

# THE AGONY OF THE CONFEDERATE RAILROADS



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## **The collapse of the Confederate railroad system**

Railroads made their first appearance in the South in 1833. Their investors were private businessmen whose major concern was to rush cotton and other crops to the Atlantic coast or river ports. In contrast to the northern railway lines that ran from East to West to accelerate the settlement of the Western territories, those of the South ran in the opposite direction, northbound from New-Orleans, Mobile, Savannah, Charleston, Wilmington and Beaufort. Within the framework of their commercial competition, these

ports evidently lobbied vigorously to prevent their interconnection. The southern railroads were structured to ease the transit of cotton and not to improve communications in a sparsely populated hinterland.<sup>1</sup> Their 9,000 miles of tracks, managed by a plethora of small companies, were incredibly small compared to the 22,000 miles of northern lines, which were the longest of the United States.

The weakness of the southern railroads resulted primarily from their interdependence. The temporary unavailability of an intermediate line interrupted the transport of goods and people between towns deprived of direct connections. The switch of lines on a journey between the east and the west of the Confederacy was due to the gaps that existed within and between states. In addition, tracks of different gauges entailed the transfer of passengers and cargo at junction stations. According to F.B.C. Bradlee, "*In the North there were eleven different gauges running from 4.4 1/2 to 6 feet. Four feet eight and one-half inches was the general favorite in the North (...) In the South an even 5-foot was general, but did not hold a mastery. A change of gauge meant, of course, change of cars*". For example, a journey between Monroe (Louisiana) and Richmond (Virginia) required many connections for commuters and freight. To travel from Philadelphia (Pennsylvania) to Charleston (South Carolina), it was necessary to change cars eight times. In 1857, it took a minimum of 42 hours to cover the 290 miles that separated Charleston from Memphis (Tennessee). At that time, the speed of southern "express" trains did not exceed 13 miles an hour.<sup>2</sup> Moreover, the rolling stock was often of poor quality, even obsolete, and the lightweight iron rails were unsuitable for heavy or sustained traffic. The demand for a more efficient freight transport had generated the creation of those lines but, as their efficiency was often questionable, the South did not attract northern and European railway investors.

The *Richmond, Fredericksburg & Potomac RR* in Virginia and the *Atlantic & Western RR* in Georgia represented the backbone of the southern rail network. These lines were of better quality than most because the states that they crossed entered in partnership with them.<sup>3</sup> The lack of power of their steam locomotives or the excessive number of cars that they had to haul during the war, does not entirely explain their slow moving pace. As late as 1861, many of the northern and especially the southern railway tracks still consisted in wooden rails covered with iron sheeting. Nearly all southern companies purchased their rolling stock, rails and spare parts from the North. In the South, only the Tredegar Iron Works of Richmond and later the rolling mills of Savannah occasionally provided such equipment. On the other hand, the northern iron and steel industry was better tooled and had already adopted modern manufacturing techniques, such as mass production. During the conflict, the southern railway companies had to rely solely on their financial resources without any help whatsoever from the government and its steel production facilities to mitigate their deficiencies and repair their damaged or obsolete infrastructure. Moreover, the southern heavy industry quickly fell under the control of the War Department that prohibited its mills and workshops from supplying the private sector.

The Confederate government never developed a true railroad policy. Richmond only issued hasty directives when the urgency dictated it. As the Rebel states presented a

<sup>1</sup> Turner G.E., *Victory Rode the Rails ; the Strategic Place of the Railroads in the Civil War*, Lincoln, 1992, pp. 29-31.

<sup>2</sup> Bradlee F.B.C., *The Railroads and the Confederacy*, pp. 178-81, in "Blockade Running during the Civil War and the Effect of Land and Water Transportation on the Confederacy", Philadelphia, 1974 ; Turner, *Victory Rode the Rails*, p. 41, 43.

<sup>3</sup> Bradlee, *The Railroads and the Confederacy*, pp. 177-78 ; Turner, *Victory Rode the Rails*, p. 32.

convex front at the beginning of the war, they could theoretically benefit from their interior lines of communications to compensate for the North's superiority in railroad transport. This required from the invader a considerable amount of equipment as well as an enormous human potential to counterbalance the tactical mobility of its adversary. However, this scheme did not correspond to the field reality. The discontinuity of the Confederate interior lines resulted from their inability to compete with the northern railways that were more numerous, better organized, equipped, and operated by motivated employees.

Prior to the war, the South gave birth to very few rail technicians because there was virtually no demand as most skilled railroaders came from the North. Politicians and companies under contract with the Confederacy only became aware of the weaknesses of their infrastructure when almost all their rail workers had returned home at the beginning of the conflict. Actually, 29,000 well-trained men (132 per hundred miles) backed up by an inexhaustible stock of spare parts ran 22,000 miles of northern railway lines. In contrast, the South had a workforce of 7,500 men responsible for the running and maintenance of its 9,000 mile-network (83 per hundred miles).<sup>4</sup> This disproportion in the number of railmen is explained by the departure of northern executives and personnel after the states' secession and the incorporation of the remaining labour force in the Confederate army.<sup>5</sup> In April 1863, the shortage of mechanics and engineers paralyzed the operation of the railroads to the extent that the managers of their main companies met in Richmond to demand the demobilization of thousands of rail technicians and the hiring of an additional 500 from Europe.<sup>6</sup> As the army exempted these workers sparingly, companies resorted to using inexperienced black slaves, at least until 1863. Afterwards, their masters refused to rent them any longer because they often took advantage of the loose supervision to flee to the enemy lines.<sup>7</sup>

The Confederate government tried to control the southern railways in 1861, but its politicians contended that only critical urgencies could justify their interference in private business. Under pressure, the House of Congress nevertheless voted, on April 17, 1862, a law authorizing the army to take control of the railroads, but the Senate opposed it.<sup>8</sup> This rejection was foreseeable. Firstly, because the new law would cause substantial financial losses to the many senators who possessed shares in the railway companies. Secondly, because the Confederate administration was reluctant to forgo the "states' rights" to seize property of which many Confederate states were shareholders. Ever focusing on their personal interest, many southern politicians refused to understand that the disruption of their railways handicapped their defence policy. From the beginning, General R.E. Lee had insisted on the absolute need of a dialogue between the railroad companies to improve the interior traffic and build connections that were vital to strategic military movements. Congress reacted by proposing measures that led to projects that did not take into account the material, political and financial situation of the South. Between February and October 1862, it passed four bills that provided President Davis with the necessary funds to authorize the prolongation of four important

<sup>4</sup> Bradlee, *The Railroads and the Confederacy*, p. 184 ; Fish C.R., *Northern Railroads*, in "American History Review", vol. XXII, p. 781.

<sup>5</sup> Bradlee, *The Railroads and the Confederacy*, p. 239.

<sup>6</sup> *Official Records of the Union and Confederate Armies in the War of the Rebellion*, 128 vols., Washington, 1880-1901, Series 4, vol. II : pp. 485-86, 500-502.

