HARPERS FERRY BECOMES A FORTRESS,

SEPTEMBER 21, 1862 - OCTOBER 6, 1863

(A Report on the Federal Fortifications at Harpers Ferry, W. Va., June 27, 1863, to accompany Map III-Harper's Ferry, W. Va., June 27-October 6, 1863, dated December 11, 1959.)

Harpers Ferry National Monument

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INTRODUCTION

A. Primary Maps Used in Preparing Map III

"Map III - Harper's Ferry, W. Va., June 27-October 6, 1863," dated December 11, 1959, by Charles W. Snell is based on data collected from the three following maps:

(1) "Preliminary Sketch of the Defences on Maryland Heights and of Adjacent County. Surveyed Aug. 28th to Oct. 6th, 1863 by Capt. N. Michler, Corps of Engineers, U.S.A. and John E. Weyss, Major. Ky. Vol." Scale eight inches to one mile. Topography, roads, railroads, canals, ground cover and location of buildings based on this map. 1

(2) "Military Map showing the Topographical Features of the County Adjacent to HARPER'S FERRY, VA., including Maryland, Loudoun, and Bolivar Heights, and Portions of South and Short Mountains, with the positions of the Defensive Works. Also the Junction of the Potomac & Shenandoah Rivers, and their Passage through the Blue Ridge." Surveyed from August 3d to September 30, 1863, under the direction of Capt. N. Michler, Corps of Engrs., U.S. Army by Major John E. Weyss, Principal Assistant, Engineer Department, Army of the Potomac. Scale four inches to one mile. Engraved in the Engr. Dept. Lettering by Wm. Hesselbach. Used for the location of defensive works on Bolivar and Maryland Heights in 1863. 2

(3) "Sketch of the Vicinity of Harper's Ferry, Va. by Wm. Luce, Oct. 1862." Scale 1,000 feet to the inch. Used for the location of the fortifications erected by Major-General George B. McClellan, U.S.A. on Loudoun Heights in October, 1862 and also the work begun on Fort Duncan, Maryland Heights. 3

B. General Remarks

Federal troops occupied Harpers Ferry on February 26, 1862, and held constant possession of the town from that date until September 15, 1862. During this interval, however, the Union army had failed to erect more

1. National Archives Cartographic Division, Record Group No. 77, F-106. Harpers Ferry National Monument Map No. 17, Map Case, Drawer No. 13.

2. National Archives Cartographic Division, Record Group No. 77, Records of the Office of the Chief of Engineers, Headquarters Map File. Map G-135. Harpers Ferry Maps No. 1 and 2 (original lithograph), Map Case, Drawer No. 13.

3. National Archives Cartographic Division, Record Group No. 77, F-78. Harpers Ferry Map No. 3, Map Case, Drawer No. 13.

CHAPTER VIII

SUMMARY - A DESCRIPTION OF THE FORTIFICATIONS AT HARPERS FERRY, W. VA., JUNE 27, 1863

1. Bolivar Heights

The proposals of McClellan's engineers to strengthen the defenses on Bolivar Heights by the erection of additional works were turned down in October, 1862, and also in the spring of 1863. Thus the fortifications defending this position on June 27, 1863, must have been substantially the same as those occupying the site during the siege, September 13-15, 1862. These consisted of the following works: The crest of the ridge on the Federal right on Bolivar Heights, overlooking the Potomac River, was defended by a "slight-earth-work," Battery 2 on Map III, designed to protect the men of the artillery stationed at that point. The left of this ridge, overlooking the Charlestown Turnpike, was covered by another "slight earth-work," Battery 1 on Map III, - "a work with an embrasure battery of four guns, but open in the rear." The crest of the ridge between Batteries 1 and 2 was defended by a line of rifle-pits that had been erected on September 14, 1862. The extreme left of this line, extending from Battery 1 at the Charles Town road southeast to the Shenandoah River, was protected by an abatis formed of felled trees, erected in September, 1862, by Col. Miles, that lay on the western slope of this plateau.[1]

The defensibility of the Bolivar Heights had been greatly increased in October, 1862, when the 2nd Army Corps of the Army of the Potomac felled the forests on Bolivar Heights and for one and a half miles west of this position.

1. Snell, Charles W., "A Report of the Federal Fortifications at Harpers Ferry, Va...., September 13-15, 1862," pp.2-4.

2. Camp Hill

Although General Barnard proposed to strengthen the Camp Hill lines by the addition of rifle-pits and batteries on each flank in May, 1863, the lack of manpower probably prevented these plans from being carried out. Thus on June 27, 1863, the Camp Hill fortifications were the same as when erected by Brigadier General Rufus Saxton in May, 1862. This work, located on the western edge of Camp Hill, and overlooking the town of Bolivar, consisted of a "face and two bastions, and then a line of earth-works," running from the bluff on the Potomac to the cliffs above the Shenandoah.[2]

3. Town of Harpers Ferry

A. Headquarters of the Generals commanding the garrison of Harpers Ferry; namely, Brigadier General Benjamin F. Kelley, Brigadier General John R. Kenly, Brigadier General Henry H. Lockwood (July 19 to October 12, 1863) and Brigadier General James C. Sullivan (October 13 to December 31, 1863), was normally located in the lower town. The writer is of the opinion that their headquarters were located in Armory Dwelling No. 1, the Master Armorer's New Quarters (Monument Bldg. No. 36).

B. Guard House: The Guard House, in September, 1863, was located in the Armory Office Building (Musket Factory Bldg. No. 2, see Drawing No. NPS-HF-3021, Sheet 2-1859 Historical Base Map) in the Musket Factory yard. This structure had a front room 18 by 18 feet in size, two back rooms 18 by 14 and 14 by 10 feet, and a dungeon 10 by 7 feet. The dungeon was located

2. Snell, Charles W., "A Report of the Federal Fortifications at Harpers Ferry, Va...., September 12-15, 1862," p.5.

in the Paymaster's Vault and was "burglar, air, and light proof."[3]

C. Bakery and Slaughter House: A "Government Bakery" was in operation in September, 1863, in the town of Harpers Ferry, which supplied the bread for the troops. This installation was located either in the Large Arsenal, on Arsenal Square, or in one of the buildings in the Musket Factory yard. Cattle for the troops were also slaughtered in the lower town and the Slaughter House was situated either in the Arsenal Square or in the Musket Factory yard.[4]

4. Loudoun Heights: McCle

McClellan's troops, the 2nd Division of the 12th Army Corps, erected three large stone redoubts on the summit of Loudoun Heights and cleared the crest of timber in October and November, 1862. Redoubt A was a stone work 44 by 32 feet in size; Redoubt or Signal Station B was 32 by 32 feet; and Stone Redoubt C was 36 by 32 feet in size. The other small stone works, rifle-pits and foundations for huts, were also apparently erected at this time.

5. Defenses of Maryland Heights, June 27, 1863

A. Northern Line of Defense

1. The Stone Fort: Was located on the highest point of Maryland Heights, and served as the citadel of the position. The Stone Fort was begun by McClellan's troops in October, 1862; the work was 100 by 40 feet, with two square bastions at either end, and built of dry masonry. The walls were from 4½ to 7 feet in thickness. Temporary timber banquettes or platforms

3. M. R. Massey, Medical Inspector, U.S.A., to Brig. Gen. Lockwood, Sept. 29, 1863, National Archives, Office of the Quarter Master General, Harpers Ferry Consolidated Correspondence File 1794-1915, Box 377.

4. Ibid.

were placed in this fort in June, 1863, in order to increase the fire-power of the infantry occupying the fort. The interior of the Fort contained a magazine, storage place for provisions, water tanks and a spring. A second magazine was located outside of the walls. The Maryland Heights signal station was situated at the Stone Fort in June, 1863.

2. Exterior Fort (Point F): Running from the Stone Fort at right angles from east to west across the crest of Maryland Heights, was a double line of rifle-pits about a hundred yards long that had been erected by McClellan's troops. In June, 1863, the stone and earth walls of these lines were raised and strengthened to form a strong parapet nine or 10 feet high. Seven light guns, chiefly howitzers were mounted in embrasure in the exterior fort. In addition, one 30-pounder Parrott gun was situated in this fort on the west face, so as to command the plain between the mountain and the Potomac, thus making a total of eight guns mounted in this work. The front of both the exterior fort and the Stone Fort were covered on the north by an abatis constructed of felled timer.

3. Spur Battery E: This earthwork was erected in June, 1863, and mounted one 50-pounder Dahlgren gun. The gun flanked the west slope of Maryland Heights, enfiladed the ravine that ran westward in front of the Barnard Lines and the piece could also be turned and used against Bolivar Heights.

4. Stone Rifle-Pits Between Battery E and The Exterior Fort-F: A line of stone breastworks, made by filling a crib-work of logs with stone, was built in June, 1863, and ran from Battery E along the northern edge of plateau up the mountain to F, the Exterior Fort. The front of these rifle-pits was also covered by abatis.

5. Battery D-The General Barnard Lines: An earthwork, probably for four field guns, erected in June, 1863. This battery commanded the gullies leading up in front of the Barnard lines from the Potomac and also provided a cross-fire over the whole front (north) of these lines.

6. Battery C-Barnard Lines: An earthwork for six field guns, constructed in June, 1863. This battery commanded the gullies leading up in front of the Barnard lines from the Potomac and also gave a cross-fire over the entire front to the north of these lines.

7. Battery E- Barnard Lines: An earthwork, probably for four field guns, built in June, 1863. This battery also commanded the gullies leading up from the Potomac and gave a cross fire over the whole front of the position to the north of these lines.

8. Rifle-Pits, Barnard Lines: Line of rifle-pits from the foot of the west side of Maryland Heights to Fort Duncan, connecting Batteries B, C, and D, were under construction and partially completed in June, 1863. The front of these batteries and rifle-pits were protected by an abatis made of felled timber.

9. Battery J: A light earthwork, located on the spur to the north of Fort Duncan, was erected in June, 1863. This battery contained two boat howitzers, which enfiladed the C&O Canal and tow-path to the north. The work was also designed to prevent the enemy from turning the left flank of the Union line by Fort Duncan.

B. Southern Defense Line

1. Fort Duncan: A large earth redoubt about 300 by 100 feet, surrounded by a dry ditch and abatis, was a key defense point. This work was commenced by McClellan's troops in October, 1862. In June, 1863, the walls of Fort

Duncan were strengthened and six 30-pounder Parrott guns were mounted in the fort. Positions, platforms and embrasures were also prepared for nine additional guns, so that the total armament of the fort was intended to be 15 guns. The fort, as completed, was designed to resist attack from all sides. The guns of this work could cover Bolivar Heights, on the Virginia shore, the approach to Maryland Heights from the west along the river bank of the Potomac on the Maryland side, and also provide a cross-fire to the north and east along the Barnard lines.

2. Battery A: A good size earthwork was located about 250 yards south of Fort Duncan on top of the same hill, overlooking the Potomac. The guns of this battery were intended to operate on Bolivar Heights. The fortification had been erected by McClellan's troops in October, 1862, and in June, 1863, the artillery (six 30-pounder Parrotts) that had been stationed in Battery A was moved into Fort Duncan.

3. Battery K-Proposed Work: This earthwork was in the process of being laid out in June, 1863, but was not completed at that time. The battery was intended to replace the function of the old Naval Battery at I. Guns from Battery K could command the Baltimore and Ohio Railroad bridge across the Potomac, the pontoon bridge above the dam, the whole plain on which the village of Bolivar stood, and the south bank of the Potomac from the mouth of the Shenandoah west to where the Baltimore and Ohio Railroad left the Potomac. The proposed armament for Battery K was to consist of two 24-pounder siege guns and two 10- or 20-pounder Parrott guns, total four guns.

4. Naval Battery, I: This battery had first been established by Brigadier General Rufus Saxton in May, 1862. An earth breastwork was

erected to protect the battery on September 12, 1862. The Naval Battery was located on the western slope of Maryland Heights about half way up to the summit and near the river. The battery commanded Bolivar Heights, Camp Hill, and imperfectly the Baltimore and Ohio Railroad bridge across the Potomac and also the river front of the town of Harpers Ferry. The armament of the Naval Battery on June 27, 1863, was comprised of one 100-pounder and one 50-pounder Dahlgren guns; also two 24-pounder siege guns, total four guns.

5. 30-Pounder of Six Guns Battery, H: This good sized earthwork was located near the southern end of Maryland Heights, and 300 feet below the highest point of the mountain. The fortification had been erected by McClellan's troops in October and November, 1862. A magazine stood near this work. The armament of the 30-pounder battery, on June 27, 1863, was comprised of five 30-pounder Parrott guns and two 24-pounder siege guns, total seven guns. The artillery of this position swept the summit of Loudoun Heights, the town of Harpers Ferry, Camp Hill and Bolivar Heights.

C. Defenses of the Eastern Flank, Battery H to Stone Fort

1. Battery G: This position was situated about 600 yards to the south of the Stone Fort, on a narrow point in the crest of Maryland Heights. Here, in June, 1863, a gun platform was erected and a great 100-pounder Dahlgren gun mounted. The gun was protected by means of sandbags. This piece had a field of fire of 360 degrees and could be used with effect on the east or west slopes of Maryland Heights, Pleasant Valley, on Loudoun and Bolivar Heights, on Fort Duncan, or on the Stone Fort. The gun was the key to the Maryland position.

2. Rifle Pits, East Flank, Battery H to Stone Fort: The eastern face of Maryland Heights was very steep and difficult of ascent. Stone breastworks

or rifle-pits were constructed in June, 1863, from the Stone Fort south along the eastern crest of the mountain to Battery H, and seven light field guns distributed along this line at points from which they had a raking fire on the eastern slope of Maryland Heights. The front of this line was further protected by means of an abatis built of felled timber.

D. Ground Cover on Maryland Heights, June, 1863

In October and November, 1862, McClellan's troops had cleared much of the summit of Maryland Heights of heavy forest. In the period June 16 to 27, 1863, this work was continued and the timber felled to a distance of 1,500 yards north of the Stone Fort on the summit of Maryland Heights, west to the Potomac, thus clearing the grounds north of the Stone Fort, Fort Duncan, and the Barnard lines of trees. Timber on the eastern slope of Maryland Heights from a point 1,500 yards north of the Stone Fort, south to the Potomac was also felled. The south and west slopes of Maryland Heights and also the area to the east, south and west of Fort Duncan, were also cleared at this time, giving a clear field of fire in every direction.

The fortifications on the Maryland side, by June 27, 1863, were designed to be defended by a garrison of from 8,500 to 10,500 men; a total of 39 guns, consisting of 20 siege guns, 13 light pieces, and six 24-pounder howitzers, were utilized in the defense of the position at that time.

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than the most elementary defenses. Harpers Ferry, a position of great military importance and natural strength, if properly fortified and defended, thus became a military trap in 1862. The proof of this blunder, the failure to properly fortify Harpers Ferry, was demonstrated on September 15, 1862, when Colonel Dixon S. Miles surrendered 12,693 Federal soldiers to "Stonewall" Jackson following a siege lasting 81 hours.[4]

As a result of this costly experience, the Union high command carefully studied the military possibilities at Harpers Ferry and decided to fortify the position. By June 27, 1863, Harpers Ferry had been converted into a fortress of great strength. The planning and development of these fortified lines is the story of this report.

In conclusion, it may be remarked that fall of Harpers Ferry in 1862 left a mental block in the minds of the Federal high command; namely, Generals Halleck, Hooker, and Meade. By June 27, 1863, the defensive tools were on hand and ready for use, but the Union high command lacked the nerve to test them during the Gettysburg campaign. Instead they ordered the abandonment of Harpers Ferry, withdrawing the garrison, accomplishing nothing by this move, and thereby threw away the great strategic possibilities that would have resulted had Union Forces retained possession of the military position of Harpers Ferry, with its bridges across the Potomac.

A concise summary describing the Federal fortifications as they appeared at Harpers Ferry on June 27, 1863, will be found in Chapter VIII of this report.

4. Snell, Charles W., "A Report on the Federal Fortifications at Harpers Ferry, Va., and of the Confederate and Union Troop Movements during the Siege of Harpers Ferry, September 12-15, 1862," dated December 1, 1862, 82 pages.

CHAPTER I

McCLELLAN RE-OCCUPIES HARPER'S FERRY, SEPTEMBER, 1862

On September 20, 1862, at 1 p.m., Williams' (Banks') 12th Army Corps of the Army of the Potomac, re-occupied Maryland Heights.[1] On the 22nd the Second Division of this corps encamped on Loudoun Heights, while the First Division retained possession of Maryland Heights.[2] On September 23rd, Major-General George B. McClellan had boat howitzers placed on the summit of Loudoun Heights and by the 26th, heavy artillery had been placed in position on Maryland Heights.[3]

On September 23rd, the First Army Corps, under command of Brigadier-General George B. Meade, was encamped in Pleasant Valley, Maryland,[4] and the 2nd Army Corps, under command of Major-General Edwin V. Summers, occupied Cam. Hill and Bolivar Heights.[5] On October 7th, the 9th Army Corps, led by Major General Ambrose E. Burnside, bivouacked in Pleasant Valley, Maryland.[6]

1. O.R., I, Vol. LI, Part I, p.344; R. B. Marcy, Chief of Staff, Army of Potomac, to Maj. Gen. Burnside, Sept. 20, 1862; For organization of the 12th Army Corps, O.R., I, Vol. XIX, Part I, pp.179-180.

2. Vol. LI, Part I, p.858, Marcy to Maj. Gen. Summers, commanding 2nd Army Corps, Sept. 22, 1862-5 p.m.; Brig. Gen. A.S. Williams to Marcy, Oct. 16, 1862, Vol. XIX, Part II, p.434; Itinerary of 12th Army Corps, Vol. XIX, Part I, pp.479-480.

3. Vol. LI, Part I, p.858, Marcy to Summers, Sept. 22, 1862; Vol. XIX, Part II, pp.344, 356, 359.

4. Vol. LI, Part I, p.856, Marcy to Brig. Gen. Geo. B. Meade, Sept. 20, 1862; For organization of the 1st Army Corps, see Vol. XIX, Part I, pp. 170-171.

5. Vol. LI, Part I, p.858, Marcy to Summers, Sept. 22, 1862, 5 p.m.; For organization of 2nd Army Corps, see Vol. XIX, Part I, pp.172-174.

