S&D REFLECTOR
Fifty 50 Years
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Vol. 50, No. 3 Marietta, Ohio September 2013

Trip on the J. S. LEWIS
1821-1830 Steamboat Index
Keokuk Lock and Dam Centennial

Front Cover

The Centennial of America's First Great Dam was celebrated in Keokuk, IA on June 27-30th this summer. On May 31, 1913, the Keokuk Lock & Dam and hydroelectric power plant was completed. Our front cover shows the Powerhouse adjacent to the lock, with the Streckfus excursion steamer CAPITOL landed against the upper lock wall, probably very early in the twenties. A closer inspection of the crowd gathered there reveals the amazing sight of passengers boarding the boat across her stage, which is resting on the lock wall or perhaps on the upper lock gate! Now, your editor is no novice when it comes to "lock-hopping," an exciting adventure permitted by Capt. Wagner and others decades ago, but to embark masses of excursionists in this manner boggles the imagination. Suffice to say that the Corps of Engineers, Homeland Security and the marine insurance business would suffer collective apoplexy were such a scene even hinted at today. A question for Bob Miller, Charles Pietscher, or Robert Soule in Keokuk: Did the city no longer have a public landing at this time where passengers could board? *Photo by Murphy Library, University of Wisconsin - La Crosse.*

Reflections from Our Readers

Charles H. Bogart writes: "Thanks for printing John White's 1811-20 Western Rivers Steamboat Index in the June issue. I found it very interesting. I suspect the CALHOUN built in 1819 at Leestown, KY and the CALHOUN built in 1818 at Frankfort, KY are the same boat, even though their tonnage as listed is very different.

Leestown was a settlement on the Kentucky River located just north of Frankfort. A number of businesses located here to be out of reach of Frankfort's real estate tax. The area was later annexed. Leestown did not have a post office, and all of its dealings with the federal government were conducted in downtown Frankfort, a half mile south, where the U. S. Post Office, Custom House and Federal Court were all located. Thus federal documents and news accounts concerning events that took place in Leestown often list the location as Frankfort, as there was more than one Leestown in Kentucky. "

Jack White agrees that Mr. Bogart offers a good argument here, and along with your editor, is very pleased that this first listing has elicited some response and additional information from our readers. We hope further conversations and "discoveries" will follow upon publication of subsequent listings for the years 1821-1847. See the latest installment of the Steamboat Index beginning on page 18.

Fran Nash writes: "In the June issue, Mr. John White's early steamboat index fits well with a book posted on my website at: http://www.georgetownsteamboats.com/gs/steamer-officer-prologue/capt-benjamin-m-laughlin/the-bm-laughlin-book/ That book, hand-written by Capt. Benjamin Mackall Laughlin (1827-1908), lists every steamboat built in the Pittsburgh region from 1811-1904.

The reason that this B. M. Laughlin book is significant is in its comparison with the Lytle-Holdcamper List. The Laughlin book has listed steamers not entered in the Lytle-Holdcamper List. Consequently, some steamers lost to history have been rediscovered.

I know not the source of some of Laughlin's information. He lived during much of the time covered and as an Ohio River steamboat captain had intimate knowledge of river transportation. The only citation is his book was "by Custom House records taken by Mr. Showing in the year the steamboats were built." The Laughlin manuscript lists the boats built by year, place and tonnage from 1811-1829."

Mr. Nash checked both the 1811-20 and this issue's 1821-30 listings against the Laughlin manuscript and reported "no significant differences, other than a couple of minor name spellings and tonnage differences." We are

confident that Jack White's listing is as accurate as is possible with the information available at the present time. Having said that, we once again invite readers to offer comments about any possible changes of which they are aware.

John Teichmoeller writes: "I would appreciate your posting the following query in a forthcoming issue of the REFLECTOR. I am looking for a photo of the sidewheel transfer steamer B. L. WINCHELL (official number 76604 and not listed in *Way's Directory*.) She started life in Baltimore Harbor as B&O's JOHN W. GARRETT and ended her career supposedly on the Mississippi, first in St. Louis and then in New Orleans. She was supposedly cut down as a barge in 1915, so the photo I am looking for would have been taken between 1910 and 1915. She is in my 1915 *Merchant Vessels of the United States*, so I know she existed until then with a home port of St. Louis. I have checked all the "usual suspect" inland river photo sources without success. Thanks!"

We herewith post John's request, along with his email address at rmighpr@comcast.net and his website at www.trainweb.org/rmig John is the coordinator for Rail-Marine Information Group in Ellicott City, MD. He has our best wishes for success in tracking down the WINCHELL's portrait.

John Panhorst writes: "The following newspaper article appeared in the *Pittsburgh Gazette and Advertiser* of November 13, 1844. Capt. John Simpson Klinefelter was part owner and master of the HIBERNIA when she entered the Pittsburgh and Cincinnati trade on February 26, 1844.

'Screamer! The HIBERNIA went out yesterday with a screamer, an idea of which may be formed by imagining the yell of a jackass, and then magnifying it five hundred times. It is, we presume, on the same principle as those attached to the locomotives, and must prove useful. When way down the river, we could still hear the piercing scream ringing among the hills. On the water, no doubt, it can be heard two or three miles.' "

Reflections From Our Readers continued on page 47

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Columns

Features

Articles

Thinking about submitting to the REFLECTOR?
Please follow these guidelines:

Articles

» *500 words or less*
» *.rtf or .doc format (no PDFs)*

Features

» *750 words or more*
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Images

» *at least 300 dpi*
» *.jpg, .tif, .png, or .bmp format*
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Send to the Editor as an e-mail attachment

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S&D REFLECTOR

Published by Sons and Daughters of Pioneer Rivermen

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The name of this publication comes from the *Fleetwood Reflector* published in 1869 aboard the packet FLEETWOOD. This quarterly was originated by Capt. Frederick Way, Jr. in 1964.

Correspondence is invited and serious papers on river related history from our readers are always welcomed. Please check with the Editor before sending any material on a "loan" basis.

David Tschiggfrie, Editor
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REFLECTOR BACK ISSUES AND INDICES

Copies of the current or prior years are available at $8 each, postpaid for members, and $10 for non-members.

Indices for five year increments of the quarterly, 1964 through 2003, are available for $5 per volume. The 2004-08 is available in CD format only for $11 postpaid.

Orders should be sent to PO Box 352, Marietta, OH, 45750 for these items.

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There are two classes of membership - full and family. Full membership includes the quarterly *S&D REFLECTOR*, admission to the Ohio River Museum and towboat W. P. SNYDER, JR. at Marietta, and voting rights at the Annual Meeting. Family members enjoy all privileges except the *REFLECTOR*.

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Getting Posted Up

Vintage Towboats, Packets, and Lake Cooper

This September issue's feature story of a trip on the m/v J. S. LEWIS not only gives us the welcomed opportunity to hear from one of our newest S&D members, but it also reminds us that the Diesel towing industry has been on the scene for some eighty years now and no longer needs to play second fiddle as the younger sibling when we tell our S&D stories of the inland rivers. And so we renew our invitation to submit your articles and photos to help us continue "lighting up the past, present and future of the Mississippi River system."

With publication of the second part of John White's extensive listing of 1811-47 Western Rivers steamboats, we wonder if there might be a future place for an additional and separate addendum or supplement to Capt. Way's landmark directory showing pre-1848 steamboats, published under the auspices of S&D. Perhaps the idea merits further discussion and consideration by the Board of Governors and our membership. In the meantime, we will continue to provide a serialized version of John's research in the REFLECTOR and on our website.

Your editor recalls listening to Capt. Carroll "Rip" Ware speak of "Lake Cupper" on the DQ's Upper Mississippi trips whenever the boat locked up at Keokuk. The story of the Keokuk lock, dam and powerhouse and its engineer, Hugh Cooper, is told in this issue. We suspect that present-day towboat pilots only speak of this area as Pool 19, while some local residents refer to it as Lake Keokuk. Too bad, for the engineering achievement of Cooper was hailed in its day right up there with the building of the Panama Canal, and "Lake Cupper" now appears to have been relegated to ancient history.

Two very good pieces of news have arrived as this edition of the REFLECTOR goes to the printer. A nonprofit group named Save the Julia Belle Swain LLC has raised sufficient funds to purchase the JULIA BELLE SWAIN from Bob Kalhagen. The excursion steamboat has been laid up since late 2008. Unanimous consent by the La Crosse Park Board will allow the sternwheeler to be docked at Riverside Park while efforts continue to raise the approximately $1 million needed to refurbish the boat and return her to service in 2014. And on July 18, Ohio Congressman Steve Chabot's bill, HR 1961 granting the DELTA QUEEN a 15-year exemption from SOLAS to operate on the rivers again, was reported out of the House Transportation and Infrastructure Committee for a floor vote. Perhaps there's yet a breath of life remaining for these two beloved steamboats.

Just a heads up on our next issue. Be on the lookout for one or two real surprises to serious students of excursion and tourist steamboat history. We will share with you some heretofore unpublished and unknown drawings from the past that were brought out into the light of day this past spring. Stay tuned for this and other surprises in the last of our 50th anniversary issues come December.

We hope to see many river friends for a great S&D weekend in Marietta at the annual meeting. Please come join us and bring along a friend.

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Middle Ohio River Chapter
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Capt. Tom Dunn, President

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Inland Rivers Library, Cincinnati, OH
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Blennerhassett Museum, Parkersburg, WV
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Meet Our Contributors

Eric Grubb *(A Trip on the Historic m/v J. S. LEWIS, p. 7)* grew up around boats, trading summers on board his parent's Sea Rays in exchange for many hours of "swabbing the decks." Like Capt. Steve Grossarth of the J. S. LEWIS, Eric spent his boyhood in Sewickley, PA, which he identifies as "home of Dashields Lock and Dam." Of course we were quick to point out another perhaps equally well-known Ohio River "fixture" in Sewickley who resided at 121 River Avenue. Eric has traveled the Great Lakes, Lake Huron's North Channel, the Ohio, Allegheny, Monongahela, Kanawha, Mohawk (Erie Canal), Tennessee, Tombigbee, Black Warrior and Mobile Rivers.

As a commercial airline pilot, Eric is currently qualified as a Certified Flight Instructor and flies wide-body jets for a major airline. Although he has owned several recreational boats over the years, his most memorable journey was aboard Amherst Madison's J. S. LEWIS this spring.

Eric is a USCG licensed Master with a Commercial Tow Assistance rating. He conceived the idea for his website www.portKY.com while searching for information to help him become a safer and more knowledgable local boater.

His introduction to S&D came through the contact he made with your editor's son on YouTube, where he saw Jonathan's video about calliopes. With the encouragement of Capt. Grossarth, Eric submitted this story about his trip. Once again, we are reminded that the best recruitment for new members in S&D comes from old-fashioned one-on-one personal invitation. Welcome to S&D, Eric. We're pleased to have you as part of our river family!

John H. White, Jr. *(1821-30 Western Rivers Steamboat Index, p. 18)* returns to this issue with part two of his careful and detailed research into the early decades of steamboats on the inland rivers.

74th Annual S&D Meeting September 13-14

The weekend of September 13-14 will find S&D members gathered on the banks of the Ohio and Muskingum for our 74th annual meeting. Admission to Friday evening's 8:00 tour of the new Civil War exhibit "Inland River Navy" at Campus Martius Museum is complimentary for S&D members, along with the refreshments provided on site.

Saturday morning's annual business meeting in the Sternwheel Room of the Lafayette begins at 9:30. We remind members that if you have nominations for officers or Board of Governors members, please forward those to the nominations committee chair Barb Hameister at:

815 East Cherry Street Apt. 4A
Blanchester, OH 45107
or email to Riverbird87@aol.com

At noon, the VALLEY GEM departs her Muskingum River landing under the Washington Street Bridge below the W. P. SNYDER, JR. on a narrated S&D luncheon cruise. Tickets for the two-hour trip are $27, and may be purchased from S&D treasurer Dale Flick on Friday evening or Saturday morning outside the Ballroom at the Hotel at the S&D registration/information table. Upon return, there will be a dedication ceremony for the new Schoonover shantyboat exhibit on the grounds of the Ohio River Museum.

Saturday evening's festivities begin with a pre-dinner gathering in the Ballroom where a cash bar is available. The banquet is served at 6:30, and menu choices are prime rib($27), salmon ($26) and lemon chicken ($22). Please make your dinner reservations with the Lafayette's catering department at **800-331-9336** at least one week prior to the meeting if you have not already done so.

Our speaker Saturday evening is Chief Engineer Gary Frommelt, recalling his experiences on the DELTA QUEEN and PRESIDENT, and with Entertainment Cruises. Gary's talk is sure to be the highlight of the weekend, and promises to be filled with good stories and memories, informative and entertaining. Come join us for a weekend of fun!

A Trip on the Historic m/v J.S. LEWIS

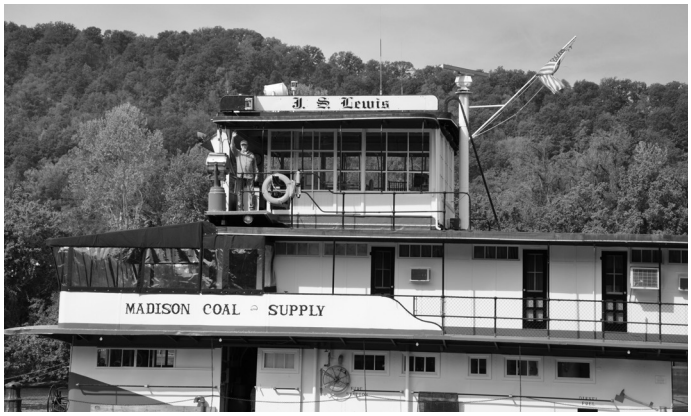
By Capt. Eric Grubb

It was 9:45 in the morning, and I was standing on one of Amherst Madison's landings on the bank of the Kanawha River in Charleston, WV. Other than a few workers cleaning, it was pretty quiet. I had been invited aboard the J.S. LEWIS to help promote river safety for recreational boaters. Waiting for my ride, I took out my camera and snapped a few pictures of some workboats. I noticed that they looked relatively new, but strikingly, a few had sternwheels. It was almost as if I had stepped into a time machine.

A well-kept gentleman came up behind me, and stared at the same geese that I was photographing. I made a comment that they looked right at home, and he mentioned that there were six of them now and that they were making quite a mess of things down there. After exchanging general pleasantries about the weather and the river, we both noticed a pristine-looking wooden towboat gliding by, assisted by the sternwheeler LADY LOIS. "That's the J. S. LEWIS," he pointed out. "She's heading down to Louisville."

In the LEWIS's pilothouse, the captain saw the two of us standing there, and moved to wave out the window as I grabbed another picture. Somebody said, "Hello, Mr. Jones," and that's the first time I realized that I had been talking to Charles Jones, the chairman of Amherst Madison. He admired the J. S. LEWIS as if it were one of his favorite sights to behold.

Allan Hall, Vice President of Operations (on the left) and Charles T. Jones, Chairman of Amherst Madison.



Capt. Steve Grossarth, master of m/v J. S. LEWIS, greets the author and Charles Jones the morning of May 2, 2013.

Amherst Madison was the successor to Star Coal & Coke Company, founded by Mr. Charles Jones' grandfather in 1893, and later known as Madison Coal and Supply (MCS) in 1915. In the 1950's, they purchased the Hatfield Campbell Creek Coal Company, and their fleet grew to 30 barges and two coal-powered sternwheel vessels.

Servicing West Virginia's Kanawha River, and the Ohio River and its tributaries, Amherst Madison currently has 25 towboats, 11 cranes, two dry docks and over 300 employees, and provides marine services such as construction and transportation from their home ports in Charleston and Henderson, WV. They take pride in being a family-owned business, where they advertise that what they do "is more than just a business, but rather a way of life." The m/v J. S. LEWIS is a stunning

J. S. LEWIS accompanied by LADY LOIS at start of 400 mile trip. All photos are courtesy of author except as noted.

tribute to that statement. It all began in 1931 when Charles Ward Engineering Works of Charleston manufactured the VESTA, a coal-burning, steam-powered twin prop towboat with a steel hull and wooden superstructure. Built for Jones & Laughlin Steel Company of Pittsburgh, she would be the second of three J&L VESTAs.

Although the boat still retains the name VESTA on her bell, she was later named JAMES A. RANKIN (1948), MIKE CREDITOR (1952), ORCO (1954), and after being sold to Madison Coal & Supply in 1955, was finally rechristened J. S. LEWIS to honor Joseph S. Lewis III, one of the company's principal stockholders and directors.

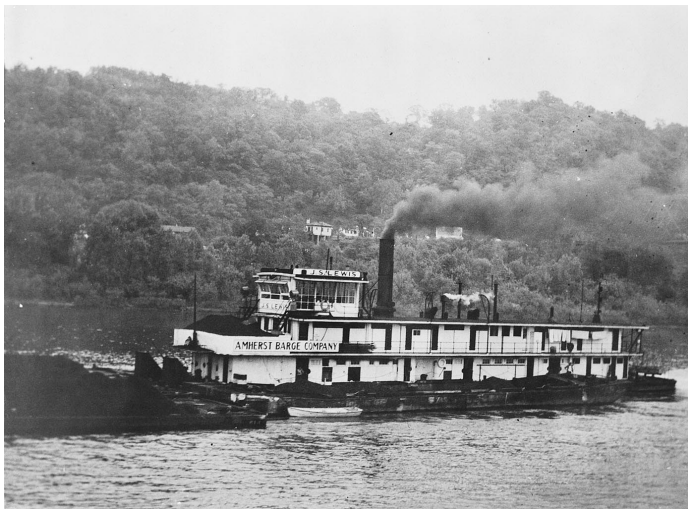
The boat was converted from steam power to diesel in 1958 at the company's home, Port Amherst, in Charleston. The coal hopper at the forward end of the vessel remains, and has been used in more recent years as a VIP dining area.

VESTA is launched March 27, 1931 at the yards of Charles Ward Engineering Works in Charleston.

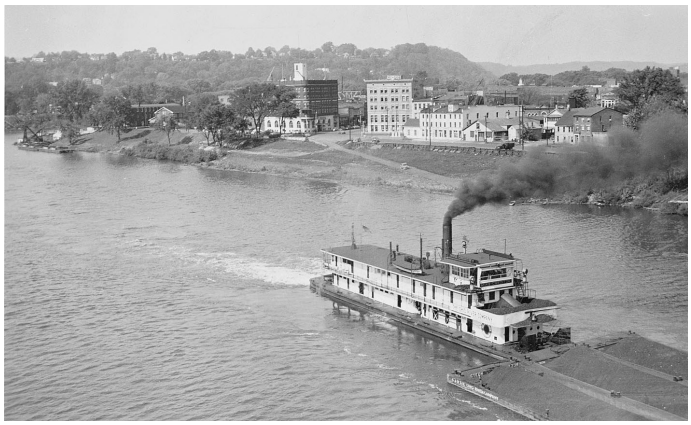
J&L's new towboat VESTA. Originally powered by triple expansion condensing engines 10's, 17's, 21¼ with 18-inch stroke, rated 750 hp. Photo from Murphy Library, La Crosse.

