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### Logging and Rafting Timber in South Mississippi, 1840-1910

### by Nollie W. Hickman

The economy of South Mississippi was in a state of transition during the late antebellum period. Prior to the 1840s cattle herding and hunting had provided a great majority of the settlers in that region with their livelihood. The cotton plantation system common to other sections of the state was in use there only in a few scattered localities where river valleys provided unusually fertile soil. In fact, more than ninety per cent of the land of twenty counties comprising the longleaf pine country was unsuited to the culture of cotton and corn, the two principal crops of antebellum Mississippi. Consequently, the inhabitants of this area made their living largely by grazing cattle on the open range. Their agriculture was limited to raising small quantities of foodstuffs on plots of land fertilized by their livestock. This pastoral economy was in rapid decline during the 1840s, however, because the open range that sustained it was being destroyed by increasing population, overgrazing, and forest fires. It was fortunate for the people of the Piney Woods at this juncture that they could find employment in a rapidly growing lumber industry.

Although logging operations had been under way on the Gulf Coast on a small scale since the eighteenth century, the modern South Mississippi lumber industry dates only from the 1830s. In the latter years of that decade several steam sawmills were erected at the mouths of streams emptying into the Mississippi Sound, and their demand for timber stimulated the development of a significant logging and rafting business in the interior.

This article was originally published in the July 1957 edition of *The Journal of Mississippi History*. Some of the language may be offensive because the article is a product of its time and place. The article is reprinted verbatim to reflect the scholarship as it was presented at the time.

NOLLIE W. HICKMAN earned his Ph.D. in history from the University of Texas in 1958. At the time he wrote this article, he taught at Florence State College (now the University of North Alabama). Hickman authored the book Mississippi Harvest: Lumbering in the Longleaf Pine Belt, 1840–1915 in 1962. Prior to his death in 1987, he was professor of history at the University of Louisiana at Monroe.

Logging and rafting methods in the years 1840-1910 underwent few changes. Logging consisted of two basic operations: namely, felling the trees and hauling the logs to the banks of rafting streams. Until the late [1880s] axmen commonly known as "choppers" felled the trees. Their basic tool was a pole ax having a single cutting edge and weighing about five pounds. In the [1870s] a double-bit ax with two cutting edges supplanted the pole ax.<sup>1</sup> Using these axes, loggers cut through tree trunks at waist level, leaving three- or four-foot stumps. An axman notched a tree on the side where he wished it to fall, and then chopped away on the opposite side. At length, when only a small layer of wood separated the notches, the tree came crashing to the ground. It was then divided into the desired lengths.<sup>2</sup>

Expert choppers possessed great endurance and a high degree of skill. Many of them could cut the ends of logs with an ax about as smoothly as if they had used a crosscut saw. Axmen who could fell fifteen to twenty trees daily earned good wages. A few of the choppers employed by Calvin Taylor in the late [1850s], for example, made more than one dollar per day.<sup>3</sup> The average axman, however, considered cutting ten logs to be a good day's work.

Trees suitable for ships' spars probably were the first to be culled from the longleaf and slash pine forests of South Mississippi. As early as the mid-1840s, lumbermen searched the back country for long, slightly tapering trees so much sought after by European navies.<sup>4</sup> A special type of tree was required to meet the rigid naval standards for masts. Such trees had to measure 26 to 30 inches at the large end and at the smaller, 18 to 21 inches, with a length from 75 to 100 feet.<sup>5</sup> Thus the amount of timber that could meet these exacting standards was limited and, consequently, brought good prices.

<sup>&</sup>lt;sup>1</sup> Statement made to the author by Willmer Griffin, July 28, 1953. Griffin rafted logs and spar timber on the Pascagoula in the years 1890-1915.

<sup>&</sup>lt;sup>2</sup> Ibid.

<sup>&</sup>lt;sup>3</sup> Journal No. 9, 1856-1862, pp. 20-40, Taylor-Myer Partnership, Calvin Taylor and Family Collection, Department of Archives, Louisiana State University, Baton Rouge, La. The collection includes part of the Calvin Taylor Diary, all of the Sereno Taylor Diary, journals, letters, cash books, business papers, wills, land deeds, papers relating to slave purchases, and miscellaneous papers. Much of the material pertains to the Taylor sawmills located at Handsboro, Miss.; statement made to the author by Alonzo Miles, July 1, 1954. Miles cut logs with an ax for Henry Leinhard in the late 1880s.

