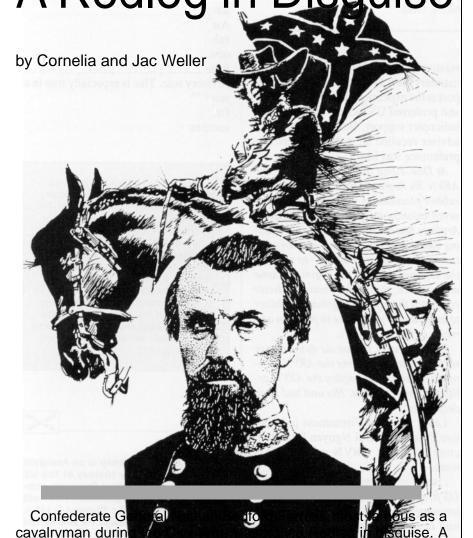


Nathan Bedford Forrest, A Redleg in Disguise



brilliant tactician and fighter, he could wield his saber in man-to-man combat with the best of them. But once Forrest, an uneducated man of humble origins, discovered the utility of Field Artillery, he mastered its operation and employment, using it to best advantage when outnumbered and outgunned.

or example, on 4 November 1864, Forrest fired his artillery on Johnsonville, Tennessee, against a much stronger force. His Confederate Field Artillery opened fire on Sherman's vital supply base at Johnsonville on the Tennessee River. Within minutes, exploding shells kindled fires and set off secondary explosions. Supplies of all kinds accumulated at this Union bridgehead were blazing out of control.

Everything arrived in Johnsonville from the North on steamboats using the Ohio and Tennessee rivers and then was sent on by rail to Sherman's army hundreds of miles to the southeast. If Johnsonville were destroyed by shellfire, the damage to Sherman's army would be serious.

The Rebel guns were dispersed along the western shore of the Tennessee River. They were within range of Johnsonville and four small Union gunboats, but the wide river protected them from counterattack by the Yankees on land. As it happened, both armies fired artillery across the Tennessee—lots of it.

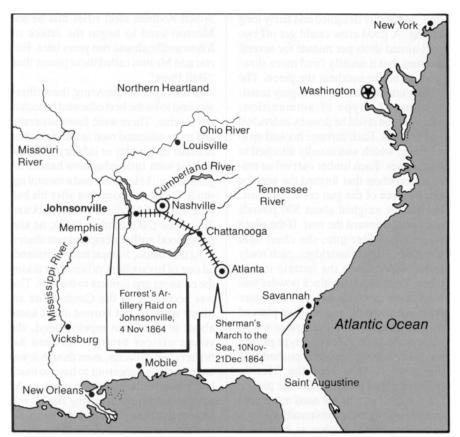
In November 1864, the Confederacy lacked the manpower to cross the Tennessee and fight east of the river, but Confederate Major General Nathan Bedford Forrest thought of an alternative. On this raid his men never set foot on the eastern shore of the river. Johnsonville, the gunboats and several transports caught there were destroyed by fire from his approximately eight Rebel field guns.

Forrest personally commanded one of the first two pieces to open fire, a 3-inch Rodman steel-rifle piece. Major General he might be, he still could accurately shoot any weapon his men were armed with and loved to do it. The other piece was similarly handled by young John Morton, his Chief of Artillery.

Forrest and Morton were giving direct orders to the gun crews and aiming the two pieces over open sights with their hands on pinch bars and elevating screws. When satisfied, they stepped to the side and jerked the lanyards. Other Rebel guns joined in.

The Yankee pieces from the other side were not far behind, timewise. But the Union gunners were at a disadvantage because Forrest's pieces were dispersed among bushes and low trees along the low western shore of the Tennessee River, invisible save briefly when they fired. The Federal artillery pieces in Johnsonville were more numerous and larger but were concentrated, making

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Once Confederate cavalryman Nathan Bedford Forrest discovered the tactical utility of Field Artillery, he mastered its operation and employment and used it to best advantage.

them an easy target, and soon were hampered by smoke, flames and secondary explosions.

