Flatboat Building on Little Raccoon Creek, Parke County, Indiana*

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Flatboats were used on the inland waterways of America from the colonial period until after the Civil War. Although they varied in size and design, and were called by different names in different localities, flatboats can be described generally as "cumbersome rectangular craft of light draft used for downstream transportation."1 From the 1780's until the 1840's boats of this type were used extensively in westward migration, one boat often carrying several families, their equipment and personal belongings, and their domestic animals, and serving also as their home until they reached their destination.2 The flatboat apparently came into use as a freight carrier on western waters during the latter part of the eighteenth century. Once this "boat that never came

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1 R. Carlyle Buley, The Old Northwest: Pioneer Period, 1815-1840 (2 vols., Indianapolis, 1951), I, 413. Buley points out the "considerable confusion" over exact names and characteristics of early river craft in ibid., 413-14. Descriptions of the various kinds of river boats in general use in the early 1800's may be found in Seymour Dunbar, A History of Travel in America (4 vols., Indianapolis, 1915), I, 280-87; Archer Butler Hulbert, Waterways of Westward Expansion: The Ohio River and Its Tributaries (Historic Highways of America, Vol. IX; Cleveland, 1903), 106-27; Charles Henry Ambler, A History of Transportation in the Ohio Valley (Glendale, Calif., 1932), 38-44; Leland D. Baldwin, The Keelboat Age on Western Waters (Pittsburgh, 1941), 42-49.

2 Buley, Old Northwest, I, 415.
back” reached its final downstream port and its cargo had been sold, the craft also was sold as lumber. The rivermen who had guided the flatboat to market returned to their homes on foot—or, if the cargo had brought unusually good prices, on horseback or by steamboat.2

The use of flatboats for freight increased rapidly in the Ohio and Mississippi valleys following the War of 1812 as demand for the produce of mid-America increased both in the United States and abroad. Until after the middle of the nineteenth century most of this produce was floated down the tributary streams of the Ohio and the Mississippi and on those rivers to markets on the lower Mississippi. In 1818 “Six hundred and forty-three flat boats were counted descending the Mississippi and Ohio, by a person in a steam boat in his passage up.”4 The introduction of the steamboat for travel up the major rivers stimulated rather than discouraged the use of flatboats. “With steamboat transportation available, rivermen no longer had to walk back across country or laboriously to pole their keelboats upriver. . . . Farmers on small streams inaccessible to steamboats still had to make at least the first part of their journey to market by flatboat; many found it advantageous to continue on to New Orleans. . . . By 1830 the steamboat was clearly the predominant means of transportation on western rivers, but the number of flatboats continued to increase, reaching a peak in 1846-1847.” There were 598 flatboat arrivals reported at New Orleans in 1814; 2,792 by 1846-1847; and 541 in 1856-1857.5 By the Civil War, however, first the steamboat and then the railroads were replacing the downstream craft as the major carriers of freight.6

Early flatboats were probably made by the merchants or farmers who used them. In size they ranged from twelve

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4 Niles’ Weekly Register, July 11, 1818.

5 Taylor, Transportation Revolution, 64-65.

6 Buley, Old Northwest, I, 530. For a brief discussion of the economic impact of early river shipping on the Midwest, see ibid., 531-37.
to twenty feet in width and from twenty to more than a hundred feet in length. The load a flatboat could carry varied with its size and the kind of produce. Estimates go as high as a hundred or more tons for the largest craft. As the demand for flatboats increased, the “later boats were made by regular builders and available at the chief ports.” The document which follows is the account of how one such builder constructed his flatboats in the 1830’s and 1840’s in southern Parke County, Indiana.

John Calvin Gilkeson, the author of this description of flatboat building, was born in Mercer County, Kentucky, May 27, 1809. In 1820 his father, Thomas Gilkeson, traveled to Indiana and was one of the first purchasers of land in what is now Raccoon Township in Parke County. The following year he brought his wife and five children to Indiana, built a log cabin, cleared a few acres, and planted corn. He is reported to have built the first sawmill on Little Raccoon Creek about 1823. Young John Gilkeson worked at lumbering and milling, and from about 1838 to 1846 built flatboats “which he ran down to the Wabash river, during the spring freshets, and sold.” The handwritten document is undated, but according to the contributor Gilkeson wrote this account of flatboat building when he was over eighty years old.

