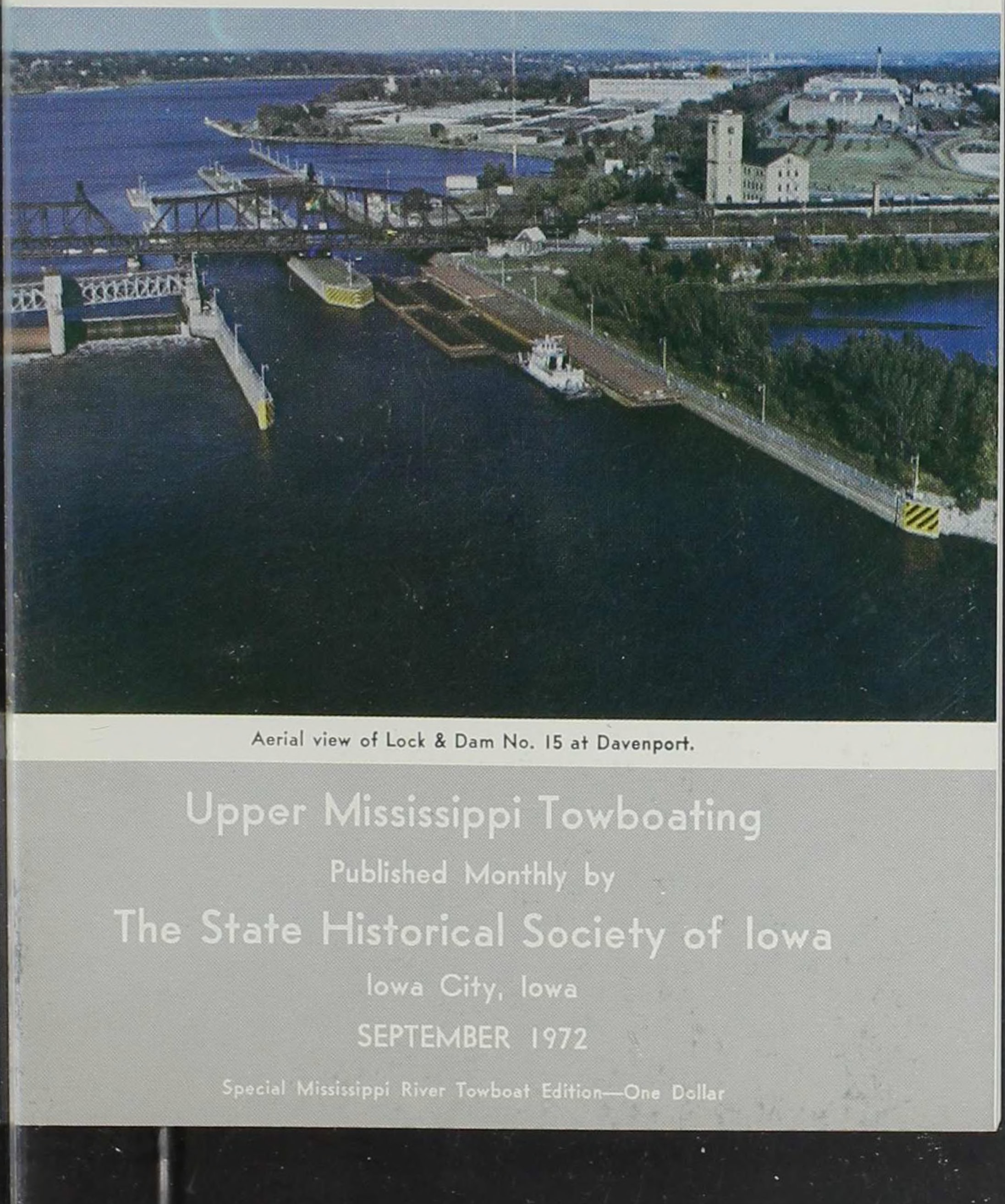
The PALIMPSEST



Aerial view of Lock & Dam No. 15 at Davenport.

Upper Mississippi Towboating

Published Monthly by

The State Historical Society of Iowa

Iowa City, Iowa

SEPTEMBER 1972

Special Mississippi River Towboat Edition—One Dollar

The Meaning of Palimpsest

In early times a palimpsest was a parchment or other material from which one or more writings had been erased to give room for later records. But the erasures were not always complete; and so it became the fascinating task of scholars not only to translate the later records but also to reconstruct the original writings by deciphering the dim fragments of letters partly erased and partly covered by subsequent texts.

The history of Iowa may be likened to a palimpsest which holds the record of successive generations. To decipher these records of the past, reconstruct them, and tell the stories which they contain is the task of those who write history.

Contents

Illustrations

The author is indebted to the United States Engineers—Rock Island District—for many of the photos used in this issue. The Alter Company, Inland Molasses Company, and McKee Feed and Grain furnished pictures of their operations. The author took pictures personally and used two photos by Bob Long of the *Des Moines Register* and two by Phil Hutchinson of the *Davenport Times-Democrat*. The outside covers are courtesy of the Rock Island Engineers and the inside back cover is from the St. Paul U.S. Engineers.

Authors

William J. Petersen is Superintendent Emeritus of the State Historical Society of Iowa.

THE PALIMPSEST is published monthly by the State Historical Society of Iowa in Iowa City, William J. Petersen, Editor. It is printed in Iowa City and distributed free to Society members, depositories, and exchanges. This is the September, 1972, issue and is Number 9 of Volume 53. Second class postage paid at Iowa City, Iowa.

PRICE—Included in Membership. Regular issues, 50¢; Special—$1.00
MEMBERSHIP — By application. Annual Dues $5.00
ADDRESS — The State Historical Society, 402 Iowa Avenue
Iowa City, Iowa 52240

THE PALIMPSEST

EDITED BY WILLIAM J. PETERSEN

VOL. LIII ISSUED IN SEPTEMBER 1972 No. 9

How It all Came About

To Dr. Louis Pelzer, professor of history at the University of Iowa, belongs the credit for launching me on the subject—"Steamboating on the Upper Mississippi." It happened in this way.

I had just passed my oral examination for the M.A. degree and Professor Pelzer and I were walking slowly down the steps of Old Capitol discussing my thesis on George Canning and the Oregon Boundary written under Professor Harry Plum. I had come to the University in 1926 to secure an M.A., bent on a career of teaching and coaching. It was 1927, I felt well-grounded in my special fields, and several promising jobs had already cropped up.

I had been telling Professor Pelzer about my boyhood on the banks of the Mississippi in Dubuque. Suddenly he stopped short, as we were about to enter the Liberal Arts building, grabbed me by the arm, gazed intently into my eyes, and said: "Petersen, do you mean to tell me that your father was associated with the Diamond Jo Line

Steamers and that a considerable amount of manuscript material is available on the subject?" Somewhat startled by his abrupt inquiry, I answered in the affirmative. In deadly earnestness Professor Pelzer declared: "Petersen, I personally will pull the rope that hangs you to yonder tree if you don't start working on the history of steamboating on the Upper Mississippi for your Doctorate."

Needless to say, I gulped in amazement at this invitation to continue graduate work as a student under the most successful director of theses in the University of Iowa history department. Before we entered the Liberal Arts building I had accepted his invitation, one that was destined to completely change my future.

When I began my research on the subject of Upper Mississippi steamboating I had no idea of the magnitude of the assignment. Little did I realize that before my Ph.D. was written I would spend three years of unremitting toil paging through 200 years of newspaper files, and combing the records of the Collector of Customs and the Supervising Inspectors of Steamboats in such far-flung cities as St. Paul, Galena, Dubuque, St. Louis, Louisville, Cincinnati and Pittsburgh—records that now are all securely housed in the National Archives in Washington. Nor could I visualize the hundreds of books of travel, government documents, and contemporary periodicals in various libraries, all of which I would want to consult.

There were no travel expenses for graduate students in those days and, in order to reach these widely dispersed sources, I would have to depend on my own resources. One thing was certain; I was determined not to ask my father for assistance. Fortunately I had saved $2,200 by the time I was a sophomore in college. Knowing this sum would not last long, I decided to do something I had never done before—hitchhike. In the following three years I traveled 20,000 miles—3,000 by steamboat and 17,000 by hitch-hiking rides along both banks of the Mississippi and Ohio rivers.

Transportation for the 20,000 miles cost me a total of $1.03 but of course room and meals were extra. Usually I stayed at a Y.M.C.A. at around $1.25 per night. My three meals rarely exceeded that figure. For example, I left Dubuque with $100, took a barge line boat to St. Louis, spent two weeks researching in St. Louis, rummaged through various sources in Cincinnati, Louisville and Pittsburgh before returning to Dubuque via Columbus, Ohio, and Chicago. After an absence of 35 days I still had $16 left out of $100.

My experiences were the talk of the historical profession. Dr. Joseph Shafer, Superintendent of the State Historical Society of Wisconsin, told Professor Pelzer that I should write a book about it. The main point is that, after three years of intensive research, aided by $350 annual fellowships from the University for three years and a $200

honorarium from the State Historical Society of Iowa between 1929 and 1930, I could still count over $600 left in my personal bank account after receiving the coveted Ph.D. degree.

In the course of my travels I picked up thousands of old bills of lading, one of which was of the steamboat *White Cloud* carrying lead from St. Louis to New Orleans in 1844 at 10 cents per 100 pounds. In 1849 this boat set fire to 22 other steamboats and 15 city blocks of St. Louis in the greatest conflagration to strike that city. I was offered $500 for this rare item some years later.

I consulted countless records, many that heretofore had never been used by historians. In one of my sorties I was fortunate in discovering Mark Twain's Pilot License issued to him in 1859. My find gained widespread publicity over the AP from coast to coast in 1928. These records can be found in the footnotes to my *Steamboating on the Upper Mississippi*—which is my doctorate expanded 150 percent.

The author was deeply indebted to two men whose support and encouragement while engaged in historical research were of immeasurable value. Halleck W. Seaman of Clinton, Iowa, was a member of the board of the Inland Waterways Corporation. His brilliant grasp of all phases of transportation, both rail and waterways, was a constant revelation and inspiration to me. Major General T. Q. Ashburn, President of the Inland Waterways

Corporation was quick to note the importance of my research as articles appeared in *Minnesota History*, the *Wisconsin Magazine of History*, the *Mississippi Valley Historical Review*, *The Palimpsest* and the *Iowa Journal of History and Politics*, all of which appeared before receiving my Ph.D. The opportunity of securing first hand information about both the steamboat and towboat eras was made possible through the understanding and always available support of Halleck Seaman and General Ashburn.

Folks have frequently asked me how I acquired the nickname—"Steamboat Bill." Professor Pelzer used the name "Steamboat Petersen" to differentiate me from another Peterson in his History of the West class in 1927. It was Dr. Benjamin F. Shambaugh, Superintendent of the State Historical Society of Iowa, who dubbed me with the sobriquet "Steamboat Bill" in 1929, twenty years before our celebrated steamboat trips began out of Clinton. Most people have erroneously associated the nickname with these State Historical Society summer outings.

WILLIAM J. PETERSEN

The Federal Barge Line

The need for a revival of waterways transportation became apparent during World War I and the United States Congress made its intention clear in the general policy contained in Section 500 of the Transportation Act of 1920.

> It is hereby declared to be the policy of Congress to promote, encourage and develop water transportation, service, and facilities in connection with the commerce of the United States, and to foster and preserve in full vigor both rail and water transportation.

In his Annual Report for the calendar year 1926 Major General T. Q. Ashburn described the Inland Waterways Corporation as a "great holding company" made up of all the citizens of the United States, operating "various subsidiary lines of towboats, barges, and terminal facilities known as the Upper Mississippi division, the Mississippi-Warrior service (composed of the lower Mississippi division and the Warrior River division), and the Warrior River Terminal Co."

Sketching swiftly the highlights of waterways transportation over the previous quarter century, General Ashburn declared:

> The basic fact stands out that in 1900 common water carriage, as it formerly existed on the Mississippi River

had disappeared, its revival began in the twenties, and in 1926 more freight was transported upon the Mississippi River than ever before in its history.

The following rules were laid down to reestablish successful common carriers of national importance on our streams, navigable or semi-navigable.

(a) There must be a suitable navigable stream.
(b) There must be specially designed boats for each stream.
(c) There must be suitable terminals.
(d) There must be balanced freight, up and down stream, and freight of varying-revenue producing quality. The basic cargo must be bulk, of large quantities, but made profitable by the addition of packet freight.
(e) In order to extend the benefits of water transportation into the interior there must be cooperation between rail and water carriers.
(f) In order that rail and water carriers could offer a saving to those not fortunately located on the banks of the stream, the joint railwater rate must be cheaper than the all-rail rate, and the accruing revenue must be divided so that each participant in joint service shall derive a living revenue, and it must be demonstrated by actual operations that such joint service helps the railroads and does not hurt them.

The difficulties of carrying out the mandate as outlined above were so numerous that Major General T. Q. Ashburn, in his Annual Report of 1923, called upon the Secretary of War for remedial legislation.

The 68th Congress hearkened to this plea and passed Public Act No. 185 creating the Inland Waterways Corporation. The results became evident as the following figures of operation of the Mississippi-Warrior Service submitted by General Ashburn for the period from 1920 through 1926 would indicate.

YEAR	*TONNAGE*	*YEAR*	*TONNAGE*
1920	360,719	1924	1,071,848
1921	672,111	1925	1,142,219
1922	860,013	1926	1,341,578
1923	979,772		

Despite this impressive gain in tonnage the average yearly loss up to 1924 was $973,305. In August of 1924 a complete reorganization of the service was effected with the result that in 1926 the company for the first time showed a profit of $219,511.96.

It was from this background that the Inland Waterways Corporation inaugurated Federal Barge Line service on the Upper Mississippi in 1927. The *S.S. Thorpe* blazed the trail of what was destined to be a veritable pageant of towboats that completely revitalized waterways transportation on the Upper Mississippi. The *S.S. Thorpe,* like her three sister towboats, the *C.C. Webber, John W. Weeks,* and *General Ashburn,* was a 600 hp craft. The 500-ton barges they pushed were loaded light because the 9-foot channel was still a dream and an appropriation had not been made for

the inauguration of the truly great towboat era which was to be ushered in with the completion of the 26 locks and dams between Minneapolis and Alton in 1938.

It will be recalled that one of the requirements for re-establishment of successful common carriers on the Upper Mississippi was the construction of river terminals.

The third and largest River Terminal on the eastern border of Iowa was completed in 1931 at Rock Island at a cost of $380,000. The city had been proclaimed the choice of the Quad-Cities by the Inland Waterways Corporation, according to Major General T. Q. Ashburn. Unlike Clinton, which had turned down the bond issue, the people of Rock Island gave a majority of 6,450 to 2,077 in favor of building the terminal. The *Rock Island Argus* of May 5, 1931, contained a six-page "Terminal Section" telling the story of the terminal from its inception to its dedication.

Lachlan Macleay, Secretary of the Mississippi Valley Association, noted that the Quad-City Terminal made Rock Island the 22nd port city in the Mississippi Valley—six of them were located on the Upper Mississippi—at Burlington, Rock Island, Dubuque, Stillwater, St. Paul and Minneapolis. According to Macleay:

> These municipalities, realizing the advantage of their location on inland waterways, have equipped themselves to become modern gateways of commerce, by installing mod-

ern equipment for transferring and warehousing merchandise safely, efficiently and economically. Shippers are becoming more and more eager to avail themselves of this latest and most modern method of handling the vast commerce, both foreign and domestic, of the Mississippi Valley.

Mayor George Tank of Davenport was high in his praise of the new Rock Island Terminal declaring it "another step forward in the era of progress in the Quad-Cities." He urged the Quad-Cities to work together for the success of the port. "This community is fast becoming the metropolis of the Mississippi Valley," he said, "and the opportunities and advantages presented the terminal are many."

Everyone had high praise for the floating wharf barge which was declared one of the largest of its type in service on the Upper Mississippi. It was longer than the St. Paul, Minneapolis and Dubuque terminals and cost approximately $58,000. Measuring 230 feet x 40 feet, the barge had been built by Howard Ship of Jeffersonville, Indiana, and, like the Burlington terminal, had been towed to Rock Island during March. A single 16-foot door led to the escalator on the dock side.

From the start General Ashburn strove to have a schedule which shippers could depend upon. In 1928 he already could plan on two boats a week upstream from St. Louis and two downstream. Eight days were required for the northbound trip

and only six days for the southbound voyage. The trip was made when there were only three locks—at Keokuk, Moline and LeClaire. The only hazards were wing dams, sandbars, and bridges, of which there were plenty to keep towboat pilots on the alert. Low water and high wind also presented real problems—particularly when attempting to guide a 600-foot tow of barges through a bridge or around an unusually difficult bend in the channel. Maintaining the following schedule was no simple task during high or low water, and in stormy weather.

UPSTREAM (8 DAYS)	DOWNSTREAM (6 DAYS)
Lv. St. Louis .. Mon. 10 p.m.	Lv. Mpls. ..... Wed. 9 a.m.
Ar. Dubuque ..... Sat. 1 p.m.	Lv. St. Paul. .... Wed. 1 p.m.
Lv. Dubuque .... Sat. 10 p.m.	Ar. Dubuque ..... Fri. 4 p.m.
Ar. St. Paul .... Tues. 6 p.m.	Lv. Dubuque .... Fri. 8 p.m.
Ar. Mpls. .... Tues. 10 p.m.	Ar. St. Louis .. Mon. 7 p.m.
Lv. St. Louis .. Thur. 10 p.m.	Lv. Mpls. ..... Sat. 9 a.m.
Ar. Dubuque .... Tues. 1 p.m.	Lv. St. Paul ..... Sat. 1 p.m.
Lv. Dubuque .. Tues. 10 p.m.	Ar. Dubuque .... Mon. 4 p.m.
Ar. St. Paul ..... Fri. 6 p.m.	Lv. Dubuque .... Mon. 8 p.m.
Ar. Mpls. ..... Fri. 10 p.m.	Ar. St. Louis .... Thur. 7 p.m.

As more towboats and barges were added the Federal Barge Line was able to increase its schedule until daily departures were made from St. Louis and St. Paul.

It was obvious to the founders of the Inland Waterways Corporation that each division of the Federal Barge Line (Lower Mississippi, Warrior,

Upper Mississippi), required towboats and barges of different drafts and horsepower. Because of a channel that might fluctuate from three to six feet the Upper Mississippi Division was assigned the smallest type of towboat of 600 hp. Upper Mississippi barges, in turn, were a mere 500-ton capacity, compared with later barges ranging from 2000 to 3000 tons. Fully loaded, the 500-ton barges might draw 6 feet but there were times during periods of low water, when their load must not draw over three feet. Within a few years the company shifted to the 1000 hp towboat such as the *Mark Twain,* the *Huck Finn,* the *James W. Good,* and the *Patrick J. Hurley,* names that were discussed like bosom friends in almost every household along the river.

On October 13, 1935, the *Davenport Democrat* prophesied the development of a "huge tonnage" that was destined to make the Quad-Cities a "great industrial site." Such firms as Gordon-Van Tine and the International Harvester, the editor noted, were already using the Mississippi and it was expected that water shipments would "grow enormously in the next few years." The Inland Waterways Corporation already had five powerful diesel towboats in service—the *General Ashburn,* the *John W. Weeks,* the *Mark Twain,* the *Patrick J. Hurley,* and the *James W. Good.* In four months—April, May, June, and July—these five boats had pushed 77,506 tons through the Daven-

port locks—18,553 tons of coal, 40,861 tons of coke, and 18,112 tons of merchandise. Unfortunately, the downstream tonnage was not as great —a mere 7,423 tons. If the millennium in towboating was not on hand, the Davenport editor felt it was just around the corner.

It was not until the completion of the 26 locks and dams assured a 9-foot channel in 1939 that the Federal Barge Line fleet, and the numerous other crafts that were entering the trade, were able to bring the tonnage past the million mark. Various oil companies began operating their own boats, such as the *Stanolind A,* the *K. C. Socony, St. Louis Socony, St. Paul Socony,* and the *La Crosse Socony,* not to mention the towboats of the Pure Oil Company and the Ashland Oil & Refining Company. Other petroleum companies employed common carriers to bring their products upstream to the tank farms that began to dot both banks of the river at strategic points.

General Ashburn was succeeded by Chester C. Thompson who, on November 15, 1939, was appointed president and chairman of the board of the Inland Waterways Corporation, which had just come under the supervision of the Secretary of Commerce. Thompson served in this dual role until August 15, 1944, when he resigned to accept the presidency of the American Waterways Operators, Inc., with offices in Washington, D.C. After having suffered a relatively poor season in

1938, Thompson was able to record an increase of 44% from 348,561 tons in 1939 to 500,746 tons in 1940. In his *Annual Report of the Inland Waterways Corporation* for the calendar year 1940, Thompson recorded:

> Because of the comparatively heavy tonnage offered, six boats instead of the scheduled five were operating during most of the season. The total tonnage on the Upper Mississippi River during 1940 shows an increase of 44 percent over the year 1939. Northbound tonnage was increased 53 percent over 1939 and southbound tonnage increased 28 percent. Coal and coke were the principal northbound movement, showing an increase of 56 percent over the previous year. Due to the satisfactory stage of the river, as well as the completion of all locks and dams on the Upper Mississippi, it was possible to attain an average loading of coal and coke of 1,960 tons per barge. This is the heaviest average loading of this commodity that the Corporation has been able to accomplish.

By 1947 the Federal Barge Line had expanded into a veritable giant among the barge line corporations. The following list of boats operating in the Rock Island District in 1947 was compiled by the Control Branch of the Rock Island District, United States Army Engineers.

BOATS	*HP*	*BOATS*	*HP*
Baton Rouge	1800	*Kansas City*	1000
Boswell	88	*Kokoda*	2000
Cairo	1800	*Mark Twain*	1000
Coral Sea	2000	*Memphis*	1800
Cordova	800	*Minnesota*	2400
Demopolis	800	*Missouri*	2400

Dwight Davis	1000	*Mobile*	1000
F. D. Roosevelt	1180	*Montgomery*	800
Helena	1000	*Natchez*	1800
Herbert Hoover	2200	*Patrick J. Hurley*	1000
Huck Finn	1000	*St. Louis*	1800
Illinois	2400	*Tom Sawyer*	1180
Iowa	2400	*Wake Island*	2000
James W. Good	1000	*C. C. Webber*	600
John W. Weeks	600	*Vicksburg*	1800

The above indicates boats with similar names were equipped with the same horsepower. Thus, the *Mark Twain* and the *Huck Finn,* and the *James W. Good* and the *Patrick J. Hurley* were all 1000 hp that were used on the Upper Mississippi. The state series—the *Illinois, Iowa, Minnesota,* and *Missouri*—each had 2400 hp and were used on the Lower Mississippi. By 1972, the heyday of towboating appears to have reached its peak. At least this appears so when measured by the 5000 hp towboats that appear fairly commonplace on the Upper Mississippi. The American Commercial Barge Line of Jeffersonville, Indiana, had six towboats—the *J. W. Hershey,* the *Charles E. Peters,* the *Hugh C. Blaske,* the *Dell Butcher,* the *Jack D. Wofford,* and the *Tom Talbert* with 5000 hp each. The Mississippi Valley Barge Line of St. Louis had the *W. S. Rhea* and the *L. Wade Childress* whose horse power had been increased from 3200 to 5000 hp. The Wisconsin Barge Line has the *Kathryn Eckstein, Penny of Cassville,* and *Rose Tranchita* each of 5000 hp. In addition to

such powerful towboats, there are a score and more of boats that range from 3200 hp upward.

Preeminent among the faithful boatwatchers on the Upper Mississippi is Thomas Frank, whose home at Pleasant Valley overlooks Lock 14 just below Le Claire, Iowa. During the past five years Thomas Frank has chronicled every new towboat that he has seen passing through Lock 14. He does not record the second and subsequent appearances of a boat, just the first time each season. In 1967, he recorded 111 different towboats, in 1971 he counted 108. During the five seasons there were exactly 500, or an average of 100 different boats a season. In 1972, he had counted 91 different boats by mid-September. While he may have missed a few while asleep, he probably caught most of them either going up or downstream. At any rate, the number of different towboats on the river in 1972 appears to equal the number of steamboats on the Upper Mississippi during the heyday of steamboating. But the tonnage the towboat transports is a different thing when one remembers that 23 steamboats discharged only 2500 tons of freight on the St. Paul levee in 1858. In 1972 an average towboat can discharge seven times that much tonnage in a single trip!

Captain A. C. Ingersoll, Jr., served as president of the Federal Barge Line from 1944 to 1953 when it gave in to the perennial charges of competing unfairly with private companies.

The Federal Barge Line, acquired by private capital in 1953, now forms a part of a conglomerate established by Herman Pott under the title Pott Industries Inc. This firm, whose sales and revenues totaled $84,605,000 in 1971, had revenues totaling $24,824,000 from its Federal Barge Line towboats, and $11,575,000 from its Gulf-Ocean operations, which offered towing services on a world-wide basis. Its St. Louis Ship Division is an equally important part of Pott Industries Inc., reaping $27,676,000 in sales and revenue. That the company is not standing still is revealed by the following 1971 Annual Report:

> In 1971, we built thirty-three covered hopper barges and one 5000 horsepower towboat in our own shipyards for our Inland Waterways Operations. We also purchased two barges and four 1800 horsepower towboats. During 1971, our subsidiary, Gulf Mississippi Marine Corporation, acquired two supply boats, one tug, and one deck barge.
>
> In 1972, we plan to build thirty-three covered hopper barges and three tank barges in our own shipyard for our own operations. In addition, Gulf Mississippi is scheduled to take delivery of five supply boats in 1972 and, while orders have not yet been placed, acquisition in 1972 of two 2400 horsepower tugs and one deck barge has been approved.

The complete story of the Federal Barge Line, covering a half-century of time, would make an interesting and exciting book, one that would be unique in the annals of inland waterways.

WILLIAM J. PETERSEN

[The following story is excerpted from notes kept aboard the JOHN W. WEEKS by William J. Petersen while making one of his many trips securing material for his thesis on steamboating on the Upper Mississippi. There was only one lock and dam between St. Louis and Burlington—that at Keokuk. The notes were kept forty-four years ago, at a time when the diarist had no notion he would edit them many years later. Funds for a 9-foot channel had not been appropriated at that time.

This particular diary was chosen because it describes the towing of the Burlington Wharfboat from St. Louis to Burlington in 1928. It reveals the activity of the St. Louis levee, the boats then active, the life of the crew, including all important meals, and the difficulties of piloting with an unwieldy cargo in an uncertain and tortuous channel. Only a fragment of the diary is reproduced here. The Editor.]

A Trip on the John W. Weeks

July 23, 1928

Arrived at the St. Louis dock at 3:45 P.M. Everything was a bustle. Negro roustabouts were pushing heavy trucks with as many as 30 sacks of sugar. Hand trucks were being utilized—12 sacks each were carried on these. Great cranes wheezed, rattled and whirred as they lifted the trucks bodily and lowered them into the hold of the barges. A barge that the *John W. Weeks* was to tow was receiving more freight; several upper Mississippi barges just above the *Weeks* were being loaded with candy cartons. Heavy barrels of printers ink were being rolled along the cement dock. A giant crane, by means of ice-tong-like hooks, would lower three of these at a time into barges destined to be towed downstream. I sighted the *Weeks* across

the river at East St. Louis, picking up the new Burlington Wharfboat.

The *John W. Weeks* came up to the upper end of the dock, then swung around in mid-stream and dropped down to the lower end. The *Bald Eagle*, an Eagle Packet Company boat of the Illinois River trade, passed the *Weeks* bound upstream. I boarded the *Weeks* and handed Captain Reed my letter of introduction. A quick look at my endorsers and Captain Reed granted me permission to make the trip up. This was indeed welcome news as 46 cents was the sum total of my worldly possessions. I did not want to telephone my bank for money if I could avoid it.

The huge Burlington Wharfboat, which the *John W. Weeks* was to push upstream, was still unfinished. Seven men had been assigned to continue their work on it while being towed upstream. They had at least ten days work ahead of them and had driven their cars on board and set up their camp cots.

The tug, *Suzie Hazzard,* passed upstream about 4:30 P.M. with an Upper Mississippi barge in tow. These tugs are small, built low in the water, with but a single stack and are oil-burning stern-wheelers. They are capable of considerable speed and manage a heavy barge easily in spite of their diminutive size.

Looking upstream I could see the smoke from a gigantic oil fire at Wood River on the Illinois side.

This is where Lewis and Clarke camped during the winter of 1803-1804, and I naturally felt some concern for it. St. Louis papers say it is a $2,000,000 blaze. I hope it doesn't blow up while we are passing as it is right on the Mississippi.

The *John W. Weeks* is to have two 500-ton barges heavily laden, one for Dubuque, and the other for Minneapolis. These, in addition to the Burlington Wharfboat will make a heavy trip. . . .

The Excursion steamer *J.S.* made a pretty picture as she came down stream. Noted her just as she passed under the bridge. Ponderous, yet riding the water like a swan, she made a graceful, beautiful appearance. The sidewheel boats are fascinating. The *J.S.* was abreast of us at 5:40 P.M. She passed under Eads Bridge about ten minutes later.

Since menus were virtually impossible to find on Upper Mississippi steamboats I resolved to keep an accurate record of the meals served on the *John W. Weeks.*

SUPPER: Boiled ham, cheese, turnips, prunes, sliced pineapple, fried potatoes, coffee, lemonade, raspberry preserves, bread, butter, catsup, and Newsboys for dessert.

Left the Burlington Wharfboat and passed upstream to get a barge of burlap and sugar. The barges used on the Lower Mississippi by the Inland Waterways Corporation are tremendous—2000 tons. I stood on the bow of the *Weeks* and

could just reach the top of the lower deck of the #548 barge which lay next to us. Our 500-ton barge was not ready yet as the doors and hatches had not been closed.

At 7:40 P.M. we were pulling our barge out . . . at 8:15 P.M. we lashed 1 barge to the Burlington Wharfboat and had backed out, and run upstream to pick up our other barge. Cranes and Negroes were still busy loading her. The rattle of chains and the shouts of the engineer created a real din. Negroes lay below me on sacks; roustabouts were also taking it easy and not taking more work than they had to take. . . .

At 9:10 the towboat *Iowa* of the Inland Waterways Corporation arrived from New Orleans with one barge in tow and drawing 7-1/2 ft.—probably about 1500 tons. The *Iowa* is a powerful 2400 hp towboat, or four times the power of the *John W. Weeks*. She dropped her barge of sugar just above where our Burlington Wharfboat and barge lay lashed together at the lower end of the dock and in such a position as to make it difficult for us to pick them up and lash them together. . . .

Retired at 11 P.M. The *John W. Weeks* finally got under way at 11:30. I had my room with Mr. Luke Hebert, Mate. He had taken a shower and had been in bed about 10 seconds when he was called at 12:10. It had been decided to tie up for the night. The Burlington Wharfboat obstructs the vision, making it impossible to see immediately

ahead and thus dangerous to navigate at night. Some of the most subtle imprecations were muttered by Mr. Hebert in his characteristic Southern drawl.

July 24, 1928

Awoke greatly refreshed at 4:30 A.M. We had been headed upstream since about 3:30. It was 5:20 before I got to the pilot house. John Laycock was at the wheel. He was 71 years old but still hale and hearty in more ways than one.

BREAKFAST: Cantaloupe, corn flakes, pancakes, eggs, bacon, bread, butter, coffee and preserves.

After getting by the Chain of Rocks, just above the Towers, we struck the swiftest current in the Mississippi. We proceeded at about 1/8 of a mile an hour for 10 minutes and finally were brought to a complete stand. Pilot Harry Lancaster steered out further into the stream and the *John W. Weeks* managed to forge slowly ahead. Captain Reed is considerably wrought up over towing the cumbersome Burlington Wharfboat. He feels it is dangerous and foolhardy to attempt night piloting. The morning is beautiful and clear but gives every indication of becoming a hot day. The flies, like the poor, are still with us and we shall probably carry a ton of them along on our towboat.

One of our barges is loaded to 4 feet while the other is loaded down to 4 feet 8 inches—very heavy loads. Until we pass the mouth of the Mis-

souri we shall have tough shoving as the current is very swift. The river is calm and smooth, and in spite of the muddy water, it is almost mirror-like in appearance. At 8:13 A.M. we were opposite the mouth of the Missouri. . . .

The pilot house of the *John W. Weeks* has been rejuvenated. We borrowed a couple carpenters from the Burlington Wharfboat and built a scaffold for the pilot to get a better view ahead.

Cahokia Creek is just opposite the mouth of the Missouri. The *Rosa R.* was coming out of the mouth of the Missouri as we approach and she ran opposite us on our left just as the *Belle of Calhoun* passed down on our right. It is 8:30 A.M. and we are still abreast the mouth of the Missouri. The *Belle of Calhoun* has quite a cargo of cattle in her stern and they were bellowing lustily. About 20 passengers were on deck, honeymooners many of them. It sort of made me lonesome. Pilot Harry Lancaster called my attention to the water of the Missouri and the Mississippi. The mulatto colored Missouri, seething and boiling, contrasted sharply with the clearness of the Mississippi.

The *Jane Rhea,* a small sternwheeler towing a large barge, passed us at 8:45 A.M. bound down stream. Among other things she had a large number of bushel baskets, probably filled with apples from Calhoun County, Illinois. We are now past the mouth of the Missouri and from now on will undoubtedly make better time. The smoke from

the million dollar blaze is just ahead. Opposite at 9 A.M. Alton looms in view—a reminder of the tragic Lovejoy incident.

Passed Wood River at 9:17 A.M. The fire is 5 miles inland on this tiny tributary of the Mississippi. Passed Alton Slough on our left at 9:50 A.M. The *City of Cairo* lies there—an abandoned steamboat is always a tragic sight. Alton Slough is a famous wintering place for towboats. Captain Reed said the *Iowa, Illinois, Minnesota* and *Missouri* wintered there last year. Opposite Alton at 10 A.M. Passed the *Alert* lying at the bank. She is a rip-rapper, pile driver and owned by a private concern. Constructing a wooden barge a block above her. Through Alton drawbridge at 10:06 A.M. Stage of water 9-1/2 feet and rising. Dredge *Mississippi* just above bridge. Fish markets galore on the bank. Alton is a picturesque town. Just above the bridge a few hundred yards is Piasa Rock. I noted a green dragon-like bird painted on the towering cliff, from which Piasa Rock gets its name.

