



FORTRESS NASHVILLE

Pioneers, Engineers, Mechanics, Contrabands & U.S. Colored Troops



Mark Zimmerman

Author of Guide to Civil War Nashville and Mud, Blood & Cold Steel

*How the Heavily Fortified Logistics and Transportation Hub
Became the Key to Victory in the Western Theater*



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Frontier Stations

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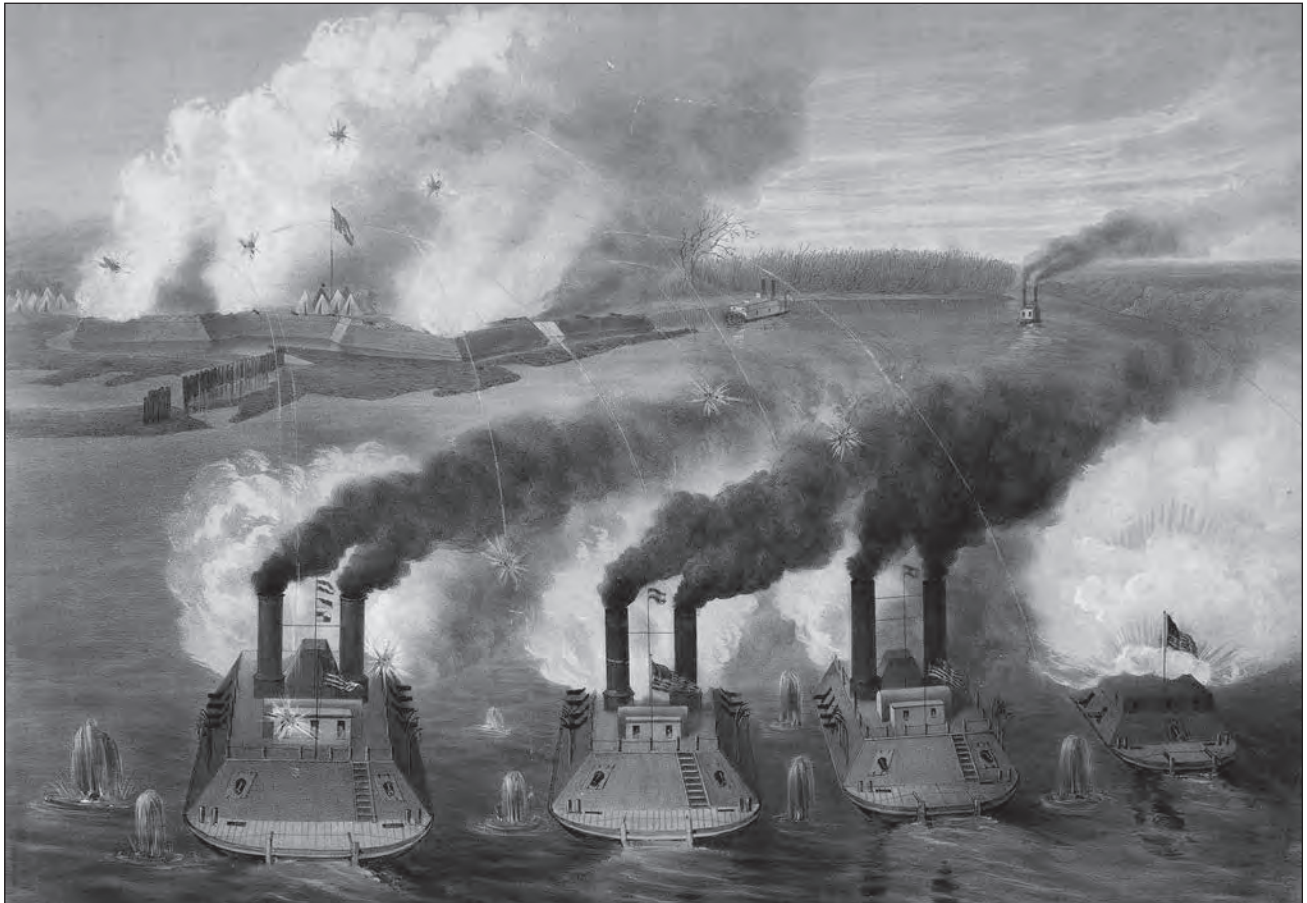
One of the first groups of Europeans to explore the “overmountain” territory west of the Appalachians were the long hunters, small groups of intrepid frontiersmen who sought wild game and traded with friendly natives for hides and pelts. These hardy men, armed with the deadly accurate Pennsylvania or Kentucky rifle, lived by their wits and their wiles, at times having to fend off hostile Indians. They followed waterways and animal trails, roaming in the late 1750s throughout what is now Middle Tennessee and what was then communal tribal hunting grounds populated with vast herds of bison and deer. In times of strife, Thomas Sharpe “Bigfoot” Spencer found refuge inside a large hollow tree. Another pioneer, Timothy Demonbreun, lived in a cave on the cliffs of the Cumberland River.

At the forks of the Duck River on terrain called The Barrens, early white hunters stumbled upon prehistoric earthworks and stone walls that enclosed a 50-acre plateau. The walls were constructed of undressed stacked or piled limestone covered with earth. These embankments, originally ranging from four to six feet in height, would have totaled 4,600 feet in length if continuous; however, they were only constructed where the stream bluffs were not steep. The complex entranceway to the “Old Stone Fort” featured parallel walls that pointed toward the sun at summer solstice. The interior of the enclosure was grassland with a few trees, otherwise featureless. The natives there in the mid-1700s did not know who built the old fort or the relatively large earthen mounds that also dotted the landscape. Pioneers assumed that some unknown civilization had built these structures, perhaps Welsh or Norse, or Spanish troops led by conquistador Hernando de Soto during the 1500s. Some more imaginative souls speculated that the earthworks may have been built by extraterrestrials.

Not until the early 1960s were these myths dispelled for good. Using carbon dating, archaeologists from the University of Tennessee proved that the Old Stone Fort was built 2,000 years ago by prehistoric Native American groups. And the structure was most likely not a fort but some sort of celestial observatory, although the true purpose of the ancient structure remains a mystery. The Old Stone Fort is now a state archaeological park located at Manchester. These days, each year, celebrants gather nearby for the multi-day Bonnaroo music festival. As for ancient structures, the

The River Forts

Federal Gunboats Invade Middle Tennessee



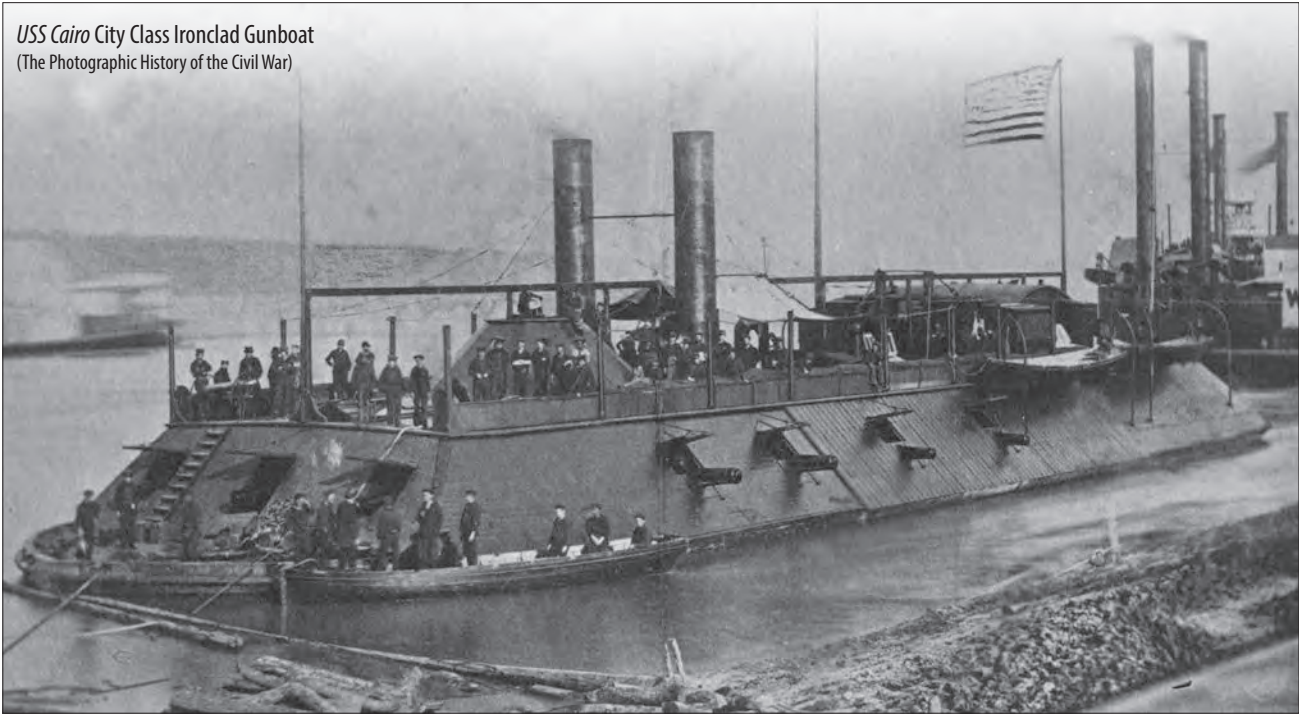
Federal ironclad gunboats shelling Fort Henry on the Tennessee River. (Library of Congress)

The importance of the river system in the Western Theater as a route of invasion into the heartland of the Confederacy and as an avenue of supplying forward bases was self-evident to any military or government official who could read a map. The Federal military would need to create a river gunboat flotilla to lead the invasion. The Confederates would need to build river forts to thwart that invasion.



The Federal Gunboat Flotilla

USS Cairo City Class Ironclad Gunboat
(The Photographic History of the Civil War)



Just ten days after the fall of Fort Sumter in April 1861, Federal forces occupied the small river port of Cairo in a region of southern Illinois known as Little Egypt. The city featured ample wharfs on the banks of the Ohio River (where the current was slower than on the Mississippi River) and served as the terminus of the Illinois Central Railroad. Cairo would be the headquarters and staging area for the Federal fight on the Mississippi and home port for what would be called the Western Gunboat Flotilla.

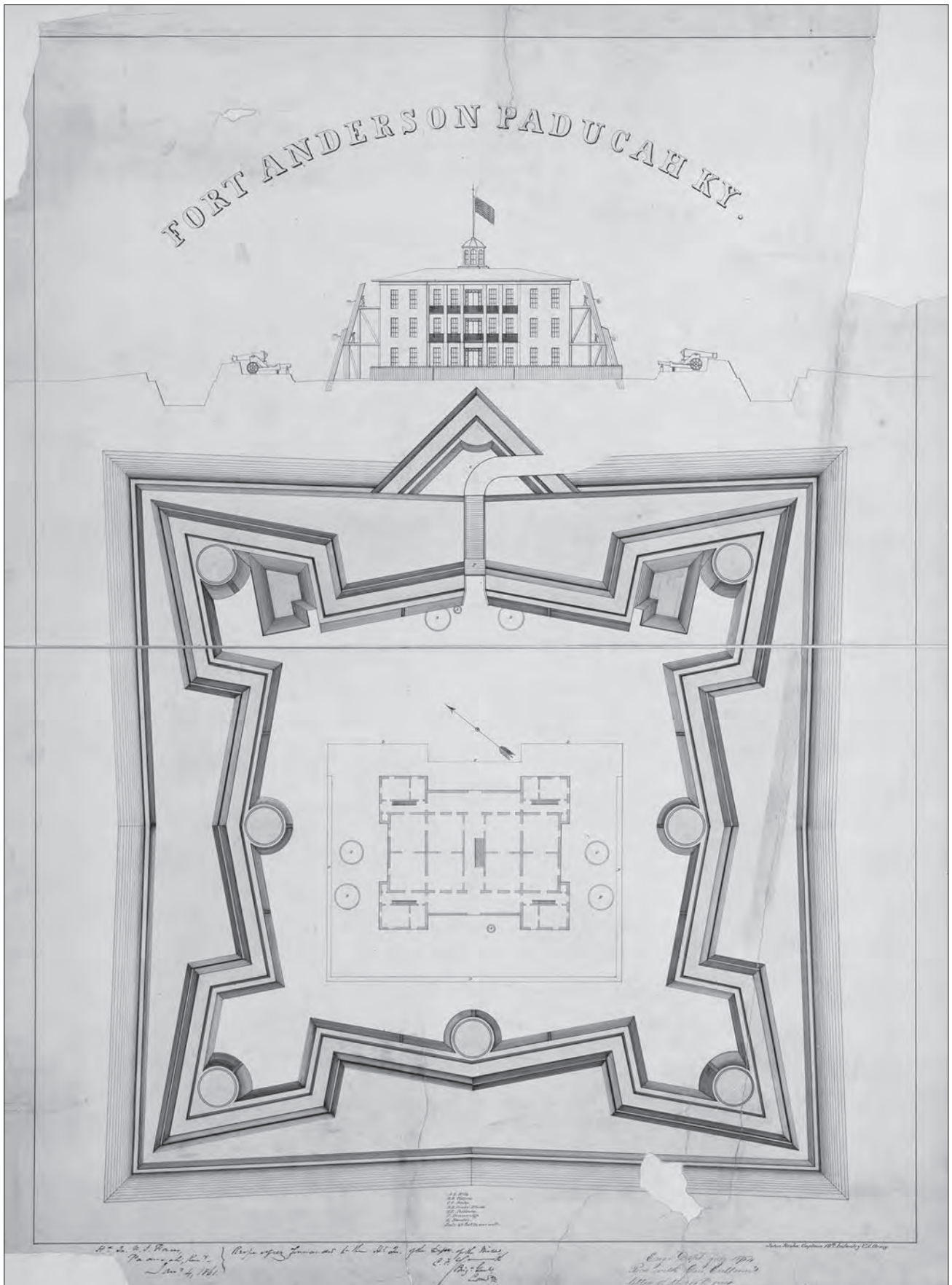
At the outset of the Civil War, the business of steamboating on the inland rivers dropped considerably. Most of the transport fleet, built and owned by Northern interests, were moored and unused. There were plenty of boats for the Federal military to purchase and convert into gunboats, which was faster and easier than building gunboats from scratch. Following inspections, Brigadier General Joseph G. Totten advised that there were 400 steamers available on the rivers for transporting troops, 400 coal barges, and 200 freight barges.

Boatbuilding facilities were available at Pittsburg, Pa.; Wheeling, Va.; Cincinnati; Madison and New Albany, Ind.; and Mound City, Ill.

After several fits and starts, and trips between St. Louis and Washington, renowned and wealthy marine engineer James Buchanan Eads was directed to consult with Major General George McClellan in Cincinnati about forming an inland navy, with the assistance of Navy Commander John Rodgers. Esteemed naval designer Samuel M. Pook was directed to examine the proposal. It was deter-

mined that the naval equipment for the boats, plus armament and officers and crews, should be fulfilled by the U.S. Navy. It was most likely the largest naval building project since the construction in the early 1800s of the first U.S. naval frigates under President Thomas Jefferson.

On June 8, 1861, Rodgers purchased three steamers at Cincinnati for conversion into gunboats and charged the expense to the navy, generating a rebuke from Navy Secretary Gideon Welles. He sternly advised that the army would foot the bill; that the navy would supply only guns and crews. This dictate put the U.S. Army squarely in charge of what would become the Western Gunboat Flotilla. This "unified" command would remain in effect until September 1862, when the U.S. Navy took over all riverboat flotilla operations.



Target: Nashville

Nashville Gazette
Aug. 2, 1860

About 10 o'clock last night the city was brilliantly illumined with a meteor that passed from southeast to northwest. The streets were so completely lit up from the reflection of the meteor that a pin could have been readily discovered. We were in the house at the time, and thought for the moment that it was the most brilliant lightning we had ever seen.

Cincinnati Gazette
Dec. 20, 1861

A reader who has just traveled from Tennessee: There is no place between Bowling Green and Nashville that admits of defence. At Nashville they are making preparations to resist the anticipated attack, and ... if we wait on them till next year, they will probably be able to make a successful defence ... [but] the progress is very slow. On Capitol Hill a few cannon have been mounted, but now there are no defences that would more than momentarily delay our army.

The New York Times
Dec. 21, 1861

The only fortification on the Tennessee River, of much importance, is Fort Henry...The armament of the fort consists of eight 32-pounders, four 12-pounders, and two 6-pounders... At Dover, about a day's march from Fort Henry (eastward), is the principal fortification on the Cumberland, below Clarkesville. It mounts twelve 32-pounders. Some 3,000 troops are reported to be at this point, with some field artillery...Steps are also being taken for the erection of fortifications near Nashville; but not much has yet been done.

Tennessee State Capitol
Nov. 10, 1861

Governor Harris asks the people of Tennessee to donate "every double-barrel shotgun and rifle they have, to arm the troops now offering their services."

Tennessee and Cumberland Rivers

Building the River Forts

At the time of the river invasion, the Confederacy boasted six fortifications on the rivers downstream from Nashville, most unfinished. One was captured easily by the Federal navy, one was victorious over the Lincoln gunboats, and the four others were abandoned and/or destroyed. Why the abysmal record? Why did it take so long to build the forts and why were they basically useless?

Much of the reason derives from the status of Kentucky, a slave-holding border state of divided loyalties (as was Tennessee) that wished to remain neutral. As it turned out, neutrality was impossible and Kentucky stayed in the Union, but most of the political and military officials in Tennessee were banking on the state as an invasion buffer.

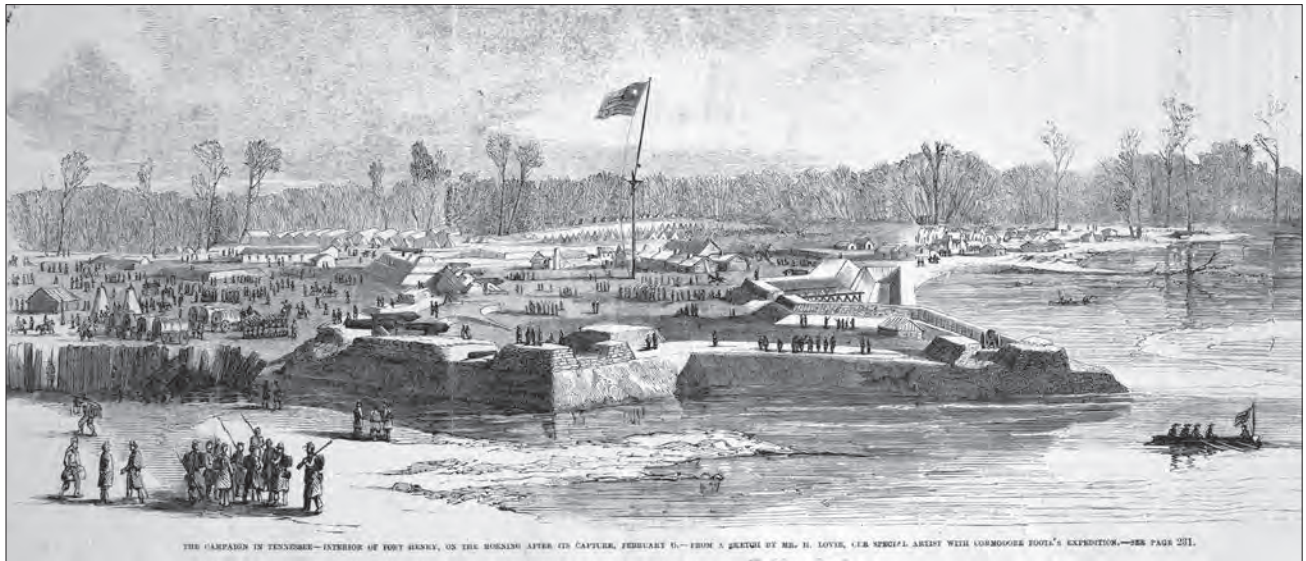
Also, it was a matter of priorities. The Confederacy was concentrating on the territory between Washington, D.C. and Richmond. And most of the priority in the Western Theater was occupying and fortifying the Mississippi River Valley. And besides, most thought the war would be over in 90 days.

On May 7, 1861, Tennessee joined the Confederacy, after Governor Isham Harris rejected Lincoln's call for volunteers to put down the rebellion. Nashville was a prosperous riverport, second in the South only to New Orleans in its vitality. But the aristocracy in Nashville, the "Nashville Gods" who lived at Belle Meade, Belmont, Two Rivers, Clover Bottom, and Burlington, were not interested in building defenses for their city, according to historian Thomas Connelly. Lethargy was due to the "self assured, snobbish attitude of the influential Nashvillians," most of whom would not lend out their slave labor to build fortifications. Harris was more interested in defending the Mississippi River, according to Connelly. "The governor's lack of interest in providing defenses for the inland rivers and Nashville was probably his most serious blunder as commander of the state army. He believed in the neutrality of Kentucky." Also in this frame of mind was the second-in-command of the Tennessee state army, Gideon Pillow, a vain, ambitious politician-general.

In May, Harris ordered Adna Anderson, chief engineer of the Edgefield & Kentucky Railroad, to select sites on the Tennessee and Cumberland Rivers for fortifications to be built. He was assisted by Major Wilbur Fisk Foster of the 10th Tennessee, who would later become chief engineer in A.P. Stewart's corps. At the time, Kentucky was neutral so no site could be chosen inside that state. (The best site for the forts would have been Birmingham, Ky., where the rivers were three miles apart, 30 miles north of Dover.)

Anderson chose a high bluff a mile downstream from the village of Dover for the Cumberland River site. On the Tennessee River, he selected a site slightly below Standing Rock Creek directly across from Big Sandy Creek. Both forts would lie between the rivers so as to support each other.

The governor wanted the opinion of a military man so he sent General Bushrod Johnson, newly appointed chief engineer of the Army of Tennessee, to examine the sites. Johnson affirmed the Dover site but disliked



THE CAMPAIGN IN TENNESSEE—INTERIOR OF FORT HENRY, ON THE MORNING AFTER ITS CAPTURE, FEBRUARY 6.—FROM A SKETCH BY MR. H. LOVIE, U.S. SPECIAL ARTIST WITH COMMODORE FOOTE'S EXPEDITION.—SEE PAGE 231.

First Significant US Victory of the War

Capture of Fort Henry

On Jan. 27th, 1862, President Lincoln issued General War Order No. 1, which required all of his generals to show movement against the enemy by February 22nd. General U.S. Grant had already been pressing his superior, General Henry “Old Brains” Halleck, to allow him to move up the twin rivers. Flag Officer Andrew H. Foote assured Halleck that his ironclad gunboats could defeat any Confederate river fort. On January 30th, Halleck wired Grant: “Make your preparations to take and hold Fort Henry.”

