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CHARLESTON, S. C.

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### BUILDING THE SOUTH CAROLINA RAILROAD

DONALD A. GRINDE, JR.\*

In the 1820's, Charleston was threatened by an economic depression. The city appeared to be losing its rank as the trading and shipping center of the southeastern United States. Import trade decreased 51.7 per cent from 1815 to 1825.¹ Domestic exported goods suffered a drop from \$11,000,000 in 1816 to only \$7,475,747 in 1826, and Charleston was losing its retail trade to a number of upland towns along the fall line.² Cotton shipped through the port of Charleston was the only bright spot since the number of bales increased from 146,959 in 1820 to 209,528 in 1830 or an increase of 42.6 per cent.³ However, the total cotton production for the southern states more than doubled during the same period so Charleston still was not enjoying the increased trade in cotton that the annual production would justify.⁴ The condition was graphically stated in a report of the special committee of the Chamber of Commerce.

Charleston has for several years past retrograded with a rapidity unprecedented. Her landed estate has within eight years depreciated in value one half. Industry and business talent driven by necessity have sought employment elsewhere. Many of her houses are tenantless and grass grows uninterrupted in some of her chief business streets. This may be a melancholy picture, but it is nevertheless true.<sup>5</sup>

With the invention of the cotton gin, the Piedmont produced ever increasing amounts of cotton each year. It was becoming the most prosperous part of the state and yet this wealth seemed to by-pass Charleston.

The key to tapping the trade of the interior and rejuvenating the commercial life of Charleston was better transportation. Canals, turnpikes, and steamboats had transformed other cities into commercial emporiums—Why not Charleston? Swamps, lack of a large river system

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<sup>&</sup>lt;sup>1</sup> Robert Mills, Statistics of South Carolina (Charleston, 1826), p. 168.

<sup>&</sup>lt;sup>2</sup> Ibid., p. 162.

<sup>&</sup>lt;sup>3</sup> Debow's Review, September, 1850.

<sup>&</sup>lt;sup>4</sup> M. B. Hammond, The Cotton Industry (New York, 1896), Appendix.

<sup>&</sup>lt;sup>5</sup> Charleston Courier, March 13, 1828.

met with the few remaining Friends in the Camden area and expressed their belief that these were not capable of holding a meeting. The final decision, however, was left to Western Quarterly Meeting which in mid-1784 united with this decision to lay down the meeting at Camden.<sup>66</sup>

The end of Quakerism in Camden must have come almost immediately after this, for very little is heard of it after that time. It is true that Zechariah Ferris did visit Camden in October 1790 and held a meeting there; <sup>67</sup> however William Savery, on a visit through South Carolina in 1791, appears to have passed up Camden—as did Thomas Scattergood in 1793. <sup>68</sup> By this time, it would seem, that all that remained of Quakerism in the Camden area was the memory of the old Irish Quaker community that had once lived there and whose members were now either underground or scattered in North and South Carolina and Virginia.

66 Ibid., II, 12 (January 31, 1784) and 20 (August 28, 1784).

67 Leon DeValinger (ed), "Journal of Zechariah Ferris' Visit to Southern Friends Meetings," Bulletin of Friends Historical Association, XXII (1933).

68 William Savery, "The Journal of William Savery," in Friends Library, I, 327-333; "Memoirs of the Life and Religious Labours of Thomas Scattergood," in Friends Library, VIII, 44.

stretching into the interior, and spring freshets made these solutions expensive and unpredictable. South Carolina had experimented with all of these modes of transportation and found them lacking.