<sup>&</sup>lt;sup>4</sup> Benjamin L. C. Wailes, *Report on the Agriculture and Geology of Mississippi* (Jackson, 1854), 348-349.

<sup>&</sup>lt;sup>5</sup> Statement made to the author by Willmer Griffin.

Hewing spar timber into the required octagonal shape demanded special skills of the axman. Some spars had eight sides for one-sixth of their length, and on the remainder, four sides.<sup>6</sup> In shaping these spars, workmen marked off lines on the logs and hewed away the excess wood with broad axes. It was said of experienced choppers that they could hew a surface as smooth as that produced by a planing machine. Only an expert could work up one stick of spar timber in a single day.<sup>7</sup>

"Square timbers" were logs of four equal sides hewn from the largest and finest trees. This timber usually was marketed in foreign countries where it was used in heavy construction or sawed by overseas mills into smaller dimensions. Sawn timber differed from square timber only in that it was sawed instead of hewed into shape. Square timber, while less valuable than spars, brought higher prices than saw logs. In the early [1880s] sawn and square timber sold from eight to thirteen cents a cubic foot; after 1900 the price never fell below seventeen cents.<sup>8</sup>

Scattered throughout the longleaf forests of the Coastal Plain were large quantities of standing deadwood. All the sapwood in these logs had been withered away by time, weather, and fire, and the remaining wood was all clear heart, often of heavy resinous content. Dead timber of this kind was excellent material for railroad ties, bridges, and other structures requiring great strength and durability. The Piney Woods people used dead timber which they called "light'ood" for sills, house blocks, fence posts, and rails, and they sawed much of it into lumber. Its most important use came with the construction of railroads. Then hundreds of thousands of cross-ties were hewed from the big light'ood logs with a broad ax in a business employing large numbers of people.<sup>9</sup>

In the late [1880s], crosscut saws replaced axes in tree felling. Their introduction into the area was a major event, and people often gathered for miles around to witness a demonstration of what the new tool could accomplish. The first saws had been unsuccessful; kerf had clogged and

<sup>&</sup>lt;sup>6</sup> Ibid.

<sup>&</sup>lt;sup>7</sup> Statement made to the author by John F. Hickman. George Leatherbury brought a crew of skilled Negro spar getters from Alabama to northern Harrison County, Miss., in 1892.

<sup>&</sup>lt;sup>8</sup> Northwestern Lumberman, XXX (July 16, 1887), 18; Lumber Trade Journal, LXIV (July 15, 1903), 24; statement made to the author by Walter Barber, July 1, 1953. Barber has been an official of the L. N. Dantzler Lumber Company for the past forty-three years.

<sup>&</sup>lt;sup>9</sup> Observations of the author. Stringers and sills of one dwelling still in use were said to have been cut by the author's grandparents in 1870. Shipment of ties to overseas markets from Mobile was of considerable importance. The American Railway Engineering and Maintenance of Way Associations recommended that ties be 8" by 8", ten feet in length. *Lumber Trade Journal*, XLIV (April 1, 1902), 22, 29.

choked them, and resin in yellow pine logs had formed a thick layer of gum on the saw teeth that prevented them from cutting. Subsequent improvements such as the inclusion of cutters which removed sawdust, and the practice of sprinkling kerosene on the teeth and sides of the saw to eliminate the heavy film of gum, made the tool practicable for sawing the southern pine.<sup>10</sup>

The crosscut saw, which required no special skill to pull, trebled labor productivity and lowered logging costs. In using the saw a notch was usually cut in the tree with an ax on the side toward which it was expected to fall. On the opposite side of the tree, slightly above the notch, the saw entered the wood. Wedges made of hickory were inserted in the gash made by the saw in order to lift the weight of the tree off the blade. These wedges prevented the saw from binding and helped the sawyers fell the tree in the desired direction.<sup>11</sup>