On the last day of January 1862, the timberclads *Conestoga* and *Lexington* moved up the Tennessee River ever closer to Fort Henry, trying to get one last look before the upcoming attack. Accompanying Lt. Commander Seth Ledyard Phelps was land-lubber Brigadier General Lew Wallace, the future author of the bestselling novel *Ben Hur*, who took notes of his trip. The boats had anchored for the night in mid-channel, planning to conduct their reconnaissance first thing in the morning. Then the baying of hounds was heard on the shore, getting louder and ever closer. Emerging from a riverside cornfield was their target, an escaped slave. The black man was running toward the boats. A landing party was sent. The sailors used their paddles to drive away the hounds and rescued the fugitive slave, a contraband. He was taken back to the gunboat.

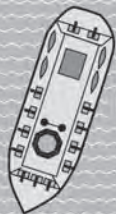
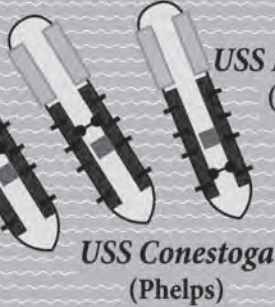
At the crack of dawn, the gunboats paddled slowly upstream, with two men in the bow on either side, staring intently into the waters ahead. They were searching for torpedoes, as submerged naval mines were called in those days. At least a dozen torpe-



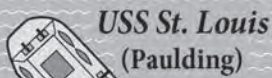
FOOTE



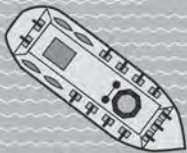
USS Tyler
(Gwin)



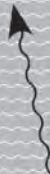
USS Essex
(Porter)
(disabled)



USS Carondelet
(Walke)



USS Cincinnati
(Stembel)



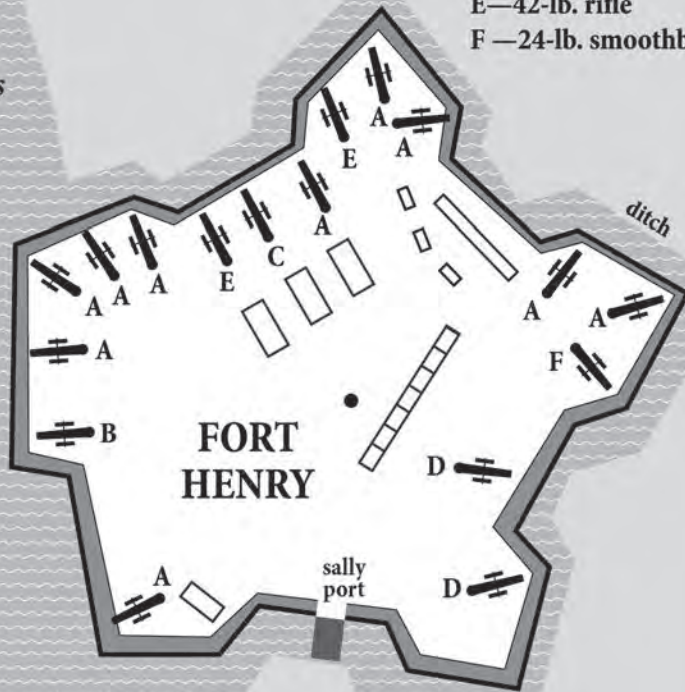
TENNESSEE RIVER

The Capture of FORT HENRY

FEBRUARY 6, 1862



- A—32-lb. smoothbore
- B—24-lb. rifle
- C—10-in. Columbiad
- D—12-lb. smoothbore
- E—42-lb. rifle
- F—24-lb. smoothbore



TILGHMAN
Taylor's Battery
Lt. Col. Milton Haynes
100 men

CSA Hospital Boat
Patton





Capture of Clarksville & Nashville

At 2:00 am on Sunday, Feb. 16th, 1862, General John Floyd telegraphed Major General Albert Sidney Johnston in Edgefield that he had defeated U.S. Grant at Fort Donelson. Three hours later, Johnston was awakened by a messenger who told him that Floyd and other generals had agreed to surrender the river fortification and then fled the scene.

Church services were suspended in Nashville that morning when the shocking and unexpected news of the surrender of Fort Donelson arrived. Unsure what to do, and certain that the dreaded gunboats would reduce the city to rubble, the citizens launched into what has been described as the “Great Panic.” Depositors rushed the banks, crowds mobbed the warehouses, and southbound trains were filled to overflowing, all while the retreating Confederate army of General Johnston tramped through the city on their journey from Bowling Green to Murfreesboro. Johnston subsequently announced that the army would not defend the city.

“A perfect panic reigned throughout the whole city,” said a local Union loyalist. “The streets were thronged with people wild with excitement.”

Much to the chagrin of the citizenry, Johnston abandoned Nashville and moved southward to Columbia. (The Confederate forces would eventually arrive and converge at Corinth, Mississippi.)

Nashville Mayor R.B. Cheatham, after consulting with Johnston, addressed a crowd at the courthouse, begging for calm and asking his citizens not to burn the city. He said he would surrender the city to General D.C. Buell when he and his troops arrived from Kentucky. The First Missouri Regiment was assigned to guard the city against vandalism and looting.

Dr. John B. Lindsley of the University of Nashville wrote in his diary: “Sunday: (Albert Sidney) Johnston’s army passing by the University from 10 am until after dark, camped out near Mill Creek. Light of campfires very bright at night. The army was in rapid retreat the men disliked bitterly giving up Nashville without a struggle. The southern army, however, was too small to make a stand against the overwhelmingly superior numbers of union troops. During all Sunday from about 10:00 am when the news of the fall of Fort Donelson reached here, the wildest excitement prevailed in the city. Very many persons left the city in vehicles many on the (rail) cars — the government and Legislature decamped — Nashville was a panic stricken city.”

John Miller McKee with the *Nashville Union and American* reported: “Every available vehicle was chartered, and even drays were called into requisition, to remove people and their plunder,



Defenses of Nashville

Nashville, a vital city which had barely been fortified by the Confederates in 1861, became, under Federal occupation, the most heavily fortified city in North America, second only to Washington, D.C. Nestled in a bend of the Cumberland River, major portions of Nashville were protected by this natural barrier and the ironclad Federal gunboats which patrolled it. During the course of the war, Nashville became a major transportation hub and logistics center. Holding Nashville in Federal hands was imperative, the military governor arguing that the city be burned to the ground rather than fall into Confederate hands again.

Eventually, Nashville's defenses would consist of three major forts, a fortified state capitol building, fortified railroad bridge over the Cumberland River, and 21 minor installations along 30 miles of earthworks configured into inner and outer lines around the city, plus patrols by a variety of Federal gunboats. On occasion, field artillery batteries would be stationed on the pikes outside the city.

Shortly after the city's capture, the Union forces placed batteries at barricades controlling the eight roads into the city—the Lebanon, Murfreesboro, Nolensville, Franklin, Granny White, Hillsboro, Harding and Charlotte turnpikes. The guns were placed so that they could easily be turned against the city itself in case of a civilian uprising.

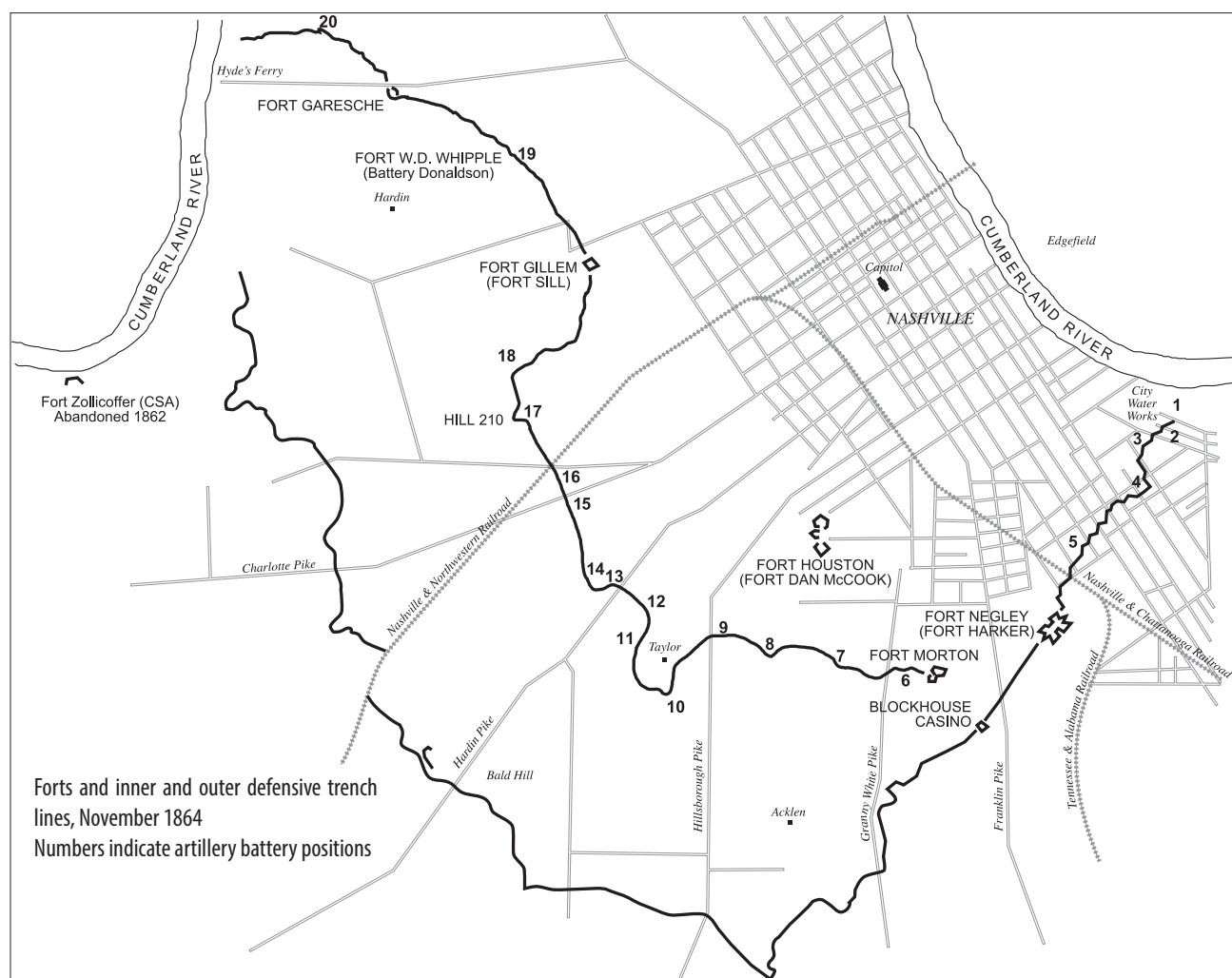
The fortified railroad bridge and the State Capitol each were supplied with four artillery pieces and six companies of infantry. The guns at the bridge were on the south or west side of the river. The building at the corner of Broad and Spruce will garrison two companies and overlook a position holding one cavalry regiment and one battery of horse artillery.

On Aug. 6th, 1862, General Don Carlos Buell ordered Capt. James St. Clair Morton of the US Army Corps of Engineers to Nashville to prepare fortifications. "For the present," said Buell, "I only propose to throw up small works to hold from four to six companies and from two to four pieces of artillery. They should be in the edge of the city, to command the principal thoroughfares and other prominent points...See Governor Johnson, and if he approves, devise some defenses also around the capitol; devise also some defenses for the bridge."

About this time, Capt. Morton placed earthen parapets, a log stockade, and bales of cotton at the State Capitol at the urging of Military Gov. Andrew Johnson. Fort Johnson, as it came to be known, was armed with 15 heavy guns and a regiment of infantry.

Morton began work on three main forts—Fort Negley on St. Cloud Hill, Fort Morton, and Fort Houston.

Using impressed labor, slaves, and mules, Fort Negley was built in 1862-64 as an impressive defensive work, the largest inland stone fort built during the war. Late in the war, Fort Negley was renamed Fort Harker in honor of a general killed in action (the new name didn't stick).



Across Franklin Pike was Fort Morton, another large and complicated structure situated on the solid limestone of Curry Hill (current location of Rose Park). The site had been occupied by the house of Dr. William P. Jones, superintendent of the Insane Asylum and prominent Unionist, which was blown up and cleared.

Further south was Blockhouse Casino on Kirkpatrick Hill, now occupied by the City Reservoir. A large cross-shaped blockhouse was constructed there which could be defended, if necessary, by guns at Fort Negley and Fort Morton.

The third fortification, Fort Houston, was built on high ground near the current Music Row traffic roundabout. The home of prominent Union loyalist Russell Houston was destroyed to build the fort named after him. Later it was renamed Fort Dan

McCook.

Work progressed slowly at Forts Morton and Houston due to the lack of labor, the complex design of the structures, the rocky terrain, and other more timely priorities.

About this time, Morton placed earthen parapets and a log stockade at the State Capitol at the urging of Military Gov. Andrew Johnson. Fort Johnson, as it came to be known, was armed with 15 heavy guns and a regiment of infantry.

The Louisville & Nashville railroad bridge across the Cumberland River was fortified with guardhouses and stockades with loopholes so that infantry on the bridge could shoot at any attackers. The modifications required 40,000 board feet of heavy timbers. Nine heavy guns were set on the bank of the river for defense of the eastern part of the city.

“Each prominent street is barricaded, and beautiful homes have been relieved of their roofs and turned into forts or rifle pits, and the fort on St. Cloud Hill, which commands the town and surrounding country has been made of such strength that it can scarcely be taken,” wrote a Louisville newspaper correspondent.

By late 1862, artillery, usually consisting of one 32-pounder Parrott rifle captured from the Confederates, was stationed at various sites around the city, including the reservoir near the river, Lebanon Pike, the end of Summer Street, General Palmer’s headquarters, the railroad tunnel, the old Lunatic Asylum, and the pontoon river bridge. There were also 28 other captured guns at the ordnance depot, only four of which were considered safe to use.

In May 1864, a grand depot maga-

Fort Andrew Johnson

State capitol fortified to protect military governor

Fort Andrew Johnson was the name given to the fortification of the newly completed Tennessee State Capitol atop one of Nashville's highest elevations, Cedar Knob or Campbell Hill. It was named for Andrew Johnson, military governor of Tennessee, who was concerned about Confederate cavalry raids and acts of sabotage. It was also known as Camp Andy Johnson and Capitol Redoubt.

Captain James St. Clair Morton of the U.S. Army Corps of Engineers converted the capitol building into a strong fortification with a stockade of cedar logs surrounding the building, reinforced bales of cotton and earthen parapets. Fifteen pieces of heavy artillery were emplaced at strategic points around the Capitol. Several companies of infantry and artillery garrisoned the fort. Fort Johnson became the headquarters of the command.

The big guns were never used in anger, but were fired several times in honor of Union victories or elections. For example, on April 3, 1865, when news of the fall of Richmond arrived, business was canceled and at noon the First Missouri Battery manned the guns and fired 100 rounds. Like many buildings in Nashville, the Capitol was temporarily used as a military hospital following the battle at Murfreesboro, Tenn. (Stones River), which ended on Jan. 2, 1863.

An inspection report dated May 25, 1865 by Brigadier General Zealous B. Tower, Inspector General of Fortifications, Military Division of the Mississippi, stated the following: "Capitol Hill.-Gen. Morton built some earth parapets and stockades around the capitol building large enough to mount fifteen guns and to give room for a regiment of infantry. The position has a good command over the country around, and, thus strengthened, was a good keep for the north portion of the city. No longer needed, the stockade is being removed at the request of the Legislature and by direction of the commanding general. Gen. Morton's line of defense successfully resisted Morgan's and Forrest's attacks during Buell's march into Kentucky. Afterward, Nashville became a great depot, and public buildings, as hospitals, store-houses, and corrals, extended far beyond the limits of the city and necessitated a much longer defensive line."

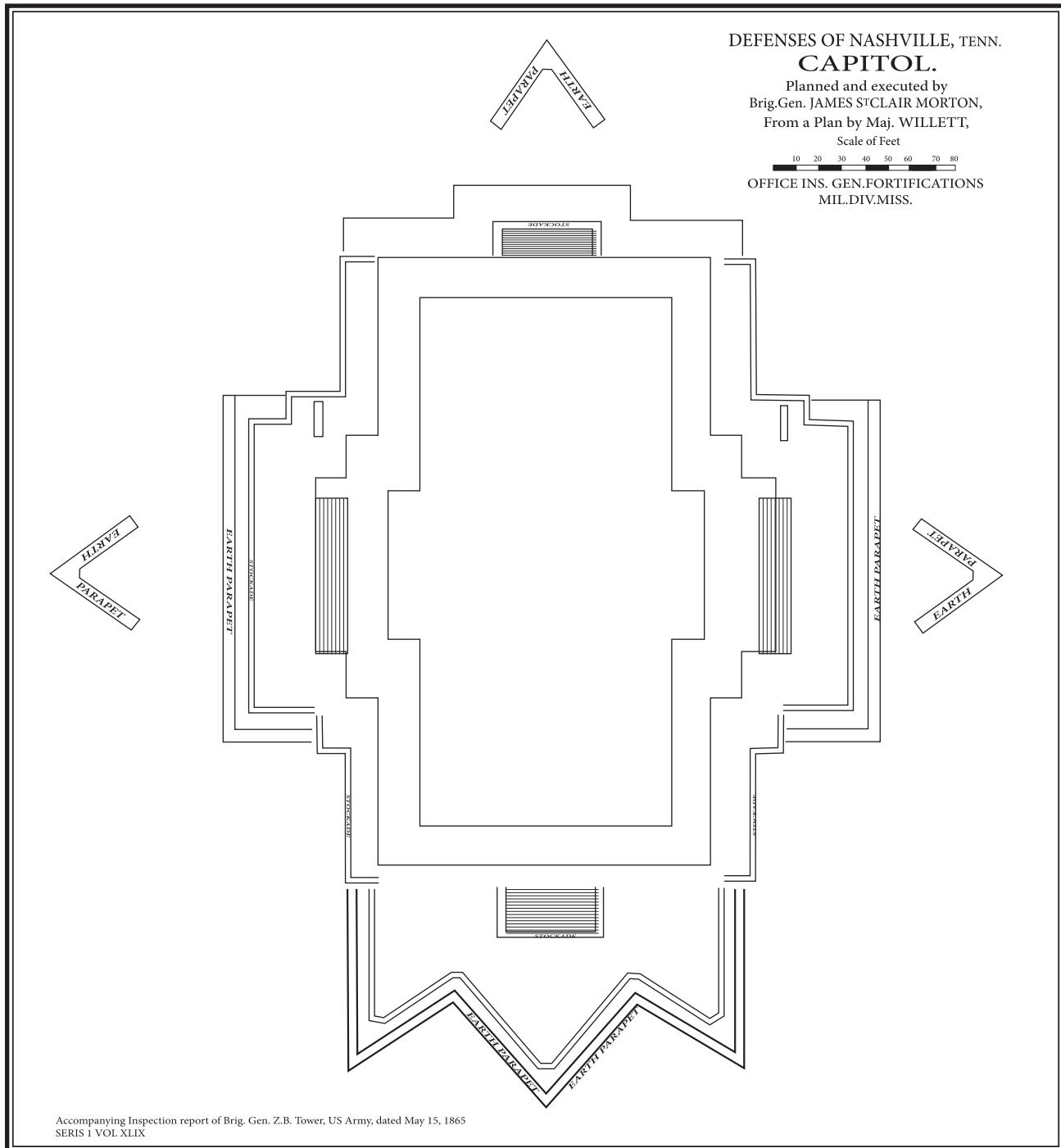
Johnson told U.S. Army officials that before surrendering the city he would have it burned to the ground.

The fort was abandoned by Union troops in 1867 after the end of the war and after Tennessee had returned to the Union.

The four-acre site, originally known as Cedar Knob, was the home of attorney George W. Campbell. Although Tennessee became the 16th state in 1796, Nashville wasn't designated the permanent capital until 1843. Knoxville, Kingston, and Murfreesboro served at times as the state capital, and in Nash-



Andrew Johnson statue at the Tennessee State Capitol

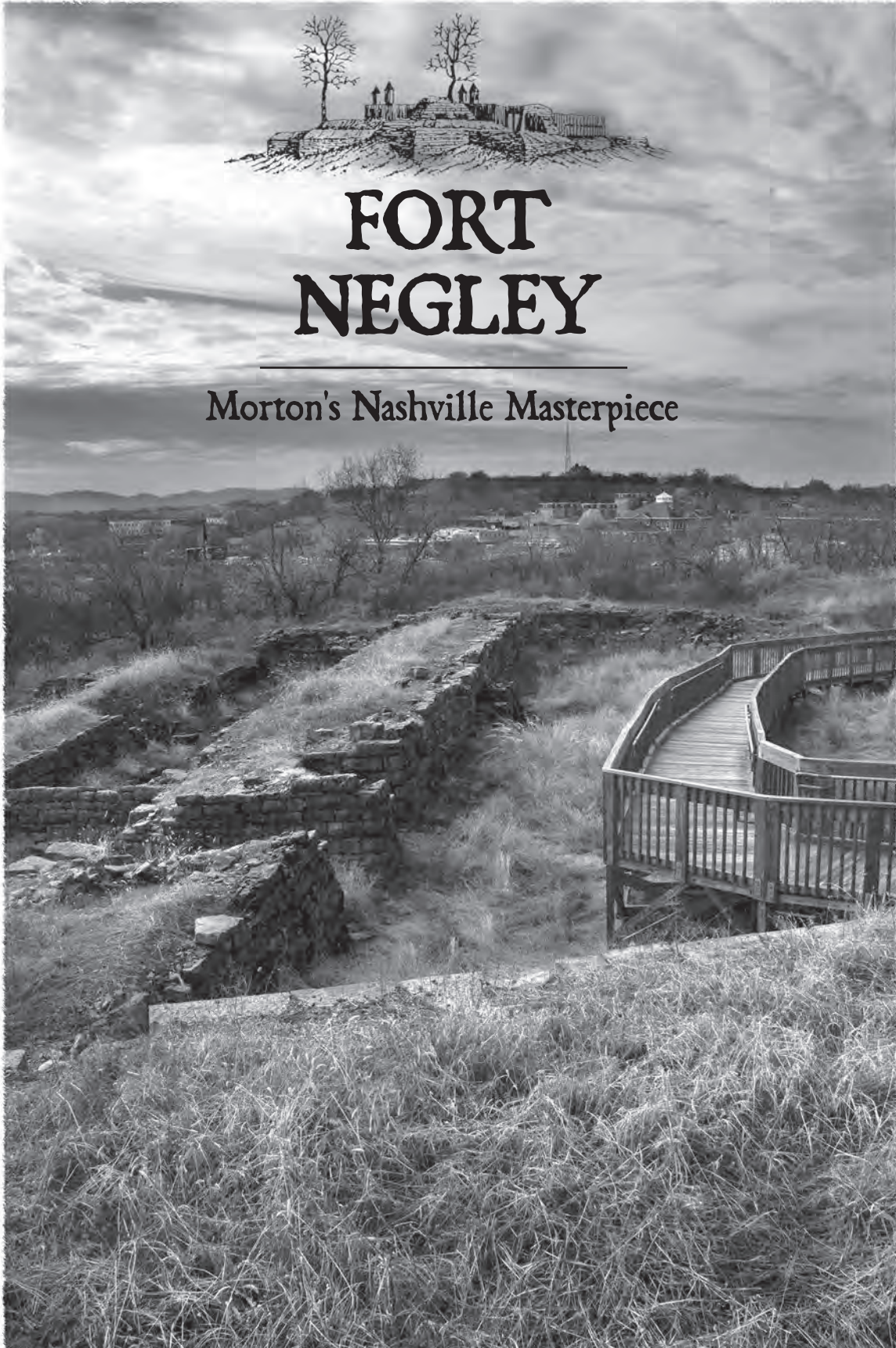


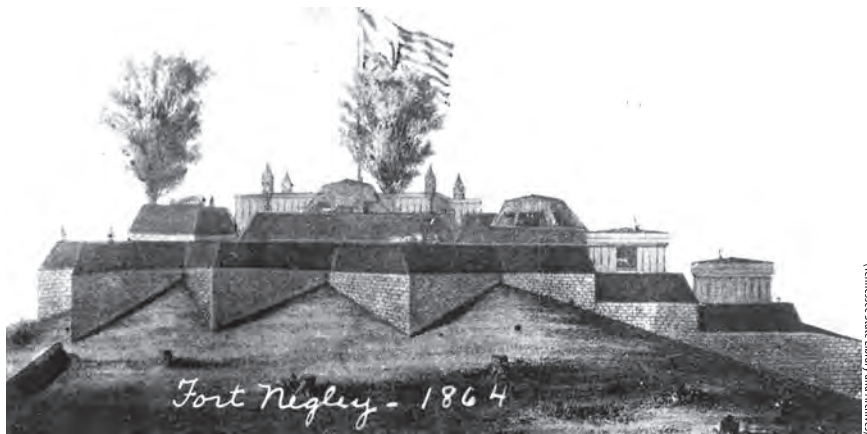
Greek Ionic temple by design, 236 feet by 109 feet, with a unique tower bringing its height to 206 feet. There are porticoes at each of the four main facades. The east facade, facing the river, is the historic main entrance. The east and west porticoes each feature six Ionic stone columns. The larger north and south porticoes each feature eight columns. Each carved stone column is 36 feet tall and 4.5

feet in diameter.