Faced with these conditions. Charleston looked to a new form of transportation, the railroad. As early as 1821, Robert Y. Hayne was advocating a "Patent Railway" from Charleston to Hamburg.6 After six years of discussion, a meeting was held on December 6, 1827, to draft a memorial to the legislature asking for a survey of the country between Augusta and Charleston for a canal or railroad route. Although this petition was tabled, Alexander Black from Charleston had introduced on December 4 "a bill to incorporate a company to establish a railway or railways between the city of Charleston and the towns of Hamburg, Columbia and Camden." The bill passed easily and was finally approved on December 19, 1827. It authorized the establishment of a corporation under the name of "The South Carolina Canal and Railroad Company." 8 Subsequently, the Act of Incorporation was amended on January 30, 1828, to exempt the company from taxation, although it was passed with some opposition.9 The charter was "the most favorable ever granted a company in South Carolina." 10

After the securing of the charter, public interest was awakened and the newspapers promoted the project vigorously. The city council voted to have a model of a railroad made and exhibited for public inspection, provided the cost did not exceed \$500.<sup>11</sup> On March 18, 1828, an account of the model appeared in the *Courier*:

A model of a Rail-Road 200 feet in length is now exhibited in Wentworth Street, opposite the residence of John Hume, Esq. It is on an inclination of 22 feet to the mile. A car bearing 36 bales of cotton . . . has been placed upon it which is propelled with ease by only two hands the whole length each way. It is open to the inspection of the citizens, and has been an object of curiosity to many, who, from the exhibition seem satisfied of the practicability of executing the proposed Rail-Road from this model. Those who sincerely doubted before, have had their doubts entirely removed on this interesting subject.<sup>12</sup>

<sup>&</sup>lt;sup>6</sup> Theodore D. Jervey, Robert Y. Hayne and His Times (New York, 1909), pp. 122-123.

<sup>&</sup>lt;sup>7</sup> Ulrich B. Phillips, Transportation in the Eastern Cotton Belt (New York, 1908), p. 137.

<sup>8</sup> Statutes at Large of South Carolina, VIII, 353-355.

<sup>&</sup>lt;sup>9</sup> Phillips, Cotton Belt, p. 137.

<sup>&</sup>lt;sup>10</sup> Charleston Courier, February 1, 1828.

<sup>&</sup>lt;sup>11</sup> Ibid., February 15, 1828.

<sup>12</sup> Ibid., March 18, 1828.

In February, 1828, two surveyors were employed to find a feasible route for the railroad. On March 15, 1828, their report was laid before the people of Charleston.<sup>18</sup> Meanwhile, a committee of the Chamber of Commerce was authorized to collect and report all the information available on railroads deemed "necessary to form an opinion, the probable cost of, and the Revenue likely to be derived from the enterprise." 14 The committee members were Alexander Black, Joseph Johnson, William Aiken, Charles Edmonston, Thomas Bennett, Simon Magwood, James Adger, James Ross, J. N. Cardozo, and T. Tupper. 15 On March 3, 1828, the committee concluded that a railroad between Charleston and Hamburg was preferable to a canal. This was decided upon the basis of "relative costs, convenience, expedition, liability to interruptions by ordinary casualties, expense of attendance and repairs." 16 Furthermore, the committee asserted that the first efforts at railroading had been crowned with success, while canals had been unsatisfactory. The length of the route was to be about one hundred and forty miles. The estimated cost per mile for construction was placed at \$3,600—the total cost for the whole line being \$504,000. Rolling stock, bridges, and maintenance sheds would add another \$96,000, making the total \$600,000.17A large sum of money, but the annual return on investment was thought to be nineteen per cent.18 The City Gazette stated that this would be a small price and declared that

. . . thus shall the departed prosperity of our City be recalled, and the visions of increasing splendour and importance, which once cheered our sight and animated our hearts, but which have so long faded away before a chilling gloom and a lifeless inactivity, beam again with refreshing brightness, and with even more inciting allurements.<sup>19</sup>

In short, here was the remedy for Charleston's commercial troubles. Under such conditions, the books were opened for the subscription of stock on March 17, 1828.

A few days later, the books were closed and the company was found to have sufficient capitalization (\$350,000) to proceed. Almost all of the subscribed capital was from Charleston with minute amounts

<sup>&</sup>lt;sup>18</sup> Elias Horry, An Address Respecting the Charleston and Hamburg Railroad, October 2, 1833, p. 7, Archives of the South Carolina Historical Society.