6. Vol. XIX, Part I, p.344, Marcy to Burnside, Sept. 22, 1862, 4 p.m., Vol. XIX, Part I, p.433, Itinerary of 1st Division of 9th Army Corps. For organization of 9th Army Corps, see Vol. XIX, Part I, pp.177-179.

Thus in the period September 20-October 7, 1862, General McClellan concentrated four army corps of the Army of the Potomac in the immediate vicinity of Harpers Ferry.

On October 13th, Major-General Burnside was placed in charge of the defenses at Harpers Ferry and was given command of the 2nd, 9th and 12th Corps, which were encamped at that post.[7] This force totaled 60,003 men present and fit for duty on October 20, 1862.[8] Harpers Ferry, with its hills crowned "by the watch fires of a hundred circling camps," must have been a truly impressive sight at this time. These three corps remained at Harpers Ferry until October 31, 1862, when General McClellan marched the Army of the Potomac southward.[9]

On the evening of September 26, Major General George B. McClellan informed Major General Henry W. Halleck, General-in-Chief: "I have just returned from Maryland Heights, and have determined to fortify them, as well as the heights (Loudoun and Bolivar) on the opposite side of the river, in order to avoid a similar catastrophe to the one which happened to Colonel Miles. In view of this, I shall be glad to have contrabands (negro slaves) sent to Harper's Ferry from Washington to perform a portion of the necessary labor, if there are any disposable..."[10] McClellan's request for laborers was approved by Halleck on the 27th and General

7. Vol. XIX, Part II, p.420-Special Order No. 280, Oct. 13, 1862.

8. Vol. XIX, Part II, p.454-Statement showing the numberoof men composing the Army of the Potomac on the 20th day of October, 1862.

9. Vol. XIX, Part II, p.510-McClellan to President Abraham Lincoln, Oct. 30, 1862.

10. Vol. XIX, Part II, pp.360-361, McClellan to Halleck, Sept. 26, 1862, 10:30 p.m.

McClellan made a requisition to Brigadier General Wadsworth at Washington, D.C., for 2,000 contraband on the same day.[11] (See photograph of their camp the following page of this report.)

McClellan also instructed General Summers, then commanding the 2nd and 12th Army Corps, to detail soldiers to assist the engineer officer with the work of constructing these fortifications.[12] A further supply of labor was obtained by employing stragglers from the Army of the Potomac on the erection of the defenses until October 29, when these prisoners were returned to their own regiments.[13] Thus by September 26, 1862, General McClellan had determined to fortify Harpers Ferry.

11. Vol. XIX, Part II, p.362; McClellan to Halleck, Sept. 27, 1862, and p.366, Halleck to Gen. Wadsworth, Sept. 28, 1862.

12. Vol. LI, Part I, p.863; Marcy to Summers, Sept. 26, 1862, 10:30 pm.

13. General Orders No. 179, Oct. 29, 1862, Vol. XIX, Part II, p.509.

Contraband Camp - Harper's Ferry, Va.

From National Archives Still Picture
Section. U.S. Signal Corps Collection.
Harpers Ferry Negative No. HF-18.

This photograph was made in October, 1862. In the foreground are to be seen the tents of the "contrabands" or negro slaves brought to Harpers Ferry by General McClellan to work on the fortifications. The camp lays just inside the entrance to the Musket Factory yard. The large 3½ story brick building to the right of the photo is Bldg. No. 9; to the left of this, across Shenandoah Street, may be seen Bldg. No. 36. Moving again to the left, the Old Arsenal Square is filled with temporary war structures. At the left side of the photograph is the Superintendent's Old Office, a one story brick building located on the corner of Arsenal Square. In the distance may be seen the forested slopes of Loudoun Heights on which much timber has already been felled. Note the road winding up the side of the mountain.




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CHAPTER II

PLANS FOR THE HARPERS FERRY FORTIFICATIONS, OCTOBER, 1862

Lieutenant C. B. Comstock, of the Engineers, was placed in charge of preparing the plans and estimated costs of erecting the proper fortifications at Harpers Ferry.[1] By October 17, Lieut. Comstock had completed his report and a sketch and submitted his proposals for the consideration of Captain J. C. Duane, Chief Engineer of the Army of the Potomac.

Lieut. Comstock described the topographical situation at Harpers Ferry as follows:

"The ground between the Potomac and the Shenandoah, for 1½ miles above their junction, has a general elevation of 200 or 300 feet above the rivers, and then rises into a ridge commanding the ground in front (to the west of Harpers Ferry), running at right angles to the Potomac, and called Bolivar Heights.

"Maryland Heights, on the east (north) bank of the Potomac, and Loudoun Heights, on the south bank of the Shenandoah, command Bolivar Heights by several hundred feet, and run within half a mile of the railroad bridge, which crosses the Potomac near the junction of the two rivers.

"This position may be occupied with two aims: First, to prevent the enemy's crossing into Maryland at this point; second to cover the railroad bridge and the other bridges which may be built to secure a spacious debouch into the Valley of Virginia, and to furnish a strong post for the protection of the Baltimore and Ohio Railroad in the vicinity.

"The first aim may be attained by occupying Maryland Heights alone,; the second requires the holding of portions of Maryland, Bolivar and Loudoun Heights....."

Comstock's project was drawn to accomplish the second and larger purpose; he estimated the cost of work at $50,000 and necessary garrison to defend the proposed fortifications at 12,000 men.[2]

1. Vol. XIX, Part II, p.387, McClellan to Halleck, Oct. 6, 1862.

2. Vol. XIX, Part II, pp.441-442, Comstock to Duane, Oct. 17, 1862.

His plans called for the following construction:

"...Run a nearly continuous infantry pararpet from river to river, along Bolivar Heights (B, C, D on the sketch herewith (the sketch has been lost)); support it by redoubts at B, C, D (B was apparently on the heights overlooking the Potomac and D overlooking the Shenandoah), and another at A, to give flank fire. Redoubts to cover embankments for guns as follows: A, four guns; B and C, each twelve guns; D, two guns.

"Crests of Maryland and Loudoun Heights, for 1½ miles from Potomac, to be occupied each by a line of stone block-houses or redoubts, a part of each of these lines to serve as one side of an entrenched camp for 3,000 men, the other sides of the camp to be strengthed by log block-houses, which would furnish in part quarters for the troops; these camps to be on the slopes of the mountain toward Harper's Ferry; each camp to have six or eight light guns, and roads to be made by which they could be moved readily from point to point. Five or six of these redoubts will be needed for each crest. Twelve 20-pounder Parrotts to be put in embrasure on the Heights of Harper's Ferry (Camp Hill), to fire on parts of the slopes not seen from the camps. The present heavy battery on slope of Maryland Heights to be covered by a redoubt (E). (This probably refers to Battery H on Map III, the six gun or 30-pounder battery.)

Lieut. Comstock also recommended that the existing Potomac bridges; namely, the pontoon bridge and Baltimore and Ohio Railroad bridge, be improved to insure secure communication with both sides of the river.[3]

Chief Engineer Duane, of the Army of the Potomac, reviewed these plans and recommended:

"If Harper's Ferry is to be permanently occupied..., first a substantial bridge (should) be constructed over the Potomac. The point (marked in the sketch) immediately below the dam (see Map III) is the most favorable, as it is not exposed to the fire from Loudoun Heights, and, by holding the points A and B, will afford a secure debouch on the Virginia side of the river.

"The fortifications on Maryland Heights and the point A should be commenced at once. It would be worse than useless to construct those on Bolivar and Loudoun Heights before some more substantial means for crossing the river than we have at present can be furnished. The present

3. Vol. XIX, Part II, pp.441-442, Comstock to Duane, Oct. 17, 1862; For the recommendations of another engineer, Capt. W. Angelo Powell, made Oct. 23, 1862, at the Military Commission investigating the surrender of Harpers Ferry, see Vol. XIX, Part I, p.769 for Bolivar Heights; pp.765, 769 for Loudoun Heights; p.768 for Camp Hill; pp.765, 768-769 for Maryland Heights defenses.

railroad bridge is a temporary structure, liable to be swept away by the winter freshets." 4

On October 18, 1862, General McClellan, with his headquarters established at Pleasant Valley, Maryland, forwarded the engineers' reports to Washington, requesting General Halleck's immediate attention to these plans. McClellan stated:

"I look upon the permanent and secure occupation of Harper's Ferry as a military necessity, whatever ultimate plan of campaign may be adopted. I think that not a day should be lost in pushing to completion the permanent bridges over the Potomac and the Shenandoah, and in the construction of the defenses recommended. I beg to repeat, in the clearest terms, that the construction of these bridges and the defences of Harper's Ferry having nothing to do with the operations of the active army, but stand by themselves, as relating wholly to the permanent occupation of that very important military position... I cannot urge too strongly the importance of permanently occupying Harper's Ferry in great strength..."

McClellan also suggested that :

"Closer study may indicate the means of so fortifying this position as to render a smaller garrison than that mentioned (12,000 men) within necessity." 5

On October 19, Halleck forwarded the project to the Secretary of War, with the following comments:

"This project of extensively fortifying Harper's Ferry, and constructing a permanent bridge at that point, involves a very considerable expenditure of money, a large garrison, and a long delay (of the Army of the Potomac), perhaps extending into winter, before Harper's Ferry can be made a prepared base for, at best, an exterior line of operations upon our proper objective—Staunton, Lynchburg, or Richmond. Either of these points may be more surely reached by an interior line of operations behind and east of the Blue Ridge, at the same time covering Washington, our proper base, and threatening the enemy's communications, compelling him thus to evacuate the vicinity of Harper's Ferry; in which event field defenses, with a moderate garrison, would suffice to hold that point against any probable attack to be made upon it; and the permanent railroad bridge, now being built, would suffice for all our wants, without the one proposed to be erected by General McClellan about 1½ miles above."

4. Indorsement of J. C. Duane, Capt. of Engrs., Chief Engineer of Army of Potomac, on Lt. C. B. Comstock's report of Oct. 17, 1862, Vol. XIX, Part II, p.442.

5. McClellan to Halleck, Oct. 18, 1862, Vol. XIX, Part II, p.442.

The project, as amended by Halleck, was approved by the Secretary of War on October 20, 1862.[6] The same day the General-in-Chief informed McClellan of this decision, writing:

"...I concur with you in opinion that Maryland and Loudoun Heights should be fortified and occupied; but I think that field fortifications and redoubts would be sufficient for the purpose, without incurring the expense of constructing permanent works, stone redoubts, &c. Harper's Ferry is not, in my opinion, a proper base of military operations, and it would be an error to expend time and money there for such an object..."[7]

Halleck's letter of the 20th apparently miscarried, for General McClellan inquired again on October 23, requesting an "early decision" on the plans to fortify Harper's Ferry, and adding "It is of great importance that these works should be commenced without delay..."[8] Halleck replied that afternoon stating: "I wrote you, in relation to the fortifying of the heights near Harper's Ferry, that field batteries and temporary block-houses should be constructed, but that stone works and permanent fortifications were not approved..."[9]

McClellan snapped back the same evening: "Your dispatch of to-day received..I am quite sure I never recommended the building of permanent works on the heights around Harper's Ferry. The block-houses must be built of loose stone and timber, as there is no earth at hand. The estimate of Lieutenant Comstock, $50,000, will probably cover the works on all the heights. The works are in no way connected with the advance of this army, but they should be pushed forward at once, as it is of the

6. Halleck to Sec. of War, Oct. 19, 1862, Vol. XIX, Part II, pp.442-443.

7. Halleck to McClellan, Oct. 20, 1862, Vol. XIX, Part II, p.451.

8. McClellan to Halleck, Oct. 23, 1862, 10:15 a.m., Vol. XIX, Part II, p.469.

9. Halleck to McClellan, Oct. 23, 1862, 3:30 p.m., Ibid., p.470.

utmost importance to hold this place permanently."[10]

The project as originally proposed by the engineers, of fortifying Harpers Ferry, Bolivar Heights, Camp Hill, Loudoun Heights and Maryland Heights, was thus reduced in scope by General-in-Chief Halleck and the Secretary of War on October 20, 1862, to the more limited plan of erecting field defenses on only Maryland and Loudoun Heights.

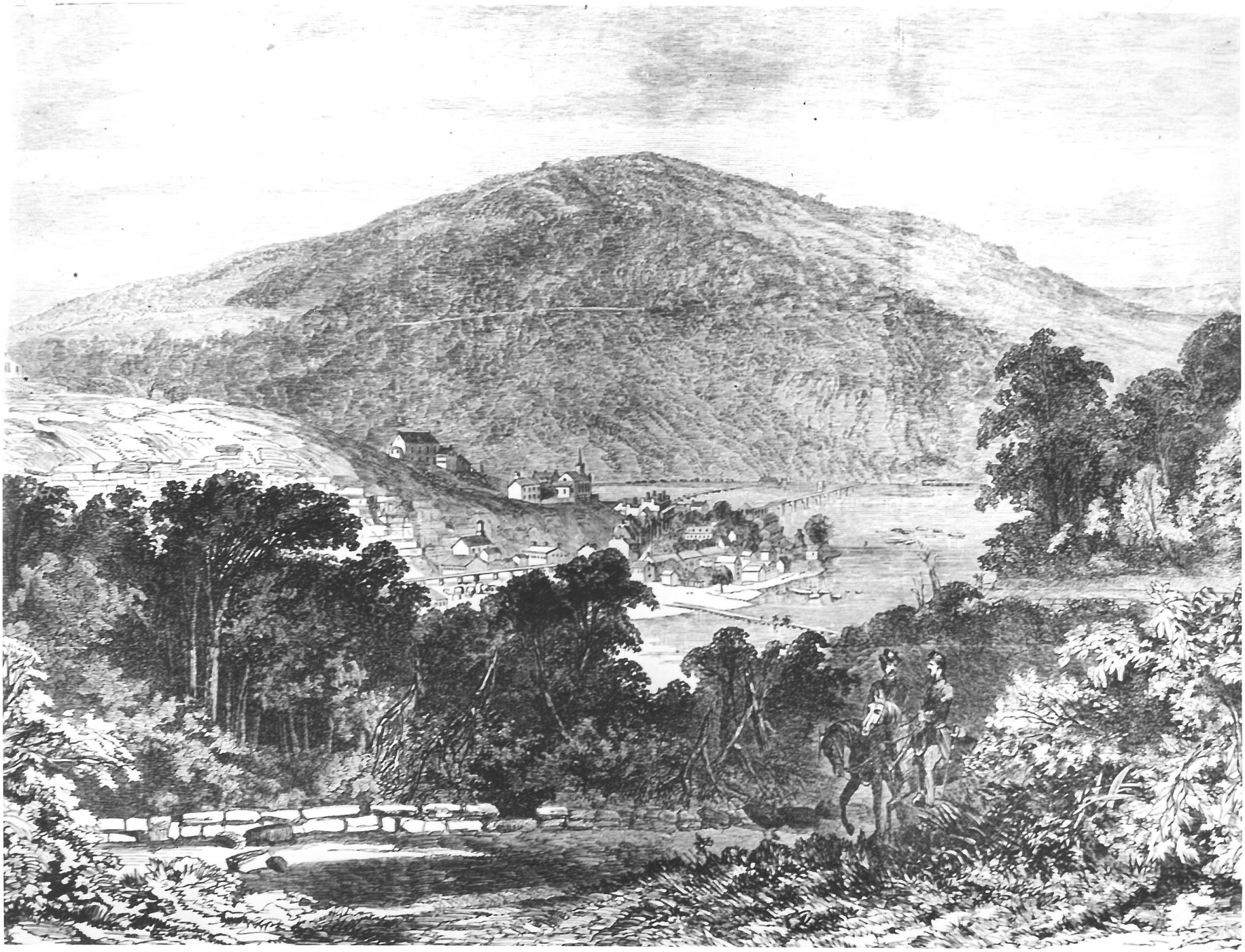
In regards to the debate between Halleck and McClellan over the relative value of Harpers Ferry as an important base of military operations, the actual course of events, October, 1862, to April, 1865, forced the Federal command eventually to erect all of the fortifications requested by McClellan. Furthermore, under Sheridan, after August, 1864, the Union high command also found it necessary to convert Harpers Ferry into a major base of operations in order to win the war. It thus appears that McClellan's estimate of the military importance of Harpers Ferry was much closer to the truth than that of Halleck.

10. McClellan to Halleck, Oct. 23, 1862, 6:45 p.m., Vol. XIX, Part II, p.470-471.

"View of Harper's Ferry, the Junction of the Potomac and Shenandoah Rivers from Loudoun Heights.

Wood engraving from Frank Leslie's Illustrated History of the Civil War, New York, 1896, p.373. Harpers Ferry Negative No. HF-6.

This undated print was probably made in September or October, 1862, just after McClellan re-occupied Harpers Ferry. Camp Hill lies to the left of the picture; Maryland Heights rises in the center, across the Potomac. Note the clearing and camp on the left or west slope of Maryland Heights. A road lead across the face of the mountain and some trees have been felled near the summit. The buildings in the center lie in the town of Harpers Ferry. A pontoon bridge and railroad bridge cross the Potomac. In the center, a pontoon bridge also crosses the Shenandoah River.