The square rusticated base of the tower is 42 feet tall and the slender circular tower is 37 feet tall. The tower is based on the Choragic Monument built in Athens, Greece about 334 B.C. by Lysicrates, a great choral leader. The Tennessee tower is twice the size of the original Greek monument, also known as the Lantern of Diogenes. The columns of the tower are of the

Corinthian order, with acanthus leaves. The Capitol was built entirely of stone. Efforts during construction to hold down costs by substituting brick interior work were rejected. The interior walls and columns were made from East Tennessee marble. Architect William Strickland noted that there are “no examples of any buildings in the United States, either public or private, in which the walls are con-





Fort Negley was built by Federal forces during the Civil War to anchor their fortifications around Nashville, the capital of Tennessee. In addition to its unique star-bastion design, Fort Negley was the largest inland stone fortification built during the war. Nashville eventually became the most fortified city in North America, second only to Washington, D.C.

Fort Negley Park, with its modern visitors center, is now a major Civil War attraction, having twice been rescued from its steady deterioration. Too risky and expensive to reconstruct, the structure atop Saint Cloud Hill is “interpreted as ruins.” Other than the Tennessee State Capitol, it is perhaps the most significant local structure built of native limestone, the masterpiece of brilliant military engineer James St. Clair Morton. The fortress is a testament to the spirit of mankind, having been built by slaves, impressed freedmen, and the contrabands of war. These ragtag men, hundreds of whom died during construction due to appalling living conditions, raised their shovels and picks to defend the fort. Later, these proud men, many of them fugitive slaves, would bear arms as recruits in the newly formed U.S. Colored Troops. At Nashville, in late 1864, many would die in battle defending their newfound freedom.

The renovation and reopening of Fort Negley is due in large part to one of the largest municipal appropriations for Civil War interpretation ever.

Fort Negley was so impressive and imposing that it was never attacked during the war. The fort was rebuilt expertly during the Great Depression

as a federal works project and then allowed to deteriorate again. Only in recent decades has it been reclaimed — the fort you see today is mostly that from the 1930s, not the Civil War.

The survival of the fort over the past 150 years has been linked to providence, and also irony because the father of its designer was the founder of scientific racism, the theory that humans consist of different species ranked by cranial capacity.

“Fort Negley, long hidden, is a map to Nashville black history,” stated Learotha Williams Jr., PhD., professor of African-American studies at Tennessee State University. The contraband camp at the fort during the war grew into a viable black community in the decades following the war until disrupted by interstate highway construction in the 1960s.

The significance of Fort Negley and St. Cloud Hill to African-American history has been finally recognized in recent years. In 2019, Fort Negley was among the first four “sites of memory” associated with UNESCO’s Slave Route Project Sites in the U.S., along with Fort Mose in St. Augustine, Florida; Freedmen’s Town Historic District in Houston, Texas; and The Middle Passage Ceremonies and Port Markers



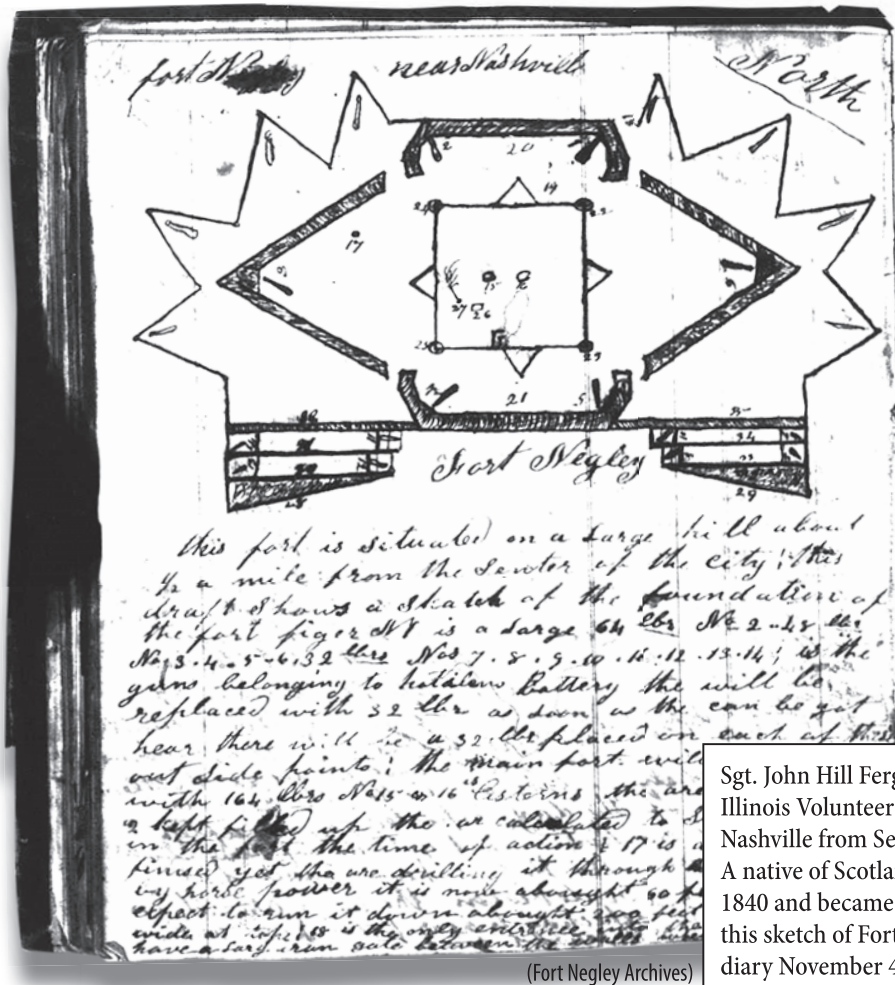
James St. Clair Morton

was the brilliant architect of Fort Negley and most of the fortifications around Nashville. He was a native of Philadelphia, Pa. and the son of renowned physician Samuel Morton, the founder of craniometry (measurement of human skulls) and scientific racism (the belief in several human species and the intellectual ranking thereof). There’s little evidence that the father’s racism rubbed off on the son. James Morton attended the University of Pennsylvania and graduated 2nd in his class at West Point Military Academy in 1851.

An intelligent yet quirky individual, Morton has been described as dutiful, outspoken, confrontational, energetic, brash, opinionated, meticulous, and merciless.

As a 2nd Lieutenant in the Corps of Engineers, Morton served as assistant engineer in the construction of the defenses of Charleston harbor and the building of Fort Delaware, and then as assistant professor of engineering at West Point for two years. He was a student of the famous professor Dennis Hart Mahan, and he challenged current conventional thinking about fortifications. Morton believed that earthworks would stand up to modern rifled shelling better than the masonry forts of the time, and he was proven correct. Ironically, his most famous work—Fort Negley in Nashville—was built of limestone instead of dirt due to the rocky terrain.

(Continued on Page 85)



Sgt. Ferguson's Sketch of Union Fort Negley and Diary Description

Sgt. John Hill Ferguson, 34, of Co. G, 10th Illinois Volunteer Infantry served in Nashville from September 1862 to July 1863. A native of Scotland, he came to the U.S. in 1840 and became a citizen in 1856. He drew this sketch of Fort Negley and wrote in his diary November 4, 1862 (edited for clarity):

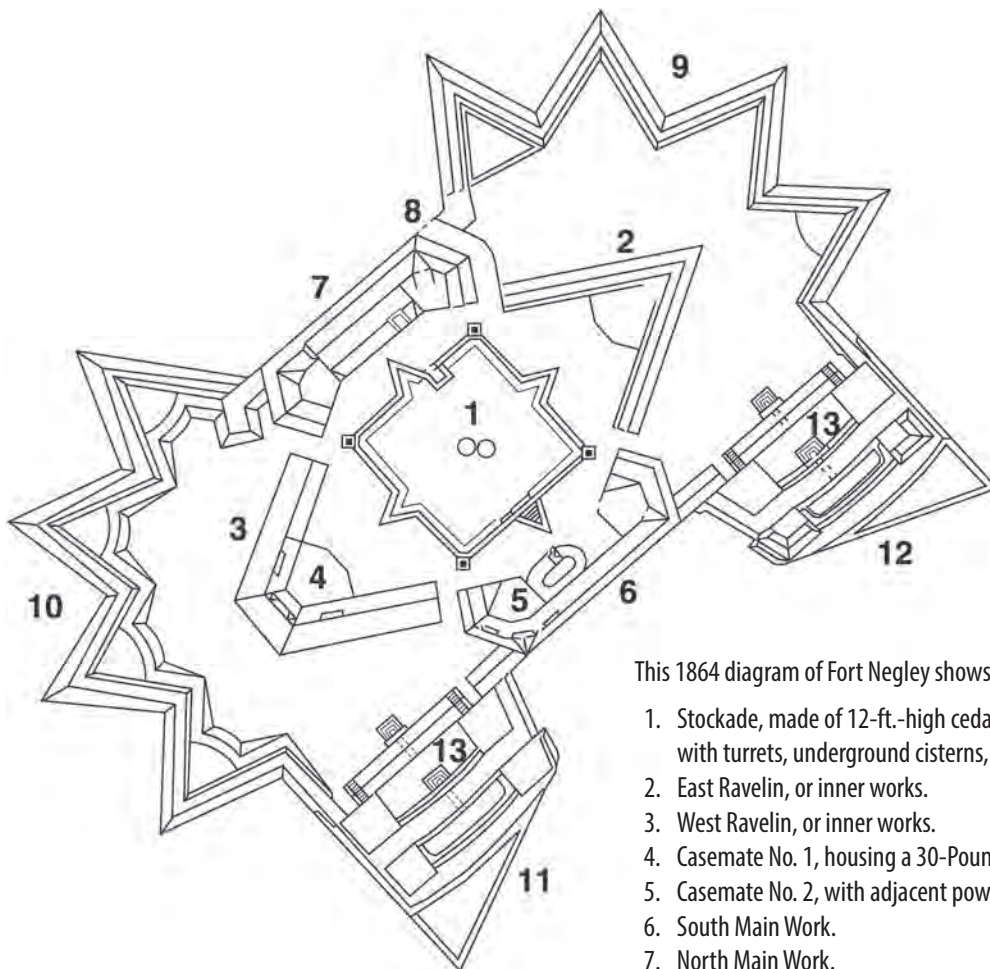
This fort is situated on a large hill about half a mile from the center of the city. This draft shows a sketch of the foundation of the fort. Figure 1 is a large 64-pounder. No. 2 is 48-pounder. Nos. 3-4-5-6 are 32 pounders. Nos. 7 through 14 are guns belonging to Houghtailing's Battery. They will be replaced with 32-pounders as soon as they get here. There will be a 32-pounder placed on each of these outside points. The main fort will be mounted with 64-pounders. No. 15 and 16 are cisterns. They are very large and kept filled up; they are calculated to supply the regiments in the fort the time of action. No. 17 is a well not finished yet. They are drilling it through solid rock by horsepower. It is now about 60 feet deep. They expect to run it down about 200 feet. It is 5 inches wide at the top. No. 18 is the only entrance into the fort. It will have a large iron gate between the walls when finished.

No. 19 is the entrance into the stockade. Nos. 20 and 21 are magazines on each side of the stockade. Nos. 22 through 25 are sentry boxes on top of the corners of the stockade. No. 26 is the tent wherein the telegraph operates. No. 27 is a large tree which supports the wire over the works. On top of this tree there is a platform built. It is used as a lookout post. Nos. 28 and 29 are wings where artillery may be used. This stockade is built of large hewn timber two feet square set up on end about 12 feet above ground. There is a large plate on top about 2.5 feet wide spiked down with large iron spikes so that it is perfectly solid. There are holes cut through these logs about five feet from the ground for infantry to shoot through. Those wings are made in the same manner so as to command the main entrance. The walls around the main fort in the outside are about 12 feet high and about four inside.

Nos. 30 through 35 are fortifications on the side hill for infantry. They can be all in operation at one time as the one is above the other. They are faced up on both sides with hewn rock, then filled with dirt some three to four feet above the walls. Along in the center of these walls where the number is placed there is a tunnel running through under each of these walls to the main fort so that the infantry can get to them or from there without exposing themselves to the enemy. These outside points are about 14 feet high on the extreme points and about six on the inside corners on the outside. The fall of the hill makes the difference as the walls are about level on top on the inside. They are filled up with rock and dirt within four or 4.5 feet of the top all around.



(Library of Congress)



This 1864 diagram of Fort Negley shows its complex design.

1. Stockade, made of 12-ft.-high cedar posts, with turrets, underground cisterns, and flagpole.
2. East Ravelin, or inner works.
3. West Ravelin, or inner works.
4. Casemate No. 1, housing a 30-Pounder Parrott Rifle.
5. Casemate No. 2, with adjacent powder magazine.
6. South Main Work.
7. North Main Work.
8. Main Entrance Gate or sally port.
9. East Outer Parapets, with redans allowing crossfire.
10. West Outer Parapets, with redans allowing crossfire.
11. Southwest Bastion, a bombproof structure.
12. Southeast Bastion, a bombproof structure.
13. Bastion tunnels.



Fort Negley artillerymen at heavy gun platform next to sally port. Looking northeast, Nashville can be seen in the distance. Interestingly, the men are posing on a two-wheeled wooden naval-gun carriage. (Tennessee State Library and Archives)

(Continued from Page 84)

Franklin, Granny White, Hillsboro, Harding, and Charlotte turnpikes. The guns were placed so that they could be turned against the city itself in case of a civilian uprising.

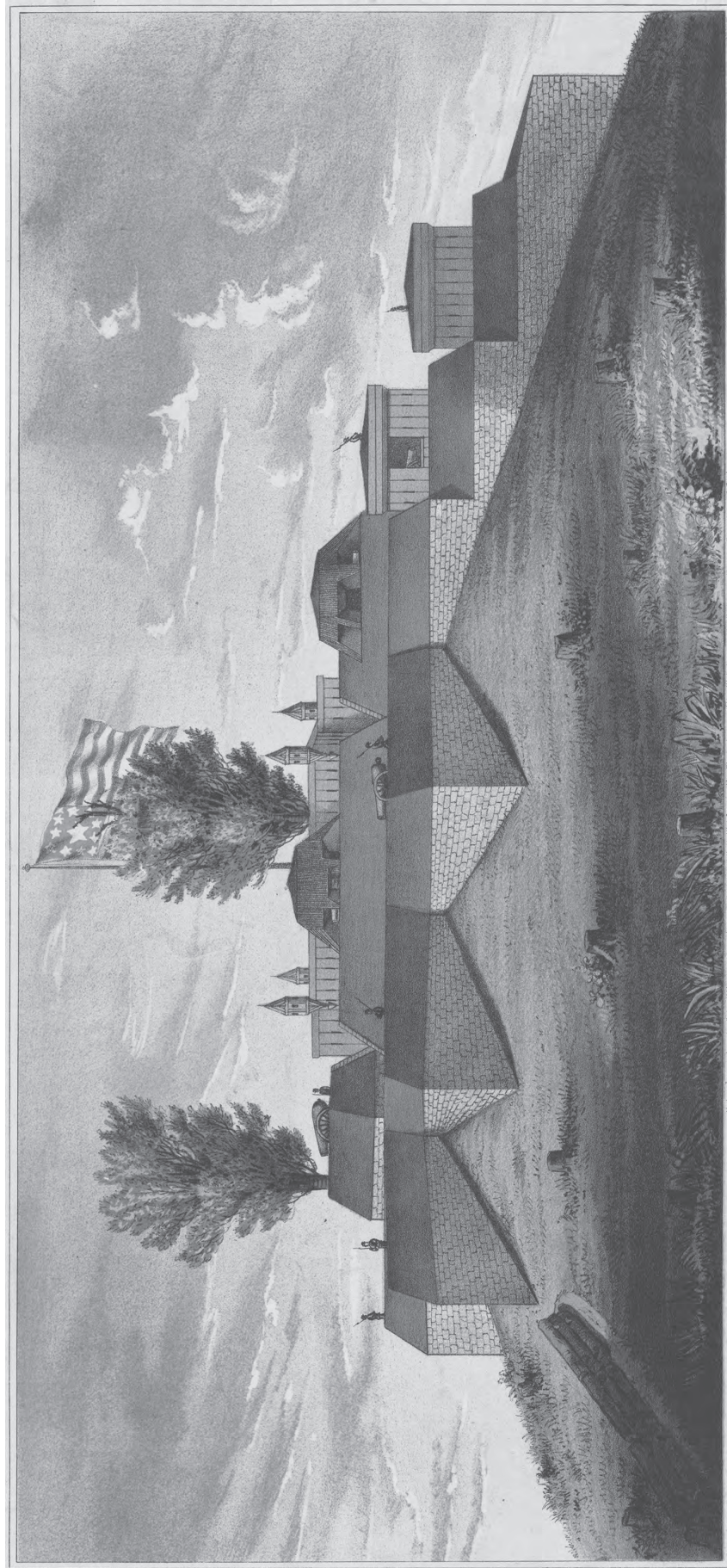
When General Don Carlos Buell and his Army of the Ohio were forced to chase General Braxton Bragg's Army of Tennessee north into Kentucky, Gen. James Negley's division was left behind to guard Nashville. About this time, the South Tunnel on the L&N Railroad north of Nashville was disabled by Confederate cavalry. The Cumberland River hit low levels during a summer of drought, hindering the steamboat trade. This brief, anxious period was called the Siege of Nashville.

On Aug. 6, 1862, Gen. Buell assigned his chief engineer, Capt. James St. Clair Morton of the U.S. Army Corps of Engineers, to stay behind in Nashville and begin to build fortifications guarding all the major turnpikes and railroads into the city, which was already partially protected by a huge bend in the river to the east and north and the gunboats that patrolled those waters. Buell told him to "go at once to Nashville and select sites and give plans and instructions for redoubts to protect the city... These works must all be practical and as simple as possible in the beginning, so that they can be constructed with the greatest promptness and occupied immediately by a small force. They can then be elaborated on and made more formidable. Start the works at once, the most important first. The commanding officer will call in slave labor on it."

Morton chose lofty St. Cloud Hill, south of town, for Fort Negley, his most elaborate fortification, since it commanded views of several pikes and the Nashville & Chattanooga Railroad. The fort would be the keystone of three other major forts in the vicinity — Fort Morton on Currey Hill and Blockhouse Casino on Kirkpatrick Hill, which would mutually support Fort Negley, and Fort Houston farther to the west. Contrary to Buell's directive, Morton produced complicated, elaborate designs for all of these fortifications (except Blockhouse Casino), which greatly hampered their construction and required major modifications. It is unlikely that Morton would name one of the forts for himself; Fort Morton was likely named by officials around May 1863 after Morton left the city.

Today, as it was during the war, Fort Negley overlooks the spacious City Cemetery, laid out in a grid of "streets" like a small town. Approximately 15,000 Federal soldiers were buried in areas adjacent to the Nashville City Cemetery, including the area between the railroad tracks and on the southern slope of St. Cloud Hill. An unknown number of civilians, black and white, may have been buried in the same areas. While the soldiers were moved to the Nashville National Cemetery, civilians would have been left behind.

A structure named Fort Confiscation appears in written accounts but not on any official map. It has been speculated that Fort Confiscation was actually the first name of Fort Morton. However, according to research



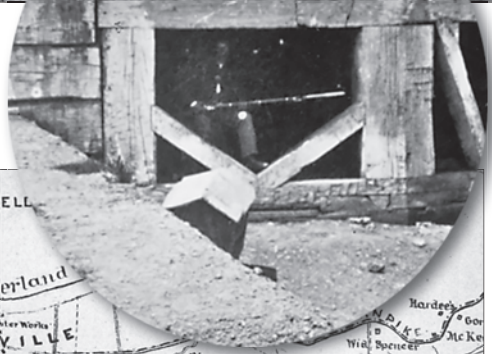
Lith. & Printed by Gibbs & Co. Cincinnati O.

SOUTH WEST VIEW OF FORT NEGLEY.

Drawn by W. H. H. Fletcher, of the 12th W. Battery, Ind. Vols., Nashville, Tenn.



The big 30-pounder Parrott rifle was mounted inside this casemate fronted with railroad iron. A rifleman can be seen inside the bunker. Below, the map shows how the location of Fort Negley controlled several of the main turnpikes into Nashville, as well as the railroads converging from Decatur, Ala. and Chattanooga, Tenn. (Tennessee State Library and Archives)



Estimated cost of completing the defense of Nashville (October 1864).