Two 800 hp Enterprise diesels are located just aft of midships, and the conversion was said to make extra room on the main deck for additional equipment and workrooms. If you compare older photos of the boat with more recent ones, you can see where the original stack was replaced with diesel exhausts further astern.

Prior to conversion, the boat was known as "Old Smokey." In 1954, she apparently made so much smoke in Cincinnati one day that drivers on one of the bridges needed to use their headlights and the city issued a citation. Charles Jones chuckled, "I still remember getting that call," and the citation remains on display in the companionway of the J. S. LEWIS.



"Old Smokey" is pictured above in her Amherst days, and below, passing Marietta in 1952 as MIKE CREDITOR. Both photos from Murphy Library, Univ. of Wisconsin - La Crosse.



The LEWIS was one of MCS's workhorses for many years, but has recently been relegated to smaller tasks such as VIP tours along the river. You may remember trips the LST 325 made from Evansville with stops in Louisville in 2003, 2006 and 2009. However, as its engines were not functioning

in 2003, it was the J. S. LEWIS that towed her for part of the journey.

There is so much to tell about the m/v J. S. LEWIS, from her rich history to the crew members who make her the boat that she is. After a general overview of the vessel, we'll take a closer look at what it's like to step into a time machine and be a part of the crew on such a fine boat.

Approaching the LEWIS, the most noticeable feature is her large pilothouse with glass windows and sliding glass doors. One can't help but notice the brass searchlights, which were manufactured by Carlisle & Finch in 1951.

Pilot Mark Handley on watch in glass-enclosed pilothouse, amidst the gleam of highly polished brass fixtures. Below, the vintage Carlisle and Finch carbon arc searchlight.

The towboat is 155 feet long and has a beam of 29.5 feet. She draws approximately eight feet of water, or "maybe 8 1/2 feet heavily loaded."

Starting at the main deck bow, there is an equipment storage area called the "Dog House" with safety equipment and items commonly used on her tow. These items include lifevests, crash axes, portable radios, portable navigation lighting, portable 2" pumps and a stretcher.

Heading aft, there is a stairway to the 2nd deck on the starboard side, and to port, an entrance to an equipment room. This is one of the many areas that contains controls for the AC and DC electrical systems, as well as others such as the pnuematic pressure vessels to operate the transmissions.

Further aft is the Chief Engineers workstation, along with the boat's dual AC generators. There are two duplicate units, one for use and the other as a standby.

In the Engine Room, the engines were maintained in a strikingly clean condition, especially considering their vintage. It was obvious throughout the boat that the company takes pride in maintaining its equipment. The engines ticked over at 225 rpms at idle, giving a slight vibration that went throughout the boat and made for good sleeping at night.

The flywheel turned over so slowly that you could sometimes see its marks and imperfections. Mounted aft of the engines were the transmissions, then the shafts disappeared through a bulkhead toward the stern. The propellers, or wheels, on the LEWIS are 4-bladed stainless steel, measuring 76" in diameter and 64" in pitch.

Cylinder heads of the starboard 750 hp Enterprise diesel.

Following are some engine statistics:

- Engine weight: 37,500 lbs.
- Crankshaft: 8.5" diameter
- 12" Bore, 15" Stroke
- Rated 750 hp. at 500 rpm

- Displacement: 10,179 cu. in.
- Max. Exhaust Gas Temp.: 920 deg. F
- Cylinder Head: 400 lbs.
- Piston: 150 lbs.
- Connecting Rod: 120 lbs.
- Valves: 3" diameter, 14" long, each 4 lbs.

In the steering room and aft bilge area, the captain showed me the bellcranks and rod assemblies that ran mechanically from the pilothouse. At the top of the rudders were hydraulic actuators that moved them, provided the steering pump was running. The master, Capt. Steve Grossarth, reflected on a day last fall when he found himself, rags in hand, cleaning the far reaches of the bilge. I joked that I'd "better look busy" before he handed me one.

Above the steering room, the main deck stern area contains two crew rooms, each with twin bunks. You'd think that those rooms would be undesirable, but I later found that some of the deckhands preferred the serenity there.

Climbing the forward stairs to the second deck, you'd immediately notice the long companionway. Heading back past the stairwell at the base of the pilothouse, there were four staterooms, labeled "Captain," "Pilot," "Watchman," and "Mate." The captain's stateroom, also used for VIP guests, featured a double bed, dresser, storage cabinets and its own lavatory with toilet and shower.

One of the first things that stood out was the look and feel of the wooden cabin. Growing up, I spent a lot of time at my grandparents' farmhouse which was remodeled in the 40's. The J. S. LEWIS had the same familiar look and feel, with screen doors at every entrance, and large transom windows in each cabin that opened to both the outside and also the interior hallway.

The captain laughed that it wasn't always quite that nice. He remembered a time when the exterior walls were more like plywood, and light, blowing snow would pile around the doors. The boiler kept things warm in the center, but the outside walls could be cold on the workboat.

Continuing aft, there was an open crew lounge area with a sofa and chairs, a good place to take a break or read a book. Further aft were four more staterooms, assigned to "2nd Mate", "Deckhand," "Deckhand," and "Cook." There were more lavatories between those berths, featuring a jack-and-jill arrangement and also a door to the hallway. One was marked "Women," in our case giving the cook her own bath. Overall, I was impressed with the size of the rooms considering there were eight, all forward of the engine room. Each featured large windows and doors for ventilation, as well as its own heat and a/c unit that was a later addition for crew comfort.

Continuing aft, there was a heavy door that opened to a catwalk over the engine room. The next door opened into the kitchen area on the port side where the cook prepared all the meals, with two storage pantries to starboard. The boat featured three modern refrigerators, but still had the original ice box.

Further aft was the crew's mess, with a large table seating eight people. Just like the rest of the boat, the table was solid and featured several coats of paint, reflecting its history. The captain pointed out an interesting design feature of the table--it had a wooden frame, but a steel center. Nobody was certain why it was assembled that way.

Besides the homey feel that the old wooden kitchen provided, the most remarkable feature was the abundance of outside light and ventilation. There were windows and doors running most of the length of the crew mess, making it very comfortable. Some of the crew noted that many of the newer boats do not have windows in the kitchen, making life more difficult for the cook.

Bright, airy crew mess aboard LEWIS, popular gathering spot

At the rear corner of the kitchen was a laundry room with a modern washer and dryer. Those came in handy after a few days when everything started to take on a hint of diesel. On the other side was a flat-panel HDTV wired to a satellite dome mounted at the stern. The TV seemed in stark contrast to the otherwise 1930's kitchen.

The pilothouse was the gem of the J. S. LEWIS. Coming up the steep stairwell, the first thing you notice is the abundance of polished brass, from the controls to the railings and searchlight controls, and even the stanchions supporting the overhead. They gleamed so brightly that you'd hesitate to make new fingerprints.

At approximately 30 feet above the water, I noticed as we headed downstream that we were about the tallest thing on the river, looking over the tops of many other workboats. Sitting "between the sticks" felt like pulling up to a 3rd floor window and driving your office building down the river. Surrounded by glass, the views were spectacular. From the pilothouse, you could faintly make out the sound of the diesels idling, and there was just a hint of slow and steady vibration as they ticked over.

At the top of the stairs and to starboard was the "liar's bench" which reminded me of a shoe-shine chair. Perched high, you could sit down and see over the captain's shoulders. The pilothouse was surrounded from floor to ceiling with glass windows, 97 of them, some on tracks. The interior was spotless, a testament to the efforts of the crew. I joked with the captain about waxing the wooden ceiling, only to find out that he did, indeed, wax it. He proudly explained, in detail, how he accomplished that feat. I learned growing up that you should always leave an area neater than you found it, and everybody in the crew seemed to adhere to the same principle.

The pilothouse featured a large chair for the pilot, and there was a desk and chair for taking notes and keeping the log, or a place for someone who was just another set of eyes. There were fans for when it got hot, a refrigerator for beverages and, of course, a coffee maker.

The pilothouse controls contained far fewer engine gauges than I expected. There was an RPM

Pilothouse console, complete with brass engine controls.

gauge for each engine in digital format. Each also had a temperature gauge and an air pressure gauge, air pressure being the primary force for engaging gears. Other important indicators were available for the engineer down below.

Modern electronics included two Standard Horizon VHF radios. Similar to smaller boats, output is limited to channel 13, but the captain described a neat trick where you could switch the radio to "INTL" to boost the output and reach a guy around a corner if need be. Of course, some frequencies switch from simplex to duplex (transmitting and receiving on slightly different frequencies), so you wouldn't want to leave the radio on that setting. Other electronics include a GPS receiver and a Swing Meter. The swing meter gives the first indications of any change in heading, which can be useful for making subtle steering changes to keep the tow pointed straight ahead. The captain pointed out that the best way to go straight is to "pick out a tree or something."

The J. S. LEWIS features two steering and four flanking rudders, which are controlled by the sticks. Specifically, each wheel has its own steering rudder and twin flanking rudders. On this boat, the steering rudders are tied together, moving in unison. The same can be said for the flanking rudders. Even with a hydraulic boost, the sticks sometimes take both arms to move. The steering rudders are located behind the screws, while the flanking rudders are positioned ahead to aid in backing.

Underway, the captain demonstrated how the vessel steered. Moving downriver, it took

one arm and a few pounds of force to move the sticks. For anything other than a small change, the force increased, and it would take both arms to comfortably move them. The rudders were "like big barn doors," and as such used hydraulic assistance for movement. They were responsive to small changes, and would swing the boat from the stern more quickly with larger inputs.

To either side of the sticks are two sets of brass wheels. They control the direction of the searchlight beams, one wheel controlling the azimuth and the other controlling the elevation. There is another control to starboard for the Xenon beam on the top of the pilothouse.

The searchlights to port and starboard were manufactured in 1951 by the Carlisle and Finch Co., and are made of brass. The captain kept them highly polished, which made them sparkle from a distance.

Mounted above and centered on the ceiling was the control for the Kahlenberg air horn. The horn used compressed air, and Capt. Grossarth enjoyed opening the valve slowly so you could hear each of the five horns individually that make up the chord that it blasted. Adults and children all the way from Charleston to Louisville knew that the J. S. LEWIS would sound a long blast if they asked, which they did both by VHF radio and hand signals.

The radar was added in the 1990s, when it became a regulatory requirement for navigation. The captain explained that prior to that time, it was expected that the pilot would know each section of the river like the back of his hand. The radar made it easier to navigate in darkness and to keep track of other nearby vessels. Notably, this boat was not equipped with AIS or a modern chartplotter, as her crew was "old school," and didn't miss them or need them.

The gear shifters and throttles were interesting. The captain explained that when the engines were first installed, the center position of the sticks was the "stop" position. When slid to the right, the engine would start in the "forward" direction, and moving the stick forward would increase power. When slid back to the center, the engine would stop. To reverse, the pilot would move the lever to the left. Moving the lever aft would then increase power astern. There was a poster in the engine room that detailed the respective orders for forward and reverse. Today, the J. S. LEWIS has reduction gears to change the direction of the wheels from forward to reverse.

The captain joked that the boat featured "your basic, non-airconditioned pilothouse. Hot in the summer, cold in the winter." Our trip was in the first week of May, so we found it to be very comfortable with temperatures mostly in the 60s and 70s. A space heater helped in the cooler mornings, and as it warmed up, you could slide open the side doors and open the front windows to get as much air as you wanted. Being three stories high helped provide a lot of airflow.

Towing the whistle flat, aka Steam Barge ANNA MARIE.

THE TRIP TO LOUISVILLE

We were fueled for the trip from Charleston's Port Amherst to Louisville with a load of 15,900 gallons of fuel. This was measured using wooden sticks with known calibrations. The engineer also reported an oil supply of 719 gallons. The Certificate of Documentation listed the LEWIS's displacement at 419 gross tons.

The purpose of this trip was a little out of the ordinary for a towboat. She was to arrive in Louisville after the Kentucky Derby Festival to give tours to a group of transportation executives. Later, she would return to Charleston with some Amherst Madison VIPs along for the ride.

Deckhands had spent the previous two weeks applying a fresh coat of paint to the exterior of the J. S. LEWIS. As it turned out, she hadn't run since October of the previous year, so the crew was busy working out a few bugs and making sure we had everything we needed.

Interestingly, the towboat had been converted to "Recreational" use on it's Certificate of Documentation upon renewal in 2013. Like anything else, a boat gets a little more expensive to insure and maintain as it continues to age, hence the change in designation. It would be safe to say that while she is no longer pushing commercial loads, the upper management, with its deep appreciation for river history, is in no way interested in seeing her retire.

The captain computed a total trip length of 400 miles requiring 53.5 hours (plus locks) at a speed of approximately 7.5 mph. There was about a 2 mph current helping us, and the plan was to run the engines at idle for the duration of the downbound trip. Those engines did not have any specific requirements to run at like many others which are towing loads.

We were not in a hurry, and saving fuel had become a priority in recent years with fleet prices approaching $3 per gallon. The captain explained that had time been more of a priority, a common speed would be 6-7 mph upbound and about 10 mph downbound, with "nobody using their horsepower until the water comes up."

From Charleston, there would be sixty-seven miles down the Kanawha River, then another three hundred thirty-two miles to Louisville. There was one lock on the Kanawha at Winfield. On the Ohio, we would lock through at Robert C. Byrd (Mile 279), Greenup (Mile 341), Meldahl (Mile 436) and Markland Locks (Mile 532).

Also along the way, we would pass through downtown Charleston, enter the Ohio River at Point Pleasant, WV, then head south past Gallipolis, Huntington, the confluence of the Big Sandy River, Ashland, Portsmouth, OH's Shawnee State Forest, Maysville, Cincinnati and Lawrenceburg. After locking through at Markland, we would pass Carrolton and then Madison in the late evening of the third day, arriving in Louisville at 3:30 a.m. on the fourth day of the journey.

For stability, the captain faced up to a 100 x 20-foot "Whistle Flat," a barge that held a special steam boiler and a calliope. While we didn't have a steam engineer to safely run the thing, it made the J. S. LEWIS handle much better than if she were just running light boat. That particular calliope and whistle setup was a favorite at riverfront festivals. It was funny how everybody up there knew exactly what it was, but further down the Ohio we got a lot of questions.

After the first day of heading downriver, the engineer reported that we "made fuel." That is, somehow they measured a little more than the day before. He joked that we should sell some if we kept that up, but in reality such a reading is not abnormal once things move around some after the boat gets running. Concerned that there may have been water in the fuel, the engineer used "Fuel Paste" on the sticks. He explained that if they think they have two inches of water in the tank, they'll put a little paste on both sides of that area on the stick. While sounding the tanks, the paste will change colors depending on whether it's exposed to fuel or water. They determined that while there was some water in the tank, it was well below the nine-inch fuel intake level and would be perfectly safe for our trip.

As we headed down the Kanawha River to Point Pleasant, and on down the Ohio to Louisville, we found that we were making 7.5 mph at idle with the current. That was totally acceptable and comfortable, so that was our engine setting for the entire voyage.

After a few more days of running, the engineer calculated that we were burning only 250-290 gallons per day, or a little over 10 gallons per hour. I was astounded that a 155' boat pushing a 100' flat could see that kind of efficiency. Everything over the 2,500 gallons needed for the trip was there for ballast to make the boat ride better, while not overly increasing the fuel consumption to push the extra flat.

I had my laptop with me, and with the captain's permission, plugged it in up in the pilothouse and

ran my GPS antenna and navigation software. The captain, with over 40 years on the river, knew where he was without looking at any maps.

OFFICERS AND CREW

The plan for this trip was to run 24 hours a day for the 4-day trip to Louisville, which is typical for a commercial operation. Notably, the entire trip was scheduled for just short of two weeks, and the crew would not be leaving the vessel. Even while stopped, there would be a crew on watch at all times.

Like most towboat companies, the crews on larger Amherst Madison boats typically work up to three weeks at a time, standing six hour watches. I found it interesting that with a 6-hour watch, there isn't time to get an uninterrupted 8-hour rest. Some of the crew explained that they get used to it, getting most of their sleep during one break, then catching-up with a nap on their other one.

There was a seniority system, where the Master, Capt. Steve Grossarth, stood the forward or 6-12 watch, and the Pilot, Mark Handley, stood the after or 12-6 watch. Assisting with each watch would be a deckhand and an engineer. It was obvious that there are advantages to seniority, as the 6 a.m. to noon and 6 p.m. to midnight watches weren't too bad, while the midnight to 6 a.m. watch was a little more grueling. As a guest aboard the boat, I was so interested in observing what was happening that I pulled double and triple watches, enjoying talking to the crewmembers who were both working and off watch.

Over the years, I had heard some general observations about working on a boat like this, and this crew was no exception. Working as a team required that crewmembers work together well with each other, do their jobs without being told and be on time for their watches. It was also expected that they would respect others' quiet time when they were sleeping, maintain a clean workspace, as well as maintain themselves in an orderly fashion.

There were some other general guidelines that the crew operated by, such as coordinating shared bathrooms. For example, I shared a bathroom with the pilot, so I would make certain to shower when he was on watch.

As a guest, I found that my only job was to stay out of the way of the crew, and do whatever I could to help. While the latter was not expected, it kept me busy when I wasn't taking pictures or notes for this article. I enjoyed every minute on the J. S. LEWIS, and found that my time on other boat trips helped me know when to stay out of the way. Most of the time, that is.

It goes without saying that being away from home for up to three weeks at a time requires a special kind of person with a special kind of family. Everybody's situation is different, but it generally takes either a strong spouse or a support network to make it work. The crew becomes part of each other's family, as they spend so much time together. In the case of this trip, it was like a reunion for some of the crew who had been retired.

A change in the last twenty years has been the availability of cell phone service. The captain pointed out that in the "old days," they'd have to wait until they got to a lock or a terminal to take turns calling home. My experience was that I had decent cell coverage for a good portion of the trip, and even had internet capability passing the larger cities.

Capt. Steve Grossarth, the boat's master-pilot, at age 71 had been with Amherst Madison since 1983, and was officially retired. He holds a 1600 GT Master License from the USCG. He had years of experience on the J. S. LEWIS, and was a favorite when she was towing. He and several others on the crew sometimes did what was known as "trippin'," that is, they picked up some work when they were needed, which kept them active in retirement.

Pilot Mark Handley, age 55, joked that he "first" started with Amherst Madison in 1987. He pursued a few other avenues, but came back to Amherst Madison as they were a good place for a career.

The Chief Engineer was Ronnie Mays, also in his seventies. Retired, he was more than happy to be back on the J. S. LEWIS. He, too, holds a Masters license, and as such was qualified to relieve the captain or pilot if they needed a quick break.

Chief Engineer Ronnie Mays, a double-ender.

There were two deckhands, one a character and long-time employee nicknamed "Moak" or "Homer." The other, who also held a Masters license, wished to remain anonymous. I was told to call them "Matey" if I couldn't remember their names.