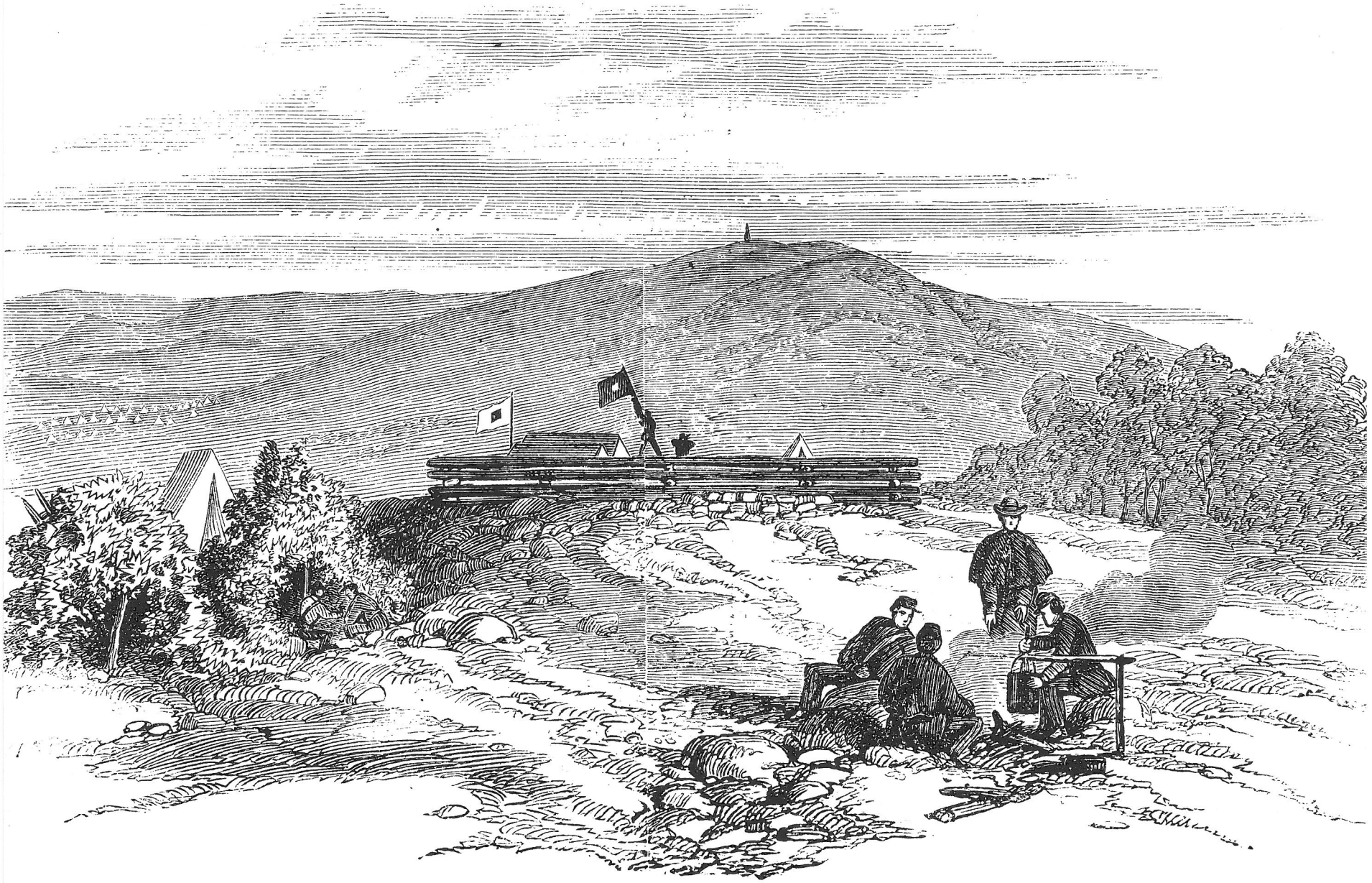


"National Signal Station on Loudoun Heights, Harper's Ferry, Communicating with the Station on Maryland Heights, Sketched by our Special Artist.

Harpers Ferry Negative No. HF-456.
From Frank Leslie's Illustrated History of the Civil War, New York, 1895, p.402.

This undated sketch was probably made in October or November, 1862.

y Yard, Brooklyn, we sent our Artist to mak



NATIONAL SIGNAL STATION ON LOUDON HEIGHTS, HARPER'S FERRY, COMMUNICATING WITH THE STATION ON MARYLAND HEIGHTS
SKETCHED BY OUR SPECIAL ARTIST.

CHAPTER III

PROGRESS OF FORTIFYING HARPER'S FERRY, SEPTEMBER 26 - NOVEMBER 31, 1862

McClellan had decided to fortify Harpers Ferry on September 26. By the 27th, he had requisitioned 2,000 negro slaves for this purpose and soldiers from the Army of the Potomac were also detailed to work on this project. It is thus clear that the construction of the fortifications at Harpers Ferry was commenced by the end of September, although the final plans for the project were not approved by the Secretary of War until October 20, 1862.

The following works were completed or underway before McClellan left Harpers Ferry with the Army of the Potomac on October 31, 1862:

1. Loudoun Heights (See Map III)

Stone redoubts A, B (signal station) and C on Loudoun Heights (Works No. 35, 44 by 32 feet; No. 21, 32 by 32 feet, and No. 18, 38 by 32 feet in size, respectively, on Preliminary Historical Base Map-"Fortifications-Loudoun Heights-Harpers Ferry National Monument, dated 3 July 1958, by J. B. Ferguson & Co., Engineers, Hagerstown, Maryland, Sheet 2 of 2") were built at this time.[1] The other stone works, rifle pits and foundations for huts, were also probably erected at this time by the Second Division of the 12th Army Corps, which was encamped upon this "rocky or stony ground, quite unsuitable for a well-ordered camp" from September 22 to October 26, 1862.[2]

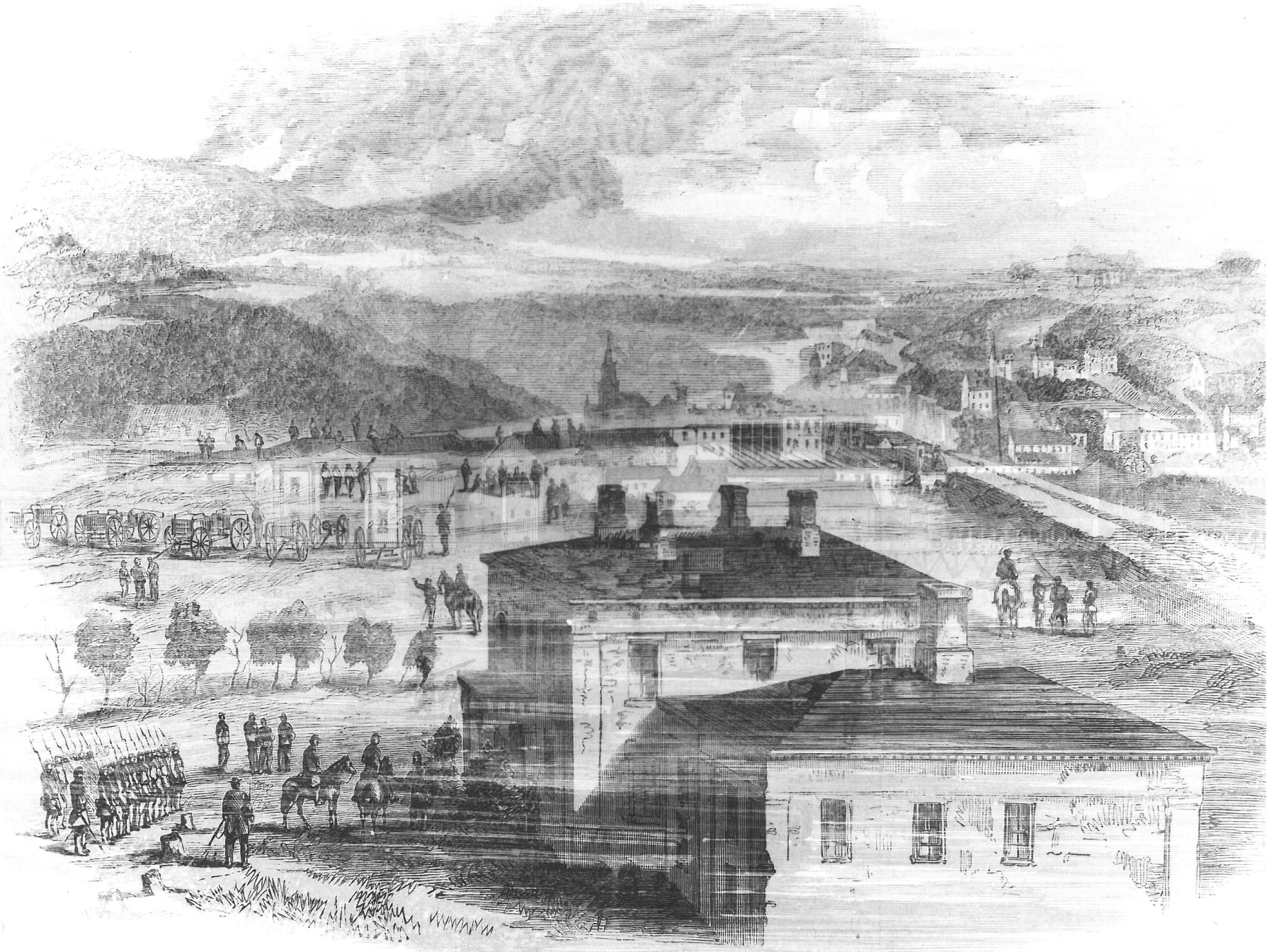
1. These stone works were shown on the map "Sketch of the Vicinity of Harper's Ferry, Va., by Wm. Luce, Oct., 1862."

2. Brig. Gen. A. S. Williams, commanding 2nd Div. of Banks' 12th Army Corps, to Brig. Gen. R. B. Marcy, Chief of Staff, Army of Potomac, Oct. 16, 1862, Vol. XIX, Part II, p.434; Gen R. E. Lee to Geo. W. Randolph, Sec. of War, CSA, Oct. 1, 1862-"block-houses are being constructed on Loudoun Heights," Vol. XIX, Part II, p.641, 640; Itinerary of the 12th Army Corps, Vol. XIX, Part I, pp.480-481, for 2nd Div., photograph HF-348.

"View of Loudoun Heights, Harper's Ferry, Va., Clearing the Forests for the Building of New Fortifications"

From an Illustrated Newspaper, November 1, 1862, page 117.
Harpers Ferry Negative No. HF-338.

Armory Superintendent's House, Armory Dwelling No. 25, on Camp Hill stands in the right foreground. Earthworks on Camp Hill are visible beyond this building. The Shenandoah River runs to the right. Loudoun Heights rises to the left, on the far side of the Shenandoah.



VIEW OF LOUDON HEIGHTS, HARPER'S FERRY, VA.—CLEARING THE FORESTS FOR THE BUILDING OF NEW FORTIFICATIONS.

In addition to erecting the stone works, these troops also cleared the summit of Loudoun Heights by felling the trees to open clear fields of fire.[3]

2. Bolivar Heights

Bolivar Heights was occupied by the 2nd Army Corps, under command of Major General Summers. Plans to strengthen the light fortifications existing on these Heights were turned down by the Secretary of War. By October 16, however, the "whole hill was denuded of trees and covered with camps." The forests lying to the west of Bolivar Heights were cut down for 1½ miles in advance of this position.[4]

3. Camp Hill

Plans to strengthen the existing fortifications on Camp Hill were also disapproved by the Secretary of War. This position was held by the 2nd Army Corps. On October 1, 1862, President Abraham Lincoln visited Harpers Ferry and spent the night at the Armory Superintendent's House on Camp Hill (Armory Dwelling No. 25 on 1859 Historical Base Map, Drawing No. 3021, Sheet 2).[5] On October 7, 1862, Major General Darius N. Couch assumed command of the 2nd Army Corps and made his headquarters in the Armory Superintendent's House.[6]

3. See photographs HF-338 (page 15), HF-26, HF-10, HF-M (Appendix II), HF-348 (Page 21), and HF-456 (page 13).

4. Private Journal, 5th Volume, of David H. Strother, p.7, October 16, 1862; Also see "Preliminary Sketch of the Defenses of Maryland Heights" and compare with Map II-Harpers Ferry, Va., September 12-15, 1862; See also Photographs HF-2, page 74, and HF-69, page 75, in Snell, Charles W., "A Report on the Federal Fortifications at Harper's Ferry, Va., and of the Confederate and Union Troop Movements During the Siege of Harpers Ferry, Sept. 12-15, 1862."

5. Private Journal, 5th Volume, of David H. Strother, p.4.

6. Vol. XIX, Part I, p.2. Private Journal, 5th Volume, of David H. Strother, p.7, October 16, 1862.

"N.C.O's, Company E, 22nd New York State Militia, Near Harper's Ferry."

Brady Photograph.
From National Archives Still Picture Section.
Harpers Ferry Negative No. HF-1.

The 22nd New York was in the First Brigade of the First Army Corps. The photograph was taken on the western edge of Camp Hill, near the Lutheran Church in October, 1862. In the distance, with the trees on the crest, can be seen the right flank of Union position on Bolivar Heights. The houses near the left of the picture lie in Bolivar.

Photograph HF-2 in Snell, C. W., "A Report on the Federal Fortifications at Harpers Ferry, Va., and of the Confederate and Union Troop Movements during the Siege of Harpers Ferry, September 12-15, 1862," page 74, also shows this area with a Federal Camp in view and across the Potomac, construction on Battery A, near Fort Duncan, is visible. Photograph HF-69, on page 75 of the same report, made in October, 1862, shows the ground cover and roads on the left flank of the Union position on Bolivar Heights.

"The Federal Camp on Bolivar Heights (sic-Camp Hill), 1862"

Harpers Ferry Negative No. HF-31.

This photograph was probably made in October, 1862. The large house in the center is the Superintendent of the Armory's House, Armory Dwelling No. 25 on the 1859 Historical Base Map. President Lincoln spent the night of October 1, 1862, in this building during his visit to Harpers Ferry. After October 7, 1862, the structure served as the headquarters of Major General Darius N. Couch, commanding the Federal 2nd Army Corps, which occupied Camp Hill and Bolivar Heights at that time.



THE FEDERAL CAMP ON BOLIVAR HEIGHTS, 1862

From a photograph

4. Bridges at Harpers Ferry

On September 24, General McClellan informed General-in-Chief Halleck it was necessary "to build a permanent double-track bridge over the Potomac at Harper's Ferry; also a wagon bridge over the Shenandoah at the same place, on the piers (of the former covered bridge) now standing." He requested that Col. D. C. McCallum be placed in charge of these works.[7] McClellan renewed his request for permission to build the two permanent bridges on October 1, thus indicating that nothing had been accomplished on these projects by that date.[8] As we have seen, the permanent Potomac bridge was eliminated from the defense plans by the Secretary of War and Halleck on October 20, 1862.

It appears, however, that McClellan was able to build a more permanent type of bridge over the Shenandoah River. On October 1, 1862, he described the bridge he desired as follows:

> "a permanent and reliable bridge is needed here across the Shenandoah. Mr. Roebling can build a double-track suspension bridge on the existing piers in three or four weeks. The wire is now in possession of the Government, and the cost will be some $5,000 besides the wire. No pontoon (then the means of crossing both the Potomac and Shenandoah Rivers) nor trestle bridge can be made to resist the freshets..."[9]

McClellan, although turned down by Halleck, apparently went ahead and a wire suspension bridge was built over the Shenandoah, for on June 16, 1863, Brigadier-General Tyler, when threatened by the advance of Lee's army, issued order to remove "the planks from the Suspension Bridge over

7. McClellan to Halleck, September 24, 1862, 10 p.m., Vol. XIX, Part II, pp.354-355.

8. McClellan to Halleck, October 1, 1862, 11 a.m., Vol. XIX, Part I, p.10.

9. Ibid., p.10.

the Shenandoah..."[10] The depot for McClellan's army, in October, 1862, was located on Hall's Island on the Shenandoah.[11]

5. Maryland Heights

This position was held by the First Division of the 12th Army Corps. Construction was started in October on Fort Duncan, the Stone Fort, the Six Gun or 30-pounder Battery (Battery H) and Battery A (see Map III), before McClellan's army left Harpers Ferry.[12] By the 30th of October, the forest had been cut off the top of the mountain. A signal station was in operation on the summit and the signal men were building huts by their station.[13]

From October 2 to October 30, 1862, the 46th Pennsylvania, 28th New York, and 128th Pennsylvania Regiments of the First Brigade and the entire Third Brigade of the First Division, 12th Army Corps were encamped on Maryland Heights and performed fatigue duty on these fortifications. The Second Brigade of the same division, during this period, was encamped in Pleasant Valley.[14]

10. Halleck to McClellan, October 1, 1862, refusing permission to build either bridge, Vol. XIX, Part I, p.10; General Order Book, Special Order No. 2, June 16, 1863, of Brig. Gen. Tyler; Harpers Ferry Civil War Records, 1863-65, in The Historical Society of Pennsylvania, Philadelphia, Pa., Microfilm Reel 40, Vol. 1, p.35.

11. Capt. Thomas Wilson to Col. A. Beckwith, Commissary of Subsistence, Oct. 17, 1862, Vol. XIX, Part II, p.443.

12. See "Sketch of the Vicinity of Harper's Ferry, Va. by Wm Luce, Oct., 1862" and also memorandum of Brig. Gen. J. B. Barnard to Col. J. C. Kelton, May 5, 1863, Vol. XXV, Part II, pp.423-424.