<sup>7</sup> Turner, *Victory Rode the Rails*, p. 243

<sup>8</sup> O.R. S. 4, vol. II : pp. 372-73 ; vol. III : pp. 90, 258 ; Ramsdell C.W. (ed), *Laws and Joint Resolutions of the Last Session of the Confederate Congress*, Durham, 1941, p. 101 ; Yearns W.B., *Confederate Congress*, Athens, 1960, pp. 129-30.

railways lines, notably a connection between Danville (Virginia) and Greensboro (North Carolina), another between Selma (Alabama) and Meridian (Mississippi), an extension of the *New Orleans & Texas RR* line between New Iberia (Louisiana) and Houston (Texas) and the construction of a new line between Rome (Georgia) and Blue Mountain (Alabama).<sup>9</sup>

The initial resources allocated to some companies soon encouraged others to come up with the wildest schemes in the hope of securing contracts with the government. In his work "*Victory Rode the Rails*", George Turner explains that some companies proposed extensions or connections that, under the alleged pretext of national interest, served only their own. The allocation of public subsidies also depended on a company's political loyalty to the House and the Senate. Many politicians voted in favour of projects that did not make sense because these suited their personal interest. The same reasons drove them to reject funds that would be detrimental to the companies in which they had invested. The story of the connection between Danville and Greensboro is typical of their selfish demeanour. As this junction was crucial for supplying Lee's army from 1862 to 1865, the politicians who prevented or delayed its construction demonstrated a sense of patriotic duty worthy of Middle Age feudality!<sup>10</sup>

The extravaganza that transpires from many southern railway projects at the beginning of the war does not relate to their usefulness, often justified, but to the means of achieving them. How does one create connections between various company lines when there are no rails, no steel industry capable of manufacturing them, no skilled technicians nor the indispensable rolling stock? One may wonder why the southern decision makers failed to take advantage of the inefficiency of the northern blockade until 1862, to import the components necessary for their railway infrastructure, at a time when their cotton constituted an excellent currency exchange. A close examination of the events leads to two explanations. One is to be found in the war's first great Confederate victory at Bull Run, in July 1861. It consolidated the South's feeling that the superiority of its armies would be sufficient to conquer its independence and that the European powers would officially recognize the southern Confederacy before the end of the year. The other reason was the South's total inability to apprehend the importance that the railroads would come to represent in the greatest conflict in American history. In April 1861, Davis and his Secretary of War did not even perceive the correlation that existed between the use of the railroads and the rapid concentration of the opposing army. All they had to do was to read the headlines of the northern press, which day after day announced the recent arrival in Washington of trainloads of new recruits.<sup>11</sup>

On February 10, 1862, Congress finally approved the funding of a railway line between Danville and Greensboro, and the President had no particular reason to postpone its construction. Instead of giving an impulse to this project, Davis did not perceive its urgency. On the other hand, he split hairs and squabbled with the manager of the *Roanoke RR*. As the latter was a close friend of Davis and since the proposed railway connection competed with his own line, his appeal to the Confederate President did not fall on deaf ears. Explaining that his company had already carried out important extensions before the war, he claimed that his line would ensure a speedier connection with North Carolina. Convinced by these arguments, Davis suspended the construction of the Danville-Greensboro line, at the same time requesting his chief engineer to

<sup>9</sup> O.R. S. 4, vol. I : pp. 912, 941, 1073 ; vol. II : p. 200.

<sup>10</sup> Turner, *Victory Rode the Rails*, pp. 234-35.

<sup>11</sup> *Ibid*, p. 311

personally evaluate his friend's railroad infrastructure. After a careful survey, the engineer reported that the repairing of the *Roanoke RR* lines would be more expensive and require more time than the construction of the junction recommended by Congress. All these quibbles caused a two-year delay in the start-up of the Danville-Greensboro junction, time during which Lee's army suffered considerably from its absence.<sup>12</sup> This affair illustrates Jefferson Davis' lack of maturity in a domain that was vital for running the war and allocating the states' food supplies. The congressional representatives were hardly more interested in the railroads than the President was. Their indifference was notable at the time of the creation of a direct connection between Selma (Alabama) and Meridian (Mississippi). In February 1862, the House allocated a budget of 150,000 \$ to this project, but failed to follow up on its execution, even though the Selma-Meridian interconnection was more than just a line on piece of paper : some bridges already existed and work had already begun on several miles of track.

The Federal advance in Tennessee finally awoke the southern politicians. The Secretary of War ordered his chief engineer to activate the construction work on the Selma-Meridian line.<sup>13</sup> The engineer's report was unequivocal : if Richmond wanted to finish this junction quickly, it would cost the government an additional 500,000 \$. Moreover, another problem arose. Was it or not necessary to suspend the obligations of a foundry under contract with the government so that it could manufacture the equipment ordered by a private company, also under contract with the government ? This dilemma fuelled controversies that lasted until the end of the year. The Confederate authorities waited until the enemy controlled the *Memphis-Charleston RR* and entered in Alabama before completing the Selma-Meridian line by the end of 1862.<sup>14</sup> Since Congress had denied the President the power to interfere in its railroad policy, it adopted an attitude of non-interference that excluded any financial and material support.<sup>15</sup> However, the government, and especially its generals, demanded from the existing railway infrastructure an effectiveness that its rolling stock would not provide much longer, due to the lack of maintenance and spare parts. In describing the desolation of the *Central Virginia RR*, its superintendent unknowingly reflected the general situation of the Confederate railroads at that time. "*The locomotives are constantly used with loads to the extent of their capacity and cannot be spared for repairs ; they are run until they can run longer. Many of them are old and constantly out of order*".<sup>16</sup>

Walter Goodman was the President of the *Mississippi Central RR*. He took advantage of his friendship with Jefferson Davis to suggest a recovery plan for the southern railroads. In substance, he requested that the government provide to the maintenance works of the five largest companies of the South all the tools and machinery necessary to manufacture rolling stock and spare parts. The most difficult materials to find were boilerplates and tubing, iron sheets, piping and other mechanical parts. Goodman recommended the immediate construction of rolling mills near three sites that were rich in iron and coal deposits.<sup>17</sup> The suggestions of this individual show to what extent the southern political class and some of its businessmen were disconnected from reality.

<sup>12</sup> O.R. S. 4, vol. I : pp. 1022, 1025-26, 1085-86, 1107 ; vol. III, p. 392.

<sup>13</sup> Ibid, vol. I : p. 1049.

<sup>14</sup> Ibid, pp. 1049, 1053.

<sup>15</sup> Ibid, p. 239.

<sup>16</sup> Turner G.E., *The Virginia Central Railroad at War, 1861-65*, in "Journal of Southern History", vol. XII-4-1946, p. 115.

<sup>17</sup> O.R. S. 4, vol. I : pp. 839, 880.

The Confederate industrial infrastructure was indeed unable to effectively support the war effort due to the lack of raw materials, machinery, technicians and skilled workers. As for the coal and iron deposits mentioned by Goodman, no one had ever considered mining them. This farsighted character simply anticipated an industrial revolution, which would have taken years to develop, even in peace times and with a strong currency !