Deckhand Bernard Hussell, or "Moak," was a fun guy to be around. Also in his 70's, he'd run circles around many of today's youth. He gave up on using names years ago, so he'd call everybody "Homer." After years of that, he himself was called "Homer." It was entertaining to hear the pilothouse-to-deck communications on channel 69, when Moak was out there. "How's it look, Homer?"-- "Good Homer." -- "We're secure, Homer." -- "Thanks, Homer."

"Moak," a.k.a "Homer," got me on more than one practical joke. Since I was a visitor to West Virginia, he asked if I'd ever noticed the hitchhiker depicted on the picture of the New River Gorge Bridge on the state quarter. After he produced a quarter, I looked and looked. Finally, he took a quick peek and said, "Well, he must'a got a ride!" Moak also showed up in the pilothouse one day. "Look at this spider I just found up here!" It was made of fur and was about 18" across.

Deckhand Bernard "Moak" Hussell. Izzat you, Homer?

Last, but certainly not least, was Dolores Thuam, or "Cookie." Dolores, also retired, came back to work this trip on the J. S. LEWIS. She started working as a cook on the boats in her late 50's, and you'd never believe that could have been over 25 years ago. She was on a schedule to have breakfast at 6:00 a.m., lunch at 11:30 a.m. and dinner at 5:30 p.m. She always made more than enough, but somehow the leftovers still seemed to disappear. Her cooking was outstanding, and she'd complain if you didn't eat enough.

My introduction to Dolores was when she was making cinnamon rolls, just the way my grandmother used to make. She'd toss in a handful of flour, then some salt, then some sugar, always coming up with the perfect mixture from experience. She alone was responsible for making the shopping list and making sure she had what she needed. The crew worked hard, and she took pride in supplying them with great meals. When she wasn't cooking, there'd always be a pot on the stove brewing fresh iced tea and warm leftovers for anybody who may have slept through a meal. "Cookie" had a newer electric stove, but favored the original from 1931. It had enough iron that it would hold heat better for cooking, especially when using cast iron skillets. She laughed about one day long ago when she tried to clean it, and it just got dirtier and dirtier. Unsuccessful, she finally asked the engineer for some silver paint and repainted the stove. It still features her paintjob from 25 years ago. I can attest from her fried chicken and "Alabama Biscuits" that everybody should have an oven like that! Dolores had an important job in that hers was to keep the rest of the crew happy with her cooking. She was good at what she did, and nobody left hungry!

Dolores "Cookie" Thuam and cinnamon rolls like grandma's

My journey aboard the J. S. LEWIS is one that I'll certainly remember for years to come. It is amazing to me that something built over 80 years ago can still have such capabilities and still be in such tremedously good condition. There was something neat about feeling the constant vibrations from the slow-turning engines, or getting the occasional waft of diesel. There was a special creakiness to the wooden superstructure when a large gust of wind would hit.

Arriving in Louisville, we landed alongside a fleet of barges at a commercial terminal. Because it was Sunday, I found the easiest way off the boat was extraction by another boat, so I "phoned a friend" and arranged to be picked up. The captain was nice enough to offer, "Well, since they'll be coming at 11:00, they might as well stay for lunch." Dolores made fried chicken that rivaled Claudia Sanders' original recipe, and the hospitality the crew extended to my friends was a testament to their values.

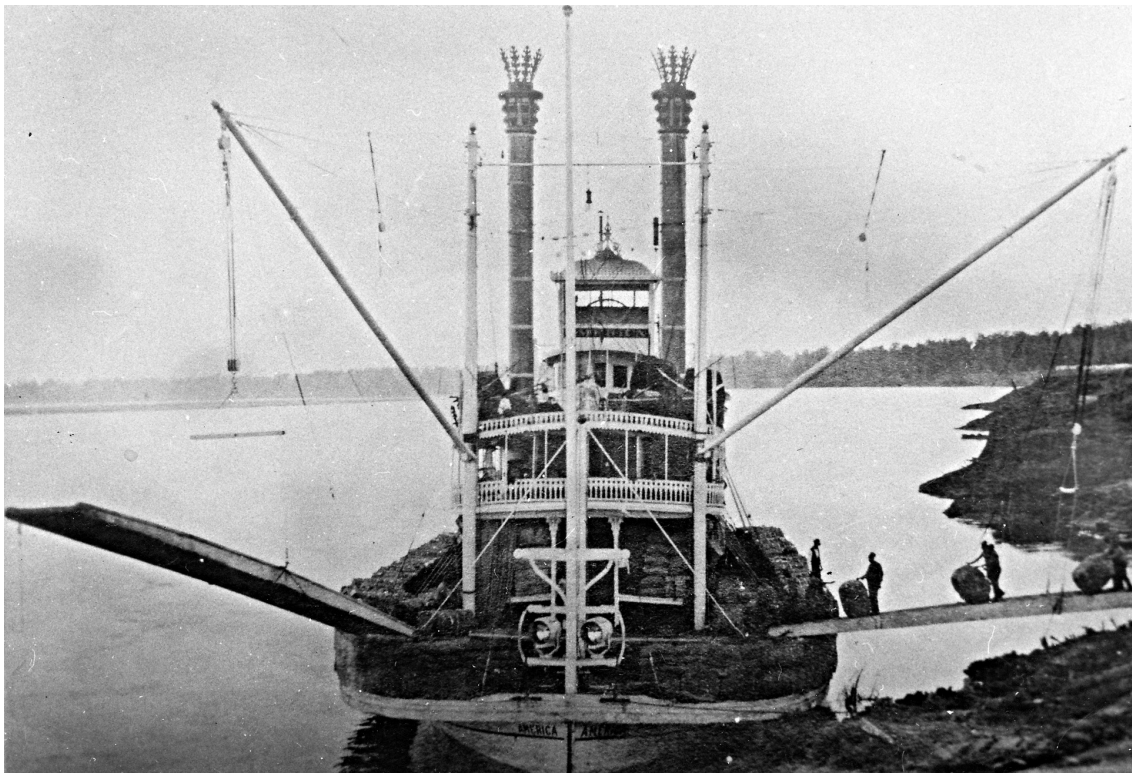
Having a chance to spend four days with the crew of the J. S. LEWIS was an experience that I'll treasure for a lifetime. Compared to newer boats, she had an historic aura that really did make it feel like a trip back in time. I'll never forget meeting Mr. Charles Jones at his docks at Port Amherst, or the kids waving from their back decks while waiting for Capt. Steve to blast the Kahlenberg airhorns. The wooden structure of the LEWIS is a reminder of a nostalgic era in river transportation.

But beside the historic towboat, there was something special about the company. In contrast to many companies these days, it was apparent that Amherst Madison's leadership still puts a value on history and nostalgia.

Author Eric Grubb "between the sticks" on J. S. LEWIS.

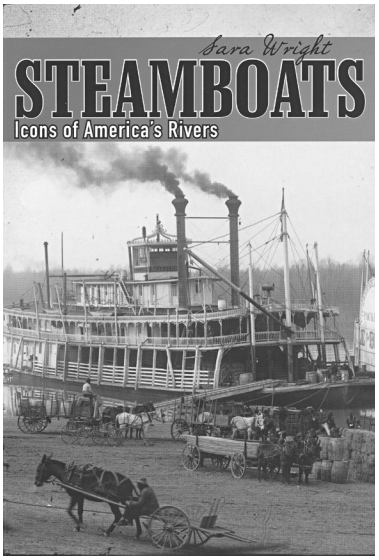
Loading the Cotton Packet AMERICA

Capt. Doc Hawley sends us this photo of Capt. Cooley's cotton packet AMERICA loading on the Lower Mississippi. The picture is a dramatic illustration of how the guards on these boats acted as gigantic "shelves" on which to stack cotton bales. Also visible is the "breezeway" or tunnel left open at the center of the main deck bow to allow air to the boilers for creating a draft up the chimneys. It also provided much needed ventilation in the main cabin and ready access for deckhands to drop the anchor or lower the stage when needed



Book Review: *Steamboats, Icons of America's Rivers*

Steamboats: Icons of America's Rivers by Sara Wright, ©2013, published by Shire Publications. 64 pages with illustrations. $9.95 For additional information online go to www.shirebooks.co.uk

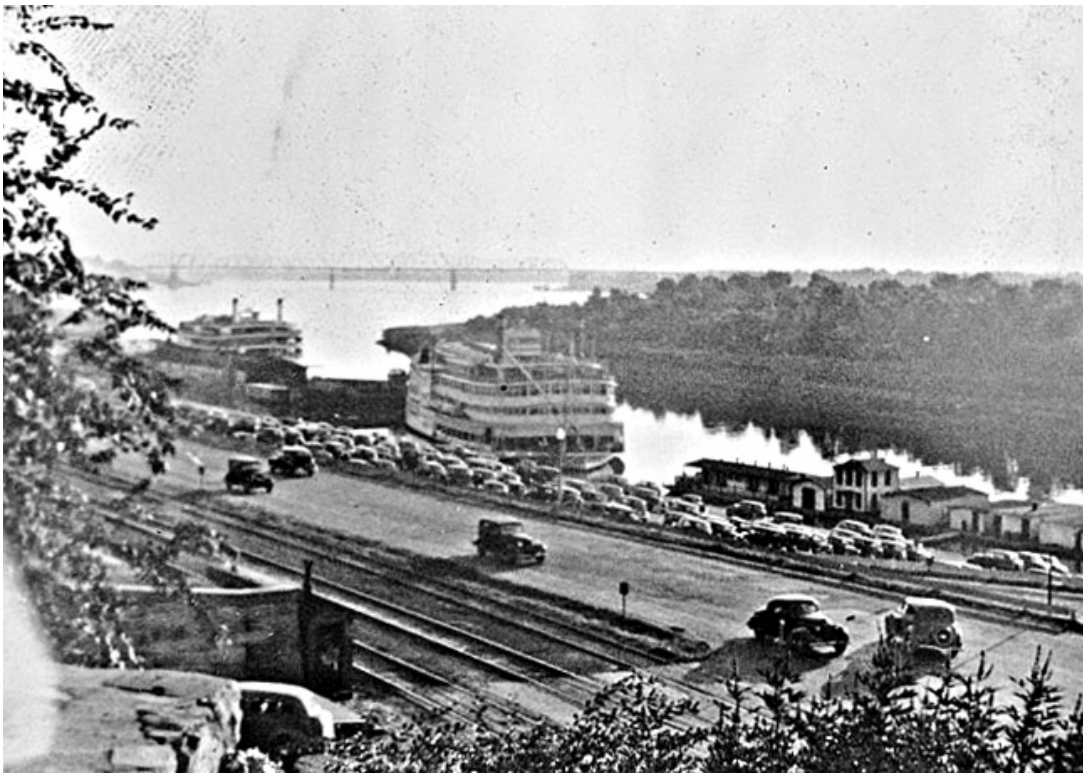


S&D member Sara Wright's book gives a compact, yet all-encompassing look at the origin and development of America's inland river steamboat as a truly unique craft well-suited for the rivers upon which it floated. Profusely illustrated with black-and-white and color photos and diagrams, six chapters highlight this story by detailing early pre-steam navigation, development of the steam engine, the inaugural voyage of the NEW ORLEANS, and the parade of steamboats that followed in her wake.

The last two chapters, "Boat Life" and "Passengers," reveal the human side of this narrative, and not surprisingly conclude with the modern-day story of the DELTA QUEEN. Sara ends her book with a bibliography of well-chosen books for Further Reading and a listing of Places to Visit which include museums, associations, and steamboat cruises. Understandably, because of the limitations placed on size by the editors of this series of books and by the author's own focus on the origins of Western Rivers steamboating, most all of the history related centers on the Ohio River, with few details of Upper and Lower Mississippi, Missouri, or other inland tributaries.

All in all, Sara has done a very fine job telling her story, given the limitations mentioned here. She is an artist and photographer by profession, and spent many years working with a friend on a sternwheel houseboat moored on the Muskingum at Marietta.

Two Sisters at Memphis



Of the two proposed L&C Line packets CINCINNATI and LOUISVILLE, only CINCINNATI was built as designed in 1924. The hull of LOUISVILLE was sold to Coney Island, Inc. and rebuilt into their ISLAND QUEEN. By 1933 the CINCINNATI had been sold to Streckfus Steamers who rebuilt her into the PRESIDENT. Here the two sisters appear at Memphis in the mid-30s, when the two boats ran head-to-head competition on the lower Mississippi. IQ is stuck at mouth of Wolf River, while the PREZ has the favored landing spot at Foot of Beale Street. The experiment was disastrous for both boats.

1821-1830 Western Rivers Steamboat Index

by John H. White, Jr.

Part two of the index for Western Rivers steamboats appears below. Parts three, four, and five, the decade from 1831-1840, will appear in three separate issues because of the large number of boats built in that period. The final listing for the years 1841-1847 will appear in parts six and seven.

ABEONA
SW packet wh b. Pittsburgh, PA, 1830. 150 tons. She was the first steamboat to have full length skylights. Earlier boats typically had about three of them, each eight to ten feet long. Snagged May 27, 1836.

ALEXANDRIA & NATCHEZ PACKET
SW packet, wh b. Alexandria, LA, 1825. 26 tons. Snagged at Bonnet Carre, LA on February 1, 1827.

ALGION
SW packet wh b. Cincinnati, OH, 1826. 50 tons.

ALLEGHENY
SW packet wh b. ?, 1823. 45 tons. Snagged at Columbus, MS on May 16, 1825.

ALLEGHENY
SW packet wh b. Pittsburgh, PA, 1830. 40 tons.

ALPS
SW packet wh b. Pittsburgh, PA, 1829. Originally named TERRIFF (see).

AMAZON
SW packet wh b. Cincinnati, OH, 1826. 300 tons. Snagged at Palmyra Island, MS on November 21, 1831.

AMERICA
SW packet wh b. Pittsburgh, PA, 1826. 240 tons. Sank Plumb Point, TN on November 12, 1827.

AMERICAN
SW packet, wh b. Pittsburgh, PA, 1824. 50 or 150 tons.

AMERICAN
SW packet, wh b. Augusta, KY, 1825. 34 tons.

AMERICAN
SW packet, wh b. ?, 1827. 152 tons. Ran on Tombigbee River until 1836.

AMULET
SW packet, wh b. Cincinnati, OH, 1829. 150 tons.

ANDREW JACKSON
SW packet, wh b. Cincinnati, OH, 1823. 299 tons.

ARIEL
SW packet, wh b. Cincinnati, OH, 1825. 80 tons. Off records in 1826.

ATALANTA
SW packet, wh b. Cincinnati, OH, 1826. 148 tons. Off records in 1834.

ATLANTIC
SW packet, wh b. Marietta, OH, 1829. 400 tons.

ATLAS
SW packet, wh b. New Albany, IN, 1827. 100 tons. Sank in Tennessee River 1837.

ATTAKPAS
SW packet, wh b. Louisville, KY, 1826. 124 tons. Burned at New Orleans 1831.

AURORA
SW packet, wh b. Steubenville, OH, 1825. 150 tons.

BANNER
SW packet, wh b. Ripley, OH, 1830. 90 tons. Renamed CALAVARA.

BALISE
SW packet, wh b. ?, 1823. 300 tons. Burned 1826.

BALTIMORE
SW packet, wh b. Pittsburgh, PA, 1828. 73 tons.

BEAVER
SW packet, wh b. Cincinnati, OH, 1826. 148 tons. Collided with PLOUGH BOY at Steubenville, OH in May 1834.

BEAVER
SW packet, wh b. Louisville, KY, 1829. 139 tons.

BELFAST
SW packet, wh b. Cincinnati, OH, 1829. 435 tons. Construction cost amounted to $40,890. Burned at Louisville on April 8, 1835.

BELLE CREOLE
SW packet, wh b. Cincinnati, OH, 1823. 122 tons. Snagged on Red River, March 13, 1829.

BELVIDERE
SW packet, wh b. Portsmouth, OH, 1825. 160 tons. Worn out 1831.

BEN FRANKLIN
SW packet, wh b. Cincinnati, OH, 1826. 165 tons. Dismantled 1833.

BEVERLY CHEW
SW packet, wh b. Pittsburgh, PA, 1828. Renamed PILOT (see).

BLAKELY
SW packet, wh b. Portsmouth, OH, 1825. 250 tons.

BOB HANDY
SW packet, wh b. Trinity, IL, 1830. 47 tons.

BOB LETCHER
SW packet, wh b. Jeffersonville, IN, 1830. 161 tons. Lost in collision 1835.

BOLIVAR
SW packet, wh b. Beaver, PA or Pittsburgh, PA, 1825. 130 tons.

BOONE
SW packet, wh b. New Albany, IN, 1825. 264 tons. Sank in Canadian Reach, Mississippi River, 1825.

BRANDYWINE
SW packet, wh b. Cincinnati, OH, 1827. 140 tons.

BRANDYWINE
SW packet, wh b. Cincinnati, OH, 1828. 500 tons. This packet left New Orleans for Louisville on April 3, 1832. Six days later she was above Memphis when a fire was discovered. The flames were extinguished, but soon reignited and the passengers began to panic. Her yawl was launched but rolled over and sank. Crowded with 230 passengers, many sought ways to save themselves. Most of those who chose the river for escape were drowned, while those who remained on board were burned. Only about 75 managed to survive.

CALAVARA
SW packet, wh b. Ripley, OH, 1830. 85 tons. Name is possibly CALAVARAS. Originally named BANNER.

CALEDONIA
SW packet, wh b. Cincinnati, OH, 1824. 371 tons. Hull measured 150' x 27' 6" x 9' Snagged at New Madrid, MO on April 21, 1833.

CARAVAN
SW packet, wh b. Cincinnati, OH, 1825. 220 tons. Snagged at Grand Chain, IL in December 1826.

CAR OF COMMERCE
SW packet, wh b. West Point, KY, 1827. 150 tons. Snagged at Portage des Sioux, MO on May 5, 1832.

CAROLINE
SW packet, wh b. Pittsburgh, PA, 1828. 90 tons. Snagged at Plaquemine, LA on March 12, 1834.

CAROLLTON
SW packet, wh b. Beaver, PA, 1830. 451 tons. Exploded boilers at Baton Rouge, LA on October 11, 1836.

CARROLTON
SW packet, wh b. Pittsburgh, PA, 1830. 186 tons.

CATAWBA
SW packet, wh b. Silver Creek at New Albany, IN, 1826. 170 tons.

CAVALIER
SW packet, wh b. Cincinnati, OH, 1825. 180 tons. Off records in 1831.

CEDAR BRANCH
SW packet, wh b. Cincinnati, OH, 1829.

CHARLESTON
SW packet, wh b. Big Sandy River, 1830. 80 tons.

CHEROKEE
SW packet, wh b. Marietta, OH, 1827. 125 tons. Burned Red River, LA on December 17, 1827.

CHIEFTAIN
SW packet, wh b. New Albany, IN, 1830. 120 tons. Snagged in 1835.

CINCINNATI
SW packet, wh b. Cincinnati, OH, 1826. 106 tons.

CINCINNATIAN
SW packet, wh b. Cincinnati, OH, 1830. 236 tons. Worn out 1834.