Battery on Reservoir Hill	\$5,000
Works on University Hill	10,000
Crest between University Hill and Fort Negley to sweep.....	5,000
Modifications of Fort Negley	20,000
Work on Casino Hill	15,000
Finishing Fort Morton.....	30,000
Finishing Fort Houston	30,000
Two batteries between Houston and Hill 210, defended by rifle pits and stockade blockhouse.....	20,000
Work on Hill (210 ref.)	40,000
Modifications of Fort Gillem	15,000
Battery on knoll to right.....	10,000
Work on second knoll	30,000
Contiguous battery	10,000
Work on riverbank	20,000
Total	260,000
Contingencies, rifle pits, etc.	40,000
Grand total	\$ 300,000

Statement of expenditures by General Morton and Captain Burroughs

The following statement of expenditures by General Morton and Captain Burroughs, and the estimated allotment of these expenses to the different objects named and to the works, will enable you to form a more positive opinion in reference to the engineering operations here for the past two years and a half:

As nearly as can be ascertained, General Morton paid—	
For material.....	\$16,502.04
He left non-payment rolls amounting to	116,711.91
Total expenditures and obligations of General Morton.....	133,213.95

It is probable that there will be claims for trees cut, and houses demolished by his orders. The following is an approximate estimate of amounts applied to the different objects of expenditure while he was chief engineer at this place:

Preparing gun-boat.....	\$5,000.00
Clearing ground of trees in vicinity of lines, and on the northeast bank of river	1,500.00
Work on temporary bridges, dismantling suspension bridge to obtain wire, and removing brick house from site of work	3,000.00
(Nearly all his force was engaged on temporary works while General Buell was in Kentucky, and Nashville was beleagued.)	
A smaller estimate.....	10,000.00
Material received, stored, hauled, and forwarded to other points.....	2,000.00
Total	21,500.00
Cost of surveys.....	1,000.00
Cost of blockhouses for Louisville road	5,000.00
Work clearing tunnel.....	400.00
Temporary buildings as store-houses, stables, barracks, shops, etc.....	3,000.00
Blockhouse on Casino Hill	1,000.00
Work on Capitol Hill.....	10,000.00
On Fort Negley	91,313.95
Total expended and debts incurred by General Morton, omitting claims for sites of forts and trees cut down.....	\$ 133,213.95



In this extraordinary photograph looking from the State Capitol, three fortifications can be seen on the horizon (magnified detail above, left to right) Fort Negley, Blockhouse Casino, and Fort Morton. Also visible just below Blockhouse Casino is Polk Place, the home of President James K. Polk (his widow during the war). The heavy guns at Fort Andrew Johnson have been covered due to a rainstorm. (Library of Congress)

Fort Morton

Fortification named for chief Federal military engineer

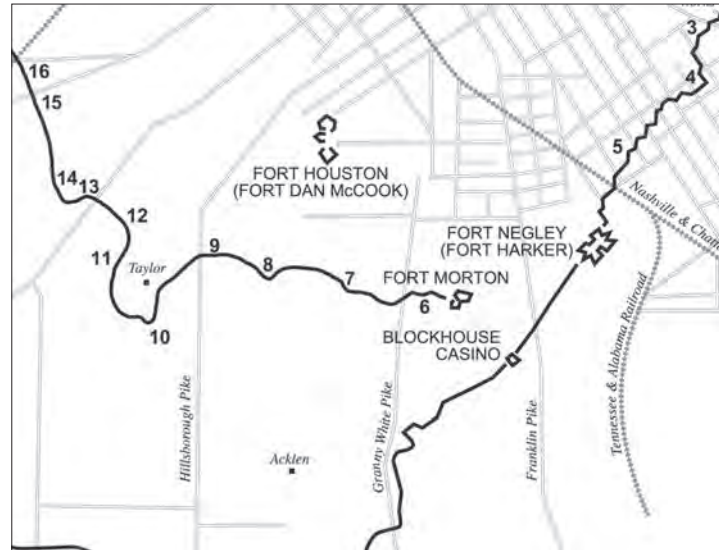
Fort Morton was an elaborate fortification built in 1862 on a bare limestone hill (Curry Hill, now site of Rose Park on Edgehill Avenue) as one of three anchors of the interior line guarding the southern approaches to Nashville (the Lebanon, Murfreesboro, Nolensville, Franklin, and Granny White pikes). It was designed by Capt. James St. Clair Morton to hold more heavy guns than Fort Negley itself (14 versus 11) and was literally too complicated to build according to its initial design. The fort was sited atop nearly solid limestone and the rocky nature of the terrain, the complex design, and the lack of adequate labor, in addition to other priorities, delayed work on this fort and required more funding than anticipated. The fort was named for Morton after he left Nashville in 1863. He was killed in combat on June 17, 1864 at Petersburg, Virginia, shot by a sharpshooter as he was scouting the front lines.

In September 1863, Charles A. Dana inspected the Nashville works and reported to Secretary of War Edwin Stanton:

“The central work, known as Fort Morton, is scarcely yet commenced. Simpler in design and more powerful when done than Negley. It is situated on a hill of hard limestone, and the very extensive excavations required must all be done by blasting. At the present rate of progress it will take two years to finish it. A part of it, namely the demi-lune in its front, is partly done, so far in fact that its parapet might be used as a rifle-pit and might afford some protection to field guns. This work will require a garrison of 1,500 to 2,000 men. The two redoubts and barracks connecting them, of which its main body consists, will be altogether 700 feet long.”

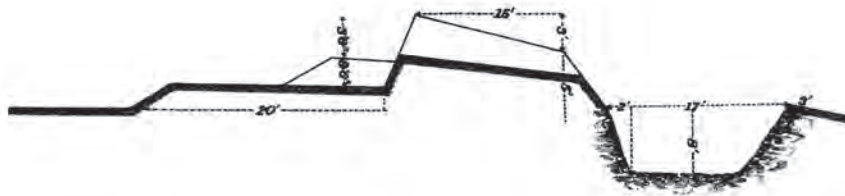
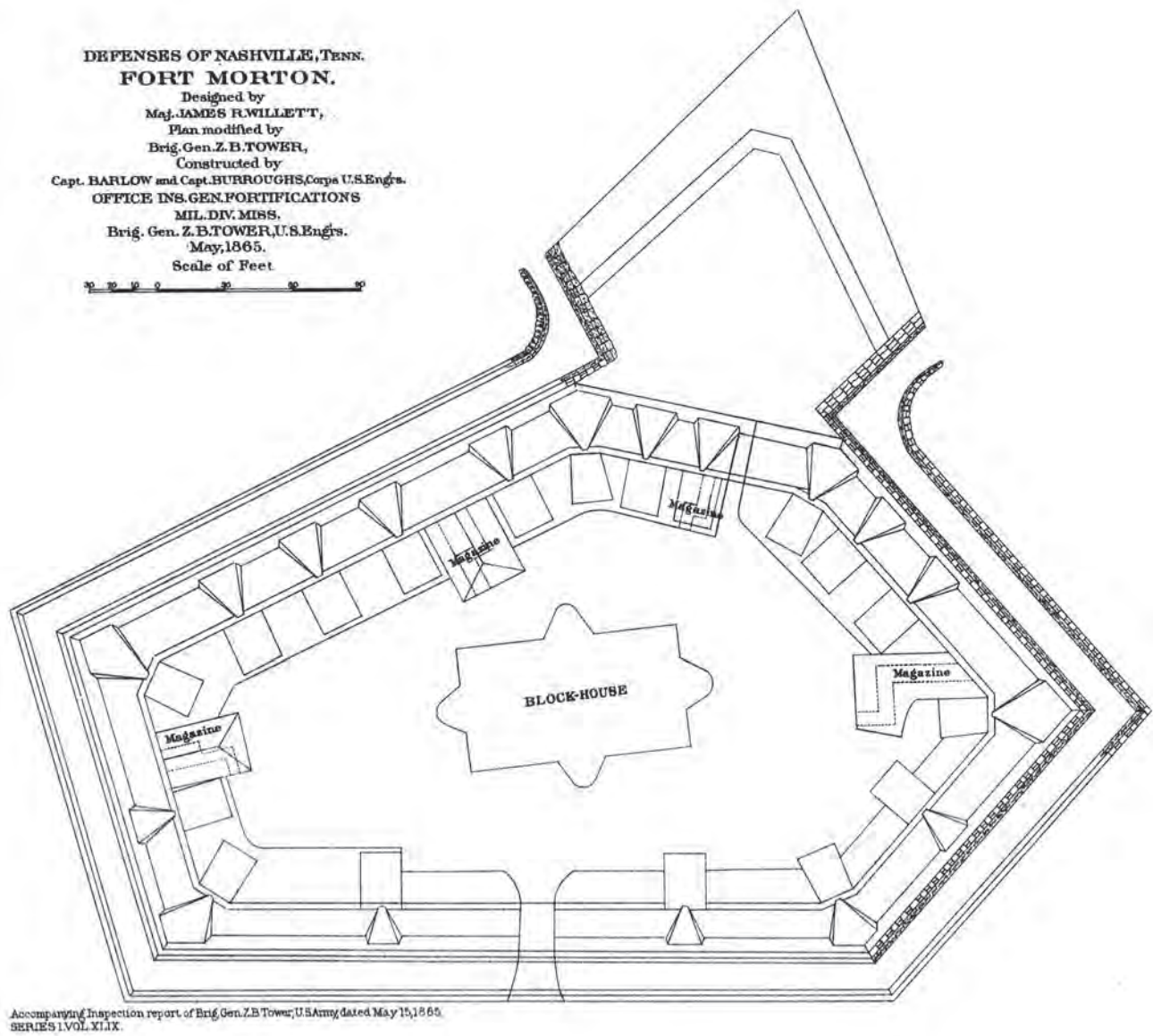
At the beginning of 1864, Fort Morton enclosed one 30-pounder Parrott, one 32-pounder sea-coast, and one 24-pounder siege gun (the last two mounted on carriages like casemate carriages without the chassis).

When Brig. Gen. Zealous B. Tower was put in command of the Nashville defenses in October 1864, he noted that Fort Morton was not even half



completed. He said that Fort Morton, after an expenditure of at least \$15,000, was abandoned by direction of Col. Merrill, Engineers, when he took charge of the Department of the Cumberland Engineers. Fort Morton is a simple polygon, sufficient for the purpose intended. He recommended: “Fort Morton to be completed as now being built. The rear parapet will, however, be reduced to the minimum. It may be necessary to pile up rock and earth on the exterior for a glacis, and as some exterior obstacles, as the work is neither flanked nor has a ditch, and the ground near the fort is not seen from the parapet. The interior block-house covered by the parapet against direct fire, will serve as a keep and bomb-proof.”

In May 1865, Tower issued another report. At that time he was Inspector General of Fortifications, Military Division of the Mississippi: “This work had made some progress, according to the original plans, when Col. Merrill (captain, Engineer Corps), foreseeing that it would never be finished, directed its abandonment and the substitution therefore of a polygonal redoubt, with guns en barbette and an interior block-house. When I assumed general direction of the Defenses of Nashville, this fort was not half finished. I modified it slightly by increasing the number of guns and placing them in embrasure, diminishing the parapets unnecessarily thick, introducing two service magazines, which would serve also as traverses, and reducing the block-house from 120 to 80 feet in length. It was my intention also to build a glacis around the work, revest the scarps with dry stone, and put flanks in the redan, so as to sweep the ditches of the fronts of attack;



A difficult fortification to build due to the rocky nature of the terrain, this elaborate fort anchored the eastern end of the inner line of Federal defenses of Nashville. Shown above is a cross-section of the outer earthworks of Fort Morton.

(All Nashville fortification diagrams from Atlas to Accompany the Official Records of the Union and Confederate Armies)

this has in part been done. The accompanying sketch shows these arrangements. The rocky character of the site of Fort Morton, its position on a high hill, the necessity for blasting the terreplein and for the magazines, and for hauling earth from a much lower level, and the large keep

have made this work expensive and retarded its progress. Fort Morton is nearly finished.”

The fort was abandoned in 1867 after the end of the war and after Tennessee had returned to the Union. No traces of the fortification remain today.

Fort Garesché

On far right flank; also known as the Fort at Hyde's Ferry

Named Fort Garesché in honor of Lt. Colonel Julius P. Garesché, who was killed at the Battle of Stones River, this fort was also known as the Fort at Hyde's Ferry. Today, the site is near the intersection of Buchanan Street and Buchanan Court.

Fort Garesché was built as a large polygonal earthworks that mounted 14 guns with a good field of fire in all directions. Gen. Tower's report of May 1865 included the following: "Hyde Ferry, Fort Garesché - As Fort Gillem is nearly one mile and three-quarters distant from the Cumberland River, it became necessary to close this space by one strong redoubt, at least. Having therefore obtained from the commanding general the aid of the 182nd Ohio Volunteers November last, they were set at work building a strong redoubt on the knoll crossed by the Hyde Ferry road about three-quarters of a mile distant from the ferry and one mile north of Fort Gillem. This position had a good command over the approaches in every direction. Rapid progress was made, so that the fort was prepared to mount a battery at the time of the battles of Nashville. The regiment was called upon to do military duty after the battles, resuming labor upon the work in strength about the middle of January. The ditches and parapet have been finished, and the latter mostly sodded; three magazines, serving as traverses, completed and also sodded. Gabion embrasures have been formed for fourteen guns and twelve platforms laid. The large block-house keep with flanking redans is set up and covered with timber. This covering, after being made water-proof, will be loaded with its parapet. The gateway has yet to be completed. This fort when finished will be very strong and a good specimen of polygonal redoubt. Its angles are made open so that the guns of the faces fire parallel to the capitals. It should be garrisoned and preserved. Were the scarps revetted it would be easily kept in order."

From the American Battlefield Trust (ABT): Lt. Col. Julius Peter Garesché, who served as Rosecrans' chief of staff, was the highest ranking Hispanic officer killed at the Battle of Stones River. Born near Havana, Cuba, in 1821, Garesché graduated from West Point in 1841 and fought in the Mexican War. Garesché later became a



Lt. Col. Julius P. Garesché

leading U.S.-based Catholic scholar, and in 1851 was decorated by Pope Pius IX.

In 1861 Garesché turned down a general's commission, preferring to earn that rank on the battlefield. In the fall of 1862, he was assigned to the Army of the Cumberland at Rosecrans' request.

Late on the afternoon of December 31st, Rosecrans, Garesché and staff watched Breckinridge's final charge from a knoll in full view of both sides. Rosecrans spurred his horse toward the Round Forest, his staff following. Suddenly, a Confederate shell whistled past Rosecrans' head and decapitated Garesché. The headless body continued on horseback for another 20 paces, before slumping to the ground, his blood spattering on Rosecrans. General Sheridan recalled this horrible public death "stunned us all, and a momentary expression of horror spread over Rosecrans' face; but at such time the importance of self-control was vital, and he pursued his course with an appearance of indifference."

DEFENSES OF NASHVILLE, TENN.

FORT AT HYDE'S FERRY.

Built by the 182^d Reg. Ohio Vol 5

Col. L. BUTLER, Comdg.

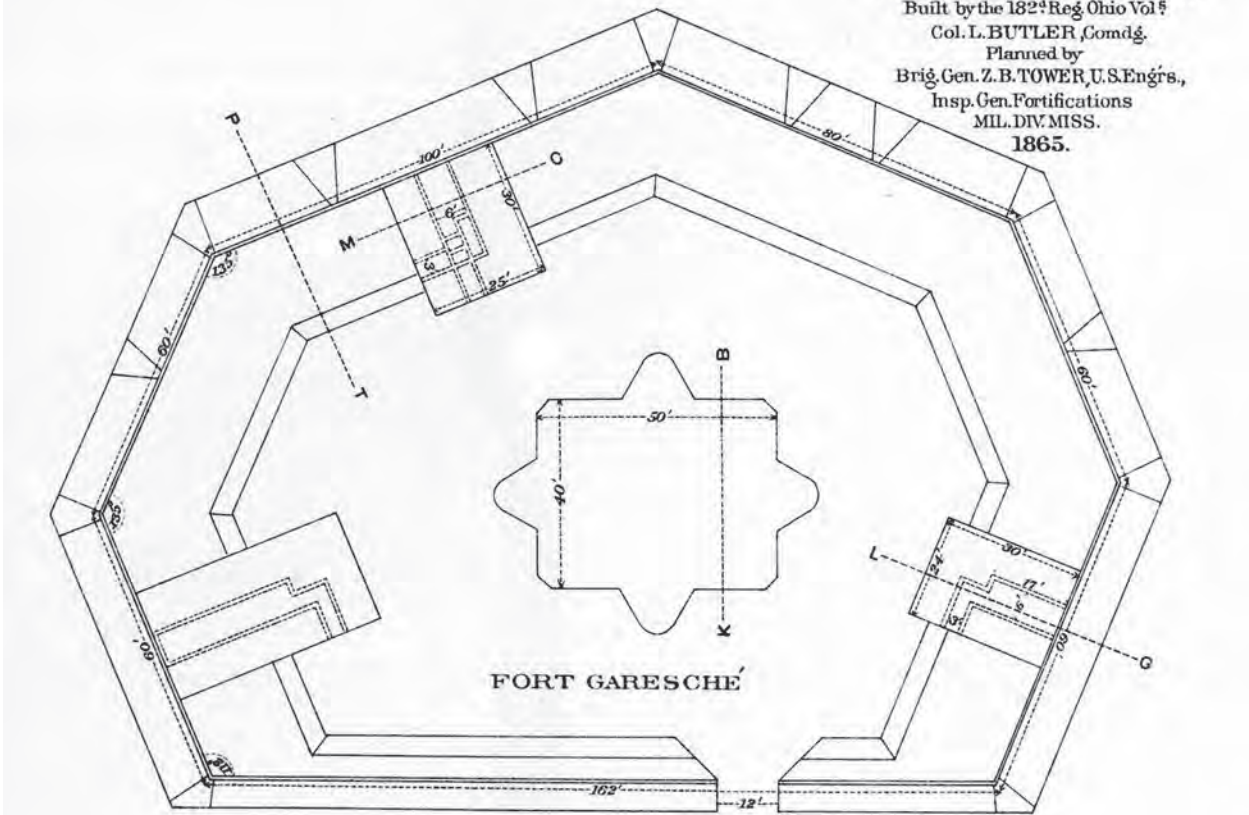
Planned by

Brig. Gen. Z. B. TOWER, U.S. Engrs.,

Insp. Gen. Fortifications

MIL. DIV. MISS.

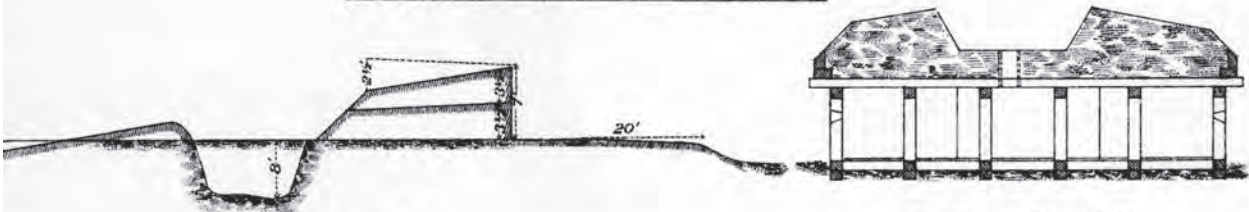
1865.



Scale of Plan:



Scale of Sections:



Section on Line P-T.

Section on Line B-K.



Section on Line L-G.

Section on Line M-C.

Accompanying Inspection report of Brig. Gen. Z. B. Tower, U.S. Army, dated May 15, 1865.
SERIES I, VOL. XLIX

Middle Tennessee Infrastructure

From Louisville to Atlanta, Federal armies in the field relied on a steady flow of supplies to sustain them. Engineers built and rebuilt railroad tracks, trestles and bridges, blockhouses, warehouses and depots, fixed and field fortifications, in addition to maintaining locomotives and rolling stock, horses and mules, and steamboat freighters and river gunboats. Men and animals had to be fed, and fuel for steam engines had to be mined or felled. In addition, troops had to fend off roving bands of Confederate cavalymen and opportunistic guerillas. No matter what, the supplies must get through!



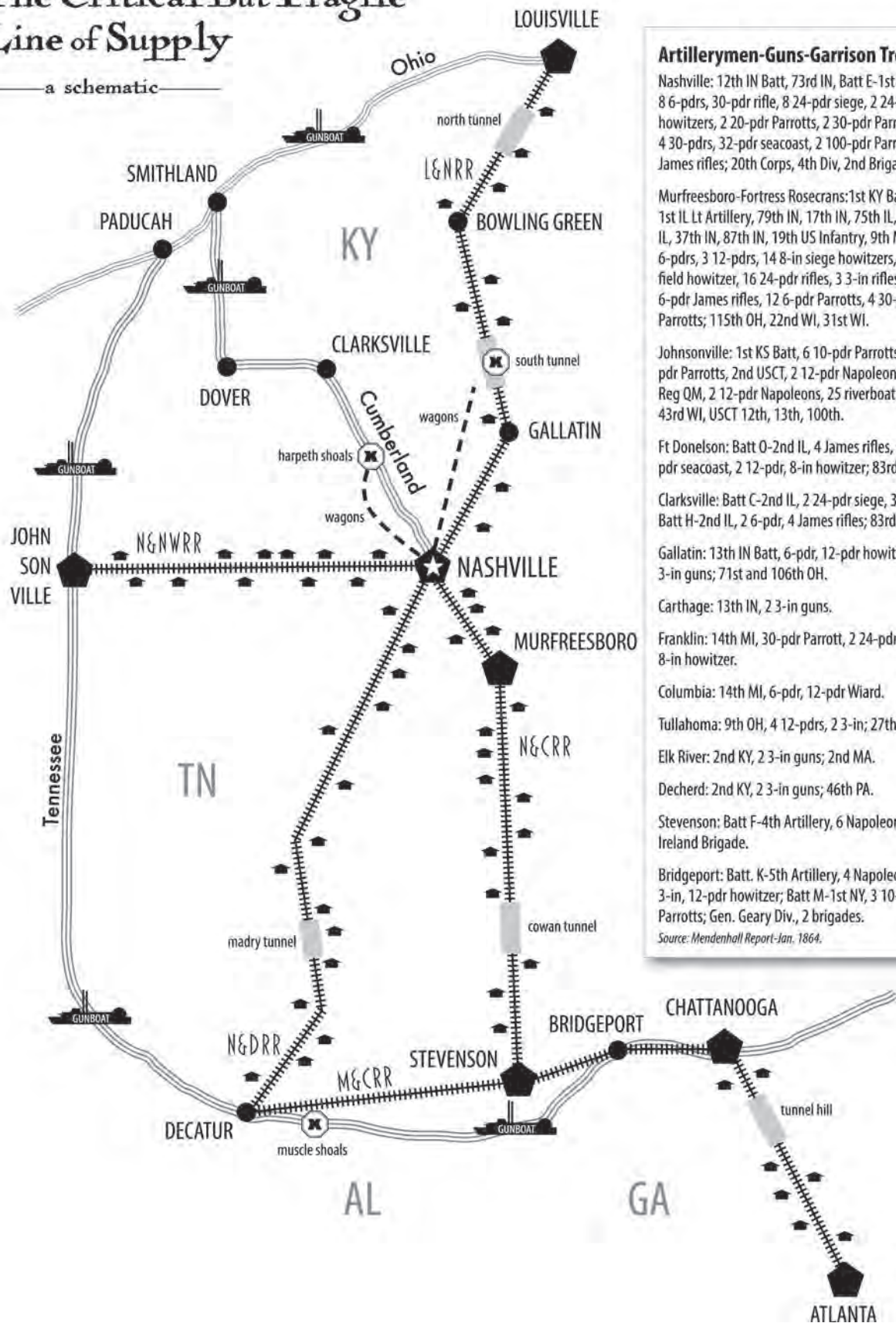
The Eaton Depot in south Nashville stored war materiel. Buildings downtown can be seen in the background. (Tennessee State Library and Archives.)