Few southern politicians understood the importance of railroad transport in terms of strategy, but some military commanders also failed to comprehend its significance. In February 1862, Major General Joseph E. Johnston commanded the Virginia forces deployed near the Manassas rail junction, which bordered a large number of military depots. The progression of McClellan's Federal army quickly rendered Johnston's position untenable. Johnston's problem was not how to organize his retreat, but how to evacuate the contents of his warehouses. Three railway companies ran through his stronghold and he ordered them to transfer the contents of the Manassas depots to the Virginian hinterland. This created a precedent in the history of the United States insofar as West Point had never taught its officers how to exploit this new strategic tool.<sup>18</sup> On February 22, 1862, in accordance with his instructions, Colonel Lucius Northrop, the superintendent of the Commissary Bureau, a branch of the War Department, ordered the *Orange & Alexandria RR* to evacuate the stockpiles. Without consulting the agents of the companies involved in this operation, General Johnston insisted that the move be completed by the end of the first week of March. On March 5, he blamed the company agents for losing much of the equipment. In reality, he had mobilized too many trains at the same time and these were now stranded on a single line track. On March 7, a large portion of his army was retreating while its rear-guard set fire to the depots full of much needed food and military supplies. To justify this waste, Johnston claimed that President Davis had forced him to retreat prematurely and that Northrop had overloaded the storehouses. The latter reacted violently : *"Two weeks before his (Johnston's) move, he promised my officer, Major Lonad, the transportation deemed sufficient and of which he had assumed direct control. Empty trains passed the meat which had been laid in piles, ready for shipment. Empty trains lay idle at Manassas for days in spite of Noland's efforts to get them. General Johnston says the stores of other departments were brought off. Eight hundreds new army saddles, several thousand pairs of new shoes and a large number of new blankets were burned"*.<sup>19</sup>

This controversy shows that General Johnston was totally ignorant on railroad matters. In fact, he waited until the last minute to inform the various companies of the immense task that awaited them. Moreover, he failed to admit that the synchronization of such complex movements was beyond his ability. Johnston's utter incompetence in this field led to negligence that could have had dramatic consequences. His left wing, under the command of General T. Holmes, occupied a key position close to the *Richmond, Fredericksburg & Potomac RR* terminal. Since Holmes had received no specific instructions from, Adjutant General Samuel Cooper sent him the following instruction : *"Mr. Daniel, President of the Richmond, Fredericksburg and Potomac, has been advised by the Secretary of War to cause that part of the road between Aquia Creek and Fredericksburg to be broken up and the rails to be removed to some place of safety. You are requested to give such facilities in men and means as may be in your*

<sup>18</sup> Johnston J.E., *Narrative of Military Operations*, Appleton, 1874, pp. 98-99.

<sup>19</sup> O.R. S. 3, vol. I : p. 1083 ; S. 4, vol. I, p. 1038 ; Turner, *Victory Rode the Rails*, pp. 130-32.

power, to accomplish this object".<sup>20</sup> Without Cooper's intervention, McClellan's army was steaming straight into Richmond ! The senseless pride of certain southern officers was commensurate with their ignorance, which sometimes led to dramatic incidents. While a convoy packed with Confederate soldiers was moving towards Richmond, another train left this destination bound for Gordonsville, Virginia. Because the line consisted in a single track, one train usually gave way to another according to an established procedure. This did not suit the Louisiana colonel in the first train, who claimed priority and ordered full steam ahead. He no doubt imagined that the other convoy would rear up like a horse. His stupidity caused the worst railway catastrophe of the entire war. The terrible collision between the two trains speeding in opposite directions threw hundreds of soldiers aside of the tracks while many more died entrapped in the wooden cars that were crushed like matchboxes by the impact.<sup>21</sup>

At the beginning of the year 1862, the presidents of the main railway companies met in Richmond to explore the possibility of importing rails and spare parts. A certain T.D. Bisbee proposed to create a British commercial company in which the Confederate government, its iron and steel industry and the railway companies would hold shares. This project foresaw the export of cotton under the protection of the Rebel Navy to buy tools, machinery and equipment for the South. The participants approved the idea and a spokesman was appointed to convey these proposals to the Secretary of War. The latter responded negatively, stating that the government did not plan to support a particular private sector more than another.<sup>22</sup> The Richmond wait-and-see policy with regard to its rail network worsened in 1863. In February of the same year, the War Department sent Captain John Robinson to Great Britain to procure military supplies. Some railway companies asked that Captain Robinson be authorized to purchase some spare parts and heavy equipment on their behalf. The Secretary of War refused their request, but Robinson took it upon himself to go ahead. When the Secretary got wind of the captain's disobedience, he recalled him back to the South and assigned him to a unit on the front line. The powerful *Richmond, Fredericksburg & Potomac RR* protested to the governmental authorities regarding the fate of poor Robinson. Randolph, the Secretary of War at the time, replied that he did not authorize his officers to negotiate contracts for private companies. Aggrieved, the railway President hurled back that the interests of his company were the same as those of the Confederacy. The Secretary of War nevertheless closed the file and Captain Robinson remained on the front.<sup>23</sup>

On the other hand, the War Department never lost an opportunity to intrude into the private railway business when it judged that the vital interests of the Confederacy were at stake. The case of the *Piedmont RR*, in January 1863, helps to understand why the Richmond "diktats" de-motivated a number of companies and why these were at times unwilling to cooperate. The creation of the *Piedmont RR* was part of a scheme of rapid connections between West Virginia and Lee's forces. This new line was to connect Piedmont to the *Virginia Central RR* between Covington and Charlottesville. During its construction, the site engineer soon ran short of rails. At that time, four companies, the *Western North Carolina RR*, *Raleigh & Gaston RR*, *Atlantic & North Carolina RR* and *Central Virginia RR* had painfully created a stockpile of rails for the expansion of their own lines and forthcoming repairs. Under the pretext that the construction of the

<sup>20</sup> O.R. vol. V : pp. 1096, 1100 ; vol. LI : p. 497.

<sup>21</sup> Turner, *Victory Rode the Rails*, pp. 134-36.

<sup>22</sup> *Ibid*, pp. 868, 882

<sup>23</sup> *Ibid*, vol. II : pp. 409, 841, 852, 886.

*Piedmont RR* was of major strategic importance, the Secretary of War ordered the seizure of the rails belonging to those four companies.<sup>24</sup>

The supplying of Richmond and Lee's army depended on the mobility of the *Richmond & Danville RR*. However, in March 1863, its lines were in such a poor shape that four or five miles of track became unusable, owing to the company's lack of funds to hire sufficient maintenance personnel.<sup>25</sup> To plug the gap in the supply of Lee's troops, the Chief of the Engineer Bureau announced that he would remove the necessary rails from the *Norfolk & Petersburg RR*.<sup>26</sup> This patching up of crucial railway lines by the appropriation of its crossties, spikes and tracks from less important ones became so frequent that the Engineer Bureau systematically resorted to this practice until the end of the war. Although the Confederate government refused to help the struggling private railway companies, it asserted the right to use, misuse and abuse them at will. In this perspective, the South's railroad network was inevitably doomed and reduced to a skeleton of lines covering only the large battle theatres. Towards the end of the war, the Engineer Bureau set up an agency responsible for collecting iron scrap throughout the Confederacy for further conversion into rails. In addition, this agency was to receive the tools necessary to repair the railway lines, their rolling stock and bridges damaged by the enemy. The Department chief did not see the usefulness of this body and pleaded instead in favour of the creation of a body of railway sappers. Seddon, the Secretary of War, not only dismissed the project altogether, but also added : "*Railroads are an uncertain reliance ; they will worry me out of my life yet I think*".<sup>27</sup>

As superintendent of the Quartermaster Bureau, a branch of the War Department, Colonel Abraham Myers was responsible for the transport of troops and their supplies. Although ignorant in railroad matters, he refused to delegate his authority and thus deprived his assistant, Colonel Ashe, of any decision making. He quickly found himself entangled in the unrewarding role of "ombudsman" with his field of activity reduced to the inspection of railways lines, the collecting of complaints and, occasionally, the coordination of some specific train timetables. However, as a former president of the *Wilmington & Weldon RR*, Ashe knew his job better than did his boss.<sup>28</sup> It thus became clear that the railroad infrastructure would further fall apart if not controlled by a centralized management system. On December 3, 1862, the Secretary of War appointed William Wadley as Supervisor General of the Confederate railroads. Like Colonel Ashe, Wadley had gained much experience at the time of his presidency of the *Vicksburg & Shreveport RR*. Unlike his predecessor, he was accountable only to the Secretary of War. His duties were however limited to the supervision of the tracks, personnel and rolling stock, as required by the government. Myers protested in vain that this task was part of his own responsibilities. In the hope of creating some harmony between the railway companies, Wadley tried to exercise real authority over individual railroad owners, managers, and employees. He not only met with their selfishness and autonomy in commercial matters, but also with the lack of cooperation from the states that possessed shares in the concerned companies. Failing to reach his prime objective - the creation of a direct and rapid connection between Richmond and Montgomery (Alabama) - Wadley suggested granting President Davis the power to seize any company that did not fulfil its obligations. Lacking the means to put the railway

<sup>24</sup> Ibid, vol. XVIII : p. 825.