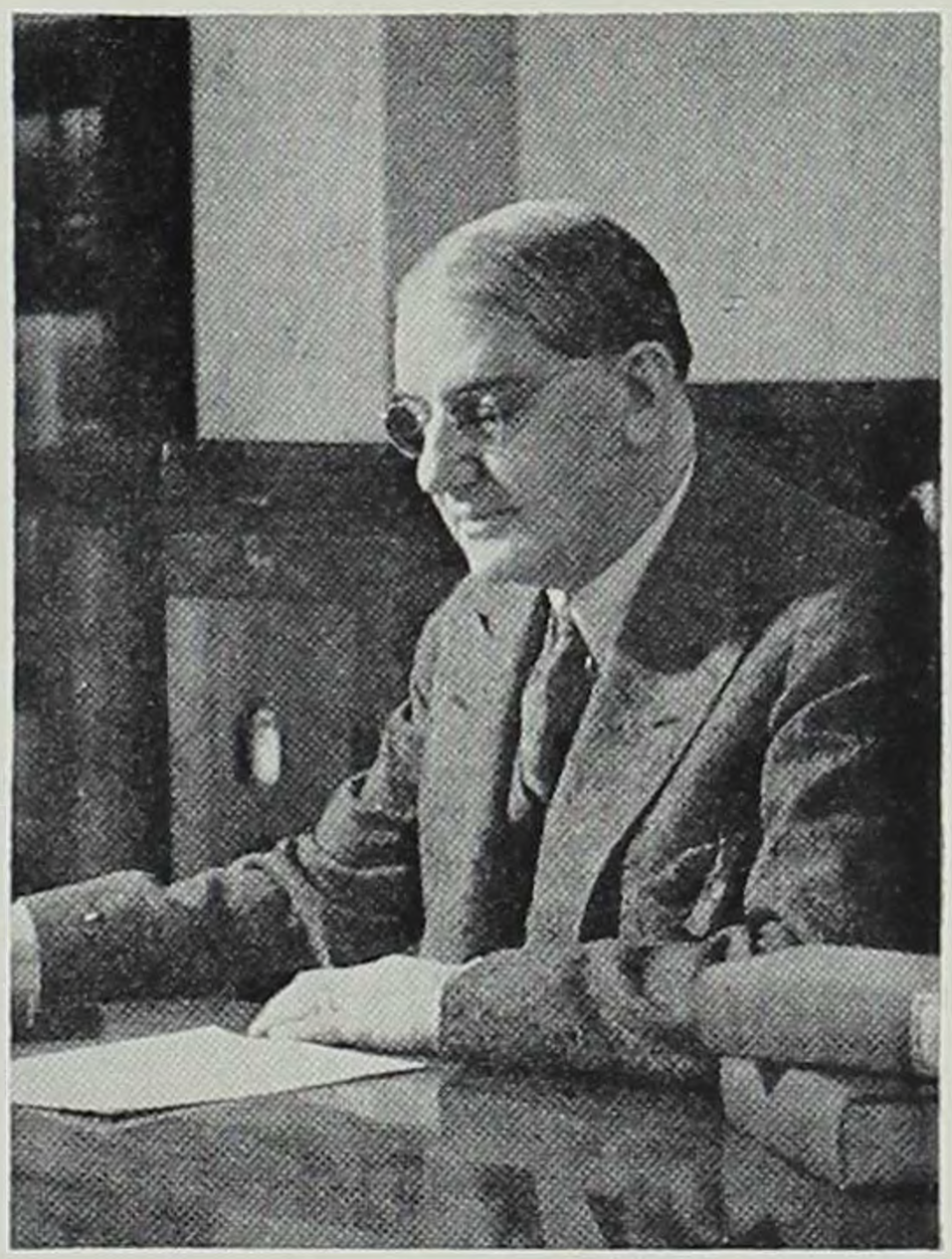
DINNER: Potatoes, gravy, salmon, roast beef, pickles, pork and beans, beets, bread and butter, ice tea, peach pie.

Bluffs below Elsah are marvelous. Like Navy Yards in Dells of the Wisconsin. Rounded out like great arm chairs. . . .

Passed the mouth of the Illinois River and Grafton at 1:30 P.M. 16 miles in 3-1/2 hours. The

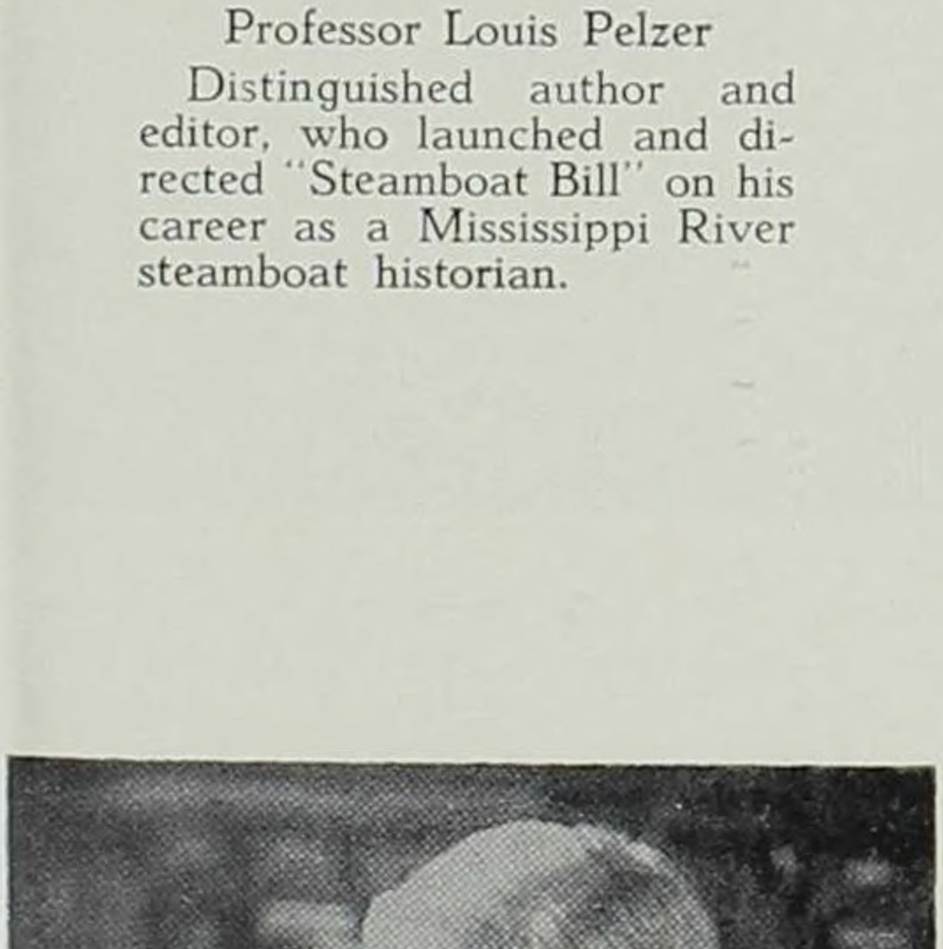
Professor Louis Pelzer

Distinguished author and editor, who launched and directed "Steamboat Bill" on his career as a Mississippi River steamboat historian.



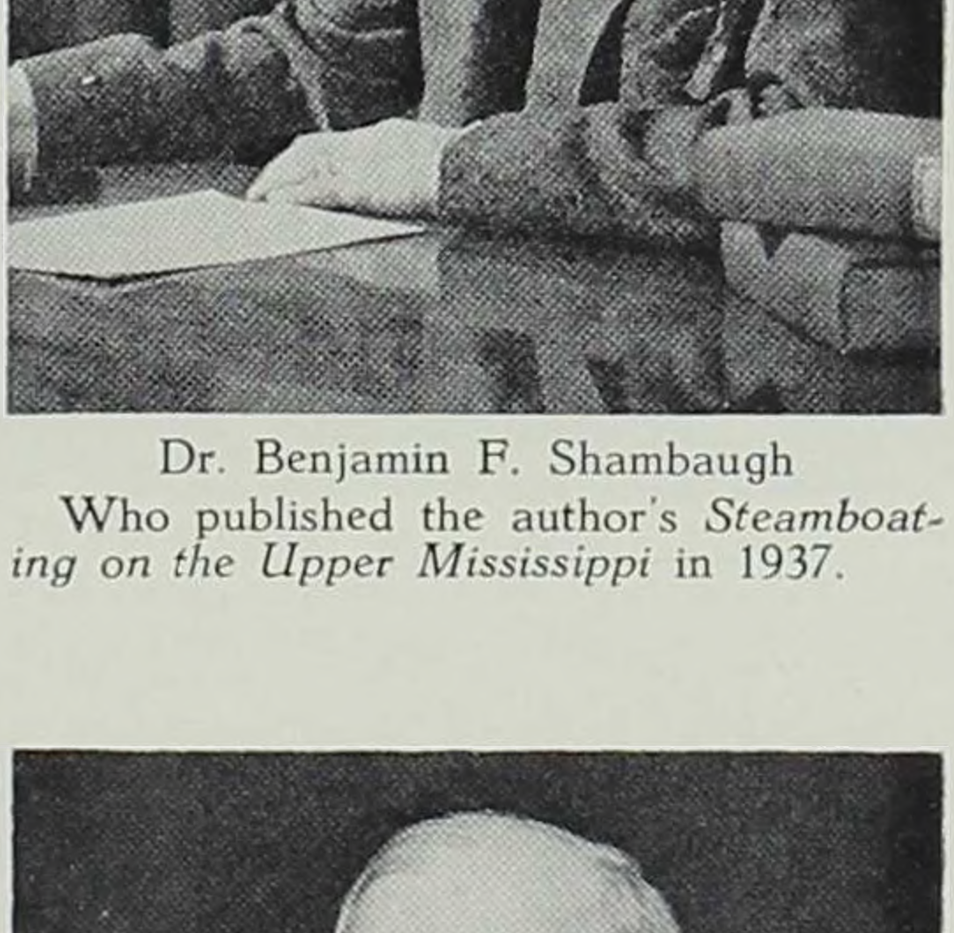
Dr. Benjamin F. Shambaugh

Who published the author's *Steamboating on the Upper Mississippi* in 1937.



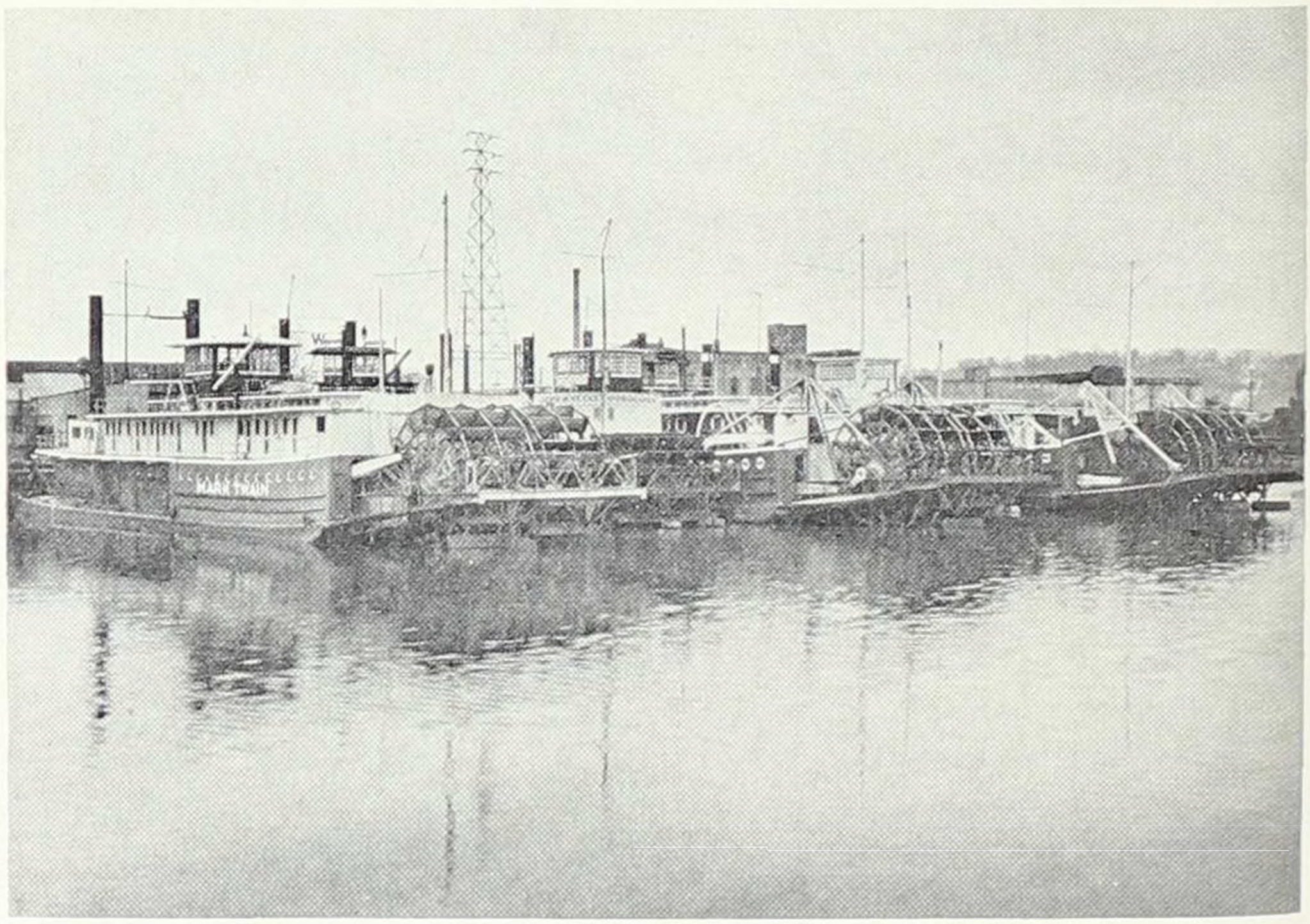
Halleck W. Seaman—Clinton

Whose vision and encouragement became a constantly energizing influence on a young historian.

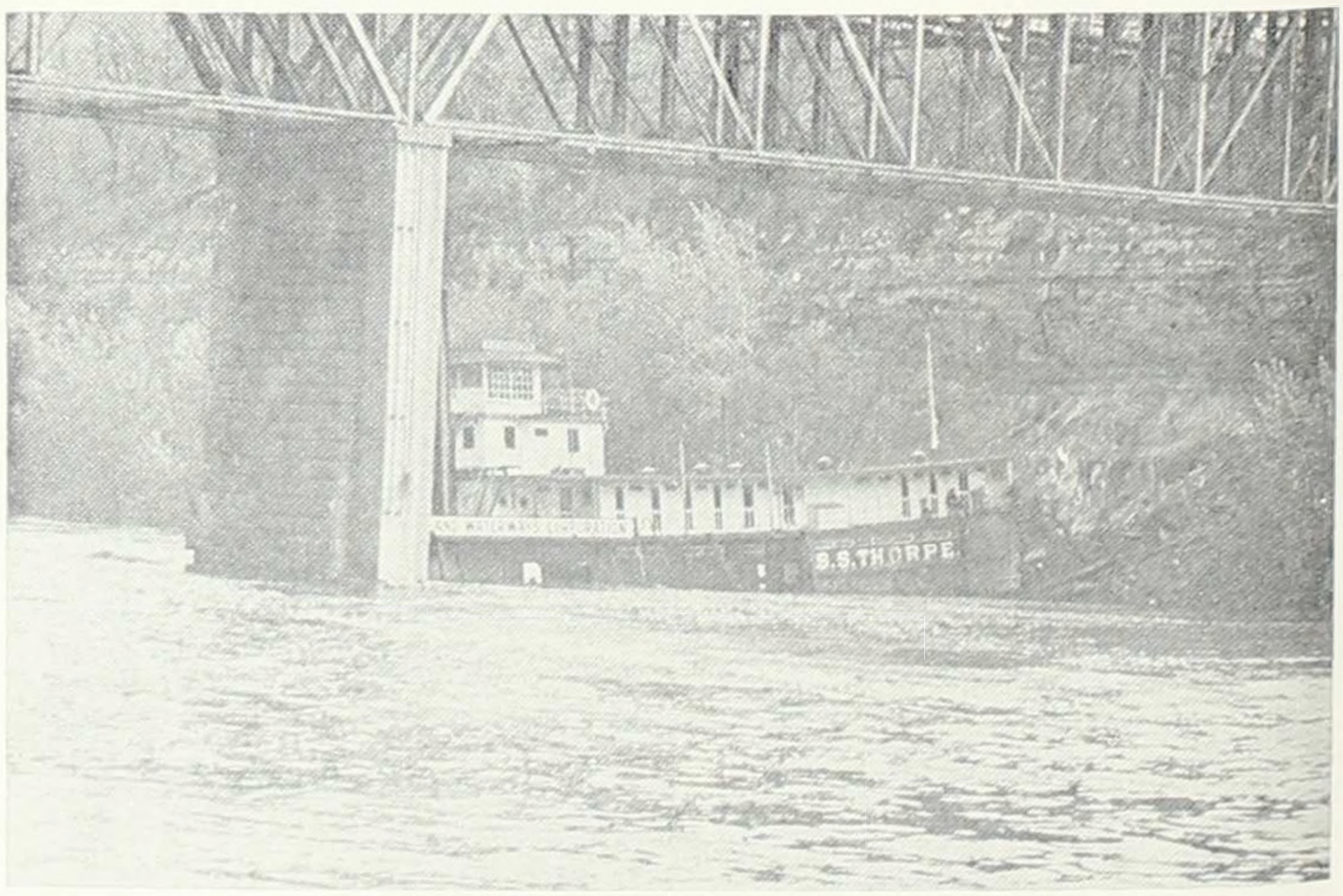


Major-General T. Q. Ashburn

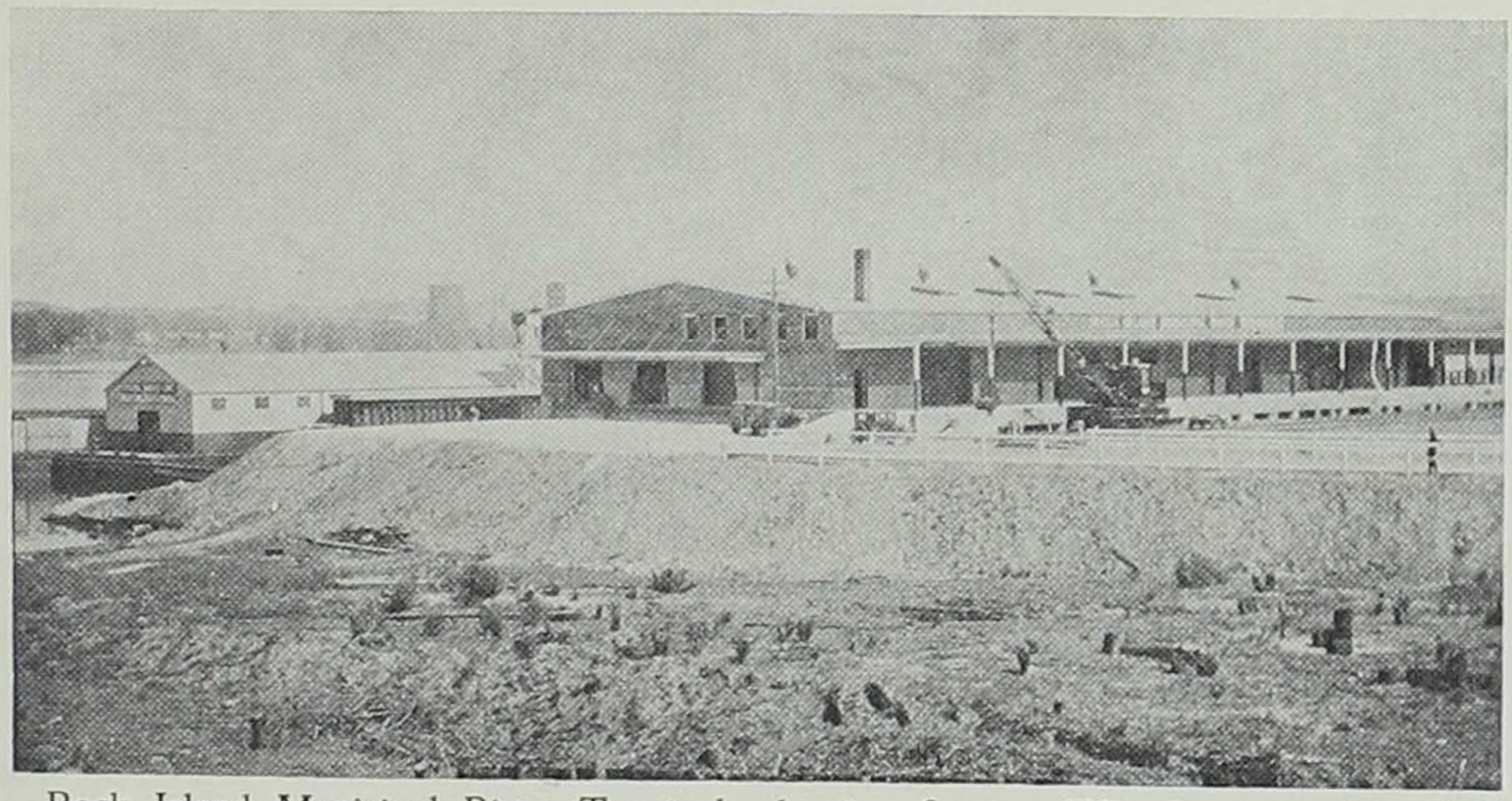
Whose keen eye and understanding heart opened vast reaches of the Inland Waterways to the author.



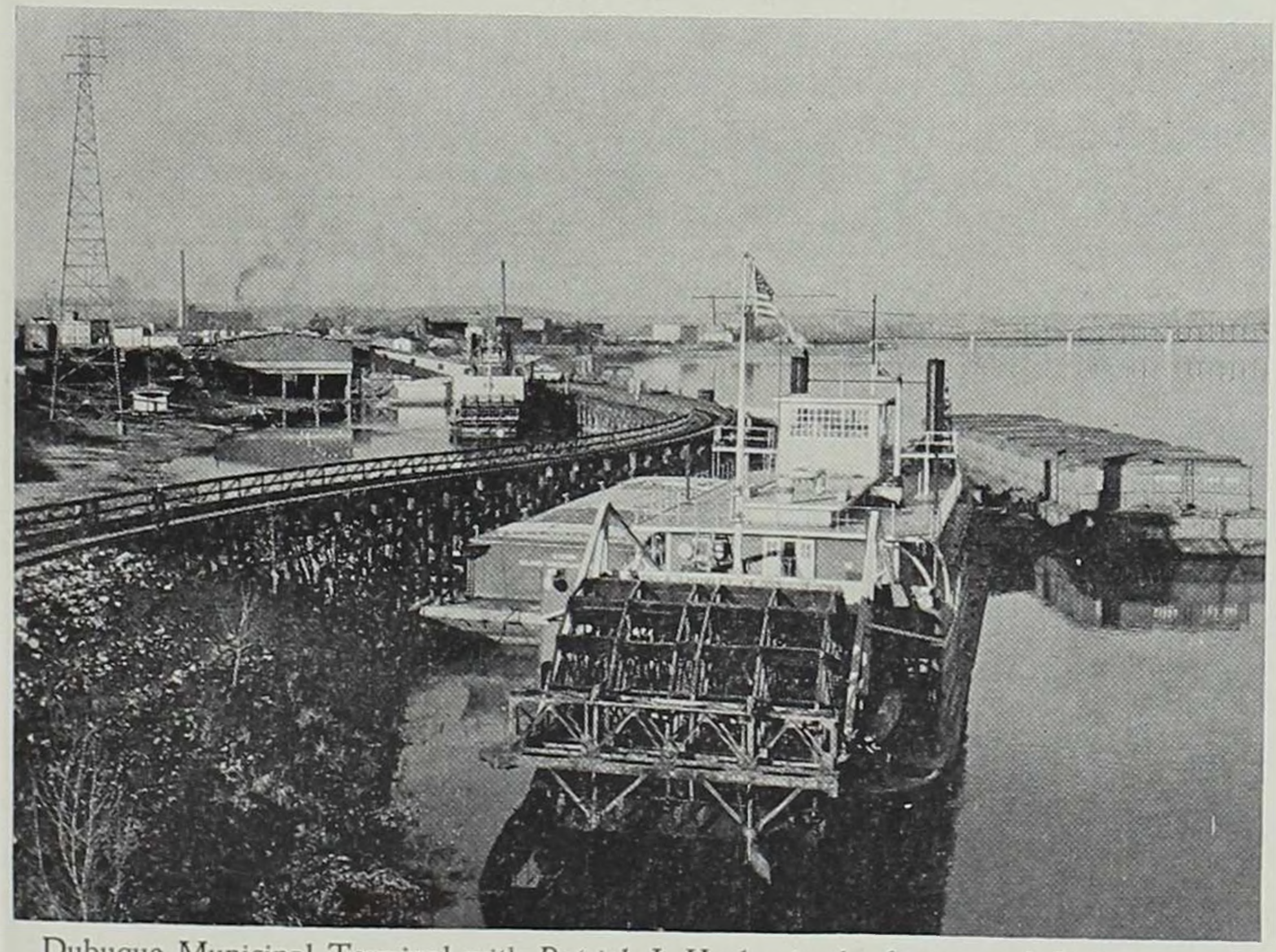
The Dubuque harbor was always lined up with Federal Barge Line towboats at the opening and closing of navigation. The boats blot out of view the Dubuque Boat & Boiler Works that built many boats and closes its doors in 1972 after 100 years of fabulous history.



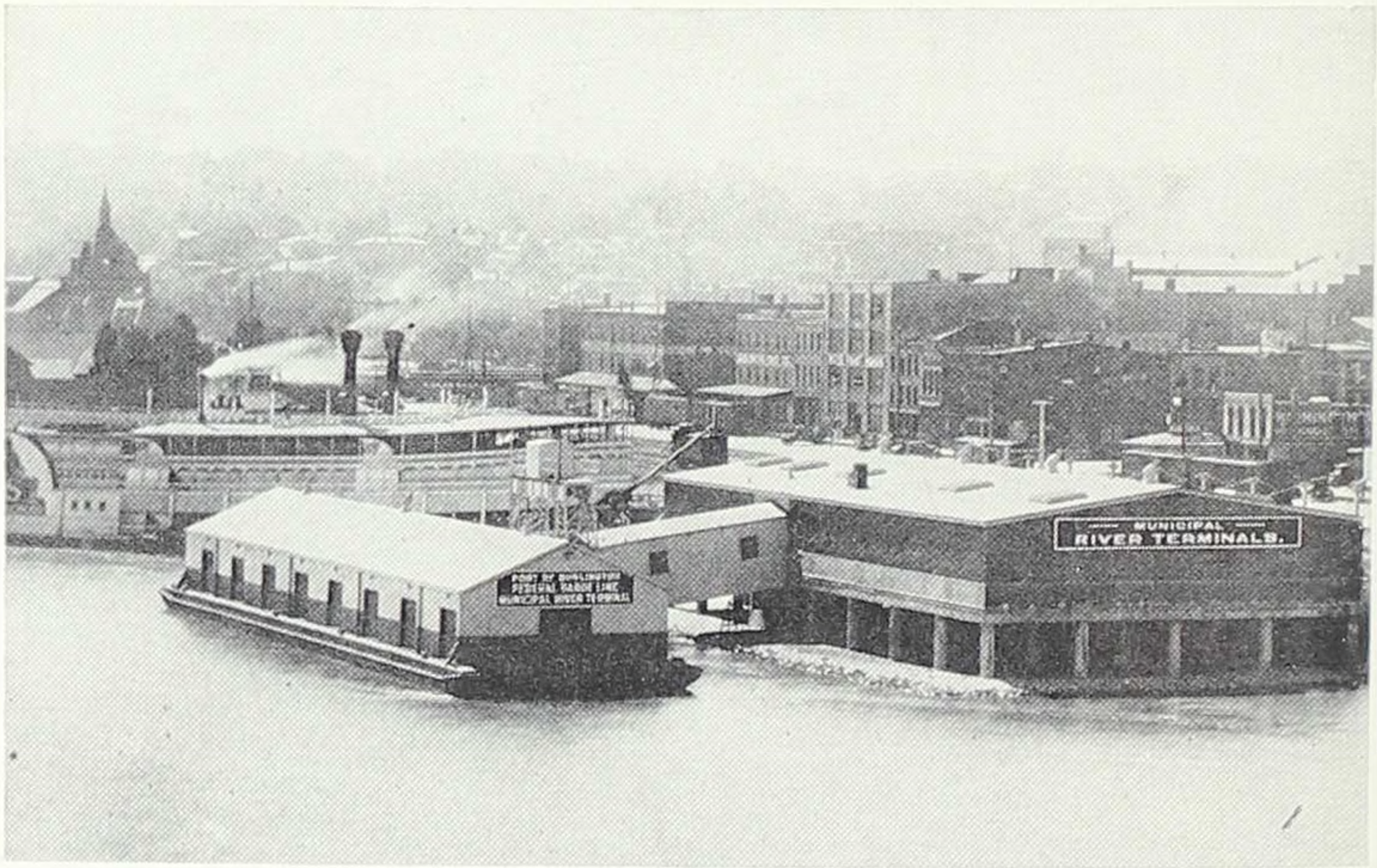
The *S. S. Thorpe,* first towboat of the Upper Mississippi Federal Barge Line fleet, met temporary disaster on a Minneapolis bridge. She was built at Dubuque and, after a career on the Ohio, is now the *George M. Verity* Steamboat Museum at Keokuk.



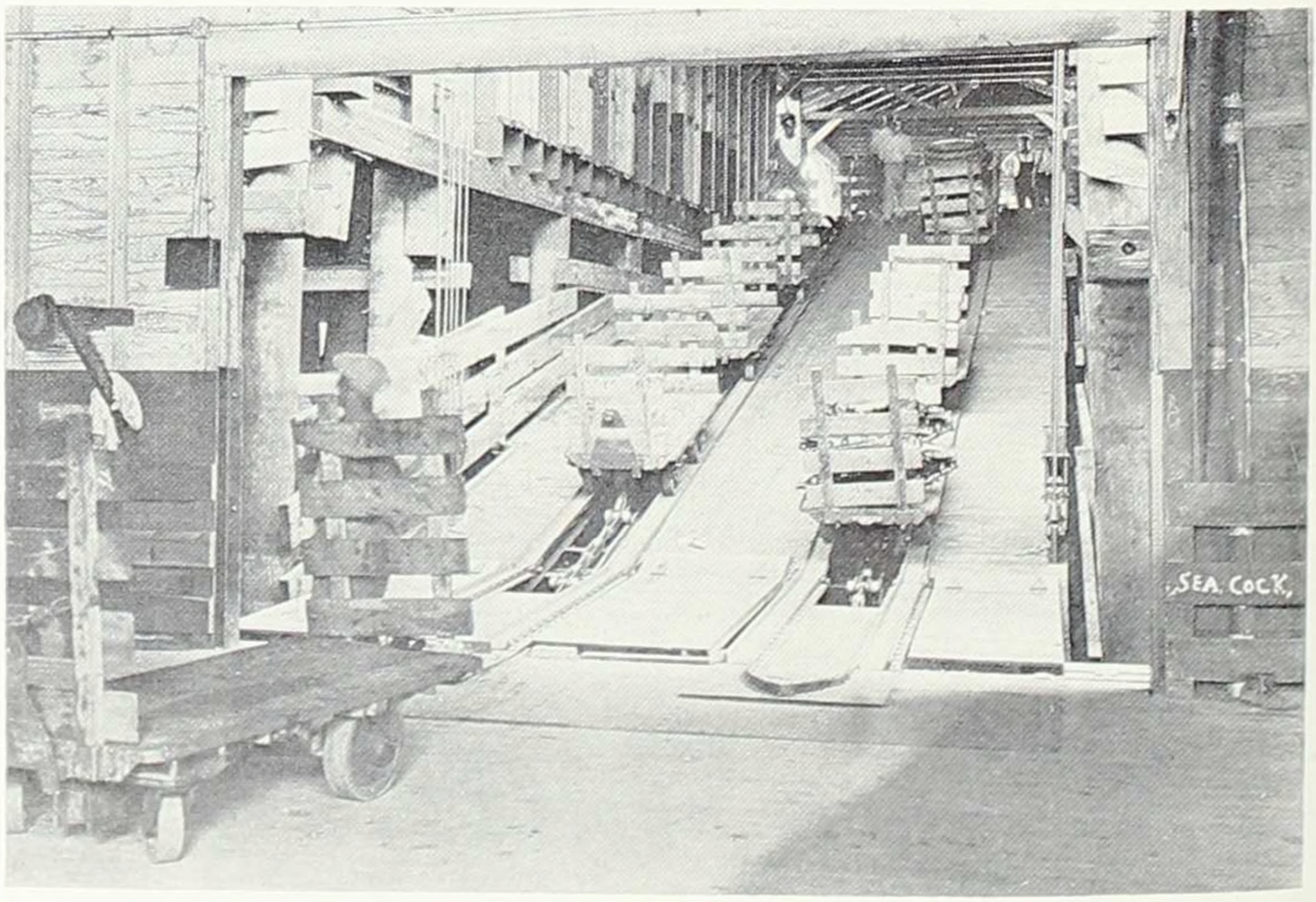
Rock Island Municipal River Terminal—showing floating Wharfboat on left. Note how Terminal is raised well above flood stage.