Bringing logs from the forest to the banks of streams before 1900 was accomplished by "caralogs" pulled usually by four yokes of oxen. The date when the first caralog appeared in Mississippi forests is a matter of conjecture. In the [1850s] or earlier, however, they were being used by Biloxi River and Bayou Bernard logmen.<sup>12</sup> In 1852, for instance, Benjamin Wailes observed that logs were hauled to streams with large cart wheels pulled by oxen.<sup>13</sup> The original caralog wheels, according to Etienne Maxson, were of small diameter and had a tread width of about four inches. Modifications introduced somewhat later by Usan Vaughan, a slave of Nezan Favre of Pearlington, Mississippi, made the wagon practical for hauling logs in Mississippi. Vaughan's changes consisted of widening the tread and increasing the diameter of the wheels to more than seven feet. Wider treads helped prevent the cart from bogging down in low wet land, and high wheels made possible the transportation of logs of any size.<sup>14</sup>

All the parts of the caralog except its iron treads were manufactured in pioneer blacksmith shops scattered throughout the Piney Woods. The frame of the draketail caralog was constructed of one pine pole. The small

<sup>&</sup>lt;sup>10</sup> Statement of Willmer Griffin; statement of John F. Hickman.

<sup>&</sup>lt;sup>11</sup> Observations of the author in the years 1920-1930. Even the most skillful of sawyers were not always able to determine in what direction the tree would fall. Because of this ever present danger workmen always had to be alert to move swiftly out of the path of falling timber and limbs dislodged from nearby trees.

<sup>&</sup>lt;sup>12</sup> Miscellaneous Papers, Calvin Taylor and Family Collection.

<sup>&</sup>lt;sup>13</sup> Wailes, Report on the Agriculture and Geology of Mississippi, 348-349.

<sup>&</sup>lt;sup>14</sup> Etienne Maxson, *Progress of the Races* (Washington: Murry Brothers Printing Co., 1930), 10.

end of this pole extended out in front to form the tongue, and the other end split into two sections extended to the rear where a windlass was attached to hoist the log. The framework was balanced on the axle of the two-wheeled cart, and grab hooks were attached to it. In loading, the cart was stopped astraddle a log, and these hooks were dropped down to encircle the timber. The windlass hoisted one end of the log to the axle to be fastened, while the other end was allowed to rest on the ground. The maximum carrying capacity of the cart was limited to three small logs, or two large ones.<sup>15</sup>

After 1900 the caralog was outmoded by an eight wheel log wagon developed by John Lindsey of Laurel, Mississippi. Lindsey's wagon retained the caralog's wide treads, but decreased the diameter of the wheels by more than one-half and increased the number of wheels from two to eight. Bolsters were built above the wheels to hold the logs on the wagon. Logs were conveyed to the wagon bed formed by the bolsters on skids, one end of which rested upon the ground and the other on top of the wagon. The windlass and grasping hooks characteristic of the old caralogs were discarded. Oxen were used to pull the logs from the ground to the wagon bed. Lindsey's eight-wheel wagon more than doubled the carrying capacity of the older caralogs.<sup>16</sup>

Ox driving was one of the oldest occupations in the back country. In this region it was not unusual to see a youngster twelve to fourteen years of age driving oxen hitched to a caralog before he possessed the strength to lift the log up to the axle with the windlass. Many drivers seemed to have a special knack in getting oxen to obey. By talking to their charges, and on occasion, hitting them with long leather plaited whips, they obtained maximum performance.

The driver walked on the right flank of the team, usually half the distance between the rear oxen and the leaders. In this position he had a clear view of the road ahead and could maneuver the tongue steers to avoid obstructions. A well-trained team would completely reverse the direction of travel on the command of the driver. At the repeated command of "whoa back" the team turned to the left; or at the word "back" moved in an opposite direction. The tongue steers were usually the largest and most experienced animals on the team, and many of

<sup>&</sup>lt;sup>15</sup> Statement of Willmer Griffin; Cyril Edward Cain, *Four Centuries on the Pascagoula* (Starkville, Miss.: Private Printing, 1953), 145; statement of John F. Hickman.

<sup>&</sup>lt;sup>16</sup> Southern Lumberman, CXCIII (Dec. 15, 1956), 134; observations made by the author in Stone County during the years 1920-1930.

them themselves guided the wagons to prevent stalling against trees and stumps.  $^{\rm 17}$ 

Ox drivers were equipped with ox whips and cant hooks, later known as peavies. The whip, made of plaited cowhide, eight to twelve feet long was mounted on a slender stick from six to eight feet in length called the whip stock. A "popper," made of dressed deerskin, was attached to the free end of the whip and provided cutting quality. With this long whip a driver could strike a recalcitrant ox, regardless of his position in the team. But one writer has stated that:

> The skilled use of the ox whip was not so much in its application to the beasts of burden to make them pull, though this was as much of an art as the use of the whip in driving loose herds, but was in its manipulation by the driver for his own entertainment and the enjoyment of whoever might be in hearing distance.