<sup>14</sup> Ibid., pp. 7-8.

<sup>15</sup> Ibid., p. 28.

<sup>&</sup>lt;sup>16</sup> Charleston City Gazette, March 13, 1828.

<sup>&</sup>lt;sup>17</sup> Ibid., March 14, 1828.

<sup>18</sup> Charleston Courier, March 13, 1828.

<sup>19</sup> Charleston City Gazette, March 18, 1828.

coming from Columbia and Camden.<sup>20</sup> With the formation and funding problems surmounted, the directors now turned to the actual construction of the line.

After several surveys, a route was finally selected in 1830 by Horatio Allen, the chief engineer.<sup>21</sup> Allen's route ran up the ridge between the Ashlev and Cooper rivers to the forks of the Dorchester and State roads, then through Summerville to the Edisto River, thirty miles above Givhan's Ferry. This route was most advantageous since it ran closer to Columbia, presented fewer variations from the line of ascent, arrived sooner at the section of the country that furnished the materials of construction, secured favorable land concessions on the first five miles, and avoided the expense of crossing the Ashley River.<sup>22</sup> After the Edisto was crossed, the route ran on the summit of the ridge between the sources of the southern branch of the Edisto and the tributaries of the Savannah. This ridge was followed until the headwaters of Horse Creek were crossed. From that point the route descended the valleys of Wise's Creek and Big Horse Creek to the Savannah River about one and one half miles below Hamburg.28 When the road was built, Allen changed this plan somewhat. The highest elevation was 510 feet above sea level near Aiken at the 116 mile post and descended 16 miles to Hamburg via an inclined plane with a stationary engine, since the grade was too steep for locomotives.24

With the line decided upon, the tedious task of acquiring the right of way and obtaining the building materials now began. In general, the landowners along the line cooperated with the railroad with a few exceptions. The planters along the Edisto Valley opposed the venture

<sup>20</sup> Elias Horry, Address at Charleston, p. 8.

<sup>&</sup>lt;sup>21</sup> Allen was born in 1802 in Schenectady, New York; was graduated from Columbia College in 1823. In 1824, he had been employed on the Chesapeake and Delaware Canal and from 1825 to 1827 had been resident engineer on the Delaware and Hudson Canal. Then he went abroad to England in search of information on railroad matters. He remained in the employ of the South Carolina Railroad until 1835. In 1834, after the road was finished, he married Miss Mary Mancrief Simons, daughter of the Rev. James Dewar Simons of Charleston. The remainder of his life after he left the South Carolina Railroad was spent in notable engineering activities. He died January 1, 1890.

<sup>&</sup>lt;sup>22</sup> Horatio Allen, Chief Engineer, Reports to the Board of Directors of the South Carolina Canal and Railroad Company, 1831, p. 8-12, Southern Railway Archives.

<sup>&</sup>lt;sup>28</sup> Annual Report of the South Carolina Canal and Rail Road Company by the Directors, 1831, pp. 10-13, Archives of the South Carolina Historical Society.

<sup>&</sup>lt;sup>24</sup> Samuel M. Derrick, A Centennial History of the South Carolina Railroad (Columbia, S. C., 1930), p. 32.

since they had water transportation and considered the railroad a nuisance.<sup>25</sup> Often the route was changed to run through a more cooperative planter's land. Also, the road was not permitted to enter the incorporated limits of Charleston, and was forced to stop at Line Street. At Barnwell, along the original route, Colonel Barney Brown, the largest landholder in the area, refused to sell the right of way through his property. His reasons were that the

... engines would run over and kill his little negro slaves; also that the noise of the trains, such as the blowing of whistles and ringing of bells would seriously disturb the quiet and repose of the citizens and under no circumstances would such a nuisance be tolerated by a respectable community.<sup>26</sup>