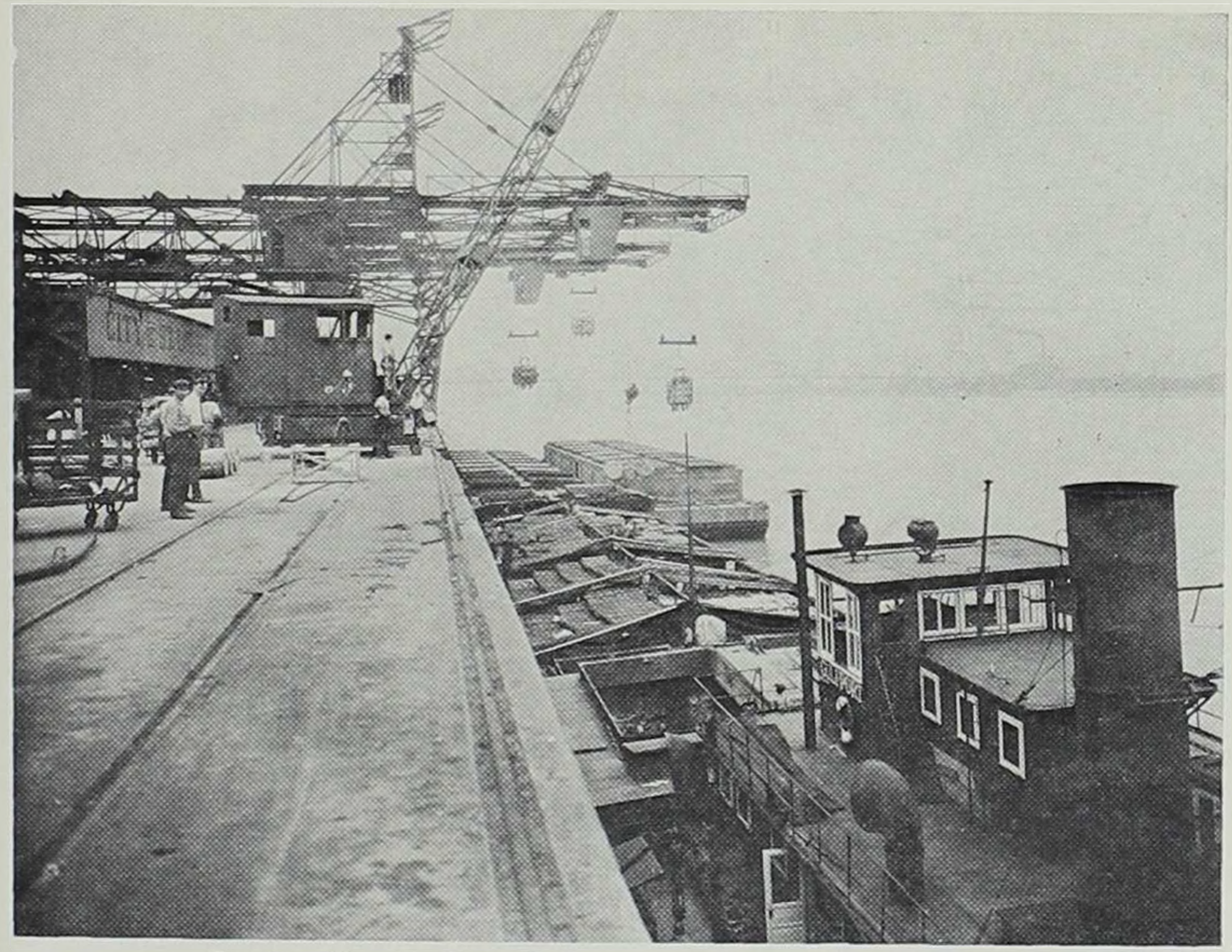
Dubuque Municipal Terminal with *Patrick J. Hurley* in the foreground. Railroad tracks run out to floating Wharfboat. *S. S. Thorpe* is on inside of railroad track.



The Burlington Municipal Terminal, escalator, and floating Wharfboat. The *John W. Weeks* towed the Wharfboat from St. Louis in 1928.



A typical modern escalator brings efficiency and speed in the handling of freight.

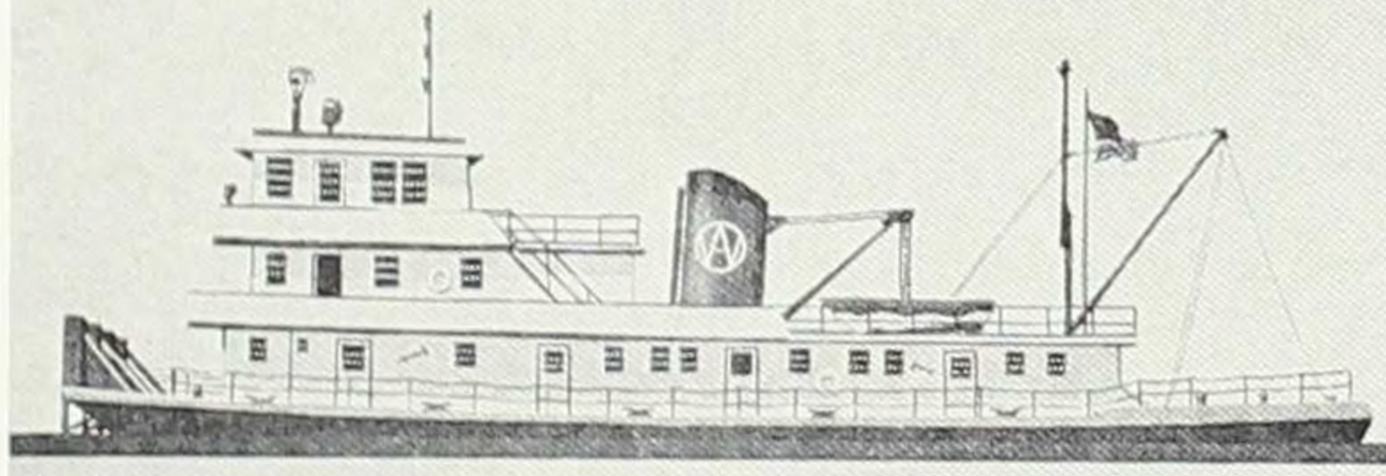


Loading Express Boat *Gulfport* at St. Louis Barge Terminal.

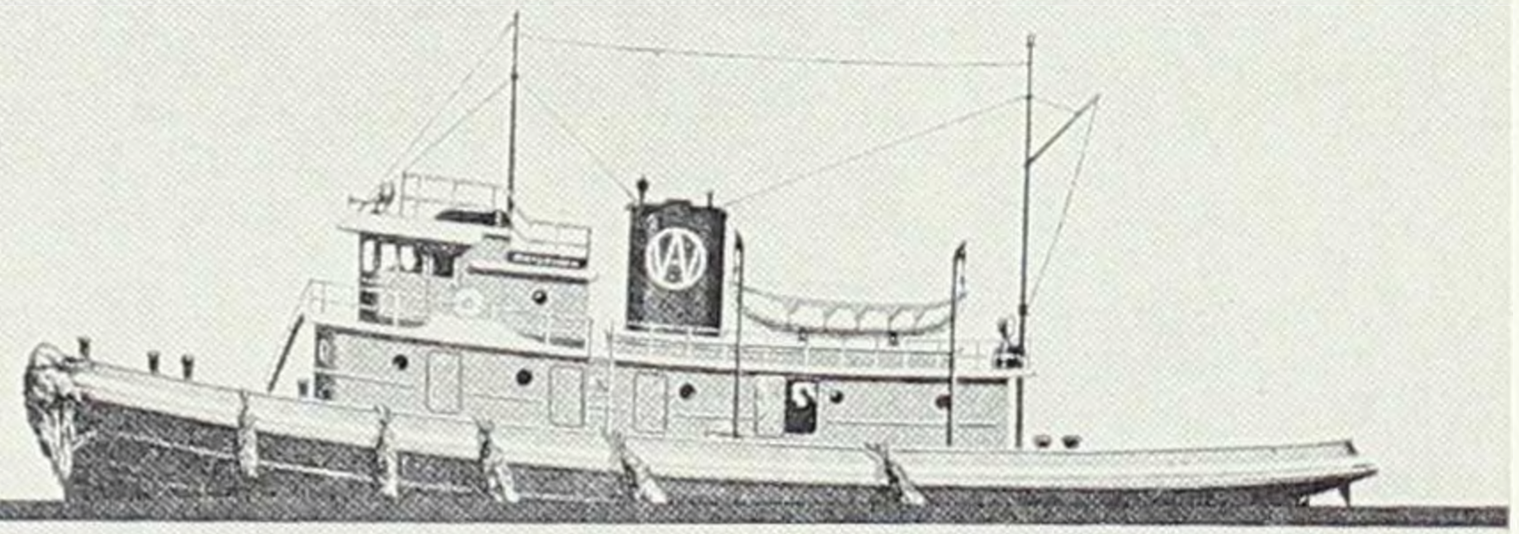
Interior of St. Louis Federal Barge Line Terminal.

TYPES OF CRAFT OPERATING ON THE INLAND WATERWAYS

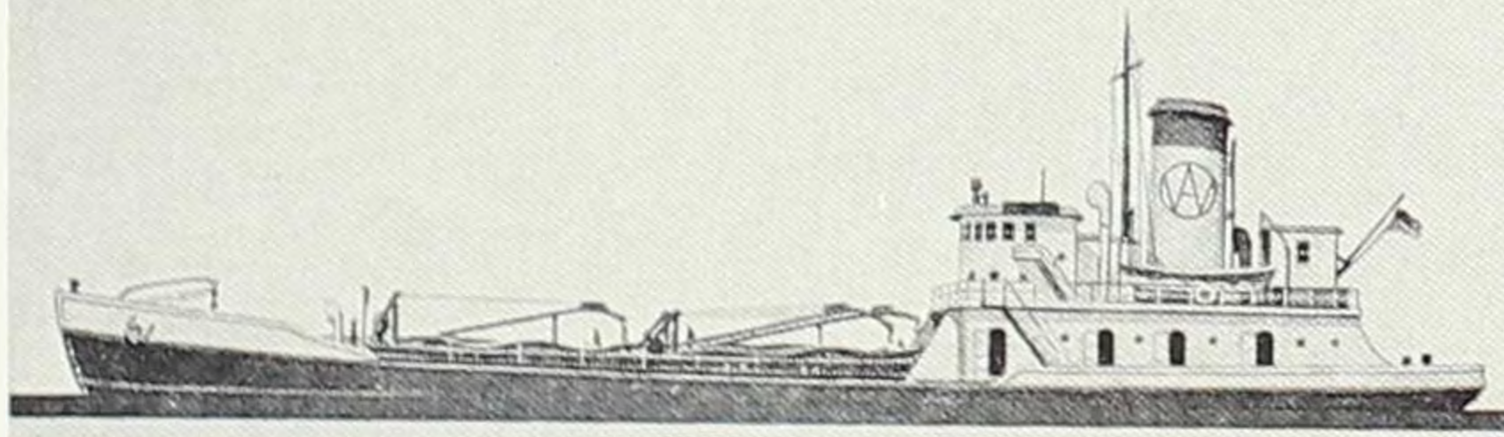
Specifications given on this page are descriptive of several sizes of craft in common usage.



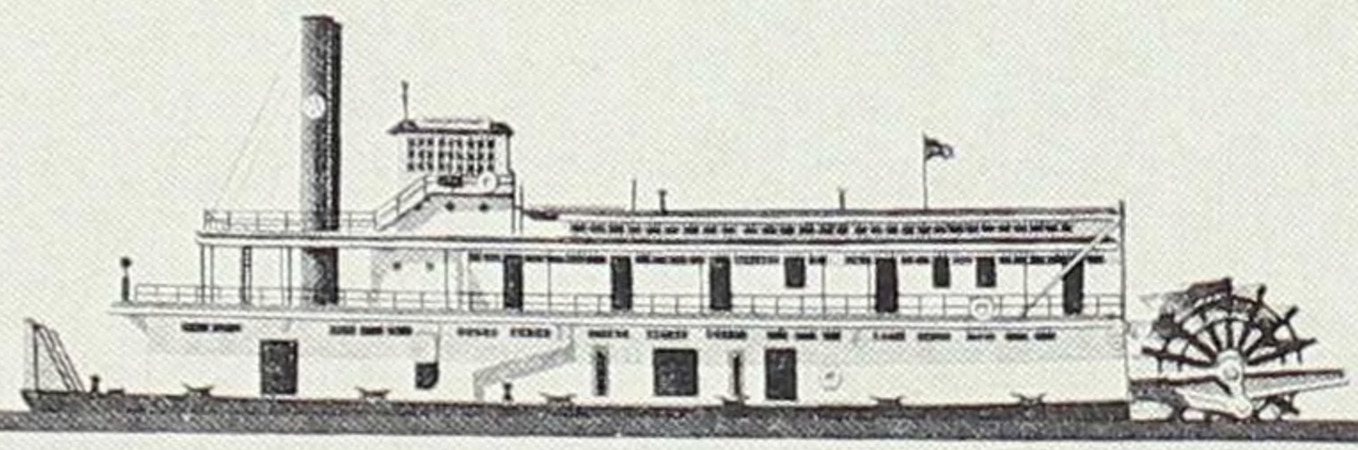
TOWBOATS	Length Feet	Breadth Feet	Draft Feet	Horsepower
	117	30	7.6	1000 to 3000
	142	34	8	1600 to 3600
	202	40	9.8	2000 to 4800



TUGBOATS	Length Feet	Breadth Feet	Draft Feet	Horsepower
	93	22	10	350 to 1000
	105	28	13	450 to 2000
	145	33	14	900 to 2000

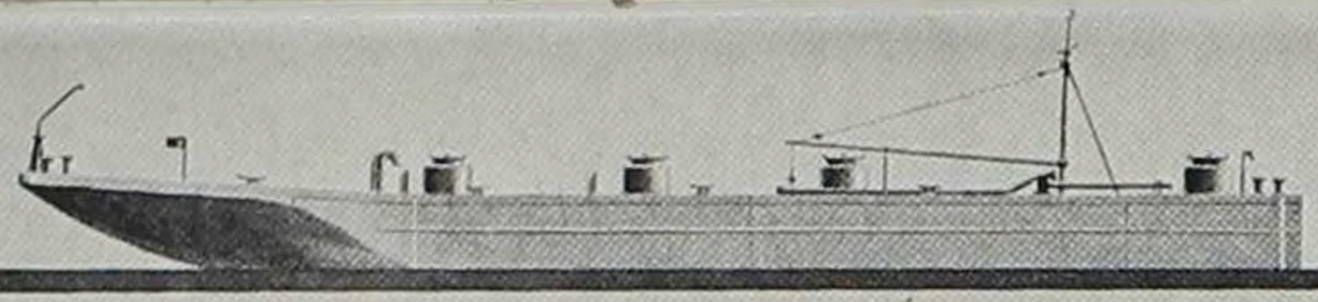


SELF-PROPELLED BARGES AND TANKERS	Length Feet	Breadth Feet	Draft Feet	Capacity tons
	167	35	6	1350
	210	41	10	1710
	260	43	12	2500



STERNWHEEL STEAMER TOWBOAT	Length Feet	Breadth Feet	Draft Feet	Horsepower
	147	33	5	750
	175	35	5	1000
	200	35	5	1000

Modern freight carriers on the inland waterways are tailor-made to new dimensions prescribed by production and distribution of the first magnitude. New dimensions in freight-carrier capacity are one-million-gallon tank barges, 100,000-bushel grain barges, 600-car integrated automobile tows, 1000-to-3500-ton-dry cargo barges and 1400-ton hopper barges.

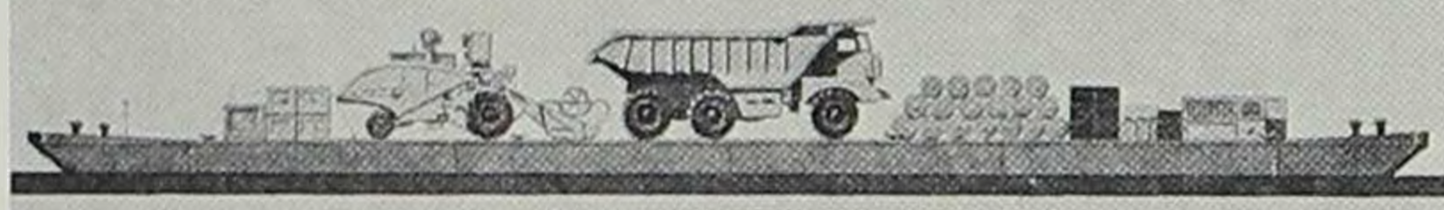


LIQUID CARGO (TANK) BARGES

Length Feet	Breadth Feet	Draft Feet	Capacity Tons	Capacity Gallons
175	26	8	1000	315,000
195	35	8	1500	525,000
295	52	9	3820	840,000

HOPPER BARGES

Length Feet	Breadth Feet	Draft Feet	Capacity Tons
175	26	8	1000
195	35	9	1500



DECK TYPE BARGES

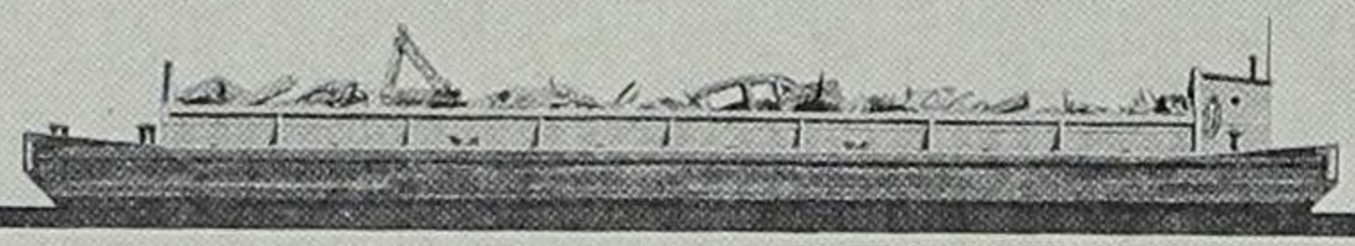
Length Feet	Breadth Feet	Draft Feet	Capacity Tons
110	26	6	350
180	35	8	1200

CARFLOATS

Carfloats Length	Breadth	Draft	Capacity Railroad Cars
257	40	10	10
366	36	10	19

COVERED DRY CARGO BARGES

Length Feet	Breadth Feet	Draft Feet	Capacity Tons
175	26	8	1000
195	35	8	1400
230	45	9	2000

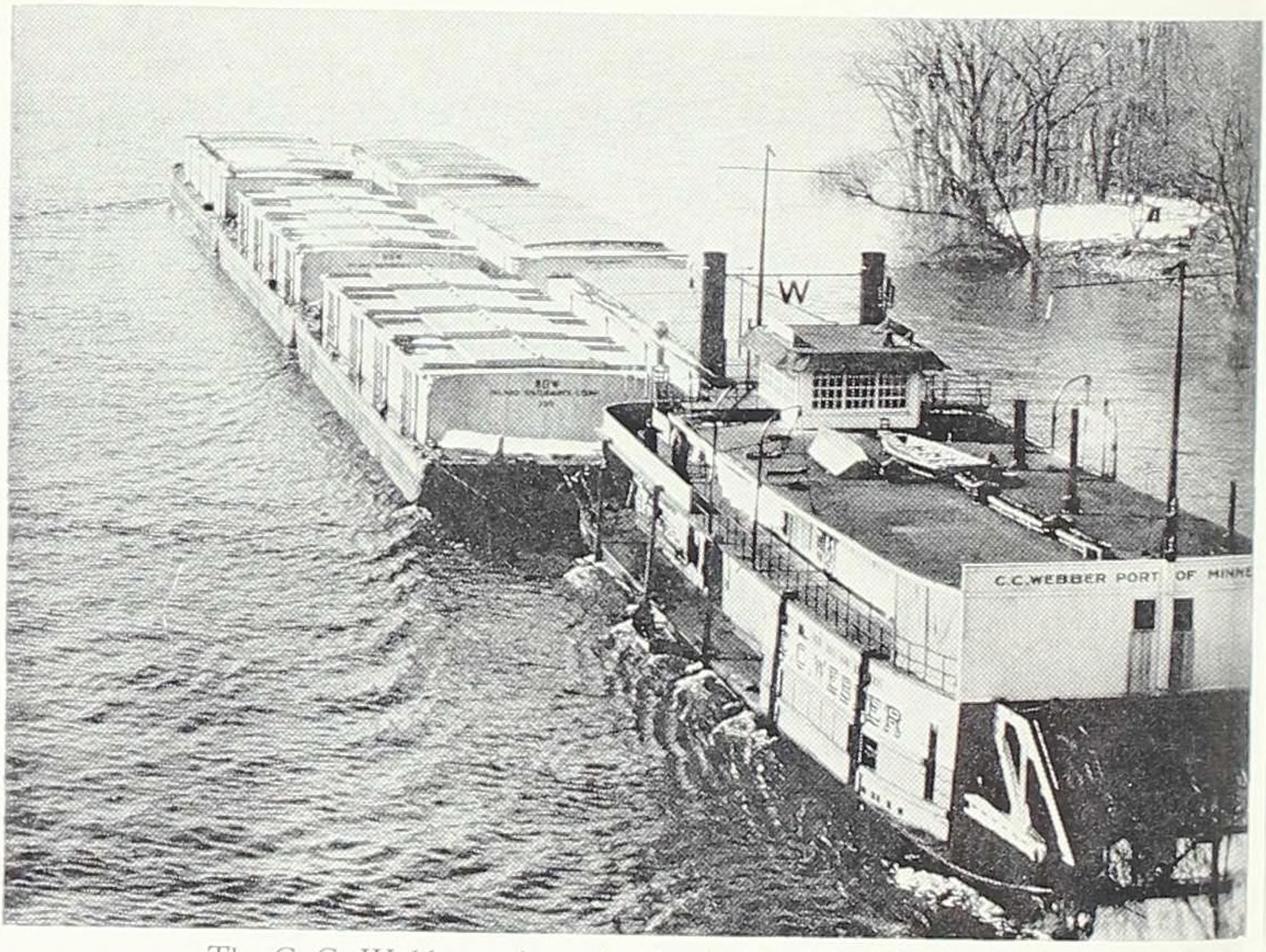


SCOW

Length Feet	Breadth Feet	Draft Feet	Capacity Tons
90	30	9	350
133	37	12	1000

5

These dimensions are determined by the nation's current need for 128,000,000 tons of steel, 300,000,000 tons of crushed stone, 500,000,000 tons of bituminous coal, 51,000,000,000 gallons of gasoline, 2,450,000,000 barrels of crude petroleum, 195,000,000 tons of feed grains and concentrates, 925,000,000 bushels of wheat and 3,000,000,000 pounds of aluminum.



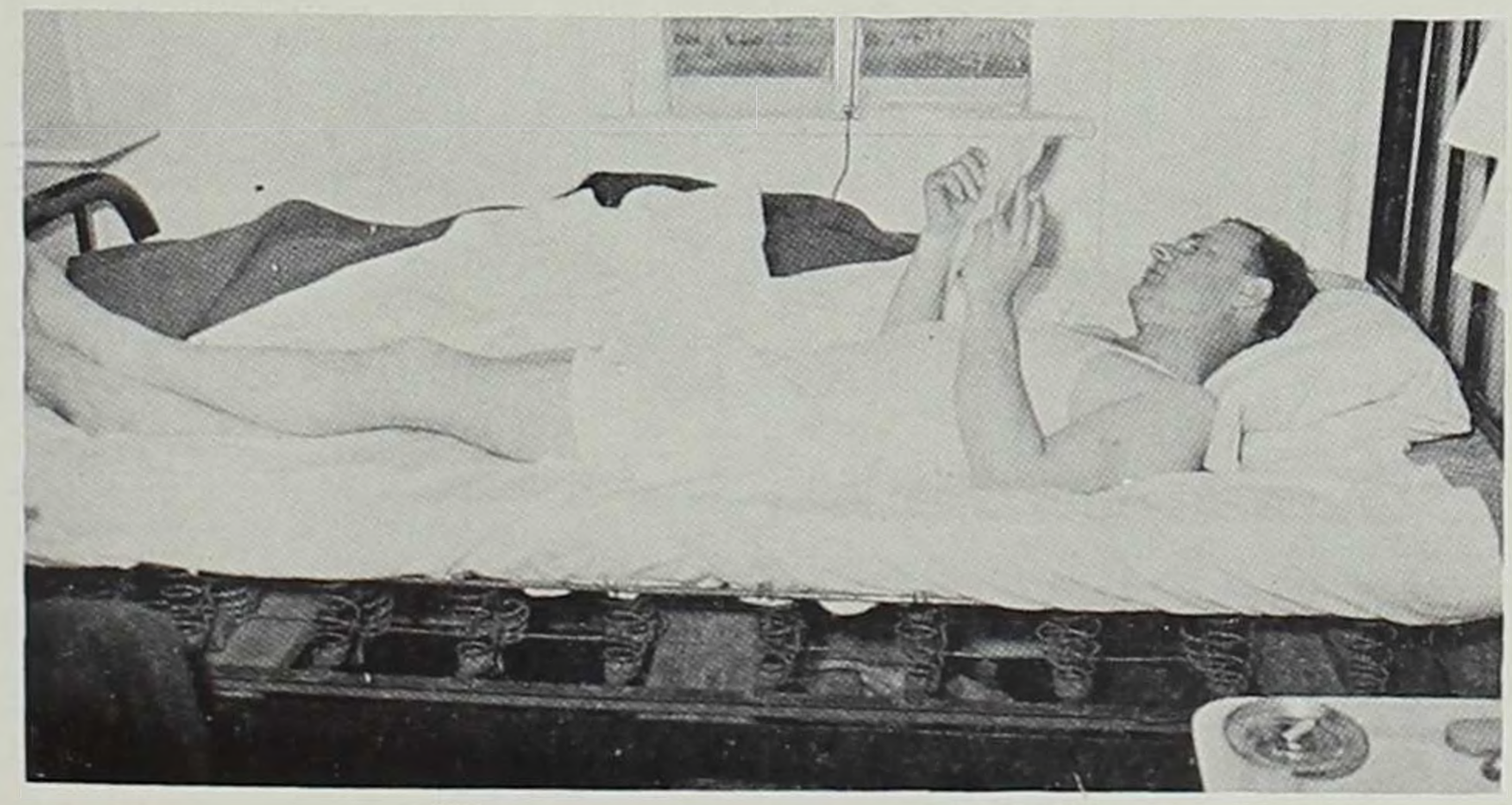
The C. C. *Webber* and tow heading south from Minneapolis.

The author photographed the *General Ashburn* and *John W. Weeks* passing each other on a stretch of the Mississippi.

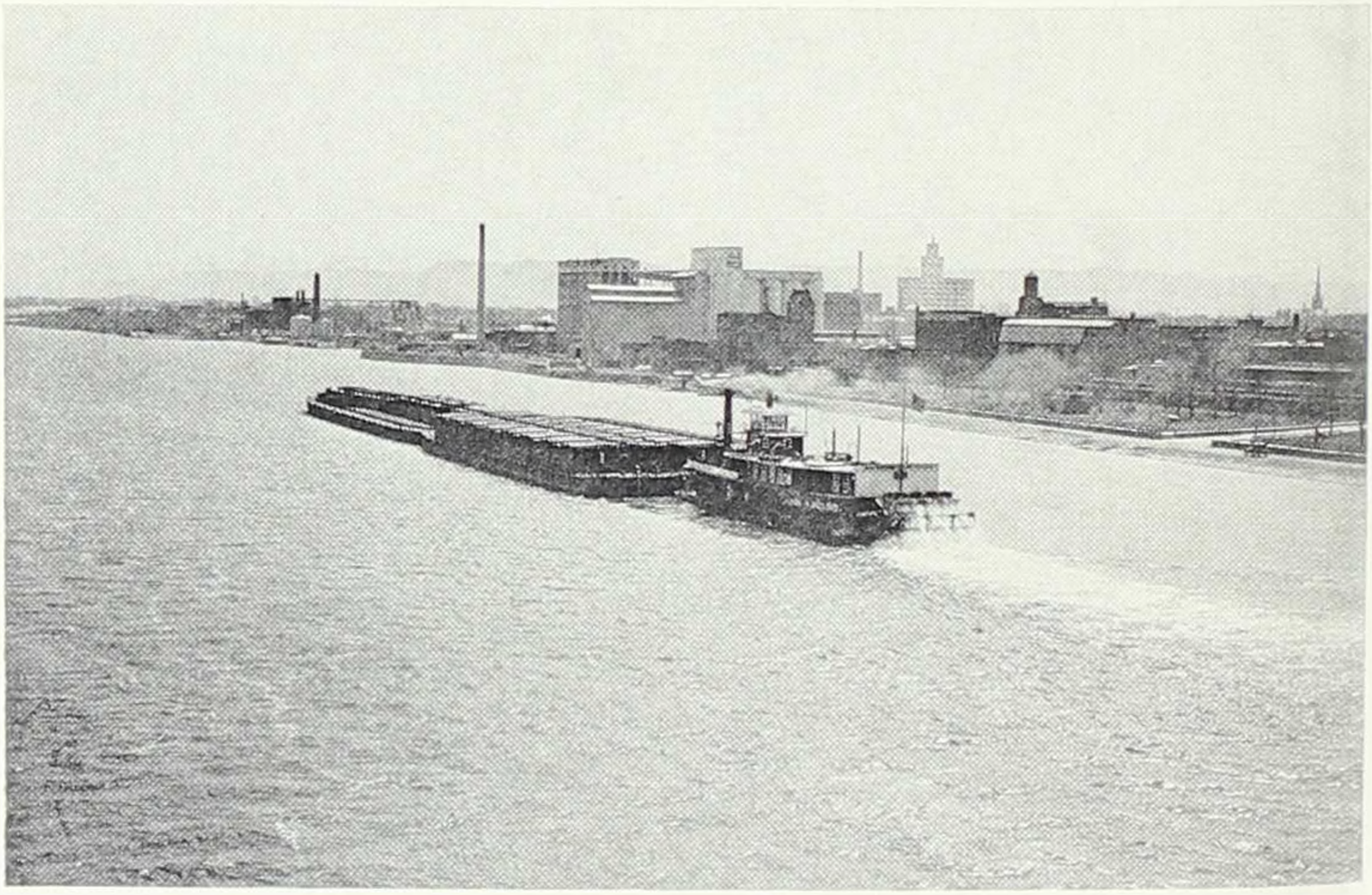
WORKING, EATING, AND SLEEPING—DAY AFTER DAY.

There is plenty of machinery to make minor repairs.

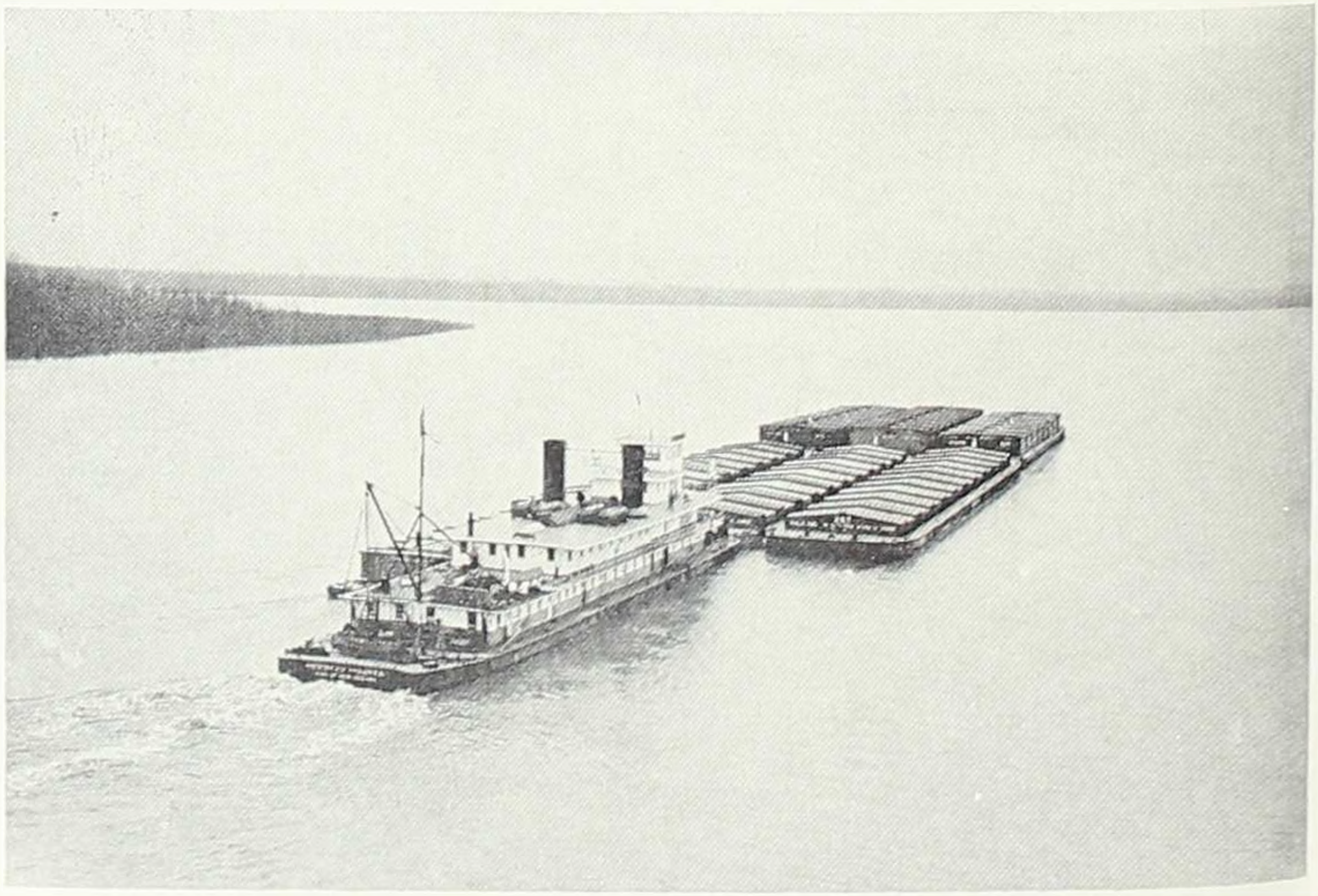
Captain Harry Lancaster and his officers at lunch.



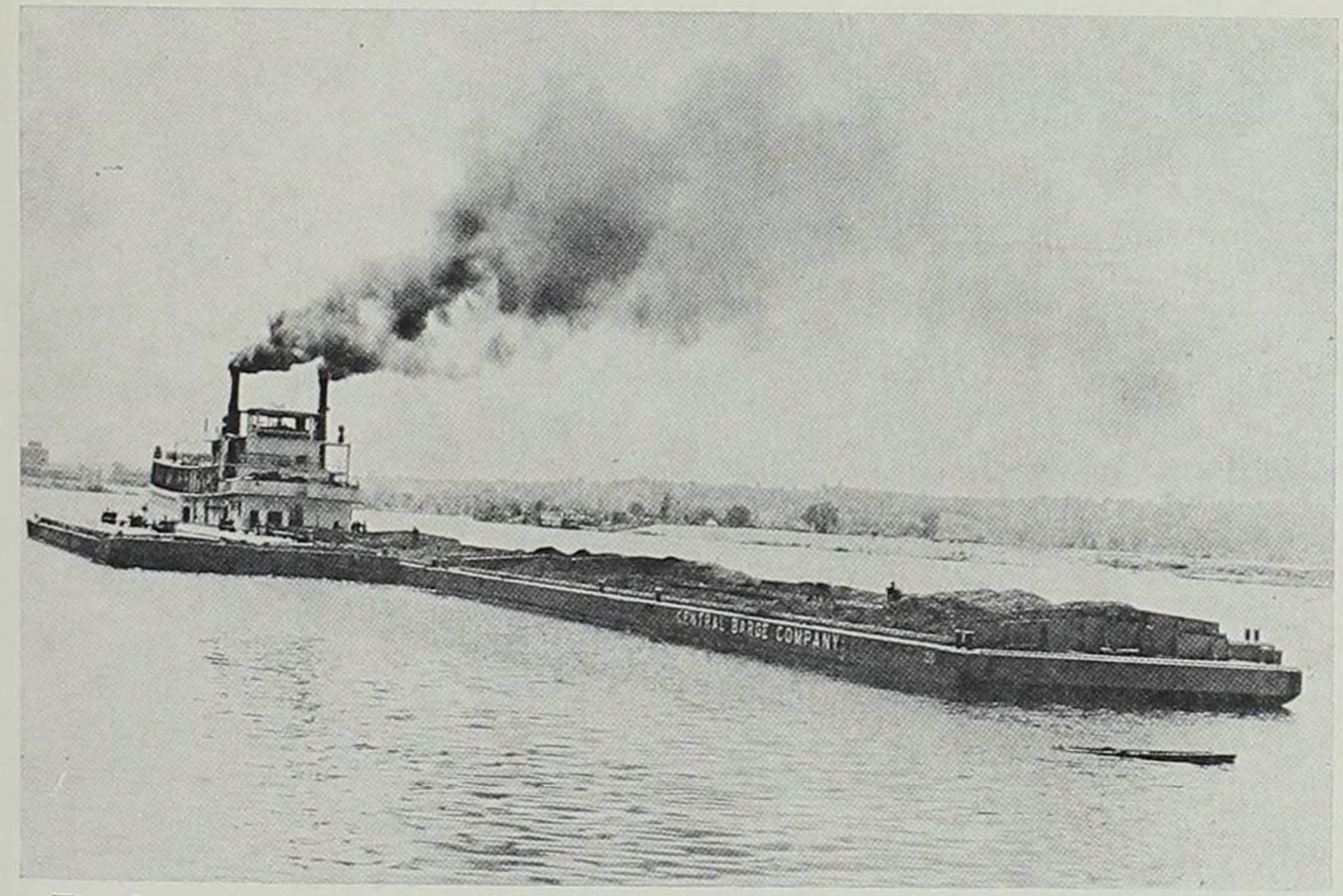
You can rest until your next shift!