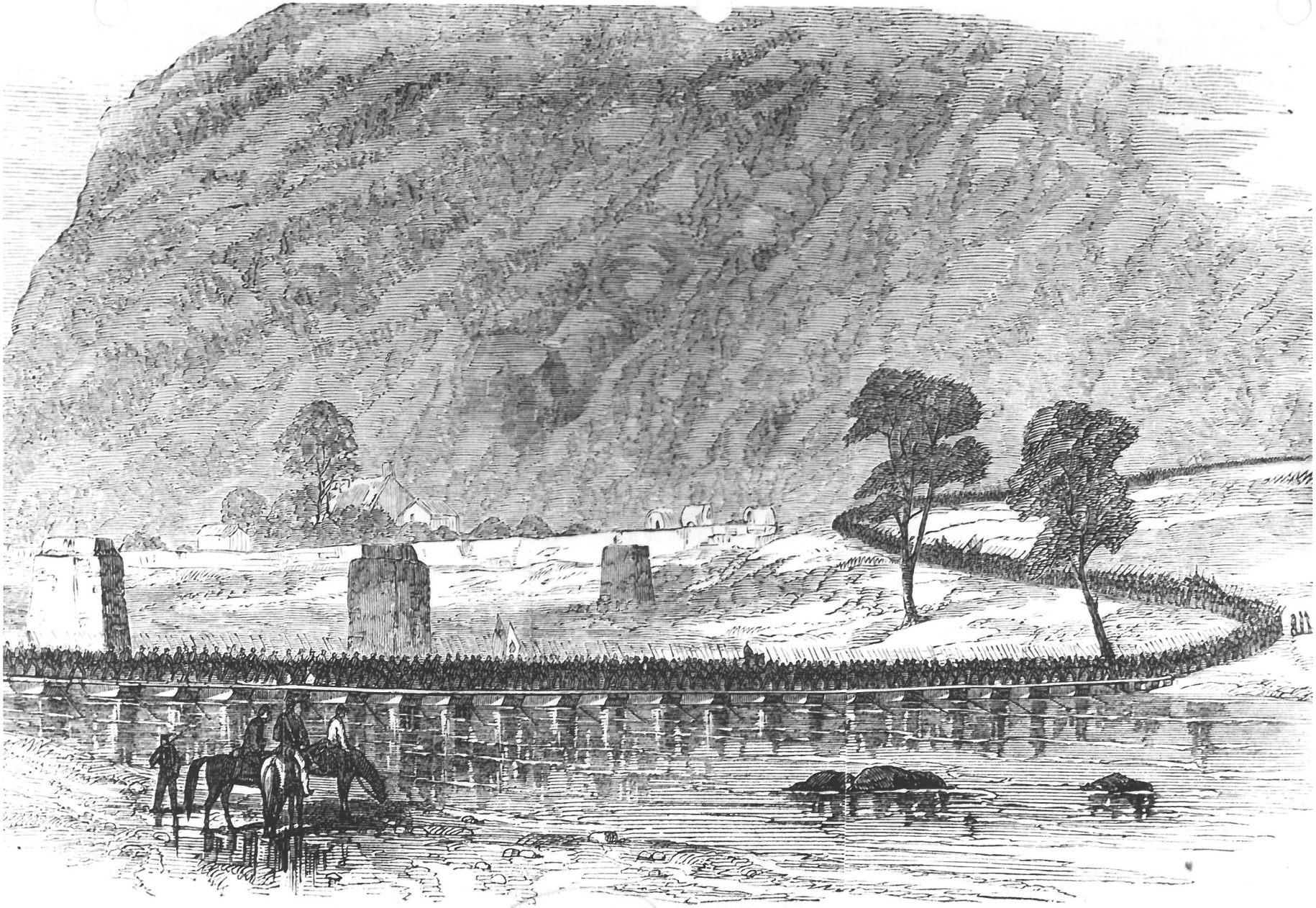
13. Private Journal, 5th Volume, of David Hunter Strother, p.9, Oct. 30, 1862; See also photographs HF-6 (p.12), HF-14, HF-219, HF-9, HF-259 (in Appendix II of this report).

14. Itinerary of 12th Army Corps, First Division, Sept. 1-Nov. 30, 1862, Vol. XIX , Part I, p.479.

"General Geary's Division Crossing the Shenandoah From Harper's Ferry to take possession of Loudoun From a Sketch by our Special Artist"

From Frank Leslie's Illustrated Newspaper, November 15, 1862, page 117.
Harpers Ferry Negative No. HF-248.

The Second Brigade, First Division, of the 12th Army Corps, crossing the Shenandoah over a pontoon bridge on October 30, 1862, to occupy the stone redoubts on top of Loudoun Heights. The stone piers in the distance were the supports of the Shenandoah bridge which had been burned by the Confederates in June, 1861. The Federals utilized these piers in November, 1862, to support a wire suspension bridge across the Shenandoah.



GENERAL GEARY'S DIVISION CROSSING THE SHENANDOAH FROM HARPER'S FERRY TO TAKE POSSESSION OF LOUDON HEIGHTS.—FROM A SKETCH BY OUR SPECIAL ARTIS

CHAPTER IV

HARPERS FERRY AFTER THE DEPARTURE OF THE ARMY OF THE POTOMAC, OCTOBER 31, 1862 - DECEMBER 31, 1862

On October 29 and 30, 1862, General McClellan completed his preparations for the advance southward of the Army of the Potomac from Harpers Ferry.[1] He left the 12th Army Corps, under the command of Major General Slocum, to defend Harpers Ferry. The troops, numbering about 10,000 men, were disposed as follows:

Loudoun Heights: Occupied on October 30 by the Second Brigade of the First Division. The 20th Connecticut Volunteers of this brigade were stationed on the summit, and the 123rd New York, 124th and 125th Pennsylvania Regiments camped on the eastern slope of the mountain.

Bolivar Heights: On October 30 this position was occupied by the 2nd Division of the 12th Army Corps, which remained encamped there until the end of November. During November, in addition to other duties, "A large portion of the division has also been arduously engaged in fatigue duties, felling timber, and constructing and improving the fortifications of the position."

Maryland Heights: The Third Brigade of the First Division, 12th Army Corps, left Maryland Heights on October 30, but the First Brigade remained on these heights until the end of November. The regiments of the First Brigade were employed during this period as follows:

1. R. B. Marcy, Chief of Staff, Army of Potomac, to General H. W. Slocum, commanding 12th Army Corps, Oct. 29, 1862, 1 p.m., Vol. XIX, Part I, p.862; Marcy to Gen. Couch, commanding 2nd Army Corps, Oct. 29, 1862, 1:30 p.m., Vol. XIX, Part I, p.506; McClellan to Halleck, Oct. 29, 1862, 1:15 p.m., Vol. XIX, Part I, p.178; Halleck to McClellan, Oct. 30, 1862, 11:30 a.m., Vol. XIX, Part I, p.85; McClellan to Pres. Abraham Lincoln, Oct. 30, 1862, Vol. XIX, Part II, p.510.

The 28th New York was stationed near Sandy Hook, Maryland, and employed on the fortifications upon Maryland Heights. The 5th Connecticut Volunteers were temporarily detached at Frederick, Maryland, doing provost duty. The 46th Pennsylvania was stationed on Maryland Heights, employed on picket duty, and also upon the fortifications. The 10th Maine was stationed at Berlin, Maryland and did picket duty along the Potomac. The 128th Pennsylvania was stationed on Maryland Heights, on picket duty and also worked upon fortifications. The 6th Maryland Volunteers was assigned to the First Brigade on November 3; the entire regiment was employed on the fortifications during the month of November.[2]

On December 4, 1862, Major General H. W. Slocum reported his 12th Army Corps was disposed at Harpers Ferry as follows: "The 2nd Division (Gen. Geary's) is encamped on Bolivar Heights. Present for duty, 6,000, and 18 pieces of artillery. Four thousand infantry of this division, with 2 batteries now on reconnaissance near Winchester. One brigade (Kane's) of the 1st (Williams') Division, 2,900 men, is in Loudoun Valley, near Loudoun Heights. No artillery is with this brigade, as the batteries on Maryland Heights command Loudoun. Colonel Knipe's brigade, same division, 1,900 strong is on Maryland Heights, with 18 pieces of field artillery, 14 pieces of heavy artillery, and seven boat howitzers. General Gordon's brigade, same division, 2,500 strong, is at Sharpsburg. One regiment at Berlin, guarding fords at that point and below. Two regiments at Frederick on guard duty. The Third Division of the Corps (General Whipple's) is

2. R. B. Marcy to Gen. Slocum, commanding 12th Army Corps, Oct. 29, 1862, 1 p.m., Vol. XIX, Part I, p.86; Itinerary of the 12th Army Corps, Vol. XIX, Part I, for First Division, pp.479-480; for the Second Division, pp.480-481; McClellan to Halleck, Oct. 29, 1862, 1:15 p.m., Vol. XIX, Part I, p.85.

with General Burnside."[3]

One week later, the 12th Army corps left Harpers Ferry to rejoin General Burnside and General Slocum reported that "Only one regiment of infantry (5th Maryland) remains to protect the permanent batteries and property" at Harpers Ferry.[4] Thus the labor on the fortifications, provided by the soldiers of the Army of the Potomac, commencing on September 27, came to an end on December 11, 1862.

By December 17, 1862, the tiny garrison left to defend Harpers Ferry had been re-enforced. The new garrison was under the command of Brigadier-General John R. Kenly, with his headquarters on Maryland Heights. The fortifications on that mountain were held by the 1st and 4th Maryland Regiments, three companies of the 14th Massachusetts Artillery, and a section of Captain Alexander's Maryland Battery. Bolivar Heights was defended by the 4th Maine Battery, the 6th Regiment of Maryland Volunteers, and some 90 men of the 1st Maryland Cavalry. The town of Harpers Ferry was occupied by the 5th Maryland Regiment, doing provost guard duty.[5] It is clear that this force was not large enough to fully occupy and defend the works at Harpers Ferry, let alone to provide enough manpower to continue the construction of them. The development of the new fortifications therefore appears to have come to a halt at this time.

On December 26, 1862, the garrison at Harpers Ferry was further slightly increased by the addition of six companies of the 6th New York

3. Maj. Gen. H. W. Slocum to Maj. Gen. Halleck, Dec. 4, 1862, Vol. XXI, p.628.

4. Slocum to Halleck, Dec. 11, 1862, Vol. XXI, P.847.

5. Col. Wm. Louis Schleyi, 5th Md. Vols., Harpers Ferry, to E. M. Stanton, Dec. 17, 1862, Vol. XXI, p.864.

Artillery, two large siege guns, and an independent battery, 103 men with six rifled guns, sent up from Baltimore.[6]

6. Major General Robert C. Schenck, commanding 8th Army Corps, Baltimore, Md., to Brigadier General Benjamin F. Kelley, commanding the Railroad Division, Cumberland, Md., Dec. 26, 1862, Vol. LI, Part I, p.964.

CHAPTER V

STATE OF THE DEFENSES AT HARPER'S FERRY, January 1-May 5, 1863

The defenses at Harpers Ferry during the period January 1, to May 31, 1863, were occupied by a small garrison, comprised the large portion of the time of just one, and at most, two brigades.[1] This force did not afford enough manpower, in addition to their more pressing duties, to make much progress on the completion of the fortified lines that had been begun by General McClellan in October, 1862. The Chief Engineer of the Harpers Ferry Defenses during this period was First Lieutenant John N. Wilson, of the U.S. Topographical Engineers.[2]

In February, 1863, a new pontoon bridge, 1,260 feet long and composed of 42 boats, was thrown across the Potomac just above the old Armory dam (see Map III).[3]

On March 16, 1863, Brigadier General Benjamin S. Roberts, then commanding at Harpers Ferry, inspected the defenses and submitted his opinion of them:

"Having carefully examined them, I am convinced they are inefficient for the purposes intended so far as I understand what those purposes are. Bolivar Heights, the key to this post, a position of great strength, commanding one of the main approaches, is without works for guns of any caliber. It is true the guns of Fort Duncan, on the Maryland side, command these heights and the entire length of their crest, the nearest point being 1,250 yards, and the most distant only 2,900 from that work. These heights are commanded, and would be enfiladed, by enemy batteries from Loudoun Heights, on the opposite side of the Shenandoah, could batteries be established

1. See Appendix I for this report for lists of Brigades and Regiments garrisoning Harpers Ferry in 1863. List for Jan. 31, 1863, and May 31, 1863.

2. Vol. XXI, p.982, Jan. 18, 1863.

3. Maj. Gen. Robert C. Schenck, commanding 8th Army Corps, to Col. J. C. Kelton, Assistant Adjutant General, February 11, 1863, Vol. XXV, Part II, p.68; Schenck to Halleck, Feb. 25, 1863, Vol. XXV, Part II, p.105; See also photograph HF-210 in Appendix II.

there. But our guns on Maryland (Heights) so completely command Loudoun (Heights) that it may be regarded as altogether impracticable for those heights to be held by an enemy while Maryland Heights are in our possession. This condition of defenses is such that an enterprising enemy can easily possess themselves of Bolivar Heights, and hold them without serious damage from the guns of Fort Duncan by the construction of a few traverses for the protection of gunners, the labor of a single night. That position in the possession of an enemy of sufficient force to attempt the capture of this place by siege or coup de main, would compel the withdrawl of our troops to the Maryland side. There the natural difficulties of attack and strength of our works would secure small forces against five times their numbers.

"We should have, then, the singular spectacle of a place commanded by two contending armies while neither can hold or occupy it. The bridge and the railroad would then fall into the power of the enemy, and by night enterprise of small parties could be destroyed. It would be impossible for the forces on Maryland Heights to prevent such destruction.

"If, as I suppose, one of the main purposes of holding Harper's Ferry and the erection of the defenses already made here is to protect the Baltimore and Ohio Railroad, it seems to me certain that such intention may be defrauded, because of the failure to fortify Bolivar Heights, the main key and strength of this position on the Virginia side. If, in fact, Harper's Ferry is of any considerable military importance, either for the protection of the railroad, to hold Maryland from invasion, or as an exterior defense to aid Washington, and is to be held at any cost, I conceive it to be essential to fortify Bolivar Heights."

General Roberts therefore requested that "an experienced engineer officer (be sent) to report to me without delay, to plan defenses for Bolivar Heights, to superintend their construction, and to determine the number and caliber of guns needed to arm them."[4]

On April 27, 1863, Brigadier General John G. Barnard, U.S. Volunteers and Chief Engineer of Defenses at Washington, D.C., was ordered to proceed to Harpers Ferry, "and to make a thorough examination of the defenses of that place, and devise and create any other he may deem necessary..."[5]

4. Roberts to Lt. Col. W. D. Whipple, Assistant Adjutant General, 8th Army Corps, Baltimore, March 16, 1863, Vol. XXV, Part II, pp.141-142.

5. Special Orders No. 190-Headquarters of the Army, Adjutant General's Office, Wash., D.C., April 27, 1863, Vol. XXV, Part II, p.272.

General Barnard inspected Harpers Ferry and submitted a detailed report on May 5, 1863, to Col. J. C. Kelton, Assistant Adjutant General, together with a memorandum for Col. William F. Raynolds, Chief Engineer of the 8th Army Corps in regard to the defenses of that place. This report gives us our first detailed description of the state and nature of the fortifications being erected on Maryland Heights.

As to the general purpose of these defenses, General Barnard stated: "Harper's Ferry, like a large fortress, is a strong position if held by troops enough. The number required to hold it is rather out of proportion to its stragetic importance. As we must guard the great connecting link between the Ohio and Potomac, the Baltimore and Ohio Railroad, it is necessary to have a secure debouché into the Shenandoah Valley. Hence, we must hold Harper's Ferry. So, should the threater of war again be Northern Virginia, there might be urgent reasons for holding Harper's Ferry, even though it required 8,000 or 10,000 men. On the other hand, the point might lose its importance, and it might becoem desirable to abandon it. I have, therefore, felt anxious to restrict the fortifications and the number of guns of position as much as possible, that, if evacuated, everything valuable might be easily removed."[6]

General Barnard then made the following recommendations regarding the fortifications at Harpers Ferry:

1. Loudoun Heights: "...I examined Loudoun Heights very carefully, riding over every point where there seemed any possibility of an enemy's planting artillery, and came to the conclusion that, under the artillery fire of Maryland Heights and Fort Duncan, it would be impracticable for

6. Barnard to Kelton, May 5, 1863, Vol. XXV, Part II, p.424.

an enemy to plant artillery upon them..."[7] No additional fortifications were thus to be erected on Loudoun Heights.

2. Bolivar Heights: "...The position of Bolivar Heights is too extensive to be held by us, and it is enfiladed by the guns of Fort Duncan, and, taken obliquely by the guns of the 30-pounder battery (Battery H on Map III), an enemy cannot occupy it with his artillery."[8] Again, no additional fortifications were recommended for this position.

3. Camp Hill: "The line actually fortified on the Harper's Ferry heights is, I think, excellent. It can be held by one regiment. It should be put in good condition, and a platform and embrasure prepared on each flank of the bastioned trace, to run in a field gun, if required. On the right flank (B on Map III), riflepits should be extended, so as to see down the steep slope to the river, and a place for a field gun should be prepared either on the bank or at the foot of the slope, for a gun to sweep the road and the railroad. On the left flank (A on Map III), likewise, there should be an emplacement for two field guns to sweep the Winchester road and railroad.

With these precaustions, and the northern side of the Potomac held in a proper manner, it will be almost impossible to attack this line."[9]

4. Northern Shore of the Potomac: "The key-points to the defense of Harper's Ferry are Maryland Heights and Fort Duncan, and on the former particularly depends the defense. The most practicable line of attack is from the north. The enemy will first attack the summit of the mountain,

7. Barnard to Kelton, May 5, 1863, Vol. XXV, Part II, p.424.

8. Ibid.

9. Ibid.

either from Solomon's Gap (see Map III), or by ascending the lateral slopes of the mountain north of us, and then advance, deploying and endeavoring to turn the flanks of our position. I cannot regard the present arrangements as altogether adequate. All the artillery fire is confined to the crest of the mountain. There is no flanking fire to sweep the point of our lines of rifle-pits (at F on Map III), around and over which the enemy would try to force his way. The citadel (the Stone Fort) does well enough as a keep, but should not have been the sole support of the rifle-pits (at F).

All that portion of the double line of rifle-pits on the highest part (at E) (as pointed out to you) should have been made a fort, and the extension of the pits to the left (west) should have been somewhat retired, so as to be thoroughly flanked by the fort. This idea should be carried out now by converting the space (at F) into a fort, raising the parapet (thick enough, probably), making a ditch. In the northwest angle of this work there should be a howitzer to flank the ground in front of the rifle-pits on the left, and on the west face there should be a 30-pounder Parrott gun (at E) to command the plain between the mountain and the Potomac.

"I cannot say positively whether the rifle-pits should be extended farther to the left than they now extend, but, if not, it must be made certain that the ground is so impracticable, either naturally or by aid of the fallen timber, that they cannot be turned. As none of the guns not in position see this ground, and it may not be possible to see it from the fort, there should be places prepared for one or two howitzers. The woods down the left (west) slope of the mountain should be felled as far in advance as pointed out. The citadel (Stone Fort) should be finished according to design."[10]

10. Barnard to Kelton, May 5, 1863, Vol. XXV, Part II, p.424-425.

A. The Stone Fort: (For plan see next page) "It may be found easier to make the banquettes of timber than of earth. A gun in the angle of the northeast bastion at A would see the eastern slope of the mountain well. Another at B would see the same slopes south of the work, though perhaps a better place for the latter purpose would be the eminence 100 or 200 yards south of B. It is intended, I believe, in the design, to have a gun at C. The platform may be made.

"There should be a magazine inside this work, and a secure structure, to contain provisions and water-tanks. The magazine outside the citadel (Stone Fort) should have its doorway corrected or protected.