As a result of this opposition, the line was altered to run through Blackville, ten miles from Barnwell.<sup>27</sup> Most of the small farmers along the route were without facilities for travel and marketing their produce and looked upon the railroad as a boon. They welcomed it with gifts of land.<sup>28</sup>

Most of the evidence indicates that South Carolinians supported the railroad. Many areas sent resolutions stating that should the

... Company think proper to locate the contemplated road from Charleston to Hamburg, by this place, that we will gratuitously cede to the company so much of our timber, as may be necessary for the construction of said Road.<sup>29</sup>

Engineers of the railroad reported that there were some landowners who not only offered a free right of way but also would furnish their slaves on the most reasonable terms to grade the ground and clear the woods for the required opening of two hundred feet.<sup>30</sup> In essence, acquiring the right of way posed some humorous but not insurmountable problems.

Next, the pioneer railroad men had to decide the type of road to be constructed. Some of the directors recommended wood while others

<sup>&</sup>lt;sup>25</sup> Horatio Allen, Reports to Directors, 1831, p. 9.

<sup>&</sup>lt;sup>26</sup> W. P. Maher, "The First Railway in South Carolina," The State, March 1, 1914.

<sup>27</sup> Ibid.

<sup>&</sup>lt;sup>28</sup> Derrick, South Carolina Railroad, p. 35.

<sup>&</sup>lt;sup>29</sup> First Annual Report to the President and Directors of the South Carolina Canal and Railroad Company by their Committee of Inquiry, 1828, p. 20, Archives of the South Carolina Historical Society.

<sup>80</sup> Ibid., pp. 13-14.

suggested preparing the timber for rails, covering the wood with an iron plate to protect it from the weather. Where the ground was soft it was thought that the transverse timbers be supported by "well-driven piles"—elevated above the ground to permit the air to circulate freely. Another suggestion was that brick piers be used instead of piles. Although this would cost more, it would be more durable.<sup>31</sup>

In 1830, Horatio Allen recommended the piling system as the foundation of the road, the piles were to be driven six feet part. He suggested experimentation relative to the best method of connecting rail timber to the piles. Furthermore, he stated that the flanges of the wheels of the locomotives and cars be placed inside, a current practice at that time.<sup>32</sup> After some discussion, the directors followed Allen's advice.

The greatest objections to the piling method were the exposure of the wood to rapid decay and the tendency of the rails to cant in a lateral direction causing constant and expensive repairing. To stop decay, a coating of tar and sand was used for the timber, and to prevent the rails from spreading the piles were placed wider apart at ground level than at road level.<sup>33</sup> These practices would change with experience.

Actual work on the first four miles began on January 9, 1830 at Line Street, Charleston, by Messrs. Gifford, Holcomb & Co.<sup>34</sup> Additional requests for supplies of timber were made in the newspapers and the company advertised for laborers also.<sup>35</sup> Only six miles of the road was completed in 1830, but experience with the piling system demonstrated its practicality. But for the economy's sake, it was found expedient to use a sleeper or sill system where the surface permitted.<sup>36</sup>

With the six miles completed, the directors increased the stock to gain more capital and speeded up the construction in 1831. One thousand and forty tons of iron were ordered from Liverpool, and several civil engineers were hired to finally locate the road, and to prepare the details for the letting of contracts.<sup>37</sup> By May, 1831, the sixty-five miles from Charleston to the Edisto River were all under contract

<sup>&</sup>lt;sup>31</sup> Ibid., p. 13.

<sup>32</sup> Horatio Allen, Reports to Directors, 1831, passim.

<sup>&</sup>lt;sup>88</sup> Southern Review, VII, (May, 1831), pp. 190-191.

<sup>&</sup>lt;sup>34</sup> Annual Report of the Board of Directors of the South Carolina Canal and Railroad Company to the Stockholders, May 6, 1833, p. 15, Southern Railway Archives.