Unfinished forage house on N&NWRR in Nashville with a group of officers of the Quartermaster Department. The facility was to be built in two sections — 904x156 and 805x112. Only 201 feet of the second section had been completed. A forage house was used to store hay and oats for the Army's horses and mules. (Tennessee State Library and Archives.)

The Critical But Fragile Line of Supply

— a schematic —



Artillerymen-Guns-Garrison Troops

Nashville: 12th IN Batt, 73rd IN, Batt E-1st MI, 8 6-pdrs, 30-pdr rifle, 8 24-pdr siege, 2 24-pdr howitzers, 2 20-pdr Parrotts, 2 30-pdr Parrotts, 4 30-pdrs, 32-pdr seacoast, 2 100-pdr Parrotts, 4 James rifles; 20th Corps, 4th Div, 2nd Brigade.

Murfreesboro-Fortress Rosecrans: 1st KY Batt, 1st IL Lt Artillery, 79th IN, 17th IN, 75th IL, 22nd IL, 37th IN, 87th IN, 19th US Infantry, 9th MI, 10 6-pdrs, 3 12-pdrs, 14 8-in siege howitzers, 12-pdr field howitzer, 16 24-pdr rifles, 3 3-in rifles, 3 6-pdr James rifles, 12 6-pdr Parrotts, 4 30-pdr Parrotts; 115th OH, 22nd WI, 31st WI.

Johnsonville: 1st KS Batt, 6 10-pdr Parrotts, 2 20-pdr Parrotts, 2nd USCT, 2 12-pdr Napoleons, 1st Reg QM, 2 12-pdr Napoleons, 25 riverboat guns; 43rd WI, USCT 12th, 13th, 100th.

Ft Donelson: Batt O-2nd IL, 4 James rifles, 4 22-pdr seacoast, 2 12-pdr, 8-in howitzer; 83rd IL.

Clarksville: Batt C-2nd IL, 2 24-pdr siege, 3 6-pdr, Batt H-2nd IL, 2 6-pdr, 4 James rifles; 83rd IL.

Gallatin: 13th IN Batt, 6-pdr, 12-pdr howitzer, 4 3-in guns; 71st and 106th OH.

Carthage: 13th IN, 2 3-in guns.

Franklin: 14th MI, 30-pdr Parrott, 2 24-pdr rifles, 8-in howitzer.

Columbia: 14th MI, 6-pdr, 12-pdr Wiard.

Tullahoma: 9th OH, 4 12-pdrs, 2 3-in; 27th IN

Elk River: 2nd KY, 2 3-in guns; 2nd MA.

Decherd: 2nd KY, 2 3-in guns; 46th PA.

Stevenson: Batt F-4th Artillery, 6 Napoleons; Col Ireland Brigade.

Bridgeport: Batt. K-5th Artillery, 4 Napoleons, 2 3-in, 12-pdr howitzer; Batt M-1st NY, 3 10-pdr Parrotts; Gen. Geary Div., 2 brigades.

Source: Mendenhall Report-Jan. 1864.

U.S. Military Hospitals

Contagious deadly diseases killed far more soldiers during the Civil War than combat. Nashville became a major medical center, with more than two dozen military hospitals tending to the wounded, especially following the battles at Shiloh, Stones River, Chickamauga, and Franklin-Nashville. Fourteen thousand wounded were brought to Nashville after Shiloh, and 60 to 100 died each day in the hospitals. The dead were buried at City Cemetery; after the war, a National Cemetery was sited north of the city.

Downtown Nashville housed 25 hospitals converted from schools, churches, mercantile, and other buildings. Many hospital buildings were white-washed with lime around the foundations to prevent “contagion.” An inspection of Nashville hospitals by a local newspaper reporter in 1863 found them quiet, efficient, well-staffed, and extremely clean, under the circumstances. The *Nashville Dispatch* series of articles were so complimentary, in fact, they must have been intended to curry favor with the local Federal officials.

The officers and directors of Nashville hospitals were: Medical Director of Department, Surgeon Ebenezer Swift; Medical Inspector of Department, Lt. Col. Wyman; Medical Director of Post, Staff Surgeon A. Henry Thurston; and Roman Catholic Post Chaplain, Reverend J.A. Stevens. The Medical Purveyors Office was located in the Gardner Building on the Public Square.

Hospital No. 2 included one building with a room devoted entirely to “dead men’s knapsacks.”

Hospital No. 16 for “coloreds” had housed a furniture store, a brass band, painters, and two saloons. The former Planter’s Hotel with two long balconies was converted to the U.S. Sanitary Commission Soldiers Home for officers.

The 26-hole latrine in the side yard of Hospital No. 8 was replaced for sanitary reasons by a two-story outhouse with drains that leaked, not a satisfactory solution to the problem.

Patients were directed to the prison hospital by the provost marshal. At the prison hospital, the sergeant-of-guard had 30 men detailed to guard the patients. Most hospitals had a chaplain. In many hospitals, Catholic nuns served as nurses. The size of the staffs varied from approximately 100 employees at the Morris & Stratton hospital to 2,580 at the H.S. French and Sons hospital.

Near the end of the war, the attendants and patients of Hospital No. 8 presented acting assistant surgeon George Duzan, 23, of the 52nd Indiana Regiment, a silver pocket watch valued at \$75 (\$1,000 today) in recognition of his “kind attention, skillfull treatment, and gentlemanly deportment.”

Field hospitals sprawled beyond the city limits. The Cumberland Field Hospital, about a mile west of the Capitol, covered 30 acres and 384 floored tents, each with six patients (2,304 beds). The hospital also included 21 frame buildings. The army’s smallpox field (tent) hospital was located west of town on the Charlotte Pike at the H.P. Bostick estate.



Hospital No. 2 included the former Western Military Institute (top) and Lindsley Hall (above) on College Hill. Formerly they were the University of Nashville’s Literary Department and dormitory, respectively. (Below) The Ensley Building on the Public Square housed 200 beds. (Bottom) The Hynes High School served as Hospital No. 15. Located near notorious Smoky Row, it treated victims of venereal disease. (Opposite Page) The twin-towered First Presbyterian Church and the four-story Masonic Hall across Spring Street formed Hospital No. 8. The church sanctuary housed 206 beds. Next to the Masonic Hall is a stoneyard. The former military institute building, now a municipal office, and the church, now Downtown Presbyterian Church, still stand. (All photos Tennessee State Library and Archives)



Medical Facilities in Nashville During the War

By the middle of 1863 there were 25 military hospitals in Nashville, scattered throughout the city. The brick Cherry Street Baptist Church on Elm was used as the Post Hospital, with 125 beds. (The City Hospital was destroyed by fire on Feb. 20, 1863, with all 240 patients safely evacuated.) St. Mary's Catholic Church at Charlotte Ave. and Fifth St. also treated patients.

1. College Hill Armory, Third Presbyterian Church, and Primitive Baptist Church, South Cherry St. on College Hill (650 beds total).
2. University buildings, South Market St. on College Hill. Formerly the Western Military Institute (300 beds) and Lindsley Hall, 200 beds for officers.
3. Ensley buildings, SE corner of Public Square, 250 beds.
4. Howard High School, South College St. on College Hill.
5. Gun factory and state armory, upper end of Front Street.
6. Meredith Building, College Street near Broad.
7. Buildings, College Street between Church and Broad.
8. Masonic Hall, 368 beds, and First Presbyterian Church, 206 beds, Church St. near Summer. The Cumberland Presbyterian Church, corner of Cumberland Alley and Summer St., had 41 beds.
9. Carriage factory, North Market St. below the Public Square, 150 beds.
10. Medical College, South College Street. Also called City Hospital. Confederate soldiers were treated there.
11. Pest House on University Pike, 720 beds. Treated soldiers with venereal disease, and subsequently, infected prostitutes.
12. Broadway Hotel, Broad St. between Cherry and Summer, 500 to 600 beds.
13. Hume High School, South Spruce Street and corner of Broad.
14. Nashville Female Academy, Church St. near Nashville & Chattanooga R.R. Depot, 775 beds.
15. Hynes High School, Line St. at corner of Summer, 400 beds. Treated soldiers with venereal disease.
16. Gordon Block, corner of Broad and Front, served "colored" soldiers and contrabands, 375 beds.
17. Planters Hotel, North Summer corner of Deaderick, for officers, 120 beds.
18. Corner of Church and College.
19. Morris and Stratton (grocer's) Building, 14 North Market St, 300 beds.
20. First Baptist Church, North Summer St. between Deaderick and Union.
21. McKendree Methodist Church, Church St.
22. H.S. French & Son, corner of Clark and Market, 136 beds.
23. Corner of Vine and Broad.
24. Prison hospital, Second Baptist Church, South Cherry St. on the Hill.
25. Maxwell House, corner of Cherry and Church, convalescent barracks.



U.S. Army Legalized, Regulated Prostitution

During the war, hundreds of prostitutes came to Nashville to ply their trade. Venereal disease reached epidemic proportions among the U.S. Army soldiers stationed in or near the city, threatening military preparedness. Most of the business was conducted in a six-block-square of downtown known as Smoky Row.

On July 6, 1863, Gen. Robert Granger, the post commander, ordered all prostitutes out of the city. Three hundred to four hundred "soiled doves" (and a few victims of mistaken identity) were rounded up, forced onto steamboats at the wharf, and sent to Louisville. Black prostitutes were exempt from Granger's order, for unknown reasons. Louisville and Cincinnati refused to allow docking. By the end of July, the prostitutes were returning. By Aug. 4, one steamboat, shunned by every city on the river, returned to Nashville. More prostitutes than ever plied their trade in the city.

Granger rescinded his order and accepted the recommendation of the Provost Marshal that prostitution be legalized and regulated. "Public women" were ordered to be examined by U.S. Army surgeons for venereal disease. Those free of disease were granted a \$30 license by the Provost Marshal to conduct business. By August 21st, at least 360 prostitutes had been licensed. By Sept. 1, 1864, the army had licensed 460 prostitutes in Nashville. Infected prostitutes were treated at a hospital building on the western city limits that had previously been used for smallpox patients. Later, Hospital No. 11 on University Pike, once a pest house, was converted into a second hospital for prostitutes. Nearly a thousand cases of venereal disease had been diagnosed among prostitutes the first six months of 1864. Hospital No. 15 treated soldiers with VD, cutting the infection rate from 40% to four percent. The legalization of prostitution was repealed after the war.

Fort Granger and Triune Works

Powerful artillery batteries pounded attackers at Battle of Franklin

Fort Granger was built by Federal forces in March-May 1863 to guard the Nashville & Decatur Railroad bridge over the Harpeth River near Franklin, 17 miles south of Nashville. Named for General Gordon Granger, commander of Federal forces in Franklin in 1863, this earthen fort was constructed by laborers working 16 hours a day under the supervision of Col. W.E. Merrill of the U.S. Topographical Engineers. Figuer's Bluff was chosen as the site for the fort because it held command over the southern and northern approaches to Franklin and held military control over the Harpeth River railroad bridge.

Granger (1821-76), a native New Yorker, was a West Pointer (Class of 1845), a Mexican War hero, and frontier soldier. He is best known for coming to the aid of Gen. George Thomas at the Battle of Chickamauga and quite possibly saving Rosecrans' army from annihilation. He is also known for making the Juneteenth proclamation in 1865 in Galveston, celebrating the end of slavery in Texas. Granger's outspokenness and bluntness with his superiors, including Grant, who disliked him, prevented him from gaining more prominent commands. He is buried in the Lexington (Ky.) Cemetery.

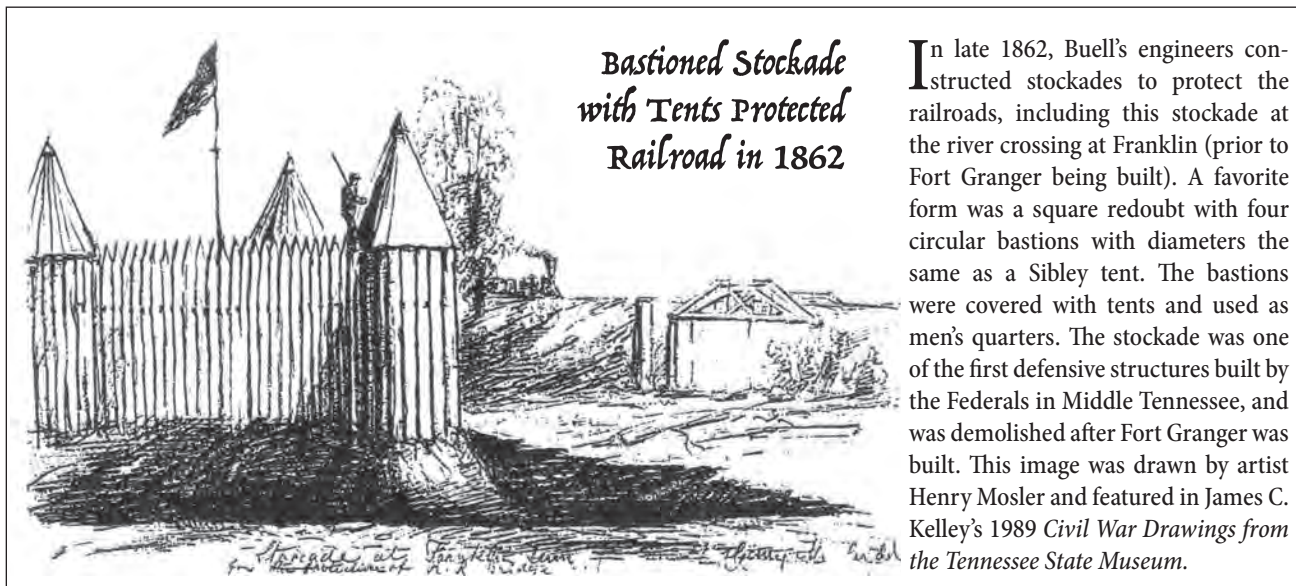
He is not to be confused with Gen. Robert Granger, who served as post commander in Nashville.

On Feb. 12th, 1863, the 125th Ohio Volunteer Infan-

try, led by Colonel Emerson Opdycke, arrived to begin construction of the fort under the supervision of Corps of Engineers Captain William Merrill. Silas N. Jones, Sergeant of Co. C, 125th Ohio, was placed in charge of contraband (fugitive slave) labor. A March 11th report stated, "He has now on his roll, able for duty with pick, axe, and shovel, over 250 names." The fort took 10 weeks to complete.

Fort Granger was 781 feet long and 346 feet wide, encompassing 11.76 acres (comparable to four football fields) and contained two fortified fronts, on the northern and eastern sides. The powder magazine was constructed in the basement of a house which stood on the site and burned down before the war. It was lined with bricks from nearby Harpeth Academy, which at that time stood west of Hillsboro Pike. The magazine was capable of holding 1,200 rounds of artillery ammunition. In 1864, a shed was built over the magazine to keep the ammunition dry. The ammunition was frequently taken out and aired because of dampness. A cistern from the house could hold 9,000 gallons of water. The storehouse could hold 70,000 rations.

The cavalier, or fort within a fort, was built in the southernmost area where the ground was the highest. This was the strongest area of Fort Granger and, in case of overwhelming attack, the place where defenders would make a final stand. This was an ideal location for artillery and provided the best view of the surrounding area. The cavalier



*Bastioned Stockade
with Tents Protected
Railroad in 1862*

In late 1862, Buell's engineers constructed stockades to protect the railroads, including this stockade at the river crossing at Franklin (prior to Fort Granger being built). A favorite form was a square redoubt with four circular bastions with diameters the same as a Sibley tent. The bastions were covered with tents and used as men's quarters. The stockade was one of the first defensive structures built by the Federals in Middle Tennessee, and was demolished after Fort Granger was built. This image was drawn by artist Henry Mosler and featured in James C. Kelley's 1989 *Civil War Drawings from the Tennessee State Museum*.

The Pioneer Brigade

Engineers built with tools, fought with rifles

In October 1862, following the battle at Perryville, Ky., Federal General Don Carlos Buell was replaced by Gen. William S. Rosecrans, who would lead the Army of the Cumberland. Earlier that summer, Buell's forces were approaching Chattanooga when Confederate cavalry wrecked his supply lines and lines of communication, a failure attributed to Buell's poor performance in logistics and engineering. By Sept. 7, 1862, all of Buell's forces had withdrawn back to Nashville, then forced to turn back Bragg's invasion of Kentucky. Rosecrans, 44, was a West Point graduate (5th in Class of 1842) and former member of the US Army Corps of Engineers. Old Rosy served briefly at Fort Monroe before returning to the academy as an engineering professor and post quartermaster.

In 1847-53, he worked at several engineering sites in New England and assisted in the building of St. Mary's Church in Newport, R.I. (site of John F. Kennedy's wedding in 1953). A religious man, Rosecrans had converted from Methodism to Catholicism in 1845. Due to failing health, he quit the Army in 1854 and took several civilian positions. He took over a mining business in western Virginia and ran it successfully. He designed and installed one of the first complete lock and dam systems in western Virginia on the Coal River. In Cincinnati, he and two partners built one of the first oil refineries west of the Allegheny Mountains. While Rosecrans was president of the Preston Coal Oil Company, in 1859, he was burned severely when an experimental "safety" oil lamp exploded, setting the refinery on fire. It took him 18 months to recover, and the resulting facial scars gave him the appearance of having a perpetual smirk.

Rosecrans was determined to nurture and exploit the expertise of his engineering corps and avoid the logistical mistakes of his predecessor. Instead of random selection of laborers, Rosecrans made sure that select

craftsmen were detailed for the job. By his order, three thousand hand-picked men

would spend the next 18 months of their enlistment in the newly formed Pioneer Brigade. Rosecrans issued General Order No. 3 on Nov. 3, 1862, which stated:

"There will be detailed immediately, from each company of every regiment of infantry in this army, two men, who shall be organized as a pioneer or engineer corps attached to its regiment. The twenty men will be selected with great care, half laborers and half mechanics. The most intelligent and energetic lieutenant in the regiment, with the best knowledge of civil engineering, will be detailed to command, assisted by two non-commissioned officers. This officer shall be responsible for all equipage, and shall receipt accordingly.

"Under certain circumstances it may be necessary to mass this force: when orders are given for such a movement, they must be promptly obeyed. The wagons attached to the corps will carry all the tools, and the

Rosecrans was determined to nurture and exploit the expertise of his engineering corps and avoid the logistical mistakes of his predecessor.

men's camp equipage. The men shall carry their arms, ammunition, and clothing.

"Division quartermasters will immediately make requisitions on chief quartermasters for the equipment, and shall issue to regimental quartermasters on proper requisition.

"Equipment For Twenty Men - Estimate For Regiment:

Six Felling Axes
 Six Hatchets
 Two Cross-Cut Saws
 Two Cross-Cut Files
 Two Hand-Saws
 Two Hand-Saw Files
 Six Spades
 Two Shovels
 Three Picks
 Six Hammers
 Two Half-Inch Augurs
 Two Inch Augurs
 Two Two-Inch Augurs
 Twenty lbs. Nails, Assorted
 Forty lbs. Spikes, Assorted
 One Coil Rope

Fortress Rosecrans

Morton's other masterpiece ~ Largest earthen fortification built during the war

In the months following the Battle of Stones River near Murfreesboro, engineers and thousands of Union soldiers and black laborers toiled around the clock to build a huge fortified supply depot on the Tennessee & Chattanooga Railroad, named Fortress Rosecrans, which would supply future Federal campaigns against Chattanooga and Atlanta.



The fort was designed by Brig. Gen. James St. Clair Morton, Chief Engineer of the Army of the Cumberland, and named after the commanding general, William Rosecrans. It was built by the newly created Pioneer Brigade and the First Michigan Engineers, and gangs formed from the 40,000 infantrymen stationed there.

The construction of the fort, the largest earthen fortification built during the Civil War, began on Jan. 23, 1863 and was completed in June, although functional before then. The resulting 200-acre fort was large enough to protect an army of 50,000 troops and could stockpile enough supplies to feed that army for up to 90 days. It was sited 1.5 miles northwest of the antebellum Rutherford County courthouse in Murfreesboro. Following the fort's completion, a heavy artillery piece targeted the courthouse in case the local population rose up in rebellion. Other artillery pieces were sited at points 900 to 1,450 yards distant.

The project was massive, and along with Fort Negley, one of Morton's masterpieces. Due to the terrain, Morton designed Fortress Rosecrans from earthworks rather than stone.

On Feb. 15, 1863, John C. Spence of

Murfreesboro, owner of the Red Cedar Bucket Factory, wrote: "Preparation is being made for building fortifications and rifle pits near this place. Large quantities of timber trees are cut and hauled to the grounds. The work is commenced and pushed on rigorously—digging and blasting rocks. A great number of negroes are employed at this kind of work, under pay, of course. Field hospitals are being built by tearing down and hauling away houses in town without even posting notice to the owner. Such is power — it can tyrannize over weakness. Fortifications — They will scarcely ever have an opportunity of firing a gun at an enemy at this place, but military men probably know the best."

Work was hard, but supplies were abundant. In the period of one month, the First Michigan's 800 men built a magazine 140x30 feet and 12 feet high, an ordnance building 100x30 and 14 feet high, and a storehouse large enough to hold five million rations.

"The Army of the Cumberland was well protected and housed during the winter of 1863," according to historian Geoffrey L. Blankenmeyer. "It was also the best fed during any other

time spent in this war."

A vast complex of weapons, ammunition, and food storehouses sprawled across the open ground within the fort. The fort also included four sawmills and a 50-acre vegetable garden used by the large local hospital. In addition to 14,600 feet of exterior defenses — ten lunettes linked by curtain walls and other obstructions — Fortress Rosecrans included four interior fortifications, called redoubts.