CITIZEN
SW packet, wh b. Pittsburgh, PA, 1829. 120 tons. Sank 60

miles above mouth of Ohio River.

CLEOPATRA
SW packet, wh b. New Albany, IN, 1826. 150 tons. Renamed WABASH in 1833 (see).

CLINTON
SW packet, wh b. Cincinnati, OH, 1825. 132 tons. Off records in 1831.

CLINTON
SW packet, wh b. Wheeling, 1828. 50 tons.

COLBERT
SW packet?, wh b. ?, 1821-30?

COLBES
SW packet, wh b. Cincinnati, OH, 1830. Renamed ALIS K. CLOVER.

COLUMBIA
SW packet, wh b. Cincinnati, OH, 1825. 200 tons. Burned at Ft. St. John, LA on December 21, 1827.

COLUMBUS
SW packet, wh b. Pittsburgh, PA, 1826 . 220 tons. Sank near Cairo, IL on October 11, 1828.

COLUMBUS
SW packet, wh b. Beaver, PA, 1827. 312 tons. Snagged at Cairo, IL on October 11, 1828. It is likely this is the same COLUMBUS listed in the previous entry.

COLUMBUS
SW packet, wh b. Elizabethtown, PA, 1829. 59 tons.

COMMERCE
SW packet, wh b. Pittsburgh, PA, 1826. 180 tons. Off records in 1830.

CONGRESS
SW packet, wh b. Wheeling, 1822. 160 tons.

CONSTITUTION
SW packet, wh b. Cincinnati, OH, 1829. 300 tons. Cost $7000 to build.

CONVOY
SW packet, wh b. Cincinnati, OH, 1830. 315 tons. Snagged in 1837.

COOSA
SW packet, wh b. Marietta, OH, 1826. 173 tons. Sunk in collision with HUNTRESS on May 14, 1831. It is uncertain whether this HUNTRESS is the same vessel as the one in this listing.

CORA
SW packet, wh b. Pittsburgh, PA, 1829. 140 tons.

CORSAIR
SW packet, wh b. Pittsburgh, PA, 1829. 121 tons.

COTTON PLANT
SW packet, wh b. ?, 1821. 72 tons. Sank at White's Landing on Warrior River, May 1828.

COTTON PLANT
SW packet, wh b. Cincinnati, OH, 1826. 126 tons.

COTTON PLANT
SW packet, wh b. Cincinnati, OH, 1830. 262 tons. Burned at New Orleans, 1832.

COURIER
SW packet, wh b. Pittsburgh, PA, 1821. 119 tons.

COURIER
SW packet, wh b. Cincinnati, OH, 1830. 100 tons. Worn out 1835.

COURTLAND
SW packet, wh b. Cincinnati, OH, 1826. 200 or 212 tons. Snagged 1833.

CREOLE
SW packet, wh b. Clarksville, TN, 1829. 171 tons. Off records in 1834.

CRITERION
SW packet, wh b. New Albany, IN, 1828. 200 tons. Hit a log raft and sank at New Orleans in 1834.

CRUSADER
SW packet, wh b. Fredricksburg, KY, 1826. 170 tons. Sank 1830.

CUMBERLAND
SW packet, wh b. Pittsburgh, PA, 1828. 100 tons. Hit a rock and sank November 1, 1831.

DANIEL BOONE
SW packet, wh b. New Albany, IN, 1826. 264 tons. Off records in 1832.

DANIEL WEBSTER
SW packet, wh b.Cincinnati, OH, 1829. 180 tons. Formerly OLIVER H. PERRY

DANIEL WEBSTER
SW packet, wh b. Burlington, OH, 1829. 76 tons. Also called OLIVER H. PERRY. Probably same boat as previous entry.

DECATUR
SW packet, wh b. Brownsville, PA, 1826. 113 tons. Snagged at Ft. St. John, LA, 1828.

DELAWARE
SW packet, wh b. Pittsburgh, PA, 1828. 100 tons. Sunk and off records in 1832.

DE WITT CLINTON
SW packet, wh b. Cincinnati, OH, 1825. 132 tons.

DE WITT CLINTON
SW packet, wh b. Pittsburgh, PA, 1826. 200 tons. Worn out 1830.

DIANA
SW packet, wh b. Brush Creek, OH, 1828. Brush Creek is 387 miles from Pittsburgh and 21 miles east of Maysville, KY. 100 tons. Sank at Ellis Cliffs after collision with GENERAL CARROLL (see) on April 9, 1829.

DICTATOR
SW packet, wh b. Brownsville, PA, 1826. 118 tons. Burned at Island No. 67, Mississippi River.

DOLPHIN
SW packet, wh b. Aurora, IN, 1826. 90 tons. Worn out 1828.

DOLPHIN
SW packet, wh b. Portsmouth, OH, 1830. 112 tons. Burned 25 miles below Wheeling in 1832. Renamed TRI-COLOR (see).

DONALLY
SW packet, wh b. Steubenville, OH, 1821. 90 tons. Also known as MERCURY and ROBERT THOMPSON (see).

EAGLE
SW packet, wh b. Pittsburgh, PA, 1830. 40 tons. Capsized in a storm, spring 1833.

ECHO
SW packet, wh b. Pittsburgh, PA, 1826. 150 tons.

ECLIPSE
SW packet, wh b. Pittsburgh, PA or Beaver, PA, 1823. 120 or 168 tons. 103'2" x 18'6"x7'3". Snagged in 1826.

EGYPT
SW packet, wh b. Brownsville, PA, 1827.

ELIZA
SW packet, wh b. Cincinnati, OH, 1821. 65 tons.

ELK
SW packet, wh b. Brownsville, PA, 1829. 60 tons. Later renamed INDUSTRY. Off records in 1833.

EMERALD
SW packet, wh b. Cumberland River, 1824. 130 tons. Off records in 1830.

EMIGRANT
SW packet, wh b. Cincinnati, OH, 1829. 76 tons. Sank in ice, 1832.

ENTERPRISE
SW packet, wh b. Louisville, KY, 1824. 68 tons. Off records in 1827.

ENTERPRISE
SW packet, wh b. Pittsburgh, PA or Shousetown, PA, 1830. 111 or 150 tons. Often chartered by the U. S. Army. In 1831-32 she carried troops from Jefferson Barracks near St. Louis to Rock Island, IL and Prairie du Chien, WI to help quell Indian disturbances. Snagged near mouth of Illinois River, 1833.

ENTERPRISE
SW packet, wh b. Shousetown, PA, 1830. 111 tons. Snagged in March 1832.

ERIE
SW packet, wh b. Pittsburgh, PA, 1826. 120 tons.

ERIE
SW packet, wh b. Brownsville, PA, 1827. 52 tons. Renamed HORNET.

ERIE
SW packet, wh b. Marietta, OH, 1827. 143 tons. Collided with WARRIOR (see) on January 22, 1829.

ESSEX
SW packet, wh b. Pittsburgh, PA, 1827. 135 tons. Broke in two on Grand Chain, Ohio River, 1829.

EXCHANGE
SW packet, wh b. Louisville, KY, 1830. 32 tons.

EXPERIMENT
SW packet, wh b. Brownsville, PA, 1830. 85 tons. Sank in ice Bridgeport, PA.

EXPRESS
SW packet, wh b. Pittsburgh, PA, 1827. 105 tons. Off records in 1830.

FACILITY
SW packet, wh b. Cincinnati, OH, 1827. 117 tons. Worn out in 1833.

FAIR CITY
SW packet, wh b. Pittsburgh, PA, 1828. 112 tons.

FAIRY
SW packet, wh b. Cincinnati, OH, 1827. 80 tons. Sank 1831.

FAME
SW packet, wh b. Pittsburgh, PA, 1826. 170 tons. Worn out 1830.

FANNY
SW packet?, wh b. New York, 1823. 120 tons. Went back to New York. Off records in 1827.

FAVOURITE
SW packet, wh b. Nashville, TN, 1821. 165 tons.

FAVOURITE
SW packet, wh b. Pittsburgh, PA, 1822. 260 tons.

FIDELITY
SW packet, wh b. New York, 1821. 150 tons.

FIRE FLY
SW packet, wh b. Louisville, KY, 1822. 19 tons.

FLORENCE
SW packet, wh b. Silver Creek in New Albany, IN or Clarksville, TN, 1822. 60 tons.

FLORIDA
SW packet, wh b. Pittsburgh, PA, 1826. 278 tons. Off records after 1826.

FLORIDA
SW packet, wh b. Cincinnati, OH, 1826. 250 tons. Burned on Mobile River April 14, 1828.

FORESTER or **FORRESTER**
SW packet, wh b. Brownsville, PA, 1827. 100 tons. Originally named MONOGAHELA (see). Burned on Cumberland River May 28, 1833.

FORT ADAMS
SW packet, wh b. Bruinsburg, MS or New Orleans, 1826. 125 tons. Stranded at Bayou Sara on December 9, 1836.

FRIENDSHIP
SW packet, wh b. Pittsburgh, PA, 1825. 200 tons.

GALENA
SW packet, wh b. Cincinnati, OH, 1829. 100 tons. Built for Upper Mississippi service in the lead trade at Galena, IL and operated as far north as Fort Snelling near present-day Minneapolis. Renamed HAWKEYE in May 1832 (see).

GALENA PACKET
SW packet, wh b. New Albany, IN, 1826. 150 tons.

GENERAL BROWN
SW packet, wh b. Pittsburgh, PA, 1825. 180 tons. Burned at Mobile on February 24, 1830.

GENERAL CARROLL
SW packet, wh b. Cincinnati, OH, 1826. 272 tons. Collided with DIANA (see) on April 9, 1829.

GENERAL COFFEE
SW packet, wh b. Pittsburgh, PA, 1826. 200 tons.

GENERAL HAMILTON
SW packet, wh b. Cincinnati, OH, 1826. 158 tons. Off records in 1829.

GENERAL MARION
SW packet, wh b. Cincinnati, OH, 1826. 86 tons.

GENERAL NEVILLE
SW packet, wh b. Pittsburgh, PA, 1822. 150 tons. Off records in 1827.

GENERAL PIKE
SW packet, wh b. Big Bone, KY, 1824. 150 tons.

GENERAL SCOTT
SW packet, wh b. Beaver, PA, 1825. 220 tons.

GENERAL WAYNE
SW packet, wh b. Pittsburgh, PA, 1825. 350 tons. One of the first steamboats to have a poppet valve engine. Off records in 1829.

GEO. WASHINGTON
SW packet, wh b. Cincinnati, OH, 1825. 360 tons. Burned at New Orleans 1831.

GEORGIAN
SW packet, wh b. Pittsburgh, PA, 1830. 120 tons. Snagged at Roanoke, GA December 1833.

GLEAMER or **GLEANER**

SW packet, wh b. Pittsburgh, PA, 1830. 100 tons. Sank 1832.

GLOBE
SW packet, wh b. St. Louis, MO, 1829. 150 tons. Abandoned on the Upper Mississippi.

GONDOLA
SW packet, wh b. Pittsburgh, PA, 1830. 120 tons. Snagged in 1832.

GRAMPUS
SW packet/towboat, wh b. Cincinnati, OH, 1827. 290 tons. Exploded boilers near New Orleans on August 12, 1828.

GRECIAN
SW packet, wh b. Louisville, KY, 1824. 160 tons. Burned at New Orleans on May 24, 1826.

HATCHEE or **HATCHIE**
SW packet, wh b. Pittsburgh, PA, 1830. 100 tons.

HAWKEYE
SW packet, wh b. Cincinnati, OH, 1829. 116 tons. Cost $3000 to build. Off records in 1838.

HELEN McGREGOR
SW packet, wh b. Cincinnati, OH, 1825. 340 tons. The HELEN McGREGOR was on her way to Louisville in late February 1830 and made a stop at Memphis. She had been at the wharf for only thirty minutes when one of her boilers exploded. Unfortunately a large number of passengers were standing nearby. Because many were blown overboard, no accurate account of the dead could be made, but it was estimated that between thirty and sixty perished. Many others were wounded. The boat herself was not badly damaged and continued operating for almost another three years. On December 23, 1832, she was involved in a collision with the HERALD (see).

HERALD
SW packet, wh b. Pittsburgh, PA, 1824. 150 tons. Collided with HELEN McGREGOR (see). Off records after 1832.

HERALD
SW packet, wh b. Marietta, OH, 1829. 120 tons. Worn out 1834 or 1837.

HERCULES
SW packet, wh b. Cincinnati, OH, 1826. 165 tons. Collided with the brig EMERY on December 26, 1828.

HERCULES
SW packet/towboat, wh b. Cincinnati, OH, 1826. 275 tons. Sank in 1828.

HIBERNIA
SW packet, wh b. New Albany, IN, 1826. 200 tons. Worn out 1834.

HIGHLANDER
SW packet, wh b. Brownsville, PA, 1829. 120 tons. Sank at Burlington, MS on April 3, 1834.

HIGHLAND LADDIE
SW packet, wh b. Cincinnati, OH, 1824. 80 tons.

HIGHLANDS
SW packet, wh b. Brownsville, PA, 1826. 120 tons.

HOME
SW packet, wh b. Pittsburgh, PA, 1829. 120 tons. Burned at Beaver, PA on May 28, 1831.

HOPE
SW packet, wh b. Louisville, KY, 1821. 75 tons. Sank near Bayou Sara, LA in 1825.

HOPE
SW packet, wh b. Marietta, OH, 1822. 75 tons. Snagged at Bayou Sara, LA in 1825. Possibly same steamer as previous entry.

HOPE
SW packet, wh b. Zanesville, OH, 1829. 60 tons. Also called R. HANDY.

HORNET
SW packet, wh b. Brownsville, PA, 1829. 68 tons.

HUDSON
SW packet, wh b. Pittsburgh, PA, 1829. 346 tons. 151' x 26'3" x 9'3". Sank below Guttenberg, IA, 1841.

HUNTRESS
SW packet, wh b. New Albany, IN, 1826. 300 tons. Exploded boilers below Louisville on April 10, 1830.

HUNTSMAN
SW packet, wh b. Pittsburgh, PA, 1829. 150 tons.

HUNTSVILLE
SW packet, wh b. Louisville, KY, 1826. 300 tons.

HUNTSVILLE
SW packet, wh b. Pittsburgh, PA, 1829. 350 tons. Possibly same boat as next entry.

HUNTSVILLE
SW packet, wh b. Shousetown, PA, 1829. 339 tons. Cost

$10,000 to build.

HURON
SW packet, wh b. Pittsburgh, PA, 1829. 230 tons. Snagged above Natchez, MS on September 20, 1833.

ILLINOIS
SW packet, wh b. Pittsburgh, PA, 1826. 130 tons. Snagged at Plumb Point, TN in 1828 or 1830.

INDIANA
SW packet, wh b. New Albany, IN, 1822. 180 tons. 105' x 23'5" x 5'10". Worn out 1829.

INDUSTRY
SW packet, wh b. Pittsburgh, PA, 1829. 80 tons. Originally named ELK.

INTEGRITY
SW packet, wh b. Cincinnati, OH, 1827. 100 tons. Worn out 1830.

ISABELLA
SW packet, wh b. Marietta, OH, 1827. 250 tons.

JAMES O'HARA
SW packet, wh b. Pittsburgh, PA, 1828. 200 tons.

JAVA
SW packet, wh b. Marietta, OH, 1830. 103 tons.

JOSEPHINE
SW packet, wh b. Cincinnati, OH, 1826. 50 tons. Capt. Joseph Clark braved the ice in Fever River at Galena, IL to bring supplies to starving lead miners in February 1828. As a result, the boat was frozen in until mid-March. Burned at Buffalo Slough on Mississippi River, 1829.

JUBILEE
SW packet, wh b. Pittsburgh, PA, 1826. 205 tons. Sunk at Plumb Point, TN.

KANAWHA
SW packet, wh b. Cincinnati, OH, 1828. 60 tons. Exploded boilers at Guyandotte, OH on June 29, 1829.

KENTUCKIAN
SW packet, wh b. Pittsburgh, PA, 1829. 300 tons. Sank at Little Rock, AR in 1836.

KITTY CLOVER
SW packet, wh b. Wheeling, 1829. 60 tons.

LADY BYRON
SW packet, wh b. Steubenville, OH, 1830. 150 tons. Worn out 1837.

LADY FRANKLIN
SW packet, wh b. Portsmouth, OH, 1829. 200 tons. Sunk in collision, 1835.

LADY LA FAYETTE
SW packet, wh b. New Orleans, LA, 1828. 65 tons.

LADY OF THE LAKE
SW packet, wh b. New Albany, IN, 1826. 176 tons. Snagged at Wolf Island, 1832.

LADY WASHINGTON
SW packet, wh b. Pittsburgh, PA, 1826. 147 tons. Sank in ice at Cincinnati, 1832.

LADY WASHINGTON
SW packet, wh b. Silver Creek, IN, 1826. 360 tons. Off records in 1832.

LA FAYETTE
SW packet, wh b. Pittsburgh, PA, 1825. 160 tons.

LA FOURCHE
SW packet, wh b. New Albany, IN, 1829. 200 tons.

LA GRANGE
SW packet, wh b. Wheeling, 1828. 135 tons. Sunk at Brown's Island, 1832.

LARK
SW packet, wh b. Pittsburgh, PA, 1828. 100 tons. The LARK began service in 1829 as COLUMBUS, but was soon renamed UNCAS (see). On December 20, 1830, this small packet that regularly ran between Pittsburgh and Nashville became the first vessel to pass through the Portland Canal, bypassing the Falls of the Ohio at Louisville.

LAUREL
SW packet, wh b. Cincinnati, OH, 1830.

LAWRENCE
SW packet, wh b. Cincinnati, OH, 1824. 122 tons. Plied the Galena lead trade on Upper Mississippi. Worn out 1829.

LEOPARD
SW packet, wh b. Clarksville, IN, 1822. 70 tons.

LEOPARD
SW packet, wh b. Louisville, KY, 1829. 60 tons.

LEXINGTON

SW packet, wh b. Frankfort on Kentucky River, 1825. 250 tons. Off records in 1834.

LIBERATOR
SW packet, wh b. Pittsburgh, PA, 1826. 200 tons.

LIBERTY
SW packet, wh b. Pittsburgh, PA, 1827. 96 tons.

LIVINGSTON
SW packet, wh b. Smithland, KY, 1826. 200 tons.

LOUISIANA
SW packet, wh b. Cincinnati, OH, 1830. 307 tons. Destroyed on rocks above Uniontown, 1836.

LOUISVILLE
SW packet, wh b. Louisville, KY, 1823. 60 tons. Worn out 1830.

MADISON
SW packet, wh b. Wheeling, 1828. 50 tons.

MAGNET
SW packet, wh b. Cincinnati, OH, 1822. 160 tons.

MAGNET
SW packet, wh b. Louisville, KY, 1822. 140 tons. Off records in 1827.

MAGNOLIA
SW packet, wh b. Cincinnati, OH, 1830. 100 tons. Lost on Missouri River in 1836.

MARIETTA
SW packet, wh b. Marietta, OH, 1825. 150 tons. Worn out 1839.

