A Duel with Railroads: Houston vs. Galveston, 1866-1881

Vera L. Dugas

Follow this and additional works at: https://scholarworks.sfasu.edu/ethj

Part of the United States History Commons

Tell us how this article helped you.

Recommended Citation
Available at: https://scholarworks.sfasu.edu/ethj/vol2/iss2/8

This Article is brought to you for free and open access by SFA ScholarWorks. It has been accepted for inclusion in East Texas Historical Journal by an authorized editor of SFA ScholarWorks. For more information, please contact cdsscholarworks@sfasu.edu.
A DUEL WITH RAILROADS: HOUSTON VS. GALVESTON, 1866-1881

VERA L. DUGAS

Before the Civil War, Galveston was the only deep-water port in Texas, and therefore the depot through which flowed all of Texas's trade with the outside world. Houston, located on the mainland fifty miles northwest of Galveston, had developed almost as a colony of the Island City, large wholesale merchants maintaining facilities in both towns. As Jesse Ziegler recalled it, "Houstonians assisted materially in financing the early wharves in Galveston, and Galvestonians reciprocated by lending equal assistance in the building of railroads extending out of Houston."1

After 1865, separatism developed. One reason was that many merchants were too poor after the war to maintain establishments in both towns, therefore had to choose between the railroad center and the seaport. Another was that during the 1850's some wealthy Houstonians had withheld support from railroads that simply went through Houston on their way to Galveston, supporting instead railroads that terminated in Houston. A third reason was that after the Civil War the export-import trade at Galveston became a monopoly of the Galveston Wharf Company, in which Houstonians had no voice.2

Fearing that the Galveston Wharf Company might ruin them with high wharfage charges, Houston merchants exerted themselves to bring deep water to their own town. In 1866, several of them chartered the Houston Direct Navigation Company for the avowed purpose of providing transportation facilities that would eliminate the necessity of paying wharfage at Galveston. Another company, the Buffalo Bayou Ship Channel Company, undertook the specific task of deepening the channel and was given $200,000 by the City of Houston for that purpose. This company soon found out what the Galveston Wharf Company already knew, that keeping a channel open was terribly expensive. (Actually, charges at Galveston were no higher than at other United States ports.)3

The Houstonians sought federal aid for their project and in 1870 secured $10,000 from the United States government, which in the same year made Houston an official port of delivery. Pending further aid from some source, the Houston Direct Navigation Company sent barges to Galveston harbor and had the goods of Houston merchants transferred directly from ship to barge.4

Galvestonians, while scoffing at Houston's "ship channel"5 and calling it the "damndest fake out of door,"6 were nonetheless mindful that they were largely at the mercy of the rising metropolis on Buffalo Bayou. Five railroads entered Houston, but only one entered Galveston, and that was a short line which merely connected the two cities. The Galveston, Houston and Henderson had not built beyond Houston into northeastern Texas as originally planned; its Houston backers had abandoned it once
it reached their city and had devoted their capital to building other railroads into the interior.  

Galvestonians were annoyed also by the fact that whenever there were rumors of yellow fever on the island, which was almost every fall, just as the cotton harvest was beginning to roll seaward, Houston imposed a quarantine, forbidding the trains to come in from Galveston. Thus cotton shipments addressed to Galveston merchants were diverted to Houston merchants, and Galveston newspapers explaining the true situation on the island were prevented from delivery outside Galveston County. The more the islanders thought about it, the more they were convinced they needed a railroad which would connect them with the interior of the state without going through Houston. 

At first they pinned their hopes on the Galveston, Harrisburg and San Antonio Railway Company (formerly the Buffalo Bayou, Brazos, and Colorado), which operated between Columbus, in Colorado County, and Peirce Junction, seven miles south of Houston, and which was authorized to build an extension to Galveston. The Hutchings-Sealy interests of Galveston owned one-eighth of the stock of this railway company, which was controlled by Thomas W. Peirce of Boston. Before the Civil War, Peirce had operated a string of packets which regularly called at Texas ports. He also had served as attorney for the Buffalo Bayou, Brazos, and Colorado Railroad. Although a Northerner, he was a frequent visitor to Texas both before and after the war; apparently no Texan thought of him as an outsider or resented his influence in Texas affairs. He did disappoint the Galvestonians, however. Having acquired control of Galveston's only railroad, the Galveston, Houston and Henderson, in 1868, he was in no hurry to duplicate its facilities. Instead, when he resumed construction on the Galveston, Harrisburg and San Antonio, in April, 1873, it was at the western end of the line. 