An individual skilled in the use of the ox whip could make it crack like a rifle or boom like a cannon.<sup>18</sup>

The ox driver's cant hook, about five feet in length, consisted of a wooden stock with a hook fastened to one end. Its principal function was to turn and manipulate logs. In 1858 Joseph Peavey, a Maine blacksmith, invented the peavey by combining a spike pole and a cant hook. The peavey soon was universally employed in both logging and rafting in South Mississippi.<sup>19</sup> The spike pole with a length of about sixteen feet consisted of a heavy hardwood stock with a sharp pointed steel spike attached to one end. It was a tool designed to manipulate logs into position and to raise sunken logs to the surface.

Large log camps housing fifty workers or more were virtually unknown before the construction of tramroads; in this early period an

<sup>&</sup>lt;sup>17</sup> Statements made to the author in the years 1920-1932 by many of the old-time ox drivers. For hauling logs oxen proved superior to mules and horses with either the caralogs or the eight wheel wagons. In wet country and swamps they were less susceptible to bogging than were other types of livestock. They also required less feed and, when not actually working, could be turned loose on the open range to graze without cost to their owners.

<sup>&</sup>lt;sup>18</sup> Cain, Four Centuries on the Pascagoula, 129.

<sup>&</sup>lt;sup>19</sup> Agnes M. Larson, *History of the White Pine Industry in Minnesota* (Minneapolis, University of Minnesota Press, 1949), 78; ox drivers, unlike choppers and sawyers, were paid a daily wage. In the antebellum period some of the drivers got \$1.25 per day. Journal No. 9, 1856-1862, pp. 25-26, Taylor-Myers Partnership. However, average wages for most of the years 1840-1900 were much less, averaging from \$1.00 to \$2.50 per day. Pascagoula *Democrat Star*, July 8, 1882; Babe Fairley, a Negro who drove an ox team for many different people for more than thirty years, stated to the author Nov. 1, 1953, that wages of ox drivers varied from 75 cents per day to \$2.00 in the years 1885-1920.

average logging operation required only a few choppers and drivers. The temporary camps built to accommodate the loggers were the work of only a few hours. Often, if logging operations were located near the homes of settlers, lodgings for laborers were obtained from them for small sums. When no such housing was available, crude camps were built near streams so that water was easily obtainable for the men and livestock. The low, flat temporary structures characteristic of these camps had neither doors nor windows and were built up to a height of five feet by placing notched pine poles one upon the other. These crude huts were roofed with shingles cut by the workers. As the spaces between the poles were usually unsealed, the structures gave little protection against the chill of winter's wind. Indeed, the huts offered only a place for man to sleep protected from rain and sleet.<sup>20</sup>

In these camps food was cooked outdoors in iron pots suspended above an open fire. Small logging crews included no regular cook, and the workers prepared their own meals, which consisted of johnny cake, corn bread, dried beef or pork, dry lima beans, and molasses. Toward the end of the [nineteenth] century cooks were hired in the larger camps, and the logger's diet accordingly became more varied.<sup>21</sup>

At dawn or before the men roused, put on their heavy brogans, slipped on their home-made jeans and shirts, and started the activities of the day. Immediately after dressing the drivers hastened to the woods in search of the oxen that had been turned loose to graze during the night. After penning and yoking the work animals, the drivers ate breakfast and prepared the noon meal to be consumed in the woods. At nightfall the long work day ended. Supper was prepared for the men, and the oxen were fed small amounts of cotton seed meal. Perhaps an hour or so after nightfall, the men ended a full day of work and were soon asleep on a bed of leaves inside the pole hut.<sup>22</sup>

After the logs had been hauled to the banks of streams by the drivers, they were given a distinctive brand by the owner. One logman might use a large number of different brands to indicate on what stream the logs were rafted or from whom his purchases of timber had been made. Ordinarily both logging and rafting operations were conducted by the same individuals, but not always. Many contracts covered only one phase

<sup>&</sup>lt;sup>20</sup> Statement of John F. Hickman; statement of Alonzo Miles; statement of Babe Fairley.