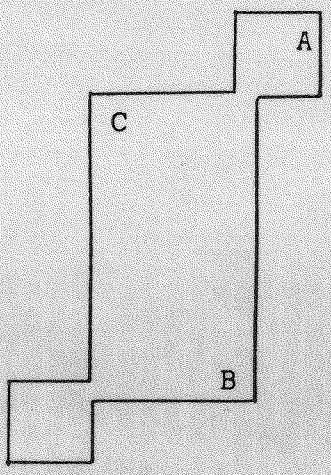
"In the right angle of the external fort (at F on Map III) (as I propose to make it) should be a platform for a 30-pounder Parrott, so arranged as to fire either to the front, on the capital, or into the valley from below.

"The plateau just below and on the right (east) of the stone fort should have rifle-pits arranged along its margin, so as to see the slopes of the mountain thoroughly in every direction. The timber on the E. (East) slope should be felled as far north as I point out, and south nearly to the Potomac. As it is, there would be danger of an enemy would find his way up the mountain between the stone fort and the 30-pounder battery (F on Map III). With the timber felled and kept on the ground, a very few men could defend this flank, if skillfully posted and vigilant. Should the timber ultimately be burned off, further arrangements may be necessary.

"In conjunction with the defense of the mountain, a half dozen disposable howitzers (mountain howitzers as good as anything probably) would

Official Records, I,
Vol. XXV, Part II
p.425

Brigadier-General J. G. Barnard's Plan of the Stone Fort on the Summit of Maryland Heights, May 5, 1863.



be desirable. I pointed out to you the numerous points where they might be required, but where it is not necessary to make any preliminary arrangements.

"As to water, it requires examination as to whether the present supply can be increased.

"I think the mountain ought to be tenable by 2,000 men, and that not more than 1,000 of them need depend on the spring which supplies the stone fort."[11]

B. The 30-pounder or Six Gun Battery (H on Map III): "This battery is well located, but it will be advantageous to have at least one gun at the higher point (G on Map III) we examined. It (at G) might be surrounded by a wall of sand-bags, and arranged to fire not only at Loudoun Heights but into either of the valleys east and west of Maryland Heights. The 24-pounder siege gun in this battery (the 30-pounder battery at H) is useless.

"The magazines (at H) should be adequately covered, or, more properly, have their doorways changed."[12]

C. The Naval Battery (I on Map III): "I attach very little importance to this battery at present. It operates principally upon the town (Harpers Ferry). It enfilades the railroad approach from the short tunnel (see Map III), and sees a portion of the railroad bridge.

The spur on the left (Proposed work, Battery K on Map III) of where the Sharpsbury road turns off from the river answers all these purposes equally well or better, and has a most excellent and close flanking fire upon the front of the lines I propose to hold west of the tower (Kenly's lines, as we called them). Whether this last point (Battery K) is

11 Ibid, pp 425-426.
12. Barnard to Kelton, May 5, 1863, Vol. XXV, Part II, p.426.

permanently occupied with guns or not, I think the site should be cleared and an earthern battery thrown up. I did not have time to study this matter so as to say what I would do if I had to execute the works, but my impression is that I would leave the two naval guns in the naval battery (at H) simply under guard; move the 24-pounder siege gun from it, and the 24-pounder siege gun from the 30-pounder battery (at G) to the point I speak of (Battery K), and add to these two 10 or 20 pounder Parrotts."[13]

D. Fort Duncan (for Barnard's plans of this fort, see next page):

"Fort Duncan.Is a most important work. It is liable to be subjected to a powerful converging artillery fire from the other shore of the Potomac, but its superior elevation shelters it in some degree from its effects.

"It requires emplacements for a numerous battery, and which do not seem to have been at all contemplated in the design. In this connection I also remark that nothing is gained (except more room) in putting the battery intended to operate on Bolivar Heights outside of the fort (in Battery A on Map No. III). Most of the guns of this battery (A) are subjected to an enfilade fire from the other shore, from which it is extremely difficult to protect them. I would bring four of those 30-pounders (in Battery A) into the work (Fort Duncan), providing siege platforms (14 feet wide), with embrasures of 60 degrees flare (at angles still more, the angle being coupéed).

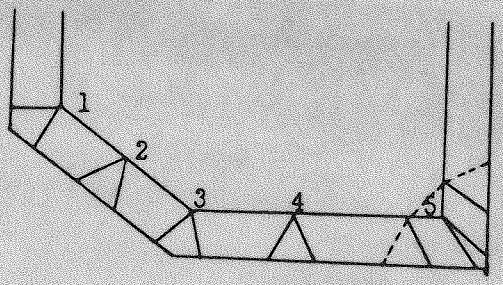
"At 2 (see Barnard's Plan of Fort Duncan, No. 4) is at present a platform and embrasure for a field gun. By coupéing it and cutting the embrasures, as represented by the dotted line, a fifth gun might be put here; but while it might be well to arrange the place for it, I would only

13. Barnard to Kelton, May 5, 1863, Vol. XXV, Part II, p.426.

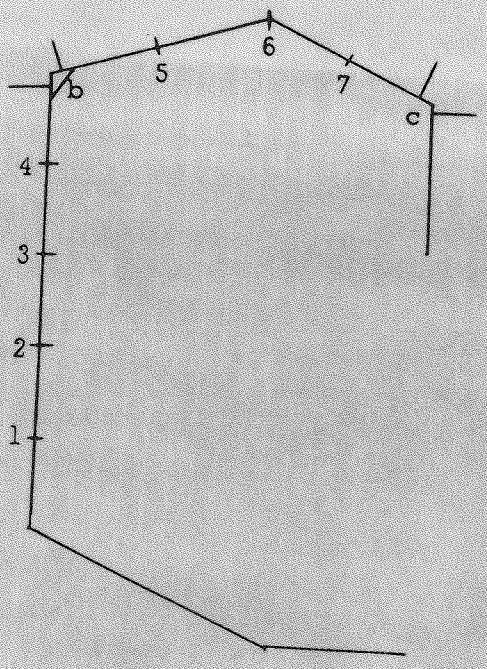
Official Records, I,
Vol. XXV, Part II
pp.426-427

Brigadier-General J. G. Barnard's Plans of
Fort Duncan, on Maryland side of the Potomac
Opposite Harpers Ferry, May 5, 1863.

PLAN A



PLAN B



place four guns (1, 2, 3, and 4) (Plan A), leaving two in the exterior battery (at A on Map III). On the western face I would arrange platforms for four field guns (1, 2, 3, 4) (Plan B). Embrasures' flare, 60 degrees; platforms, 12 feet wide.

"At b and c (on Plan B), take down the board revetment of the embrasure, and increase the flare, and revet with gabions or Burnettized sandbags.

"At 5, 6, 7 (on Plan B), provide platforms for three more field guns. Stop up the postern on this west face.

"On the east face of the work I would provide platforms and embrasures for three or four more field guns.

"Besides the four 30-pounder Parrotts I propose to put in the work, I would call for nine more guns, viz, seven 20-pounder (or 10-pounder) Parrotts, and two 12-pounder howitzers.

"The other platforms to be left vacant. The banquettes should be carefully extended up to the guns, so as to preserve all the infantry fire possible. The platforms of the guns should be 5 feet 6 inches to 6 feet below the crest.

"The two boat howitzers now in the exterior battery (at A) should be arranged in the western end of that battery, as I suggested, or, perhaps better, in a work immediately west (north of Battery J?) of the fort, so as to flank the slopes and see down to the river.

"The counterscarp of Fort Duncan should have a good abatis. At present the enemy can follow unseen the canal tow-path from the north, surround Fort Duncan, and assault it on all sides at once.

"The timber on the slopes toward the river, and in the ravine to the

north and east, should be felled, a battery and rifle-pits established to sweep the ravine somewhere about the locality we examined for that purpose (probably at Battery E), and rifle-pits to the north of the fort to see down to the river and into the ravine (probably at Battery D). The matter requires careful study."[14]

E. The Barnard Lines: (Batteries B, C, D, and E on Map III).

"To support Fort Duncan, maintain our communications with it, guard the western slopes of Maryland Heights, and protect the batteries on their southern slopes, there ought to be at least two works between Fort Duncan and the foot of Maryland Heights (see Batteries B, C, and D on Map III). The points selected by us are well adapted for works. They should be something approaching to square or pentangular redoubts of about 100 yards' side (if square), each having about four field guns and well abatised.

It might, perhaps, be better instead of one work on the right (at D) to put two smaller works, with open gorges, on the two points we examined (the stubblefield and the wheat field), and sustain them by a stronger work on the higher point in the rear.

"It might also be well, should the point on the river near the Sharpsburg road be occupied as a battery (Battery K on Map III), to make that an inclosed work."[15]

"With these arrangements carried out, Harper's Ferry ought, with a garrison of 8,000 men, to sustain itself against a large army, and, with half that force, to be secure against any minor attacks. The most important things, however, are the perfecting the defenses of Maryland Heights

14. Barnard to Kelton, May 5, 1863, Vol. XXV, Part II, p.426-427

15. Ibid., p.427.

and completing Fort Duncan.

"If the Sixth New York Artillery could be assigned to the work of completing these defenses, with the understanding they should garrison them, it would be a good arrangement. They would all be ultimately needed, or, at least, well employed in the artillery service of the different forts. Unless you can get some permanent assignments of troops or employ a force of hired laborers, I do not hope you can make much progress. But if you can do nothing else, complete Maryland Heights, and put up immediately the banquettes at Fort Duncan, and get some guns in the work.

"...The upper courses of boards of the interior slope revetment at Fort Duncan should come off. The front line of rifle-pits at the stone fort (F on Map III) should have an abatis, that is, the fallen timber arranged in its front, in all those parts where the ground is passable. On the mountain spur, on its left (Spur Battery E on Map III), an earth battery (which need not be permanently armed) would be well located to flank our defensive line to Fort Duncan..."[16]

The final plans, as drawn by General Barnard, thus called for a garrison of 8,000 men to defend the fortifications on Maryland Heights; a few minor additions were to be made to the works on Camp Hill, and the major additions were to be made to the fortifications on Maryland Heights.

16. Barnard to Kelton, May 5, 1863, Vol. XXV, Part II, pp.427-428.

CHAPTER VI

THE FORTIFICATIONS COMPLETED ON MARYLAND HEIGHTS, JUNE 15 - 27, 1863

In June, 1863, the Confederate Army, led by Robert E. Lee, began its sweep up the Shenandoah Valley that was ultimately to take that army North to Gettysburg on July 1-4.

On the morning of June 15, at about 6 a.m., Brigadier General Daniel Tyler, of the U.S. Volunteers, arrived at Harpers Ferry with the Federal troops that had retreated from Martinsburg the day before. At about 10 a.m., Major General Robert C. Schenck, commanding the 8th Army Corps at Baltimore, telegraphed General Tyler to take command of the troops in and around Harpers Ferry, thereby relieving Brigadier General Benjamin F. Kelley of the command of that post which he had held since January, 1863.

About noon on June 15th, fugitives from General Milroy's command at Winchester began to arrive at Harpers Ferry, with information that General Ewell was in pursuit, and that there was a fair prospect that Harper's Ferry would be attacked.

"As a personal inspection would best post me up as to the condition of things," General Tyler reported, "I began on the Harper's Ferry side, and found Kenly's brigade-consisting of two regiments of infantry and one light battery; in all, 900 men-posted on Bolivar Heights. I also found that all the military subsistence, ammunition, &c., were exposed on the Virginia side, in Harper's Ferry. I found, on the Maryland side, Brigadier General Morris' brigade, consisting of parts of two artillery and one infantry regiment, one light battery, and Cole's Cavalry, in all 2,200 men, thus making the entire force in and around Harper's Ferry 3,100 men, irrespective

of the disorganized forces which came in from Martinsburg and Winchester on June 15 and 16, amounting to 3,300 men..."[1]

"My personal examination on the 15th had satisfied me that the defenses on the Maryland side had been sadly neglected, and were not in a condition to respond to the expectations of the Government, and that a couple of good regiments approaching the heights by way of Pleasant Valley and striking the ridge 2½ miles (at Solomon's Gap) from the howitzer battery, (at F on Map III) so called, near the stone fort (the main defense of Maryland Heights), could by a sudden and determined attack, carry the battery, and consequently control the entire position. At this time the entire force on Maryland Heights was composed of six companies of 14th Massachusetts Artillery, 486 men, aggregate, manning the guns, and two companies of the 6th New York Artillery, 130 men, acting as infantry. These forces were divided between the howitzer battery (at F on Map III), looking down the ridge toward Pleasant Valley, and the naval battery (either battery H or I on Map III), so called, which looked toward Loudoun Heights, and with its guns covered Harper's Ferry and partially Bolivar Heights.

"At this time, June 15, the timber in front of the stone fort and the howitzer battery (at F) had been only partially felled, and an enemy would in almost any direction have been covered to within 300 or 400 yards of the guns, and no rifle-pits or breastworks for infantry supports had been constructed. On the plateau under Maryland Heights, and situated immediately on the river bank, Fort Duncan, although not completed, had some eight guns

1. Report of Brig. Gen. of Volunteers Dan. Tyler to Lt. Col. Donn Piatt, Chief of Staff, 8th Army Corps, July 1, 1863, Vol. XXVII, Part II, pp.19-20. For organization of Kenly's and Morris' Brigades, see Appendix I of this report, return for May 31, 1863.

mounted, and manned by the 6th New York Artillery, and was intended to cover Bolivar Heights, on the Virginia shore, and also the approach to Maryland Heights from an enemy descending the river bank of the Potomac on the Maryland side. The distance from Fort Duncan across the plateau to the base of Maryland Heights is about three-quarters of a mile, over a nearly level plain, and this interval was covered by Morris' brigade, without intrenchments or rifle-pits...

"The position of the defenses [on June 15] satisfied me that more engineering skill was required, and that there was much work to be done, and I immediately telegraphed for Colonel Raynolds, U.S. Engineers..."[2]

Col. William F. Raynolds, Chief Engineer of the 8th Army Corps, received verbal order at 5 p.m. on June 15 from Major General Schenck, at Baltimore, to report to Harpers Ferry. Col. Raynolds arrived at that place at 11 p.m. on the 15th and finding that General Tyler had removed his headqucrters to Maryland Heights, reported his arrival by letter.

"On the morning of the 16th," Col. Raynolds wrote, "I reported to General Tyler in person, and received his verbal order to take charge of the defenses..."

State of Fort Duncan, June 16, 1863: "About 2 miles above the mouth of the Shenandoah, the Potomac suddenly changes its course from south to east. In the bend thus formed, stands a knoll, rising about 300 feet above the river. The summit of this knoll was occupied by a redoubt called Fort Duncan, and intended only for infantry. About 250 yards south of Fort Duncan was a battery of six 30-pounder Parrott guns [at Battery A on Map III], facing

2. Report of Brig. Gen. of Volunteers Dan. Tyler to Lt. Col. Donn Piatt, Chief of Staff, 8th Army Corps, July 1, 1863, Vol. XXVII, Part II, pp.20-21.

to the south and flanking perfectly the west face of Bolivar Heights. It was, however, of no use to oppose an attack from the north."

State of Stone Fort, June 16, 1863: "Maryland Heights proper is a mountain range, 1,100 feet high, running nearly north and south, and ending in an almost perpendicular cliff opposite the mouth of the Shenandoah. About one mile from the Potomac, and at the highest point of the mountain, a double line of rifle-pits (at F on Map III) had been thrown across the crest of the ridge, extending well down on the west slope, the eastern slope at this point being very steep for about 100 feet vertically. Between these rifle-pits, and on the crest a structure of dry masonry known as the stone fort had been built, 100 by 40 feet, with two square bastions, the wall being from 4½ to 7 feet in thickness. Using the northern rifle-pit as a parapet (at F, Map III), seven light guns, principally howitzers, had been placed in position, raking the crest of the mountain to the northward. This was the only preparation that has been made to resist an attack from that side (the north)."

State of 30-Pounder Battery and Naval Battery, June 16, 1863: "Near the southern end of Maryland Heights, and 300 feet below the highest point, was a well-constructed battery, (at H, Map III) mounting six 30-pounder Parrott guns and two 24-pounder guns. This battery, known as the 30-pounder battery, commanded perfectly the summit of Loudoun Heights opposite, as well as Bolivar Heights. On the western slope of Maryland Heights, about half way to the summit and near the river, was the naval battery (at I, Map III), consisting of two 100-pounders and two 50-pounder Dahlgren guns and two 24-pounder guns. This battery also commanded Bolivar Heights and imperfectly the railroad bridge and the river front of Harper's Ferry."

State of Ground Cover, Maryland Heights, June 16, 1863: "The timber on the crest of Maryland Heights had been cut from a point about 800 yards north of the stone fort (south) to the 30-pounder battery (at H, Map III), and on the west slope of the mountain from the stone fort south nearly to the Potomac.

"It will be observed that all the defenses, with the exception of the battery on the crest of Maryland Heights (at F, Map III), had been made with a view of an attack from the south or across the Potomac, while the river itself at most seasons of the year afforded an almost impassable barrier, thus making it evident that the most feasible point of attack was from the north. The problem, therefore, to be solved was to change the defenses so as to make them effective against an attack from that direction and at the same time not to weaken the defense from the south."[3]

From these narratives it is clear that not much progress had been made in developing the defenses in the period May 5 to June 15, 1863, But General Barnard's plans were now to be carried into effect by Col. Raynolds.