<sup>25</sup> Ibid, vol. XVI : p. 951.

<sup>26</sup> Ibid, vol. II : p. 655 ; Turner, *Victory Rode the Rails*, pp. 314-16.

<sup>27</sup> Turner, *Victory Rode the Rails*, p. 314.

<sup>28</sup> O.R. S. 4, vol. I : pp. 616-17, 634, 724, 844 ; Bradlee, *The Railroads and the Confederacy*, pp. 208, 210, 232.

companies under pressure, Wadley failed miserably in his task and, in May 1863, the Senate did not renew his commission.<sup>29</sup>

Rather than changing his methods, the government changed the man and replaced Wadley by Captain F.W. Sims who, for the same reasons experienced by his predecessor, did not succeed in overcoming the deafness of his superiors. Meanwhile, on February 14, 1864, Brigadier General Alexander Lawton had superseded Myers at the head of the Quartermaster Bureau. In his analysis of the situation, Lawton recommended to stop playing musical chairs with the tracks and to start the immediate repair of the fifty locomotives that lay idle in governmental workshops because of missing parts. *“The time has arrived when it must be decided whether this system is to continue; if it is, the government must be prepared for very limited and uncertain means of transportation. It is utterly impossible to continue in the present destructive course. Complaints of the deficiency in transportation are daily made, and your department is censured for want of energy, and too frequently worse motives are ascribed. Something is due to a department upon which the whole burden of transportation rests, and if it is not yielded, then other officers must shoulder the responsibility. What the roads ask, and what they must have, is iron ore, permission for foundries and rolling mills to work for them, and a liberal system of detailing machinists from the Army. Nothing else will do”*.<sup>30</sup>

The deficiencies of the Confederate railroads did not exclusively result from the absence of competent management or outdated equipment. The South’s philosophical obsession with individual and state rights and the concurrent fear of centralized power equally contributed to the railroad disorder. The autonomy of the secessionist states continuously barred the creation of a centralized Bureau of Military Railroads, as it existed in the North. This inevitably led to considerable clashes between Richmond and the states that had invested in the railway business. Their governors often denied the War Department the right to use their private lines, even if the nation’s vital interests were at stake. We will not list the numerous disputes that opposed them with Richmond on this subject but, despite the realities of war, the Confederate states did not always yield to Richmond’s pressure.<sup>31</sup>

The South’s strategic objectives also stumbled on private and commercial interests. At the beginning of the conflict, General Lee requested the interconnection of the two lines that ran into Petersburg, Virginia. Until then, freight had to be off-loaded and moved across town on horse wagons to rail depots served by different gauge tracks. The mayor of Petersburg and his council rejected such a project because the unloading and reloading of goods benefited a great deal to the local trade. The erratic supply of Lee’s army also resulted from the priority given by the railway companies to the lucrative traffic of passengers. The fares paid by the travellers exceeded by far those imposed by the government to convey food or soldiers to the front.<sup>32</sup>

Since the Confederate rolling mills easily converted rails into armour-plates, the Navy Department tried to acquire as many as possible. By persuasion or by force, it initially got hold of existing stockpiles of new rails, and then seized those from

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<sup>29</sup> Ibid, vol. II : pp. 225, 373 ; Turner, *Victory Rode the Rails*, pp. 245-46 ; Bradlee, *The Railroads and the Confederacy*, pp. 232-34, 237-40, 247, 251.

<sup>30</sup> O.R. S. 4, vol. II : pp. 841-42, 881-82 ; Bradlee, *The Railroads and the Confederacy*, pp. 248, 250-51, 255, 260, 268, 315.

<sup>31</sup> Bradlee, *The Railroads and the Confederacy*, pp. 206-208, 232-33 ; O.R. S. 4, vol. I : pp. 616-17, 634, 724, 844 ; vol. II : pp. 90, 258, 372-73.

<sup>32</sup> Bradlee, *The Railroads and the Confederacy*, pp. 233 ; Jones J.B., *A Rebel War Clerk's Diary*, Philadelphia, 1876, vol. I, pp. 183, 207.

secondary lines. It pilfered a few hundred tons from the *Atlantic & North Carolina RR*, 4,000 rails from a North Carolina line and 4,000 tons from two small companies in Georgia and South Carolina. When the Navy had appropriated all stocks of unused rails, it fell back on the minor lines. In Georgia, it confiscated around 60 miles of tracks belonging to the *Brunswick & Florida RR*. In South Carolina, it forced the *North Eastern RR* to contribute tons of rails for the armour plating of a battleship in Charleston. The *Roanoke RR*, *Petersburg & Weldon RR* and the *Norfolk & Petersburg RR* suffered a similar fate in Virginia. In Mississippi, the Navy predators swept clean the *Vicksburg & Shreveport RR*, even though this line was the only rail connection with the Trans-Mississippi.<sup>33</sup> They even went as far as removing most of the rails from the horse drawn streetcar network of Richmond.<sup>34</sup>

The Navy had however to share its rail crave with the War Department, the state governors, the iron and steel industry and the railway companies, which battled for the same materials. In April 1862, Stephen Mallory, the Secretary of the Navy, resorted to the use of force to get hold of the rails required by his department. Despite the protests of the President of the *Richmond, Fredericksburg & Potomac RR*, he seized one of his secondary lines, which was in full regular service. In Georgia, a Navy agent acting without authorization ordered the dismantling of a huge section of tracks belonging to the *Savannah, Albany & Gulf RR*. He further instructed its company president to deliver the rails to the rolling mills of Atlanta. The latter wrote to President Davis, the Secretary of War and the commanding officer of the Savannah garrison, requesting the immediate restitution of his rails. Receiving no reply, he refused to deliver them to Atlanta. He only gave in when the government threatened to seize his entire line.<sup>35</sup>

The *Albemarle* affair is a typical example of the conflict of interests that prevailed between the Navy, the Army and the railway companies. Built at the government's expenses, the river ironclad *CSS Albemarle* was assigned to the defence of Wilmington's harbour (North Carolina) and its internal waterways. In November 1862, Mallory wrote to Zebulon Vance, the Governor of North Carolina, requesting his permission to recuperate the rails of a minor line. Vance replied that he would transmit his demand to the *Atlantic & North Carolina RR* because his state was only a minority shareholder in this company. Several days later, Vance informed Mallory that the company was ready to make the rails available, but under certain conditions. The ten miles of tracks referred to by the Secretary of the Navy were of excellent quality or at least in very good condition. Deeming that worn out rails were good enough for the Navy, the *Atlantic & North Carolina RR* proposed to remove the better rails in order to reinforce the weakest sections of its line. In exchange, the company would deliver to the Navy an equal amount of obsolete rails. This bargaining went on with an incredible unawareness of the realities of war, at a time when the enemy had already set foot on the North Carolina coast.<sup>36</sup>

In January 1863, James W. Cooke, the future commander of the *CSS Albemarle*, which was in the course of construction, informed his department that the North Carolina company mentioned above had changed its mind. "*If no iron can be obtained*

<sup>33</sup> Still W.N. Jr., *Confederate Shipbuilding*, Athens, 1969, p. 50 ; Cole A.C., *The Irrepressible Conflict, 1850-1865*, in "Journal of Southern History", vol. XII-4-1946, p. 300.