The *John W. Weeks* downbound with tow of empty barges in 1937.

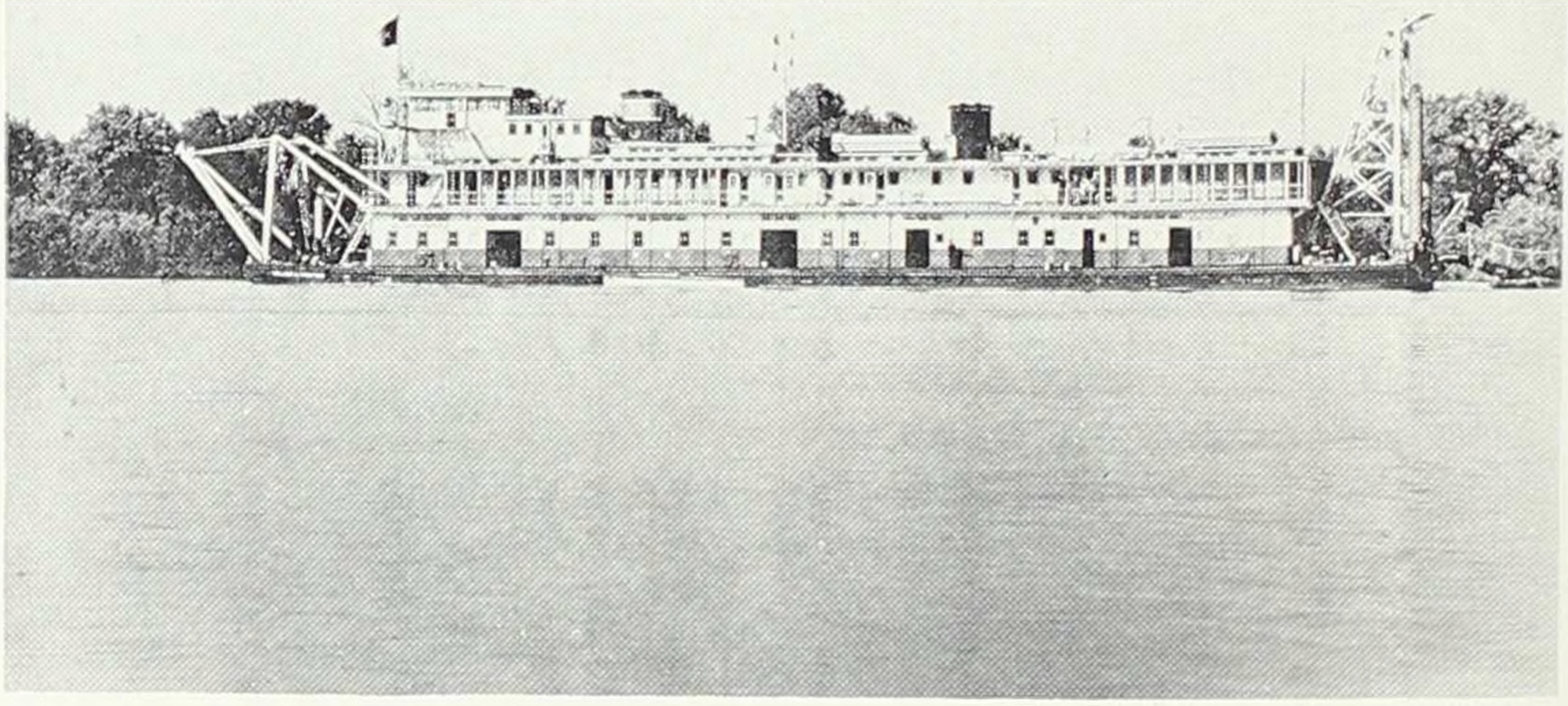


The *Herbert Hoover* with 7-barge tow upbound on the "Father of Waters."

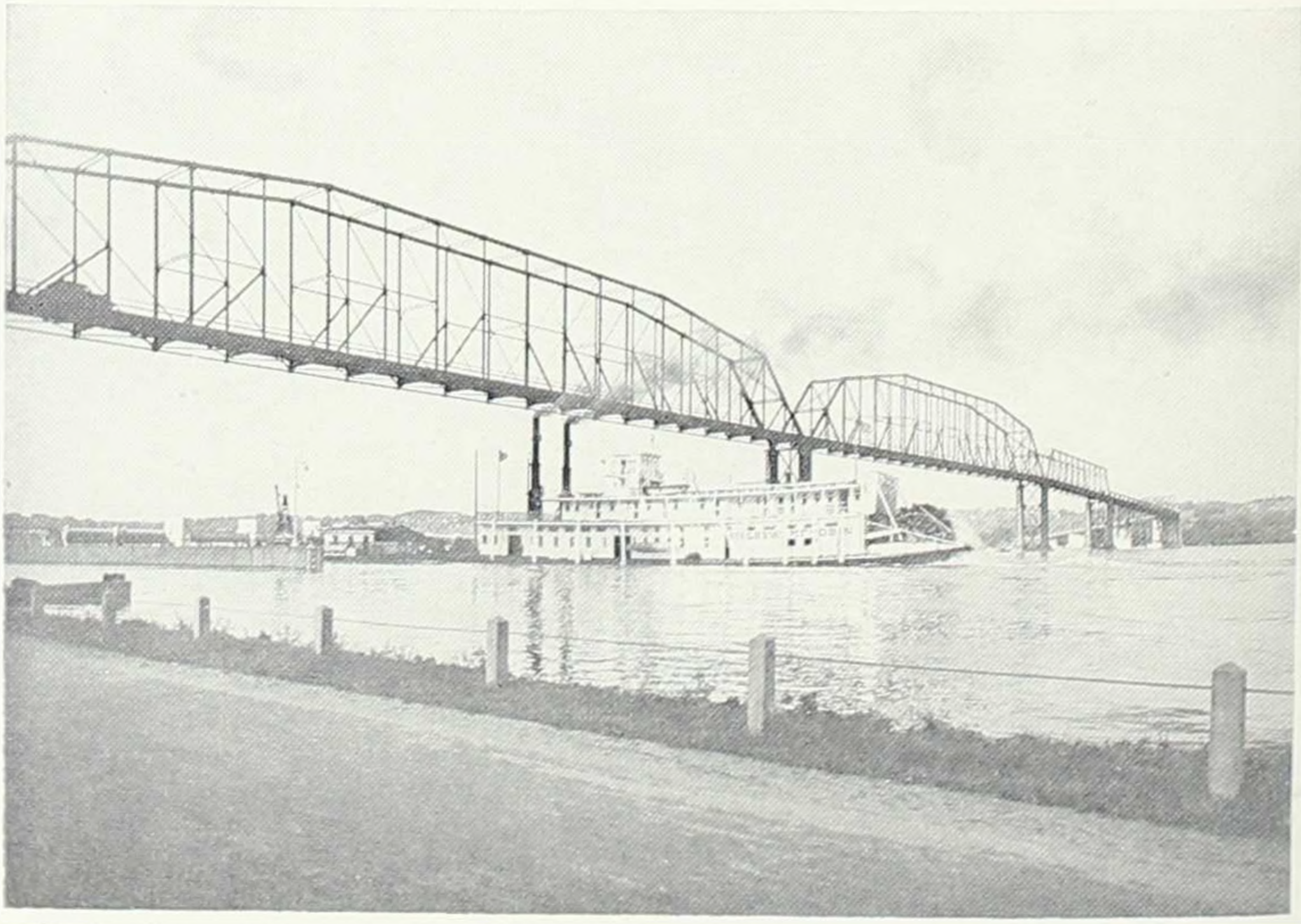


The *Alexander Mackenzie* of the Central Barge Line brings five barges of coal and two of oil on first trip to the Twin Cities. The St. Paul Municipal Dock is in the distance.

The *New Orleans* was once the *Herbert Hoover* of Federal Barge Line fame. The *Hoover* vied with the *Mackenzie* for pushing huge tows up the river. Built at Dubuque in 1930, the *Hoover* was the largest and most powerful diesel towboat on inland water when built.

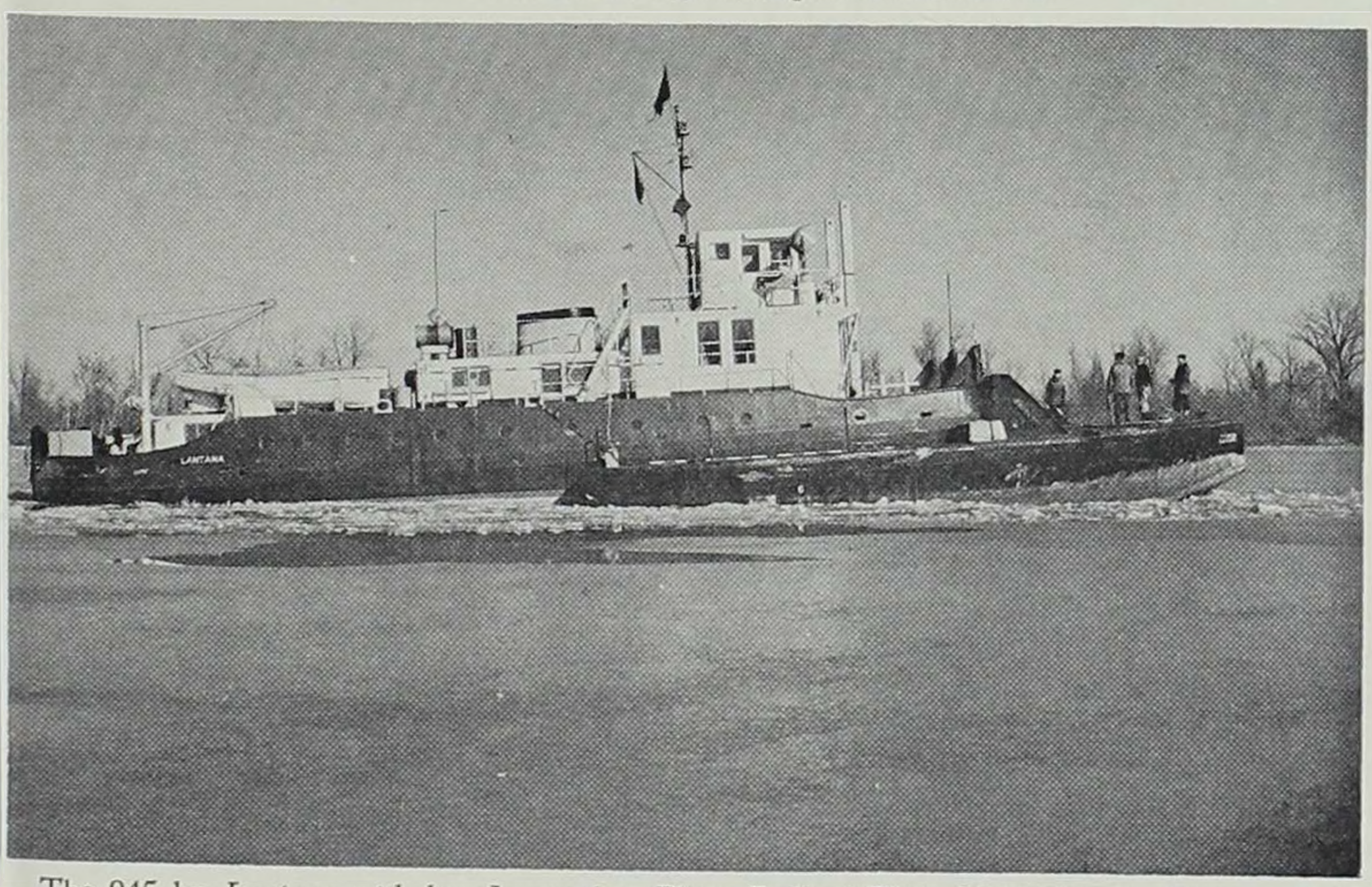


U.S. Dredge *William A. Thompson* in St. Paul District in 1937.



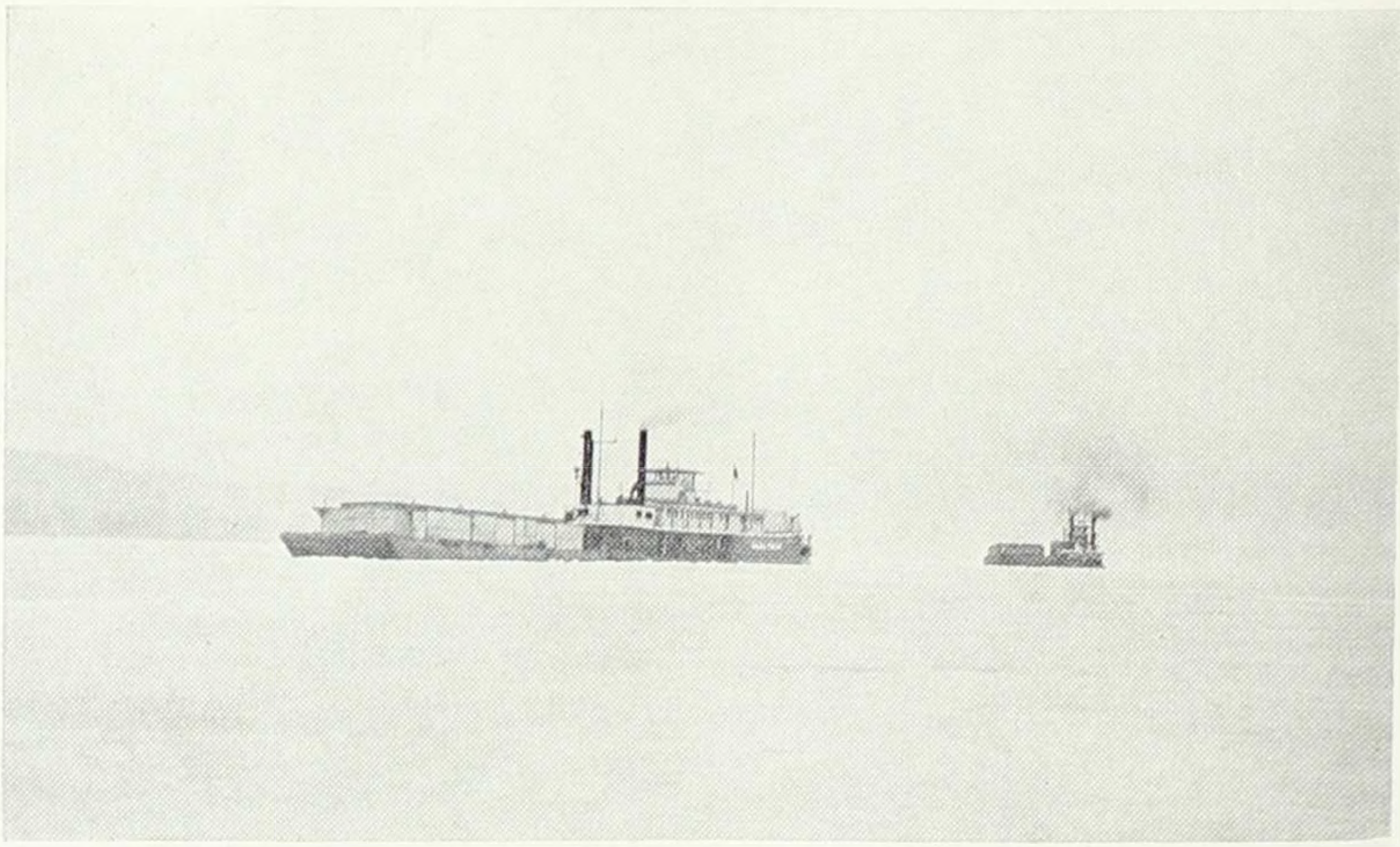
Wakerobin passing under Eagle Point Bridge at Dubuque with her Coast Guard equipment on September 21, 1938.

The U.S. Coast Guard Has Charge of Ice Breakers.

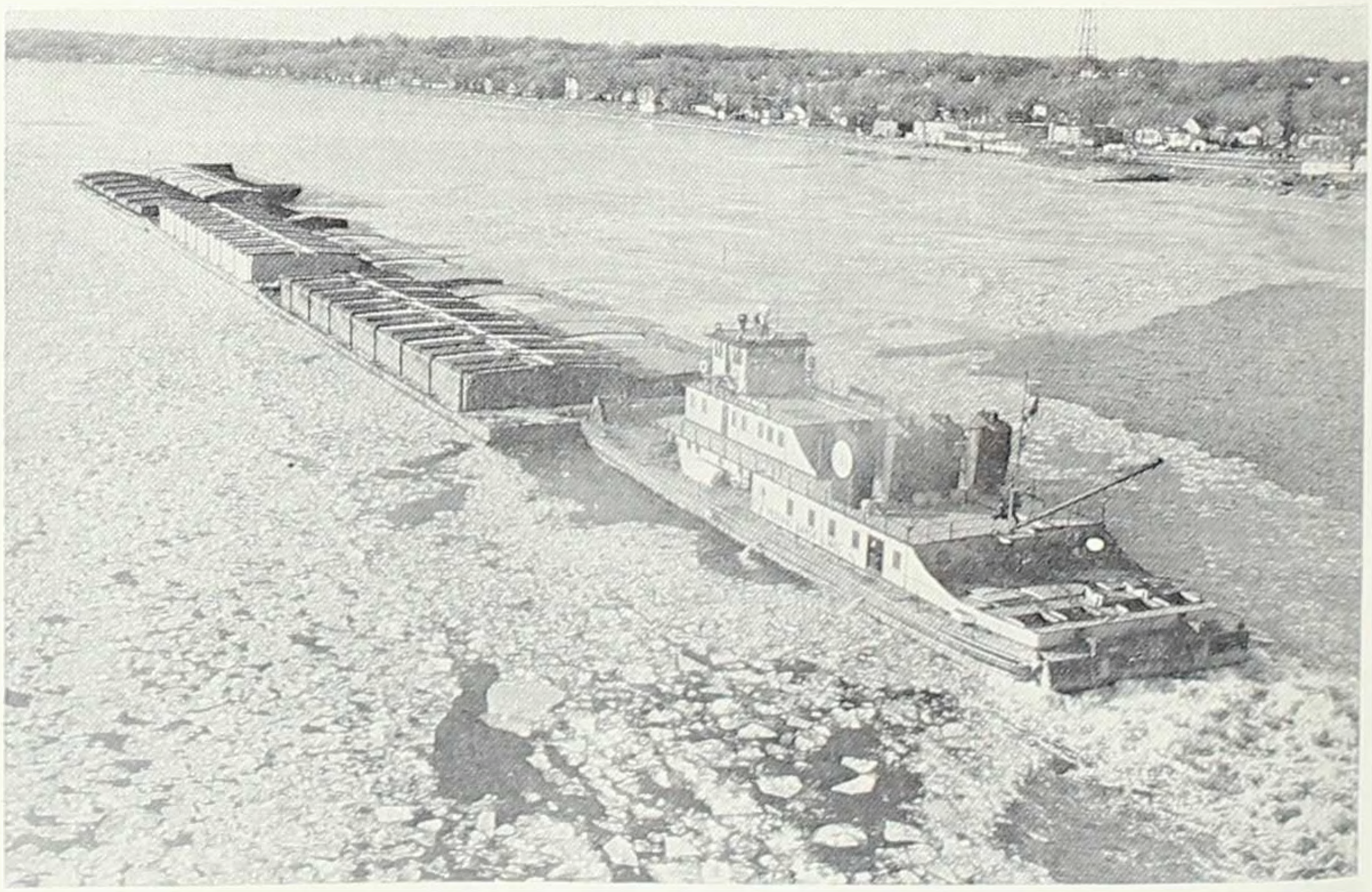


The 945 hp *Lantana* with her Amsterdam Plow. Built at Blair, Nebraska, in 1943, the *Lantana* has performed yeoman service on the Upper Mississippi for U.S. Coast Guard.

The *Fern* is a 960 hp ice-breaker built at Blair, Nebraska, in 1942. She is pushing her 85-ton Amsterdam iceplow. She is owned by U.S. Coast Guard at St. Louis.

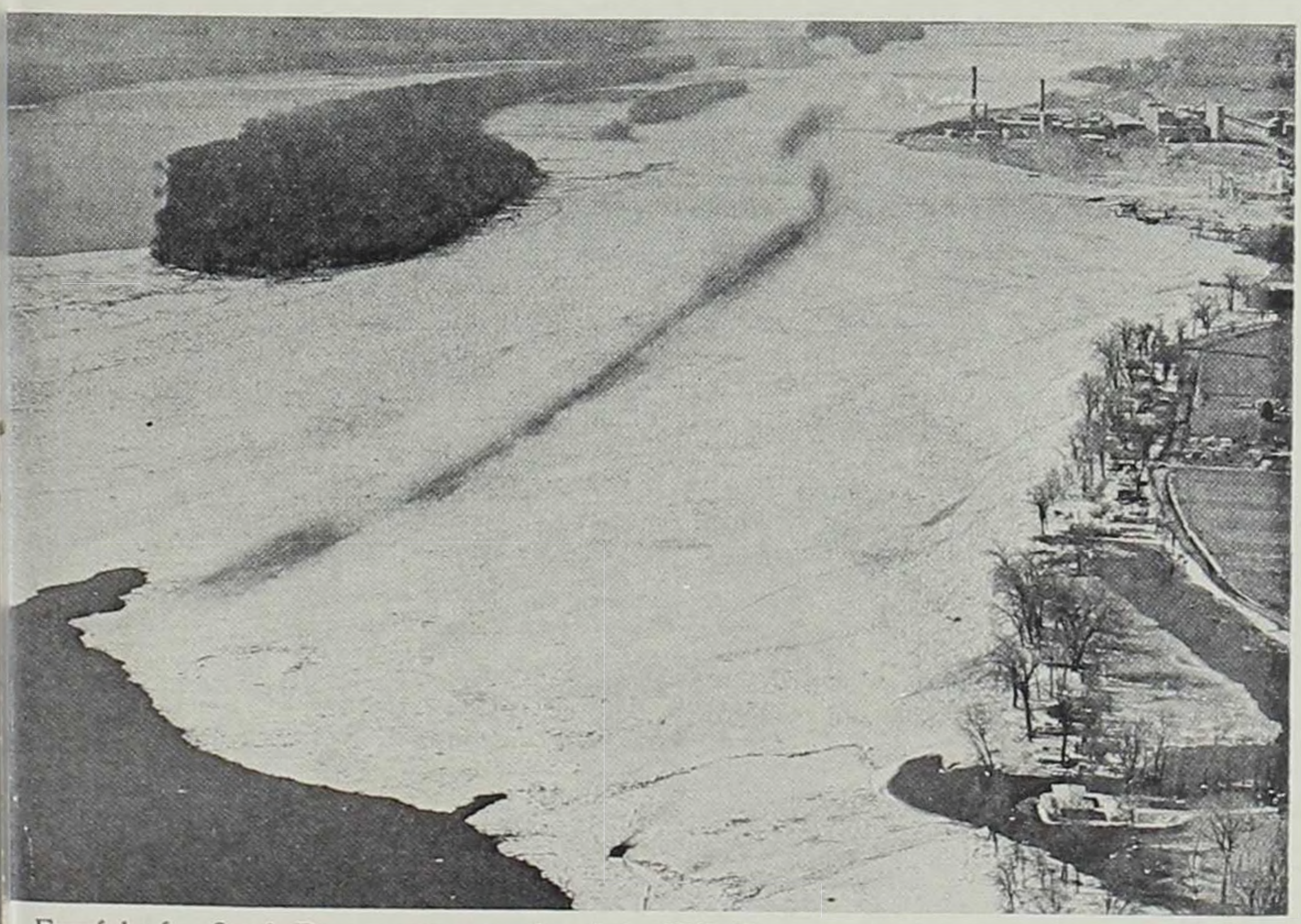


Mark Twain, followed by *John W. Weeks,* breaking through ice on Lake Pepin.



The *Lachlan Macleay* is a 3600 hp towboat built by St. Louis Ship in 1955, sold by the Federal Barge Line and renamed the *Lady Slipper.* She is seen breaking through ice on her way upstream on a cold winter day.

Ice piled high below Lock & Dam at Davenport. The Clock Tower appears in the distance.



Fearful of a flood, Davenporters implored the U.S. Engineers to break up the ice jam. Charcoal didn't work. Neither did a Go-Go Girl. Photo by Hutchinson of *Davenport Times-Democrat*.

CONTROLLING CLEARANCES

IN

UPPER MISSISSIPPI RIVER POOLS

from Minneapolis, Minn. to Granite City, Ill.

Lock No.	Miles above Ohio River	Nearest Town	Bank	Usable Lock Size in Feet	Lift in Feet (1)	Controlling Clearance in Pools of Dams — Horizontally: Name and Mileage of Bridge	Feet	Vertically (2): Place and Mile	Feet
Up St.A.	853.7	Minneapolis, Minn.	R	56x400	49.2	Broadway Ave. Hwy. (855.4)	139.3	Broadway Ave. Hwy. (855.4)	21.4 (8)
Low St.A.	853.4	Minneapolis, Minn.	R	56x400	24.9	GN Ry. Stone Arch. (853.7)	*56.0	GN Ry. Stone Arch. (853.7)	24.4 (8)
1	847.6	Minneapolis, St. Paul, Minn.	R	56x400 56x400	37.9	Washington Ave. Hwy. (852.7)	180.0	Washington Ave. Hwy. Br. (852.7)	36.3 (8)
2	815.2	Hastings, Minn.	R	110x500 110x600	12.2	Robert St. Hwy. (839.2)	158.0	Robert St. Hwy. Br. (839.2)	40.7
3	796.9	Red Wing, Minn.	R	110x600	8.0	C. M. St. P. & P. R. R. (813.7)	106.0	Hastings Hwy. Br. (814.0)	50.1
4	752.8	Alma, Wis.	L	110x600	7.0	Wabasha Hwy. (760.2)	406.7	Red Wing Hwy. Br. (790.6)	52.2
5	738.1	Minneiska, Minn.	R	110x600	9.0	No bridges cross this pool		Aerial wire crossing (750.5)	75.1
5A	728.5	Winona, Minn.	R	110x600	5.5	No bridges or aerial wires cross this pool			
6	714.3	Trempealeau, Wis.	L	110x600	6.5	C. & N. W. Ry. (725.8)	151.0	Winona Hwy. Br. (725.9)	51.5 (3)
7	702.5	Dresbach, Minn.	R	110x600	8.0	No bridges or aerial wires cross this pool			
8	679.2	Genoa, Wis.	L	110x600	11.0	C. M. St. P. & P. R. R. (699.8)	150.0	La Crosse Hwy. Br. (mid 300') (697.6)	55.2
9	647.9	Lynxville, Wis.	L	110x600	9.0	Lansing Hwy. (663.4)	620.0	Lansing Hwy. Br. (663.4)	55.3
10	615.1	Guttenberg, Ia.	R	110x600	8.0	Prairie Du Chein Hwy. (634.8)	238.0	Marquette Hwy. Br. (mid 300') (634.9)	55.6
11	583.0	Dubuque, Ia.	R	110x600	11.0	No bridges cross this pool		Aerial Wire crossing (603.2)	68.1
12	556.7	Bellevue, Ia.	R	110x600	9.0	I. C. R. R. (579.9)	151.8	Julien Dubuque Hwy. Br. (mid 300') (579.3)	50.3
13	522.5	Clinton, Ia.	L	110x600	11.0	C. M. St. P. & P. R. R. (535.0)	159.5	Savanna Hwy. Br. (mid 300') (537.8)	57.0
14	493.3	Le Claire, Ia.	R	110x600	11.0	C. & N. W. Ry. (518.0)	202.5	Interstate Hwy. Br. (350.0') (495.5)	*60.0
	493.1	Pleasant Valley, Ia.	R	80x320	11.0				

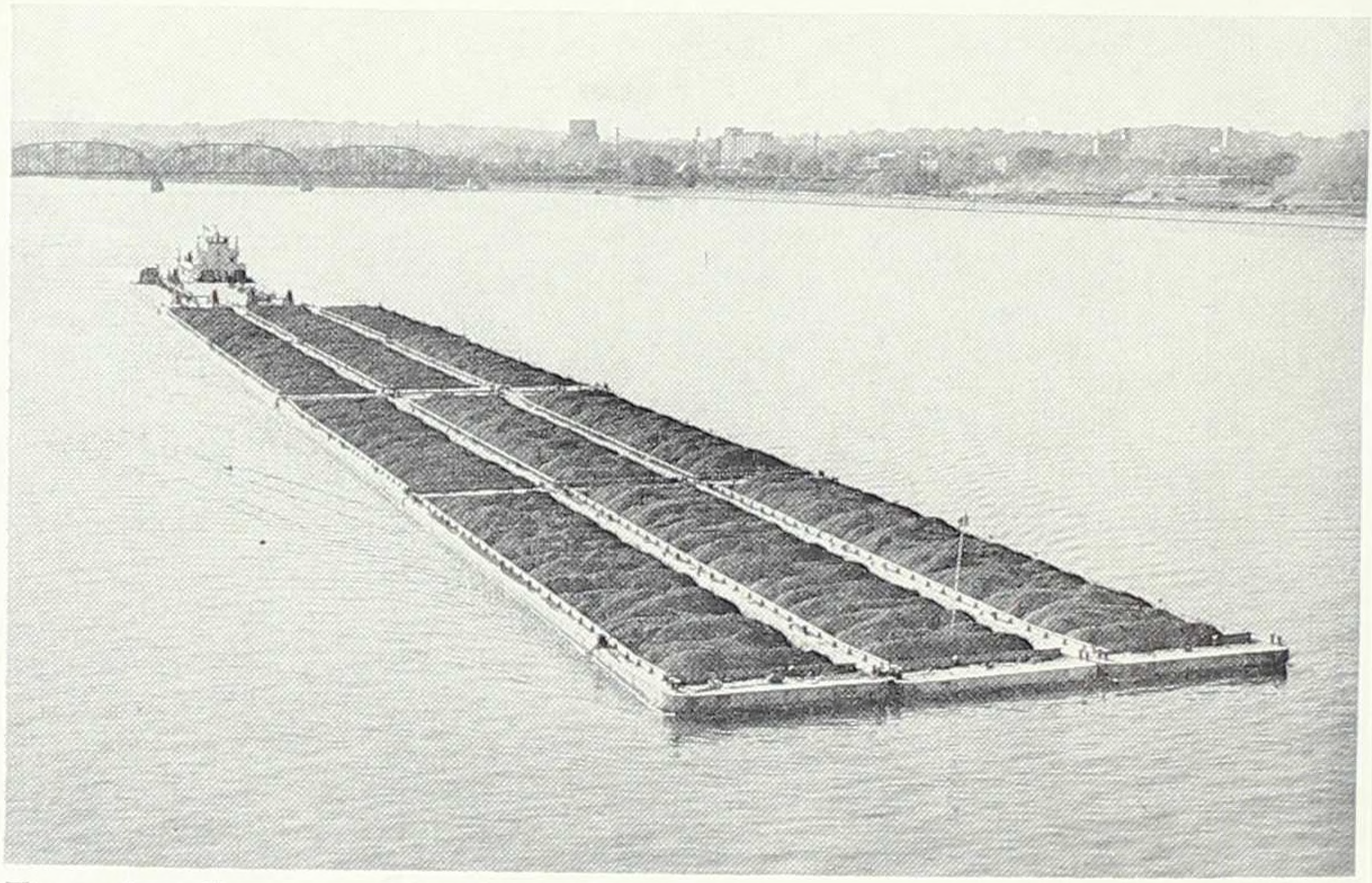
CONTROLLING CLEARANCES
IN
UPPER MISSISSIPPI RIVER POOLS

Lock No. (4)	Miles above Ohio River	Nearest Town	Bank	Usable Lock Size in Feet	Lift in Feet (1)	Controlling Clearance in Pools of Dams — Horizontally: Name and Mileage of Bridge	Feet	Vertically (2): Place and Mile	Feet
15	482.9	Rock Island, Ill.	L	110x600 110x360	16.0	Moline-Bettendorf Hwy. (485.8)	710.0	Moline-Bettendorf Hwy. Br. (mid 300') (485.8)	62.8
16	457.2	Muscatine, Ia.	L	110x600	9.0	D. R. I. & N. W. Ry. (481.4)	198.3	Rock Island Cent. Hwy. Br. (482.1)	49.3 (3)
17	437.1	New Boston, Ill.	L	110x600	8.0	Muscatine Hwy. (455.5)	427.6	Muscatine Hwy. Br. (mid 300') (455.5)	51.0
18	410.5	Burlington, Ia.	L	110x600	9.8	M. & St. L. R. R. (428.0)	224.0	M. & St. L. R. R. Br. (428.0) (in raised position)	54.2
19	364.2	Keokuk, Ia.	R	110x1200	38.0	C. B. & Q. R. R. (403.1)	153.0	Burlington Hwy. Br. (mid 300') (404.2)	53.5
20	343.2	Canton, Mo.	R	110x600	10.0	Wabash & T. P. & W. R. R. & Hwy. (364.0)	158.0	Aer'l wire crossing on Wabash & T. P.&W.R.R. & Hwy. Br. (364.0)	59.6
21	324.9	Quincy, Ill.	L	110x600	10.5	C. B. & Q. R. R. (328.0)	300.0	Quincy Memorial Hy. Br. (327.0)	50.4 (5)
22	301.2	Saverton, Mo.	R	110x600	10.2	Wabash Railroad (309.9)	159.8	Hannibal Hwy. Br. (309.2)	53.1 (3)
24	273.4	Clarksville, Mo.	R	110x600	15.0	G.M.&O.R.R. (282.1)	195.4	Louisiana Hwy. Br. (mid 300') (283.2)	55.0
25	241.4	Cap Au Gris, Mo.	R	110x600	15.0	No bridges or aerial wires cross this pool			
26	202.9	Alton, Ill. (6)	L	110x600 110x600	23.0 (7)	No bridges cross this pool		Aerial wire crossing (224.6)	55.2
27	185.0	Granite City, Ill.	L	110x1200 110x600	8.0				

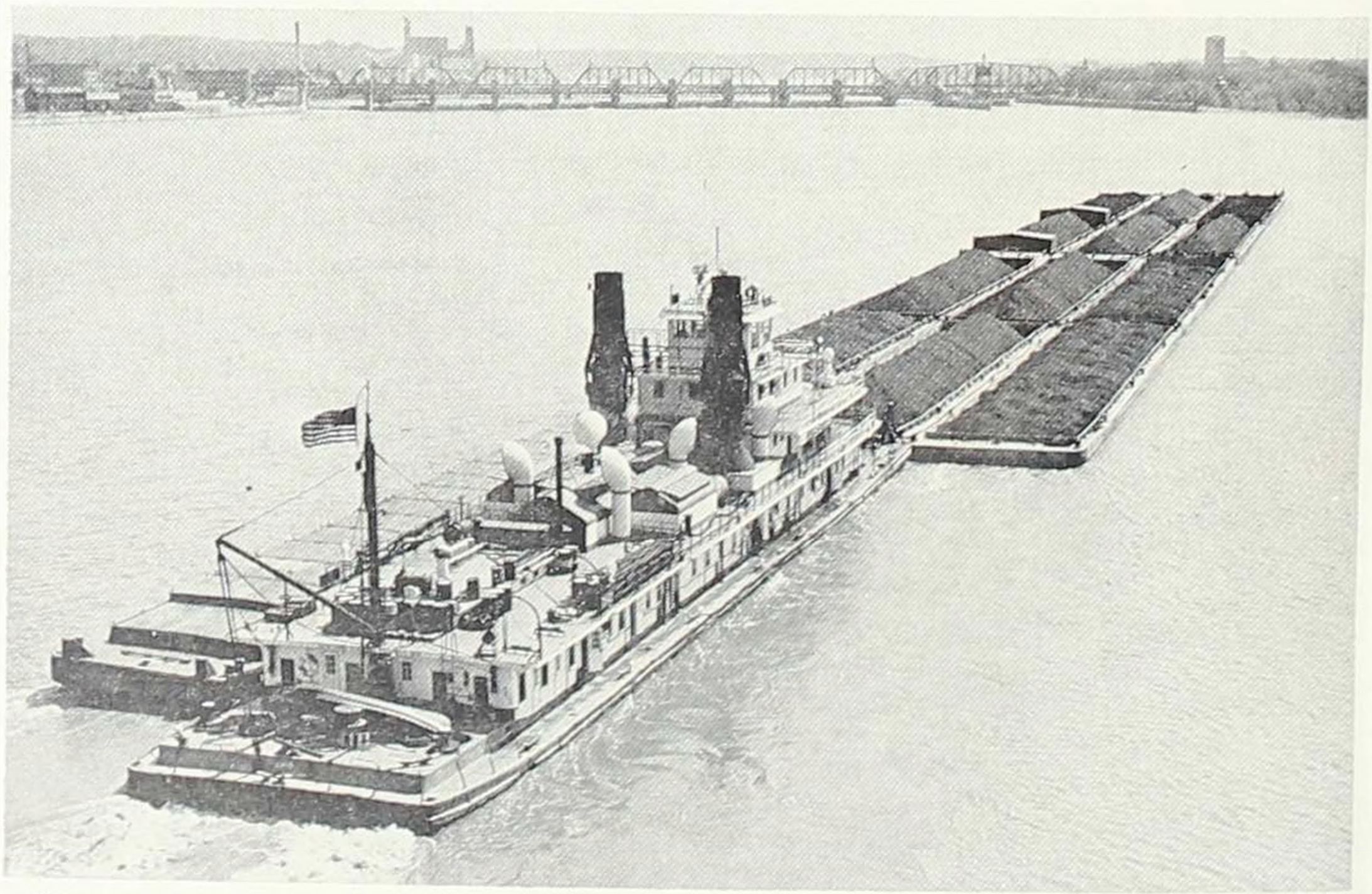
EXPLANATION

(1) Lifts at flat pool stages.
(2) Above recorded high water. Clearances are for center of span except as noted.
(3) For low point of span.
(4) Lock and Dam No. 23 not constructed.
(5) Clearance available at center and ends of channel span.
(6) Official name: Henry T. Rainey Dam.
(7) With depth of 11 feet on lower lock sill.