<sup>&</sup>lt;sup>21</sup> Ibid.

<sup>22</sup> Ibid.

of the process of bringing timber from the forests to the mills.<sup>23</sup>

Timber was floated down to tidewater on most streams in the Gulf Coast country. Rafting logs was practicable on any stream with banks four or five feet high that was wide enough for logs to be maneuvered. On the Southern Coastal Plain where the average annual rainfall was from forty to sixty inches, streams were frequently flooded, and logs in large quantities moved to the mill in every season of the year. Many wetweather streams were temporarily adequate for floating timber during seasons of heavy rain, and in almost every locality of the pine country there was at least one small stream suitable for rafting logs.

The date when timber was first sent to the coast cannot be fixed with certainty. By 1840 sawlogs and spars in small numbers definitely were being sent down the larger streams.<sup>24</sup> The expansion of lumbering occurring in the late [1840s] undoubtedly must have increased the gathering of raw materials in the back country. The consumption of 86,600 logs in 1850 by Harrison County mills alone required the labor of a sizable group of loggers and rafters.<sup>25</sup>

During the 1850-1860 period thousands of logs were brought from the interior and manufactured into lumber by the coast sawmills. Wailes in 1852 stated that the Biloxi rivers were filled with logs.<sup>26</sup> He noted that logs were rolled into wet-weather streams and floated to the mills after the rains came.<sup>27</sup> He observed also that in low, flat country where no natural channels existed, ditches were cut miles in length, deep enough to accommodate logs floating single file. When the rains filled the small canals, the logs were pushed along by hand to their destinations.<sup>28</sup>

In the late [1850s] a considerable number of back country inhabitants

<sup>&</sup>lt;sup>23</sup> Ibid.; L. N. Dantzler Lumber Company Records, Moss Point Lumber Company Log Books, Vols. 1, 2, 3, 4, 5, 6, 1892-1901. The log tallies show that one logman might have logs bearing as many as twenty different brands. L. N. Dantzler Lumber Company Records, Log Brand Record Book. This book contains a list of over 5,000 brands used on the Pascagoula and its tributaries in the years 1865-1930.

<sup>&</sup>lt;sup>24</sup> U. S. Census, (1840), 236.

<sup>&</sup>lt;sup>25</sup> U. S. Bureau of the Census, Seventh Census, (1850), Schedule No. 5, Products of Industry, manuscript returns for Clarke, Copiah, Covington, Greene, Hancock, Harrison, Jackson, Jasper, Jones, Lawrence, Marion, Perry, Pike, Simpson, Smith, and Wayne counties, in Mississippi State Department of Archives and History, Jackson, Miss.

<sup>&</sup>lt;sup>26</sup> Benjamin L. C. Wailes, Notes in the Field No. 4, Diary, 35, in Mississippi State Department of Archives and History, Jackson, Miss. [Z/0076.000/S].

<sup>&</sup>lt;sup>27</sup> Wailes, Report on the Agriculture and Geology of Mississippi, 349.

<sup>&</sup>lt;sup>28</sup> Ibid.; presumably the logs thus floated were spars; for ordinary sawlogs were cheap and fairly abundant near rafting streams throughout most of the antebellum period. Moreover, low, wet meadows of considerable areas were common only in the three coastal counties.

were supplying the mills of Calvin Taylor, S. S. Henry, and John Huddleston with logs. It may be assumed that the timber business was of considerable importance since the board of police of Harrison County was empowered by the state legislature to use the proceeds derived from swampland sales to render the streams suitable for rafting and navigation.<sup>29</sup>

When the freshets came, hundreds of men dropped their everyday tasks, hastened to the streams, and started the timber moving down stream to the tidewater mills. Rafting methods were generally determined by the size of streams and swiftness of currents. In the small crooked streams, which after heavy rains arose and subsided quickly, the logs were run loose. The sharp bends and curves characteristic of small streams made rafting exceedingly difficult, causing numerous jams and making impossible the floating of timber in rafts or bull pens. The rafters either rode the logs or walked along the banks and with their long spike poles and peaveys broke jams and kept the timber moving.<sup>30</sup>