<sup>85</sup> Charleston Courier, January 22, 1830 and February 13, 1830.

<sup>&</sup>lt;sup>36</sup> Thirtieth Semi-Annual Report of the South Carolina Canal and Railroad Company, January 1843, p. 19, Southern Railway Archives.

<sup>87</sup> Annual Report by the Directors, 1831, p. 3.

except six miles of swamp. Beyond the Edisto, thirty-four of the seventy miles were let to contract. All of the contractors were to complete their work by May 1, 1832.<sup>88</sup>

By May, 1832, the whole length of the road within six hundred feet of the bridge at Augusta was under contract and construction. Of this distance, ninety-four had the piles driven, seventy-two miles were capped, forty-six miles were railed, and twenty-three miles in detached sections ready for the running of cars. The construction gangs totalled thirteen hundred men with another one hundred employed on locomotives and at the depository of the company. The road was actually in operation for fifteen miles from Charleston to Woodstock, carrying passengers and mail. It was expected that the whole line would be complete by January 1, 1833.<sup>89</sup>

New Year's Day, 1833, was a bit optimistic, but on May 1, 1833, Alexander Black reported to Elias Horry, president, that the foundation was complete for the entire one hundred and thirty-six miles, that caps and transverse pieces were fixed for one hundred and thirty-five and three-fourths miles, rails laid and keyed for one hundred and thirty-four and three-fourths, iron spiked down permanently for ninety-eight, and the surface prepared for twenty-four additional miles. Nine turnouts, or passing places had been built and twelve pumps or watering places erected.<sup>40</sup>

On October 3, 1833, the entire line was finally completed and opened for passenger service. The announcement in the Charleston *Courier* stated:

The railroad will be opened for passengers on Thursday next, the third of October on which day his Excellency, the Governor of the State, and suite with a committee, etc., will be conveyed by locomotive power to Aiken, 120 miles from Charleston and other passengers, by hand cars to Hamburg by the railroad.... On Wednesday next, the 2nd of October, the President of the Railroad Company, Hon. Elias Horry, will deliver an address on the occasion at the new medical college ...<sup>41</sup>

The celebration was carried out as planned. The Governor and his party left Charleston at 5:45 A. M. and arrived at Aiken, one hundred and twenty miles, at 5:00 P. M. The car with the Augusta mail and passengers was let down the inclined plane and arrived at Hamburg about

<sup>88</sup> Ibid., p. 4.

<sup>89</sup> Annual Report by the Directors, 1832, p. 5, Southern Railway Archives.

<sup>40</sup> Annual Report by the Directors, May 6, 1833, pp. 15-16.

<sup>41</sup> Charleston Courier, September 30, 1833.

8:00 P. M.<sup>42</sup> The practicality, convenience, and speed of railroads with locomotive power had been proven to South Carolinians dramatically.

Horatio Allen submitted a full summary of the construction work to the directors on May 1, 1834. The railroad line consisted of one hundred and thirty-six miles of single track from "Charleston, opposite the Citadel, to Hamburg," the road had at nearly equal intervals sixteen turnouts of an average length of six hundred and fifty feet. At each of these were pumps and woods sheds. Six water tanks, thirteen depositories, and five revolving platforms were built also. Three side tracks were built at the Charleston depository ranging from four hundred and fifty to six hundred and fifty feet, one mile of double track was laid at the inclined plane.<sup>48</sup>

As with all railroad projects during this period, the total cost was considerably higher than the original estimate of \$600,000 which included rolling stock. Initially, Horatio Allen thought that the total cost per mile would be \$4,430 in 1830, but bridges, turnouts, and land acquisitions soon made this figure too low. In 1833, after the completion of the line, John T. Robertson, secretary, presented a detailed statement showing that the whole project cost \$951,148.36 or \$6,993.74 per mile. Thus, the costs had almost doubled the original estimates.<sup>44</sup> Considering the lack of scientific knowledge on building the railroad, the scarcity of skilled supervisors and laborers, the terrain crossed, the freshets, and the skepticism of the public, the work was done at a remarkably low cost.