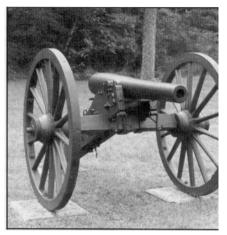
The cavalry of both sides had raided during the middle years of the Civil War. Forrest and his commands had participated in some of these, either alone or in concert with Morgan and others. What makes the Johnsonville raid unique is that though Forrest lacked the strength to cross the river and destroy Johnsonville in his usual raiders' way, he destroyed it with artillery fire.

From an artilleryman's point of view, this operation was near perfect. It was fought at the best ranges for the cannons used with the aiming devices and fire control systems of that time. The Tennessee River was wide enough to prevent the effective use of Yankee small arms; the Union guns, including their gunboats, were so concentrated that not many Confederate projectiles missed those targets entirely.

Johnsonville was a strategic supply base for Union General Sherman, who was at that time near Atlanta. Braxton Bragg, Little Joe Johnston and the Gallant Hood of Texas had taken turns trying to stop Sherman head-to-head. All had failed. Sherman was too good a general and had, by this time, too fine an army. His forces were supported by at least adequate logistics. After some experimenting, Sherman's main supply route from the Union heartland was along the rivers to Johnsonville and then by rail to Sherman's army as it moved south from Chattanooga to Atlanta. By the fall of 1864, most of his food, ammunition and other supplies came through Johnsonville.

Grant had cut the Confederacy in two when he took Vicksburg, Mississippi, 4 July 1863. Now Sherman was about to cut the larger and more important part in two again, the section from Louisiana to Virginia. Both Sherman and Forrest knew the score. If the Federal Army at Atlanta could be fed, supplied with ammunition and provided other things from medicines to blankets, Sherman could destroy Georgia and reach the sea where his army could again receive supplies from ships.

Forrest's thinking was that if Johnsonville could be totally destroyed, Sherman's advance might be held up as surely



One of the original Forrest-Morton Bull Pups now at Chickamauga National Military Park, Tennessee



A 6-pounder brass gun at Shiloh National Military Park, Tennessee.

as if the Confederacy won a pitched battle in Georgia. Old Bedford did destroy Johnsonville, but Sherman wasn't held up. The great Yankee commander abandoned his crippled supply line and began his march to the sea (10 November 1864), living off the country and what his army could carry with it from Atlanta. When the Yankees reached Savannah (21 December 1864), the War was virtually over, although battles remained to be fought.

At Shiloh (8 April 1862), especially against Sherman, Forrest had distinguished himself. Sherman and Forrest then knew each other by sight and began to have a grudging respect for each other. From Shiloh on, Sherman appreciated Forrest's abilities and realized Forrest was his principal danger during the Atlanta campaign.

The Union commander offered a cash reward to anyone who could kill Old Bedford—several lost their lives trying.

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Forrest was a master with his personal weapons and had been for many years before the War. He may have been one of the early quick-draw and shoot-to-kill men in what was then the Southwest.

The Anatomy of a Confederate General

Forrest enlisted in the Confederate Army as a private in June 1861, months behind other men who were to become senior Confederate commanders. He appears to have had no military ambition and waited until Tennessee finally voted to secede, two months after Fort Sumter. He was almost 40 when he volunteered. The son of a blacksmith, he was a self-made millionaire and extremely able in business, farming and slave trading. Old Bedford was unique as an entrepreneur in his South, especially since he couldn't read well, having attended school for only months during his entire life and not interested in it even for those short periods.

Governor Isham Harris of Tennessee and Major General Leonidas Polk of the Confederate Army heard of this talented private, ordered him to Memphis and authorized him to raise a cavalry unit on his own. They appealed to Forrest's strong competitive instincts to produce the best unit in the theatre. Forrest spent a lot of his own money, but he had a battalion of eight, well-equipped companies by the early fall of 1861 and was a light colonel. By February of 1862, Forrest, a full colonel with a regiment, had proven himself an excellent fighter, distinguishing himself in several battles.

