding all the disadvantages under which the labor was performed, this twenty-five miles of track was laid and the trains were running over it in seven and a half days from the time the work was commenced.

The economy so commendable and essential upon civil railroads was compelled to give way to the lavish expenditure of war; and the question to be answered was not, "How much will it cost?" but rather, "Can it be done at all at any cost?"

During February, 1862, I received the following important verbal order from the Secretary of War: "I shall expect you to have on hand at all times the necessary men and materials to enable you to comply promptly with any order given, nor must there be any failure."

The greatest number of men employed at the same date during the war was:

In Virginia	4,542
In North Carolina	3,387
In military division of the Mississippi	17,035
Total number of men	24,964

The total number of miles operated.

In Virginia	611
In North Carolina	293
In military division of the Mississippi	1,201
Total	2,105

The number of engines.

In Virginia	72
In North Carolina	38
In military division of the Mississippi	260
In Georgia	14
Provided but not used	35
Total	419

The number of cars.

In Virginia	1,733
In North Carolina	422
In military division of the Mississippi	3,383
In Georgia	213
Provided but not used	579
Total	6,330

Lineal feet of bridges built or rebuilt.

In Virginia	34,931
In North Carolina	3,263
In Missouri	1,680
In military division of the Mississippi	97,544
Total number of feet	137,418

Or twenty-six miles and one hundred and thirty-eight feet.

The length of track laid or relaid.

	<i>Miles.</i>	<i>Feet.</i>
In Virginia	177	2,961
In North Carolina	30	4,632
In military division of the Mississippi	433	2,323
Total	641	4,636

The following statement exhibits the amount expended during the war in constructing and operating the United States military railroads, said sum having been furnished from the appropriation made for the expenditures of the Quartermaster's Department :

Virginia.

For labor.....	\$5, 227, 145 24	
For materials.....	4, 920, 317 27	
	<hr/>	\$10, 147, 462 51

North Carolina.

For labor.....	1, 086, 224 60	
For materials.....	1, 510, 435 45	
	<hr/>	2, 596, 660 05

Military Division of the Mississippi.

For labor.....	16, 792, 193 05	
For materials.....	12, 870, 588 06	
	<hr/>	29, 662, 781 11

Department of the Gulf.

For materials.....		55, 238 88
Total.....		<hr/> 42, 462, 142 55
Property sold under Executive Order of August 8, 1865.....	7, 428, 204 96	
Property sold for cash.....	3, 466, 739 33	
Receipts from passengers and freight.....	1, 525, 493 04	
Receipts from hire of rolling stock.....	103, 528 50	
Property on hand (estimated).....	100, 000 00	
	<hr/>	12, 623, 965 83
Net expenditures.....		<hr/> \$29, 838, 176 72

The United States military railroads were transferred, by Executive Order of August 8, 1865, to the original owners.

The military railroad organization was designed to be a great construction and transportation machine, for carrying out the objects of the commanding generals, so far as it was adapted to the purpose, and it was managed solely with a view to efficacy in that direction. It was the duty of the quartermaster's department to load all material upon the cars, to direct where such material should be taken and to whom delivered. It then became the province of the railroad department to comply with said order in the shortest practicable time, and to perfect such arrangements as would enable it to keep the lines in repair under any and all circumstances. It was impossible for this Department to keep an accurate account of the persons and material transported, as whole corps and even armies, with all their artillery and equipments, were moved upon verbal orders from commanders sometimes hundreds of miles, and frequently in face of the enemy. As an illustration, one of the largest movements of this character was that of the 4th army corps in 1865, from Carter's Station, in East Tennessee, to Nashville, three hundred and seventy-three (373) miles, and which employed one thousand four hundred and ninety-eight (1,498) cars.

Accompanying this report is a map showing the different lines operated in the United States by the military railroad department during the war.

In conclusion permit me to say that the Government was peculiarly fortunate in securing the services of civilian officers of great nerve, honesty, and capability, to whom the whole country owes a debt of gratitude.

Among them I take the liberty of naming, as principal assistants, A. Anderson, chief superintendent and engineer; Colonel W. W. Wright, chief engineer in the Military Division of the Mississippi, and chief engineer and general superintendent in the department of North Carolina; J. J. Moore, general superintendent and chief engineer of railroads in Virginia; E. L. Wentz, general superintendent and chief engineer of railroads in Virginia, and afterward for a time general superintendent of railroads in the division of the Mississippi; W. J. Stevens, general superintendent of United States military railroads, division of the Mississippi; L. H. Eicholtz, acting chief engineer, Military Division of the Mississippi, during the absence of Colonel W. W. Wright in North Carolina; A. F. Goodhue, engineer and superintendent military railroads, West Tennessee and Arkansas. Also the following commissioned officers: Brevet Brigadier General H. L. Robinson, acting quartermaster, Washington, D. C.; Brevet Major F. J. Crilly, acting quartermaster, Nashville, Tennessee; and Captain G. S. Roper, commissary of subsistence, Nashville, Tennessee.

I have the honor to be, very respectfully,

Your obedient servant,

D. C. McCALLUM,

Brevet Brigadier General, Director and General Manager

Military Railroads United States.

Hon. EDWIN M. STANTON,

Secretary of War.

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