MARS
SW packet, wh b. Wheeling, 1820. 61 tons.

MARYLAND
SW packet, wh b. Pittsburgh, PA, 1827. 160 tons. Burned in Licking River.

MECHANIC
SW packet, wh b. Marietta, OH, 1823. 120 tons. The Revolutionary War hero General LaFayette made a tour of the United States in 1824 and 1825. Part of that visit included passage between Nashville and Marietta, OH in May 1825. Unfortunately, the steamer MECHANIC, which had been chosen for the excursion, hit a snag enroute at midnight. The boat sank quickly and the general lost $8000 in currency and a fine carriage. But the quick action of the crew saved the old gentleman's life. The Marquis returned to France and lived on for almost another decade. The MECHANIC was snagged at Troy Reach, 120 miles below Louisville on May 8, 1825. She operated in the Galena-St. Louis trade 1826-7 and again in 1830. In 1832 she hit a boulder while landing at Montrose, IA, thenceforth known as "Mechanic Rock." She was raised, but was stranded and lost later that same year.

MERCHANT
SW packet, wh b. Pittsburgh, PA, 1827. The use of safety barges was tried on the Hudson River around 1825-29 in an effort to separate first class passengers from dangers of onboard fires and boiler explosions. A steamer would tow a barge outfitted with comfortable cabins for sleeping and dining purposes. In December 1826 the MERCHANT arrived at Cincinnati with a safety barge and 95 passengers. The barge had 52 berths and three cabins. The MERCHANT drew 26 inches and her barge, 20 inches, as reported in the New York Observer of January 6, 1827.

MERCURY
SW packet, wh b. Steubenville, OH, 1821. 90 tons. Also known as DONNOLLY and ROBERT THOMPSON (see) Collided with PITTSBURG near Guyandotte on December 3, 1823.

MESSENGER
SW packet, wh b. Pittsburgh, PA, 1826. 118 tons. Possibly same boat as next entry.

MESSENGER
SW packet, wh b. Pittsburgh, PA, 1826. 160 tons. Off records in 1830.

MEXICO
SW packet, wh b. Cincinnati, OH, 1823. 120 tons. Sank on Des Moines Rapids, Upper Mississippi River in 1827.

MEXICO
SW packet, wh b. Cincinnati, OH, 1825. 132 tons.

MIAMI
SW packet, wh b. Cincinnati, OH, 1822. 100 tons. Off records in 1828.

MINERVA
SW packet, wh b. Cincinnati, OH, 1830. 100 tons. Off records in 1832.

MISSOURI
SW packet, wh b. Pittsburgh, PA, 1828. 150 tons. Towed a passenger barge (see entry for MERCHANT). Sank at Aurora, IN in 1828.

MISSOURI
SW packet, wh b. Phillipsburg, PA, 1828. 110 tons. 117x20x5. Chartered by government to transport troops from Fort Snelling (near Minneapolis), Fort Crawford (Prairie du Chien, WI) and Fort Armstrong (Rock Island, IL) to new posts on the frontier. Snagged and lost in 1831.

MISSOURI FULTON
SW packet, wh b. ?, year ? U. S. Indian agent Lawrence Taliaferro reported the FULTON, which was probably this boat, at Fort Snelling in May 1826. She was advertised at Galena, IL in 1827 and ran through at least 1828, probably longer. A second MISSOURI FULTON was built in 1836.

MOBILE
SW packet, wh b. Pittsburgh, PA, 1830. 150 tons. Burned 1831.

MOHICAN
SW packet, wh b. Pittsburgh, PA, 1829. 350 tons. Operated on Tennessee River. Worn out 1835.

MONONGAHELA
SW packet, wh b. Brownsville, PA, 1827 or 1829. 100 tons. Renamed FORESTER (see).

MONROE
SW packet, wh b. ?, 1826. 70 tons. Worn out in 1829.

MONTEZUMA
SW packet, wh b. Cincinnati, OH, 1827. 200 tons. Snagged and sank 7 miles below Helena, AR, 1829.

MONTGOMERY
SW packet, wh b. Smithland, KY, 1828. 140 tons. Sank in 1829.

MONTICELLO
SW packet, wh b. Pipe Creek, OH, 1829. Pipe Creek is 11 miles below Bellaire, OH. 94 tons.

MONTICELLO
SW packet, wh b. Pittsburgh, PA, 1829. 140 tons. Cost $13,160 to build. Snagged in March 1833.

MOUNTAINEER
SW packet, wh b. Bridgeport, PA, 1827. 143 tons.

MOUNTAINEER
SW packet, wh b. Brownsville, PA, 1828. 175 tons. Off records in 1832.

MUSKINGUM
SW packet, wh b. Marietta, OH, 1822. 127 tons.

MUSKINGUM
SW packet, wh b. Marietta, OH, 1825. 150 tons. Operated on Red River. Off records in 1829.

NASHVILLE
SW packet, wh b. Cincinnati, OH, 1822. 200 tons. Snagged above New Orleans in 1826.

NASHVILLE
SW packet, wh b. Cincinnati, OH, 1828. 398 tons. Sank at Wolf Island, 1833.

NASHVILLE PACKET
SW packet, wh b. Cincinnati, OH, 1827. 125 tons. Worn out 1831.

NATCHEZ
SW packet, wh b. New York, 1822. 240 tons. Snagged above Natchez, MS in 1829.

NATCHITOCHES
SW packet, wh b. Natchitoches, LA, 1824. 39 tons.

NATIVE
SW packet, wh b. Cincinnati, OH, 1827. 100 tons. Blew up at Eddyville, KY on the Cumberland River on December 15, 1828.

NEPTUNE
SW packet, wh b. New Orleans, LA, 1821. 50 tons.

NEPTUNE
SW packet, wh b. Pittsburgh, PA, 1828. 200 tons. Snagged on Ohio River near Cairo, IL.

NEW JERSEY
SW packet, wh b. Pittsburgh, PA, 1830. 150 tons. Her chimneys were painted white. Sank in ice at Cincinnati, January 7, 1832.

NEW PENNSYLVANIA
SW packet, wh b. Pittsburgh, PA, 1827. 140 tons.

NEW YORK
SW packet, wh b. Pittsburgh, PA, 1826. 310 tons. Snagged near Plumb Point, TN in 1832.

NIAGARA
SW packet, wh b. Steubenville, OH, 1829. 121 tons. Worn out 1834.

NIAGARA
SW packet, wh b. Pittsburgh, PA, 1829. 150 tons. Lost near Opilousas, LA in 1834.

NILE
SW packet, wh b. Pittsburgh, PA, 1829. 130 tons.

NORTH AMERICA
SW packet, wh b. Pittsburgh, PA, 1828. 300 tons. Sank at Plumb Point, TN in 1833.

ODD FELLOW
SW packet, wh b. Elizabethtown, PA, or Wheeling, 1829. 36 tons. Renamed TRAVELER (see).

OHIO
SW packet, wh b. Portsmouth, OH, 1824. 180 tons. Snagged in 1828.

OHIO
SW packet, wh b. Cincinnati, OH, 1825. 80 tons.

OLIVE
SW packet, wh b. Pittsburgh, PA, 1830. 100 tons. Renamed WESTERN VIRGINIAN (see). Sunk in ice, 1832.

OLIVER H. PERRY
SW packet, wh b. Cincinnati, OH, 1829. 100 tons. Renamed DANIEL WEBSTER (see).

ONTARIO
SW packet, wh b. Silver Creek, IN, 1826. 106 tons.

OPELUSISAS
SW packet, wh b. Cincinnati, OH, 1826. 133 tons. Still running 1832.

OREGON
SW packet, wh b. Marietta, OH, 1827. 225 tons. Sank Plumb Point, TN in 1832.

ORLEANS
SW packet, wh b. New Albany, IN, 1830. 326 tons. Cost $10,000 to build.

PACIFIC
SW packet, wh b. Cincinnati, OH, 1829. 387 tons. Sank below Vicksburg, MS.

PACKET
SW packet, wh b. Pittsburgh, PA, 1829. 90 tons.

PARAGON
SW packet, wh b. Ripley, OH or Cincinnati, OH 1829. 90 tons. Made trips on the Upper Mississippi and Missouri Rivers. Worn out 1838.

PAUL JONES
SW packet, wh b. Beaver, PA, 1825. 300 tons. Worn out 1830 or 1831.

PAUL PRY
SW packet, wh b. Big Bone, KY, 1825. 60 tons. Snagged on Red River.

PATRIOT
SW packet, wh b. Cincinnati, OH, 1825. 258 tons. Exploded boilers May 1829, but returned to service. Worn out 1831.

PEARL
SW packet, wh b. Cincinnati, OH, 1829. 69 tons.

PENNSYLVANIA
SW packet, wh b. Beaver, PA, 1823. 107 tons. Off records in 1827.

PENNSYLVANIA
SW packet, wh b. Pittsburgh, PA, 1827. 150 tons. Off records in 1833.

PERUVIAN
SW packet, wh b. Pittsburgh, PA, 1830. 400 tons. Snagged below Natchez, MS in October 1830.

PHILADELPHIA
SW packet, wh b. Cincinnati, OH, 1826. 445 tons. The British traveler Capt. Basil Hall boarded this large steamer in New Orleans April 28, 1828, bound for Louisville. She burned 30 cords of wood a day. Wooding up was quickly done, the boat rarely laying over more than fifteen minutes at these stops. Capt. Hall made a front end sketch of the boat at an unnamed stop in Arkansas some 838 miles north of New Orleans. The trip between the Crescent City and Louisville was usually about 9 days, but the PHILADELPHIA required 11 days and 3 hours, averaging 5½ mph. The fare for the passage was $35. The *Niles Register* reported the boat in its April 22, 1826 issue as recently completed. Her main deck was 150' x 40' wide. The main cabin was 30 x 60 feet. Beds and staterooms slept 168 passengers. When completed, the boat cost $30,000. The PHILADELPHIA was reported worn out in 1834.

PHOENIX
SW packet, wh b. Pittsbugh, PA, 1823. 200 tons. Off records in 1828.

PHOENIX
SW packet, wh b. Pittsburgh, PA, 1828. 250 tons. Burned at Bayou La Fourche in 1832.

PHOENIX
SW packet, wh b. Pittsburgh, PA, 1829. 205 tons.

PHOEBUS
SW packet, wh b. Cincinnati, OH, 1825. 80 tons. Burned at foot of Broadway St. in Cincinnati on July 20, 1832.

PILOT
SW packet, wh b. Big Bone, KY, 1825. 150 tons. Snagged below St. Louis. Originally named BEVERLY CHEW? (see)

PILOT
SW packet, wh b. New York, 1827. 240 tons.

PIONEER
SW packet, wh b. Cincinnati, OH, 1825. 200 tons. Off records in 1830.

PITTSBURG
SW packet, wh b. Pittsburgh, PA, 1823. 133 tons. Worn out 1827.

PITTSBURG AND ST. LOUIS PACKET
SW packet, wh b. Pittsburgh, PA, 1823. 131 tons. Burned 1827.

PLANET
SW packet, wh b. Cincinnati, OH, 1829. 100 tons. Built for Galena, IL trade. When she was brand new the Army chartered her to bring a delegation from the Sauk, Fox, Iowa and Otoe tribes to Prairie du Chien, WI to discuss peace negotiations with the Dakota. Worn out 1836.

PLANTER
SW packet, wh b. Cincinnati, OH, 1825. 130 tons. Off records in 1834.

PLAQUEMINE
SW packet, wh b. Pittsburgh, PA, 1828. 63 tons. Worn out 1832.

PLAQUEMINE
SW packet, wh b. Pittsburgh, PA, 1829. 205 tons.

PLOUGH BOY
SW packet, wh b. Frankfort, KY, 1824. 120 tons. Operated on Lake Pontchartrain.

POCAHONTAS
SW packet, wh b. Pittsburgh, PA, 1825. 260 tons.

PORPOISE
SW towboat, wh b. Cincinnati, OH, 1828. 326 tons. Towboat at Balize.

POST BOY
SW packet, wh b. New York, 1825. 250 tons.

POTOMAC
SW packet, wh b. Pittsburgh, PA, 1828. 80 tons. Off records in 1833.

POWHATTAN
SW packet, wh b. Pittsburgh, PA, 1828. 221 tons.

POWHATTAN
SW packet, wh b. Pittsburgh, PA, 1829. 260 tons. POWHATTAN was described in the 1884 Marine Journal as being built in March 1829 for William Stewart of Pittsburgh. The hull was 101'9" x 22'9" x 7'7". She had an upper and lower cabin. Her six boilers were 36 inches in diameter, and the engine cylinders were 22 ¾ inch diameter with a 5-foot stroke. She was sunk after a collision with NICHOLAS BIDDLE in the summer of 1836 near Cincinnati. The POWHATTAN was raised and taken to Pittsburgh for dismantling. The clipping for this brief account is in S. F. Covington Scrapbooks at Miami University Library's Special Collections.

PRESIDENT
SW packet, wh b. Pittsburgh, PA, 1824. 300 tons. Stranded at Plumb Point, TN in February 1829.

RAMBLER
SW packet, wh b. Pittsburgh, PA or Beaver, PA, 1823. 120 tons. Sank at Henderson Island, 1830.

RAPIDE
SW packet, wh b. New Albany, IN, 1830. 160 tons. Sank in ice, 1833.

RED RIVER
SW packet, wh b. Marietta, OH, 1824. 180 tons.

RED RIVER PACKET
SW packet, wh b. Cincinnati, OH, 1826. 120 tons.

RED ROVER
SW packet, wh b. Pittsburgh, PA, 1828. 50 tons. Operated in the Galena, IL lead trade. Still active in 1830.

RED ROVER
SW packet, wh b. Pittsburgh, PA, 1829. 500 tons.

REINDEER
SW packet, wh b. Brownsville, PA, 1826. 60 tons.

REINDEER
SW packet, wh b. Brownsville, PA, 1830. 100 tons. Burned at New Albany, IN in 1833.

RELIEF

SW packet, wh b. Pittsburgh, PA, 1825. 76 tons.

REPUBLICAN
SW packet, wh b. Cincinnati, OH, 1826. 50 or 150 tons.

REPUBLICAN
SW packet, wh b. Pittsburgh, PA, 1828. 51 tons.

RHUHAMA
SW packet, wh b. Pittsburgh, PA, 1829. 70 or 170 tons.

RIEGO
SW packet, wh b. Shippingport, KY, 1824. 101 tons.

RISING SUN
SW packet, wh b. Rising Sun, IN, 1827. 100 tons.

ROBERT BURNS
SW packet, wh b. Cincinnati, OH, 1825. 125 tons. Cost $11,750 to build. Burned in 1828.

ROBERT EMMET or **ROBERT EMMITT**
SW packet, wh b. Louisville, KY, 1825. 40 tons.

ROBERT FULTON
SW packet, wh b. Cincinnati, OH, 1828. 128 tons. Worn out 1834.

ROBERT THOMPSON
SW packet, wh b. Steubenville, OH, 1821. 90 tons. Also known as DONALLY and MERCURY . Off records in 1823.

ROB ROY
SW packet, wh b. Cincinnati, OH, 1823. 240 tons. Worn out 1829.

ROCKET
SW packet, wh b. Shippingport, KY, 1821. 79 tons.

ROME
SW packet, wh b. Nashville, TN, 1828. 121 tons. Originally ST. MARY (see).

ROTARY
SW packet, wh b. Cincinnati, OH, 1826. 212 tons.

ROVER
SW packet, wh b. Cincinnati, OH, 1827. 100 tons. Worn out 1830 or 1831.

RUFUS PUTNAM
SW packet, wh b. Marietta, OH, 1822. 60 tons. First steamboat to carry traders' supplies up the Minnesota River. Snagged near Point Chicot, 1826.

SAM PATCH
SW packet, wh b. Pittsburgh, PA, 1830. 50 tons.

SARATOGA
SW packet, wh b. Cincinnati, OH, 1829. 140 tons. Burned at New Orleans, December 1832.

SCIOTO
SW packet, wh b. Gallipolis, OH, 1822. 170 tons. Off records in 1828.

SEVENTY SIX
SW packet, wh b. Cincinnati, OH, 1829. 200 tons. Cost $18,800 to build. Sank at New Orleans on February 1, 1832.

SHAMROCK
SW packet, wh b. Pittsburgh, PA, 1827. 125 tons.

SHARK
SW towboat, wh b. Cincinnati, OH, 1829. 315 tons.

SHEPHERDESS
SW packet, wh b. Economy, PA, 1827. 140 tons. Originally named PITTSBURG. Off records in 1831.

SHOAL WATER
SW packet, wh b. Louisville, 1830. ? tons. Sank on Lower Ohio River 1831.

SOUVENIR
SW packet, wh b. New Albany, IN, 1828. 140 tons. Worn out 1830.

SPARTAN
SW packet, wh b. Chilo, OH, 1823. 44 tons. Worn out 1828 or 1829.

SPEEDWELL
SW packet, wh b. Big Bone, KY, 1827. 80 tons. Snagged below Wheeling in 1828.

STAR
SW packet, wh b. Pittsburgh, PA, 1828. 120 tons. Renamed STRANGER. Exploded boilers but was repaired.

STAR OF THE WEST
SW packet, wh b. Cincinnati, OH, 1830. 150 tons. Worn out 1835.

STEUBENVILLE
SW packet, wh b. Steubenville, OH, 1823. 148 tons. Worn out 1829.

ST. JOHN

SW packet, wh b. Cincinnati, OH, 1828. 100 tons. Snagged at Black Bayou, LA on February 18, 1832.

ST. LOUIS
SW packet, wh b. Cincinnati, OH, 1829. 145 tons. Snagged at Grand Gulf in 1834.

ST. LOUIS PACKET
SW packet, wh b. New Albany, IN, 1826. 150 tons. Also known as ST. LOUIS & GALENA PACKET and GALENA PACKET. Towed one of the earliest safety barges, the LADY WASHINGTON in 1827 (see MERCHANT).

ST. MARY
SW packet, wh b. Nashville, TN, 1828. 121 tons. Renamed ROME.

STRANGER
SW packet, wh b. Pittsburgh, PA, 1828. 100 tons. Originally STAR (see). Worn out 1832.

SUPERIOR
SW packet, wh b. Steubenville, OH, 1821. 70 tons. Exploded boilers at Brandenburg, KY on December 20, 1832. This small steamer was the subject of a young French artist, Felix Achille St. Adlaire, who visited the Ohio River valley in 1821 and made several riverboat paintings. Two or perhaps more of these images were copied as lithographs by a Parisian print maker in 1832. Some historians have confused the print date with that of the vessel. One of the paintings, a scene at what is Guyandotte, (now WV), was reproduced in the popular illustrated history *The Pioneer Spirit*, published by American Heritage Books in 1959. (See page 33 this issue.)

SUN
SW packet, wh b. ?, 1821. 136 tons. Snagged at Mobile, AL in August 1840.

SWALLOW
SW packet, wh b. Gallipolis, OH, 1822

SWAN
SW packet, wh b. Silver Creek, IN, 1823. 94 tons.