Artillery Operations, 1861-1865

The field cannons used during the Civil War were primitive by today's standards, even by those of World War I. There were no recoil mechanisms; the only way to absorb recoil was to let the entire piece run back two to 30 yards on the gun carriage wheels and trail and then man-handle it back into battery. Sometimes the trail would catch on something and the whole carriage would turn over.

Field Artillery mobility on the battlefield was achieved by manpower; the crews pushed the pieces back into battery and, for short distances, into different positions. Strategic mobility was by means of horses or, occasionally, in mud by mules and oxen. The tubes were mounted on carriages made of wood and

iron, admirably designed and fairly long lasting. A good crew could get off two well-aimed shots per minute for several minutes, but it usually fired more slowly so as not to overheat the piece. The battery commander or his deputy usually chose the type of ammunition, although this could be done by individual gun captains. Each carriage hooked up to a limber, which was usually attached to four horses. Each limber carried an ammunition chest that formed the seat for two or three of the gun crew in transit. Each chest weighed about 500 pounds and opened toward the rear. If the piece was a 6-pounder gun, the chest held about 60 complete cartridges, each ready to be loaded down the muzzle in one piece. The propellant black powder was inside a varnished cambric or other water repellant covering and was not pierced for firing until after the cartridge was in place in the bore. A friction-type primer was inserted into the vent, pushed into the powder charge and the friction primer lanyard jerked to fire the piece.

Each field gun might need more than one limber chest of ammunition, so a separate vehicle known as a caisson could be added with three more chests. Both the caisson proper and the gun carriage had identical limbers to which the horses were attached

The Making of a Redleg

Early in the War, artillery was entirely new to Forrest. He and his regiment weren't under Field Artillery fire until Donelson (12-16 February 1862), and he had none of his own until he captured a four-piece battery at Murfreesboro, Tennessee, on 13 July 1862. He kept two of these guns, manned them with cavalrymen and used them a week later to knock out Union stockades and blockhouses made of timber and used to protect railroad bridges.

Forrest took artillery with him on all his later operations and used it often to force small enemy garrisons into surrendering with their arms and equipment intact—even when the Yankees outnumbered him. Not only his artillery scared them into surrendering, but his reputation as a fighter as well.

The guns Forrest first captured from the Union artillery were three 6-pounder field guns and one 10-pounder Parrott field rifle. All could knock out wooden forts, no matter how thick the walls. But the next capture at Lexington, Tennessee, on 17 December 1862 was more important. Here Forrest's men took the

two 3-inch Rodman steel rifles that he and Morton used to begin the attack on Johnsonville almost two years later. Forrest and Morton called these pieces their "Bull Pups."

In the Confederate Army, the artillery was said to be the best educated branch of the service. There were fewer illiterates and more educated men in the ranks than in either the cavalry or infantry. Why did Forrest with little education handle his guns so well? He surely had a natural aptitude for all weapons, but after his battle at Parker's Crossroads near Jackson, Tennessee (31December 1862), he also understood artillery employment theory.

At that battle, Forrest had reprimanded one of his artillery officers for taking the caissons and limbers to the rear. This was according to the Confederate artillery manual, but Forrest didn't know about it yet. Once reprimanded, the young officer brought forward his limbers and caissons, even though it was unnecessarily dangerous to have so much black-powder ammunition close to the guns and exposed to enemy fire. It was safer to risk being blown up by enemy action than having Old Bedford angry.

Three days later, however, the young artillery officer came to see the General with his manual and tried to explain, first listening to Forrest's anger:

Ya'll was taking away the ammunition we mought need. That ain't right!

General Forrest, I was only doing what our manual calls for. I did like you said after you told me to, sir, but would you look here?

Forrest did look and, with the young officer's help, puzzled out the regulation that called for the deployment of the dangerous caissons and limbers well to the rear of the firing line. Ammunition was supposed to be manhandled forward, a round or two at a time.