<sup>34</sup> *Richmond Dispatch* September, 30, 1863.

<sup>35</sup> O.R. vol. XIII : pp. 816-17.

<sup>36</sup> *Ibid*, vol. XVIII : pp. 777-78, 849-50 ; Elliott R.G., *Ironclad of the Roanoke*, Shippensburg, 1999, pp. 69-70, 79-81, 86-87, 146-49, 234.

to clad these boats, I think the entire work ought to be abandoned".<sup>37</sup> After further delays, North Carolina finally agreed to convey 400 tons of scrapped rails to the rolling mills that would convert them into armour plates. However, it was still necessary to transport them to the ship's construction yard. On March 7, 1864, nearly seventeen months after the Secretary of the Navy's original request, Commander Cooke discovered that General Lynch, the commander of the military district, monopolized the only railway line that could transport his iron plates. The already strained relationship between the two men suddenly turned into an armed confrontation when, with fixed bayonets, Lynch's soldiers prevented the Navy representatives from reaching the railway station. President Davis and the Secretaries of War and of the Navy had to intervene personally in order to avert a serious clash between the Army and the Navy.<sup>38</sup> Following this affair, Davis ordered the creation of an agency charged with selecting the railway lines from which the Navy could seize tracks. In reality, this agency contributed more to the further disintegration of the railway infrastructure than to the shipbuilding effort. In January of the following year, the Bureau's chief engineer realized that it was time to re-evaluate the situation : "No ironclads have effected any good, nor are likely to effect any. Then, the Engineer Bureau recommended that all 'naval iron' be turned over to the army for railroad use".<sup>39</sup>

The animosity of the Navy towards the railroads resulted from its failure to develop an adequate naval construction program. The *CSS Virginia I*, better known under the name of *Merrimac*, was the first Confederate battleship that attracted the attention of the great naval powers at the time of her duel with the *USS Monitor*, on March 9, 1862.<sup>40</sup> If this ironclad had been operational in January 1862, the Federal Navy would never have completed the *Monitor* in time and nothing would have prevented the *CSS Virginia I* from destroying the Union squadron at Hampton Roads. The Tredegar Iron Works of Richmond had nevertheless produced the *Virginia's* armour plates by January 1862. However, these remained for weeks on the bank of the James River because the *Richmond & Petersburg RR* did not have sufficient flatcars to transport them. Almost three crucial months were thus lost due to the lack of a transport policy in adequacy with the planned naval operation.<sup>41</sup>

The inexistence of direct connections between the East and the West as well as the pitiful state of its rolling stock cost the South the town of New Orleans. The *CSS Mississippi*, built in that port, was a powerful river ironclad that had no contender in the squadron of Admiral Farragut. This juggernaut however concealed frail machinery, and notably defects in its main shaft, which could only be fixed by the Tredegar Iron Works of Virginia. To achieve this, it was first necessary to build a tailor-made flatcar to transport this piece of equipment by rail. Once repaired, it took the shaft nearly one month to cover the distance that separated Richmond from New Orleans, and it only arrived at destination a few days before the Federal attack. Having insufficient time to replace the shaft on the *CSS Mississippi*, her crew scuttled the ship to prevent it from falling into enemy hands.<sup>42</sup> When, in 1862, the Federal army occupied the shipyards of Nashville and Memphis (Tennessee), it found the carcasses of eight river ironclads and

<sup>37</sup> O.R. S. 4, vol. II : p. 365 ; Still, *Shipbuilding*, pp. 50-54 ; Elliott, *Ironclad Roanoke*, pp. 67-70, 130-31, 134-35.

<sup>38</sup> O.R. vol. XXXIII : pp. 1219-29 ; O.R.N. S. 1, vol. IX : p. 803 ; Durkin J.T., *Confederate Navy Chief, Stephen R. Mallory*, Columbia, 1987, p. 317 ; Elliott, *Ironclad Roanoke*, pp. 156-57.

<sup>39</sup> O.R. S. 4, vol. I : p. 365 ; Still, *Shipbuilding*, p. 54.

<sup>40</sup> A confusion exists between the two names owing to the fact that the battleship *Virginia* was a conversion of the frigate *Merrimac* that the Federal Navy had scuttled in Norfolk (Virginia) prior to evacuating its navy yard.

<sup>41</sup> Still, *Confederate Shipbuilding*, pp. 31-32.

<sup>42</sup> O.R. vol. VI : pp. 626-27.

five wooden steamships. The Confederates set fire to them because neither the *Central Alabama RR* nor the *Nashville & Chattanooga RR* had the appropriate rolling stock to transport these vessels and their machinery.<sup>43</sup>

In May 1863, the Navy's proposal to purchase part of the rails of the *Florida RR* generated a conflict of interests, which hampered the launching of the river ironclad *CSS Jackson* (or *Muscogee*). John Milton, the Governor of Florida, readily accepted Mallory's request, even more since this battleship was being built in Columbus, in the north of his state. David Yulee, the Senator from Florida then intervened, denouncing the Governor's agreement. As a majority shareholder in the *Florida RR*, Yulee did not intend to lose money by complying with a demand that would cripple his line. The dispute dragged on in the courts but inexorably ended with the seizure of the rails initially requested. The *CSS Muscogee* was ready too late for duty and her crew scuttled the vessel in April 1865.<sup>44</sup> In March 1864, North Carolina, the Navy officer in charge of supervising the construction of the river ironclad *CSS Neuse* mentioned in his report : "It floats not. The first course of iron is complete. The second fairly begun (...) the stop is at Wilmington, where there are several car loads of iron waiting transportation".<sup>45</sup> When the Secretary of the Navy shared his concerns with his colleague of the War Department, the Quartermaster General replied : "At present forage and food necessary for our armies in the field demand our entire transportation". The more the Navy pilfered the railway lines, the more were these unable to convey the equipment needed for the launching of battleships.

Overall, the food resources of the Confederacy should have been sufficient for its population, but the inadequate means of transport and especially the shortage of salt prevented its government from moving them to their destination.<sup>46</sup> In May 1863, for example, the superintendent of the *Richmond & Danville RR* notified the War Department that the transport of 600 horses for Lee's army would temporarily defer the supplying of the capital. In April of the same year, the crumbling rail network deprived the military authorities of 2,500 tons of bacon donated to Virginia by the Governor of Alabama. The dilapidation of the railway infrastructure in this area was substantiated the following month. At the beginning of 1864, while famine tortured Richmond, forty tons of sweet potatoes were rotting in warehouses between Richmond and Wilmington due to the lack of readily available locomotives.<sup>47</sup>

In short, the shambles that resulted from the disruption of the southern railroads penalized the movements of the Confederate armies throughout the war and often played in favour of the North's military operations.