Improvement of the Maryland Heights Defenses, June 16-27, 1863: "The work of strengthening Fort Duncan," Col. Raynolds stated, "and removing the guns from the battery south of it (from Battery A, Map III) and mounting them in the fort, so as to be used either to the north or south, was in a good state of progress June 16. This was the only change that had been made in the defense up to that time. From the stone fort to Fort Duncan there is a well-defined crest (marked by Batteries B, C, and D, Map III), separating the water flowing into the Potomac above the bend at Fort Duncan from that

3. Report of Col. Wm. F. Raynolds, Chief Engr., 8th Army Corps, to Maj. General Robert C. Schenck, commanding 8th Army Corps, August 11, 1863, Vol. XXVII, Part II, pp.13-14.

flowing into it below. This crest it was determined to make the line of defense. It offers the advantage of affording no shelter for an enemy to enable him to turn the line, and compels a direct attack in front. As soon as the men could be gotten to work after my arrival, I commenced throwing up a field-work for six guns about the middle of this line of defense (at Battery C, Map III). Two other works were also commenced, one on the left near Fort Duncan (at Battery B, Map III), and the second on the right at the foot of Maryland Heights (Battery D, Map III). These works were so located as perfectly to command the gullies leading up from the river and to give a cross-fire over the whole line. About half way up Maryland Heights and above the right field-work (Battery D) is a plateau which affords a good position (at Battery E, the Spur battery) for flanking the west slope of the Heights, and also for enfilading a ravine that extends in front of the line of defense (Batteries D, C, and B). A 50-pounder Dahlgren gun was taken from the naval battery (at A) and put in position (at E) to effect both these objects. It can also be turned and used against Bolivar Heights, if required. A line of stone breastworks or rifle-pits (made by filling a crib-work of logs with stone) has been built along the northern edge of this plateau (points E to F, Map III), which, in connection with the rifle-pits extending down from the summit (at F), renders the west slope of the mountain safe against almost every attack. That portion of the north rifle-pits near the stone fort (at F), which is on the summit of the mountain (a distance of about 100 yards), is being raised and strengthened, so as to form a strong parapet 9 or 10 feet in height, and the guns mounted in embrasure instead of barbette. One of the 30-pounder Parrott guns from the 30-pounder battery (at H) has been mounted here (at F). Temporary banquettes

(A raised way along the inside of a parapet or trench for gunners) have been placed in the stone fort, so as to use it as a citadel, from which to drive out the enemy even should he get possession of the battery.

"The eastern face of Maryland Heights is very steep and difficult of ascent at every point of the crest from the stone fort to the 30-pounder battery (at E) that affords the least facility for the approach of the enemy. Stone breastworks or rifle-pits have been constructed (between the Stone Fort south to Battery E), and seven light field guns have been distributed along the crest, at points from which they have a raking fire on the mountain side. About 600 yards to the south of the stone fort (at G, Map III), on a narrow point in the crest, a platform has been erected, and a 100-pounder Dahlgren gun (the heavy guns were moved up by Major Rofle, of the 14th Massachusetts Artillery) from the naval battery (at D) mounted. This gun has a field of fire of 360 degrees. It can be used with effect against enemy ascending either slope of the mountain in Pleasant Valley, on Loudoun or Bolivar Heights, or in Fort Duncan, and a single shot from it would render the stone fort untenable. It is the key to the position, and is rendered safe by the support it receives from the battery (F) at the stone fort, the almost inaccessible slopes of Maryland Heights on the east and the guns distributed along the crest, and the rifle-pits which have been built (between F and E) to prevent an enemy ascending them.

"Fort Duncan is on the left of our line of defense. This work has been strengthened and the guns from the battery (A) south of it placed in it. There should be nine additional guns in this work to give it a full armament to resist an attack from all sides. The embrasures and the platforms have been erected, so that the guns now in the work can be used as

occasion may require. The guns from Fort Duncan, in connection with the 50-pounder on the spur (at E) and the batteries already mentioned, give a double-cross fire in front of our line of defense. On a spur to the north of Fort Duncan (Battery J, Map III) a light work has been thrown up for two guns to enfilade the canal and tow-path to the north, and to prevent the enemy turning the left flank of our line. The whole of the line of defense from the work at the foot of Maryland Heights (Batteries D, C, to B) to Fort Duncan has been occupied with a line of rifle-pits, and it is believed that if the works are completed, fully armed and manned, and the men do their duty, they will be able to resist almost any assault that may be made against them.

"Although a great deal of timber had been cut down on Maryland Heights, yet a much larger amount remained that gave cover for an enemy. All the axes that could be procured, some 600, were set to work cutting down all timber within 1,500 yards of our line of defense, or on the eastern slope of Maryland Heights.

In order to supply the place of the guns taken from the naval battery (at I), I proposed to throw up a battery on the river bluff (Battery K) just west of the Sharpsburg road. This work was being laid out on June 27. If completed and armed, it will perfectly command the railroad bridge across the Potomac, the pontoon bridge above the dam, the whole plain on which the village of Bolivar stands, and the right bank of the Potomac from the mouth of the Shenandoah to where the Baltimore and Ohio Railroad leaves the river.

"General Tyler was relieved by General French June 27 (sic-June 26).

"On the 28th, General French ordered the work on the defenses to be suspended for the day..." Colonel Raynolds left Harpers Ferry and did not return.

"The amount of labor performed from June 16 to 27, inclusive," Col. Raynolds reported, "while General Tyler was in command, was immense, considering the difficulties under which we labored. The supply of intrenching implements was wholly inadequate to the emergency. They could only be procured from Baltimore, and railroad communication was irregular and for a time interrupted. The greater part of the command had just made forced marches from Winchester and Martinsburg, and they were worn out and unfit for work. The post was in constant state of alarm, and daily under arms in line of battle, expecting an attack. Notwithstanding these hinderances, the works were sufficiently advanced to have made a good defense. As they progressed the spirits of the men revived, and instead of gloom and despondency, hope and confidence prevailed, and I believe I am within the truth when I say on June 27 the post would have resisted the attack of an army five times stronger than would have captured it on the 16th..." Col. Reynolds was assited in this construction by Captain William Penn Gaskill and his company of volunteer engineers.[4]

Brigadier-General Tyler conducts the Defense, June 16-27

As a result of his inspection of the situation at Harper's Ferry on June 15, General Tyler was "satisfied...that the entire force should, as soon as possible, be removed to the Maryland side, and not a moment was to be lost in removing all the military supplies, hospitals, &c., from the Virginia side, placing them under the protection of Maryland Heights; and to effect this object every team was put into requisition and used exclusively for this purpose until the morning of the 17th, when the quartermaster, the

4. Report of Col. Wm. F. Raynolds, Chief Engr., 8th Army Corps, to Maj. Gen. Robert C. Schenck, commanding 8th Army Corps, August 11, 1863, Vol. XXVII, Part II, pp.14-16.

commissary, and ordnance officers reported all the stores safe on the Maryland side. So long as straggler's were coming in from Milroy's defeat, and the stores and supplies were on the Virginia side, it appeared to me injudicious to remove Kenly's brigade (900 men, stationed on Bolivar Heights), although it was exposed to be cut off by the enemy; but the moment these two objects were measurably attained (on the evening of the 16th), I ordered General Kenly (with his brigade)...to take post on Maryland Heights, and at the same time gave orders that the pontoon bridge across the Potomac near Bolivar Heights should be so disposed of as to render it practicable at any moment to swing it in on the Maryland side, and at the same time to render the railroad bridge at the Ferry impassable. These dispositions effectually relieved me from any care on the Virginia side, and left the entire force applicable to the Maryland shore, which presented the only points from which the ford and crossing of the Potomac at Harper's Ferry could be protected and maintained."[5]

On June 16th, General Tyler also had Captain Gaskill remove the planks from the suspension bridge over the Shenandoah.[6]

Orders were issued on the 16th "brigading the entire command into three brigades of infantry and one of cavalry; the last was done in consequence of the cavalry being made up of detachments from five regiments, although the entire force (of cavlry) will be less than 1,000. The infantry brigades were assigned to Brigadier-Generals Kenly, Elliott, and Morris, and the cavalry to Colonel McReynolds, 1st New York Cavalry... General

5. Report of Brig. Gen. Daniel Tyler to Lt. Col. Donn Piatt, Chief of Staff, 8th Army Corps, July 1, 1863, Vol. XXVII, Part II, p.20.

6. General Order Book, Special Order No. 2, June 16, 1863, Reel 40, V.1, p.35.

Milroy's command, about 1,500 men, turned over to me (General Tyler) by Brig. Gen. Elliott... The entire force today in and around Harper's Ferry, including 1,500 of Milroy's men, amounted to 4,680 men... Ordered troops under arms at 2.30 o'clock to-morrow morning, to be prepared for an attack..."[7]

June 17..."Officers with instruments from Signal Corps reported, and were ordered to prepare a station on Maryland Heights (at the Stone Fort), and to report all changes and movements of rebel troops discovered in the Valley. Ordered a picket guard of 200 men, with a signal officer, to take a post three miles to the front, on the Maryland Heights ridge, at a point where the Pleasant Valley road leads on to the ridge (at Solomon's Gap), to prevent a surprise from that direction. Ordered a picket of 100 infantry and 20 cavalry in advance of the John Brown School-House, half way between Antietam and Fort Duncan. Detail for engineer duty, improving fortifications, throwing up earthworks, constructing rifle-pits, &c., 1,500 men. These men report to Col. W. F. Raynolds, U.S. Engineers, who has charge of the entire works. Two regiments (of infantry, the 138th Pennsylvania and 14th New Jersey, 1,700 men) arrived from the Relay House, and were assigned to Kenly's brigade. (All of Tyler's troops were concentrated over on Maryland Heights by the evening of June 17)... Troops ordered under arms at 3 o'clock to-morrow morning."[8]

7.

7. Vol. XXVII, Part II, p.22, Tyler's Journal of the Command, June 15-26, 1863; For organization of brigades see Appendix I, return for June 30, 1863.

8. Vol. XXVII, Part II, Journal of command, June 15-16, 1863, pp.22-23; Location of signal station in General Order Book, Circular, June 22, 1863, Reel 40, V.1, pp.14-15; Strength of two regiments, Vol. XXVII, Part II, p.20; Engineering details, see also General Order Book, Special Orders No. 3, XIII, XIV, June 17, 1863, Reel 40, Vol. 1. p.39; Names of Regiments, Maj. Wm. Este to Tyler, June 16, 1863-8:30 p.m., Vol. XXVII, Part III, p.156.

"June 18...Engineer detail to-day 1,500 men, and all the troops were engaged in throwing up breastworks, constructing rifle-pits, and in the immediate forts. Found great deficiency in intrenching tools, axes, &c.; telegraphed to the quartermaster in Baltimore for them; borrowed all I could from the Baltimore and Ohio Railroad; ordered more provisions on to Maryland Heights, and directed the means to obtain water there to be attended to and increased. Not satisfied with the outer infantry pickets, and ordered a dozen cavalry to each picket. Troops were ordered under arms at 3 a.m. to-morrow."[9]

"June 19...The entire force engaged in strengthening the defenses, which have assumed an improved form. Colonel Raynolds is industrious as well as skillful, and if we are let along for a few days, we can hold the position against Lee's army. Weather bad for any benefit from the signal corps, but when it clears off we can from the station (at the Stone Fort) cover the country from Martinsburg to Williamsport pretty well, and all the country about Shepherdstown Ford perfectly. From information gleaned from the country people and our scouts, no (Confederate) force exceeding 8,000 to 10,000 men had crossed the Potomac. Maryland Heights is now good against this force..."[10]

"June 20...The entire command engaged, under direction of Colonel Raynolds, in improving the defenses, and making satisfactory progress..."[11]

"June 21...About sunset, one of our scouting parties returned, from

9. Vol. XXVII, Part II, p.23-Journal of command.

10. Ibid., p.24; Also Signal Station, General Order Book, Circular, June 20, 1863, Reel 40, V.1, p.8; Axes from Baltimore, Special Order No. 6, June 20, 1863, Reel 40, Vol. 1, p.45.

11. Vol. XXVII, Part II, p.25.

the neighborhood of Sharpsburg, and gave the first positive information that a large rebel force (estimated at 20,000 men) was moving on Hagerstown and in the direction of Pennsylvania. (At 10 p.m. this news was telegraphed to Major General Hooker, commanding the Army of the Potomac)...The entire command to-day occupied in throwing up intrenchments and sinking rifle-pits."[12]

"June 22...Occupied the entire day in inspecting the troops and fortifications; and, having become satisfied I could hold the place, telegraphed Major General Hooker ("I expect to hold Maryland Heights against any force that will be brought against it"). (General Tyler also requested that six more howitzers and axes be sent up to Harpers Ferry from Baltimore for use on the defenses of Maryland Heights.)... In view of the increased rebel forces in the vicinity, I called a meeting of the commanders of brigades at 8 p.m., and gave definite orders to each in case of an attack, and ordered the troops under arms at 3 a.m. to-morrow morning."[13] General Tyler's headquarters during an attack was to be at the Stone Fort.[14]

"June 23...It is apparent that the enemy is moving in force into Pennsylvania... (Tyler reports enemy movements telegraphed to Generals Hooker and Halleck)."[15]

"June 24...The weather to-day is clear; and at 9.30 a.m. received the following from the signal station...(large enemy wagons trains seem moving from Berryville through Charles Town to Shepardstown; news relayed to

12. Vol. XXVII, Part II, p.25.

General Halleck]... The defenses which for the last three days have been vigorously pushed are now in a condition to hold the place against any force that will be brought against it; but it is now almost sure that General Lee is not inclined to attack Maryland Heights..."[16] On June 24, 1863, Brigadier General Tyler had a total of 8,484 effective men for duty on Maryland Heights and 33 guns, consisting of 20 siege guns and 13 light pieces.[17]

"June 25...As it was apparent from the signal stations and also from prisoners captured that the enemy was moving toward Pennsylvania, a sharp lookout was kept... Today the [six 24-pounder] howitzers received from the Washington Arsenal were placed in position, and I consider the defenses so far completed that, with the force now here, Maryland Heights should be held against Lee's army. A few [eight] more 24-pounder howitzers would add to the defenses, and should be furnished at an early day.

"Jewett's brigade, from Heintzelman's corps arrived to-day, 1,700 strong [consisting of three small regiments and one light battery], with one light battery, two or three squadrons of cavalry, making the effective force for duty at 6 p.m. about 10,500 men. The arrival of Jewett's brigade increased the garrison to the maximum required for a good defense of the Maryland Heights, and the protection of the ford and bridge over the Potomac at Harper's Ferry. Ten thousand effective men will thoroughly cover the bank of the Potomac, the ground between Fort Duncan and Maryland Heights, so as to put it beyond the power of 20,000 men to carry the Heights by

16. Vol. XXVII, Part II, pp.27-28.

17. Vol. XXVII, Part III, p.38, Maj. Gen. R. C. Schenck, commanding 8th Army corps, to General-in-Chief Halleck, June 24, 1863-4.45 p.m.; also pp.301-303, and p.308.

assault. In the defense of the Maryland side, three light batteries are at this time appropriated, and will always be indispensable in case of an investment or attack."[18]

"June 26-With a clear atmosphere, we have this morning a capital view from the signal station of the whole country from Charlestown to Sharpsburg, and it is clear to my mind that the entire force of Lee's army has passed on toward Pennsylvania, and that the force discernible in the Valley is merely enough to guard the Shepherdstown Ford and the line of communication from Winchester to Sharpsburg... (On June 26, General Tyler informed the Secretary of War: "I can hold Maryland "eights")."

Major-General William H. French, U.S. Volunteers, arrived at Harpers Ferry on June 26, 1863, and assumed command of General Tyler's forces that day.[19]

18. Vol. XXVIII, Part II, p.20, 30-31; Howitzers-Vol. XXVII, Part III, Tyler to Schenck, June 19, 1863, p.34; Tyler to Schenck, June 24, 1863, 11:15 p.m., p.315, 339.

19. Vol. XXVII, Part II, pp.31-32; also Vol. XXVII, Part II, pp.291-292, Williams to French, June 24, 1863, orders to assume command.

CHAPTER VII

THE EVACUATION OF MARYLAND HEIGHTS, JUNE 30-JULY 19, 1863

Major General William H. French, commanding at Harpers Ferry, suspended work on the fortifications on Maryland Heights on June 28.[1]

On June 27, Major General George C. Meade replaced Major General Joseph Hooker as the commander of the Army of the Potomac.[2] On the morning of June 29, Meade "ordered the abandonment of Harper's Ferry," directing that "a detachement of not more than 3,000 (of the garrison at at Harpers Ferry were) to proceed with the property, by canal, to Washington, and strengthen your (Halleck's) forces there against any cavalry raid; the remainder (were) to move up and join me..."[3]

On June 30, Secretary of War Edwin M. Stanton informed Meade: "It is proper you should know that General French this morning evacuated Maryland Heights, blowing up his magazine, spiking large cannon, and destroying surplus stores. A telegram from him received this evening, indicates that he is still at Sandy Hook, waiting orders, and doubtful what he should do with his force..."[4] On the afternoon of July 1, General French notified Meade: "My column is just moving into camp (at Frederick, Md.)... Brigadier-General Elliott was left at Harper's Ferry (on Maryland Heights). He has about 4,000 men. I will march tomorrow (to join Meade)."[5] On July 5, in response to

1. Report of Col. Wm. F. Raynolds, Chief Engineer, 8th Army Corps, Aug. 11, 1863, Vol. XXVII, Part II, p.16.

2. Halleck to Hooker, June 27, 1863, Vol. XXVII, Part I, p.61.

3. Meade to Halleck, June 29, 1863, 11 a.m., Vol. XXVII, Part I, p.67; Danl. Butterfield, Maj-Gen., Chief of Staff, Army of Potomac, to Maj. Gen. French, June 29, 1863, Vol. XXVII, Part III, pp.401-402.

4. Stanton to Meade, June 30, 1863, 11:30 p.m., Vol. XXVII, Part I, p.69.

5. French to Meade, July 1, 1863, 5:30 p.m., Vol. XXVII, Part III, p.473.

orders received from General-in-Chief Halleck, General French sent an expedition back to Harpers Ferry, "where the enemy had floored the railroad bridge (across the Potomac), and was crossing the river in small detachments. Under the direction of Major (Henry A.) Cole, the trestle-work on each side of the bridge was destroyed; also the bridge over the canal."[6] The Union forces thus lost their only crossing over the Potomac.

On the evening of July 5, following the battle of Gettysburg, Major General Meade ordered French to secure possession of the South Mountain passes and Maryland Heights.[7] French issued the order to cover these moves on July 6.[8] At 11 a.m. on July 7, Brigadier General John R. Kenly re-occupied Maryland Heights, after a sharp skirmish, with his brigade.[9]

On the afternoon of July 14, Brigadier General Henry H. Naglee, then commanding at Maryland Heights, crossed the Potomac for the first time and re-occupied the town of Harpers Ferry and Bolivar Heights with one regiment.[10] On the 15th Federal artillery was placed on Bolivar Heights.[11]

6. French to Halleck, July 6, 1863, Vol. XXVII, Part III, p.572; also Report of Maj. Gen. Wm. H. French, commanding 3rd Army Corps, to Brig. Gen. S. Williams, Ass. Adjt. Gen., Army of Potomac, Oct. 1, 1863, Vol. XXVII, Part I, p.489.