Y'all was right. Ahm sorry fur telling you off. How 'bout if ah keep this hyar book for a while?

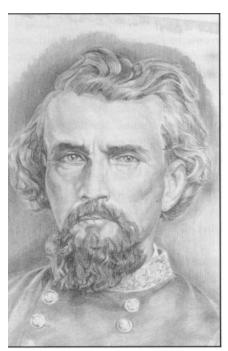
Old Bedford did keep the book and practically learned it by heart. Some of his pronunciations were unusual, like "rickety shay" for ricochet, but he knew precisely the jobs of each member in a gun crew and practiced these jobs himself. His many years of shooting with small arms gave him confidence and skill at aiming.

Bedford Forrest was a good gunner, but his interest in excellence with artillery was because it helped him win battles and get his command out of dangerous situations. At Brice's Crossroads,

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Forrest blocks the bridge over Tishomingo Creek with his cannons at the Brice's Crossroads (10 June 1864). He effectively jammed the only route the Union Army could use to get its wheeled vehicles across the creek.



General Nathan Bedford Forrest

Mississippi, on 10 June 1864, he used his field cannons to jam up the only route the Union army could use to get its wheeled vehicles across Tishomingo Creek.

More importantly, he had already imaginatively employed his artillery to escape across the Tennessee River (1 1863) after his January successful raid on West Tennessee. Recrossing the Tennessee River at Clifton, he deployed six field pieces against Federal gunboats Grant had ordered to intercept the Rebel raiders. Forrest reached the wide river where his flatboats were hidden and sent the guns over first, two 6-pounders half a mile north and two more the same distance south. The gun crews had orders to fire on any gunboat that came within range. Morton and the Bull Pups were left in the middle. Because of their longer range, the Bull Pups could help out downstream or up.

This plan was the best available at the time, but some Federal gunboats were

armed with heavy artillery and protected by steel armor. If one of these had steamed up while the Confederates were crossing the river, a Rebel disaster might have resulted.

But Grant, Forrest and a few others knew the iron-clad Yankee gunboats drew too much water to make it up the Tennessee River to where Forrest was crossing. There were Federal gunboats with similar cannons, but only with timber armor. These timber-clad gunboats drew less water and could have come to where Forrest was crossing.

Forrest's field guns, including the Bull Pups, were more than a match for any timber-clad gunboat on the river. Confederate shot and shell could penetrate their oak beams and do all sorts of damage inside. The Yankees didn't risk a duel of this sort with Forrest; Old Bedford crossed unhindered.

The Cavalryman with Red Legs

Forrest was extraordinarily successful, considering his humble beginnings. He rose to be one of only 22 Confederate generals and lieutenant generals, 19 of whom had graduated from the US Military Academy at West Point.

Bedford was an expert with shotguns, rifles, pistols and his special heavy saber. A Union colonel with more courage than ability singled out Forrest and tried to kill him, perhaps to get Sherman's reward. This was a mistake. Bedford killed the Yankee like a "moth in the claws of an eagle" (Robert Selph Henry, *First with the Most*, 1944).

Forrest played for keeps all the way. In his last fight at the end of the Selma campaign in Alabama (April 1865), which he lost, he took on seven Yankees, killed one and wounded several, yet escaped under his own power although seriously wounded.

He still had his command in fair order after General Lee had surrendered at Appomattox and Little Joe Johnston had given up after Bentonville. But when the War became hopeless, Forrest refused to become a brigand and a leader of brigands. He said to his men, in essence, they had been good soldiers and now must be good citizens.

Forrest left his "magic" saber, the weapon he used to wound and kill many enemies of his Confederacy, to his son with the proviso that it be drawn only on behalf of the reunited country. Symbolically, that saber was tops, but

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his Bull Pups, which he also used so well, were more valuable in action.