Financing the construction of the line as cost began to overrun was a political and economic problem. The tariff on imported iron for railroad purposes was reduced from \$30 per ton to twenty five per cent ad valorem by the Treasury Department when Congress refused to lower the prohibitory duties. This action saved the company about \$17 a ton for rails. The railroad did get help and guidance from government civil engineers for surveys, but a drive to gain federal subscription to stock failed. Such a movement placed the congressional delegation of South Carolina in an embarrassing position since the state had become a proponent of states rights and opposed the financing of internal improvements by the Congress. In January, 1829, William Aiken and Alexander Black went to Washington to ask for federal aid, and Senator Robert Y. Hayne introduced a bill in the Senate in February,

<sup>42</sup> Charleston Courier, October 7, 1833.

<sup>43</sup> Annual Report by the Directors, May 1834, passim.

<sup>44</sup> Semi-Annual Report of the Directors of the South Carolina Canal and Railroad Company, November, 1833, p. 7.

1829, for federal aid. Another bill was introduced in the House. Both bills failed to pass because of lack of support from the South Carolina delegation.<sup>45</sup> Sensing the political opinion in South Carolina against federal aid, Aiken and Black did not pursue the matter any further.

The directors had better success with the state of South Carolina. At a session of the Legislature in December, 1829, the railroad applied for a subscription of \$250,000. A bill subsidizing the railroad for this amount passed the lower house but not the Senate. But a general appropriation act passed on December 18, 1829, provided for a loan of \$100,000 for seven years at five per cent interest. Later, the term of the loan was extended ten years, making it payable in 1847. This made the venture sound financially.

When complete the Charleston to Hamburg line was the longest railroad in the world under one management. In fact, it was twice as long as any in America. The building of the railroad was an engineering and economic success.

Even before the Charleston to Hamburg line was complete, the merchants of Charleston were thinking of branches to Columbia and Camden as well as making a railroad connection with the stock raising and grain growing section beyond the Appalachian Mountains. It was a bold thought. If it could be done, the commercial advantages for Charleston and South Carolina would be tremendous.

In 1836 the route over the mountains was surveyed and the reports stated that it was practical to form a link between Charleston and Cincinnati. The road from Cincinnati would probably terminate near the anticipated branch of the South Carolina Railroad at Columbia. Subsequently, charters from South Carolina and the states between Charleston and Cincinnati were obtained to build such a railroad, and it was called the "Louisville, Cincinnati and Charleston Railroad Company." <sup>47</sup> The formation of this company was attended by great optimism.

Amidst this enthusiasm, Robert Y. Hayne had organized a railroad convention at Knoxville, Tennessee. Delegates from Ohio, Indiana, Kentucky, Virginia, North Carolina, South Carolina, Georgia, Alabama, and Tennessee gathered at the Methodist Church on July 4, 1836. Shortly thereafter, stock subscriptions were held in all the states along the proposed line. Even with state support in 1837, it appeared that the

<sup>&</sup>lt;sup>45</sup> Niles Register, September 13, 1828; Charleston Courier, March 3, 1829.
<sup>46</sup> Niles Register, March 27, 1830; Statutes at Large of South Carolina, VI, 408.

<sup>&</sup>lt;sup>47</sup> Statutes at Large of South Carolina, VIII, 406; Derrick, South Carolina Railroad, pp. 138-139.

Panic of 1837, and lack of cooperation with the other states caused capital problems almost immediately. The purchase of the Charleston to Hamburg line and the subsequent start of construction of a road from Branchville to Columbia had caused severe financial problems forcing retrenchment. In 1839, a stockholders meeting at Asheville, North Carolina, was faced with the reality of their failures. The president, Robert Y. Hayne, was stricken with fever the day before the Asheville meeting began. Financial panic, lack of cooperation, and Hayne's illness and death were the main causes of failure in the Louisville, Cincinnati and Charleston Railroad venture.