7. Meade to Halleck, July 5, 1863, 6 p.m., Vol. XXVII, Part I, p.79; also Maj. Gen. Butterfield, Chief of Staff, Army of Potomac, to Maj. Gen. French, at Frederick, July 5, 1863, Vol. XXVII, Part II, p.539; Meade to Halleck, July 16, 1863, 10 p.m., Vol. XXVII, Part I, p.95.

8. French to Halleck, July 6, 1863, Vol. XXVII, Part III, P.572; General Order Book, General Order No. 2, July 6, 1863, E.40, V.1, p.31.

9. Kenly to Maj. Gen. French, July 7, 1863, 12 noon, Vol. XXVII, Part III, p.585.

10. Naglee to Gen. Humphreys, Chief of Staff, Army of Potomac, July 14, 1863, 2:15 p.m., Vol. XXVII, Part III, p.690.

11. Naglee to Humphreys, July 15, 1863, Vol. XXVII, Part II, p.703.

On the afternoon of July 14, the Federal forces completed their first pontoon bridge across the Potomac, situated at Harpers Ferry adjacent to the ruined railroad bridge (see Map III).[12] The suspension "wire Bridge" across the Shenandoah River was repaired on the morning of the 17th.[13]

General Meade now directed that the Army of the Potomac be concentrated along the Potomac River, ordering four corps to move to Berlin, Md., and three to Harpers Ferry on July 15.[14] On the morning of the 16th, the 2nd Army Corps, under command of Brigadier General William Hays, and the 3rd Army Corps, led by Major General William H. French, encamped at Pleasant Valley, Md., just across the Potomac from Harpers Ferry.[15] Later the same day, the 12th Army Corps also bivouacked in Pleasant Valley, about one mile from Sandy Hook, and Major General H. W. Slocum, commanding this corps, made his headquarters on Mr. Miller's Farm.[16]

On the 17th of July the 3rd Army Corps crossed both the Potomac and the Shenandoah, and encamped 1½ miles from the Shenandoah bridge, in Loudoun or Sweet Run Valley, near the road. General French's headquarters

12. I. Spaulding, Lt. Col. of Vol. Engrs., Sandy Hook, to Gen. H. W. Beham, Commanding Engr. Brigade, Wash., D.C., July 14, 1863, 3:15 p.m., Vol. XXVII, Part III, p.691, 688.

13. Brig. Gen. G. K. Warren, Sandy Hook, to Gen. Humphreys, July 15, 1863, 2 p.m., Vol. XXVIII, Part III, p.701, 718.

14. Meade to Halleck, July 15, 1863, 7 p.m., Vol. XXVII, Part I, p.94.

15. Maj. Gen. W. H. French to Maj. Gen. Humphreys, Chief of Staff, Army of Potomac, July 16, 1863, 10:30 a.m., Vol. XXVII, Part III, p.708, Circular, July 14, 1863 by S. Williams, Assistant Adjt. Gen., Army of Potomac, Vol. XXVII, Part III, p.695.

16. Maj. Gen. H. W. Slocum, commanding 12th Army Corps, To Maj. Gen. A. A. Humphreys, Chief of Staff, Army of Potomac, July 16, 1863, Vol. XXVII, Part III, p.710.

were located on the left-hand side and somewhat retired from the road.[17] On the 18th, the Second Army corps also crossed both rivers and moved up Loudoun Valley.[18] On the 19th, the 12th Army Corps followed the route of the other two corps, marched up Loudoun Valley and bivouacked near Hillsborough, about 8 miles from Harpers Ferry.[19]

Thus in the period July 16 to 19, 1863, the Army of the Potomac passed through Harpers Ferry for a second time in less than a year. As Major General Meade moved his army southward, he informed General-in-Chief Halleck; "I have left Brigadier-General Lockwood, with the Maryland troops recently under his command, added to the force previously under General Negley, making over 4,000 men in all, to hold Harper's Ferry..."[20] (The list of regiments comprising this garrison will be found in Appendix I of this report, under the date of July 31, 1863.)

Thus Harpers Ferry was again reduced to a garrison status and no evidence has been found to indicate that any major changes or additions were made to the fortifications of this town in the period July 19 to December 31, 1863. Union forces also retained undisputed possession of the town of Harpers Ferry from the 19th of July until the end of 1863.

20. Meade to Halleck, July 16, 1863, 7 p.m., Vol. XXVII, Part I, p.96.

17. French to Brig. Gen. Williams, July 17, 1863, 7:40 p.m., Vol. XXVII, Part III, p.715, for regiments comprising the 3rd Army Corps, see pp.798-799.

18. Vol. XXVII, Part III, p.715, 716; For organization of 2nd Army Corps, see pp.796-797.

19. Maj. Gen. H. W. Slocum, commanding 12th Army Corps, to Maj. Gen. A. A. Humphreys, July 19, 1863, p.m., Vol. XXVII, Part III, pp.724-725, 721. For the organization to the 12th Army Corps, see pp.803-804.

APPENDIX I

ORGANIZATION AND REGIMENTS SERVING AS THE FEDERAL GARRISONS OF HARPERS FERRY, JANUARY 1 TO JULY 31, 1863

Military
Troops in the Middle Department (or Eighth Army Corps), Maj. Gen. Robert C. Schenck, U.S. Army, commanding, January 31, 1863.

DEFENSES OF THE UPPER POTOMAC. (Headquarters at Harper's Ferry, W. Va.).

Brig. Gen. Benjamin F. Kelley, commanding.

Harper's Ferry, W. Va.

Brig. Gen. John R. Kenly.

1st Maryland, Col. Nathan T. Dushane.
4th Maryland, Lieut. Col. Richard N. Bowerman.
6th Maryland, Col. George R. Howard.
7th Maryland, Lieut. Col. Charles E. Phelps.
8th Maryland, Col. Andrew W. Denison.
1st Maryland Cavalry, Companies H and I, Maj. Charles H. Russell.
Maryland Battalion Potomac Home Brigade Cavalry, Maj. Henry A. Cole.
14th Pennsylvania Cavalry, Col. James N. Schoonmaker.
17th Indiana Battery, Capt. Milton L. Miner.
4th Maine Battery, Capt. O'Neil W. Robinson, Jr.
Baltimore (Maryland)Battery, Capt. Frederic W. Alexander.
14th Massachusetts Heavy Artillery (battalion), Maj. Frank A. Rolfe.
6th New York Heavy Artillery, Col. William H. Morris.

Defenses of Upper Potomac (all troops) Jan. 31, 1863	Present for duty Officers	Men	Total Present	Total present and absent
	980	20,580	23,955	27,949

Heavy artillery pieces 16; field artillery pieces-59

Vol. XXV, Part II, p.113-Abstract from return of the Middle Department (8th Army Corps) Maj. Gen. Robert C. Schenck commanding, for the month of February, 1863: Headquarters, Baltimore, Md.

	Present for duty Officers	Men	Total Present	Total present and absent
First Division, commanded by Brig. Gen. B. F. Kelley, HQs at Harpers Ferry.	718	13,980	17,243	19,215

Heavy Artillery-25 pieces; field pieces-38 guns.

Abstract from return of Middle Department, Maj. Gen. Robert C. Schenck, U.S. Army, commanding, for March 31, 1863; headquarters, Baltimore, Md.

	Present for duty		Total present	Total present and absent.
First Division (Kelley) at Harpers Ferry.	Officers	Men		
	563	12,198	14,945	16,560

Heavy artillery-25 pieces, field artillery-36 guns.

Note: From the 1st to the 11th March, Brig. Gen. B. F. Kelley commanded the troops in and around Harper's Ferry, Va., and the Defenses of the Upper Potomac and the line of the Baltimore and Ohio Railroad. On the 11th of March, he was relieved of this command, and assigned to the command of the Third Division, transferring his headquarters to Cumberland, Md.

Vol. XXV, Part II, p.321:-Abstract from consolidated morning report of Middle Department, 8th Army Corps, Maj. Gen. Robert C. Schenck, U.S. Army, commanding, for April 30, 1863; headquarters, Baltimore, MD.

First Division	Present fit for duty		Total present.	Total present and absent.
	Officers	Men		
	559	12,223	14,977	16,696

63 pieces of artillery.

O.R.S.I, Vol. XXV, Part II, pp.589-590.

Troops in the Middle Department, Eighth Army Corps, Major Gen. Robert C. Schenck, U.S. Army, commanding, May 31, 1863.

Troops, Union, at Harpers Ferry, May 31, 1863:

	Present for duty		Total Present	Total present & absent	Total last return
	Officers	Men			
First Division.....	578	11,817	14,816	16,202	16,663

First Division. (Headquarters at Harper's Ferry).

Brig. Gen. Benjamin F. Kelley.

First Brigade. (at Harpers Ferry & Winchester.

Brig. Gen. John R. Kenly.
1st Maryland, Col. Nathan T. Dushane.
4th Maryland, Col. R. N. Bowerman.
7th Maryland, Col. Edwin H. Webster.
8th Maryland, Col. Andrew W. Denison.
14th Pennsylvania Cavalry, Col. James N. Schoonmaker.
17th Indiana Battery, Capt. Milton L. Milner.

Second Brigade. at Maryland Heights and Point of Rocks.

Brig. Gen. William H. Morris.
5th Maryland, Col. William L. Schley.
1st Massachusetts Heavy Artillery (4 companies), Maj. Frank A. Rolfe.
6th New York Heavy Artillery, Col. J. Howard Kitching.
50th New York Engineers, Company C, Capt. W. V. Personius.
Pennsylvania Engineers (1 company), Capt. William Penn Gaskill.
4th Maine Battery, Capt. O'Neil W. Robinson, jr.

Third Brigade. at Charlestown, Kearneysville, Martinsburg, North Mountain, and Sir John's Run.

Col. Benjamin F. Smith.
126th Ohio, Lieut. Col. William H. Harlan.
106th New York, Lieut. Col. Frederick E. Embick.
15th West Virginia, Col. Maxwell McCaslin.
1st Maryland Cavalry, Potomac Home Brigade (4 companies), Maj. Henry A. Cole.
2nd Maryland Cavalry, Potomac Home Brigade, Company F, Capt. C. D. Summers.
West Virginia Battery (F), Capt. Thomas A. Maulsby.

Fourth Brigade, commanded by Col. Jacob M. Campbell, near Romney.

Fifth Brigade, commanded by Col. James A. Mulligan, at Cumberland and New Creek.

Sixth Brigade, commanded by Col. Nathan Wilkinson, at Grafton and Parkersburg.

O.R.S.I, Vol. XXVII, Part III, pp.444-445

June 30, 1863-Return of Union Troops at Maryland Heights

Elliott's command, Maryland Heights, Md.	Present for Duty		Aggregate present	Aggregate present & absent
	Officers	Men		
Elliott's brigade	121	1,865	2,141	2,635
Smith's brigade	57	1,135	1,237	1,548
Total	178	3,000	3,378	4,183
French's Division, at or near Frederick, Md.				
Kenly's brigade	141	2,176	2,500	3,105
W. H. Morris' brigade	134	2,846	3,173	3,589
Cavalry 900.....(not accounted for)				
Unassigned artillery	9	219	239	252
Lockwood's brigade	101	1,945	2,089	2,346
Total, including Elliott's command	563	10,186	11,379	13,475
plus Cavalry about 900.				

Elliott's Command, at Maryland Heights

Brig. Gen. Washington L. Elliott.

First Brigade.
(assigned to command June 19).
Brig. Gen. Washington L. Elliott.

6th Maryland, Col. John W. Horn.
110th Ohio, Col. J. Warren Keiger.
122nd Ohio, Col. William H. Ball.
67th Pennsylvania, Col. J. F. Staunton.
87th Pennsylvania, Col. J. W. Schall.
138th Pennsylvania, Col. Mathew R. McClennan.

Third Brigade, French's Division

Col. Benjamin F. Smith.

106th New York, Col. Edward C. James.
126th Ohio, Lieut. Col. William H. Harlan.

FRENCH'S DIVISION, at or near Frederick, Md.

Maj. Gen. William H. French.

Maryland Brigade.

Brig. Gen. John R. Kenly.

1st Maryland, Col. Nathan T. Dushane.
4th Maryland (9 companies) Col. Richard N. Bowerman.
7th Maryland (9 companies) Col. Edwin H. Webster.
8th Maryland, Col. Andrew W. Denison.
14th Massachusetts Heavy Artillery (4 companies) Maj. Frank A. Rolfe.
17th Indiana Battery, Capt. Milton L. Miner.

Third Provisional Brigade.

Brig. Gen. William H. Morris.

14th New Jersey, Col. William S. Truex.
6th New York Heavy Artillery, Col. J. Howard Kitching.
151st New York, Col. William Emerson.
10th Vermont, Lieut. Col. William W. Henry

O.R.S.I, Vol. XXVII, Part III, pp.444-445

Union Army at or near Harper's Ferry, June 30, 1863:

French's Division-Continued:

Cavalry (about 900).

Col. Andrew T. McReynolds.

The debris of Winchester.

Artillery

4th Maine Battery, Capt. O'Neil W. Robinson, jr.

10th Massachusetts Battery, Capt. J. Henry Sleeper.

*The Baltimore light Battery and Maulsby's battery (F, 1st West Virginia Artillery) detached to reorganize and refit.

Lockwood's Brigade.

Brig. Gen. Henry H. Lockwood.

1st Maryland Eastern Shore, Col. James Wallace.

1st Maryland Potomac Home Brigade, Col. William P. Maulsby.

150th New York, Col. John H. Ketcham.

Purnell (Maryland) Cavalry, Company A, Capt. Robert E. Duvall.

Abstract for return of the troops at Harper's Ferry, W. Va., Brig. Gen. Henry M. Naglee, U.S. Army, commanding, for July 10, 1863.

Command	Present for Duty		Total Present	Total present and absent.
	Officers	Men		
General Headquarters	5	0	5	5
Briggs' brigade, Brig. Gen. H. S. Briggs.	123	2,024	2,317	3,928
9th Maryland				
10th Maryland				
8th Massachusetts				
46th Massachusetts				
51st Massachusetts				
1st Connecticut Cavalry (detachment)				
Battery B, Maryland Artillery				
Battery H, 1st Pennsylvania Artillery				
Keystone Brigade, Brig. Gen. F. B. Spinola (left Harpers Ferry on July 11, to join the left wing of the Army of the Potomac).	95	1,496	1,679	2,231
158th Pennsylvania.				
168th Pennsylvania.				
171st Pennsylvania.				
43nd Massachusetts, Lieut. Col. John C. Whiton.	20	162	204	883
175th Pennsylvania, Col. Samuel A. Dyer.	32	473	508	627
6th Michigan Cavalry (detachment), Capt. C. W. Deane.	4	84	112	179
17th Indiana Battery, Capt. M. L. Miner.	3	90	94	101
Total:	282	4,329	4,919	7,954

Kenly's brigade left for the Army of the Potomac, July 10.

A detachment of the 50th New York Engineers (504 effectives), under Lieut. Col. Spaulding, are at Harpers Ferry; also a detachment of 87 men, under Lieut. John R. Meigs, with four railroad monitors (armored railroad cars).

Troops at Harper's Ferry, W. Va., Brig. Gen. Henry M. Naglee, U.S. Army, commanding, July 13, 1863.

First Brigade.

Col. George D. Wells.

34th Massachusetts, Lieut. Col. William S. Lincoln.
43rd Massachusetts, Lieut. Col. John C. Whiton.
175th Pennsylvania, Col. Samuel A. Dyer.
1st Connecticut Cavalry (detachment) Capt. Erasmus Blakeslee.
6th Michigan Cavalry (detachment), (Capt. C. W. Deane).
1st Pennsylvania Artillery, Battery C, Capt. Jeremiah McCarthy.

Second Brigade.

Col. Peter A. Porter.
9th Maryland, Lieut. Col. Benjamin L. Simpson.
10th Maryland, Col. William H. Revere, jr.
8th New York Heavy Artillery, Lieut. Col. Richard W. Bates.
17th Indiana Battery, Capt. Milton L. Miner.
Maryland Artillery, Battery B, Capt. Alonzo Snow.

Union Troops on Maryland Heights, July 31, 1863.
(General Lockwood's brigade arrived there by July 19, 1863, p.726).

MARYLAND HEIGHTS

Brig. Gen. Henry H. Lockwood.

First Brigade.

Col. George D. Wells.

34th Massachusetts, Lieut. Col. William S. Lincoln.
9th Maryland, Col. Benjamin L. Simpson.
10th Maryland, Col. William H. Revere, jr.
1st Connecticut Cavalry, Companies A, B and F.-Capt. Erastus Blakeslee
6th Michigan Cavalry, Companies I and M ——— " "
17th Indiana Battery, Capt. Milton L. Miner.
1st Pennsylvania Light Artillery, Battery C, Capt. Jeremiah McCarthy.

Second Brigade.

Col. William P. Maulsby.

1st Maryland Eastern Shore, Col. James Wallace.
1st Maryland Potomac Home Brigade, Maj. Roger E. Cook.
2nd Maryland Eastern Shore, Col. Robert S. Rodgers.
177th Pennsylvania, Col. George B. Wiestling.
Purnell Cavalry (Maryland) Company A, Capt. Robert E. Duvall.
Maryland Light artillery, Battery B, Capt. Alonzo Snow.

Unattached.

14th Massachusetts Heavy Artillery (four companies), Maj. Frank A. Rolfe.

page 814-from abstract from return of troops in the Department of the Susquehanna, Maj. Gen. D. N. Couch, U.S. Army, commanding, for the month of July, 1863; headquarters, Chambersburg, Pa.

Station and command	Present for duty			Total present and absent.
	Officers	Men	Total	
Maryland Heights (Lockwood)	225	4,536	5,242	6,163

Heavy artillery-0; Field artillery-22 pieces.