On larger streams more elaborate methods of running logs had to be devised. Above the mouth of Red and Black creeks on the Pascagoula River, prior to construction of the large boom at Moss Point, logs were assembled into large rafts for floating down to Moss Point. A raft of this kind was built by uniting a number of cribs containing from ten to fifteen logs each. The logs in the crib lay parallel to one another and were held in place by a binder usually made of a hardwood pole. In forming the raft, cribs were tied together by ropes, holes for which were bored in both ends of the outside log of each crib. The ropes of about three feet in length were inserted in the holes and held in place by wooden pegs. The small vacant spaces thus left between the cribs lent flexibility to the raft and helped to prevent it from breaking up on striking an obstruction.<sup>31</sup>

A system of controlling logs less complicated and expensive than rafts

<sup>&</sup>lt;sup>29</sup> Journal No. 9, 1858-1862, pp. 5-200, Taylor-Myers Partnership; L. N. Dantzler Lumber Company Records, Miscellaneous Papers. Some of the papers concern the business affairs of S. S. Henry and show that twenty-five logmen in Harrison County were selling logs to the millman in 1858-1860; Eugene Hilgard, *Report on the Geology and Agriculture of Mississippi* (Jackson, Miss.: Barksdale State Printer, 1860), 382, 385; Mississippi, *Laws*, 1860, 354-55.

<sup>&</sup>lt;sup>30</sup> Statement made to the author April 6, 1953, by Anderson Blackwell, who rafted logs on the Biloxi rivers in the 1880s; statement made by Miles, who also rafted on the Biloxi rivers; statement of John F. Hickman; statement made to the author by Daniel G. McQuagge, June 1, 1953.

<sup>&</sup>lt;sup>31</sup> Ibid.; Cain, *Four Centuries on the Pascagoula*, 146; Willard F. Bond, *The Life of Jim Broom* (Cleveland, Miss.: 1950), 8; statement of John F. Hickman; statement of Alonzo Miles; statement of Babe Fairley.

utilized the "bull pen," which probably got its name from the pens used by cattlemen on the open range for marketing and branding their stock. This method of sending logs to the mills was practical below the mouth of Red and Black creeks, on the Pascagoula, Escatawpa, Biloxi, Wolf, and Jordan rivers where stream currents were relatively slow. One of the main penning points was at the lower end of Dead Lake immediately below the junction of Red and Black creeks. There a boom made of large square timbers chained together stretched from shore to shore. In the center of the boom was a slot of about fourteen feet in length that could be opened and closed at will. Above the slot was a runway upon which two crewmen stood. As logs passed through the slot underneath the catwalk, these men revolved the logs with their feet until the brands could be read. They then called out the brands, and other rafters, standing on chutes, guided the logs into appropriate pens. These pens were constructed by tying the ends of several logs together to form an enclosure of about one hundred log capacity.<sup>32</sup>

In general, floating rafts and bull pens were satisfactory on rivers having a rise of five or six feet. Such streams remained within their banks. Their currents were strong enough to move timber quickly downstream, and their depth of water was great enough to carry the rafts and bull pens safely over snags in the river bottom. A crewman rode on each raft steering it with a long pole with a flat board attached to the end. Often, however, he was unable to control the raft because of swift current. Moving at a rapid pace, out of control, the raft then would sometimes break up into sections if it encountered hard obstructions. For this reason men were stationed at sharp bends along the river, called check points, [to] assist the crewman on the raft. When the floating timber approached the check points, a rope was tossed from the raftsman to a man on shore who tied it to a tree. If the maneuver was successful, the pressure exerted by the rope caused the raft to swing clear of the land. If such efforts of the crewmen were unsuccessful, the logs traveling at a rapid pace ran headlong into the shore and broke up.<sup>33</sup>

In the years when rafting was at its peak, thousands of rafts and bull pens, often moving by night and day, could be seen on the rivers. So thick were the moving rafts, that they were seldom out of eyesight of one another from the junction of the Leaf and Chickasawhay to Moss Point.

<sup>32</sup> Ibid.

<sup>&</sup>lt;sup>33</sup> Statement of John F. Hickman; statement of Babe Fairley; statement of Willmer Griffin.