However, the plans to construct a branch to Columbia were being drawn up in the shadow of the failure of more grandiose schemes. In 1838 the route was finally decided upon. It was to proceed from Columbia down the east side of the Congaree River, cross it near McCord's Ferry above the mouth of the Wateree River, then go through the valley of Buckhead Creek to its head. From there the route was to take a circuitous path to Orangeburg and then directly to Branchville.<sup>49</sup>

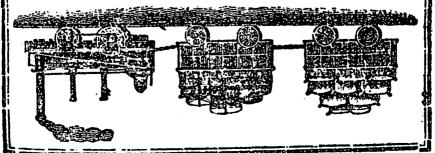
The construction of the road showed that railroad engineering had changed since the building of the Charleston to Hamburg line. The engineers recommended the embankment system over pilings and the use of longitudinal sills or "mud sills" upon which to lay the cross ties or sleepers. The "T" rail was highly recommended even though it cost more than the flat bar. A double track was contemplated but dropped due to expenses. The total cost of construction was estimated at \$1,575,590 or an average of \$23,875 per mile.

By September, 1839, the whole branch line was under contract and it was hoped that it could be completed by the end of 1840. This was too optimistic since the financial condition of the country was still depressed. In September, 1840, the line was still incomplete and cost estimates were revised upward to \$2,000,000. Rains in 1841 washed away trestles and retarded work even more. In spite of these troubles, work on the line pressed forward and the first passenger train rolled into Columbia from Branchville on June 20, 1842. The actual cost was \$2,274,906.31. This was the only road that the Louisville, Cincinnati

<sup>48</sup> Phillips, Transportation, p. 184; Proceedings of the Louisville, Cincinnati and Charleston Railroad Company, 1839, Southern Railway Archives.

<sup>49</sup> Derrick, South Carolina Railroad, pp. 182-183.

<sup>50</sup> Second Annual Report of the President and Directors of the Louisville, Cincinnati and Charleston Railroad Company, September, 1838, pp. 35-40, Southern Railway Archives.



# SOUTH-CAROLINA RAIL-ROAD,

Distance Charleston and Handurg, S. C. opposite Augusta, (Geo.)
Distance 136 miles, performed in daylight, from 6 A. M. to 6 P. M.
President, John Ravenel. Directors—Win Aiken, A. Black, IV m.
Bell, J. J. Bulow, Dr. S. H. Directors—Win Dizon, H. F. Faber,
John Haslett. B. J. Howland, Dr. Joseph Johnson, T. Tupper,
Jahditor. Henry Ravenel. Secretary, J. T. Robertson, Principal Engineer, H. Allen.

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And from one intermediate Station to another, Five Cexts por Miles. Children under 12 years and Coloured Persons, half-price

Regulations for the Passenger Curriage.

Jet. All baggage at owner's risk—75 lbs. allowed. 2d. servante the not admitted, unless having the care of children, without the consent of all the Passengers. 3d. Passengers not allowed to stand on the ontside platform. 4th. moking prohibited, 5th. No Gun or Fowling Priece shall be permitted to enter the Car unless examined by the Conductor. 6th. The feet not to be put on the Cushions, nor the Carsolied, defaced or injured in any way. 7th. Dogs not admitted into the Passenger Cars. 8th. At the ringing of the Bell, Passengers will be allowed one minute to take their places. 9th. Seats must be engaged allowed one minute to take their places. 9th. Seats must be engaged and paid for fifteen minutes previous to the hour of departure. As a general direction, the conductors of the Carriages are instructed not to permit any conduct that is inconsistent with good order, or the comfort and enfety of the Passengers: for which especial end these Rules have been established, and are required to be enforced with civility but strictly.

# HOURS OF DEPARTURE AND ARRIVAL.

UPWARD PASSAGE,

LEAVE CHARLESTON, at 6 A. M.