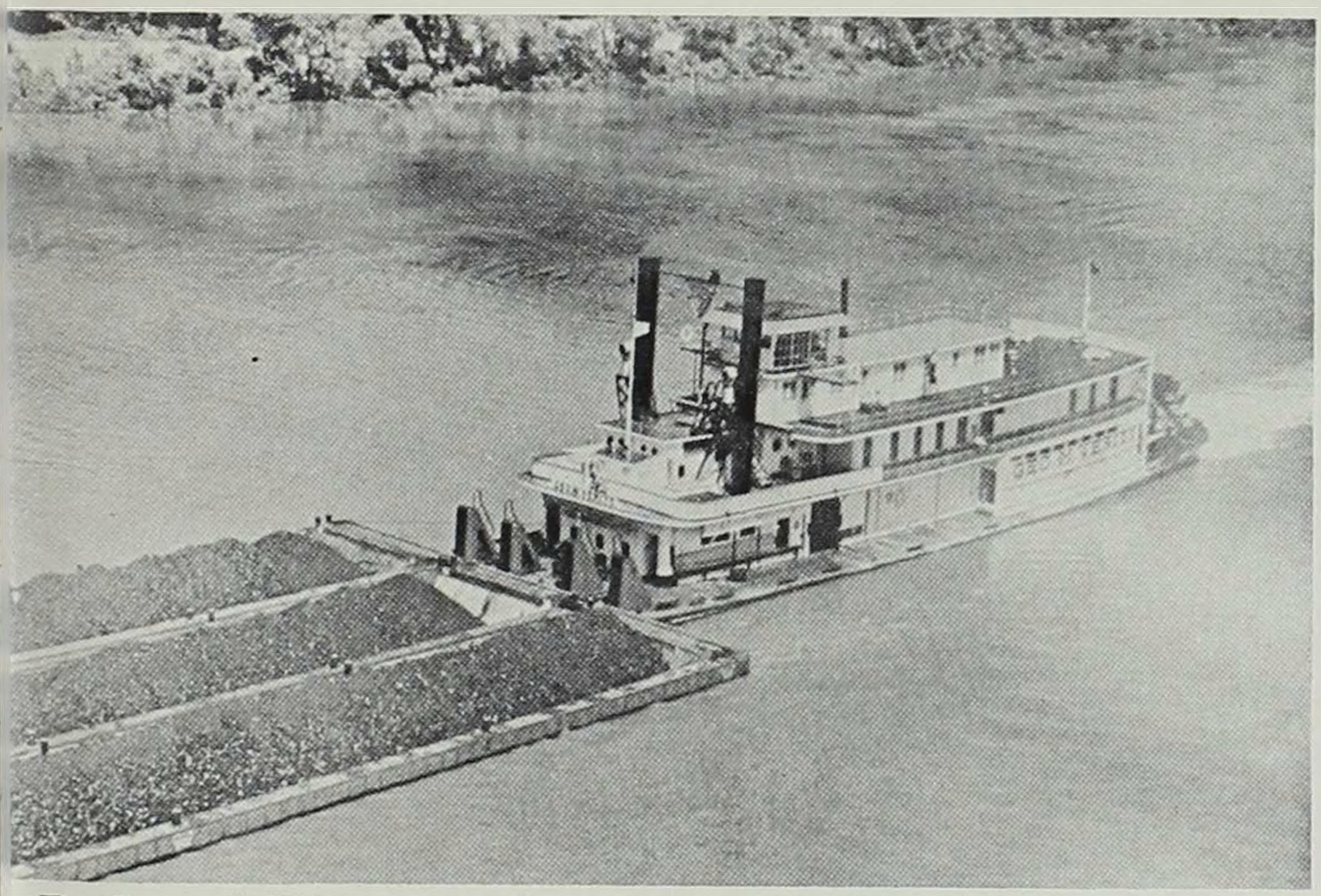
The above statistics on the locks and Dams, as well as Bridges of all types, are indicative of the many hurdles towboat pilots clear between St. Louis and Minneapolis.



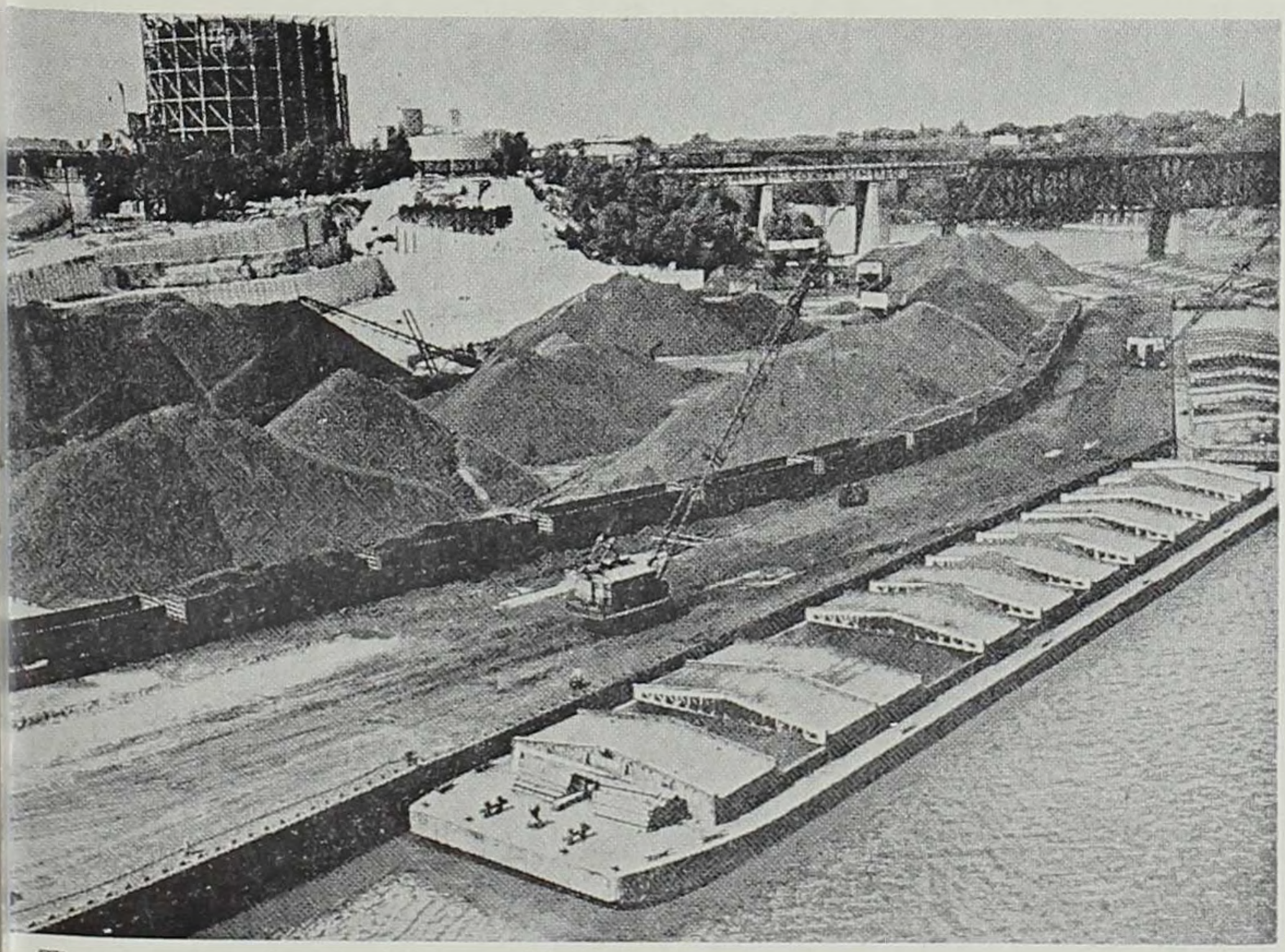
The towboat *Truax* approaching Lock 15 with a 14-barge tow—12 of coal and 2 of petroleum.



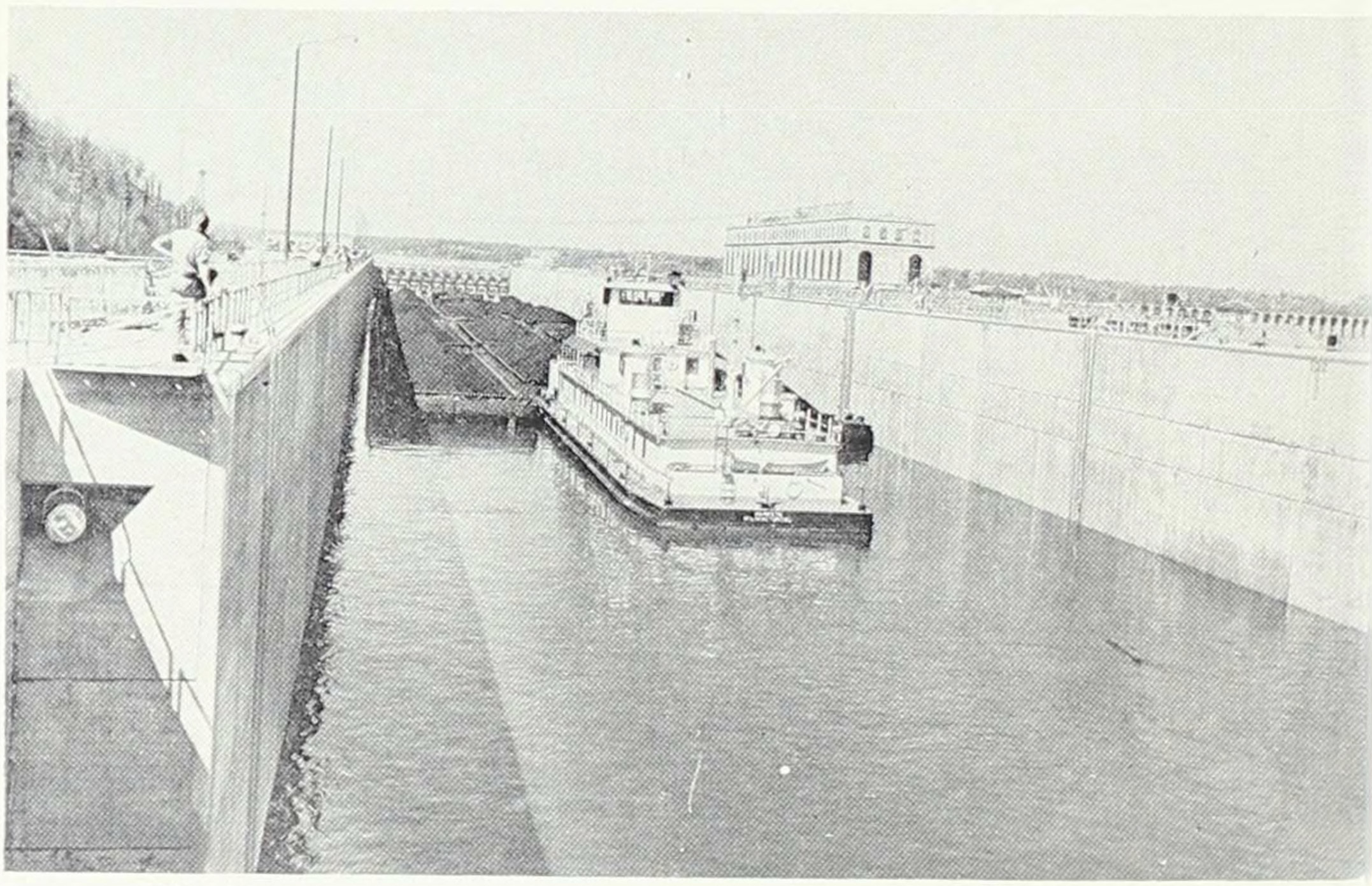
The towboat *Ohio* with 12 barges of coal approaching Lock 15 at Rock Island. The total tonnage was 17,200, an average tow for the larger boats.



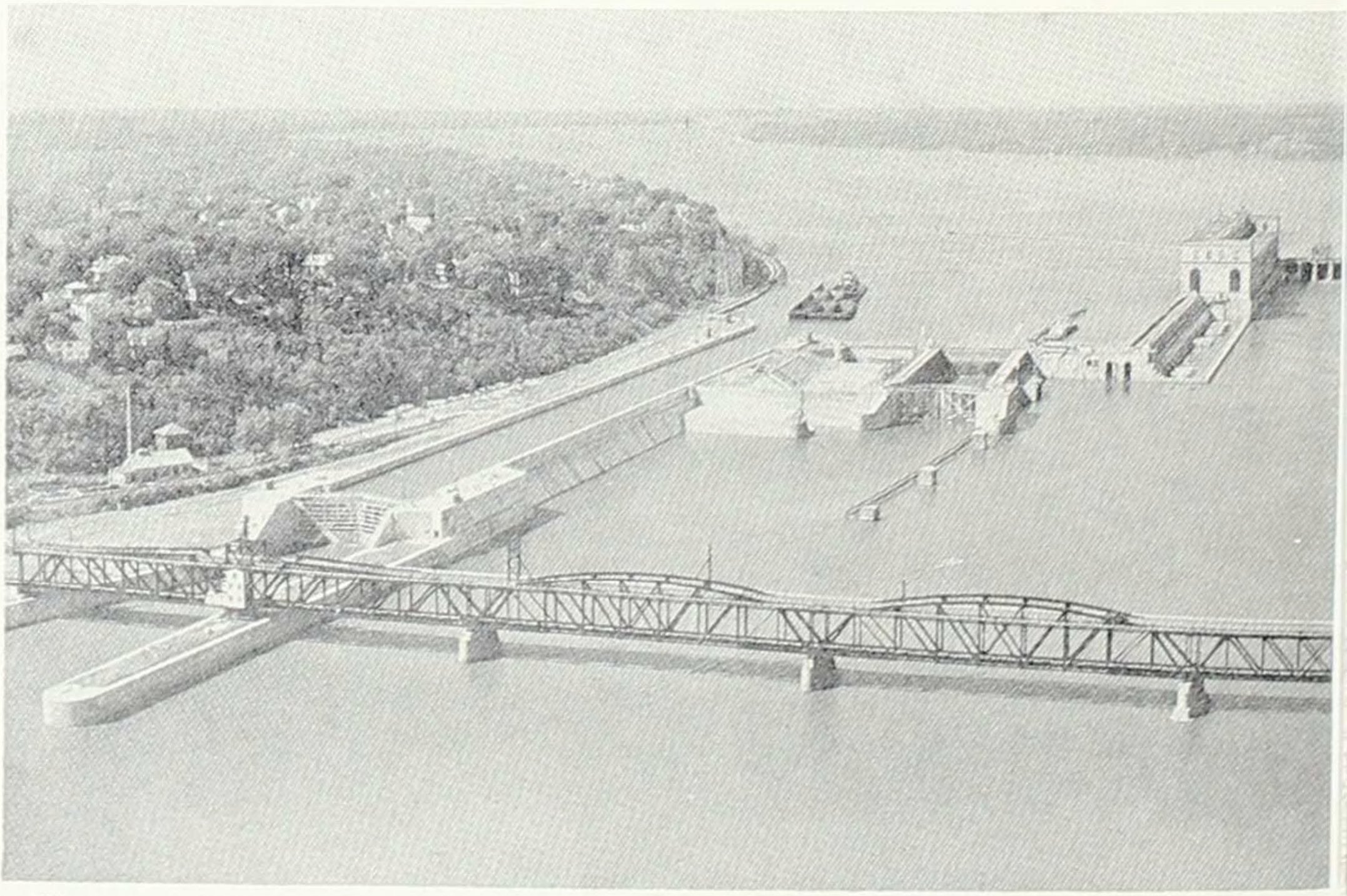
The *George M. Verity* with a tow of coal on the Ohio River. The *Verity,* originally the *S.S. Thorpe,* is now a museum at Keokuk.



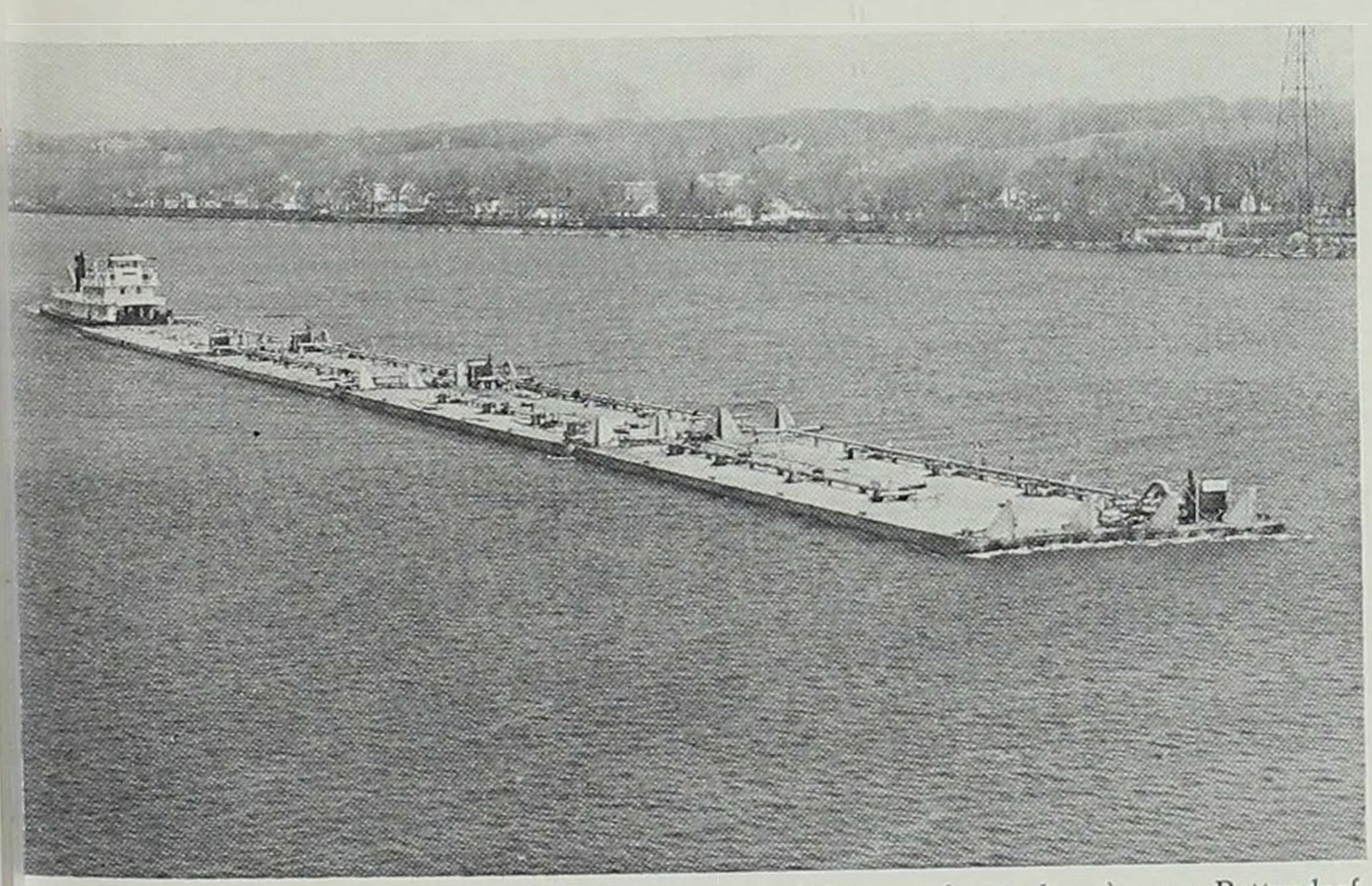
The mountains of coal piled up at Minneapolis, together with the barges used in delivery, which will later be filled with grain, are evidence of the magnitude of barge line service today.



The 12-barge tow of the *Hawkeye* fits easily into the new Keokuk Lock 19.



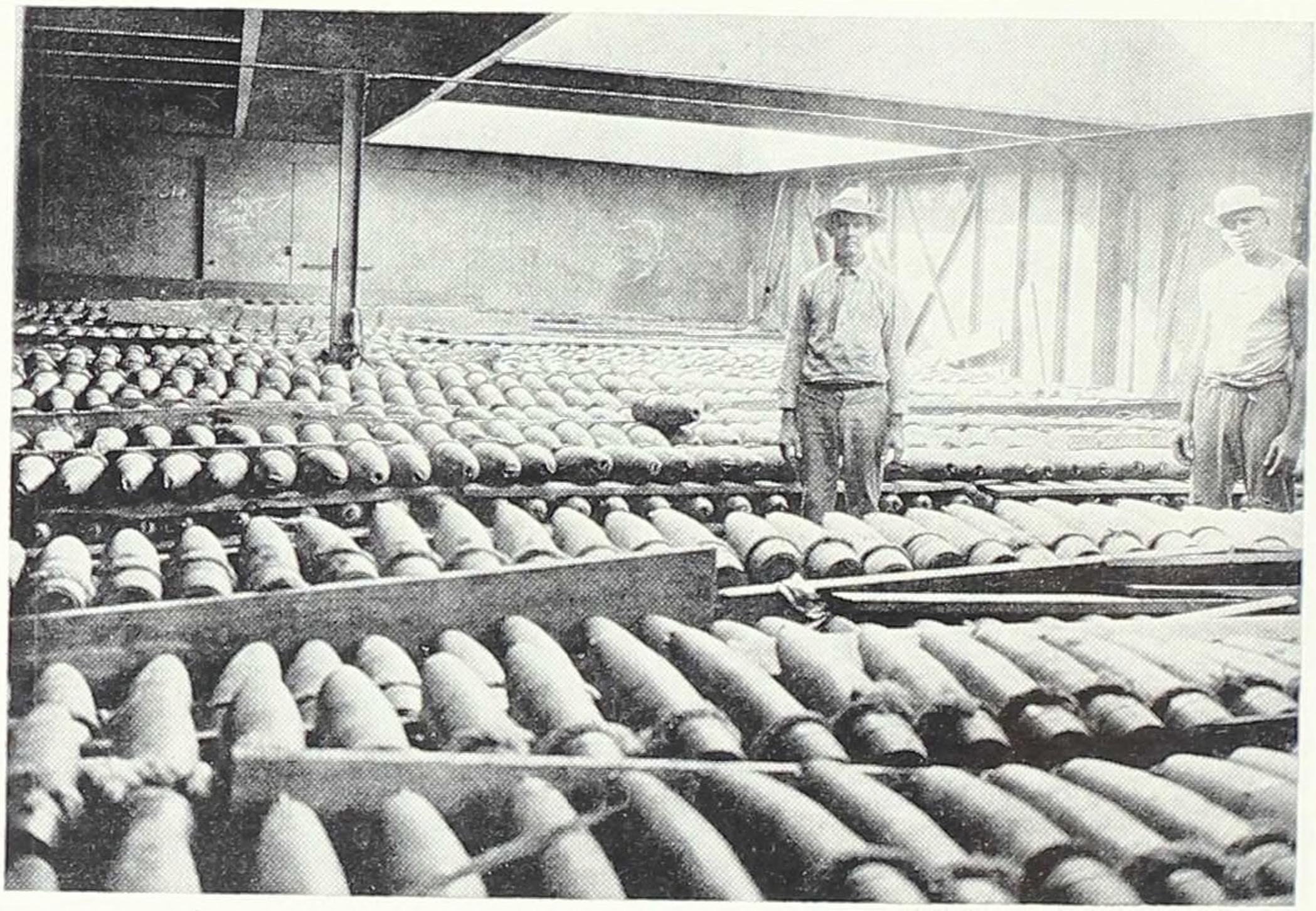
The giant 1220-foot Lock No. 19 at Keokuk was built between 1952 and 1957 and cost $13,500,000. Compare its size with the old lock into which a towboat had to make from 3 to 5 lockages compared with one locking today.



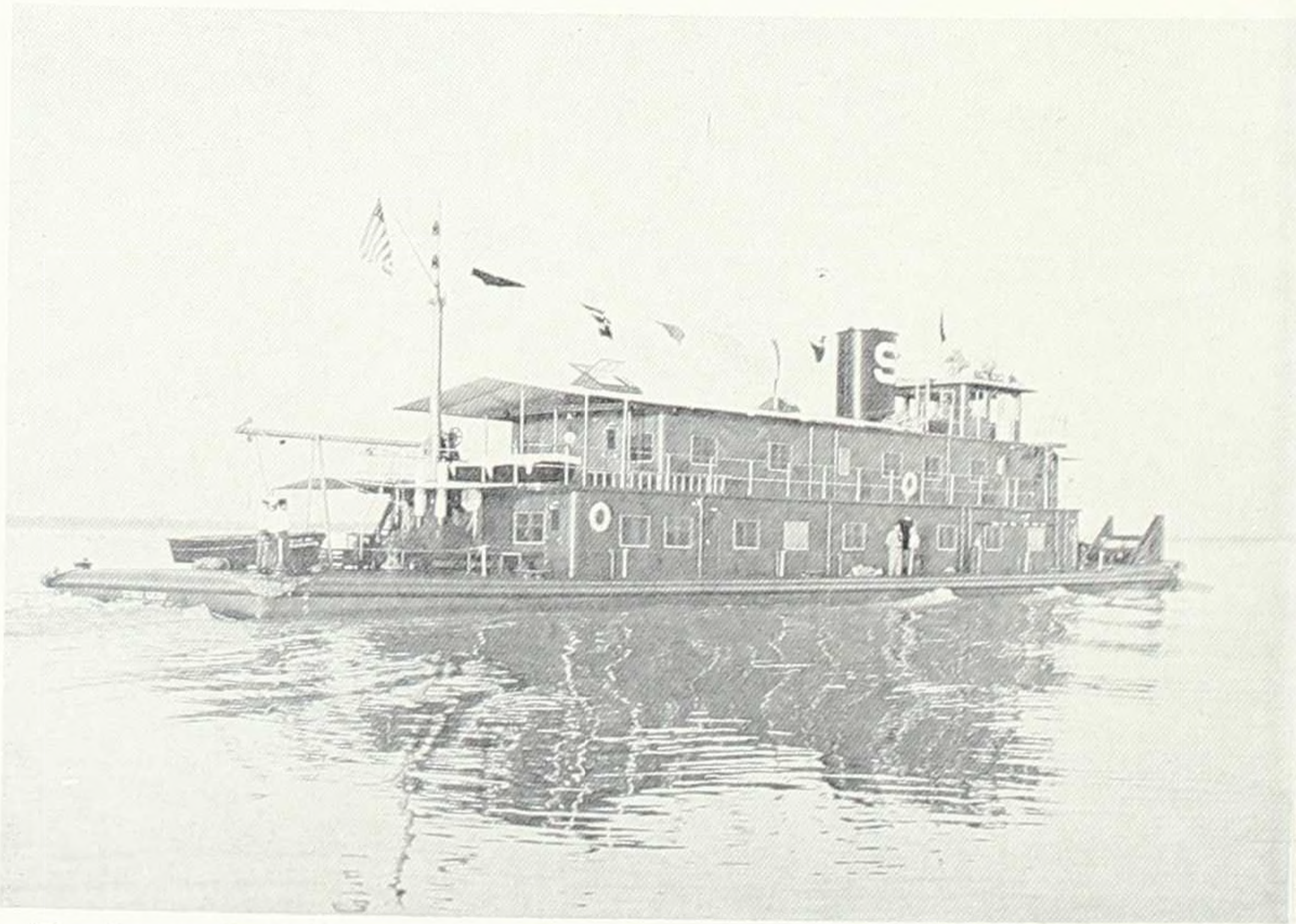
The *Ernest T. Weir* with a tow of eight barges (9,600 tons of petroleum) near Bettendorf.

Towboat *Winchester* in Pool No. 15 bound from St. Paul to New Orleans with a tow of linseed oil valued at $2,455,200.

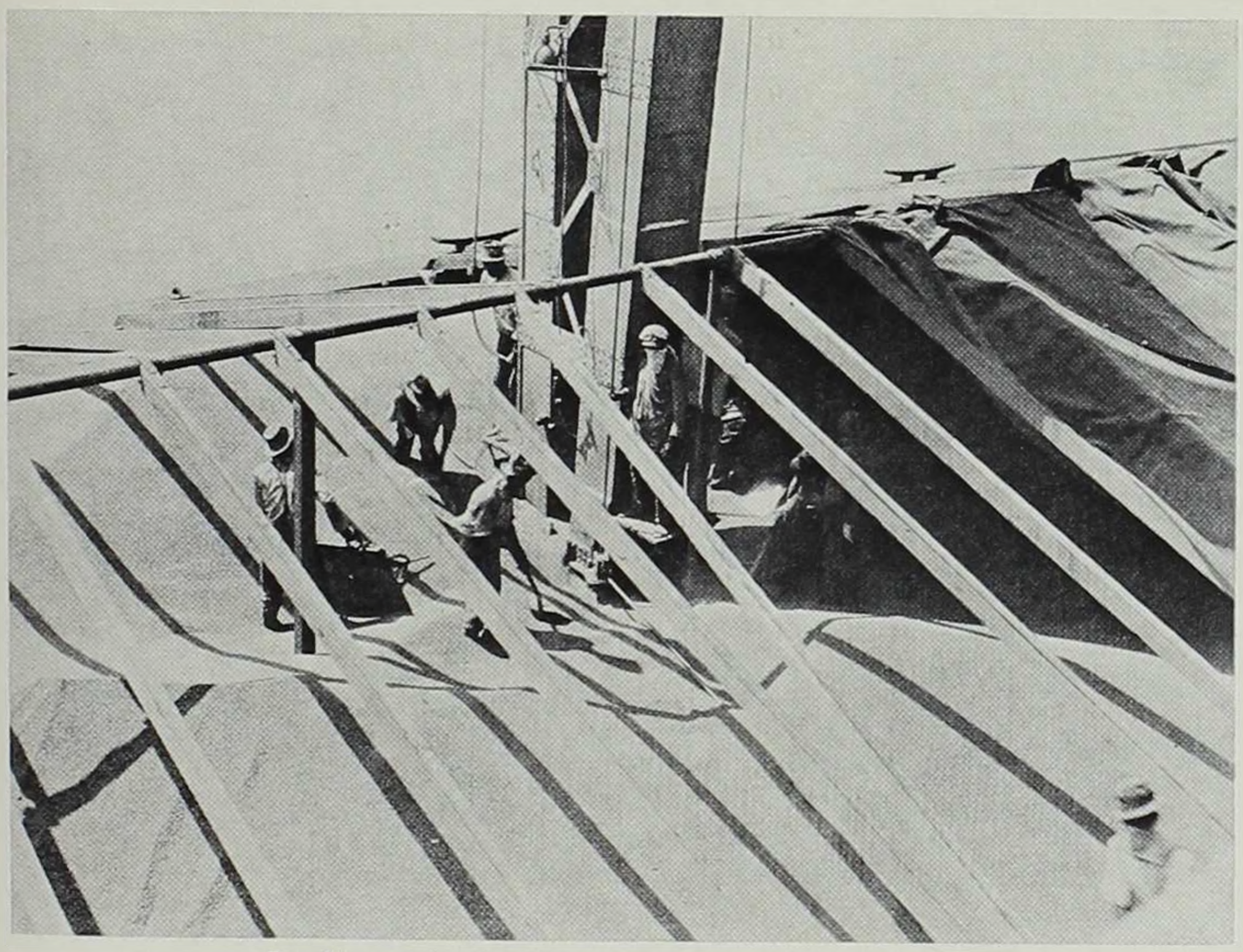
EXPLOSIVES AND OIL REQUIRE CAREFUL HANDLING.