## ***Confederate railroads in military operations***

### THE FALL OF VICKSBURG

Vicksburg was a key location on the Mississippi River. Firstly because it controlled the approach of the enemy fleets downstream and upstream of its position, secondly since it covered a broad area of communications between the East and the Trans-

<sup>43</sup> Still, *Shipbuilding*, pp. 33-34

<sup>44</sup> Ibid, pp. 51-52 ; Johns J.E., *Florida during the Civil War*, Gainesville, 1963, pp. 138-39.

<sup>45</sup> Still, *Shipbuilding*, p. 77.

<sup>46</sup> Lonn E., *Salt as a Factor in the Confederacy*, New York, 1933.

<sup>47</sup> O.R. vol. LI : pp. 903, 942 ; Jones, *Clerk's Diary*, vol. II, p. 191 ; Bradlee, *The Railroads and the Confederacy*, pp. 251, 254.

Mississippi. Grant's campaign against this fortress began in October 1862, but of interest to us are the events of April 1863. After failing several times to encircle Vicksburg by land, Grant decided to circumvent the place by transferring his troops on the western bank of the river, far from the enemy's powerful guns. In the meantime, the Confederates had completed the rail link between Selma and Meridian. This ensured the Rebel stronghold an excellent line of communication with the East, complemented by the *Mobile & Ohio RR* and the *New Orleans & Jackson RR*, which crossed the state of Mississippi from east to west. The weakness of Vicksburg lay in the single-track line that connected it to Jackson since it was the only railway line that could provide military reinforcements from the East. To isolate the Confederate bastion and conceal his manoeuvre, Grant ordered Colonel Benjamin Grierson to sabotage the railway lines connecting the town. Leaving Grand Junction (Tennessee), Grierson first destroyed several sections of the *Mobile & Ohio RR*, then some portions of the *Southern Mississippi RR* between Jackson and Meridian. Continuing his raid, he further destroyed part of the *New Orleans & Jackson RR* below Vicksburg, before joining another Federal army at Baton-Rouge. Between April 17 and May 2, 1863, while Grant was deploying his troops south of Vicksburg, Grierson had temporarily cut off Vicksburg by disrupting its railway communications. The Confederates had neither the manpower nor the necessary equipment to repair these lines in a reasonable period. In the meantime, General Joseph E. Johnston was heading towards Vicksburg, hoping to squeeze Grant between Pemberton's garrison and the 24,000 men that he was bringing along.

After crossing the Mississippi River downstream of Vicksburg, Grant's 44,000 veterans moved towards the fortified town. Knowing that Johnston was arriving by train from Jackson, Pemberton left his defensive positions with 29,000 men. Grant then opted for a classic Napoleonic tactical manoeuvre : defeat Johnston with overwhelming forces before throwing them against Pemberton's troops. But why hadn't Johnston meanwhile linked up with the Vicksburg garrison ? Firstly, because the rupture in the railway line connecting Jackson with Vicksburg prevented him from progressing any further. Secondly, since the railway company used by Johnston did not have sufficient trains to transport his artillery, and Johnson was reluctant to venture in open country without it. In two days, Grant's boldness and the crumbling of the Confederate railways cost the South its last key position in the West. On May 14, 1863, Grant detached approximately 30,000 men (two of his three corps) supported by a strong artillery to assail Johnston's forces, which evacuated Jacksonville and began a general retreat. The following day, the three Federal corps regrouped to attack Pemberton's forces at Champion's Hill. Defeated, the Rebels fell back on Vicksburg that they finally surrendered, on July 4, 1863, after a brutal and costly siege.<sup>48</sup>

## THE "SPRING" OF CHANCELLORSVILLE

On May 4, 1863, Lee won at Chancellorsville an extraordinary tactical victory that encouraged him to invade Pennsylvania, two months later. However, the Virginia railroads nearly transformed the "spring" of Chancellorsville into a storm more violent than that of Gettysburg. In January 1863, Lee's forces were encamped close to Fredericksburg (Virginia). The *Richmond, Fredericksburg & Potomac RR* theoretically

<sup>48</sup> Boatner M.M., *Civil War Dictionary*, New York, 1969, pp. 871-76 ; *Opposing Forces in the Vicksburg Campaign*, in Buel & Underwood, « Battles & Leaders of the Civil War », vol. III, p. 550 ; Turner, *Victory Rode the Rails*, pp. 257-61.

constituted an excellent supply line from North Carolina. However, its obsolete trains failed to provide the soldiers with adequate food and equipment on a regular basis. About mid-January, Lee had to reduce their rations and even those of their horses. In fact, the condition of this railway line was not the only concern. The true problem lie in the absence of a competent supervisor appointed to coordinate its activities with those of the *Wilmington & Weldon RR* and *Danville & Greensboro RR*. On January 25, Lee wrote to President Davis : *“Unless regular supplies can be obtained, I fear the efficiency of the army will be reduced by many thousand men, when already the army is far inferior in numbers to that of the enemy. I do not know whether the difficulty arises from the want of provisions at Richmond or from delay in its transportation to this point, but the result is that there is a scarcity of food for the men. If the provisions are in Richmond, I think, by an energetic operation of the railroad, they can be readily transported. Great delay in the running of the freight trains has been reported to me, which could be avoided by zeal and energy on the part of the agents”*.<sup>49</sup>

February was a month of rain, snow and food restrictions. Already responsible for reducing the men to starvation, the railroads no longer managed to supply enough grain and forage for the cavalry horses. These emaciated animals were fed with whatever little grass there was to be found. As for the artillery horses, they no longer had the strength to pull even the lighter guns. To save them, Lee sent them south, far from his positions. In the meantime, barefooted and devoid of winter clothing, the troops shivered while watching the Federal observation balloons taunting them from their nearby base. There was no shortage of rations but food rotted in the bad weather and in poorly run warehouses. William Wadley, whom the Secretary of War had appointed to coordinate the Virginia rail traffic, was unable to improve the situation. The railway lines that connected Richmond with the Virginia front seemed paralyzed. Learning meanwhile that stockpiles of food and equipment abounded in Atlanta, Lee suggested that the Secretary of War send his agents of the Commissary Bureau to secure them and ship them urgently to Virginia. The lack of response to his request worried Lee, all the more since the enemy was amassing an army more powerful than ever while his own forces were dwindling daily.<sup>50</sup>

In March 1863, James Seddon, the latest Secretary of War to date, finally admitted that the Army of Virginia owed its destitution to the chaotic situation of the southern railways. Agreeing that Virginia was the best place to concentrate supplies, Lee and Seddon urged Northrop, the superintendent of the Commissariat Bureau, to take immediate action. This bad-tempered individual did not like to be pushed about, and knowing that he was the President’s protégé, he did nothing to improve conditions that were turning into a nightmare. Lee’s troops were starving next to a good railway line at the end of which were rotting food supplies that nobody could or wanted to handle. Lee then saw red. He sent an critical message stating that his army’s rations were distributed every three days and reduced to 113 grams of bacon, 500 grams of flour and 4.5 kilos of rice per group of one hundred men. *“This may give existence to the troops while idle, but will certainly cause them to break down when called upon for exertion”*.<sup>51</sup> With the arrival of spring and the resolving of some of the railway problems, Lee’s men and horses slowly regained strength. This renewed vigour was in any case sufficient to inflict the most punishing and humiliating defeat to the Federal Army of the Potomac.