To Wondelock, running time and stoppages Ili. 5m.

Not to arrive before 5m. past 7 A. M.—Brenklast 20 minutes.

and Charleston Railroad Company built.<sup>51</sup> The operation of the branch line was carried on by the South Carolina Canal and Railroad Company until 1844 when the two companies were merged to form the South Carolina Railroad Company.

The final branch of the South Carolina Railroad in this early period was the Camden road from Gadsden to Camden. After a decade of discussion, the work began on the road to Camden in 1845. Two plans of construction were considered. The first would use wooden stringers and light iron rail and cost about \$450,000. The second would use a heavier "T" rail, and this would cost about \$540,696. The income of the road from freight, passenger, and mail business was estimated to be \$131,560 per annum while the cost of operation would be \$64,247. The remainder was a net income of \$67,313 or 2.6 per cent on all the stock of the company at that time. <sup>52</sup> Of course, the usual commercial benefits to Charleston, Camden and the intervening territory were there also.

The stock was subscribed by the people of Kershaw District and the road put under contract. The heavy "T" rail was adopted. The work was pursued with the major problem being the four miles of trestle work over the Wateree Swamp. In February, 1848, the president reported that the Wateree trestle was complete and the grading over the entire roadbed was nearly done. Finally on November 1, the Camden Journal announced its completion:

We are happy to announce that our branch road is completed to this place, and that it appears to be doing a good business in freight and passengers. On Friday last a train of twenty cars fully loaded with freight arrived at our Depot, besides several other trains since that time. We trust the completion of this work ushers in a prosperous era in the history of our town; its commercial business must be increased, and our up country and North Carolina friends will find it the most advantageous market both for buying and selling, this side of Charleston. The road is under careful management, and the merchants in the interior, must find the facilities it affords for transporting their goods to be of great

<sup>51</sup> Proceedings of the Stockholders of the Louisville, Cincinnati and Charleston Railroad Company, November, 1842, pp. 1-2, Southern Railway Archives.

<sup>52</sup> Proceedings of the Stockholders of the South Carolina Railroad Company, February, 1845, pp. 20, 25-31, Southern Railway Archives.

<sup>58</sup> Proceedings of the Stockholders of the South Carolina Railroad Company, February, 1848, p. 33, Southern Railway Archives.

From Miller's Planters and Merchants Almanac, Charleston, 1835. Courtesy, Southern Railway System.

advantage . . . The company seems determined to render every accomodation and facility in their power.<sup>54</sup>

This completed the ante-bellum system of the South Carolina Railroad with the exception of extending the line into Charleston and Augusta.

In the construction of the Camden branch, the South Carolina Railroad dispensed with the longitudinal sub-sill, used to give support strength which a light rail could not impart, since it used the heavy "T" rail. This was a major innovation in railroad construction. A number of stockholders objected to this practice and tried to stop it, but the management defended the decision on the grounds that the water on the roadbed settled into the trenches in which the sills were laid, and "the action of the engine imparts, in wet weather, a churning motion to the sill, converting into mush all beneath it." 55 With this kind of foundation, the sills shrank away from the cross ties and left them unsupported except in the middle; so the sub-sills were eliminated.

The South Carolina Railroad was a historic system. It was the first railroad ever constructed in the United States with a definite plan to operate exclusively with locomotive power. The "Best Friend of Charleston" was the first successful locomotive built in America. When complete, the Charleston to Hamburg line was twice as long as any American railroad and the longest in the world under one management. This was a heroic effort in a sparsely populated area dominated by agricultural interests. The building of the road and the subsequent innovations made the South Carolina Railroad one of the most historic and significant lines in the history of the United States.

<sup>54</sup> Camden Journal, September 13, 1848.

<sup>&</sup>lt;sup>55</sup> Action of the Stockholders of the South Carolina Railroad Company on the Report and Resolutions of the Committee of Inspection, etc., May, 1848, p. 12-13, Southern Railway Archives.