One month later, in May, 1873, Galveston interests chartered the Gulf, Colorado and Santa Fe Railway Company. Businessmen of the city subscribed for $250,000 worth of stock, and the County of Galveston agreed to take $500,000 worth, the largest contribution ever made by a Texas county to a railroad. John Sealy's brother George, an employee of the Lackawanna Railroad before coming to Texas in 1857 and joining his brother's mercantile firm, had been the prime mover in the project and became treasurer of the railroad company. 

The Gulf, Colorado and Santa Fe was projected to build from Galveston westward to Columbia, in Brazoria County, then northwestward to Cameron, in Milam County, and Belton, in Bell County. From Belton it would continue northwestward through Eastland County, crossing the Texas and Pacific right-of-way there, and on through the Texas Panhandle to Santa Fe, New Mexico. At Santa Fe, it would connect with the Denver and Rio Grande Railway, then under construction by Denver interests, or with the Atchison, Topeka and Santa Fe. As projected in its northern parts, the Gulf, Colorado and Santa Fe seemed to be inviting financial support from the Boston backers of the Atchison, Topeka and Santa Fe, but this did not materialize. The Bostonians beat the Denverites to Raton Pass and then raced for California, hoping to beat Colis P. Huntington through the
pass at Needles. This was far more important to them than obtaining a Galveston outlet.\textsuperscript{13}

The Galvestonians made two alterations in their plans. First, they decided not to build to Columbia, but to go on a straight line northwestward from Galveston to Belton, crossing the International and Great Northern (Columbia Tap) at Arcola, in Brazoria County, and the Galveston, Harrisburg and San Antonio at Richmond, in Fort Bend County. Secondly, they would build north from Belton to Fort Worth, where they would meet both the Texas and Pacific Railroad and the Fort Worth and Denver City Railway, chartered in 1873 by citizens of Fort Worth, and possibly also the Missouri, Kansas and Texas. From Richmond northward to Fort Worth, the tracks of the Gulf, Colorado and Santa Fe would run within fifty miles west of the Houston and Texas Central, a Houston-owned railroad, cutting it off from the trade of western Texas. As projected in 1874-1875, the Gulf, Colorado and Santa Fe seemed to be bidding for financial support from the owners of the Missouri, Kansas and Texas, which was authorized to build from Denison to Fort Worth, but again, no such help was forthcoming.\textsuperscript{14}

Meanwhile, Tom Peirce had mollified the Galvestonians somewhat by moving the main office of the Galveston, Harrisburg and San Antonio Railroad from Harrisburg to Galveston, where it remained from late 1873 until 1876, even though the railroad came no closer to Galveston than Peirce Junction, more than forty miles away. At about the same time, 1873, the company's board of directors agreed to let John Sealy increase his holdings to one-third of the outstanding stock. These two developments made Galvestonians hopeful that they might acquire control of this railroad and use it to bypass Houston.\textsuperscript{15}

Meanwhile, also, the Houstonians had obtained a powerful ally in the person of Charles Morgan, whose vessels had dominated Gulf Coast shipping since the 1840's. A quarrel had arisen between the Galveston Wharf Company and Charles Morgan early in 1873, when he asked for a reduction in wharfage rates and was refused. Although talks continued through 1873, no agreement was reached. While quarreling with the Wharf Company, Morgan entered into negotiations with E. W. Cave, president of the Houston Direct Navigation Company, and with Abraham Groesbeck, a director of the Navigation Company and also acting president of the Houston and Texas Central Railroad. Having worked out satisfactory arrangements with the Houston interests, Morgan in 1874 bought control of the navigation company and may also have made plans for buying control of the railroad.\textsuperscript{16}

Morgan's correspondence at this time reveals that he was less concerned about wharfage rates than about the fact that Houston's railroads, rather than bringing goods southward to his steamship line, were draining Texas commerce northward through Denison and Texarkana to St. Louis, Missouri.\textsuperscript{17} This being the case, Galveston and Houston merchants would have been well advised to compose their differences and work together against a common danger. Instead, each city fought the other for a larger share of the dwindling trade, and each solicited northern capital to help in the fight.
One fact seemingly unknown to the Galvestonians during the late 1860's and early 1870's was that the Northern capitalist on whose friendship they relied most heavily, Thomas W. Peirce of Boston, was an even closer friend and ally of Charles Morgan of New York. Before the Civil War, these men had operated competing lines of packets along the Atlantic and Gulf coasts. Both had lost ships through wartime commandeering and sinkings, Morgan being particularly hard hit. After the war, Peirce decided to concentrate on railroads and gave the vessels he still had to Morgan. How close their financial relationship became is not clear, but there are indications it was a partnership in both shipping and railroading.