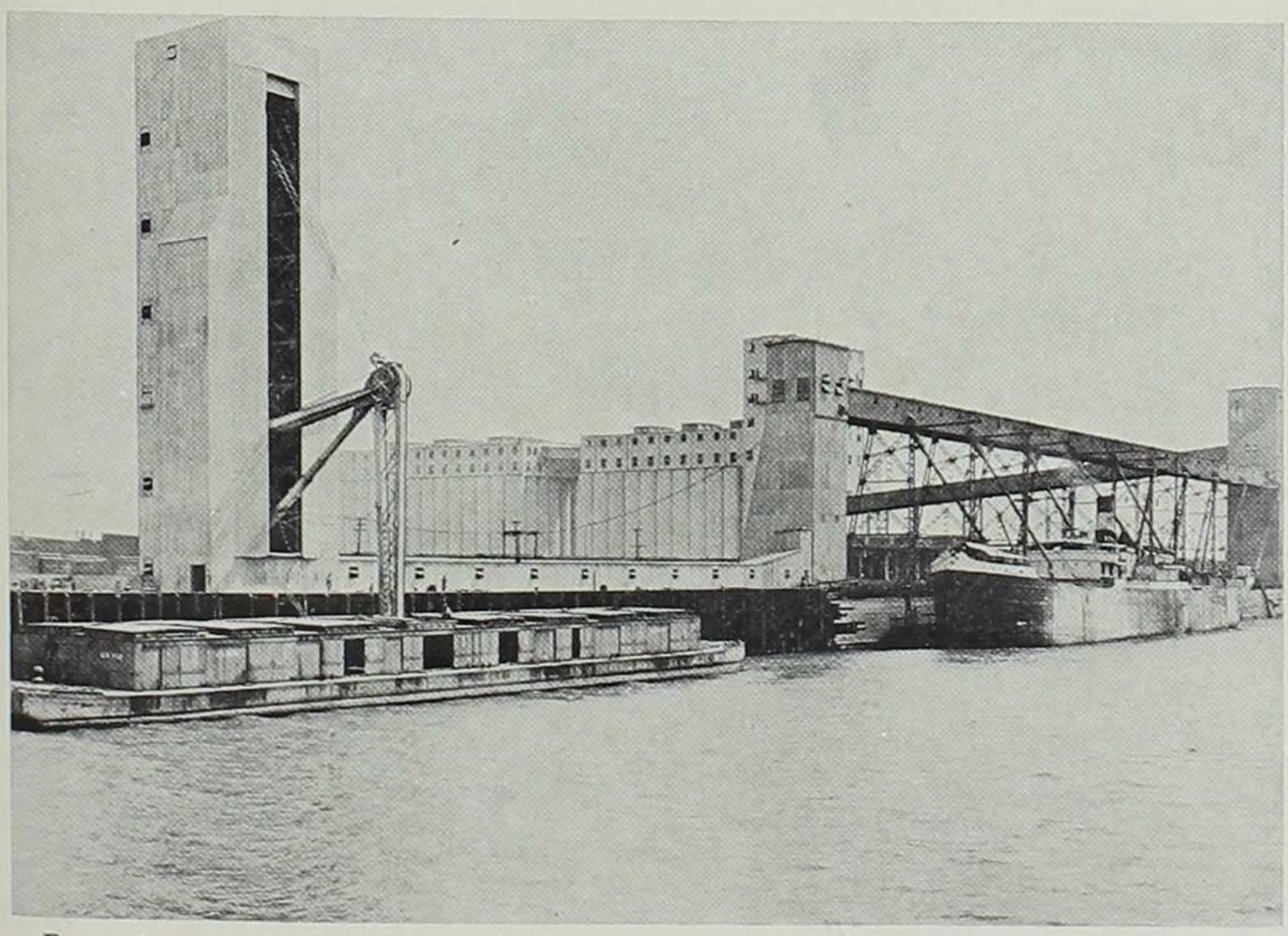
Ammunition being carried to Savannah, Illinois, proving grounds.



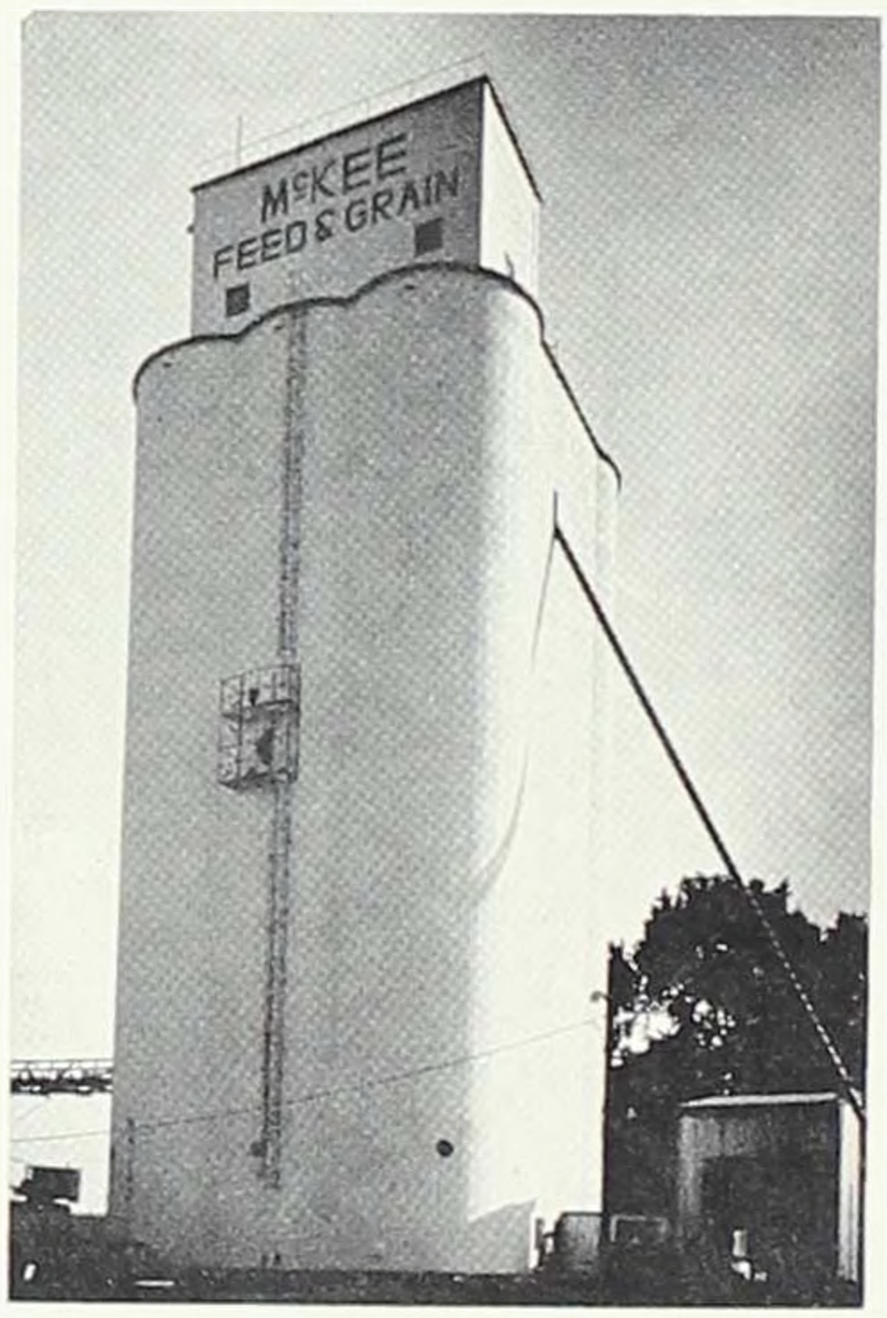
The *Socony St. Paul,* one of several towboats honoring Upper Mississippi cities by the Standard Oil Company of New York.

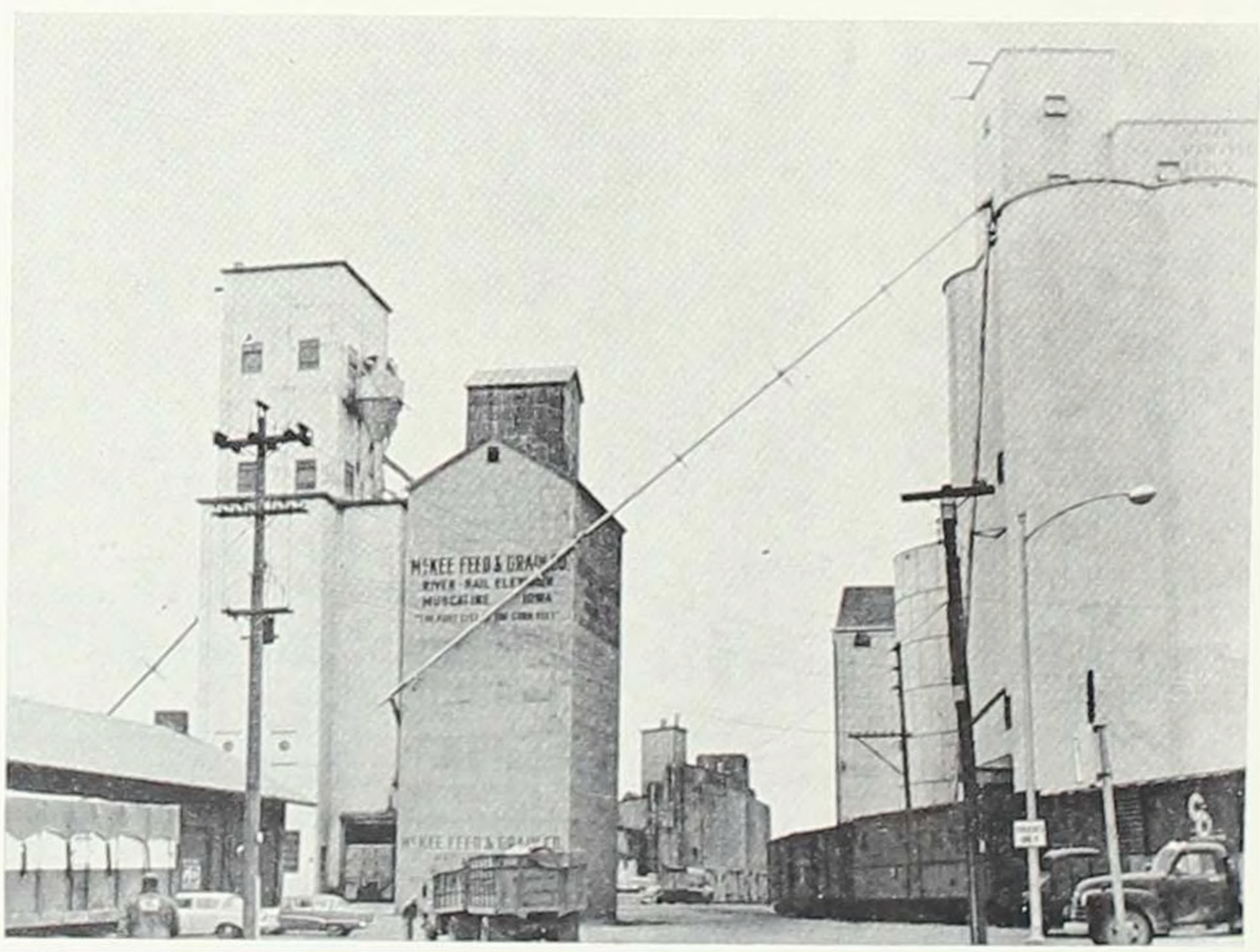


Loading and unloading grain is hot and dusty work.

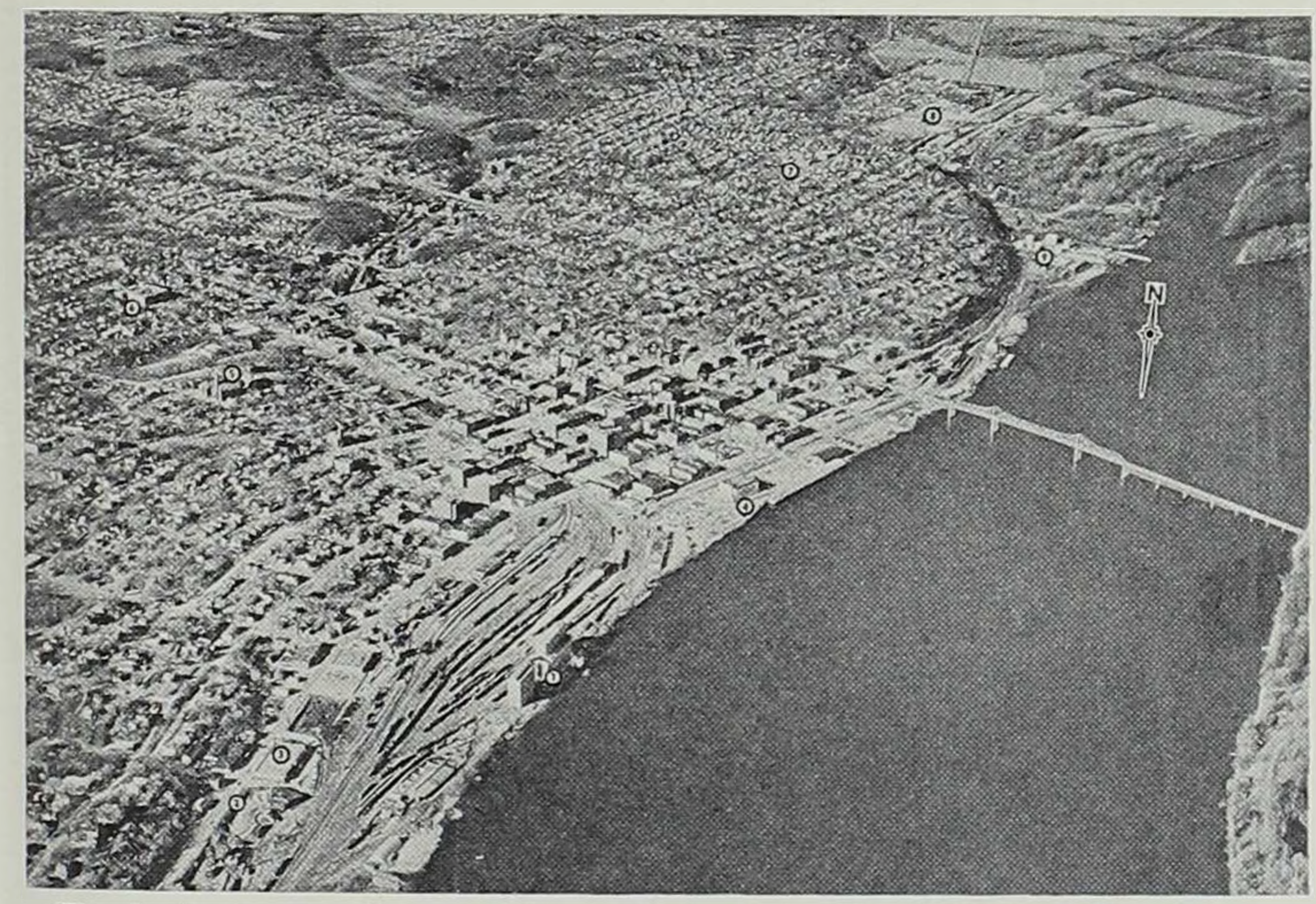


Barge being unloaded at New Orleans for transfer to ocean freighter. The 1972 deal with Russia will tax capacity of barges and terminals at all ports.





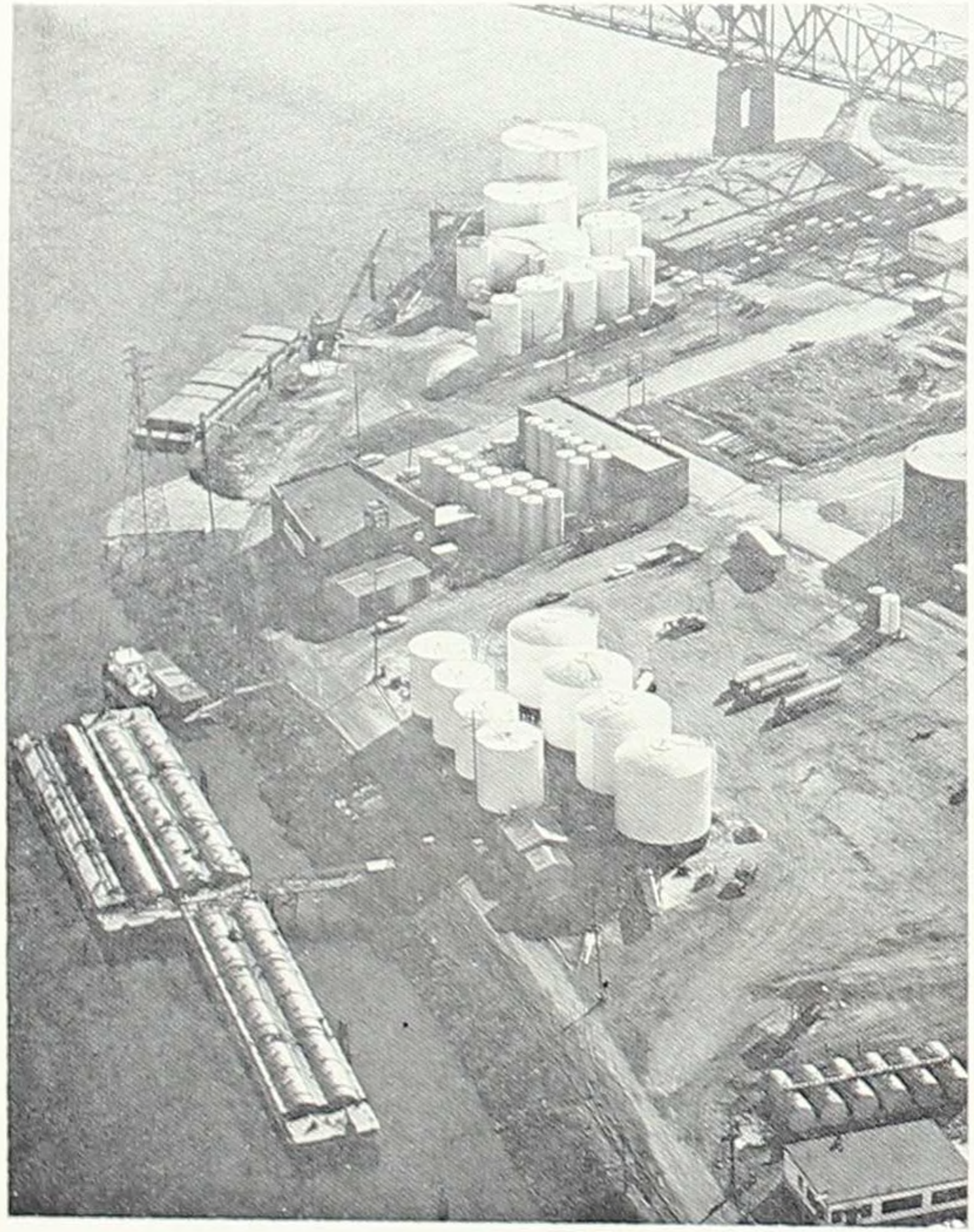
McKee Feed and Grain Elevators at Muscatine are the prime factor in Muscatine attaining the title of "The Port City of Iowa." The upper picture shows the newly-built elevator dedicated on September 22, 1964. It handles 225,000 bushels of grain. It enabled the McKees to handle and ship as much as 12,000,000 to 15,000,000 bushels of grain yearly until the company sold out to Central Soya in 1965.

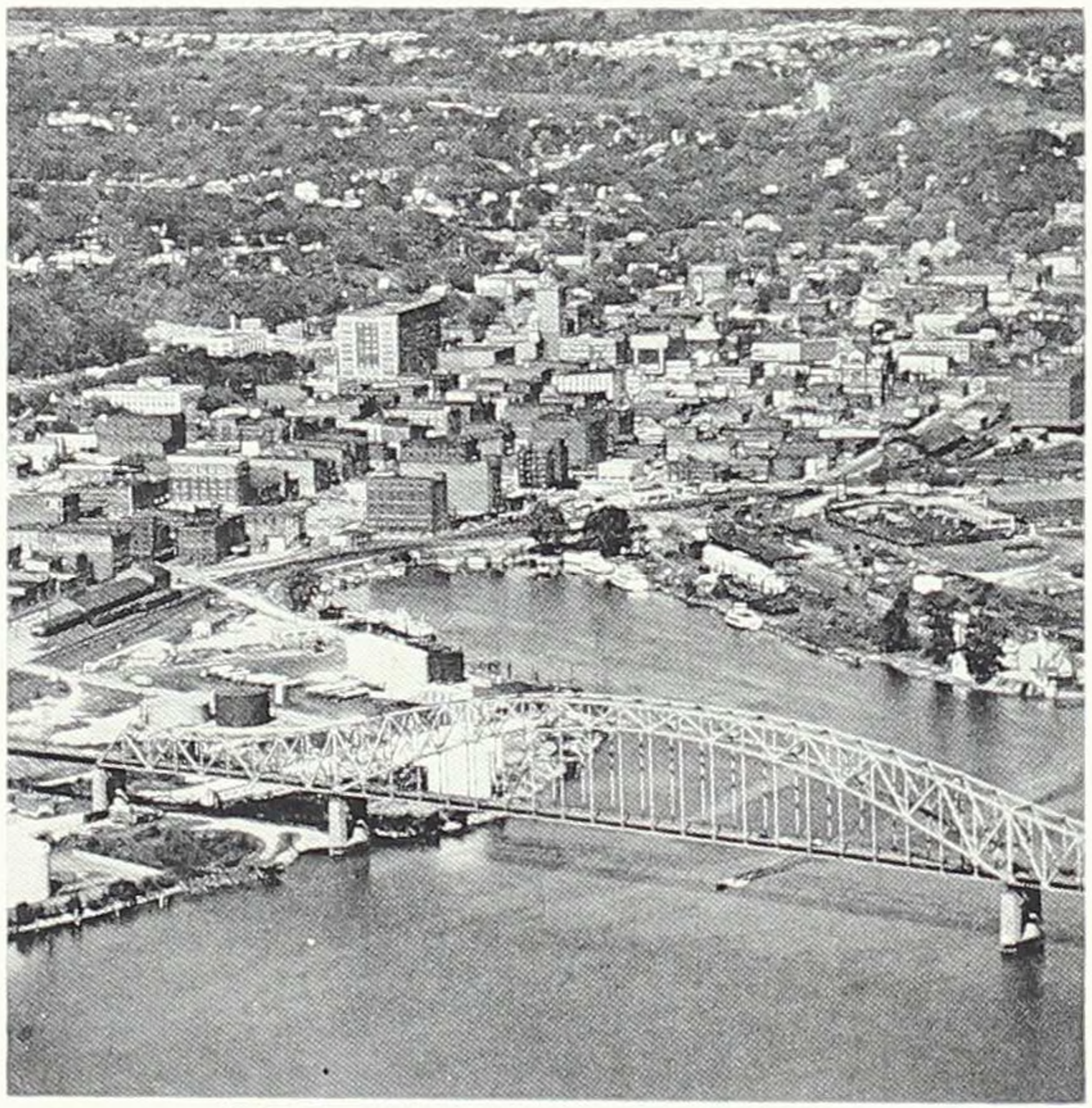


The Burlington river front in 1963 reveals the Archer-Daniels Midland Grain Elevator, the Mississippi Barge Terminal, and the oil tank farm north of the bridge.

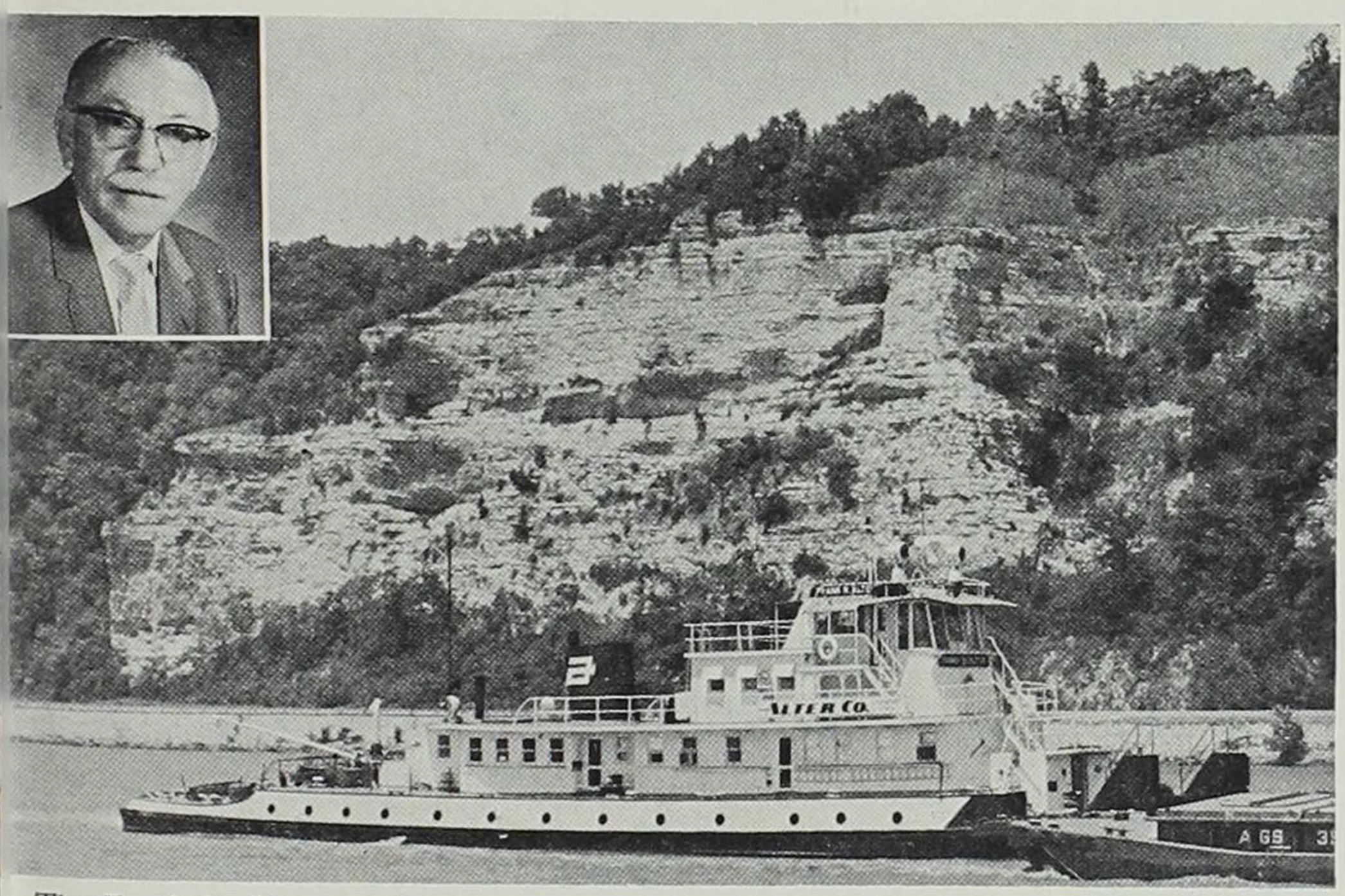
Photos by Bob Long

The Muscatine river front in 1963 with the McKee Grain Elevators on the lower right (4) the marina for 300 boats (5) and a 10-acre industrial park (7) are ample evidence of why Muscatine calls itself the "Port City of Iowa."





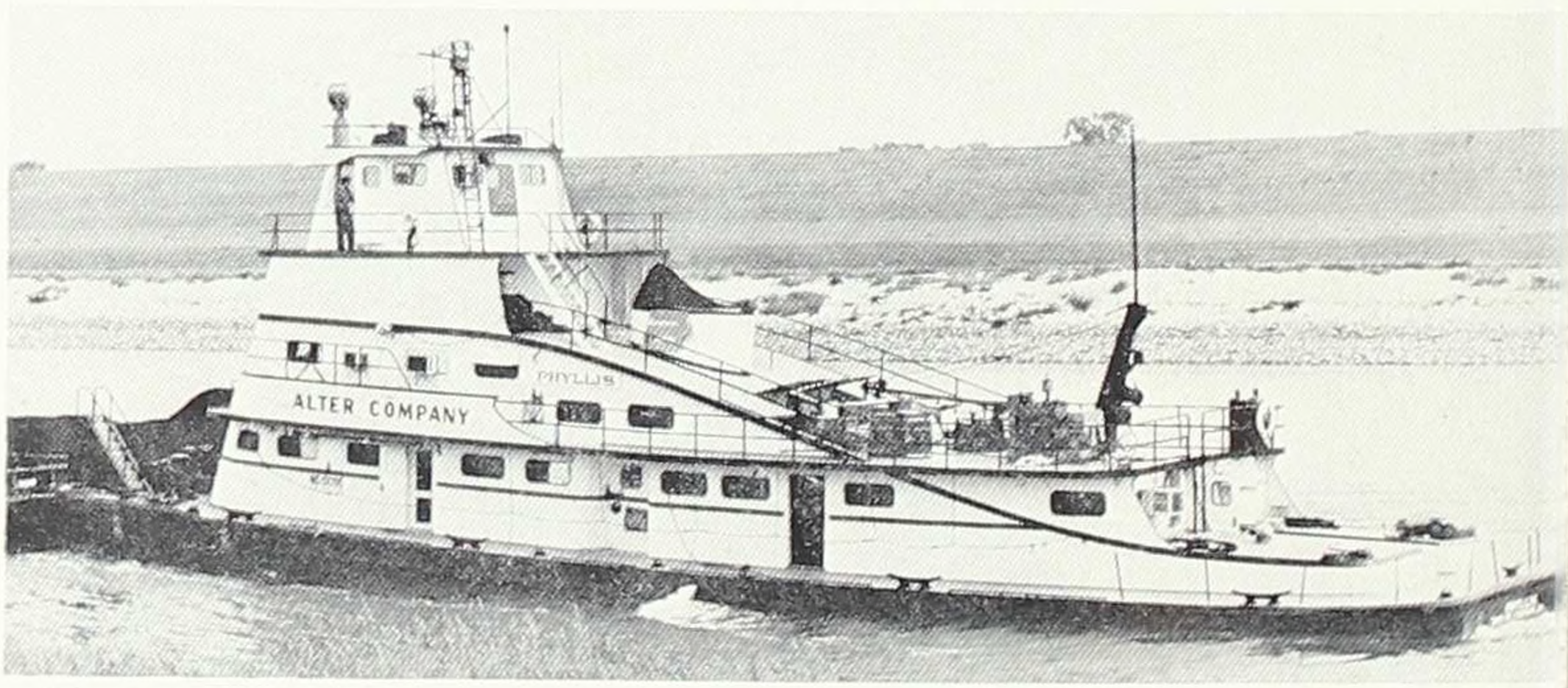
Two views of Dubuque showing the harbor and close-up of the Inland Molasses Company. The tanks contain molasses, liquid fertilizer and salt, brought upstream, and lard and tallow transported downstream for the Lower Mississippi and world markets. Both river and sea-going barges may be seen in the Dubuque harbor.



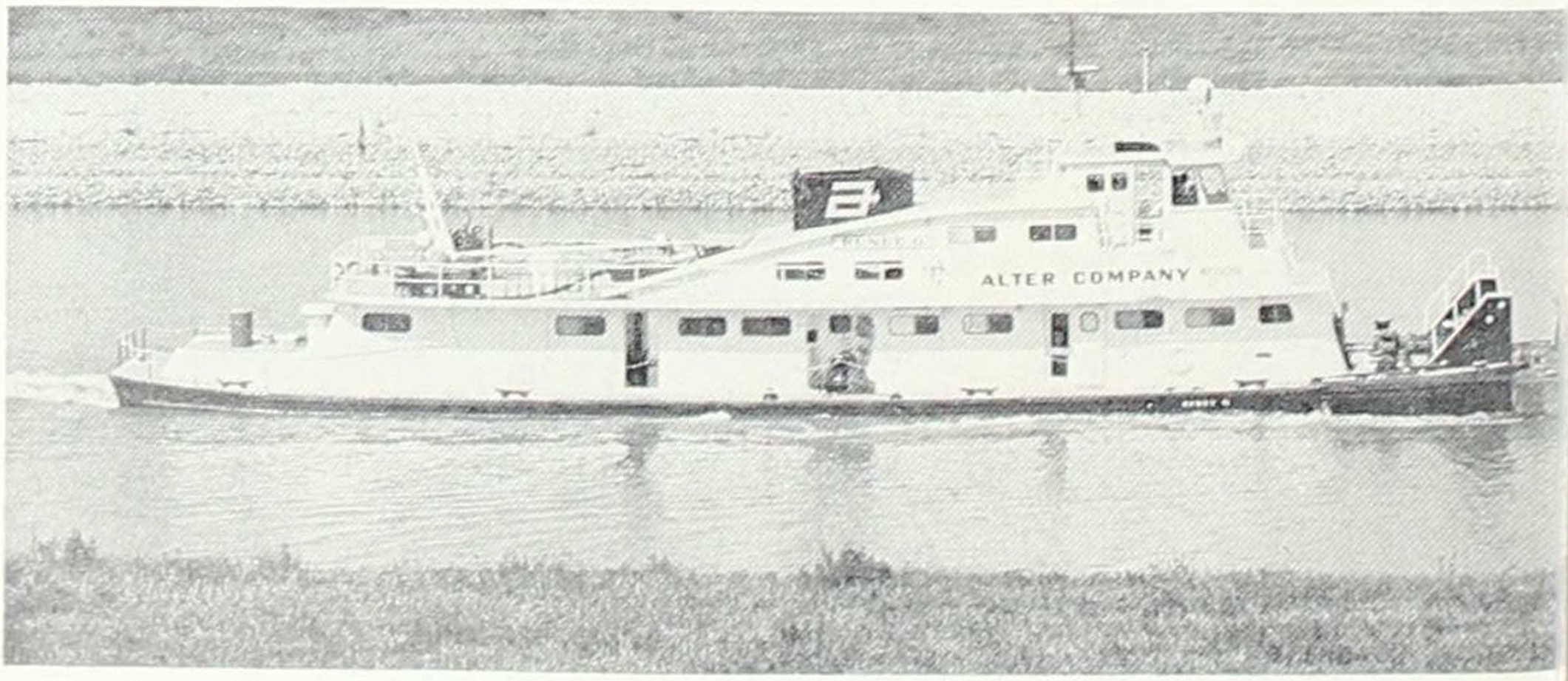
The *Frank R. Alter* was built by the Dravo Corporation in Pennsylvania in 1945. The 760 hp boat was originally named the *Keystone*. She was acquired by the Alter Company in 1960 and named for its president—Frank R. Alter (insert).