Blankenmeyer described the layout of the fortress depot:

"Two lunettes, Negley and Stanley and battery Cruft were located north of Stones River. Redoubt Schofield was located behind and in support of these three strong points. Lunettes Palmer, Thomas, McCook, Crittenden, Granger, Rousseau and Reynolds and battery Mitchell were located in a wide arc along the south bank of the river. Within this perimeter were the three other redoubts Brannan, Wood and Johnson. Demi-lunettes Davis and Garfield were located on the high ground. The magazine, ordnance, quartermaster and engineer's depots were south of the river and the commissary depots were on the north side. In all, the fortress measured 1,250 yards by 1,070 yards, spanned



Behind enemy lines, Confederate cavalry captain John Hunt Morgan struck against the Louisville & Nashville railroad in the Green River country of Kentucky the winter of 1861-62. Morgan led many raids against infrastructure in Nashville and Middle Tennessee. (Original art by John Paul Strain. Used with permission.)

U.S. Military Railroads and River Freighters

On September 2nd, 1864, General William T. Sherman's armies marched victoriously into Atlanta, an event that helped ensure Lincoln's re-election and the successful prosecution of the war. This following a four-month-long plodding campaign through northwestern Georgia against dug-in Confederate veterans. And it all hinged on a single railroad track back to Chattanooga and a vulnerable supply chain winding back to Nashville and Louisville. Sherman's victory simply would not have happened without that railroad line of supply.

During the campaign and ten-week-long occupation of the city, Sherman noted that his armies required the daily delivery of 1,600 tons of supplies on 160 rail cars over a rail system 473 miles long for a period of more than six months.

This logistics chain necessitated the use, at least to some extent, of at least seven railroad lines, including the completion of one line, the Nashville & Northwestern, from Nashville to the new supply depot at Lucas Landing on the Tennessee River. Confederate cavalry operating behind the lines were keen on disrupting this flow of vital goods, especially at choke points such as bridges, trestles, tunnels, and the depots themselves. Chief Engineer Capt. William E. Merrill reported that

his men helped build 160 blockhouses for Federal garrisons to protect this infrastructure, 47 on the line between Nashville and Chattanooga alone.

During the 1864 campaign, Sherman's armies comprised 98,000 men and 35,000 horses and mules. Supplies were needed 20 days ahead of requirements. From November 1863 through August 1864, the following supplies passed through Nashville headed to the Atlanta campaign:

- 41,122 horses and 38,724 mules
- 3,795 wagons
- 445,355 pairs of shoes
- 542,693 pairs of pants
- 177,842 coats and overcoats
- 342,590 shirts
- 975,201 socks
- 253,136 hats and 75,436 caps

- 116,106 knapsacks
- 290,000 blankets
- 529,000 tents
- Millions of bushels of corn and oats, and tens of thousands of tons of hay.

Back at Louisville, the depot there built up a stock of 10 million rations and forwarded 300,000 per day. Five hundred and fifty barrels of flour per day were used by the cracker and bread bakeries. One thousand hogs were processed each day.

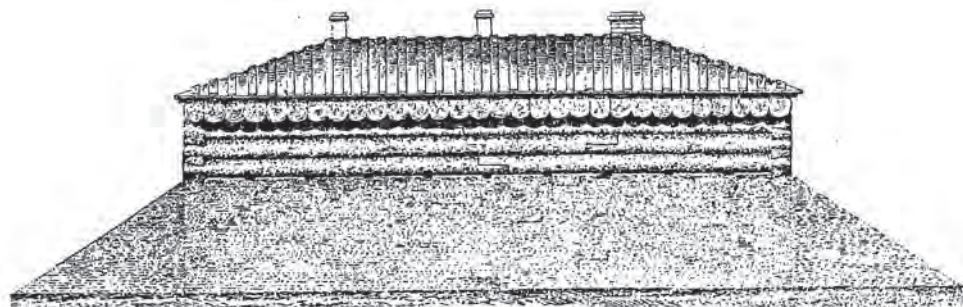
Brig. Gen. L.C. Easton was Sherman's quartermaster, while Col. Lewis B. Parsons was in charge of river and rail transportation in the district.

Gen. Robert Allen, chief quartermaster in the Western Theater, said, "No army in the world was ever better provided than Sherman's."

If the initial invasion of the South had been led by gunboats plying the rivers, it was the railroad that sustained the territorial gains of the U.S. Army and provided the main mode of transportation. At the time of occupation, Nashville was served by five railroad companies:

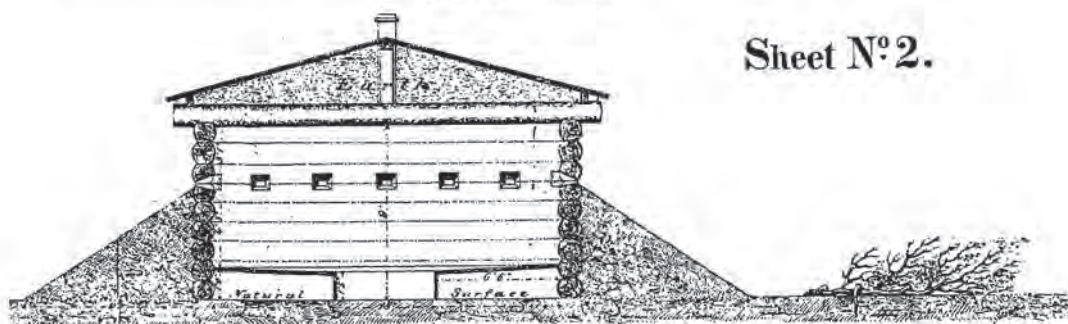
BLOCK-HOUSE SKETCHES

for practical use in the field,
by
Capt. W.E. Merrill, U.S. Engrs.
Chief Engr. Army Cumberland.



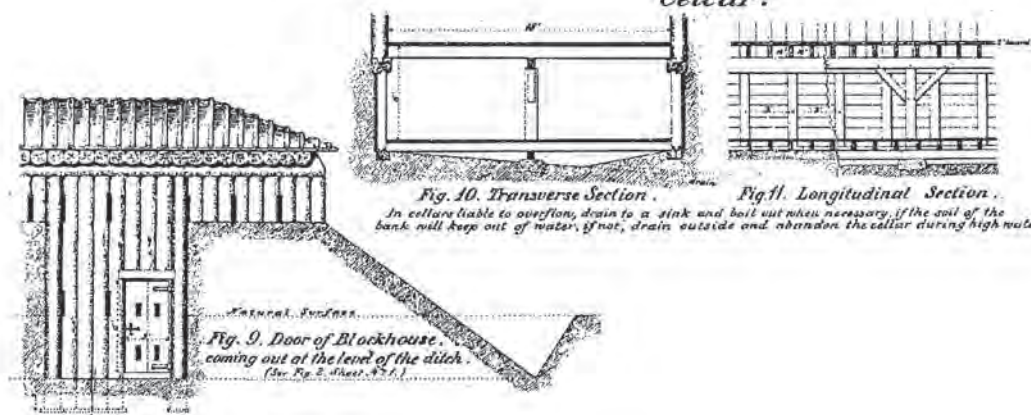
Side Elevation.

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Transverse Section

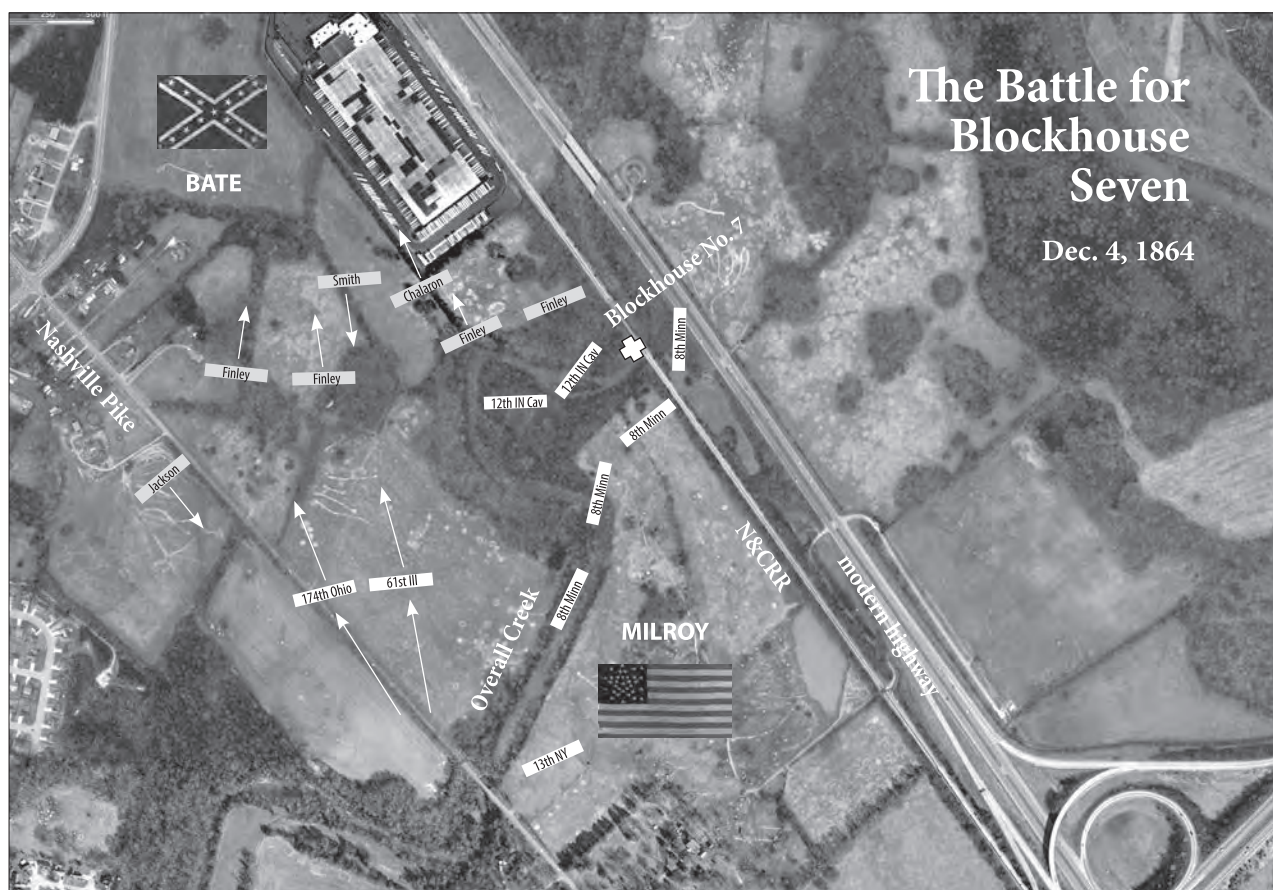
Cellar.



Adapted from Blockhouse Sketchs (3/1864) by Col. William E. Merrill (Buell-Brien Papers, Tn. State Library and Archives.)

Capt. William E. Merrill was meticulous in the preparation and modification of plans for railroad blockhouses. Instructions and designs were provided to the officers and men working on their construction. Many of the design elements resulted from March 1864 experiments carried out by Capt. Merrill, with the assistance of Lt. Col. Kinsman Hunton of the First Michigan Engineers. Most of the more frivolous elements, such as the turrets, were never built in the rush to complete the blockhouses.

(Buell-Brien Papers, Tennessee State Library and Archives.)



Blockhouses on Nashville & Chattanooga Railroad between Nashville and Murfreesboro:

No. 1—NE of Mill Creek crossing about one mile south of Dogtown.

No. 2—Half mile SE of No. 1 at Mill Creek crossing.

No. 3—1.5 miles SE of No. 2 near Mill Creek Pike, the creek and the railroad, two miles north of Antioch.

No. 4—Bridge at Hurricane Creek.

No. 5—Bridge across Hart's Branch, just north of downtown Smyrna.

No. 6—Bridge across Stewart's Creek.

No. 7—Bridge over Overall Creek, four miles NW of Fortress Rosecrans.

In April 1864, Chief of Staff Brig. Gen. William D. Whipple recommended that 1,460 troops be stationed at 45 blockhouses along the Nashville & Chattanooga Railroad, running from Mill Creek to Chattanooga Creek, with garrisons at Murfreesboro, Tullahoma, Stevenson, Ala., and Bridgeport, Ala. Troops to be stationed included the 23rd Missouri, 115th Ohio, 33rd and 85th Indiana, and 31st Wisconsin.

He recommended the following arrangement of troops along the line from Nashville southward:

Three batteries in forts at Nashville, already in position. This in addition to the infantry.

The 23rd Missouri is to be ordered to McMinnville to relieve the 18th Michigan, which regiment will then join its brigade.

Col. Coburn's Brigade to join its division. Three companies of artillery to be assigned to Murfreesboro. The convalescents to be armed with muskets.

Gen. Rousseau to man the blockhouses from Nashville to Murfreesboro.

Two regiments at Murfreesboro, and in blockhouses as far as Tullahoma.

One regiment at Tullahoma.

One regiment at Stevenson.

Bridgeport, two regiments proposed, although it requires 3,000 men on both sides of river, and three batteries.

First Michigan Engineers & Mechanics

Volunteer Engineers Matched West Pointers in Building Skills

Civil engineers played a significant role in the Civil War, many volunteering for military duty as able mechanics and others performing as official engineers. Such was the case of the esteemed First Michigan Regiment of Engineers and Mechanics, which served in Tennessee and the mid-South as part of the Army of the Cumberland. During the war, the regiment was involved in the battles of Mill Springs, Perryville, Stones River, Chattanooga, and Sherman's March to the Sea. They were also heavily involved in building Nashville's fortified infrastructure and its rail lines.

The volunteer regiment was formed in Marshall, Mich. (Camp Owen) in 1861 with the approval of Secretary of War Simon Cameron and Governor Austin Blair. Their founder and leader throughout the war was William P. Innes, 35, a prominent railroad surveyor and civil engineer from Grand Rapids. Innes seemed fated for railroad work, leaving home at age 13 to work the rails. His only military service was six weeks as a private in the Mexican War. During the 1850s, he served as chief engineer for the Grand Rapids & Northern Railroad Company.

The regiment comprised about 1,000 men of various backgrounds, including mechanics, craftsmen, farmers, laborers, carpenters, and wagonmakers. About 15 percent of the men were officially too old or too young to serve. Many were related. One father-son team (there were 25 pairs) were 54 and 13 years old respectively. The officers ranged in age from 26 to 54, and were engineers, physicians, ministers, merchants, farmers, and a master railroad mechanic.

The unit first served under General



Colonel William P. Innes

Don Carlos Buell and arrived in Nashville in November 1862 following the Battle of Perryville, Ky. They were put to work fixing the Louisville & Nashville Railroad to Gallatin and building three bridges over Mill Creek on the Nashville & Chattanooga Railroad, all in the first two weeks.

About that time, General William S. Rosecrans replaced Buell as commander of the Army of the Cumberland. Morale was a big problem at the time. Rosecrans noted that "many soldiers have sought and allowed themselves to be captured and paroled by the enemy to escape from further military duty, and in order to be sent home." The First Michigan was

not being paid the \$17 per month as engineers, rather the \$13 per month as infantrymen. Congress corrected that inequity in July 1862, but the men still hadn't been paid for nearly a year. About one hundred of the engineers actually mutinied and refused to work. These men were sentenced to 30 days of hard labor, three days of only bread and water, and confined to the Nashville Workhouse, which was so drafty and sooty it was known as the "smokehouse."

The pay issue was resolved, and other than turf wars and petty jealousies among the officers, the men worked throughout the war with high morale and justified pride in their accomplishments. Plus, they realized that they enjoyed more creature comforts than regular infantrymen.

On Jan. 1st, 1863, in the midst of the Battle of Stones River (Murfreesboro), the regiment found itself in Lavergne, a small village on the main pike between the battle and Nashville. Much of the Federal army had been routed the previous day. The village was smoldering, along with hundreds of supply wagons torched by Confederate cavalry. The First Michigan cleared the way for large trains of wounded headed back to Nashville and stemmed the tide of stragglers and deserters. They camped east of the pike, about a mile south of the village and half a mile from the railroad tracks. Using abandoned wagons, timber, and any other debris they could find, they built crude breastworks to crouch behind — 400 men armed mostly with old 1842 rifled muskets although 100 had newer Springfields and Enfields. Soon they were beset by thousands of troopers in Brig. Gen. John A. Wharton's command, which

Johnsonville *and the* Nashville & Northwestern Railroad

River Depot and Rail System Vital to Union Conquest

On May 19th, 1864, a large party of celebratory Federal officials, including Military Governor Andrew Johnson, rode a passenger train 78 miles west from Nashville on the recently constructed Nashville & Northwestern Railroad to dedicate the new supply depot at Lucas Landing on the Tennessee River. Following a brief celebratory speech upon reaching their destination, Johnson named the new military facility after himself.

Barely six months later, after Johnsonville had proven vital to Sherman's campaign against Atlanta, Confederate cavalry attacked the depot and destroyed much of the riverfront facilities, plus four gunboats. Several days later, Johnson was elected Vice-President of the United States on the Union Party ticket with President Lincoln.

The building of the depot and the Nashville & Northwestern Railroad "remains as one of the greatest engineering feats of the Civil War," according to historian Jerry Wooten, author of *Johnsonville*.

In 1863, the necessity for a terminal on the Tennessee River became apparent when low levels on the Cumberland River precluded steamboat deliveries at the Nashville wharf and the disabling of the Louisville & Nashville Railroad tunnel at Gallatin complicated shipments from Louisville.

[For more details on steamboat shipping, see author's *Iron Maidens and the Devil's Daughters*.]

The Nashville & Northwestern Railroad had been built from Nashville to



Andrew Johnson

Kingston Springs when the war halted construction. On Oct. 22nd, 1863, Secretary of War Stanton ordered the N&NWRR to be completed for military purposes and placed Johnson in charge of the project. Col. W.P. Innes, the commander of the 1st Michigan Engineers, was placed in charge of the construction. At the last moment, the planners switched the terminus of the route from the riverport of Reynoldsburg to Lucas Landing, where the river channel was 380 yards wide and 60 feet deep.

Dissatisfied with the pace of construction, U.S. Grant replaced Innes with a personal friend of his, General D.C. McCallum, a native of Scotland, in February 1864. McCallum then appointed W.W. Wright to supervise the railroad work. Wright chose Lt. Col.

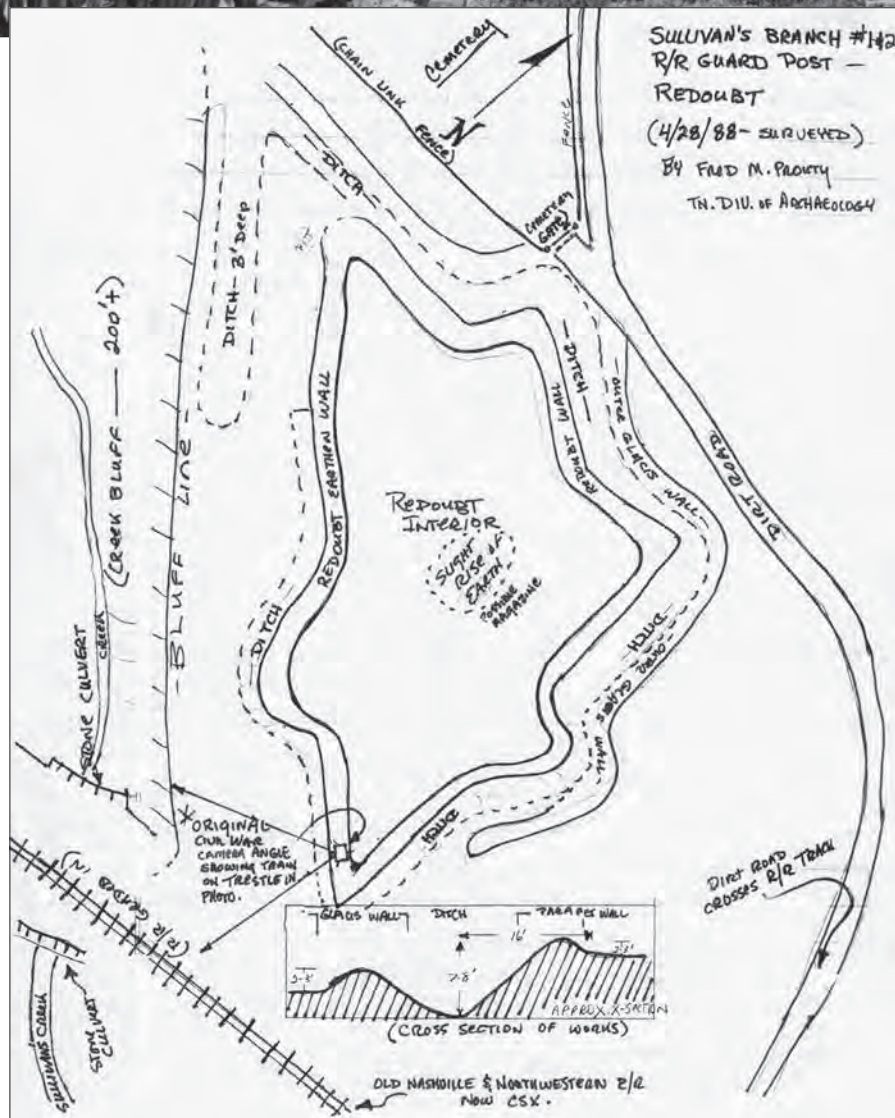
John Clark as his chief engineer. Wright then had Grant order 2,000 mechanics and laborers sent from the North to work on the road. J.B. Anderson, general manager of military railroads, provided the locomotives and cars.

The project involved "a rather formidable amount of grading, bridging, track laying, and other work incidental..." reported Wright. More than 50 miles of track were laid using seven different pattern of rails and 107,000 crossties, most manufactured on-site. The road required the building of 45 trestles, more than four miles in combined length and requiring four million feet of lumber. The giant trestles at Nashville, Sullivan's Branch, and Johnsonville were 2,151 feet long, 1,326 feet long, and 1,525 feet long, respectively. The crews built 34 buildings, including tool houses, houses for trackmen and switchmen, telegraph offices, blacksmith and wheelwright shops, sawmill and freighthouses. These required 1.8 million feet of lumber and 742,200 shingles. Many of these buildings were later destroyed. Fourteen water stations were built, most destroyed.