Like Peirce, Morgan had become interested in railroads before the Civil War, particularly in those roads which linked his ports of call. No doubt he foresaw that railroads ultimately would take the bulk of the trade from coastal shipping. Before 1861, Morgan had constructed a railroad from New Orleans to Berwick's Bay, Louisiana, and in 1869 he purchased the New Orleans, Opelousas, and Great Western Railroad. Later he acquired the right to build westward from Lafayette, Louisiana, to a junction with the Texas and New Orleans at Orange, Texas. Since he already had a road from Berwick's Bay to Lafayette, Morgan and his associates controlled the Louisiana section of the best route between New Orleans and Houston, via the Texas and New Orleans Railroad. By 1873, Thomas W. Peirce owned stock in the Texas and New Orleans and also controlled the Galveston, Harrisburg and San Antonio, which was authorized to build westward to El Paso. This group of connecting railroads through Louisiana and Texas was almost certain to attract the attention of someone interested in building a southern transcontinental route to compete with Union Pacific, and there are indications that Colis P. Huntington did become financially interested in this group prior to 1874.

The chief promoter and ante-bellum president of the Texas and New Orleans, Abram Morris Gentry, had left Texas for New York soon after the Civil War ended, presumably to find northern capital for the railroad, of which he was still chief officer but which had been held in trust since March, 1861, possibly for Northern owners, by B. A. Shepherd and W. J. Hutchins of Houston. Apparently Gentry failed in his mission, because in 1870 the railroad went into receivership. Under the receiver, Josiah F. Crosby, the road was rehabilitated on August 16, 1870, and put into operation between Houston and Liberty. R. S. Hayes was general manager at this time.

The stockholders of the Texas and New Orleans did not pay the bondholders what was due them, however, and in May, 1871, the section of the road between Liberty and Orange was sold by the receiver to J. T. Terry, who represented eastern interests including Morton Bliss and Company, Oakes Ames (of Credit Mobilier notoriety), George T. Tyler, Page Richardson and Carr, and Thomas W. Peirce. More than a year later, in October, 1872, Terry bought the Houston-Liberty section of the road for the same interests. He continued to operate the road between Houston and Liberty, but did nothing to restore service to Orange until July, 1875, after the men he represented had organized the Texas and New Orleans Railroad Company of 1874.
Work to restore rail service to Orange was begun at once under the superintendence of R. S. Hayes, who was at that time vice-president of another railroad in which Colis P. Huntington seems to have had an interest, the International and Great Northern, and service to Orange was restored on August 1, 1876. Other officers of the Texas and New Orleans included John T. Terry, president, J. F. Crosby, vice-president, and T. W. Peirce, director. 23

The International and Great Northern Railway Company, of which R. S. Hayes was a vice-president at the time he was superintendent of the Texas and New Orleans, was a combination of two earlier railroad companies, the International, and the Houston and Great Northern. The International had been chartered in 1870 by eastern capitalists then building the St. Louis Iron Mountain and Southern. It was authorized to build from Texarkana through Austin and San Antonio to the Rio Grande at Laredo. Among its directors was Thomas W. House, a wealthy Houston merchant who was also a director of the Houston and Texas Central Railroad Company. Therefore the International was built from Hearne, a station on the Houston and Texas Central, through Palestine to Longview. At Longview, early in 1873, the International connected with the Texas and Pacific Railroad, then controlled by Thomas A. Scott and other officials of the Pennsylvania Railroad. 24