Cornelia and Jac Weller, Princeton, New Jersey, are a husband and wife military

historian team who have collaborated on eight articles published about Nathan Bedford Forrest. Jac is Honorary Curator of the US Military Academy Museum at West Point and of the British Army School of Infantry Museum at Warminster, England. He's the author of nine books, including Wellington in India and Wellington in the Peninsula. His research has taken him on many travels, including Vietnam

three times, and to Israel seven times, including by invitation just after the Yom Kippur War. He has been the guest speaker more than 30 times at military training centers and staff colleges, including at the Israeli and US staff colleges. Cornelia is an honor graduate of Sweet Briar College, Virginia, and Jac, a graduate of Princeton University, New Jersey. Jac served in the Florida National Guard from 1928 to 1931.

Redleg reviews

BOOK REVIEWS

Artillery 2000

lan V. Hogg. New York: Sterling Publishing Company, 1990. 158 pages. \$24.95

It isn't easy to write about artillery—it's a technical and complex subject. For that reason, most books about artillery target either the professional military audience or the general readership. Very few books on the subject manage to reach both groups.

British author Ian Hogg is one of the few who can write about artillery in a manner that appeals to specialists and non-specialists alike. His most recent book is no exception. In *Artillery 2000*, Hogg presents a compact survey of the world's current Field Artillery systems, a preview of the fire support equipment currently under development and a projection of where it's all going by the start of the 21st century.

Roughly half the book reviews the systems in service. Rather than rattling off a tedious list of every conceivable model of gun in the world today, Hogg concentrates on the major families of gun designs. He focuses on the most important models in each group, their characteristic technical features and the resulting tactical implications. Hogg follows the same general approach in the chapter on artillery systems under development. Here, however, he's limited, for obvious reasons, to those projects made public.

The author also devotes one chapter to ammunition and another to fire control. The ammunition chapter is particularly well-written. Hogg gives simple yet complete explanations of the principles behind the various types of artillery rounds that have emerged in the last 25 years: improved conventional munitions (ICMs), laser-guided rounds, self-forging fragment antitank rounds, base-bleed projectiles and the extended-range full bore (ERFB) projectile design. He also summarizes the various experiments underway with liquid propellants.

The final chapter, "To the 21st Century," is almost worth the price of the book. With his usual wry sense of humor and sharp insight, Hogg comments on the major trends in artillery employment. While many of his views are what you'd expect from a former Royal Artillery Master Gunner, they're supported by facts and sound logic. But some of his opinions, such as on the question of women on gun crews, are not exactly what you'd expect from a gunner whose own professional experience reaches back to World War II.

Hogg is very critical of some of the trends in many Western armies. He views with alarm the US Army's tendency to replace the 8-inch howitzer with the multiple launch rocket system (MLRS). He also questions the emphasis Western military planners traditionally have placed on the three-to-one tank superiority held by the Soviets and Warsaw Pact in Europe while all but ignoring their seven-to-one superiority in guns. As the author notes, the Soviets have introduced a total of 17 new guns, rocket launchers and target acquisition devices in the past 15 years. The Americans, French and British together can account for a total of only seven new systems during the same period-and no one else has developed much of anything. Hogg dismisses the notion that the imbalance is somehow offset by technical superiority in the Western designs.

This entire line of argument now may seem obsolete in light of recent political events in Eastern Europe—until one remembers the many countries in the volatile Third World with large arsenals of Soviet-designed guns and the Soviet philosophy of high-tube, superiority ratios, including Iraq.

Artillery 2000 does suffer from a few flaws of omission, particularly in the area of supporting systems. Artillery command and control vehicles, such as the US fire support vehicle (FSV) or the Soviet armored command and reconnaissance vehicle (ACRV) family, aren't mentioned at all. Systems like the US Field Artillery ammunition support vehicle (FAASV), which should significantly improve the survivability of gun crews, aren't mentioned either. But these are relatively minor complaints.

This is a good book for any general reader who wants to learn something about the "nuts and bolts" of modern artillery. It's also a good reference book for Redlegs.

LTC David T. Zabecki, FA S3, USAR MI Gp, Europe Germany

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