<sup>49</sup> O.R. S. 3, vol. XVIII : pp. 784, 873 ; vol. XXI, p. 1110.

<sup>50</sup> Ibid, vol. XXI-2 : p. 612 ; vol. XXV-2 : pp. 610-11, 730.

<sup>51</sup> Ibid, vol. XXV-2 : pp. 612, 693, 730.

## BRAGG'S KENTUCKY CAMPAIGN

In April 1862, after their defeat at Shiloh (Tennessee), the Confederates retreated to Corinth (Mississippi). On May 29, the immense pressure of the Federal army of General Henry Halleck forced them to evacuate the town. Surprisingly, the Yankees did not pursue the Rebels, as Halleck preferred to consolidate his own positions. Rather than taking advantage from his numerical superiority, Halleck divided his forces in two distinct bodies : the Army of Mississippi under General William Rosecrans and the Army of Ohio under the command of General Don Carlos Buell. He ordered the first to march on Vicksburg (Mississippi) and the second, to occupy Chattanooga (Tennessee). Buell progressed slowly because Halleck had instructed him to repair and safeguard the *Memphis & Charleston RR* as he moved on. However, Rebel cavalry raids on this railway line constantly hindered his advance towards Chattanooga. From Tupelo (Mississippi) where reinforcements had boosted his Army of Tennessee to 66,000 men, Confederate General Braxton Bragg observed the slow pace of Buell's army. This inspired him a daring plan. Leaving a cordon of troops to distract the arriving US army, he would carry out a vast circular movement southwards and arrive first in Chattanooga. Once in control of this place, he intended to move on to Louisville (Kentucky). This operation implied the outflanking and overtaking of the only Federal force capable of blocking his invasion of Kentucky. It also required an outstanding cooperation between Bragg's troops and the railways of Mississippi, Alabama and Georgia.

On July 21, 1862, leaving 16,000 men in Tupelo (northern Mississippi) under the command of General Price and 16,000 men at Vicksburg under Earl Van Dorn, Bragg boarded the *Mobile & Ohio RR* with his infantry.<sup>52</sup> At the same time, his cavalry, artillery and supply train moved east. The soldiers disembarked at Mobile (Alabama) only to re-embark on the *Alabama & Florida RR* trains that awaited them in Tensas station for further transfer to Montgomery. Here they switched trains again since the rail gauge of the line to Atlanta (Georgia) was different. The journey to Atlanta was long and particularly slow because the *Western Atlantic RR* locomotives struggled to draw the long convoys that required excessive horsepower from their steam engines. On August 15, 1862, Bragg wrote to General Kirby Smith, with whom he intended to link up, "*My infantry is all up, the artillery coming in daily, and part of my train is arriving. We begin crossing the river to-morrow and shall push ahead. It may be a week before we can move in force, but we shall occupy such position as to threaten Buell and prevent his moving any forces to the rear*". The main move had been successfully achieved. For the first time, the excellent synchronization of the railway companies of three different states had put a Confederate general in a position to defeat a superior adversary. Unfortunately for the South, Bragg was not on a par with the huge means put at his disposal. Delays and a tactical error made him lose the benefit of the hard work performed by the railway companies.<sup>53</sup> The enemy had time to concentrate new troops at Louisville (Kentucky) and repulse Bragg at the battle of Perryville.

History holds no grudge and it is again for General Bragg that the Confederate railroads carried out their second and last great transfer of troops.

<sup>52</sup> Catton B., *Terrible Swift Sword*, New York, 1963, p. 362.

<sup>53</sup> *Ibid*, vol. XVI-2 : pp. 198, 729, 731 ; Boatner, *Dictionary*, pp. 79-80, 176 ; Turner, *Victory Rode the Rails*, pp. 178-82.

## THE RAILROADS OF CHICKAMAUGA

In autumn 1863, the Gettysburg disaster had discouraged Lee from venturing on enemy ground. The Confederate high command admitted that the cost of this defeat had ruined any hope of winning the war in this theatre of operations. Another prospect however emerged. The Federal army of Rosecrans held Chattanooga and prepared to invade Georgia. In strategic terms, the Army of Tennessee commanded by Braxton Bragg was in a position to crush Rosecrans and create a breach that could influence the course of the war, if Richmond discreetly sent him reinforcements. Lee was in a position to detach one of his corps to Chattanooga without arousing the suspicion of the enemy. This corps was to travel on the *Virginia & Tennessee RR* and follow a route that passed by Lynchburg (Virginia) and then forked towards the Tennessee Valley via Salem, Wytheville and Knoxville. From his position in Chattanooga, Bragg could supply his forces via the *Western & Atlantic RR* that constituted an excellent and direct line of communication with Atlanta. Longstreet's corps (Lee's first corps) embarked on trains while the troops of General Johnston, stationed in Mississippi since the fall of Vicksburg, also marched on Chattanooga.

The task of arranging Longstreet's 500 miles journey fell on Quartermaster General Lawton. Lacking sufficient experience, Lawton complicated matters. These were barely untangled when he learned that Knoxville had just fallen into the hands of the enemy. This town was a stage on Longstreet's trip, and since it was too late to cancel the campaign, Lawton managed to come up with an alternative. He worked out a new itinerary whose complexity reveal to what extent the absence of westbound railway lines hindered the offensive strategy of the Confederacy. In effect, Longstreet had to return to Richmond, then travel south to Wilmington with the *Petersburg & Weldon RR* and the *Wilmington & Weldon RR*, and finally ride the lines of the *Wilmington & Manchester RR* and *North Eastern RR* until Charleston. From there, the *South Carolina RR* and *Georgia RR* carried him to Atlanta via Augusta and Decatur. This voyage covered a distance of approximately 1,000 miles and required the implication of ten companies operating with different rail gauges.<sup>54</sup>

On September 9, 1863, the first contingent embarked in the cars and on the roofs of the *Central Virginia RR*. Other convoys followed at brief intervals. Two divisions of infantry and an artillery battalion thus ventured in this railway epic. On September 19, at 3 PM, the first elements of Longstreet's corps arrived at an unknown station : Catoosa Platform, between Dalton and Chattanooga. The battle had already started. Longstreet searched for Bragg but only found him around 10 PM, asleep in an ambulance.<sup>55</sup> When the fighting renewed on the following morning, five of the ten brigades of Longstreet's corps were thrown into action. They were the only ones who took part in this Confederate victory. The other brigades and the rest of the artillery only arrived a few days later. This was not the railway's fault but Bragg's own. He attacked earlier than planned following a bad interpretation of an enemy's movement. According to Colonel Alexander's diary, his artillery battalion travelled 843 miles in seven days and 10 hours, or 178 hours from Petersburg (Virginia) to Ringgold (Georgia). "*It could scarcely be considered rapid transit*" wrote Alexander, "*yet under the circumstances it*

<sup>54</sup> Turner, *Victory Rode the Rails*, pp. 283.

<sup>55</sup> Sorrel, *Recollections of a Confederate Staff Officer*, New York, 1905, pp. 189, 192.