At Palestine, the International made connections with the Houston and Great Northern Railroad, chartered in 1866 to build from Houston to the Red River and possibly on to Canada. Incorporators of the Houston and Great Northern included such prominent Houstonians as E. B. Nichols, formerly Galveston agent for the Peirce and Bacon shipping firm; W. J. Hutchins, a private banker; William Marsh Rice, a former partner of E. B. Nichols; and B. A. Shepherd, another private banker. All of these men were also stockholders in the Houston and Texas Central. Another incorporator of the Houston and Great Northern was Moses Taylor, president of the First National Bank of New York City. The first president of the Houston and Great Northern Railroad Company was Charles G. Young, a former president of the Vicksburg and Shreveport Railroad who had spent the Civil War years in Texas. After his death on a construction train north of Houston in 1871, the presidency of the Houston and Great Northern was taken over by Galusha A. Grow, a politician and financier with residences in both Pennsylvania and Texas. 25

After connecting at Palestine in 1873, the International Railroad and the Houston and Great Northern merged and were rechartered as the International and Great Northern Railroad Company. The new company built west from the junction with the Houston and Texas Central at Hearne, entering Austin in 1876. 26 There construction halted. It was not resumed until 1880, more than three years after Thomas W. Peirce completed construction of the Galveston, Harrisburg and San Antonio westward to San Antonio (February, 1877). 27

During the years 1876-1878, Huntington apparently pulled out of the International and Great Northern Railroad, probably because he could not control its Texas-to-St. Louis outlet, the St. Louis Iron Mountain and Southern. Just when Jay Gould acquired control of the International and
Great Northern is not clear, but there are indications he had a strong voice in its affairs as early as 1876. The company, previously solvent, went into receivership for the first time in 1878, with R. S. Hayes as receiver. When it was reorganized, late in 1879, the list of stockholders was virtually the same as before.28

Somewhat earlier, in the years 1873-1876, Jay Gould had acquired control of the Missouri, Kansas and Texas Railroad, which provided the Houston and Texas Central with connections to St. Louis, and also of the Texas and Pacific Railroad, with which the International and Great Northern formerly had enjoyed friendly relations, sharing a track from Longview to Texarkana. The fact that Gould controlled the only two railroad exits from northern Texas did not become known in eastern financial circles until 1876.29 When Huntington learned it, he realized that the International and Great Northern Railroad would not provide him with an eastern connection and quietly began transferring his capital from it to the more southern group of railroads put together by Charles Morgan and Thomas W. Peirce.

In the meantime, Morgan had brought deep water to the village which he renamed Clinton, on the peninsula known as Morgan's Point. When a channel nine feet deep had been dredged out all the way from Galveston harbor to Clinton, in 1876, Morgan completed a seven-mile railroad connecting Clinton with Houston. Then, if not earlier, he began buying into the Houston and Texas Central Railroad, and by 1877 he controlled it. Thereafter the Houston and Texas Central preferred southbound to northbound traffic to such an extent that its track between Sherman and Denison was taken up, breaking off the connection between it and the Missouri, Kansas and Texas (the "Katy"), which Jay Gould controlled.30

Some Houston and Texas Central directors and stockholders who sold shares to Charles Morgan used the money to construct three-foot-gauge railways, which some railroad men of the time strenuously preferred. One such was the Texas Western Narrow Gauge, projected to run from Houston to El Paso and possibly beyond. Its backers included Houstonians T. W. House, W. D. Cleveland, S. K. McIlhenny, and Brown Botts. By April, 1877, they had built forty-two miles west from Houston to Patterson, near the Brazos River, in Waller County, but they could secure neither additional capital nor sufficient business and the company went into receivership. Reorganized in 1880 as the Texas Western Railway, with U. S. Grant and his son Frederick on the board of directors, the company built fifteen miles farther, to Sealy, and failed again.31

Two months after this unfortunate little railroad was spawned, in 1875, Houston interests had chartered another narrow-gauge, the Houston East and West Texas, which was projected to run southwest from Houston to Victoria, Goliad, and Laredo, and northeast from Houston to Nacogdoches, Marshall, and Texarkana, with a branch from the east bank of the Trinity River in Polk County through the pine region to the Louisiana border, or from Nacogdoches to Shreveport. The projectors apparently hoped to sell this railroad to the Huntington interests; they made ample provision for tying in with his Louisiana projects and their agent in charge of interesting eastern capital was Abram Morris Gentry, the for-
mer president of the Texas and New Orleans Railroad, who now divided his time between New York City and Huntington, Long Island, where he had property.32