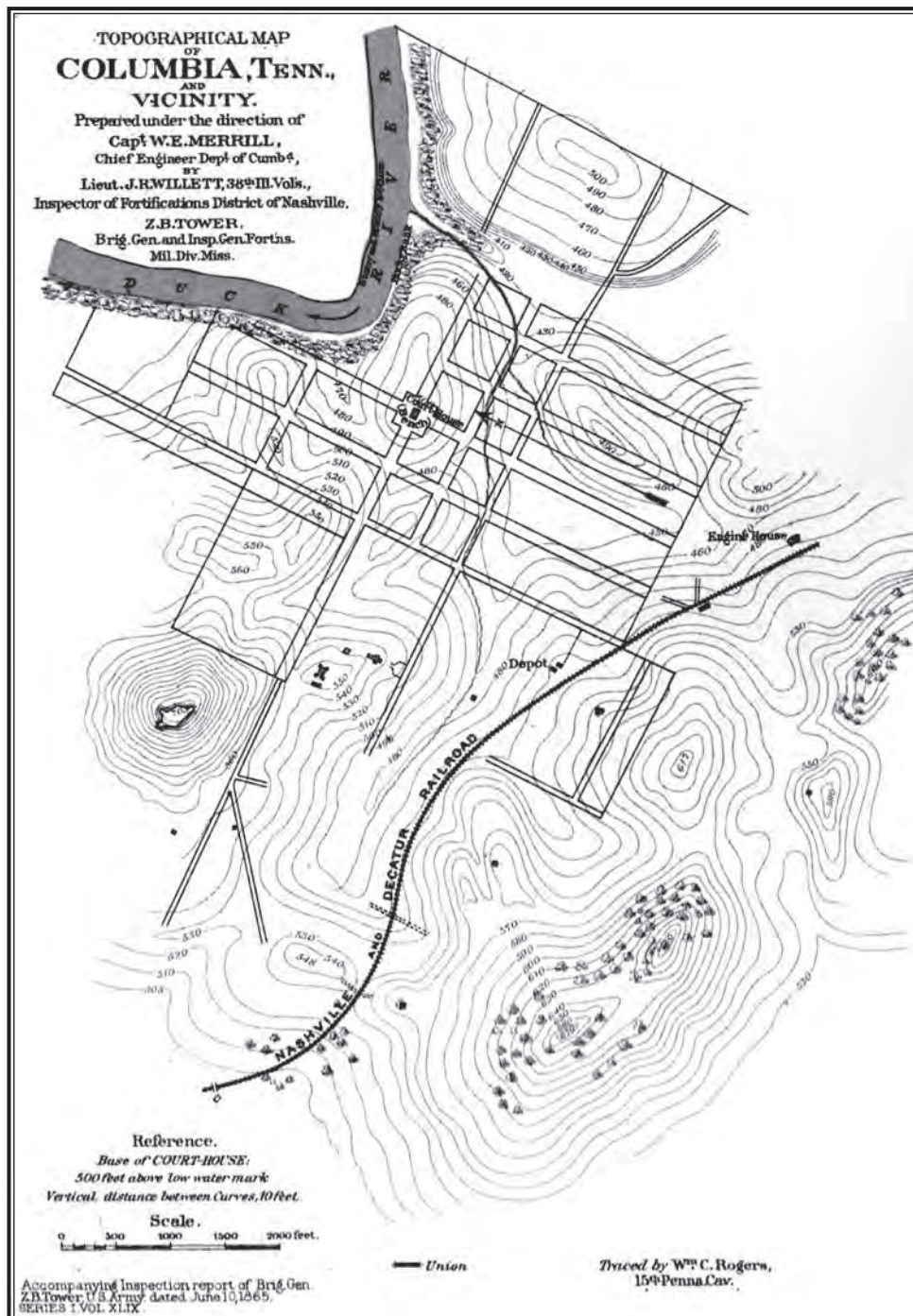
On Sept. 1st, 1863, work commenced on the new section of track. On Sept. 27th, Johnson advertised for 1,000 men, white or black, to work on the railroad. Slave owners would be paid \$300 for each worker, and freedmen would be paid \$10 a month. By October 3rd, however, only 230 blacks had responded. Missouri engineers came from Corinth, Miss. to help



In 1864, the Nashville Quartermaster directed photographer Jacob Frank Coonley to document all bridges, trestles, buildings and railroad facilities used by the department. Coonley used a locomotive (No. 56), tender, and boxcar fitted out with darkroom, stove, cooking gear, bunks for five men, and a barrel of water. Many meals consisted of tough mule meat and boiled potatoes. Soldiers were detailed to protect the train, which rebels never managed to capture. Coonley photographed military railroads from Louisville to Atlanta. He was a protégé of George N. Barnard and also worked with Matthew Brady. He continued his photography career after the war. Here, he has photographed his train at the beginning of the Sullivan Branch trestle on the N&NWRR ten miles west of Bellevue. The small redoubt from which he took the photo was surveyed and sketched in 1988 by Fred Prouty of the State Dept. of Archaeology.



Federal Garrison Towns in Mid-South Region



May 8, 1864 — From the *New York Times* correspondent in Nashville: “**Columbia**, a charming town about 40 miles south . . . , has been a notoriously disloyal town. The inhabitants . . . have taken oaths by the batch, yet still practice the most unheard of crimes, all arising from their ever-existing hatred to the Government. Something transpires in this Bedlam weekly of a distressing nature. On the 15th ult. two soldiers were found dead in the streets, one having a nail drove into his head . . .” Columbia was home to many fine mansions and the hub of a prosperous farming region, with many large plantations. At Columbia, Hood stole a march on Schofield during his 1864 invasion of Tennessee. The town on the Duck River was also a convenient spot to reform the Confederate rearguard during Hood’s subsequent retreat following the Battle of Nashville.

Federal General / Railroad Engineer Also Spymaster

Grenville Dodge was a Massachusetts native who eventually settled in Iowa and performed surveys for the Union Pacific railroad. At the outset of war, he was named colonel of the 4th Iowa Volunteer Infantry. He was noted for his performance in the battle of Pea Ridge, Arkansas, where he was wounded. One of the results of his experiences was an appreciation of intelligence networks. He tested certain aspects of such a network in Arkansas and further refined those aspects in Mississippi and West Tennessee. He served as Grant's intelligence chief during the Vicksburg Campaign.

Dodge used up to 100 agents at a time — people from all walks of life, men, women, teenagers, old folks, free slaves and those still in bondage. He assigned names and numbers but kept the information about them in his head and on a list of names he kept only on his person. Only four Federal officers knew about his spy network. At the time Dodge was also supervising a large force of men who repaired the damage inflicted by Confederates on the Federally controlled railroad systems.

The spies were trained to evaluate the size and purpose of Confederate units they encountered. All were pro-Union, and Southern, if possible. They usually carried mail addressed to real persons in the South. Thus, if stopped by rebel forces, they had a real reason for travel. Going through a Confederate line, they were usually sent to a commanding officer or provost marshal for a pass to proceed. On the way the agent observed the type of unit and its strength. The mail the agent carried sometimes contained hidden messages in the form of pinpricks or



General Grenville Dodge

perhaps a route cypher. (The Union used the route cypher and the South used a rotating message-wheel system.) Another source of information created by Dodge was an Alabama cavalry and infantry regiment (Union) made up of Southerners. At the front of the cavalry unit was a company-sized element wearing Confederate uniforms. These spies would contact real Confederate forces and, once accessing their strengths, ride back to the main Federal cavalry force and report.

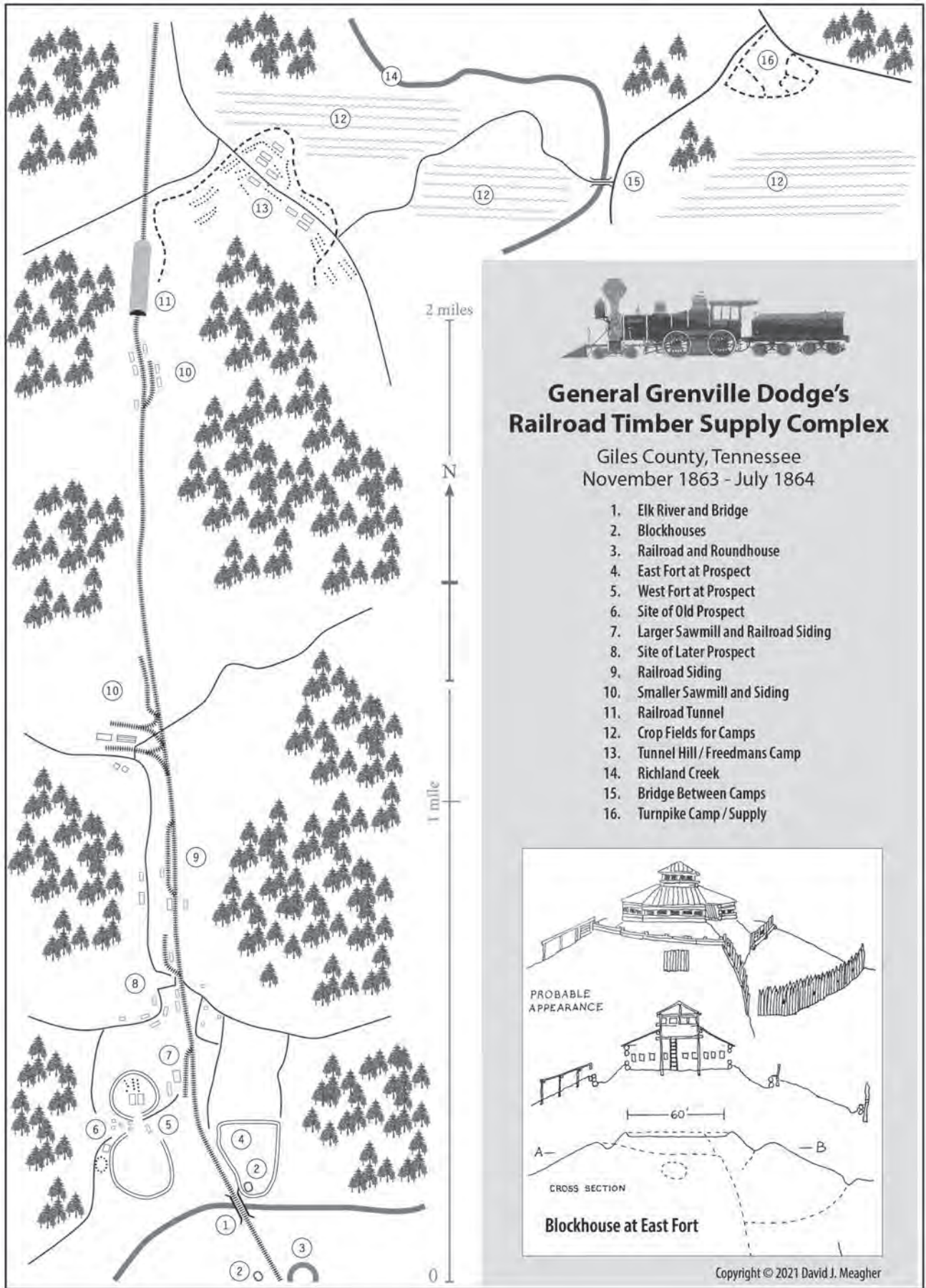
As Federal forces moved from Mississippi northeast through Tennessee, Dodge's men began repairing the railroad systems there and in areas under Federal control. In November 1863 he moved his headquarters to Pulaski,

Tenn., in Giles County. A sizable force of railroad workers and bridge and trestle constructors as well as sawmill operators arrived with him.

Due to the emancipation of slaves and the abandonment of plantations by their pro-Confederacy owners, a growing number of freed slaves fled to Federally controlled areas. Dodge's contraband solution was to create Federal military units of colored soldiers who were primarily construction workers. Thus the problems of feeding and housing the freed men were partially solved. They also received uniforms and basic training.

At the same time, the newly formed Freedmen's Bureau was creating camps for former slaves so they could work on the abandoned plantations and have shelter and pay for their upkeep as well as education. Camps were built just north of the Tennessee River south of Athens, Ala.; on the north side of the railroad tunnel north of Prospect in Giles County; and also just northwest of Pulaski.

The Tunnel Hill camp, as it came to be known, was part of a complex. Due east about two miles on the Elkton to Pulaski turnpike was a smaller camp mainly for supply and to house pro-Union white war refugees. The two camps probably could signal each other. Dodge's trestle men built a substantial bridge over Richland Creek between the tunnel camp and the turnpike. Besides the large agricultural areas surrounding the camps, there were sawmills and woodyards around the rail tunnel area and south to Prospect and the two forts near the Elk River. In addition, Dodge designed a string of log blockhouses along the rail line from Athens to Columbia at the railroad trestles. The blockhouses



The Battle of Nashville

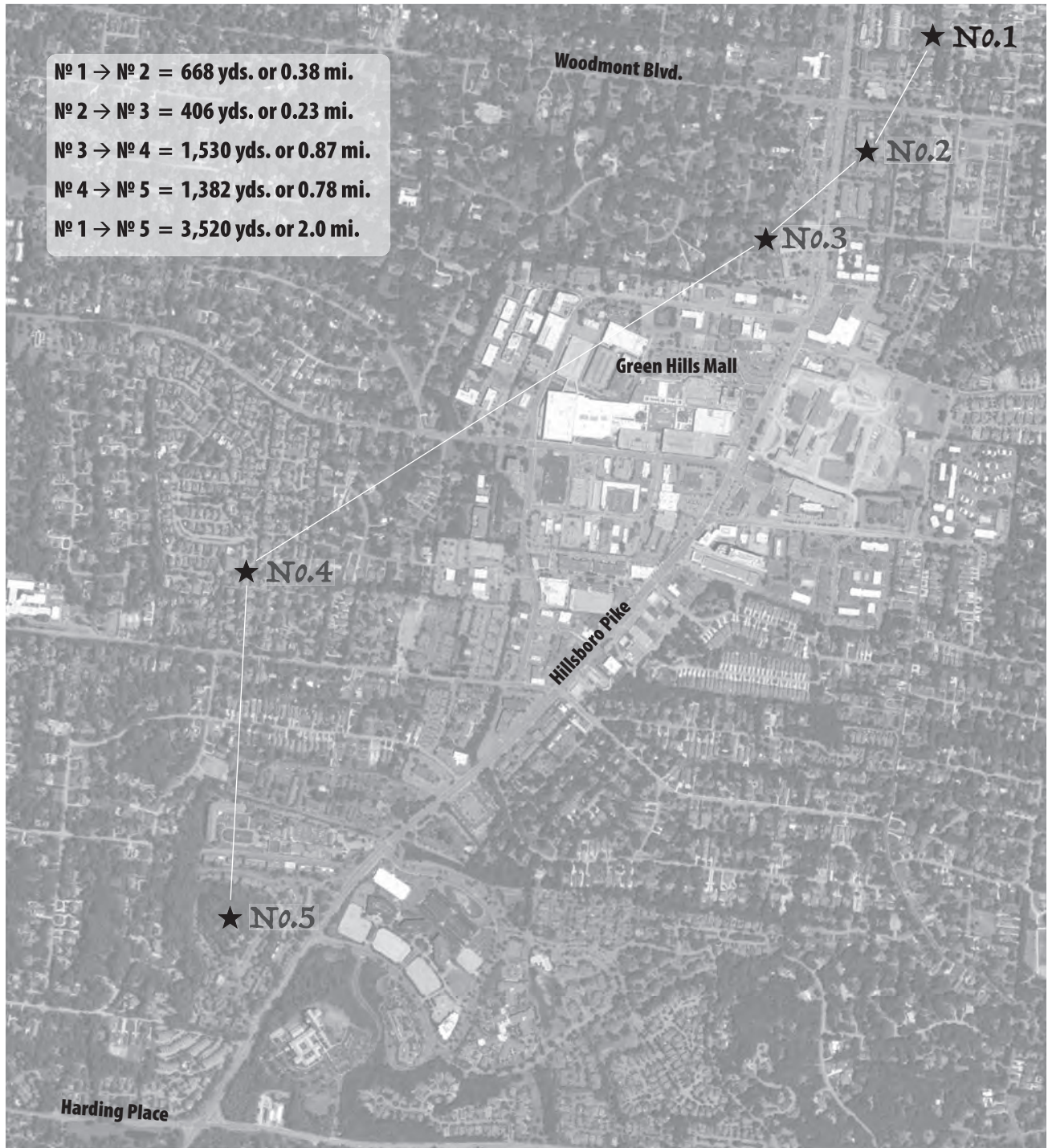
Thomas attacks Hood on Thursday, December 15th, 1864

Civilians watch events unfold from a vantage point on the outskirts of the city.
(Library of Congress)



Desperate times call for desperate measures. After Atlanta fell, Gen. John Bell Hood and his Army of Tennessee moved into northern Alabama, regrouped, and headed north toward Nashville, aiming to recapture the capital city occupied by the Federals 33 months before. Losing precious time waiting on supplies, the Confederates finally moved in three columns to Columbia, where Hood stole a march on Gen. John Schofield. At Spring Hill, the Federals slipped through the Confederates' grasp and the next day Hood launched a frontal assault just south of Franklin that crippled his army. Both sides moved on to Nashville, where Hood besieged the city. Or at least he tried to, but he didn't have enough men. The Confederates had to refuse their line and began to build five small forts or redoubts on their left flank. The going was rough as winter weather closed in. Then, in mid-December, the weather moderated, and Federal commander Gen. George Thomas made his move. The result was the decisive Battle of Nashville, Dec. 15-16th, 1864.

Locations of Confederate redoubts on modern Nashville map



- | | | |
|---|-------|--|
| } | No. 1 | <i>Preserved Historic Site - 3423 Benham Avenue</i> |
| | No. 2 | <i>Non Extant</i> |
| | No. 3 | <i>Earthworks Remnant-Calvary UMC</i> |
| | No. 4 | <i>Preserved site with marker - Foster Hill Road</i> |
| | No. 5 | <i>Non Extant</i> |



Confederate gunners in Redoubt No. 1 awaiting the inevitable battle. From this high ground, visible in the distance (to the right - a,b,c and d) are the State Capitol, First Presbyterian Church, Blockhouse Casino, and Fort Negley. Original artwork by Philip Duer, used with permission.

(Continued from Page 259)
was under the command of division leader Major Gen. William Loring; the southern part under Major Gen. Edward C. Walthall.

While the officers slept in warm beds in their headquarters, usually consisting of well-appointed farmhouses, the rebel infantry, many without blankets or proper footwear, dug out the ground and slept in shallow trenches, warmed by small wood fires. Food was scarce and sanitary conditions non-existent.

On the foggy morning of December 15th, the Federal troops got a late start marching out of their fortifications. Following a diversionary attack on the eastern flank, the main forces, mostly under Generals Andrew J.

Smith and John M. Schofield and supported by the cavalry of General James H. Wilson, swung in a lengthy arch and attacked the redoubts along the pike. Wilson's cavalry was actually mounted infantry, nearly all armed with repeating rifles or carbines.

The town came out to watch the fight, from a distance. One of the Federal officers recorded that the citizenry "came out of the city in droves. All the hills in our rear were black with human beings watching the battle, but silent. No army on the continent ever played on any field to so large and so sullen an audience." Thomas watched from high ground north of Montgomery Hill; Hood witnessed from Compton's Hill (now Shy's Hill).

An accounting of the capture of the redoubts comes from Ross Massey, a founder of BONT, and John Allyn, a BONT board member whose home is only a few hundred yards from Redoubts 2 and 3. A precise chronological account can be found in an accompanying article.

The main frontal assault targeted the refused Confederate line running south from Redoubt No. 1. Significant artillery fire and close combat erupted from the west, first at Redoubt No. 4 and then No.5, about one and a half miles to the south of Redoubt No. 1, and the flow of Union troops moved steadily northward to clash at Redoubt No. 3 and then No. 2. Much of this overwhelming attack could prob-

(Continued on Page 266)

U.S. Colored Troops

Former slaves fight, die for their freedom at Nashville



Freemen and fugitive slaves were recruited into the U.S. Colored Troops, supervised by white officers. By the end of the war, USCT comprised ten percent of the Union armies.

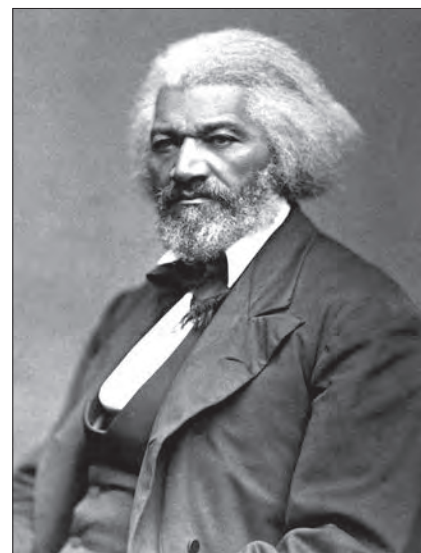
Our citizens yesterday saw, for the first time, a regiment of colored troops marching through the streets of Nashville. The novelty of armed negro troops elicited many remarks about the policy of the Administration in raising them—both pro and con,” stated the *Nashville Daily Press* of October 3rd, 1863. Reactions among the local populace included shock and awe, fear and loathing, and pride and joy, depending upon one’s experience with or perception of the Southern institution of slavery.

Most white Southerners were scared to death of slave insurrections and most Confederate soldiers abhorred the sight of a black man clad in a blue uniform and bearing a rifle.

Other than the black soldier, the

most relevant and consequential reaction would be that of the Federal commanders themselves, many of them highly skeptical of the usefulness of Negro soldiers. William T. Sherman stated in June 1864, “I confess I would prefer 300 negroes armed with spades and axes than 1,000 as soldiers.” He did not take any black soldiers with him on his March to the Sea. U.S. Grant was ambivalent but generally supportive. General George H. Thomas did not believe that the negro, especially a fugitive slave, had the discipline to make a good soldier.

Historian Robert G. Lambert noted, “Initial reservations about using black troops were twofold: one, prejudiced whites might simply refuse to fight side-by-side with blacks, and two,



Freedom's Destiny

Our destiny is largely in our hands.

— Frederick Douglass

blacks were widely viewed as servile and cowardly.”

Fugitive slaves, contrabands, and impressed freedmen laboring to build Fort Negley in 1862 begged their superiors to arm them against threats of Confederate cavalry attacks. They wished to protect themselves, their families, and the fort that they were building, but they were refused. So they armed themselves with axes, picks, and shovels. As it turned out, they didn’t have to use them, but these Negro laborers represented perhaps the first black soldiers of the Civil War, noted Krista Castillo, museum director at Fort Negley Park.

Blacks had fought in American wars since the Revolutionary War, and enslaved men had been running



The men of Battery A, 2nd U.S. Colored Light Artillery, drill as a unit while performing garrison duty at Nashville. (Chicago History Museum, IChi-007774)

organize black regiments in the Mississippi Valley. On May 22nd, the War Department established a Bureau of Colored Troops to handle the recruitment, organization, and service of the newly organized black regiments. Reuben D. Mussey, Jr., a native of New Hampshire who served as captain of the 19th U.S. Infantry Regiment, helped recruit blacks into the USCT, and was named colonel of the 100th USCT on June 14, 1864. After the war, he served as President Andrew Johnson's private secretary.

Equal pay was a problem with USCT units. White privates received \$13 a month, plus \$3.50 for clothing, and sergeants got \$21. USCT privates received \$10 a month, \$3 of which was assessed for clothing. For higher ranks, the difference was even greater.