SWAN
SW packet, wh b. Bridgeport, PA, 1830. 26 tons. Snagged at Angola, LA on May 22, 1837.

SYLPH
SW packet, wh b. Cincinnati, OH, 1829. 87 tons. Worn out 1834.

TALISMAN
SW packet, wh b. Pittsburgh, PA, 1828. 150 tons. Burned at St. Louis, 1832.

TALLYHO
SW packet, wh b. Pittsburgh, PA, 1829. 150 tons. Exploded boilers Dover Landing, OH on May 1, 1830.

TALLYHO
SW packet, wh b. Steubenville, OH, 1830. 142 tons. Worn out 1835.

TALMA
SW packet, wh b. Pittsburgh, PA, 1829. 140 tons. Off records in 1833.

TECUMSEH
SW packet, wh b. Cincinnati, OH, 1826. 212 tons. TECUMSEH is an unusually well-documented river steamer of the 1820s because of a detailed account published many years later in the *Cincinnati Commercial*. See *Ohio Valley History,* Fall 2009, Vol. 9, No. 3. Off records in 1830.

TELEGRAPH
SW packet, wh b. Cincinnati, OH, 1821. 160 tons. Sank on Cumberland River.

TELEGRAPH
SW packet, wh b. Cincinnati,OH, 1829. 189 tons. Sank in collision with ORLEANS (see) at Palmyra Bend, 1833.

TENNESSEE NO. 2
SW packet, wh b. Bridgeport, PA, 1826. 87 tons. Burned 1840.

TENNESSEEAN
SW packet, wh b. Cincinnati, OH, 1829. 250 or 350 tons.

TERRIFF
SW packet, wh b. Pittsburgh, PA, 1829. 30 or 50 tons. Renamed ALPS.

THOMAS YEATMAN
SW packet, wh b. Cincinnati, OH, 1830. 115 tons. Exploded boilers at Memphis, TN on October 24, 1833.

TIGRESS
SW packet, wh b. Cincinnati, OH, 1829. 200 tons. Burned at Rockport, IN in May 1830.

TIPPECANOE
SW packet, wh b. Cincinnati, OH, 1830. 150 tons.

TOM
SW packet, wh b. Cincinnati, OH, 1829. 135 tons.

TOUR
SW packet, wh b. Cincinnati, OH, 1829. 180 tons.

TRAVELER
SW packet, wh b. Pittsburgh, PA, 1828. 50 tons. Sank at St. Louis, 1832.

TRAVELER
SW packet, wh b. Elizabethtown, PA or Wheeling, 1829. 36 tons. Originally named ODD FELLOW (see). Off records in 1832.

TRENTON
SW packet, wh b. Pittsburgh, PA, 1829. 150 tons. Snagged in April 1833.

TRI-COLOR
SW packet, wh b. Portsmouth, OH, 1830. 130 tons. Renamed DOLPHIN (see) after explosion at Wheeling.

TRITON
SW packet, wh b. Cincinnati, OH, 1826. 50 tons. Sank opposite New Albany, IN.

TUSCALOOSA
SW packet, wh b. Cincinnati, OH, 1821. 160 tons.

TUSCUMBIA
SW packet, wh b. Cincinnati, OH, 1826. 210 tons. Snagged in December 1836.

UNCAS
SW packet, wh b. Pittsburgh, PA, 1829. 90 tons. Also named LARK (see) and COLUMBUS during her years of service on the river. See *Lytle-Holdcamper List*, p. 42, note 4. She was renamed UNCAS in honor of the chief of the Mohican tribe. She went by the name UNCAS in December 1830 as the first boat to pass through the Portland Canal at Louisville.

UNCLE SAM
SW packet, wh b. Pittsburgh, PA, 1829. 500 tons. UNCLE SAM was built for Paul Anderson and associates of Cincinnati. Her hull was heavily built with more and larger timbers than was usual for a river steamer at any time. She drew six feet of water as a result. She had eight single flue boilers and a single cylinder engine. The *Niles Register* of March 21, 1829 reported that she was recently launched at Pittsburgh and was capable of carrying 500 passengers and 350 tons of freight. After remaining in service through 1834, she was worn out and dismantled the following year. Her hull was sold to a livestock dealer in Lawrenceburg, IN, who used it as a barge for transporting cattle to New Orleans.

UNION
SW packet, wh b. Louisville, KY, 1826. Exploded boilers near Big Bone, KY on December 2, 1826.

VELOCIPEDE
SW packet, wh b. Cincinnati, OH, 1824. 109 tons. Sank at unknown location.

VELOCIPEDE
SW packet, wh b. Louisville, KY, 1829. 100 tons. Worn out 1836.

VENTURE
SW packet, wh b. Cincinnati, OH, 1823. 27 tons.

VERMILLION
SW packet, wh b. Cincinnati, OH, 1830. 130 tons.

VICTORY
SW packet, wh b. Pittsburgh, PA, 1829. 100 tons. Sank in 1832.

VIRGINIA
SW packet, wh b. Cincinnati, OH, 1826. 122 tons.

VIRGINIAN
SW packet, wh b. Cincinnati, OH, 1829. 90 tons.

VOLANT
SW packet, wh b. Cincinnati, OH, 1830. 80 tons. Burned at New Albany, IN in August 1833.

VOLUNTEER
SW packet, wh b. Steubenville, OH, 1829. 162 tons.

WABASH
SW packet, wh b. New Albany, IN, 1827. 130 tons. Burned December 1836.

WALK IN THE WATER
SW packet, wh b. New York, 1826. 425 tons. Burned at Natchez, MS on December 8, 1835.

WALTER SCOTT
SW packet, wh b. Cincinnati, OH, 1829. 200 tons. Snagged on November 14, 1838.

WANDERER
SW packet, wh b. New Albany, IN, 1830. 186 tons. Sank in Mobile harbor, 1835.

WARRIOR
SW packet, wh b. Marietta, OH, 1826. 150 tons. Collided with ERIE (see) at Jackson, AL on January 22, 1829.

WASHINGTON
SW packet, wh b. Cincinnati, OH, 1825. 360 tons. Launched at William Gordon's boatyard on December 24, 1824. She was built for Gen. Paul Anderson (1782-1861) and several associates. WASHINGTON's hull was 130'x30'6"x8'6". The six boilers were 40 inches diameter and 17 feet long. Berths for 60 first class passengers were accommodated in the second deck and rear cabin. The forward cabin was an open room with 101 hammocks for deck passengers. She burned at New Orleans in December 1831.

WATCHMAN
SW packet, wh b. Brownsville, PA, 1830. 129 tons.

WAVE
SW packet, wh b. Marietta, OH, 1826. 95 tons. Her name may have been WAVIER.

WAVERLY NO. 1
SW packet, wh b. Cincinnati, OH, 1827. 117 tons. Worn out 1834.

WAVERLY NO. 2
SW packet, wh b. Cincinnati, OH, 1828. 100 tons. This was one homely river steamer, with all the charm of a shed on a raft. The boxy cabin and single chimney did not enhance her appearance. We are uncertain whether the image which was reproduced of this boat pictures the WAVERLY NO. 1 or WAVERLY NO. 2. The print in Cincinnati Museum Center Library is likely part of a handbill posted or handed out to advise the public of her next departure.

WESTERN VIRGINIAN
SW packet, wh b. Wheeling, 1829. 90 tons. Sunk by ice in 1831 or 1832.

WHIG
SW packet, wh b. Parkersburg, VA or Cincinnati, OH, 1830. 80 tons. Sunk by ice above Parkersburg in 1831.

WILD CAT
SW packet, wh b. ?, 1829. 45 tons. Exploded boilers at Demopolis in January 1832.

WILLIAM D. DUNCAN or **WILLIAM B. DUNCAN**
SW packet, wh b. Pittsburgh, PA, 1827. 100 tons.

WILLIAM PENN
SW packet, wh b. Pittsburgh, PA, 1825. 150 tons. Snagged in 1828.

WILLIAM TELL
SW packet, wh b. New Richmond, OH, 1826. 90 tons. Off records in 1829.

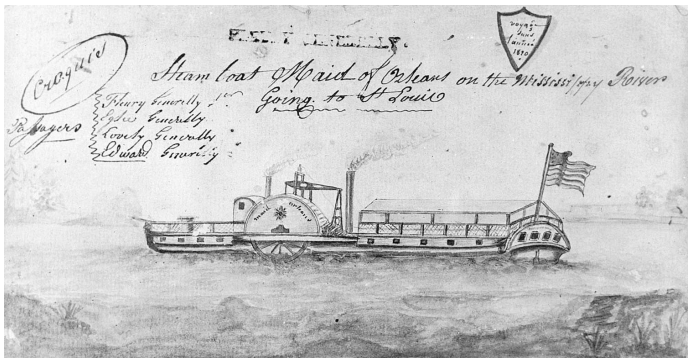
WINNEBAGO
SW packet, wh b. Beaver, PA, 1830. 85 tons. In 1832 Lt. Jefferson Davis, U.S. Army, accompanied the defeated Sauk chief Black Hawk and 11 other warriors to Jefferson Barracks, MO aboard the WINNEBAGO. Their imprisonment brought an end to the Black Hawk War which followed the bloody Battle of Bad Axe near Victory, WI. Off records in 1836.

YANKEE
SW packet, wh b. Silver Creek, IN, 1826. 100 tons.

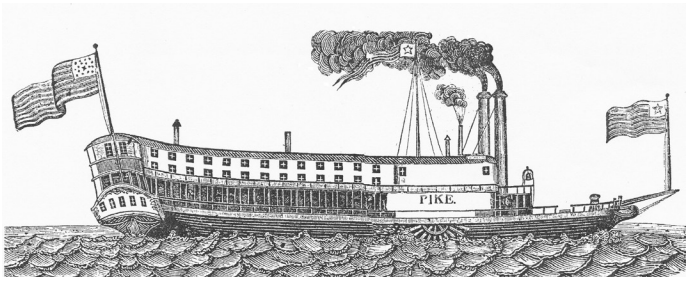
YEATMAN
SW packet, wh b. Cincinnati, OH, 1830. 123 tons. Very likely this steamer was the THOMAS YEATMAN (see).

Drawings of Early Steamboats

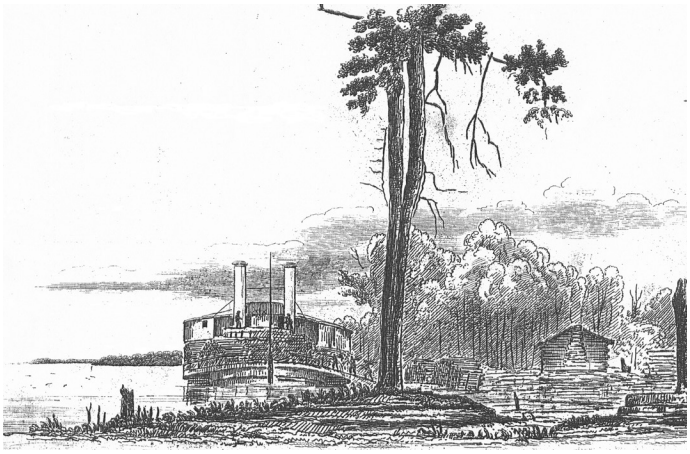
The 1848 Cincinnati daguerrotype being the earliest available photograph of Western Rivers steamboats, we have to rely on other images for the appearance of earlier boats. Unfortunately, most of these are artist's interpretations drawn many years after the fact, and their reliability and accuracy is questionable. However, there are a few contemporary drawings and some of these are shown here. All drawings courtesy of John White.



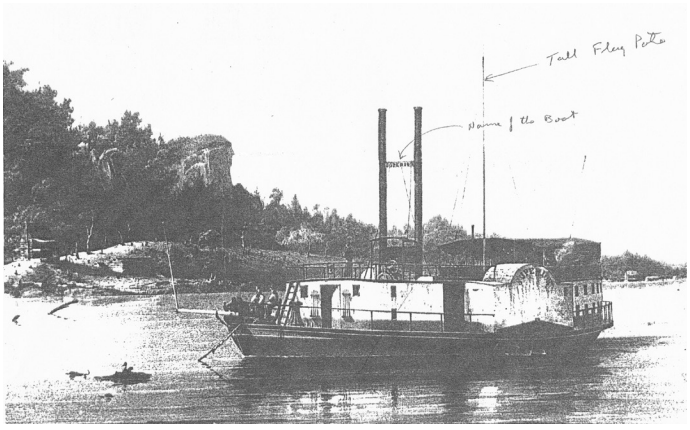
This sketch of MAID OF ORLEANS or JOAN OF ARC is the only contemporary image for a pre-1820 inland steamer (built in Philadelphia, 1819) that the author could locate.She is likely not a typical Western Rivers steamboat of the era, but more of a small coastal vessel. However, it is all we have!



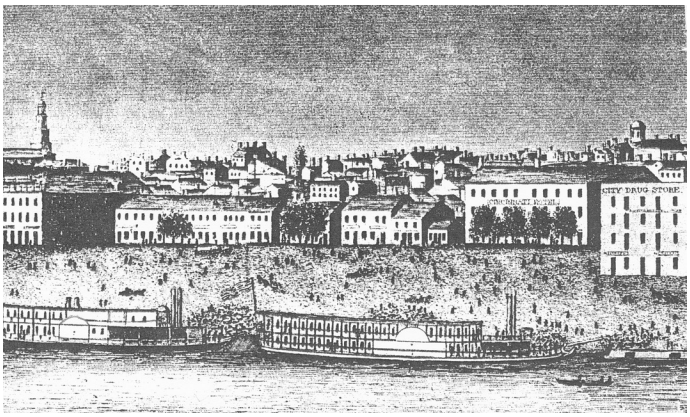
The PIKE is believed to be a depiction of GENERAL PIKE (built 1824) printed in the* Cincinnati Republican *newspaper. From Cincinnati Historical Society.



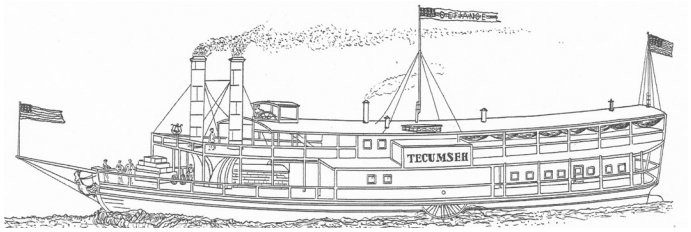
This head-on view of PHILADELPHIA was drawn by Capt. Basil Hall, a British visitor to the United States in April 1828. She is pictured at a wood stop 838 miles above New Orleans in Arkansas. PHILADELPHIA was built at Cincinnati in 1826. Drawing from Hall's Forty Etchings from Sketches Made with a Camera LUCIDA in North America, *1829.*



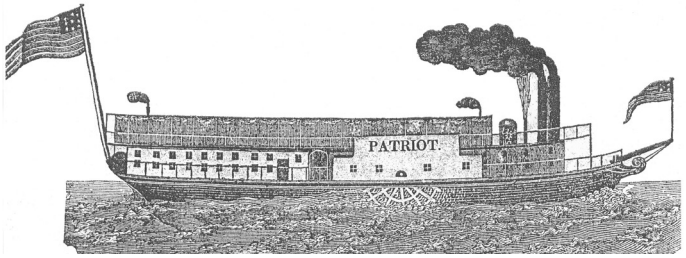
SUPERIOR as painted in 1821 by a young French visitor to the United States, Felix Achille St. Aulaire. Site is at an unknown location on the Ohio River. SUPERIOR was built at Steubenville, OH in 1821. Photo from University of Wisconsin - La Crosse.



UNCLE SAM (built 1829) is the larger of the two steamers shown in this 1831 engraving of Cincinnati, according to a letter to the editor of Marine Journal, *December 1878 by Samuel F. Covington. In his youth, Covington was a steamboat clerk. Image from author's collection.*



TECUMSEH was a speedy sidewheeler that entered service in March 1827. In April of the following year she made a second record-setting trip between New Orleans and Louisville in eight days, four hours. Image redrawn by author from a lithograph in the collection of Missouri Historical Society.



PATRIOT was built in Weeks' boatyard and was launched December 22, 1824. She left for New Orleans on her maiden voyage March 30, 1825 with Capt. Levi James as master. Her final trip was made in June 1831. The engine and furniture were salvaged when the PATRIOT was scrapped a few months later. The boat was named in honor of Henry Clay.

S&D members will find that this listing of 1821-1830 steamboats, as well as last issue's 1811-1820 list, are both available in spreadsheet format at our website, **www.s-and-d.com** .

Keokuk Lock and Dam Centennial

Thousands of people pass by the Keokuk Lock & Dam and its power plant every day, but this past June special attention was directed to the historic site in its centennial year of operation. The group Mississippi River Power 100 organized a four-day event June 27-30 with historic re-enactments, photo displays, tours of the power plant, trolley rides across the dam, and fireworks. Committee member Mike Foley observed, "This was America's first great dam. It was a big thing when it was built; besides, it went clear across the Mississippi. A lot of engineers said it couldn't be done, but, of course, Hugh Cooper did it. And it's been sitting here for 100 years doing its job."

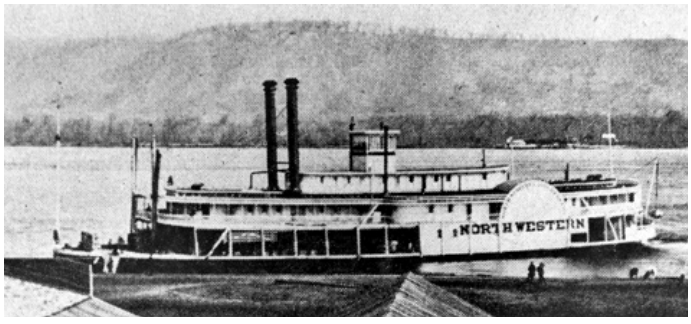
When Lt. Zebulon Pike charted this section of the Upper Mississippi in his 1805 expedition, he labeled the area "rapids De Moyen," known today as the Des Moines Rapids. It was one of two major obstacles to navigation during low water above St. Louis, the other being the Rock Island Rapids 133 miles upstream near Le Claire, IA. Those at Keokuk were twelve miles long and at normal river stages had an average depth of less than three feet. At first, early steamboats would offload their passengers and freight to waiting keelboats for lightering. Deeper draft steamers ran only below Keokuk.

Finally, in 1866 improvements at both locations were approved by Congress. At Keokuk, this involved digging a 7.6-mile long canal parallel to the Iowa shore with three locks, 78 feet wide by 291 feet long, used during periods when boats couldn't run the rapids. On August 22, 1877 the first steamboats through the new canal and locks were the U. S. snagboat MONTANA and the packet NORTH WESTERN. Two U. S. steamboats LUCIA and LOUISE also served as workboats here.