The *Yelta Alter*, an 1800 hp towboat built in Houston, Texas, in 1951, was acquired by the Alter Company in 1963. Originally named the *Suffolk*, she and the *Frank R. Alter* have continued service with Alter Company to 1972.

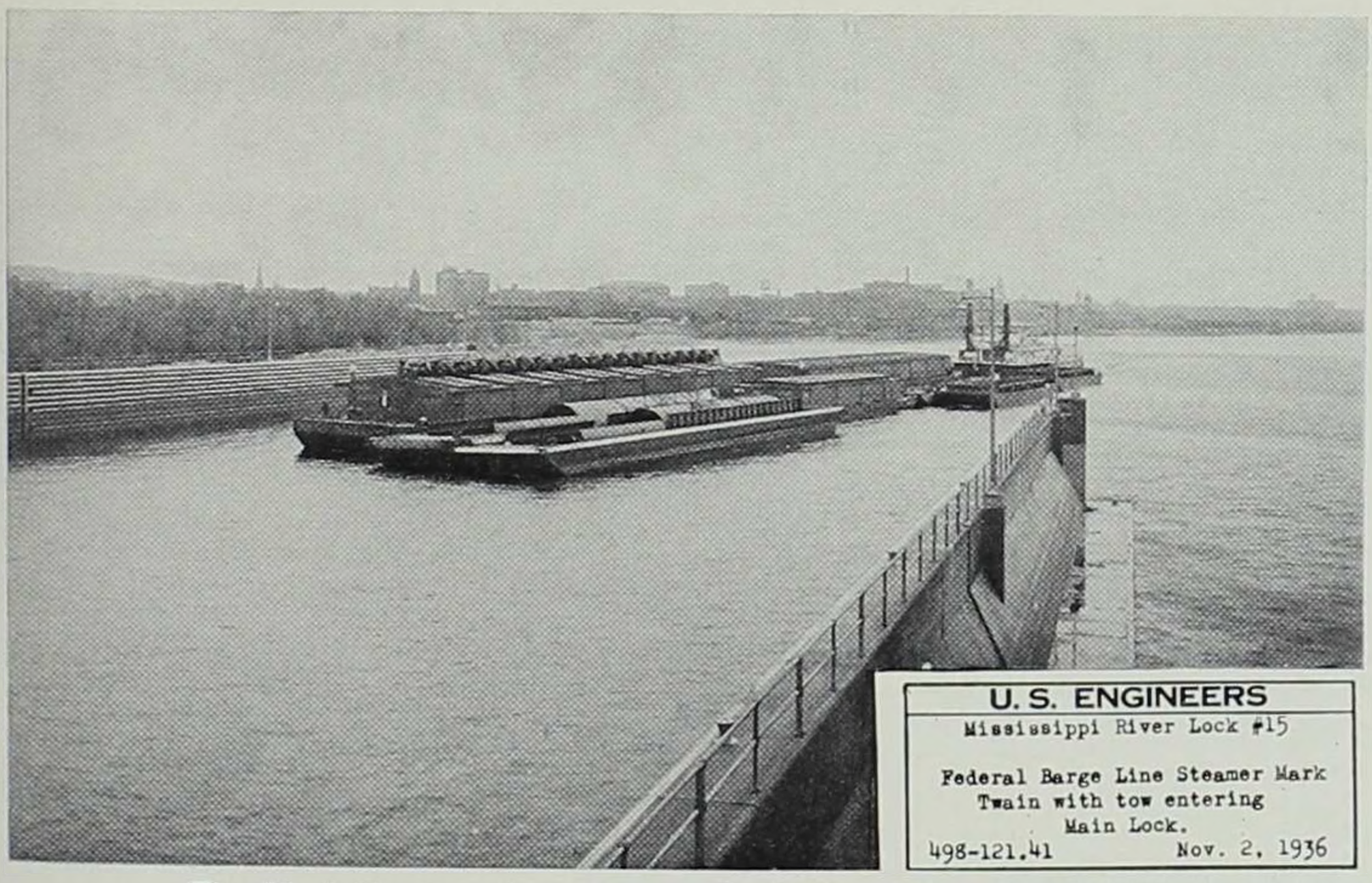
The *Beverly Ann,* originally the *Pere Marquette,* was a single propelior 900 hp boat with retractable pilothouse that was acquired by Alter Company in 1966. Sold to Pott Industries 1969 she was renamed the *Port of Mob'le.*



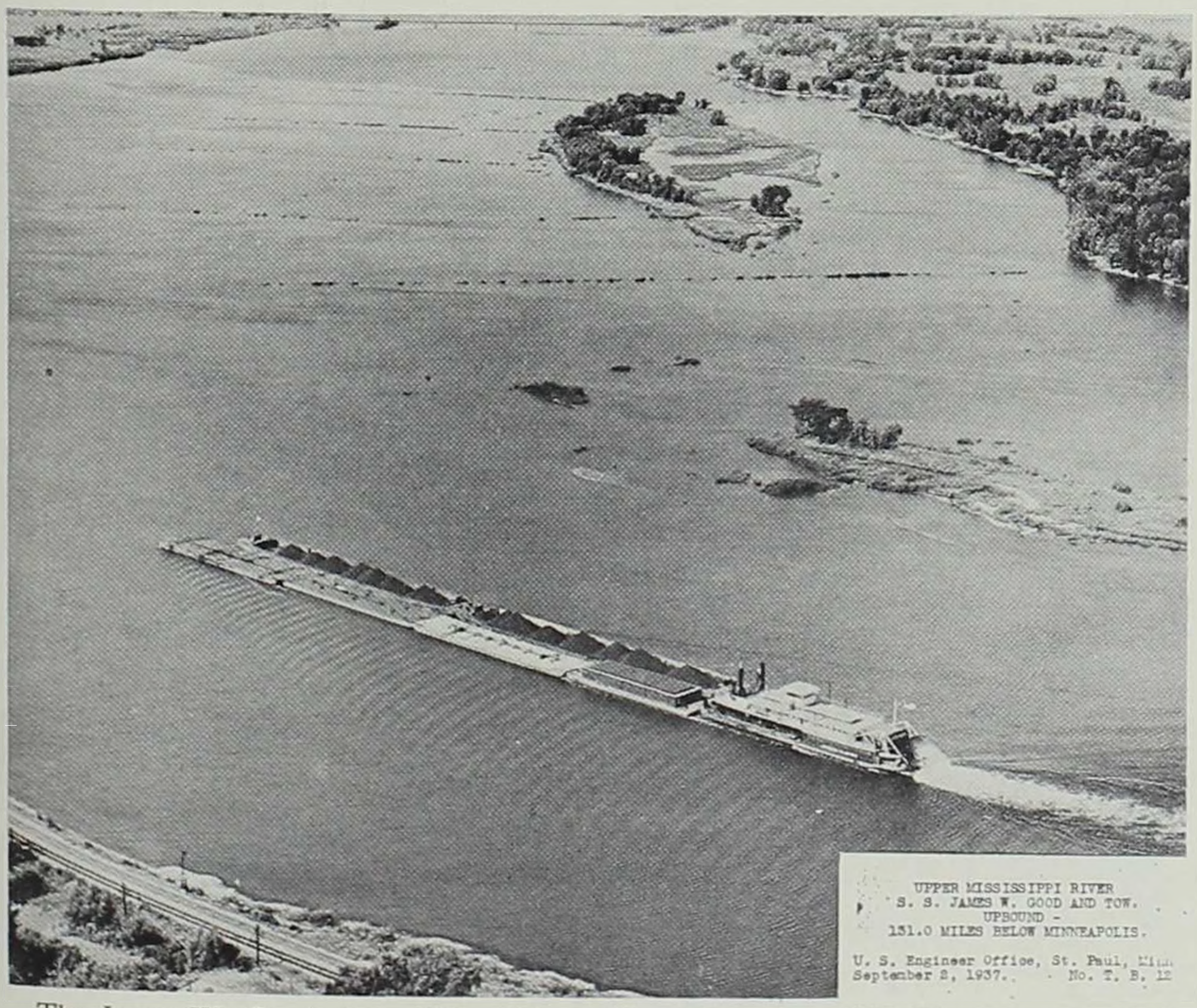
The 1000 hp *Phyllis,* originally the *Mary Lea Hillman,* was built in 1952. She was acquir by Alter Company in 1966.



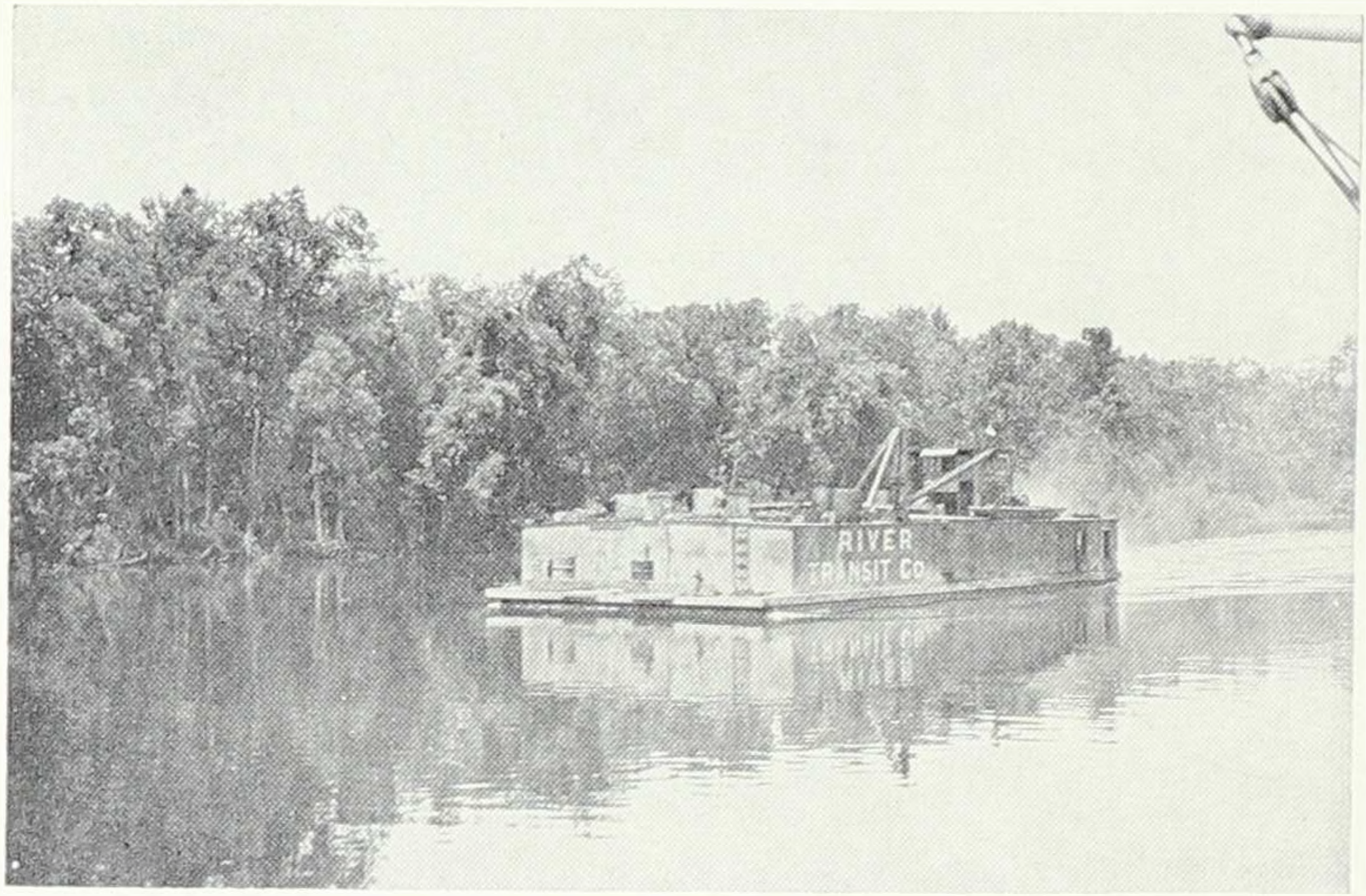
The *Renee G,* originally the *Patsy Hillman,* was an 800 hp towboat acquired by tne Alter Co pany in 1965 and sold by them in 1968. Her new owners have renamed her the *Barbara An*



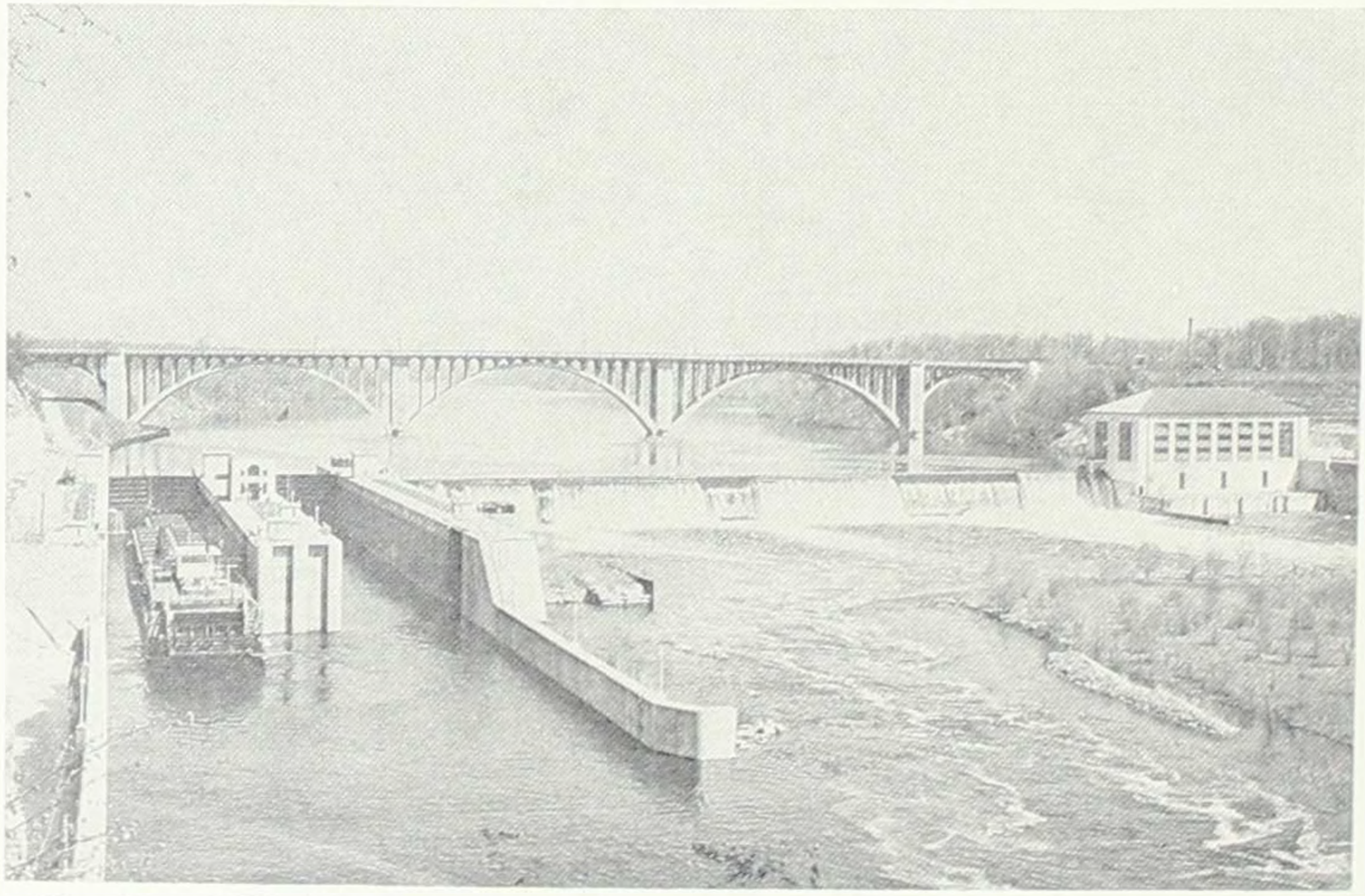
The *Mark Twain* and tow entering Lock 15 on November 2, 1936.



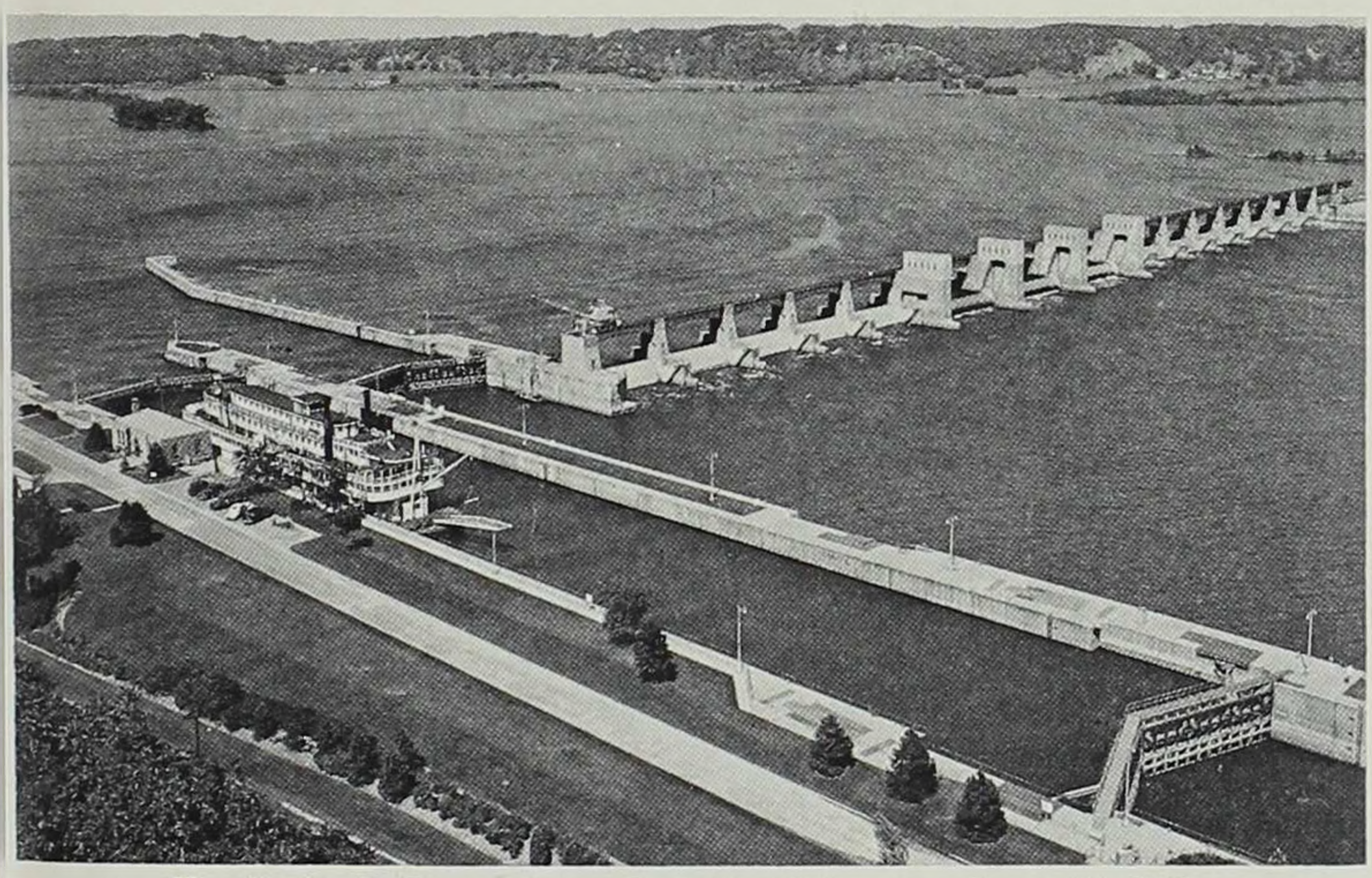
The *James W. Good* of the Federal Barge Line upbound in 1937. The wing dams indicate that the 9-foot channel has not yet been completed in this stretch of the river.



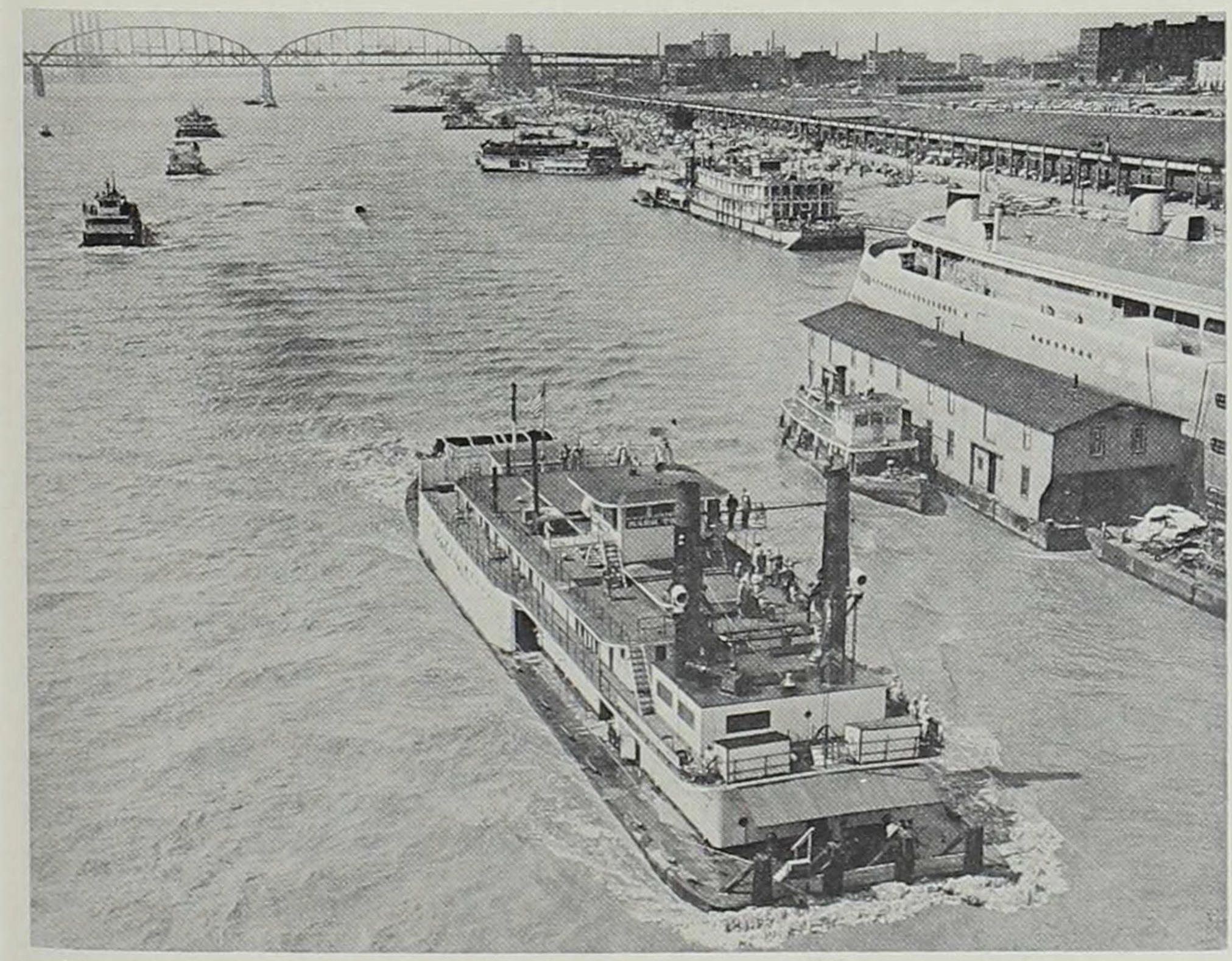
Private interests experimented with small craft before the Federal Barge Line inaugurated its service on the Upper Mississippi in 1927.



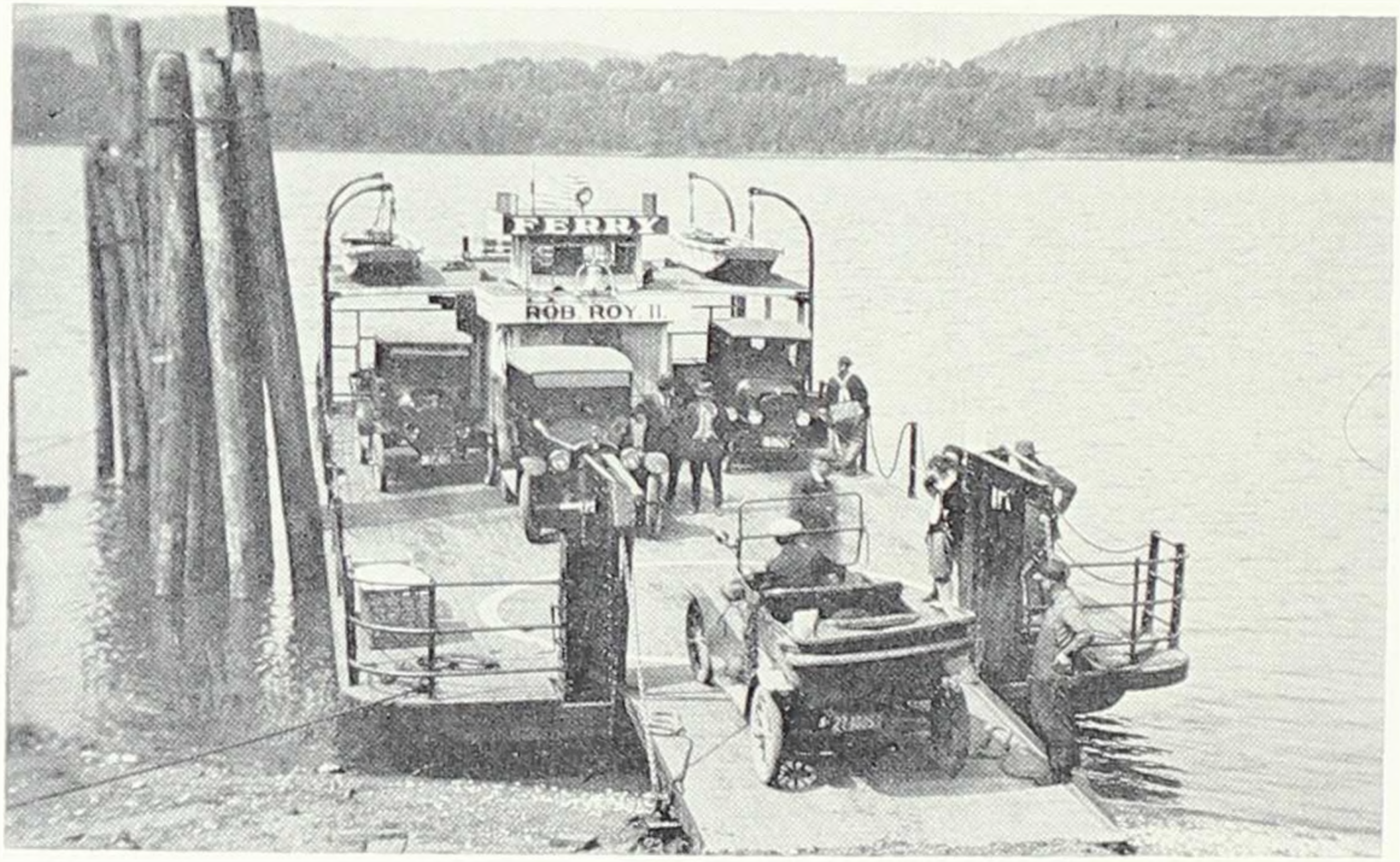
The *Patrick Hurley* entering Lock No. 1 at St. Paul. It was a tight squeeze since the Lock is the same size, 56 x 400 feet, as the old Keokuk Lock until replaced by the present giant lock.



The *Gordon C. Greene* entering Lock 11 at Dubuque on August 24, 1948.



The *Mark Twain* churns upstream to pick up a tow for the Upper Mississippi at busy St. Louis port.—the entryport for all waterways transportation.



Prior to the erection of the Prairie du Chien-Marquette bridge the *Rob Roy II* and the *Winnebago* ferried cars across the river. Note the turning wheel (white circle) on which the cars could be turned around and headed out.

Commodore O. D. Collis of Clinton converted the *Rob Roy II* into the *Rob Roy III*, the latter carrying State Historical Society members on excursions for seven years. Locking through and meeting barge line boats was always a thrill for members.

Illinois is surrounded at its mouth by green towering hills . . . The Mississippi makes such a sweep from Grafton to West Point that what is 12 miles as the crow flies directly north is 24 miles by river. Although headed north to Dubuque we are now traveling almost due south with just a slight jog to the westward. Pilot Lancaster tells me the *J.G. Chapman* sank at Enterprise Island.

SUPPER: Steak, fried potatoes, bread, butter, salad (celery, apples, cabbage, mayonnaise, pineapple) beets, pickles, cinnamon rolls, lemonade.

July 25, 1928

Passed Clarksville at 3:15 A.M. . . .
Passed the *General Ashburn* at 6:08 A.M. . . .

BREAKFAST: 4 kinds of cereals (Oatmeal, Bran, Grape Nuts, Corn Flakes) soft boiled eggs, pork chops, bread, butter, coffee, milk, cinnamon rolls, apples.

Passed Cincinnati Landing at 9:57 A.M. . . .
Mark Twain's cave up a hollow at 12:15 A.M.

DINNER: Boiled beef, codfish balls, boiled cabbage and carrots, sweet pickles, radishes, potatoes, bread, Johnny cake, ice tea, pumpkin pie.

Upper Hannibal and Bridge at 12:54 P.M. . . .
Quincy in sight at 4:55 P.M. . . .
Passed the *Muscatine* with 3 barges of stone in tow . . .
Passed Quincy drawbridge at 5:10 P.M. . . .

SUPPER: Hash, boiled beef, fried potatoes, cheese, beets, mixed pickles, cabbage and carrots, bread, butter, coffee, lemonade, sliced pineapple, and doughnuts.

6:52 P.M. *James P. Pearson* of Missouri Gravel Company at bank . . . .
La Grange, Missouri, at 7:00 P.M. . . .
Canton, Missouri at 8:30 P.M. By this time mosquitoes had gotten too familiar with my person so I decided to retire. Lunched on 3 hard boiled eggs and some sliced pineapple. Happily for me I was able to survive the shock of an otherwise outraged stomach.

July 26, 1928

Up at 1:25 A.M. to watch the *John W. Weeks* get through the Keokuk lock.
Under bridge at 1:30 A.M. . . .
Into locks at 1:35 A.M. . . .
First lockage completed at 2:35 A.M.
Second lockage at 3:15 A.M. . . .
The Burlington Wharfboat and our 2 barges went through on the first lockage and the *John W. Weeks* on the second. Got to bed at 3:20 A.M. and did not wake up till 5:55 A.M. We were on the outskirts of Fort Madison and had passed Nauvoo and Montrose, much to my chagrin.
6:10 A.M. Fort Madison bridge.

BREAKFAST: Ham and eggs, bread, baking powder biscuits, jam, coffee, doughnuts, breakfast food and an apple.

6:20 A.M. Back in pilot house after very little sleep.
8:30 about 3 miles below Burlington we passed the

"house with a thousand children." . . . at the top of the hill stood a beautiful cement home with a red tile roof. A woman leaned against the porch post . . . Beautiful homes stand on the crest of the bluff . . .

Arrived at new Burlington Terminal with their Wharfboat at 9:45 A.M. Tied up at 9:57 A.M. Lined up on barges at 10:01 A.M. Start upstream at 10:25 A.M.

A good crowd was lined up all along the bank for half a mile to see us come in. The Mayor, Judge, Chief of Police, etc. It took 40 minutes to place the two barges in towing position, tie up the Wharfboat to the Burlington Terminal, and depart. Passed under the Burlington bridge at 10:30 A.M. The new Terminal and Wharfboat make a splendid appearance from the river . . .

The following news report appeared when the terminal was dedicated in October.

NEW PORT LINKS IOWA TO THE SEA

To give Iowa farmers a waterway to the sea, where they had formerly been compelled to ship via rail to St. Louis before getting boats carrying produce down the Mississippi, a $225,000 municipal dock project has been completed at Burlington, Iowa, on the Mississippi river, and was formally dedicated by Governor Hammill of Iowa and other officials Oct. 10th. As an example of the saving achieved, it was pointed out that on wheat alone the saving would amount to 11 1/2 cents per hundredweight, 6 1/2 cents a bushel. The rail-water rate was 26 cents per hundredweight, as compared with 14 1/2 cents by the all water route, from Iowa to New Orleans.

The *John W. Weeks* is now making excellent time and is "walking right up the river."
Oquawka, Illinois at 12:45 P.M.
Pilot Harry Lancaster at the wheel at 6:30 P.M.—at head of Bogus Island. A storm had been threatening and at 6:50 it broke loose. The wind howled, whined, and whipped the waves into a fury. . . .
Keithsburg, Illinois at 3:15 P.M.
Port Louisa, Iowa at 5:50 P.M.