*Ibid., 530.*


*J. H. Beadle, “History of Parke County,” 227, 228, 233-34, in H. W. Beckwith, History of Vigo and Parke Counties, together with Historic Notes on the Wabash Valley . . . (Chicago, 1880).*
Sketch map of the southwest corner of Parke County, Indiana. The site of J. C. Gilkeson's flatboat-building operation probably was in the northwest corner of Raccoon Township.
Boat Building on Little Raccoon Creek

The first move toward the construction of the flat boat was to select a tree suitable to make what was termed the gunwales, of then to fall it so as to lie in the right position for splitting. This being done the bark was hewn off each side the length required then with a large chalk line, lines were struck on each side of the log as near the middle as could be guessed. Then one man took a chopping axe and another [a] maul and as the axe man held the edge of the axe on the line the man with the maul struck the poll of the axe a blow sufficient to make a split or check in the log. The axe man moving his axe some few inches forward after every blow
from the maul until the log was checked it whole length, when the other side of the log was treated in the same manner. The[n] some 3 or 4 dozen wooden wedges were required mostly on the small order perhaps from 4 to 10 inches long and 2 to 4 inches thick of some hard wood then a number of the smaller wedges were first driven in the checks made by the axe and maul. If the tree was not exactly strait grained the more wedges had to be used and the splinters cut with with [sic] a wide thin bladed chisel and larger wedges used as became necessary until the log was split the whole length leaving enough splinters at the top end to hold it toghether until cut off and turned half over so as to have the split faces strait up and down. The halves were then barked lined and hewn to about 13 inches in thickness. The sides being hewn [sic] props and stanchings were fixed at the but ends of the pieces so as to hold them in position when the top portion had its splinters cut and prized apart far enough to score and hew off all inequarities [sic] which occured in the splitting. Those gunwales wer always split from but to top and the two parts were so far apart after splitting from 60 to 80 feet that it was no great job to prop them up so as to open and part the top ends so as to hew the insides of them. The hewing done the next job was to get those gunwales to the boat yard
and no small job at that; it required from 4 to 6 pretty good yokes of oxen to get them to the yard and wo to the weakly log chain that happened to get into the scrape. After being dragged from the woods to the boat yard, one end loaded on the fere [fore?] axle and wheels of a stout log wagon and there chained fast and the other end trailing on the ground. The next move was framing, first, the gunwales were sloped from the side or rather, edge of the gunwale intended for the bottom of the boat, the slope commencing some 8 ft, more or less, according to the width of the gunwale from the ends to about 12 inches at the ends. Then a dovetail mortice some 12 by 4 inches some 10 inches deep and 2 inch dovetailed
next the end. Then a dovetail mortise about 8 by 4 inches was made at the commencement of the slopes about 5 inches from the bottom edges of the gunwales. Then mortices of the same dimensions were made about every 6 ft more or less to suit the distance between the first two bottom mortices.

Lines were the[n] struck 2 inches from the bottom of the gunwale and 3 inches from the outside of the gunwale for to receive the bottom planks which were generally sawed about 2 inches thick and as wide as the logs would make them. The 3 inches on the outer edge was necessary as a protection for the ends of the bottom planks and particularly to hold the calking; as it was necessary that all seams and cracks
should be caulked. The end timbers called in boat lore bow and stern pieces were generally hewn about 12 inches square or rather 12 inches on 3 faces and 13 on the 4th to suit the slope on the bottom of the ends of the gunwales. The other cross timbers called girts [girders] were hewn on two sides only except at the ends and were generally 8 inches thick. The bow & stern pieces now being framed by making tenons on each end to fit the several mortices. The gunwales were now propped up on edge the cross timbers all put in place and the tenons all fastened in their places by wedges driven with an
iron sledge hammer. The next move was to put on timbers called streamers some 2 feet apart and about 3 inches thick of divers widths as that was of no consequence some times they were sawed and joined on the girders and sometimes were made by splitting and hewing small hickory trees, in some instances the whole length of the boat. The streamers being all fastened into the end timbers by dove tail gains
and wooden pins all now ready for the planks, which were now laid on. If the end fitted well against the 3 inch ledge on the gunwale the other end was scribed in range with the 3 inch ledge on the opposite gunwale but if the end of the plank did not fit just right, the plank was laid up on the ledges at both ends and both scribed and sawn off so as to make a good fit at both ends then being put in place two auger holes with inch augers through the ends of each plank and some 3 or 4 inches into the gunwales then tight fitting wooden pins of oak wood were made as tight as they dare be made not to split the planks there was also two holes bored on every streamer if there were five streamers in the boat it required 14 pins to each plank two in each end and two in each streamer and that in every plank the whole length of the bottom of the boat the average width of the planks
was perhaps about 22 inches, so you may guess it required a lot of holes and pins the boring and pinning all done, the adseing off the heads of the pins level with the planks was next in order. Then for the broom, as all chips trash &c had to be clean swept off preparatory to calking the seams as every seam or joint betwixt every two planks had to be calked, The calking consiste[d] of twisted cords of well broken hemp or flax about 1/4 of an inch thick, and driven into the seams with an iron instrument made expressly for that purpose the edge of the calking chisel being about 1/16th of an inch and some 3 inches wide the edge being fruted or guttered so as to take a better hold of the cord than if only square. Of course, a mallet was used to drive the chisel