Traveling at night they made an unusual scene, for on each raft was a burning fire. To one old-time raftsman, it seemed that the reflection of the firelight on the water made the river appear to be in flames.<sup>34</sup>

Occasionally high waters came with little warning. In 1874 the rivers arose to a height not previously seen by living man. All the booms located at the mouths of the Pearl and Pascagoula rivers were broken up by logs pushed along by the strong currents. The heavy timbers on their way out to sea battered down the railroad bridges that spanned the mouths of the rivers. When the freshet subsided, logs were scattered all over the Mississippi Sound and in the low marshes adjacent to the shore line.<sup>35</sup>

Log jams, although frequent, seldom required more than a few hours to break. But a jam at the Pascagoula boom in 1900 was unusual and probably the largest ever formed on the river. The weight of hundreds of thousands of logs pushed down many of the pilings that had been driven to form the boom. The height of the jam at its base was from fifteen to twenty-five feet, and logs piled upon one another for seven or eight miles upriver. Rafters with saws, axes, peaveys, and jam poles cut a passageway for boats through the mass of logs in about two weeks, but over forty days elapsed before all the stranded logs were removed.<sup>36</sup>

Rafting was seldom dangerous in the Mississippi pine country. Northerners writing of hazardous rafting in the Lake States have stated that the jams were broken by finding and removing the "key log," and that to remove it was a dangerous operation. The southern rafters broke many jams, but were unacquainted with the "key log." Drowning was about the only danger that threatened the riverman, and tragedies of this kind were few. Diseases caused by exposure to extremes of heat, cold, and rain accounted for more casualties among lumbermen than those resulting from bodily injuries.<sup>37</sup>

The number of logs sent down the streams grew with the years. One observer reported in 1880 that logs were being brought to Moss Point from as far away as southern Covington County. On the Pearl most of the timber at this time came from Marion and Hancock counties. In addition, large quantities were taken from Washington and St. Tammany parishes in Louisiana. He reported that superior trees were becoming

<sup>36</sup> Ibid., May 4, 1900; Hickman, who helped break the jam, stated that more than forty days elapsed before all the stranded logs were moved down the river; *American Lumberman*, (April 28, 1900), 38.

<sup>&</sup>lt;sup>34</sup> Ibid.

<sup>&</sup>lt;sup>35</sup> Pascagoula *Democrat Star*, June 4, 1874.

<sup>&</sup>lt;sup>37</sup> Statement of John F. Hickman; statement of Babe Fairley; statement of Willmer Griffin.

scarce near many rafting streams, but that, in inaccessible areas, the quality and great abundance of virgin timber was astonishing. Many of the people of the Piney Woods had given up their agricultural pursuits for those connected with lumbering.<sup>38</sup>

By the early [1890s] the enormous amounts of timber coming downriver forced the Moss Point-Pascagoula lumbermen to devise a more elaborate method of booming and sorting logs. In 1893 all the large millmen at the mouth of the Pascagoula and a few up-country logmen were issued a charter of incorporation for the Pascagoula Boom Company. The boom extended up East River from Moss Point five miles. Piling spaced a few feet apart were driven midway in the river for the total distance. East Pascagoula River was then divided into two parts, one left open for navigable boats, the other enclosed for storage of logs. Sorting works adjacent to the boom were constructed so that logs might be separated according to owners. Almost all the logs except a small percentage that went down West River were caught in the boom.<sup>39</sup>

The hey-day of rafting was in the years 1890-1910. In some years more than a half-million logs floated down to the mills located in the Moss Point-Pascagoula district. Rafting as a means of log transportation began to decline after 1910. By that time most of the floating timber located near rafting streams had been cut and a large percentage of the remaining inferior timber sank when rolled into creeks and rivers. The sunken logs known as "deadheads" remained in a perfect state of preservation if totally submerged under the surface of water. Deadheads formed an important source of raw materials for the mills in the years 1915-1930. By 1930 only a small amount of timber was being rafted to the tidewater mills.<sup>40</sup>

Lumbering by the early [1880s] had become the main occupation of the back country people. Almost everyone either directly or indirectly had come to depend upon logging and rafting for necessities. Living on small farms which produced only enough feed for a horse and a few head of livestock, the back country inhabitants devoted most of their labor to timber work. Farming was something to engage in during a part of the

<sup>&</sup>lt;sup>38</sup> Charles S. Sargent, "Report on the Forest Trees of North America Exclusive of Mexico," *House Documents* No. 42, 47 Cong., 2 Sess., 531-32. Dr. Charles Mohr of Mobile wrote the report for Mississippi.

<sup>&</sup>lt;sup>39</sup> Pascagoula *Democrat Star*, April 14, 1893.