Among the original stockholders of the Houston East and West Texas were Paul Bremond, W. J. Hutchins, W. R. Baker, and F. A. Rice, all of whom had sold Houston and Texas Central stock to Charles Morgan. Others were T. W. House, Abraham Groesbeck, E. W. Cave, W. D. Cleveland, J. T. Brady, Ben A. Botts, Eugene Pilott, S. C. Timpson, and John Shearn (brother-in-law of T. W. House and son of his former partner, Charles Shearn).33

Construction began in 1876, and by 1879 the road was in operation between Houston and Goodrich Station, on the east bank of the Trinity, a distance of sixty-three miles. By 1880, unable to attract eastern money, the Houston East and West Texas had crept another twenty or thirty miles farther, through Livingston to Moscow, but still in Polk County.34

Meanwhile, the Galveston backers of the Gulf, Colorado and Santa Fe were having an equally difficult time. Unable to obtain eastern capital, they had used their own resources to bridge the bay between Galveston Island and Virginia Point, on the mainland, in 1875, and had proceeded northward, crossing the International and Great Northern at Arcola Junction, forty miles from Galveston, in 1876, and reaching a junction with the Galveston, Harrisburg and San Antonio at Richmond, twenty-six miles farther, in 1878.35

In 1876 Charles Morgan had taken his steamship business from Galveston to Houston (Clinton) and Thomas W. Peirce had moved the main office of the Galveston, Harrisburg and San Antonio Railroad from Galveston to Houston. Peirce, who was allied with C. P. Huntington after 1876, if not before, seems to have engineered similar arrangements between Huntington and Charles Morgan sometime before Morgan's death in May, 1878.36

Sometime during these years the man who had emerged as Huntington's chief rival in the transcontinental race through Texas, Jay Gould, found agents and allies in Galveston. He came into control of the Galveston, Houston and Henderson Railroad "several years before" 1879, in which year John Sealy became president (an office T. W. Peirce had held in 1875-1876) and H. M. Hoxie, who was also an officer of the International and Great Northern, became vice-president.37

The Gulf, Colorado and Santa Fe also elected new officers in 1879. The company had received donations totaling over a million dollars from individuals, towns, and counties along its right-of-way; nevertheless, it defaulted on $250,000 owed to its own treasurer, George Sealy, and was sold under foreclosure in April, 1879. George Sealy bought it, for $200,000. The company then was reorganized under the same name and with practically the same principal owners, except that these men purchased the County of Galveston's financial interest. In the reorganization, John Sealy became president and George Ball became treasurer.38 The list of directors and officers elected a few months later, in January, 1880, is interesting. It includes Israel Corse of New York (president), H. F. Taylor
of New York, Thomas W. Peirce of Boston, H. B. Andrews of San Antonio (Peirce's right-hand-man in Texas), H. M. Hoxie (an officer of the Galveston, Houston and Henderson and of the International and Great Northern, both controlled by Jay Gould, as well as of the Gulf, Colorado and Santa Fe), and R. S. Hayes and D. S. H. Smith, both of Palestine.

Thus reorganized, the company found that it had ample funds for construction. B. M. Temple, the chief engineer, extended the tracks to Brenham, Belton, and Fort Worth, reaching Fort Worth by late 1881. There the Gulf, Colorado and Santa Fe made connection, as planned in 1875, with the Texas and Pacific Railroad and the Missouri, Kansas and Texas, both of which were Gould properties. The Galvestonians had secured what the Houston-Huntington interests still lacked, rail connections with St. Louis, Missouri, and were in position to learn what Houstonians already knew, that freight could move northward out of Texas quite as easily as it could roll southward to Galveston.

Gould, meanwhile, had pushed construction of the Texas and Pacific westward from Fort Worth, reaching Sierra Blanca, ninety-two miles east of El Paso, at a time when the crews of the Galveston, Harrisburg and San Antonio, the Huntington-affiliated railroad, had not quite reached Uvalde. Although Huntington had already completed his track from California to El Paso, he decided to make arrangements with Gould concerning the track to be laid between El Paso and Sierra Blanca. The negotiations, begun in 1881, soon expanded into other areas, resulting in agreements that affected not only the entry into El Paso but also every railroad that the two financial giants controlled in Texas.

So ended the railroad duel between Houston and Galveston. Gould and Huntington together controlled all four existing railroad exits from Texas (three east and one west) and also, to some extent, the port facilities at both Houston and Galveston. The futures of both cities were largely in their hands.