After carefully calking all the cross seams, the side seams were particularly caulked and sometimes pitched the pitch being made of rosin and lard and while still hot poured in small streams into all the seams. The boat now being bottom up the next move was to turn it upside down; being built on two long strait logs with one end of each log extending a short distance over the edge of a steep bank of the creek the boat was then prised by lever power until nearly on a balance the gunwale out over the water being secured to the bank in such a way as to let it go down into the water but not any further from the bank and being nearly on a balance it was not a hard matter to tip it up and turn it over [sic], being partly submerged in the water, of course a considerable quantity of water was retained in the boat but by the use of a home made wooden scoop shovel that was soon bailed out, as iron and steel scoop shovels had not emigrated this far west at that time, the next move was to [sic] make mortices on the top edges of the gunwales about 4 feet apart 2 inches from the outer edge of the gunwales and 2 by 5 inches and about 5 inches deep, next, studding of sawed oak timber about 3 1/2 ft long 5 by 3 inches were provided and tenons 4 1/2 or 5 inches long made on one end of each stud, made to fit the afore said mortices. Then mortices were made in the centre of the bow and stern pieces 6 or mor by 2 inches and mortices same as on the gunwales on each side. Then middle posts were provided som 6 or more inches in diameter and studding same size as for the sides framed only longer for the stern so as to fit the roof all studding and post now
being ready were driven into the mortices and ther secured by wedging, as all mortices and tenons in the boats were dove tailed that being considered more substantial than pinning and quicker done. next wide two inch planks were pinned fast to studding and posts same as the bottom now a two inch auger hole was bored in the middle of each girt in the bottom of the boat and posts inserted therein some
12 to 15 inches longer than the side studding and ridge pole fastened on the top of those posts. Then inch ¼ oak planks some 4 or 5 inches wide and long enough to bend over this ridge pole and be pinned on the top of each side stud with an inch pin were placed on; this done narrow planks were fastened on these over the side studs over the ridge pole and half way betwixt the sides and ridge pole to receive the roofing; the roofing was made of good clear ½ inch poplar planks 6 or 7 inches wide and long enough to make 2 or 3 inches of eave on each side of the boat. The roofing was put on double same as old fashioned clapboard roof. The roof now in place another lot of those 4 or 5 inch inch & quarter oak planks was pinned fast to the under planks on the tops of the side studding which completed the roof.

The stern now now [sic] to be planked with thinner planks to meet the roof the bow being left open and just the same height as the sides. Now for the oars. A strait bodied tree about 12 to 14 inches in diameter is selected for the steering oar which is generally 60 feet long and upwards if the boat be longer the tree being cut down as close to the ground as possible is barked and lined some 8 ft to about 1 ½ inches at point to about 4 inches at the 8 ft mark and hewed to that measure then turned down and left full width for some 4 ft thence lined and hewn to about 6 inches at the 8 ft mark. It is then placed on a log or block at the middle and hewn off so as the blade end will be a little heavier than the other. The side oars often termed side sweeps, were made after the same pattern as the steering oar only they were shorter for a boat 16 ft wide they were 32 ft long and for a wider boat longer. An inch & half or 2 inch auger hole was bored in the centre clear through the oar and on top it was bored and morticed out nearly down through so as to give play up and down when hung in place. The stern post being sawed off a little above the roof a hole was bored in the centre of it some 5 or 6 inches deep and a pin of hard tough hickory wood driven tight in it leaving length enough above to hold the oar to its place and so trimmed that the oar worked freely on it; for the side oars blocks of timber some 5 or 6 inches wide and some 4 inches thick by 3 or 4 ft long were pinned on the sides on top about one third of the length of the boat from the bow of it and hung same as the steering oar. The oars being hung and walk planks placed on top of the roof all ready for a rise in the creek, as the creek needed to [be] at least bank full to run [?] boats out.
Flatboat Building on Little Raccoon Creek
The first two boats ever built on little Raccoon were 60 ft by 16 built in 1838 or 9 and loaded with corn in the ear on the Wabash River at the Otter Creek Prairie landing and run down to Vicksburg and there sold. There were more or less boats built every winter and spring from that time until 1846. The highest number ever built in one season was 12. The sizes ranged from 60 by 16 feet to 22 by 102. The last two built in 1846 were 22 by 102 bottomed with inch & \( \frac{1}{2} \) oak planks. Poplar had always been used previous to that. I have no means now of knowing how many boats were built altogether but I think perhaps about 40. They were sold and delivered from Armies Burg to Vincennes at divers places on the Wabash. There was one flat boat built at Mansfield by Scott Bump who was well known in Rockville some years past. Boats were built at all the saw mills from Bridgeton to the Wabash. Moses Robbins run out some flat boats in his time half loaded with bulk pork as Roseville was quite a pork market at that time; I presume some of the older settlers in Rockville can tell where the Rockville pork house used to stand. When Rockvilles was a pork market.

Thousands of bushels of corn and tons of pork were in those days shipped down the Wabash River and on down to the city of New Orleans. I well remember when boat hands going down to New Orleans had to trudge back home on foot and thought they done pretty well to get home by the first Monday in August which was then general election day.

J. C. Gilkeson

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2 Roseville (Florida Township), the first village in Parke County, was a "lively place" between 1825 and 1835, but soon began to decline. J. H. Beadle, "History of Parke County," 311-12, in H. W. Beckwith, *History of Vigo and Parke Counties, together with Historic Notes on the Wabash Valley* . . . (Chicago, 1880).