Confiscation Act and Militia Act (excerpts)

Second Confiscation Act - July 17, 1862

SEC. 9. And be it further enacted, That all slaves of persons who shall hereafter be engaged in rebellion against the government of the United States, or who shall in any way give aid or comfort thereto, escaping from such persons and taking refuge within the lines of the army; and all slaves captured from such persons or deserted by them and coming under the control of the government of the United States; and all slaves of such person found on [or] being within any place occupied by rebel forces and afterwards occupied by the forces of the United States, shall be deemed captives of war, and shall be forever free of their servitude, and not again held as slaves.

Militia Act - July 17, 1862

SEC. 12. And be it further enacted, That the President be, and he is hereby, authorized to receive into the service of the United States, for the purpose of constructing intrenchments, or performing camp service or any other labor, or any military or naval service for which they may be found competent, persons of African descent, and such persons shall be enrolled and organized under such regulations, not inconsistent with the Constitution and laws, as the President may prescribe.



Members of the 13th Regiment U.S. Colored Troops Living History Association proudly display the National banner.
(Courtesy Bill Radcliffe.)

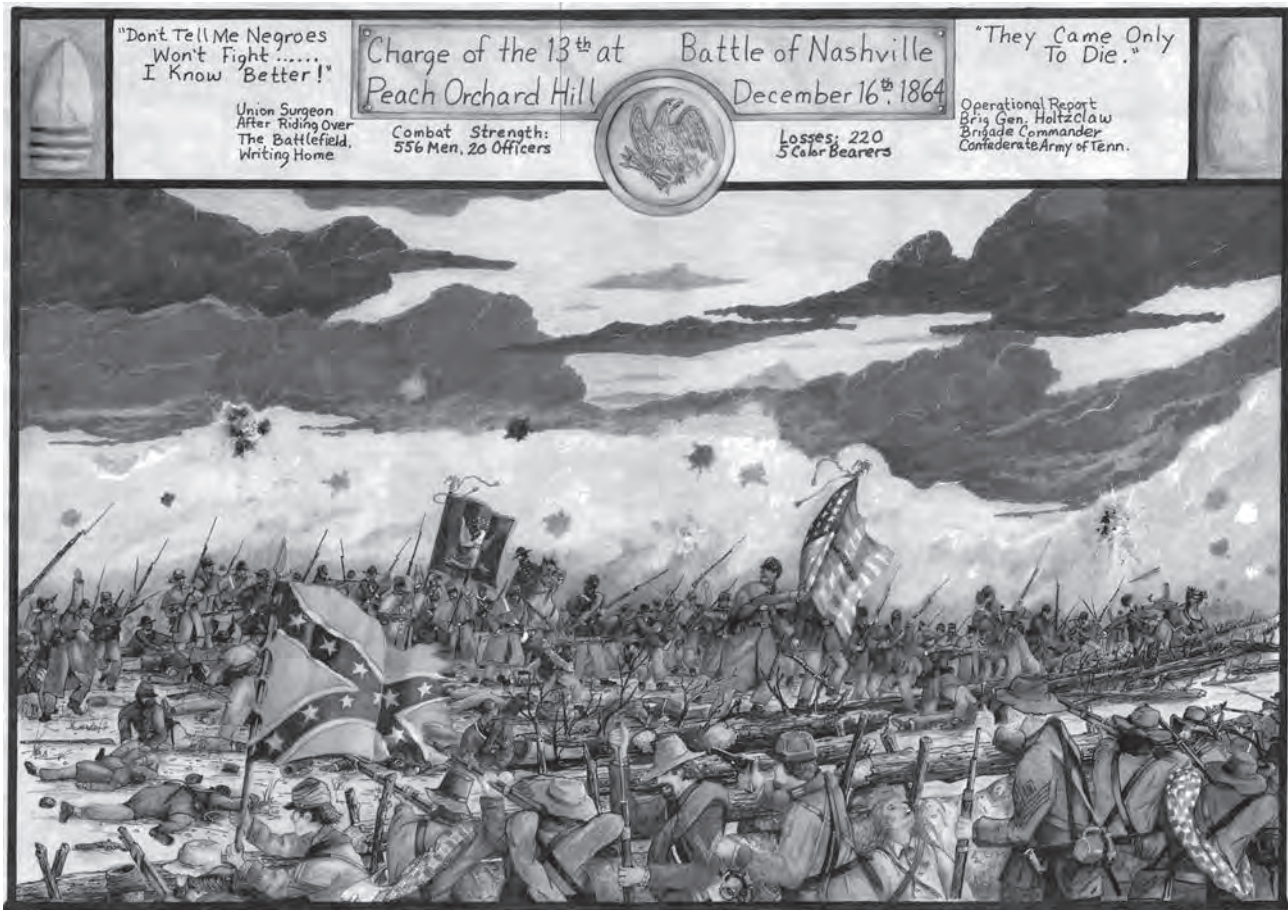
Peach Orchard Hill

Colored troops fought valiantly, died for their freedom

The 13th U.S. Colored Troops Regiment, led by Col. John A. Hottenstein, participated in a reconnaissance of the extreme right flank of Hood's Confederate lines a couple of days before the main battle and fell into a "lively skirmish" which resulted in one negro soldier killed and four wounded. A former Indian fighter, Hottenstein was a veteran of most of the major battles of the Western Theater. But his men were inexperienced. The 13th USCT regiment had been created only a year earlier and had worked on the railroad and performed garrison duty since then. They were at Johnsonville during Forrest's raid, but that was the only real action they had experienced. The men were eager to fight, eager to prove their worth.

The 13th USCT was part of the 2nd U.S. Colored Brigade led by Col. Charles R. Thompson, 24, a Maine native and St. Louis clothing salesman who had enlisted in October 1861 as a private in the Engineer Regiment of the West, Missouri Volunteers. In August 1862 he was appointed ordnance officer of the Army of the Mississippi. He became an aide-de-camp to Gen. Rosecrans, and by the end of the war was breveted brigadier general.

The 2nd US Colored Brigade, also consisting of the 12th and 100th USCT, had seen little action on the first day of the Battle of Nashville. On the morning of the 16th, Thompson sent skirmishers forward and discovered that the Confederates had abandoned their rifle pits and withdrawn to a new line. That morning, Steedman's Detachment would take five hours to move into position opposite a prominence occupied by the Confederate right flank known as Overton's Hill or Peach Orchard Hill. The hill was part of the 1,050-acre plantation of Col. John Overton II, whose house, Travel-



The 13th US Colored Troops attack breastworks atop Peach Orchard Hill. (Original artwork by Philip Duer. Used with permission.)

lers Rest, had been used by Gen. John Bell Hood as headquarters during the Nashville campaign. The gently sloping, 300-foot-high hill sported breastworks, and below that a row of abatis, felled trees stripped of small branches and leaves, with the larger branches sharpened to create a defensive obstacle. The approach to the hill, north and east, was wide open, consisting of a soggy, muddy cornfield and a singular thicket of dense woods, standing out as if an island.

Occupying the hill, bristling with gun muzzles, were the brigades of Brig. Gen. James Holtzclaw, Alabamians facing northward and centered on the Franklin Pike, and Brig. Gen. Marcellus A. Stovall, Georgians in a curve around the salient. These men belonged to the division of Major Gen. Henry D. Clayton, corps of Major Gen. Stephen D. Lee. They had missed the battle at Franklin and did not see much action the previous day

at Nashville.

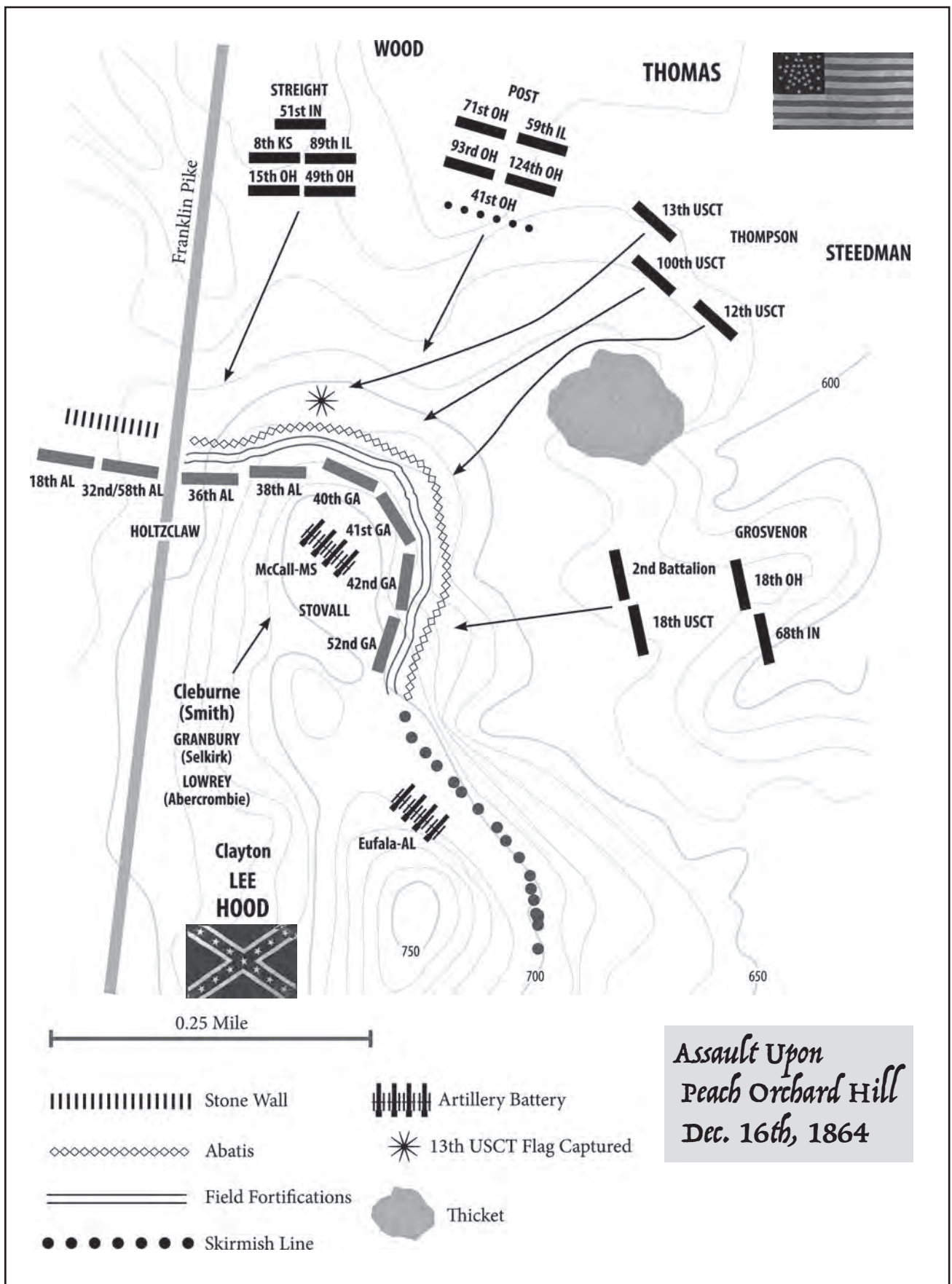
The Federals on the eastern flank comprised the IV Corps under Brig. Gen. Thomas John Wood, the scapegoat of the debacle at the Battle of Chickamauga in 1863. Two of his brigades had not performed well at Franklin. He had not seen much action on December 15th at Nashville. He was looking for some of the glory

that was much anticipated at Nashville, the Federals outnumbering the Confederates almost three-to-one. Commander Thomas told Wood to demonstrate against Hood's right flank that day and take advantage of any opportune opening. That's all Wood needed to hear. After a brief reconnaissance of the flank, he prepared to launch an attack. Also raring to go

Color Made No Difference: General Steedman

General James B. Steedman, an old Breckinridge Democrat who had originally been opposed to the enlistment of Negro troops, was in command of the left wing of the Army of the Cumberland during the battle. He stated in his official report:

"The larger portion of these losses, amounting in the aggregate to fully 25 per cent of the men under my command who were taken into action, it will be observed fell upon the colored troops. The severe loss of this part of my troops was in their brilliant charge on the enemy's works on Overton Hill on Friday afternoon. I was unable to discover that color made any difference in the fighting of my troops. All, white and black, nobly did their duty as soldiers."



Addendum A: Glossary of Fortification Terms

Abatis: A line of felled trees with their branches sharpened, tangled together, and facing toward the enemy. It strengthened fortifications by preventing surprise and delaying an attacking enemy once within the defenders' range.

Advanced Works: Entrenched positions within supporting range in front of the main line of earthworks. They included rifle pits, picket lines, and vidette posts. They served as observation points and a first line of defensive positions.

Angle: Point where two faces of a fortification met. A reentrant angle pointed away from the enemy, a salient angle pointed toward the enemy.

Apex: Angle in a fortification closest to the enemy position.

Approach: Trench dug toward the enemy position.

Banquette: A raised step leading up to the rampart that served as a firing platform for defenders. The top was called the tread and the inclined plane leading up to the tread was called the slope. The banquette allowed defenders to fire and then step back to a covered position to reload.

Barbette: Raised platform or mound allowing an artillery piece to be fired over a fortification's walls.

Bastion: A fortification projecting outward from the curtain. Bastions were designed to prevent attackers gaining shelter from the defenders' fire.

Berm: Small horizontal space between the top of the ditch and the bottom of the parapet. It was designed to prevent earthwork from sliding back into its ditch. After completion of an earthwork's construction, some engineers chose to minimize the berm's size to prevent attackers from using it as a foothold while attempting to scale the wall.

Blockhouse: A log structure built to withstand attack from any direction, typically used to protect railroad bridges and depots. Blockhouses incorporated elements of fortification design and could have small ditches dug around them with the dirt piled against the outer log wall for additional structural support. The walls had loopholes and embrasures to allow the garrison to fire artillery and small arms in its defense.

Bombproof: A portion of the fortification designed to protect the garrison from enemy artillery fire. Bombproofs were built with heavy timbers and their roofs were covered with dirt.

Breach: A large gap in a fortification's walls or embankments created by artillery fire or mine. This exposed the inside of the fortification to assault.

Breaching Battery: A designated artillery position constructed during siege operations to fire upon a vulnerable position in the enemy line, opening it up for assault. Breaching batteries were placed on the parallel lines closer to the enemy position.

Breastworks: Fortifications made of piled material (logs, fence rails, stones) usually built up to breast height. Typically converted to a rampart if used long-term.

Addendum C: Inspection Reports on Federal Defenses

Barnett Report - December 1862

Headquarters Fourteenth Army Corps, Department of the Cumberland, Nashville, Tenn., December 5, 1862.

GENERAL: Below is a report of the number and caliber of guns, mounted and dismantled, at Nashville, which were captured from the enemy:

Number 1 — 24-pounder iron gun, mounted on bank of river near reservoir.

Number 2 — 32-pounder iron gun (Parrott), mounted on corner of reservoir.

Number 3 — 24-pounder iron gun (smooth bore), mounted on Lebanon pike.

Number 4 — 32-pounder iron gun (Parrott), mounted on end of Summer street.

Number 5 — 32-pdr iron gun (Parrott), mounted at Gen. Palmer's headquarters.

Number 6 — 24-pdr iron gun (smooth bore), mounted under Saint Cloud Hill.

Numbers 7 and 8 — 24-pdr iron guns (smooth bore), mounted on Fort Negley.

Number 9 — 24-pounder iron gun (smooth bore), mounted at railroad tunnel.

Number 10 — 24-pounder iron gun (smooth bore), dismantled at Fort Negley.

Number 11 — 32-pounder howitzer (iron), mounted at old Lunatic Asylum.

Number 12 — 32-pounder iron Parrott, mounted on floating bridge.

Dismounted at ordnance depot: one 100-pounder columbiad; two 32-pounder rifled iron guns, five 24-pounder carronades, and twelve 6-pounder iron guns, unserviceable, spiked; three 24-pounder iron smooth bores and one 18-pounder iron smooth bore, serviceable, and four 6-pounder iron guns, unserviceable.

Of the guns at the ordnance depot there are but three 24-pounders and one 18-pounder iron smooth bores that are considered safe.

Very respectfully,

JAMES BARNETT

Colonel, and Chief of Artillery Fourteenth Army Corps

Major General W.S. ROSECRANS,

Commanding Fourteenth Army Corps.

Dana Report - September 1863

Report on Forts Negley and Morton in Nashville, Sept. 8, [1863]-7 p.m.

I have spent the afternoon in examining the fortifications for the defense of this place. The principal works are three in number, all on the southern side of the town. One of these, the easternmost, named Fort Negley, is finished, or nearly so, and armed. It is a work of very intricate design, and requires about a thousand men for its garrison. The central work, known as Fort Morton, is scarcely yet commenced. Simpler in design and more powerful when done than Negley. It is situated on a hill of hard limestone, and the very extensive excavations required must all be done by blasting. At the present rate of progress it will take two years to finish it. A part of it, namely, the demilune in its front, is partly done, so far in fact that its parapet might be used as a rifle-pit and might afford some protection to field guns. This work will require a garrison of from 1,500 to 2,000 men. The two redoubts and barracks connecting them, of which its main body consists, will be altogether 700 feet long. The third and westernmost fort is precisely the same in plan as Morton, but is on land that can be easily dug. This fort is about one-quarter done, and can be completed with comparative rapidity and cheapness. The cost of Morton must be heavy. Nothing new from the front. Judicious men here think there will be no battle, and that Bragg has only the shadow of a force at Chattanooga to delay Rosecrans' advance.

[C.A. DANA.] [Hon. E.M. STANTON, Secretary of War.]

Mendenhall Report - January 1864

HDQRS. CHIEF OF ARTY., DEPT. OF THE CUMBERLAND, Chattanooga, Tenn., January 14, 1864.

Brig. Gen. J.M. BRANNAN,

Chief of Artillery, Department of the Cumberland:

GENERAL: I have the honor to submit the following written report of my inspection of a portion of the artillery in this department, between the 25th of December, 1863, and 9th of January, 1864; in addition to which I submit a regular inspection report:

FORT DONELSON

The fort is in good condition, except the curtain on the river side, the scarp and exterior slope of which are giving way, but it is being repaired by the garrison. The magazine is large and in good condition, frequently aired, and the ammunition well looked to and in good order.

The fort is armed with four 22-pounder sea-coast and two 12-pounder iron guns, and one 8-inch siege howitzer. There is one old 6-pounder iron gun, on a broken carriage, lying near the fort.

The men understand the drill very well, and the guns and implements are well taken care of; military appearance, discipline, and police, good. The men are in comfortable huts.

Battery O, Second Illinois Artillery, stationed here, has four James rifles. This battery is in very good condition, everything neat and well cared for; horses in excellent condition; stables not very good, but expect to make new ones soon. Men are in comfortable huts. Garrison consists of left wing of Eighty-third Illinois Volunteer Infantry, under command of Lieutenant-Colonel Brott.

CLARKSVILLE

The fort is in very nice order. The magazine is slightly damp overhead, but the ammunition is in good condition, being frequently examined and aired.

The fort is armed with two 24-pounder siege guns, which are kept in good order, and the men drill very well. There are two 6-pounder field guns in the fort belonging to Battery C, Second Illinois (with carriages, limbers, and caissons complete), and also one iron 6-pounder taken out of the river and not mounted. Battery H, Second Illinois, stationed here, has two 6-pounder guns and four James rifles; drill at manual pretty well. Battery well taken care of; very comfortable stables, and horses in fine condition. Military appearance and police very good. Men in comfortable huts. The garrison consists of the right wing Eighty-third Illinois Infantry, Colonel Smith commanding.

GALLATIN

The fort is in good condition and the magazine in good order.

The Thirteenth Indiana Battery, having one 6-pounder, one 12-pounder howitzer, and four 3-inch guns, are at the fort (the guns inside). There are also three rebel field guns, with carriages, limbers, and caissons, in the fort, viz: One 6-pounder bronze, one 3-inch (not U.S.), and one howitzer, iron, probably a 12-pounder. Drill at manual very good; military appearance, discipline, police, care of guns and battery very good. The horses are in very good condition, in a good stable, well stacked with fodder. Men in comfortable quarters.

A lieutenant and 13 men from this battery are at CARTHAGE in charge of two 3-inch guns. The guns do not belong to any particular battery. Garrison at Gallatin, Seventy-first and One hundred and sixth Ohio, General Paine commanding.

Nashville & Chattanooga Railroad Bridges

No.	Location	Hgt.-Feet	Lgth.-Feet	Remarks
1	Mill Creek, No. 1	16	260	Rebuilt five times
2	Mill Creek, No. 2	18	250	Rebuilt four times
3	Mill Creek, No. 3	16	256	"
4	Hurricane			
5	Smyrna	20	120	Rebuilt three times
6	Stewart's Creek	29	183	"
7	Overall's Creek	20	160	"
8	Stone's River	22	420	"
9	Lytle's Creek	10	135	"
10	Murfreesborough	9	140	Not destroyed
	"	6	40	
	"	6	50	
	Creek Branch	7	50	
11	Stone's River (East Fork)	22	270	Rebuilt
12	Christiana		73	"
13	Bellbuckle	7	82	"
	Bragg's Bridge	9	128	Not destroyed
14	Wartrace	14	241	Rebuilt
15	Garrison's Fork	24	178	Rebuilt twice
16	Duck River	30	350	"
17	Poorhouse Creek	13	100	"
18	Elk River	60	470	Rebuilt
19	Cowan Creek	26	160	"
20	Crow Creek (South Fork)	17	160	Rebuilt twice
21	Dry Trestle, No. 1	12	84	Rebuilt
22	Dry Trestle, No. 2	10	75	"
23	Crow Creek, No. 1	15	225	Not destroyed
24	Crow Creek, No. 2	11	225	"
25	Crow Creek, No. 3	19	348	Rebuilt
26	Crow Creek, No. 4	16	254	"
27	Crow Creek, No. 5	11	160	"
28	Crow Creek, No. 6	8	100	Not destroyed
29	Crow Creek, No. 7	12	156	Rebuilt
30	Crow Creek, No. 8	18	143	"
31	Crow Creek, No. 9	11	234	Not destroyed
32	Crow Creek, No. 10	21	240	Rebuilt
33	Crow Creek, No. 11		225	"
34	Tennessee River		1,520	
35	Ben's Creek	10	100	
36	Widow's Creek	24	127	"
37	Dry Creek, No. 1	22	140	
38	Nickajack	34	200	Rebuilt twice
39	Dry Creek, No. 2	34	203	Rebuilt
40	Dry Trestle	16	301	
41	Running Water	120	789	
42	Lookout Creek	36	155	Rebuilt twice
42	Chattanooga	38	263	Rebuilt
		Lineal feet		
	Total bridging		10,543	
	Amount rebuilt		<u>12,236</u>	
	Total length of bridging on this line		22,779	
	Bridges not destroyed		<u>1,052</u>	
	Total built by Government		21,727	Or 4 miles 607 feet