We are 264 miles from St. Louis and 21 miles from Muscatine. The mainland and islands, since leaving New Boston, are heavily lined with trees and undergrowth. The glass-like surface of the waters catching the rays of the sun, makes this a veritable fairyland. The lagoons and sloughs add to nature a touch of beauty.
Listened in on the Tunney-Heeney fight from about 2 miles below Muscatine to a quarter of a mile above. The reception was excellent. It is now 9:25 P.M. and I will retire, miss Davenport—Moline Locks and try to get up for the Le Claire Locks at 4 A.M. Have had about 4 or 5 glasses of lemonade so I won't lunch, although there are Newsboys, cupcakes, sliced pineapple, ham, bread, butter, and apples for the crew.

Friday, July 27, 1928

Moline Locks at 2:25 A.M. . . .
Le Claire Locks at 4:05 A.M. . . .

We were passing Le Claire and Port Byron while I was in the shower. Both make a very pretty appearance from the river. . . . Pilot Harry Lancaster's father used to wrestle with Buffalo Bill under the Le Claire Elm Tree. . . . A marble monument has been placed under the tree in memory of Buffalo Bill.

Princeton at 5:50 A.M. . . .

6:45 A.M. Opposite mouth of Wapsipinicon . . .

7:47 A.M. Beaver Island and Beaver Slough.

Half mile above Albany what appeared at first sight to be stunted growths in water proved to be a dozen clammers. . . .

8:40 A.M. Clinton drawbridge . . .

12:08 P.M. Sabula drawbridge . . .

2:45 P.M. Mouth of the Maquoketa . . .

A short distance above the mouth of the Maquoketa we saw over a score of turtles sitting on a log enjoying the sun. Those who did not dive after we passed were greeted with a shower from our wave—except two of the larger ones who held a favorable position on the hump of the log. . . .

4:00 P.M. Bellevue . . . Sabula to Bellevue—3 hrs. 50 minutes 5-1/2 miles per hour.

Bellevue is all that its name implies and presents a beautiful appearance from the river. High bluffs, heavily crowned with trees, and a beautiful green levee, these are Bellevue's crowning glory.

6:50 P.M. Some girls in bathing suits beckoned us to come and join them. . . . A couple of deck hands

have gone out on one of the barges to play catch. I wondered how long it would be before the ball would go into the river. Lost it—at 7:04 P.M. . . . The sun was just resting on the hilltops of Dubuque as we rounded the bend and came into view of the "City of Seven Hills." Great deal of shoal water four miles below Dubuque. We are throwing a heavy wave on either side.

7:55 P.M. Catfish Creek and Julien Dubuque's Grave . . .

8:10 P.M. Arrived at Dubuque. FINIS.

WILLIAM J. PETERSEN

Alter Company

The rise of the towboat era has many facets—not the least of which is the personalities associated with its development. Unique among those identified with the story of waterborne commerce on the Upper Mississippi is Frank R. Alter of Davenport, whose towboats have been playing a key role in the transporting of bulk commodities along the eastern border of Iowa.

The Alter Company began in Davenport in 1916. From the start Alter was concerned with the processing and shipping of scrap metal. For more than a half century his Alter Company has exported its scrap metal out of the Quad-City area to the best market—at first by railroad, and then by water, when the completion of the 9-foot channel ushered in the towboat era.

For a number of years Alter Company shipped its scrap by common carrier barge lines. The relatively high rate structure of these carriers, however, limited markets to which Alter could economically ship. Intent on selling his products to more river customers, Frank Alter determined to launch his own company into the towing business in May of 1960. The company had a truly humble beginning, starting out with four open hopper barges

and a single towboat, appropriately named the *Frank R. Alter*.

The new venture was guided by Bernard Goldstein, executive vice-president of the firm, who took a keen interest in river transportation and has continued to play a key role in expanding this arm of the company's business.

Sensing the need of a strong executive in their newly-formed Marine Division, Frank Alter and Bernard Goldstein selected Gordon L. Jones as its head. The choice proved to be an excellent one as Jones quickly demonstrated both initiative and executive ability. It was not long before Jones was made a vice-president of Alter Company.

Gordon Jones was quick to discover that if his towboat transported something to New Orleans, it could only make the trip pay if the boat could haul something back. The industrious Jones was not slow in discovering several bulk commodities destined for upstream transportation and available to an aggressive and efficient contract carrier. It was not long before equipment expanded until Alter Company could boast of five towboats and 148 barges in 1972, a truly amazing growth in twelve years.

Meanwhile, the company had added river terminals at St. Paul and La Crosse to supplement their main base at Davenport. In addition, they established plants for processing scrap metal in these locations. Another processing plant was set up at

Council Bluffs but it is not served by water routes. According to Jones:

> We range the whole Mississippi from St. Paul to New Orleans. We also travel the Ohio River to Pittsburgh, and the Illinois River to Chicago. Our boats take the Gulf Intracoastal Canal to Brownsville, Texas, and go as far east on it as Mobile, Alabama.
>
> We originally acquired the towboat and barges to haul our own scrap. Now we do 94% of our river hauling as a contract carrier for other people, and devote only about 6 per cent to transporting our own scrap metal.

The firm maintains offices at Hartford, Illinois, and New Orleans for coordination of its far-flung river operations. Recently Alter Fleet, Inc., was established in New Orleans harbor to provide fleeting, cleaning, and repair facilities for the firm's barges.

The story of Alter Company's Marine Division must bring to mind a similar episode in Iowa history a century ago. Just as Joseph Reynolds started his own Diamond Jo Line in 1862 because steamboat men charged him high and discriminatory rates, so Alter Company sprang up and expanded into one of the most powerful towboat lines on the Upper Mississippi in the 1960's. Moreover, it is the only one located in Iowa, which was true of the Diamond Jo Line.

Alter's Marine Division concentrates on service in what they call the "Middle Upper" Mississippi —the area between Cassville, Wisconsin, on the

north, and Hannibal, Missouri, on the south. Since Iowa contains 25% of the Grade A land in the United States, it can readily be seen that Alter boats would find grain in the form of corn and soybeans the principal downstream cargo. Northbound, the Alter boats bring huge quantities of coal, in addition to phosphate rock for the Arco Chemical Company plant at Fort Madison which manufactures granular fertilizer.

By concentrating its towboats in the Middle Upper Mississippi, Alter Company has been able to provide the greatest frequency of service to shippers in this area. According to Gordon Jones there is usually an Alter towboat passing any dock in the region every day.

An outstanding feature of the Alter Company is the variety of services it is able to provide the shipper who is interested in both cost and time. The original Alter firm continues as a merchandiser and processor of iron and steel scrap and nonferrous metals, serving the nation's leading steel mills, foundries, smelters, and refiners. The Marine Division, for its part of the triumvirate, transports bulk commodities on the inland waterways and the intracoastal canal, serving as a boon to all shippers. Beyond these services, Alter Company has established its own unique terminal operations—combining terminal and transfer facilities with river, truck, and rail to provide complete transportation services to its customers.

The creation of Alter Trucking and Terminal Company as a separate corporation has given the firm great transportation flexibility. As Gordon Jones explains:

> We can give a customer a package deal, with one system complementing the other. Most of the scrap moves south from this area to wherever there is a steel mill that needs it. Since our transportation is so versatile, we don't have to stay locked in one market, but can ship to those paying the best prices.
>
> The Davenport office is our nerve center. Our dispatchers, port captain, and maintenance supervisors rely heavily on radio, telephone, and teletype to keep communications flowing. All of us spend most of the day on the telephone talking to key river locations: St. Louis, Cairo, Memphis, New Orleans, Paducah, Peoria, Chicago, and the like. We have instant radio contact with our boats at all times. This enables us to advise shippers of the progress of their cargoes.
>
> Our whole operation is oriented to water transportation, which is much cheaper. For one thing we can haul bigger loads. The ordinary barge will hold 1,400 tons. That's the capacity of 25 railroad cars.

It is a far cry from the small fleet of towboats that constituted the Federal Barge Line at its inception on the Upper Mississippi in the 1920's to the Alter towboats that churn the waters of the Upper Mississippi today. Indeed, there is a wide disparity in horsepower between the first boat of the Alter line—the *Frank R. Alter*—the *Renee G.* of 1972 and the new *Phyllis* coming out in 1973.

The increasing horsepower of these boats is seen by the following figures:

	When Built	*Length*	*Breadth*	*Depth*	*Horse power*
Frank R. Alter	1945	137.4	27.0	6.2	760
Col. Davenport	1945	137.4	27.0	6.2	760
Yetta Alter	1951	106.5	30.1	11.3	1800
Renee G.	1950	108.0	27.0	8.9	800
Phyllis	1952	110.4	27.1	8.7	1000
Beverly Ann	1952	93.3	28.0	10.7	900
Fair Lady	1966	59.0	21.0	5.0	500
Renee G.	1971	132.5	35.0	10.5	3200
Phyllis	1973	142.0	42.0	10.5	4200

When one considers that the average boat today has a capability equal to four of the original towboats, one can well understand why the *Renee G.* is capable of towing as much as 21,000 tons of bulk cargo upstream.

In addition to its regular fleet of towboats, Alter Company has chartered a half dozen vessels that became familiar craft to boat-watchers on the Upper Mississippi. These have been progressively more powerful boats as the following would indicate:

Chartered Boats	*Year Chartered*	*HP*
Ouachita	1961	1800
Illinois	1967	1800
L. Andress	1968, 1969	1700
Foremost	1970	3200
Glenda S.	1971	3200
Greenville	1972	3200

In the past dozen years the towboats of the Alter line have carved a deep niche in the story of inland waters transportation for low cost, reliable service to the people of the Upper Mississippi Valley. Their tonnage record has increased with each passing year, a record of which the Marine Division can well be proud.

WILLIAM J. PETERSEN

Coal, Oil and Grain

Three bulk commodities—coal, oil and grain—have been the major cargoes transported by Upper Mississippi towboats. Of these, coal and oil were important from the start as upstream cargoes while grain was slower to develop as a downstream cargo because of intense railroad opposition.

COAL

The huge piles of coal heaped up along the river at various points bear mute testimony to the tremendous cargoes brought upstream by towboat each year. These may be seen at such points as Davenport, Clinton, Dubuque, Cassville, and Lansing—to mention a few. The magnitude of this traffic was brought home years ago by figures released by the Key City Gas Company which indicated that the amount of coal that had been delivered to this single Dubuque firm surpassed the tonnage of lead transported down the Mississippi between 1823 and 1848, amounting to 236,000 tons.

Similarly, the Interstate Power Company at Dubuque has had need of special docks at Clinton, Dubuque and Lansing to handle the barges of coal delivered during the course of the navigation season. The steady growth in tonnage in these three

plants alone has doubled over the past fourteen years.

YEAR	*TONNAGE*	*YEAR*	*TONNAGE*
1958	371,000	1965	461,000
1959	361,000	1966	516,000
1960	421,000	1967	684,000
1961	426,000	1968	742,000
1962	379,000	1969	652,000
1963	468,000	1970	790,000
1964	358,000	1971	703,000

When it is remembered that coal is towed upstream as far as the Twin Cities, where the hugest stock piles may be seen, it becomes abundantly clear why coal should have passed oil in upstream tonnage in recent years. The introduction of oil pipelines has become a potent factor in adding further competition not only to railroads, but also to waterways.

In 1947 the St. Paul *Pioneer-Press* photoed the new dock at Lansing where coal barges could be brought to unload their coal during the navigation season. A quarter century later, in 1972, the Interstate Power Company announced the construction of another huge power plant at Lansing that would greatly increase the power available to thousands of homes and industries in Iowa, Wisconsin, and Minnesota. The importance of coal may be further illustrated by the combined electric power furnished by the Clinton, Dubuque and Lansing plants.

When one considers that other power plants are located between St. Louis and the Twin Cities one can understand why coal has become such an important factor in the towboat era.

OIL

Once the 9-foot channel was assured, the transportation of oil zoomed to the top in towboat tonnage. All along the river, from St. Louis to St. Paul, huge tank farms sprang up at strategic points. These tank farms, representing the major oil firms of the Midwest, not only supplied the gas and the petroleum products for the communities at which they were located, but oil trucks carried the gasoline inland to numerous communities remote from the Mississippi.

Starting initially with only a few tanks, the size and number of tanks have grown through the years. A breakdown of the oil receipts for each town is not available. Neither is it available for the companies engaged in bringing their products upstream. The oil tows pictured in this issue are ample evidence of the importance of this commodity in the towboat era. It should be noted that some major oil companies took advantage of the 9-foot channel by building their own towboats and barges to transport their products upstream. Others, on the other hand, engaged private towing companies to transport their oil products upstream.

GRAIN

Credit for the breakthrough in shipping the

first grain by towboat on the Upper Mississippi belongs to L. Ransom McKee, a highly imaginative, energetic, and courageous Muscatine businessman. It began in the year 1934. From that year Ransom McKee saw his small storage space rise from 30,000 bushels capacity to a total of 600,000 bushels at the time he sold out to Central Soya in 1965.

According to McKee:

Most of the barges were of six sections and carried about 8,000 bushels of corn per section. Some smaller barges were of one compartment holding about 30,000 bushels. Receipts of grain in 1934-1935 at the river elevator were light at first but later receipts were larger as prices paid for grain at Muscatine were higher than most country elevators could pay and grain was hauled by truck as far as 175 miles from Muscatine. This was due to the fact that river transportation was cheaper than railroad rates. Barge rates from Muscatine to New Orleans, about 1000 miles, on corn were about 12¢ per bushel while rail rates from Muscatine to Chicago, about 210 miles, were about 15¢ per bushel. Most of the savings went to the producers.

During the 1930's McKee Feed and Grain was shipping about 2,000,000 bushels of grain per year. This increased to around 5,000,000 bushels a year during the early 1940's. After World War II shipments increased until they were barging from 12,000,000 to 15,000,000 bushels of grain yearly at the time of the sale to Central Soya in 1965.

Ransom McKee also owned and operated the grain elevator at New Boston, Illinois, 20 miles

downstream from Muscatine. At one time McKee Feed and Grain operated the feed and grain businesses at Ladora and Wayland. Throughout these activities, Ransom McKee was ably assisted by his son Harry G. McKee, who as Vice President of this family-owned firm, headed the Grain Department.

Looking back over the years, Ransom McKee can take genuine satisfaction in the part he played in making Muscatine "the Port City of Iowa." According to McKee:

> Muscatine, because of the location on the west bend of the Mississippi River, I believe receives more grain than any point or city on the river between St. Louis and Minneapolis.
>
> As of this date, in addition to the Central Soya Company, the Coop has an elevator at Muscatine and the Grain Processing Corp., while they do not ship any grain on the river, are the largest receivers of grain, especially corn which is processed. Other processed products, mostly alcohol, are shipped by water. The Grain Processing Corp., and Kent Feeds, founded by the late G. A. Kent and others, is the largest industry in Muscatine operating 24 hours a day and using about 60,000 bushels of corn each day and employing over 950 people.
>
> Muscatine is truly the Port City of the Corn Belt.

The steady increase in grain tonnage since the close of World War II has been gratifying to waterways enthusiasts. In 1972, for example, the upstream tonnage of coal and petrol combined through the Rock Island District was 6,008,970

tons, with coal representing three-fourths of the total amount. Grain shipped downstream through the same period (January-August) totaled 6,096,700 tons, actually surpassing coal and petroleum. This ratio has been maintained for the past several years. Truly, the dreams of early waterways enthusiasts such as Halleck Seaman and General Ashburn were being realized.

Molasses

(There are a number of minor commodities that are being shipped by towboat such as cement, phosphate rock, linseed oil, sunflower seed and oats, to mention a few. In time these may grow in importance, as has molasses, into ever-increasing importance. The Editor.)

Saul Greenstein was a man with an idea. Although an Easterner and a graduate of the University of Pennsylvania, Saul struck out west and settled on the Mississippi at Dubuque. He loved the mighty river that flowed by his door and he was quick to note the potential of the Mississippi as a highway of commerce. He noted, too, the need for securing tons of molasses to mix with feed for livestock. At the time, in 1953, molasses was being transported by railroad tank cars, which was both a slow and costly means of delivery. Saul Greenstein hit on the idea of molasses barges that could be towed from New Orleans to Dubuque where they would be unloaded into huge tanks. From Dubuque the molasses would be dispatched by truck to various points within a radius of 250 miles of Dubuque—in Iowa, Illinois, Wisconsin and southeastern Minnesota.

Saul Greenstein's idea was not only unique, it was decidedly successful. Others, observing his

success, were quick to adopt it. Two molasses terminals were established in Muscatine and other molasses distributing centers were established at St. Louis, St. Paul, and at Savage on the Minnesota River. But Saul Greenstein's Inland Molasses Company must be remembered as not only the first in Iowa but also the Upper Mississippi.

At first the molasses destined for Dubuque was brought from Cuba and other islands of the Caribbean by means of sea-going tankers to New Orleans where it was loaded into barges. A downstream cargo had to be found in order to make the project pay. It was soon discovered that lard and tallow were excellent bulk commodities. While these could be obtained from several sources the Dubuque Packing Company became a major contributor to the downstream cargo.

All this time a gradual evolution in equipment was taking place. At first barges were developed that could be towed from New Orleans down the Mississippi and through the Gulf of Mexico by tugboats. When Cuba and Porto Rico were snuffed out as molasses ports, sea-going barges were developed which could bring molasses across the ocean, through the Caribbean and Gulf of Mexico and up the Mississippi to Dubuque. By the same token it was possible for Saul Greenstein and his Inland Molasses Company to ship lard and tallow down the Mississippi and off to some far-away European ports where they would discharge

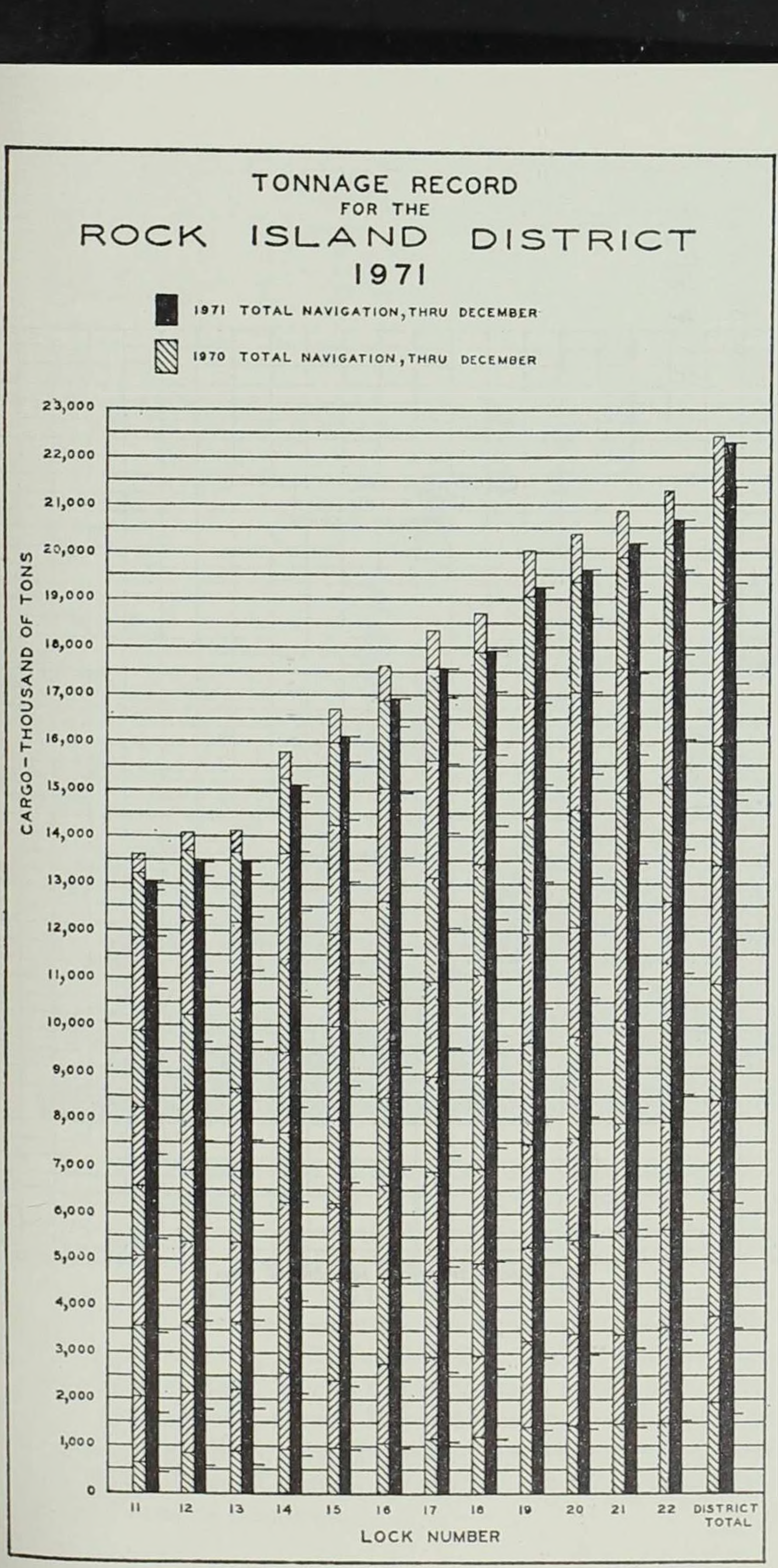
their cargo and head for some port where molasses could be picked up.

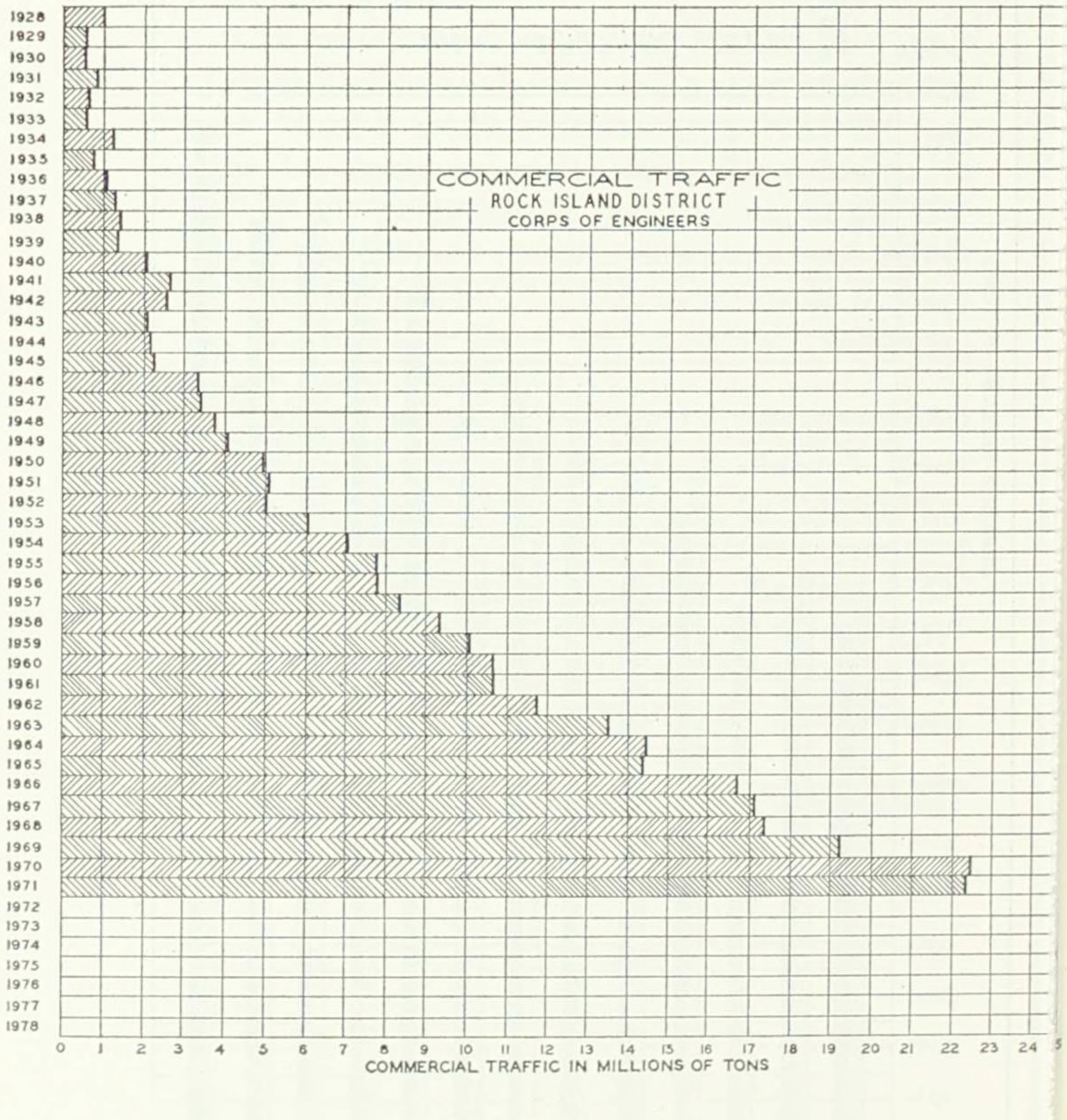
The growth of the molasses trade in the space of twenty years has been nothing short of phenomenal. From a modest beginning in 1953 the tonnage has increased many fold. River barges as well as sea-going barges may be seen at the Dubuque terminal discharging molasses and taking on lard and tallow. The ultimate seems to have been achieved when self-propelled sea-going barges came into use.

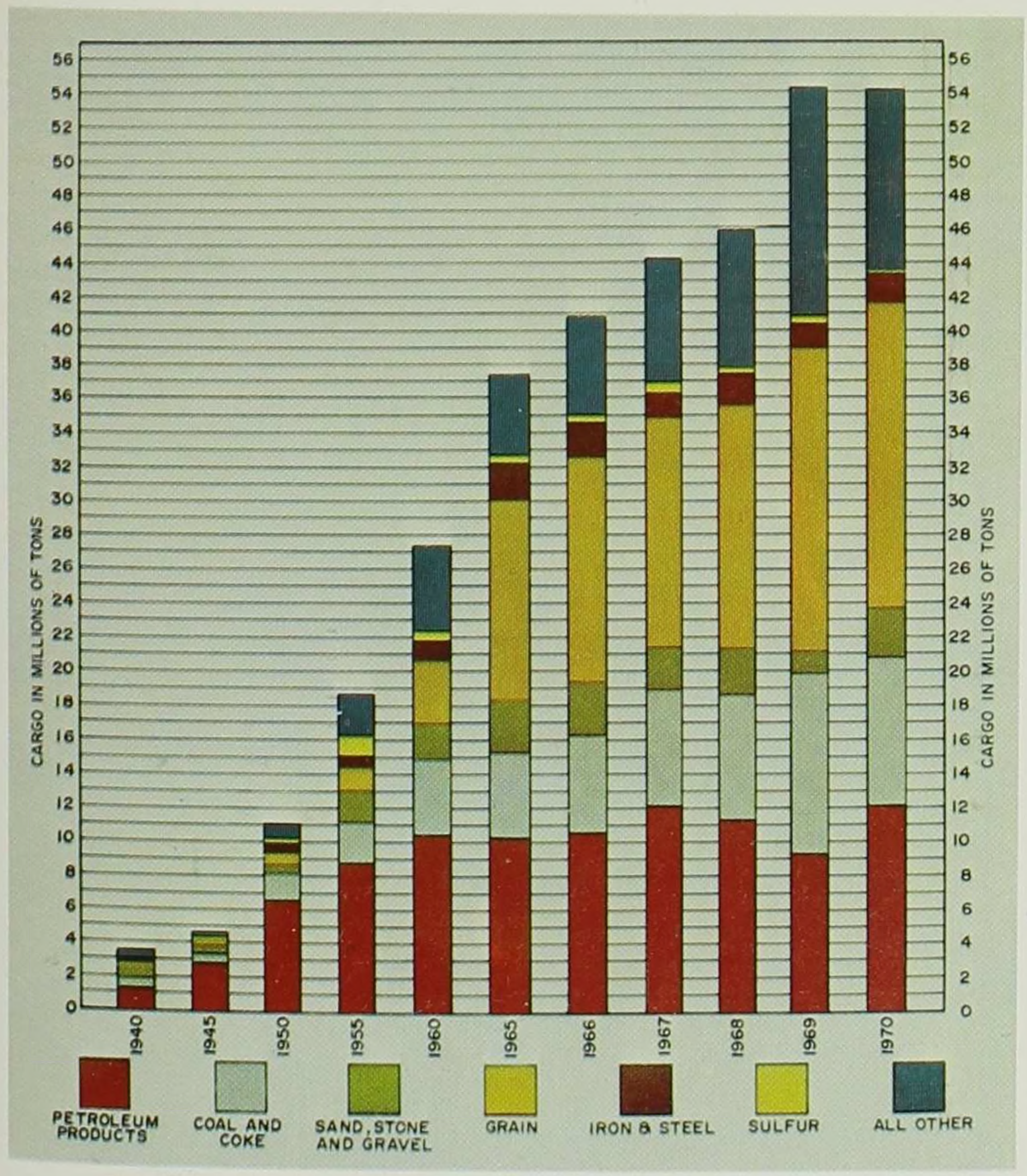
Coal, oil, and grain were bulk commodities that naturally gravitated to inland waterways as a means of cheap and dependable transportation. But the inauguration of molasses as an important bulk commodity in barge line traffic required a far-sighted and courageous entrepreneur. Saul Greenstein, through his imagination and never-failing drive, possessed all the ingredients for success in this unusual venture in towboating.

WILLIAM J. PETERSEN

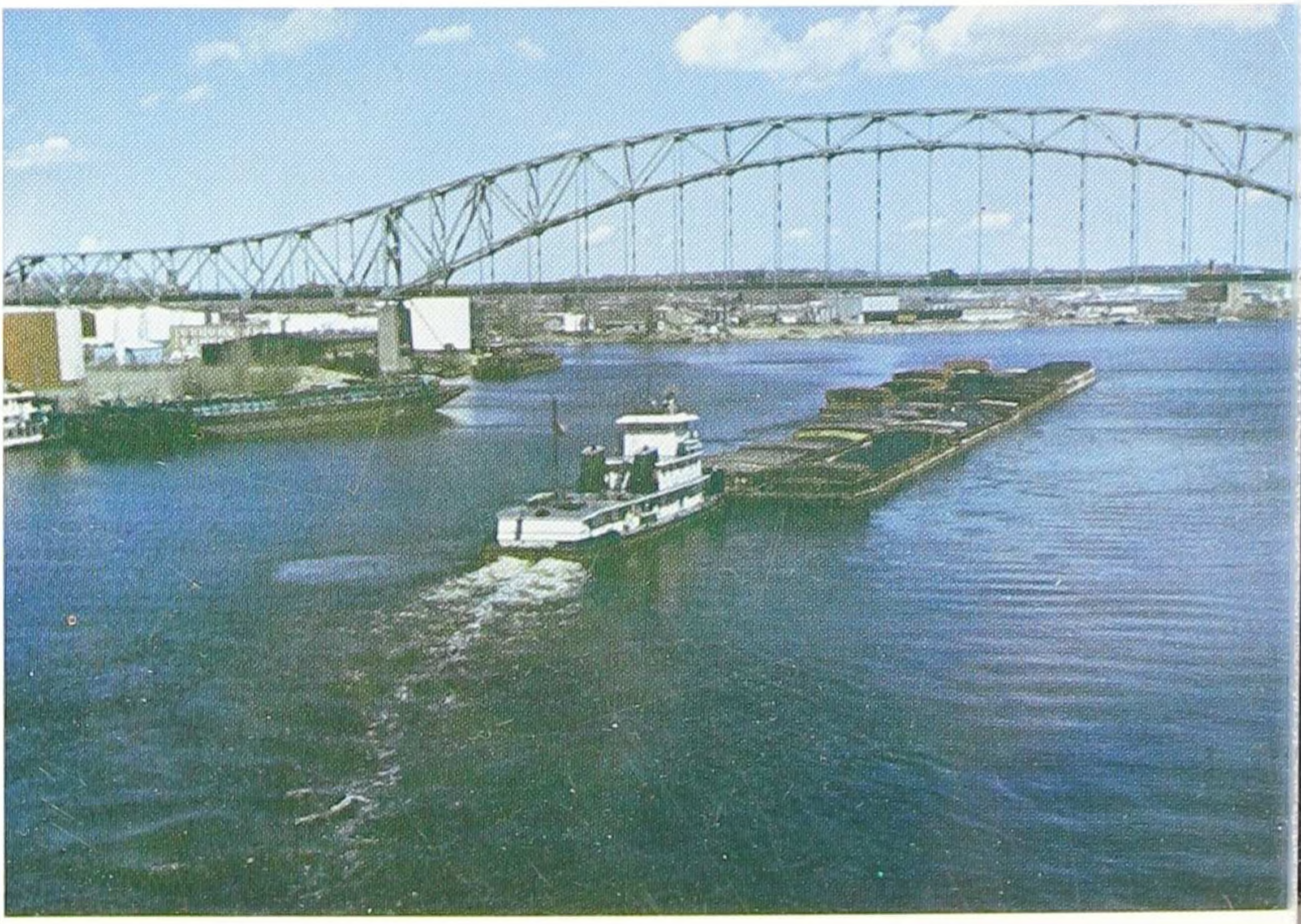
TONNAGE RECORD
FOR THE
ROCK ISLAND DISTRICT
1971




COMMERCIAL TRAFFIC
ROCK ISLAND DISTRICT
CORPS OF ENGINEERS
1928
1829
1930
1931
1932
1933
1934
1935
1936
1937
1938
1939
1940
1941
1942
1943
1944
1945
1946
1947
1948
1949
1950
1951
1952
1953
1954
1955
1956
1957
1958
1959
1960
1961
1962
1963
1964
1965
1966
1967
1968
1969
1970
1971
1972
1973
1974
1975
1976
1977
1978
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 5
COMMERCIAL TRAFFIC IN MILLIONS OF TONS



The above graph was furnished the author by the United States Engineers Office at St. Paul. It shows the total tonnage on the Upper Mississippi for the period 1940 through 1970, with the latter year 54,000,000 tons. It should be pointed out that this figure includes the Illinois River which is usually around 30,000,000 tons. The Rock Island Engineers use a more realistic figure of around 22,000,000 for the Upper Mississippi. Since the Illinois empties into the Mississippi forty miles above St. Louis, it does not seem proper to include Illinois River tonnage with normal Upper Mississippi traffic, but it is so included in such Government publications as *Waterborne Commerce of the United States/Calendar Year 1970,* Part 2, Department of the Army Corps of Engineers.



Towboat *George Weathers* passing under Dubuque bridge with 12,050 tons of coal and steel.