APPENDIX II

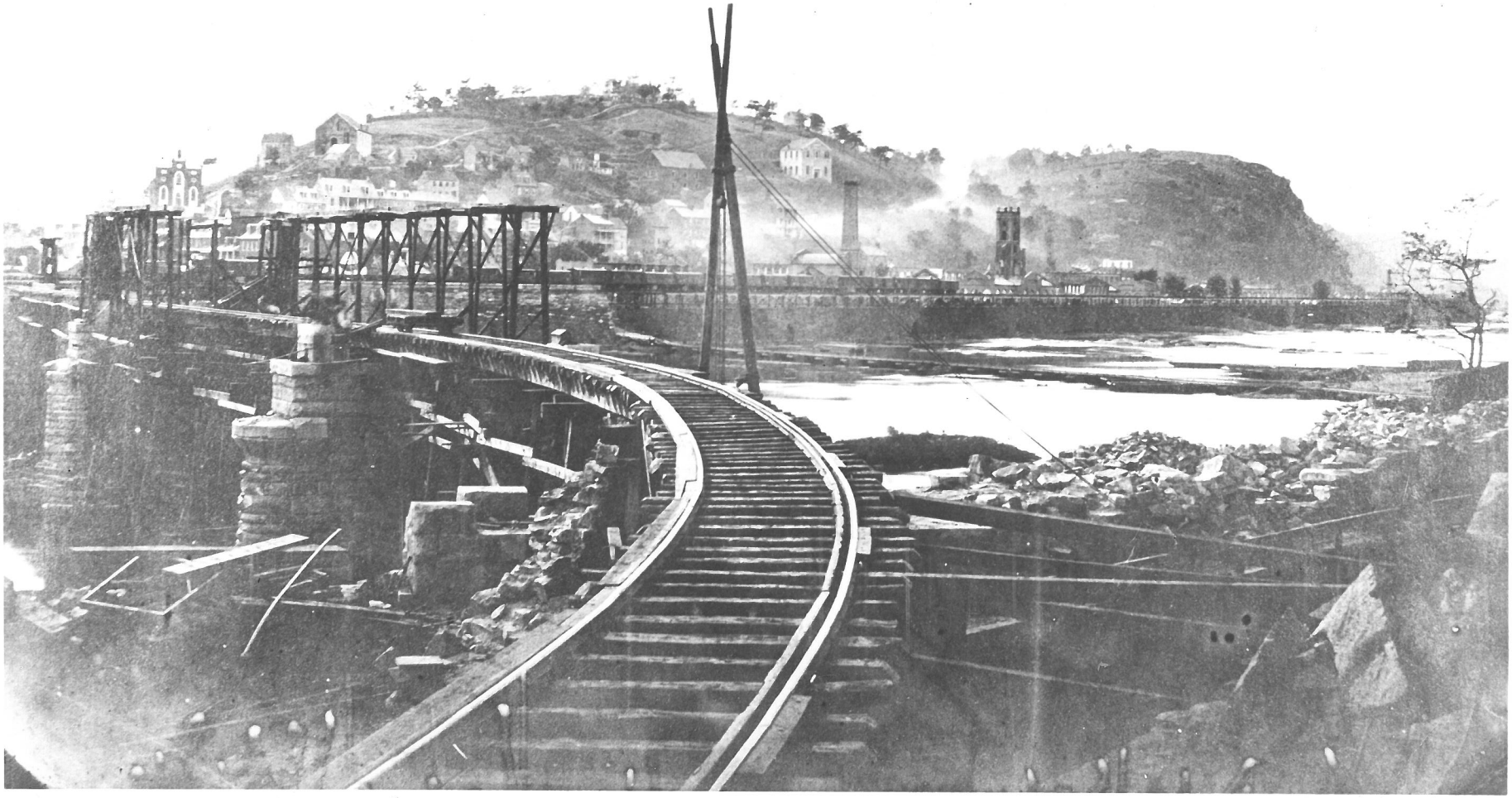
HISTORICAL PRINTS AND PHOTOGRAPHS SHOWING HARPERS FERRY IN THE PERIOD OCTOBER, 1862, TO DECEMBER 31, 1863

(Eight Photographs)

"Harper's Ferry, Virginia, 1862"

From the National Archives Still
Picture Section.
Harpers Ferry Negative No. HF-11.

This photo was made in October, 1862. To the left can be seen the damaged Baltimore and Ohio Railroad Bridge across the Potomac; just to the right, lies the pontoon bridge. Across the river lies the twice burned structures of the U.S. Musket Factory and the town of Harpers Ferry. The heights rising in the center are Camp Hill and that to the right is called Magazine Hill.



"Harper's Ferry, Va. - Ruins of Army Buildings, 1862"

From National Archives Still Picture Section.
Harpers Ferry Negative No. HF-10.

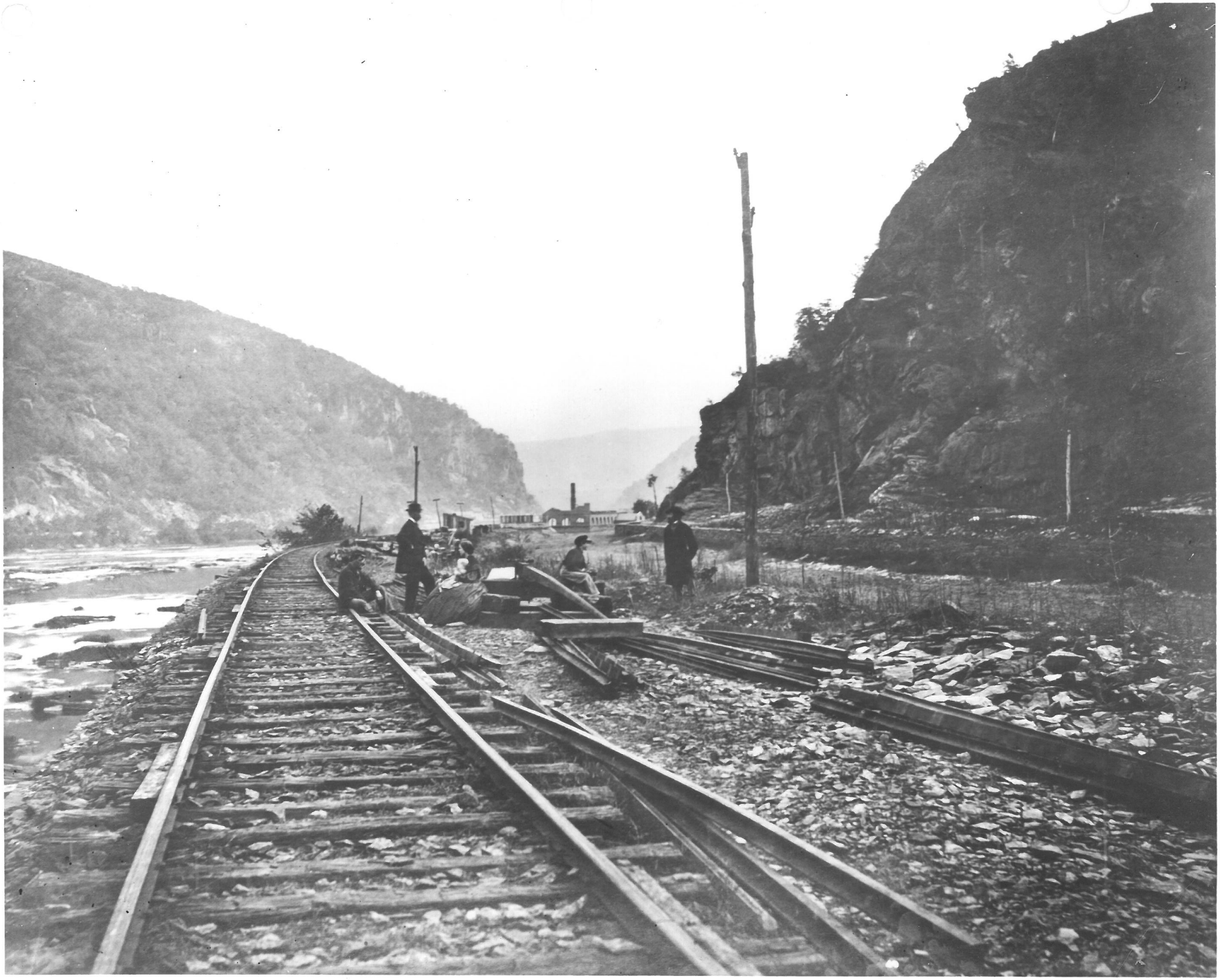
Photograph taken in October or November, 1862. Visible to the left are the buildings located at the west end of the U.S. Musket Factory. Above these, to the left, is the southern end of Maryland Heights. In the center is North Potomac Street, with the Musket Factory fence on its left side. The rear of Bldg. No. 9 can be seen in the far distance. Above this rises Loudoun Heights; note how the trees have been felled on the summit of that mountain.



"Harper's Ferry, Va., 1862 - Ruins of the Railroad Track"

From National Archives Still Picture Section.
Harpers Ferry Negative No. HF-9.

Photo taken in October, 1862. Armory buildings located at the west end of the Musket Factory yard can be seen in the distance. To the left of these is the Potomac River. The south end and west slope of Maryland Heights rises beyond the Potomac and to the left of the photo.



"Harper's Ferry, Va., 1862"

From National Archives Still
Picture Section.
Harpers Ferry Negative No. HF-14.

This photo, taken in October, 1862, shows Harpers Ferry in the far distance, lying down in the gap. The mountains to the left are Loudoun Heights, the Potomac lies in the center, bounded on the right by the C&O Canal and the B&O Railroad. The buildings and wagon train lie at Sandy Hook. The valley to the right is Pleasant Valley and beyond rises the east slope of Maryland Heights. On the summit, at the right edge, of the photo, trees have been felled around the Stone Fort. Also note the Union soldiers moving up the hill in the right foreground.



"Harper's Ferry, W. Va., View of Loudoun (Sic-Maryland) Heights"

From Library of Congress and also published in Miller, Francis T., Photographic History of the Civil War, N.Y., 1911, Vol. 2, p.325.
Harpers Ferry Negative No. HF-219.

This photo was taken by Brady, probably in July, 1863, from Camp Hill. Across the Potomac can be seen the south end and western slope of Maryland Heights. Note the roads and also how the summit and west slope of the mountain has been swept clear of trees.

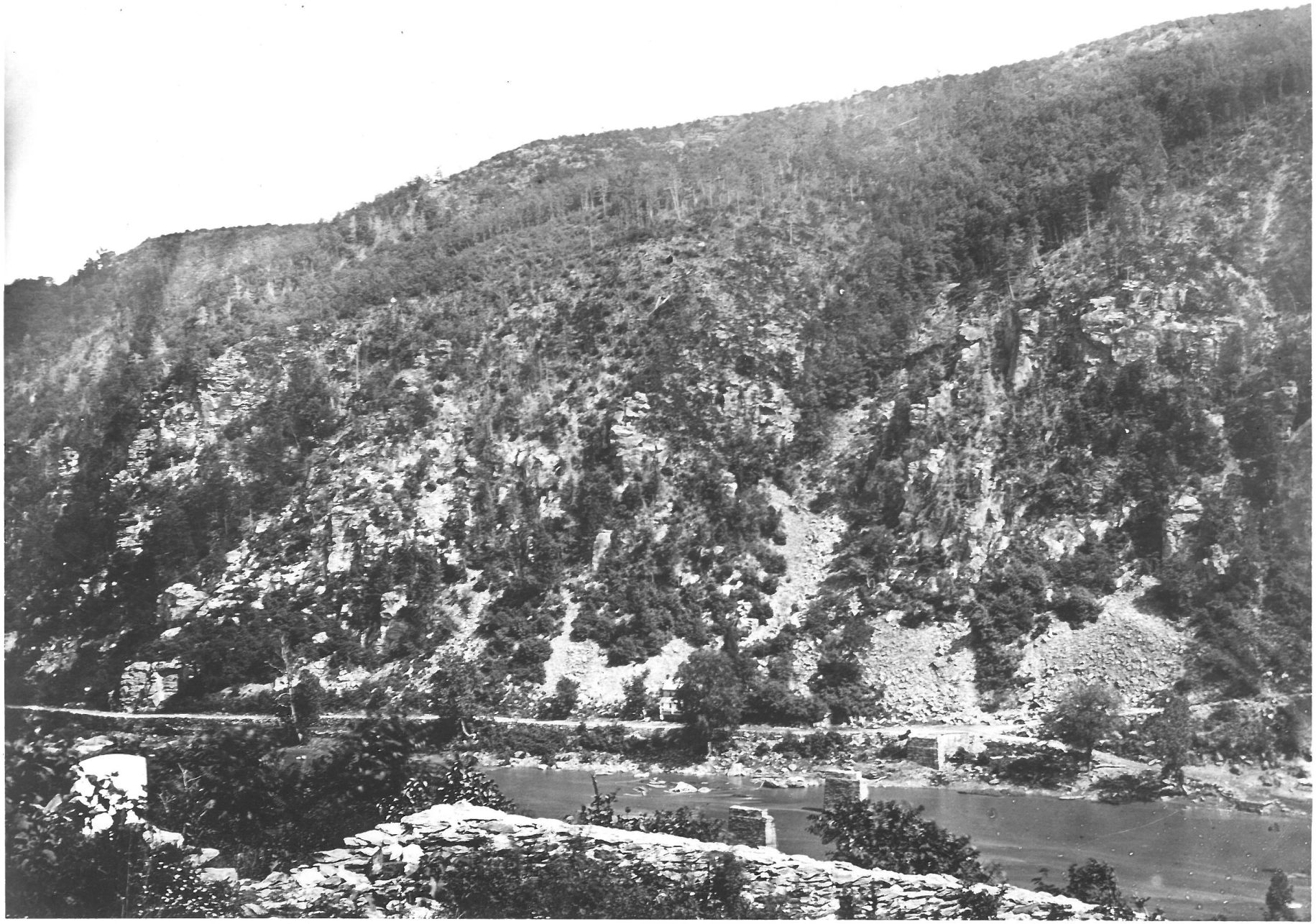


"Harper's Ferry, W. Va. - View of Loudoun Heights"

From Library of Congress; also published in
Miller's Photographic History of the Civil War,
N.Y., 1911, Vol. I, p.120 and mis-labelled
"Anthony Run."
Harpers Ferry Negative HF-26.

This view was taken Brady from Camp Hill and was probably made in July, 1863. The corner of the stonewall around the Harpers Graveyard can be seen in the center foreground. Below lies the Shenandoah River, with the stone piers of the burned covered bridge crossing the river. The Hillsborough turnpike roads leads from the piers to the left of the photo along the base of Loudoun Heights. Note how the forests have been felled on the summit and western slope of Loudoun Heights.

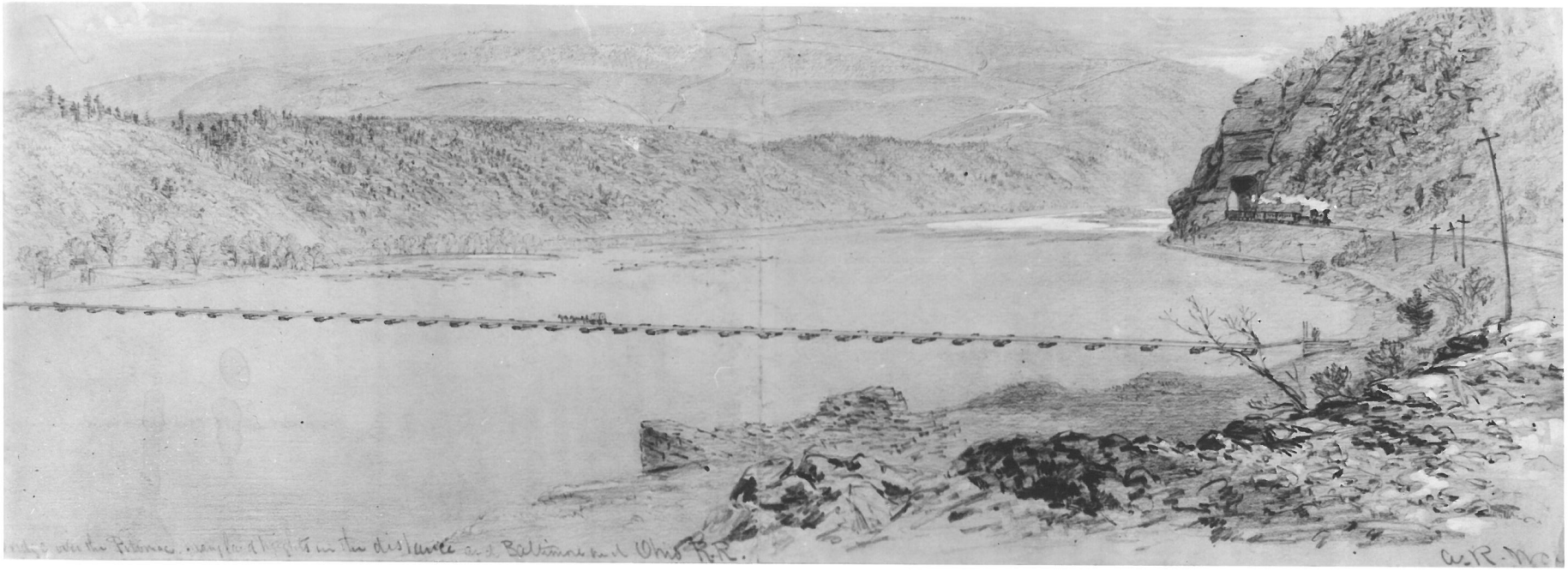
What may be a signal tower appears on the slope of the second rise from the left of the photo, on the summit of Loudoun Heights.



"Pontoon Bridge over the Potomac, Maryland Heights in the Distance and Baltimore and Ohio Railroad."

From the original sketch by A. R. Waud, in the Library of Congress.
Harpers Ferry Negative No. HF-210.

This drawing by Waud was probably made in July, 1863. To the right of the picture, with engine emerging is the short tunnel (see Map III). The pontoon bridge, located above the old U.S. Army dam, crosses the Potomac. On the left shore, just to the right of Maryland end of the bridge, is a feeder lock and house on the C&O Canal. Moving further to the right along the left river shore, is visible a portion of the New Armory dam extending part way into the river, with a line of trees by it. Beyond the river rises Maryland Heights. Note how the trees have been cleared from the west slope of the mountain, making the courses of the military roads plainly visible. Fort Duncan was located on the ridge or hill at the extreme left and just off the drawing.



"Harper's Ferry by Moonlight, December 18, 1863"

From original sketch by A. R. Waud, in Library of Congress.
Harpers Ferry Negative No. HF-259.

At the left of the picture is the south end of Maryland Heights, with the Potomac flowing at its base. In the far center, with the moon riding over its summit, is Loudoun Heights. To the right, with the Sentry, and tents on its slope, is Bolivar Heights, the right flank of the Union Line on these heights.