*was really a very creditable feat for our railroad service under the attendant circumstances*".<sup>56</sup>

This success, remarkable if properly exploited, could have counterbalanced the disaster of Gettysburg. The defeat of Rosecrans's army had opened the door of Kentucky, Indiana and Ohio to the Rebel army. However, declining advice, Bragg refused to listen to his corps commanders who urged him to strike the iron while it was hot, in other words pursue the enemy that was retreating to Chattanooga in disorder. A long siege then followed. Its outcome was a complete Confederate setback resulting from the greatest railway operation of the war.<sup>57</sup>

#### THE "INCREDIBLE TRAIN RIDE" TO CHATTANOOGA

From the very beginning of the conflict, the Federal government immediately understood the vital role that would play the railroads in their future operations. In February 1862, the Federal Congress gave President Lincoln the power to seize a railway company when necessary. As Secretary of War, Edwin Stanton implemented the presidential military decisions, including the transport of troops. Stanton immediately appointed a superintendent to the newly created Bureau of Military Railroads. David McCallum was a specialist in this field and he had the means to achieve his objectives. The Federal policy regarding railroads held in a few words. As long as a company operated without impairing a campaign in progress, the army refrained from intervening in its management. In the opposite case, the army simply took control of its equipment and staff. Moreover, as events would later prove, the Federal government never held back on the human and financial means necessary to help a company that was in trouble because of enemy depredations.

The Union was looking for competent officers who could juggle with the railway techniques to carry out or even outrun the projects planned by the military command who was not always aware of the field realities. There were many such men available, but Herman Haupt was without doubt the most outstanding of them all. In spite of his many successes, Haupt resigned before the end of the war for personal reasons. However, he passed on to his successors a technical legacy that they exploited with as much talent as their instructor did. The Bureau of Military Railroads, created by Haupt, now possessed an assortment of sophisticated gadgets. Among the most well-known and useful ones was a collapsible bridge and the associated railway cars designed to transport its elements. There were also large barges capable of carrying eight fully loaded railway boxcars, which the sappers used to cross rivers whose bridges had been set on fire by the enemy. Haupt was also a genius in the art of wrecking his adversary's equipment. He invented a mine so powerful that when placed against a bridge, would blow the structure to pieces. He taught his men how to destroy enemy rails and recover those twisted under the effect of fire. These methods and implements were not merely improvised. Haupt conceived them in minute details before submitting them to exhaustive tests while away from operations. The southern population commonly alleged that its army took more time to sabotage enemy structures than Haupt's men needed to repair them.<sup>58</sup> In addition to the logistics support that he provided to the

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<sup>56</sup> Alexander E.P., *Memoirs of a Confederate*, New York, 1907, p. 448-50.

<sup>57</sup> Boatner, *Dictionary*, pp. 149-53 ; Turner, *Victory Rode the Rails*, pp. 283-86.

<sup>58</sup> Haupt H., *Reminiscences*, New York, 1901 ; Turner, *Victory Rode the Rails*, pp. 310-12.

Union troops, Haupt's methods gave Washington the means of converting a catastrophe into a great victory.

After the battle of Chickamauga, Rosecrans's army was isolated at Chattanooga. The Rebel siege would obviously not last forever since, without reinforcements and food supplies, the Federals must surrender. This being the case, the Union would not only lose a powerful army but also the control of Tennessee, for which it had fought so hard. Moreover, the surrender of this army would give back Kentucky to the Confederates and open the door to Cincinnati (Ohio). However, the shipment of reinforcements and supplies from the East required massive preparations and much time. When Secretary of War Stanton heard of Rosecrans' defeat at Chickamauga, he immediately called for a council of war with President Lincoln, the Secretary of State Seward, the Secretary of the Treasury Chase and General Halleck, commander-in-chief of the Federal armies. Stanton briefly explained the gravity of the situation. Operating in the West, Sherman's army was too far away to intervene in time. As for Burnside, he could not leave Knoxville without giving up East Tennessee and West Virginia. Stanton then bluntly informed his colleagues that he intended to remove 30,000 men from the eastern theatre of operations and send them within five days to the Chattanooga front. General Halleck could not believe his ears. This old timer was mentally incapable of imagining such a movement of troops and equipment within such a short time frame. He was however forgetting that Stanton was an excellent businessman with a vast experience in railroad matters. Having his own doubts on such a wild undertaking, Lincoln bet that to assemble 30,000 men near Washington would take more than five days. With the support of Seward and despite the disbelief of the others, Stanton managed to get hold of the 11<sup>th</sup> and 12<sup>th</sup> corps of the Army of the Potomac.

The last participant had hardly left the meeting room that the Federal telegram began to transmit in all directions. Converted into operational headquarters, Stanton's personal office received and dispatched orders to all the railway officials, corps commanders and general superintendent of the army. A staff of selected officers then undertook to coordinate all the components of the biggest and fastest troop transfer yet known in American history. This team took over the control of the implicated railway lines, blocking their timetables and substituting them by meticulously worked out schedules that were consistent with the number and length of anticipated convoys. At the same time, other logistics officers were appropriating supply depots for the troops and fuel for the steam locomotives. Nothing was left unplanned. On September 25, less than 48 hours after the distress message from Chattanooga, two trains comprising 51 cars filled with troops and 4 flatcars loaded with field guns steamed through Washington, while other convoys followed close behind.

On September 27, at 9 AM, Lincoln had lost his bet. Twenty-seven trains transporting 12,600 men and hauling 33 artillery cars and 21 horse wagons followed the two previous convoys in their mad race to Bridgeport (Alabama) via Cincinnati, Louisville and Nashville. To avoid misunderstandings and susceptibility quarrels, Stanton ordered his generals to blindly obey the orders given by the railroad officers, even if they were of lower rank. On September 29, the last military train left the Union capital. In eleven days, 25,000 men, ten artillery batteries with their horses and one hundred baggage cars travelled 1,157 miles with no delay on the schedule prepared by Stanton's staff. A second wave of trains followed with 1,000 horses and mules, the artillery reserve and the equipment necessary for a campaigning army. When this incredible transfer was over, the army returned the rolling stock to their respective railway lines where normal traffic resumed. The massive arrival of Federal troops and

supplies at Chattanooga turned the tide of the campaign. The Rebel army besieging the place had not seen anything coming. Furthermore, an over-confident Bragg had detached one of his corps to Knoxville. Suddenly attacked by enemy forces that largely outnumbered their own, the Confederates suffered a bitter reversal that came close to annihilation.<sup>59</sup>

The clumsy approach that attempted to delay the disintegration of the southern railway system only succeeded in postponing the death of the Confederacy. A comprehensive strategy entailing the close cooperation between its army and the railway companies could have improved the situation, even though competition with the northern rail infrastructure was out of the question. Such teamwork nevertheless required a perfect understanding of the vital importance of the railroads. In his *“Victory Rode the Rails”*, George Turner wonders whether the Confederate military operations would have been more successful had Congress passed a law subjecting the railroads to the authority of a professional body, as was the case in the North. According to the author : *“It is impossible to say whether the railroads would have had greater or less difficulty if the government had seized and operated them at the beginning of the war. Evidence is abundant that from temperament, disposition and capacity the Confederate government was entirely unfitted for the job. Time after time it demonstrated its failure to understand the problem, its lack of industrial comprehension and its inability to deal in a practical manner with the mechanics involved”*.<sup>60</sup>



*Picture taken in the 1850's of the Baltimore & Ohio workshops at Martinsburg, a favorite target of Confederate raiders  
(Baltimore & Ohio Railroads)*

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<sup>59</sup> Boatner, *Dictionary*, pp. 141-47 ; Turner, *Victory Rode the Rails*, pp. 288-94.

<sup>60</sup> Turner, *Victory Rode the Rails*, p. 244.