<sup>&</sup>lt;sup>40</sup> L. N. Dantzler Lumber Company Records, Moss Point Lumber Company Records; Log Books, 1892-1915; statement of John F. Hickman; statement of Walter Barber.

summer when lumbering was at a minimum. Bostick Breland, writing of the early [1880s], said:

Saw logs were the chief commodity of value, and they were floated down the various streams to Moss Point and other places where they were sold for a song. Few realized any cash money out of the business, but were satisfied if they got plenty of pickled pork, cheap family flour, coffee, brogan shoes, and a jug of joy.<sup>41</sup>

The physical hardships and discomfort that went with rafting were accepted without complaint. The spirit of adventure that came with running logs was felt by old and young alike. Youths looked forward with eagerness to the time that they would be permitted to ride a raft of logs to Moss Point. To be a member of a rafting crew and to participate in a log drive was to youngsters one of the steps on the road to maturity. Old men, after their rafting days were over, never tired of recounting the experiences that were so deeply mirrored in their consciousness. Most of them said of all the tasks that they had done, rafting was the best loved. A few were heard to say, after the last logs had gone down the river, that if they knew of another country like that which had once existed on the Pascagoula, they would go there immediately.<sup>42</sup>

The rafters were a vigorous and hearty breed. In the early days, after making the long exhausting journeys downriver to the mills, they returned to their homes, often more than a hundred miles, on foot. One logman claimed to have covered the sixty miles distance between Pascagoula and his home on foot between the hours of daylight and dark of a single summer day.<sup>43</sup> Rafters journeying to Covington County went by train from Moss Point to Mississippi City, and then walked the rest of the distance of more than one hundred miles.<sup>44</sup> After the construction of the New Orleans and Northeastern Railroad, the men went by train to New Orleans and then north by the new line. Those from Clarke County went by train to Mobile,

<sup>&</sup>lt;sup>41</sup> Bostick Breland, unpublished manuscript, 125, in possession of Houston Breland, Wiggins, Miss. [when this article was published in 1957]. Breland was a correspondent for the Pascagoula *Democrat Star* and the Biloxi *Daily Herald* during the years 1880-1940.

<sup>&</sup>lt;sup>42</sup> Statement of John F. Hickman; statement of Babe Fairley; statement of Willmer Griffin.

<sup>&</sup>lt;sup>43</sup> Statement of John F. Hickman.

<sup>&</sup>lt;sup>44</sup> Statement made to the author by Melvin Pridgen, April 3, 1954. Pridgen's father, a resident of Covington County, rafted logs on the Bouie and Pascagoula rivers, 1870-1895.

thence to their homes on the Mobile and Ohio Railroad.45

Running logs, although at its peak in late winter and early spring, went on throughout the year whenever water was available. In the dead of winter, with temperatures below freezing, logs were ridden by men, usually ill-equipped to withstand the inclemency of the weather. But in spite of long periods of exposure to cold weather, few became seriously ill. Indeed, men suffered less in winter than in the summer season because sleeping at night during hot weather was all but impossible. In the low ground near creek and river banks millions of mosquitoes literally filled the air. Lack of protection against mosquitoes made malaria prevalent among the rafters; fortunate indeed were the few who escaped chills and fever. Occasionally when a yellow fever epidemic struck the coast, infected logmen carried the deadly scourge into the interior.<sup>46</sup>

In the years 1890-1910 hundreds of men were employed on the rivers and streams rafting logs and heavy timbers to the tidewaters mills. The logging and rafting business brought economic opportunities to the people of a large section of the state where ways of earning a livelihood had been previously limited to herding and hunting. Although the scale of wages was comparatively low, many of the Piney Woods people acquired considerable holdings of land and timber. A few of the loggers and rafters accumulated capital and a knowledge of the lumber industry that enabled them to become large-scale lumber producers. Marketing of timber bordering the streams was the initial step in the full-scale exploitation of the forests of the longleaf pine country.

<sup>&</sup>lt;sup>45</sup> Ibid.; statement made to the author Nov. 10, 1953, by Clyde Ward, who rafted logs on the Escatawpa and Pascagoula rivers in the years 1885-1912.

<sup>&</sup>lt;sup>46</sup> Statement of Willmer Griffin; statement of Alonzo Miles; statement of Babe Fairley; statement of John F. Hickman.