FOOTNOTES

1Jesse A. Ziegler, Wave of the Gulf: Ziegler's Scrapbook of the Gulf Coast Country (San Antonio, 1938), 176.

2Ibid., 176, 181; Galveston Wharf Company (Pamphlet in the office of the Galveston Port Authority, Galveston, Texas [n.d.]), 2, 4, 11-13, 17, 27-28; S. G. Reed, A History of Texas Railroads (Houston, 1941), 490-491.

3H. P. N. Gammel, comp., The Laws of Texas, 1822-1897 (Austin, 1898), V, 1834-1837, and VI, 116-119, 557-562; Reed, Texas Railroads, 238, 491; A. L. Weinberger, The History and Development of the Houston Ship Channel and the Port of Houston (M.A. thesis, The University of Texas, 1940), 64.

4Weinberger, The History and Development of the Houston Ship Channel and the Port of Houston, 64.

5Ziegler, Wave of the Gulf, 98.

6Quoted in Weinberger, The History and Development of the Houston Ship Channel and the Port of Houston, 71.

7Reed, Texas Railroads, 283-284.
Ibid.

Ibid., 192-193. Peirce Junction subsequently became Pierce Junction, in accordance with the popular idea of how the name should be spelled. Ibid., 71.

Ibid., 71, 192-193.

Vinton Lee James, Frontier and Pioneer Recollections of Early Days in San Antonio and West Texas (San Antonio, 1938), 113; Reed, Texas Railroads, 194.

Gammel, Laws of Texas, 1822-1897, VII, 1302; Charles S. Potts, Railroad Transportation in Texas (Austin: University of Texas Bulletin No. 119, 1909), 58; Ziegler, Wave of the Gulf, 181; Reed, Texas Railroads, 284.


Gammel, Laws of Texas, 1822-1897, VII, 1285-1289, and VIII, 615; Potts, Railroad Transportation in Texas, 58; S. G. Reed, "Fort Worth and Denver City Railway Company," The Handbook of Texas (Austin, 1952), I, 634. The road from Belton to Fort Worth was called a branch line.

Ziegler, Wave of the Gulf, 93; Reed, Texas Railroads, 205. Sealy did not acquire the additional stock. Ibid.

Reed, Texas Railroads, 239-240.

Ibid.

Ibid., 242; Handbook of Texas, I, 235; Wilson and Taylor Southern Pacific, 69.

Handbook of Texas, II, 235; Reed, Texas Railroads, 227.


The Texas Almanac for 1867 (Galveston, 1866), 271; Reed, Texas Railroads, 225; Sam Wood Geiser, "Gentry, Abram Morris," Handbook of Texas, I, 679.

Gammel, Laws of Texas, 1822-1897, VII, 979; Reed, Texas Railroads, 226-227.

Potts, Railroad Transportation in Texas, 54-55.


Gammel, Laws of Texas, 1822-1897, VIII, 659-663; Reed, Texas Railroads, 320.
27 Reed, Texas Railroads, 194.
28 Ibid., 325-326.
29 V. V. Masterson, The Katy Railroad and the Last Frontier (Norman, 1952), 202-206; Perkins, Trails, Rails and War, 262; Reed, Texas Railroads, 365.
31 Gammel, Laws of Texas, 1822-1897, VIII, 619-620; Reed, Texas Railroads, 478-479.
33 Gammel, Laws of Texas, 1822-1897, VIII, 676; Ziegler, Wave of the Gulf, 275; Handbook of Texas, II, 599.
34 Reed, Texas Railroads, 236-237.
35 Ibid., 285; Potts, Railroad Transportation in Texas, 30, 58.
36 Potts, Railroad Transportation in Texas, 46; Reed, Texas Railroads, 205, 228, 242, 262; Wilson and Taylor, Southern Pacific, 73.
37 Reed, Texas Railroads, 354.
38 Gammel, Laws of Texas, 1822-1897, IX, 3-4; Potts, Railroad Transportation in Texas, 58; Reed, Texas Railroads, 285. W. L. Moody appears among the stockholders at this time. Ibid.
40 Potts, Railroad Transportation in Texas, 58, 59; Handbook of Texas, II, 722; Reed, Texas Railroads, 285.
41 Wilson and Taylor, Southern Pacific, 77; Potts, Railroad Transportation in Texas, 46.