Although the canal and locks were a major improvement, several steamboats built upriver at Dubuque in subsequent years still found the locks inadequate. The towboat SPRAGUE, launched in December 1901, was towed downstream to St. Louis in June 1902 minus her sternwheel, her 276-foot hull fitting in the lock, but not with its 40-foot diameter wheel in place. Five years later the new sidewheel railroad transfer ALBATROSS was in a somewhat different situation. Her 308-foot hull would not fit either, but this time there was no sternwheel which could be removed. As a result, she spent three weeks up at Montrose, IA, waiting for a rise (see December 2012 Reflector.)

And then there's the intersting case of the Diamond Jo packet SAINT PAUL. The largest

MONTANA (4018), built 1864 at Shousetown for Capt. David Throckmorton and J. E. Gorman of St. Louis for work on Missouri River. Sold to U. S. Engineers in 1867 on Upper Mississippi. 431 tons, 210 x 33 x 5.7 One of first two boats through the new Keokuk locks. Photo from Murphy Library.



Keokuk Northern Line's NORTH WESTERN (4235), 802 tons. 245 x 38.5 x 5, built at Cincinnati 1870. First boat through Lake Pepin ice in spring 1873, and one of first two boats through new canal and locks at Keokuk in 1877. Murphy Library photo.

Upper Mississippi steamer of her day with a hull measuring 300 feet on deck, she obviously was just a tad too long. Capt. Way notes in the June 1978 issue, however, that she could be "maneuvered through." A little basic high school geometry shows that the distance diagonally in the 291-foot lock chamber left the SAINT PAUL a whopping clearance of 3¼ inches to spare. In actual practice, the lock's length was probably somewhat larger than listed, as the lock gates were mitered and clearances were probably not measured to the point of the V. Be that as it may, it must have been annoying to have to position the boat so precisely for every lockage. Not surprisingly, Diamond Jo Line rebuilt her at the Eagle Point boatyard in Dubuque from winter 1892 to spring 1894, the work supervised by yard superintendent Capt. John Killeen. The company finally threw in the towel when she was back at Eagle Point again in 1903 to have 23½ feet of her length lopped off.

SAINT PAUL high and dry for rebuilding at the Eagle Point marineways in Dubuque. The ferryboat EAGLE POINT appears on the right. This most likely was taken in 1903 from a span of the Eagle Point highway bridge which opened the year before. From Murphy Library, Univ. of Wisconsin-LaCrosse.

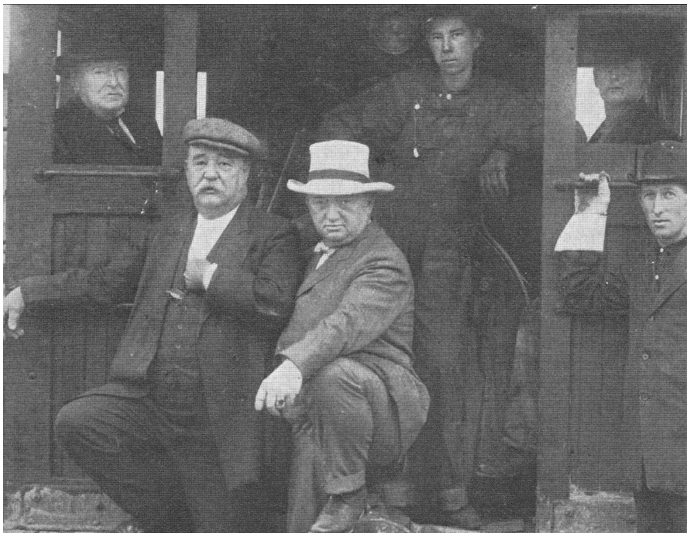
By the turn of the twentieth century, Keokuk businessmen and city officials had envisioned an ambitious plan for the Des Moines rapids. The Keokuk and Hamilton Water Power Company designed and began construction on a dam spanning the river between the two cities, with a larger lock and gigantic hydroelectric power station attached. In charge of the project was Hugh L. Cooper, a hydroelectric engineer who had already built plants in Canada at Winnipeg and Horseshoe Rapids, Ontario, and at McCall's Ferry, PA. On January 10, 1910, the first excavation began on the Illinois side of the river. Over the next three years, 233,000 yd³ of sand, 555,000 yd³ of crushed stone, and 2.8 million sacks of concrete went into the construction. Rock was excavated from the riverbed inside cofferdams, sand was dredged from the Des Moines River downstream, and the cement was manufactured at a plant in Hannibal, MO.

The movable portion of the dam was 4,630 feet long with 119 removable sliding gates, lifted in place or removed by a gantry crane on the service bridge atop the dam. When completed, the Keokuk facility was the largest capacity single powerhouse-generating plant in the world (135,000 kw), and the only lock and dam between St. Paul and New Orleans. The lock measured 110 feet wide by 358 feet long, and provided a 38.2-foot lift. The dam impounded a pool of 50 square miles, which the War Department named Lake Cooper, to honor the project's engineer.

As a condition for granting permission to build the dam and powerhouse, the federal government required Keokuk and Hamilton Water Power Company to build and give them the lock and a new, larger drydock adjacent to the lock. The drydock was completed a year after the other construction was finished, and at 150 x 463 feet was capable of handling several steamboats at the same time.

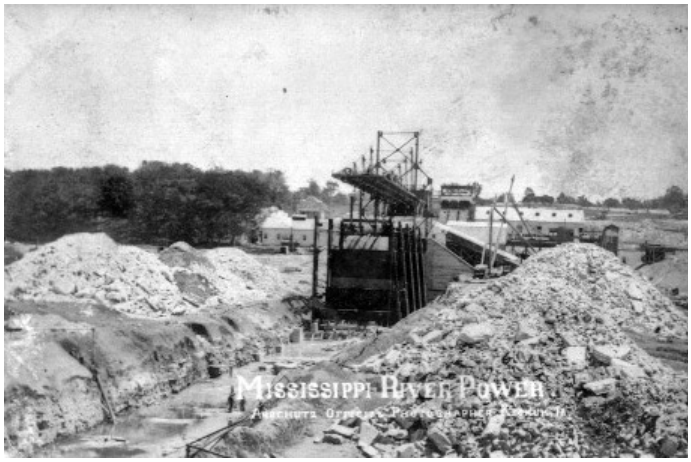
On May 31, 1913, the dam was completed, with the lock opening ten days later on June 10. At 8:45 that morning, the first two boats to lock up were Streckfus Line's SIDNEY and Capt. D. W. Wisherd and Sam Gregory's G. W. HILL. Upon departing the lock, the SIDNEY's calliope player serenaded the gathered crowd with patriotic tunes.

As supervising engineer, Hugh Cooper hired local photographer Herman M. Anschutz to record the entire project, and his remarkable photos document every stage of the construction. Curiously, Cooper insisted that photos should record only the work being done to the near-exclusion of any pictures of the work crews. Although some of the images do show individuals, the obvious intent of the documentation is to emphasize the progress and magnitude of the building project. The January 1913 issue of *The World's Work* magazine showed one of the few photos of Cooper himself at the site.

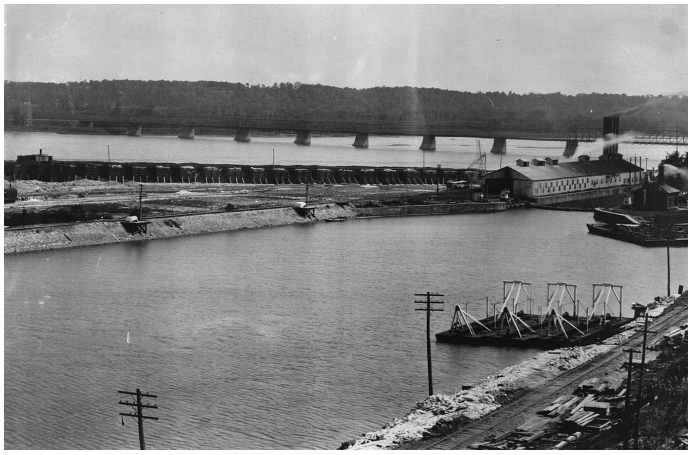


***Hugh L. Cooper (1865-1937) at the center, engineer in charge and mastermind of the project, wearing his signature Panama hat, with Maj. Montgomery Meigs. Meigs had been in charge of the operations at Keokuk Locks and Canal since 1882, and designed the original government drydock at that location which opened in 1886. Meigs worked for the Corps of Engineers for 52 years. He died in 1931. After building the Keokuk Dam and hydroelectric plant, Cooper constructed power plants on the Tennessee River in Alabama (1926) and Dnieper River in Russia (1933). Photo from* Keokuk and the Great Dam.**

Union Electric Company purchased the dam and power plant in 1925 and continues to operate it to the present day as Ameren UE. In 1957, the old 358-foot Keokuk lock was replaced by a 1200-foot chamber, the first of that size to be built by the Corps of Engineers on the Upper Misssissippi. Upon completion of the 9-foot channel project in the 1930s, the facility was designated Lock 19 in the series of 26 navigation locks between St. Louis and Minneapolis. In recognition of the significance of this site, the Keokuk Lock and Dam was listed on the National Register of Historic Places in 2004. For more information, consult JohnE. Hollwas's *Keokuk and the Great Dam,* ©2001, Arcadia Publishing.



Early view of construction of the dam from the Illinois shore in 1910, showing the 210-foot cantilevered gantry crane which transported construction materials to the site by moving on top of completed portions of the dam.



Looking downstream toward the railroad bridge between Keokuk and Hamilton, IL built by Andrew Carnegie's Keystone Bridge Company in 1868-71. The original Des Moines Canal appears in the foreground with the last of the three old lock chambers on far right. Forms for the concrete lockwall and fixed dam appear across the center of the picture.

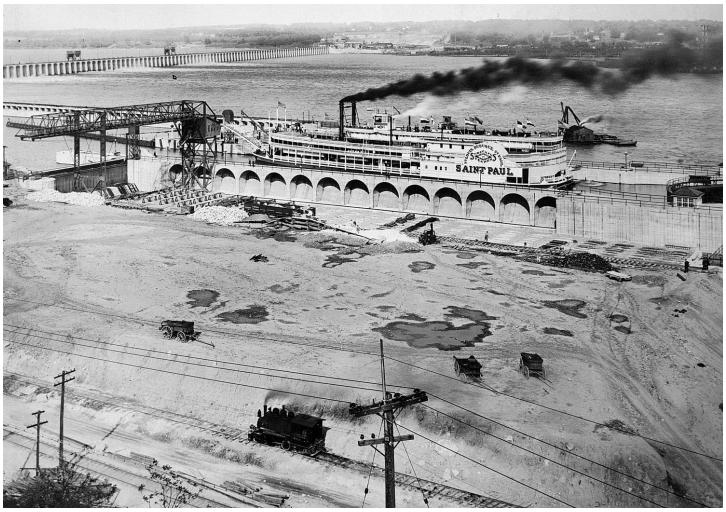
This August 11, 1911 photo shows the four large gantry cranes which ran on rails in the riverbed. They were used for excavating rock and dumping it into rail cars. The cofferdam around the construction site for the new dam stretches out from the Illinois shore.

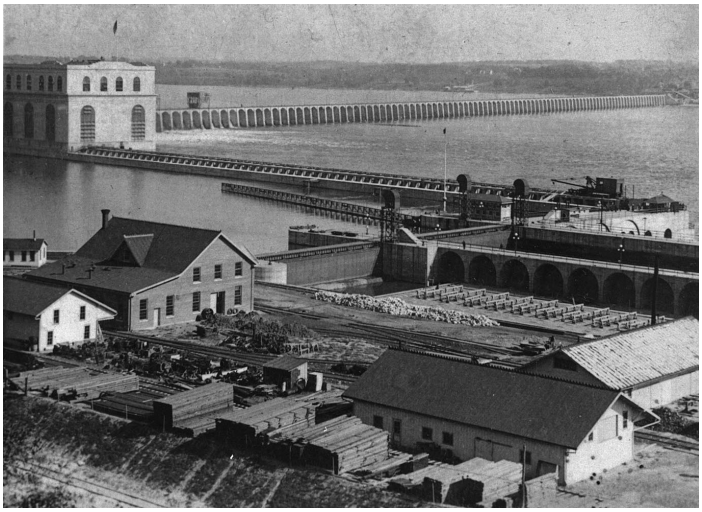
Top: *Photo taken in 1910 or 1911 looking upriver shows old Des Moines Canal with forms for lockwall and dam spanning from center to far right. Progress on the gated dam approaches midstream, while three of the large gantries appear to the left.*

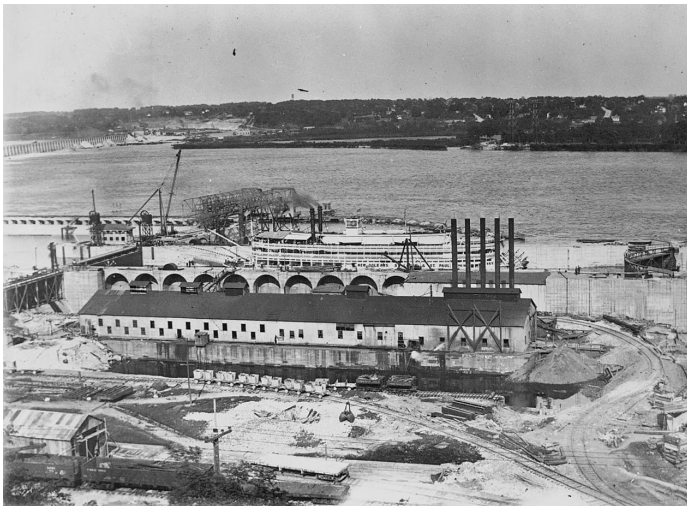
Center: *Streckfus' SAINT PAUL passes building site in the old canal, with powerhouse under construction in background and new lock nearing completion on far right. It appears the dam has reached the Iowa side of the river, with the riverbed showing inside the cofferdam below.*

Below left: *Shot taken the following year showing the SAINT PAUL leaving the new lock. Work is continuing on the government drydock adjacent to the lock on land filled in at the former canal site. The locomotive was used to pull rail cars with the rock and earth that was excavated. Tracks ran alongside the former location of Des Moines Canal.*

Below right: *1915 view of completed project with drydock and upper lockgates at extreme right.*





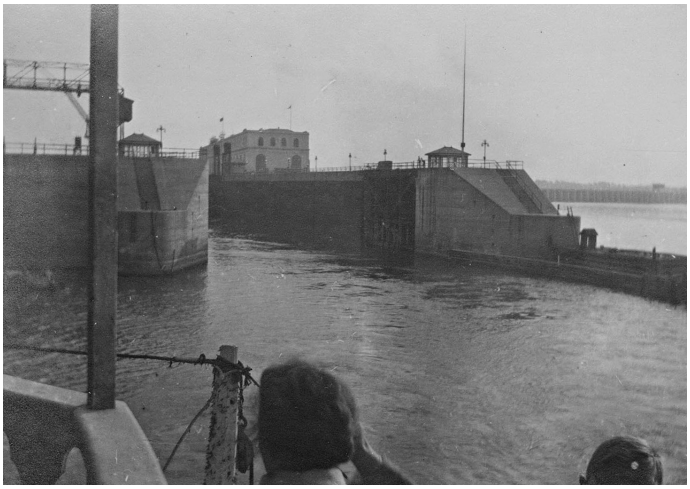


SIDNEY entering new lock in 1913, with work progressing on drydock in foreground. The drydock would be completed in the summer of 1914.

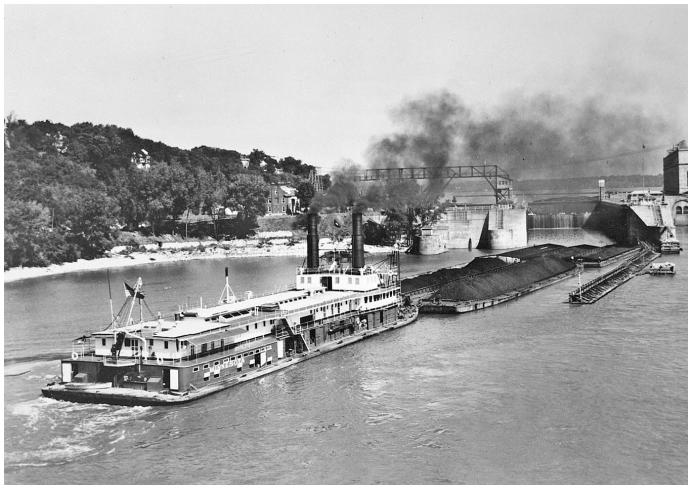
SIDNEY boards the High Tension Club excursion at Keokuk on July 24, 1915. Club members were all associated with the Mississippi River Power Co. or Keokuk Electric Company.

Lower gates open as SAINT PAUL prepares to exit Keokuk Lock in 1917. Gone were the days when she had to squeeze her way through, much to the relief of crew and lock personnel.

RR transfer ALBATROSS being lengthened in drydock, 1920. 13 years earlier she would not fit through the locks; now this was the only inland drydock large enough to accommodate her.



Looking astern as SAINT PAUL paddles on downriver past the Keokuk city front. All photos on the bottom of page 35, and those on pages 36-38 except as noted are courtesy of Murphy Library, University of Wisconsin - La Crosse.



Steam towboat MINNESOTA (T1826), built by Goltra in 1921 as sternwheeler and converted by FBL in 1930 to twin screw, enters lock with second cut of 5 loads. J. F. Browinski, Jr., once her master, was lost when NATCHEZ sank in 1948.

More Views of the ISLAND QUEEN

Photos of the ISLAND QUEEN appearing in our March and June issues have generated a flood of memorable images of the beloved Cincinnati excursion boat. Doc Hawley sends us the image on our back cover, while Murphy Library in LaCrosse turned up the historic view on the bottom of page 17. Last summer aboard the BELLE OF LOUISVILLE, our own John Fryant showed your editor ten stunning images of the boat that had all the appearance of professionally photographed publicity shots. We are delighted to share those with you here. The photos arrived courtesy of John Weise, who obtained them from Bill Armstrong. Bill once worked for Coney Island, and he snatched these from the trash bin when the amusement park cleared out "junk" prior to moving to King's Island.

U.S. Steamboat boiler inspector Harry Fletcher (left) and Chief Engineer Fred Dickow inspect the IQ's boilers. The photo on our back cover pictures the unfinished boat on her way to receive these six oil-fired boilers at Gallipolis prior to her arrival in Cincinnati where construction of the upper decks, placement of Barnes engines and machinery, and outfitting took place in 1924-25. Fred Dickow was the boat's Chief the entire time she ran, and had helped install her engines and machinery. Unfortunately, the Chief did not survive the fire and explosion when sparks from his welding torch ignited fumes in the fuel oil bunkers.

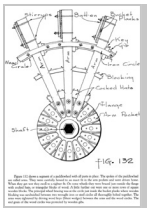
The main stairway of the ISLAND QUEEN appears in this bottom view. Notice the utilitarian covering on her stairtreads. Although the boat possessed a special appeal to those who rode her between the Public Landing and Coney Island, she was built to accommodate and withstand the wear and tear of huge crowds which swarmed her decks during the amusement park season and her tramping trips. John Fryant lamented the fact that this unknown, rare photo of the staircase inevitably surfaced only after he had finished constructing a model of the boat!

Pictured above is the ballroom deck looking forward. In the far center of the photo you can see the two stack jackets which carried the smoke and fumes from the boiler breaching up through the stacks above. Her bandstand is on the port side about midship, within easy earshot of either end of the dance floor. The view below is looking toward the stern. These photos were taken March 31, 1929. Both the ISLAND QUEEN and PRESIDENT featured the balcony or mezzanine overlooking the dance floor from the deck above.

The Creamy Whip stand which was manned by the young Ernie Wagner when he landed his first job on the boat in 1927. Within a few days, the boat's Mate, Capt. Joe Heath, eyed the strapping young man, and soon convinced him that his talents could be put to better use as a deckhand. He went on to serve as Watchman and eventually Mate. The counters on this stand and the Cigar, Candy and Cigarette stand below were faced with the same kind of horizontal stripes of masonite used on the AVALON years later.

Orangeade and popcorn stand on ballroom deck.The sign partially obscured reads: "Drink Heart O' Orange. Made Fresh (from) 100% Pure Sunkist Orange Juice." In the pilothouse view, the boat's Master, whom your editor surmises is Capt. Joe Ross, poses with another "Officer," according to the lettering on his hatband - most likely a watchman, assistant purser or assistant steward. IQ's first Master was Ben I. Pattison, followed by Coburn Pratt and Joe Ross. Charles Napoleon Hall was Master from 1929-47.

Clyde Trask Orchestra on ISLAND QUEEN photographed on April 15, 1929. In the boat's early years music was provided by Coney Island's house band, by Ernie Smith's Orchestra of Aces and by Red Koppman's Band. Trask's Orchestra eventually became the mainstay on the boat. Below is legendary calliopist Homer Denny at the 32-whistle Nichol steam instrument behind the pilothouse. Cincinnati radio station WLW broadcast dance music live from the boat along with some of Denny's calliope concerts.



Small Stacks

Vane Wheel Propulsion

by John Fryant

This column deals with an unusual form of propulsion, rarely found on U.S. rivers. In the mid-1920s the famous Scottish shipyard, Denny Bros. of Dumbarton (builders of the DELTA KING and DELTA QUEEN hulls) experimented with vane wheel propulsion for shallow draft vessels.

These 1925-vintage vane wheels were large three or four bladed propellers with flat angled blades of which only one is submerged at any given time. Imagine a child's pinwheel suspended from the stern of a boat with about two thirds of one blade in the water. Vane wheels were touted as having some advantages over paddlewheels in that they were far simpler to build, weighed less, and like paddlewheels, were above the waterline, thus making repairs much easier. They would also require less area at the stern than a paddlewheel.

Dennys first tested this system on a conventional twin-screw workboat by adding two counter-rotating vane wheels built out over the stern. Trial runs were made over an identical course alternately using the conventional props and the vane wheels. Surprisingly, the company reported that the engines used less fuel driving the vane wheels, as documented in a small six-page booklet published by Denny Bros. titled "Vane Wheel Propulsion."

The shipyard built several vessels with this system. One was a small tugboat for use in China, which reportedly performed very well. Another design for a larger tug was published, and several boats were built for the Irrawaddy River Flotilla in India/Burma. Further research is needed to determine why this idea never became popular.

One of the few times that vane wheels were considered for use on U.S. rivers occurred in 1931. Denny Bros. submitted a plan to Ward Engineering Works for converting the problematic Diesel sternwheel towboat DUNCAN BRUCE to vane wheel propulsion. Evidence of this plan surfaced in the drawings shown on page 45 which were discovered while researching the Ward collection at WVU in 1996. However, this conversion never came to be. In 1933 the DUNCAN BRUCE suffered a fire and was subsequently rebuilt at the Howard Shipyard with conventional twin-screw power.

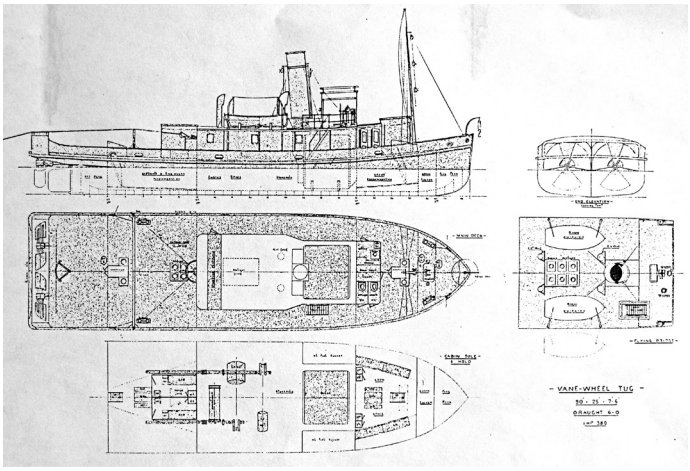
Fast forward to the 1970s when a British ship modeler constructed an RC model of the Chinese tug, which I believe was named FUCHOW. He obtained the plans from the Denny collection at the British National Maritime Museum and wrote an article about it in *Model Shipwright* magazine. The article photos showed that the model worked well.

I had long been curious about this unusual method of propulsion and had intended to try it on a model. After years of procrastination the hull finally took shape this past summer, built as a more or less typical modern towboat hull using styrofoam with a fiberglass "skin." The hull dimensions are 37" x 12" x 3". Three rudders occupy the space where the props would normally be located. Two 5 ½" diameter three-bladed vane wheels were built and mounted at the transom, driven by geared shafts and a 12v Buhler electric motor. A machinist friend turned the brass hubs and cut three slots in each one where the vanes would be mounted. Having no idea what the proper angle or pitch should be, I made some estimated measurements based on the illustrations in the Denny Shipyards booklet and decided on a 20-degree pitch angle.

Concerned that the model would become too heavy, a bit of modern technology was utilized for the vanes. They were made from 1/32" thick carbon fiber sheet, which is far lighter and stiffer than sheet brass or steel. Not to worry. With the RC equipment and 6V battery installed, it took almost 12 pounds of additional weight to get the boat down to the proper waterline!

After extensive tank testing (bathtub), the day for the maiden voyage arrived. Would this model run and steer properly? The answer was a resounding YES. One unusual steering characteristic is that going astern from a standing start with the rudders hard down in either direction, the model spins in its own length with hardly any linear movement.

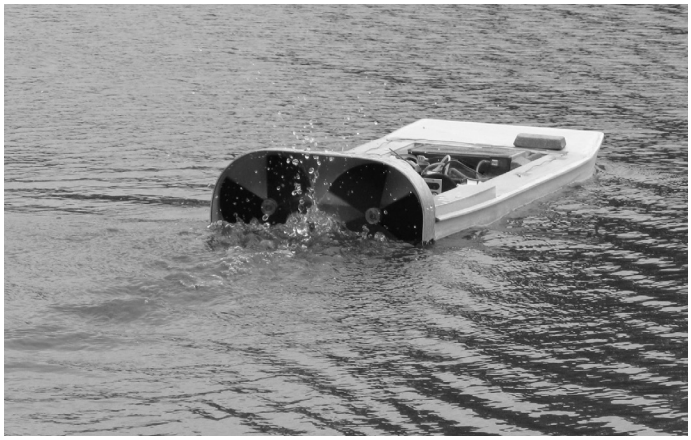
Now, what will become of my vane-wheeled creation? After some further test runs, a cabin and pilothouse will probably be installed on it - perhaps a typical 1920s vintage single deck towboat cabin with the pilothouse on the roof. As for a name, your suggestions are welcome. Already under consideration are “Mixmaster” and “I. Splatter”. Stay tuned for further developments.



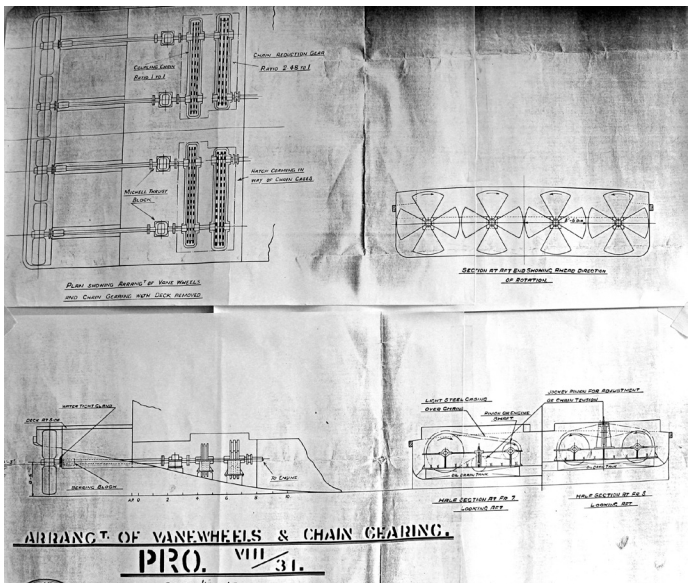
Plans for a proposed vane wheel steam tug 90’ x 25’ x 7.6’ The drawing is not dated. It is not known if the tug was ever built.

37” model towboat hull on workbench. Note the four rudders lying in front. Only three were used and have worked out well.

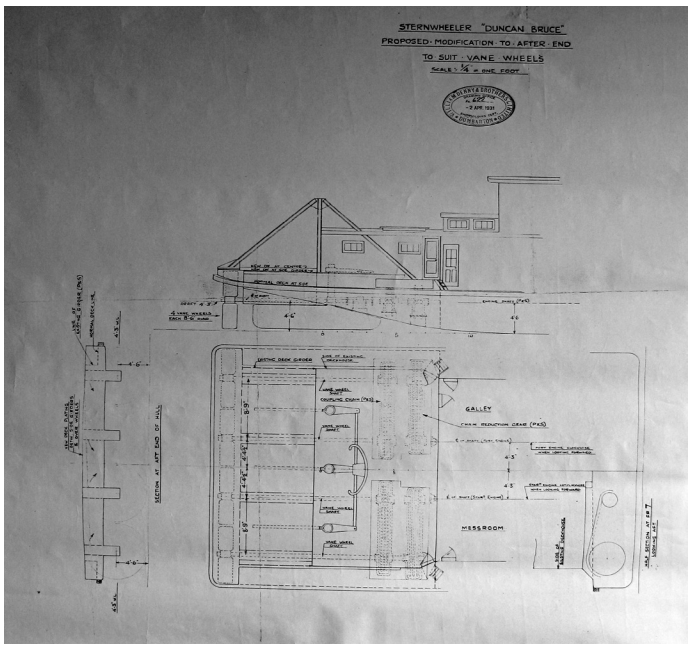
Vane wheel drive unit, built on sheet brass base and attached to hull with three screws. 12V electric motor sits on bench.



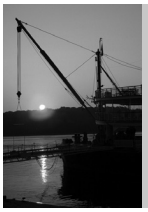
Test run: underway on vane wheel power! As you can see, they throw water all over.



Denny Brothers drawing dated April 2, 1931, showing proposed vane wheel propulsion system for DUNCAN BRUCE.



Second drawing from Dennys with side elevation and deck plan arrangement. All photos courtesy of John Fryant.



Final Crossings

Robert W. Parkinson

With the passing of Bob Parkinson, S&D has lost another living link in the history of the DELTA QUEEN. Robert Parkinson, age 97, passed away on April 16, 2013. When Capts. Tom Greene and Frederick Way, Jr. went to San Francisco in 1947 to look over Tom's new purchase, they luckily met up with a number of Californians who knew something about West Coast sternwheel steamboats. Capts. Tom and Fred met a number of San Francisco Bay historians, and Bob was among this group. He had made his first trip on the DQ in 1938, while she and her sister DELTA KING were providing overnight passenger and freight service to Sacramento.

Bob was born in Berkeley, CA in 1915 and grew up in the San Francisco Bay area, a maritime paradise of local tugs and steamboats, in addition to freighters, ocean liners, and Naval vessels. Bob found others having the same interests, and he became an active member of local and regional ferry and rail clubs. In 1940 he became a first year subscriber to the newsletter *Steamboat Bill of Facts*. The fledgling Steamship Historical Society of America soon took over publication of the newsletter, and Bob became an active SSHSA member for life, receiving their H. Graham Wood Award for outstanding service to the society in 2008.

A 1937 graduate of University of California at Berkeley, Bob served in the U. S. Army in World War II in an automotive repair company, his unit arriving on Utah Beach three months after D-Day. After his War service, Bob caught the world travel bug, and spent the rest of his life traveling by boat or train, including a number of trips on the DQ after she was remodeled for Ohio and Mississippi service.

Rare and excellent photographs from Bob's collection illustrated many maritime and railroad articles and books. In 1946 he took two photos of the DQ, still in her Navy gray, tied up to a wharf in San Francisco (see p. 31, March 2013 issue.) A premier story teller and writer, he authored numerous articles, but never published a book.

Bob leaves behind his brother's children and their families, as well as those of us who will greatly miss him at his passing.

Our thanks to Dick Rutter for this written tribute to Bob.

Robert M. Smith

Robert M. Smith, a resident of the Masonic Village at Sewickley, PA passed away on November 29, 2012. Bob was born on August 13, 1916 at Reader, WV and was raised in Clarington, OH where his father was a doctor.

While attending The Ohio State University, he was a member of the marching band and track team during the era of the first "Script Ohio" band formation in the days of Jesse Owens. He was retired from Jones and Laughlin Steel Corp.'s Industrial Engineering Department and from Dravo Corp. at Pittsburgh.

Bob and wife Virginia were frequent attendees at S&D meetings, and are well remembered in the Sewickley area where they lived before moving to Masonic Village on Sewickley Heights some years ago.

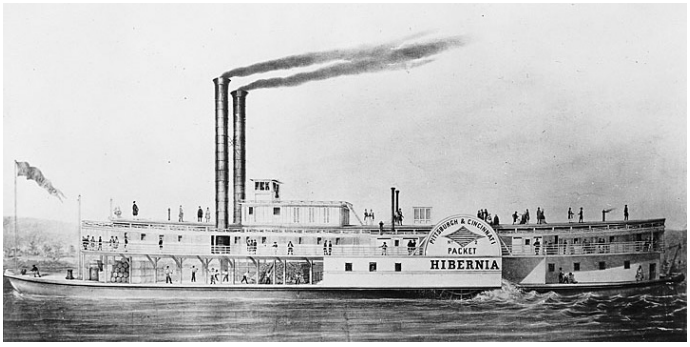
He was a member of First Presbyterian Church in Sewickley and the Syria Shriners' choral group The Chanters. In addition, Bob held membership in the Aliquippa Masonic Lodge, the Sewickley Senior Men's Club, and S&D. He also was a volunteer for Meals on Wheels.

Bob is survived by his beloved wife Virginia Rist Smith. They were schoolmates in Clarington, where Virginia's father was lockmaster at Lock 14, three miles up the Ohio River. Bob is also survived by daughters Mary E. Smith and Amy Gore (Jeffrey), three grandchildren, and six great grandchildren. Burial was at the Sardis, OH Cemetery overlooking the Ohio River.

Thank you to Woody Rutter for providing obituary information for Bob Smith.

Reflections from Our Readers continued from page 3

John's second great-grandfather was the same Capt. John Klinefelter. The attributes penned by this Pittsburgh editor in describing an early steam whistle pale in comparison to comments made fifteen years later when the first steam calliopes made their debut on the river.



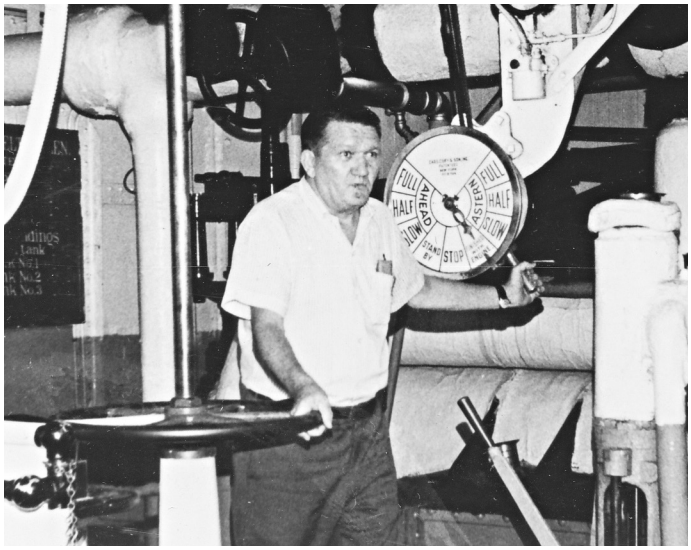
HIBERNIA's early steam whistle made a lasting impression on Pittsburgh river reporters. Photo from Murphy Library.

Dale Flick writes: "The following anecdote from Capt. Ellis Mace bears no date, but could have been 1900. Stories of old-time steamboat hospitality abound. It was part of the business and could pay big dividends if handled properly. This piece could easily bear the title 'For Want of a Cup of Coffee ... A Lesson Learned.'

"One man living in Cabin Creek, KY told how he had always shipped his stock by the Steamer BONANZA or one of the White Collar Line boats. When he would have to wait until late at night, either the clerk or captain would invite him back to the pantry and give him a cup of hot coffee.

"One night the boat was late and he waited in a cold, light rain until midnight. When the boat landed and he saw that his stock was properly loaded and cared for on the lower deck, he went to the Purser's Office. The clerk handed him a key to the cabin he was to occupy on the trip to market, but did not invite him to have a cup of coffee. Thinking the clerk had forgotten, he politely asked, 'What about a cup of coffee?'

"To his surprise, he was told that they had an order from the main office to stop the practice of giving out coffee or lunch to anyone. [Back then a *lunch* indicated what we would today consider a snack.] The shipper said that he was damp and cold and would like the coffee very much and even offered to pay for it, but was refused. The next load of livestock that he shipped went to the competitor boat of the Bay Line or to the C&O Railroad. That one cup of coffee cost the line hundreds of dollars in lost freight."



James C. "Cal" Benefiel, Sr. (1908-1977) well-known chief engineer on DQ, EVERGREENE, CHRIS GREENE, and GORDON C. GREENE. See notes below about back cover.

Back Cover

Pages 39-43 contain some wonderful views of the second Coney Island steamer ISLAND QUEEN. Upon viewing the photo in our last issue showing the IQ nearing completion, Doc Hawley sent us this view from early 1924. Her hull and main deck superstructure have already been completed at Midland, PA as the recently purchased but never-to-be packet LOUISVILLE is under tow of the steamer BEN FRANKLIN No. 2 (T0231). She is enroute to Charlie Arthur's Acme Boiler Works at Gallipolis, OH for placement of six boilers. Although the hull was originally sold to Capt. D. Walter Wisherd a week before her December 1923 launch, Wisherd soon became vice president of Coney Island, Inc. and sold the boat to them. In this view, the name LOUISVILLE had already been welded onto the bow and stern transom, but there is a small sign with her new name which appears at the after end of the paddlewheel box. The young striker aboard the FRANKLIN on this trip hailed from Madison, IN. His name was J. Cal Benefiel. *Photo courtesy of Capt. Clarke Hawley.*