Breaking the Ice

A colorful fleet of steamboats lay marshalled at the foot of Lake Pepin in the spring of 1857. April was drawing to a close but still the ice-locked lake presented an impenetrable barrier to vessels striving to reach the head of navigation at St. Paul. On April 29th twenty-two heavily laden steamboats hailing from ports as far distant as Cincinnati and Pittsburgh impatiently awaited the break-up of the ice. The more venturesome captains had for several days butted the prows of their boats against the solid wall in vain attempts to crash through.

All at once, on April 30th, a mighty convulsion ripped Lake Pepin's winter coat wide open from Read's Landing to Maiden Rock, presenting a narrow but dangerous lane through which steamboats might venture. And venture they did! Battering their way through giant blocks of shifting, crumbling ice, the *War Eagle* and the *Galena* started up the ice-chocked lake, followed by such boats as the *Rescue*, the *Henry Clay*, the *Hamburg*, the *Atlanta*, the *Conewago*, the *Sam Young*, the *Golden State*, and a dozen others. When the *War Eagle* stopped to rescue a deck-hand who had fallen overboard, the *Galena* forged

ahead, Captain W. H. Laughton bringing his victorious craft up to the St. Paul levee at 2:00 A. M. on May 1, 1857.

The opening of navigation at St. Paul that year was the latest date on record between 1844 and 1884, though the river had been open at Dubuque on March 25th and was free of ice at Winona on April 1st. The average date of arrival at St. Paul for this period of forty-one years was April 13th. The earliest arrival was made in 1858 when the *Grey Eagle* whisked up to the St. Paul levee on March 25th. Only three other boats succeeded in reaching St. Paul before April 1st, the *Annie* tying the record of the *Grey Eagle* when she arrived on March 25, 1878.

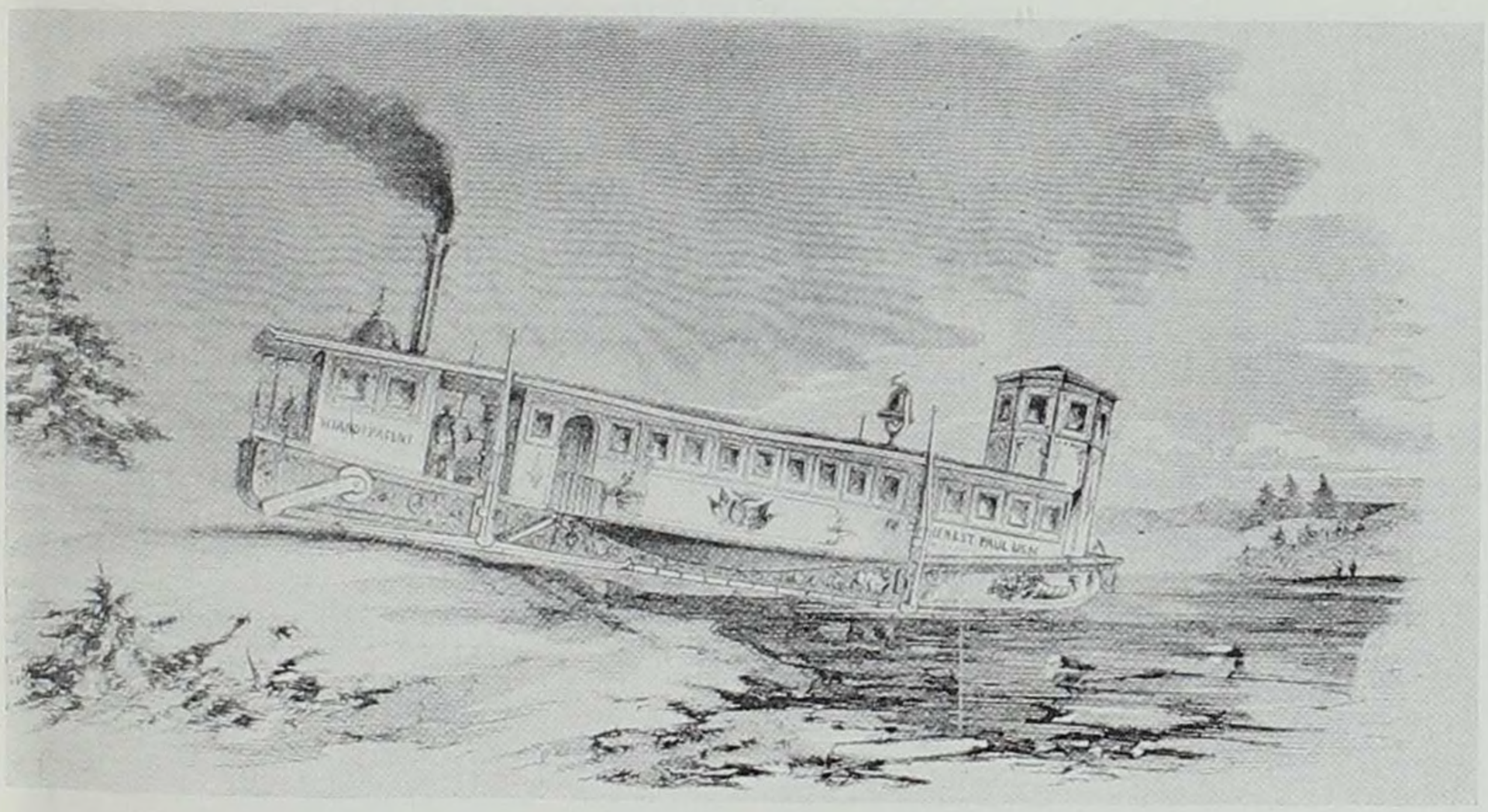
During pioneer days the arrival of the first boat of the season was hailed with delight by river towns in Iowa. Isolated throughout the long winter months and with only fragmentary news dispatches trickling in from the outside world, the first steamboat arrival was a memorable event and remained the topic of conversation for weeks. In contrast the towns along the lower Mississippi were not concerned with the opening and closing of navigation. The levee at St. Louis was blocked on an average of only twenty-nine days yearly between 1865 and 1882. But as steamboats ascended the Mississippi above the mouth of the Missouri, the opening of navigation became more important. Between Keokuk and Dubuque the

river was ice-locked on an average of from 75 to 105 days each year. The season of navigation for the port of St. Paul averaged only 222 days between the years 1849 and 1866, or a little over seven months. Ports below the foot of Lake Pepin could usually depend on a month more of navigation than St. Paul.

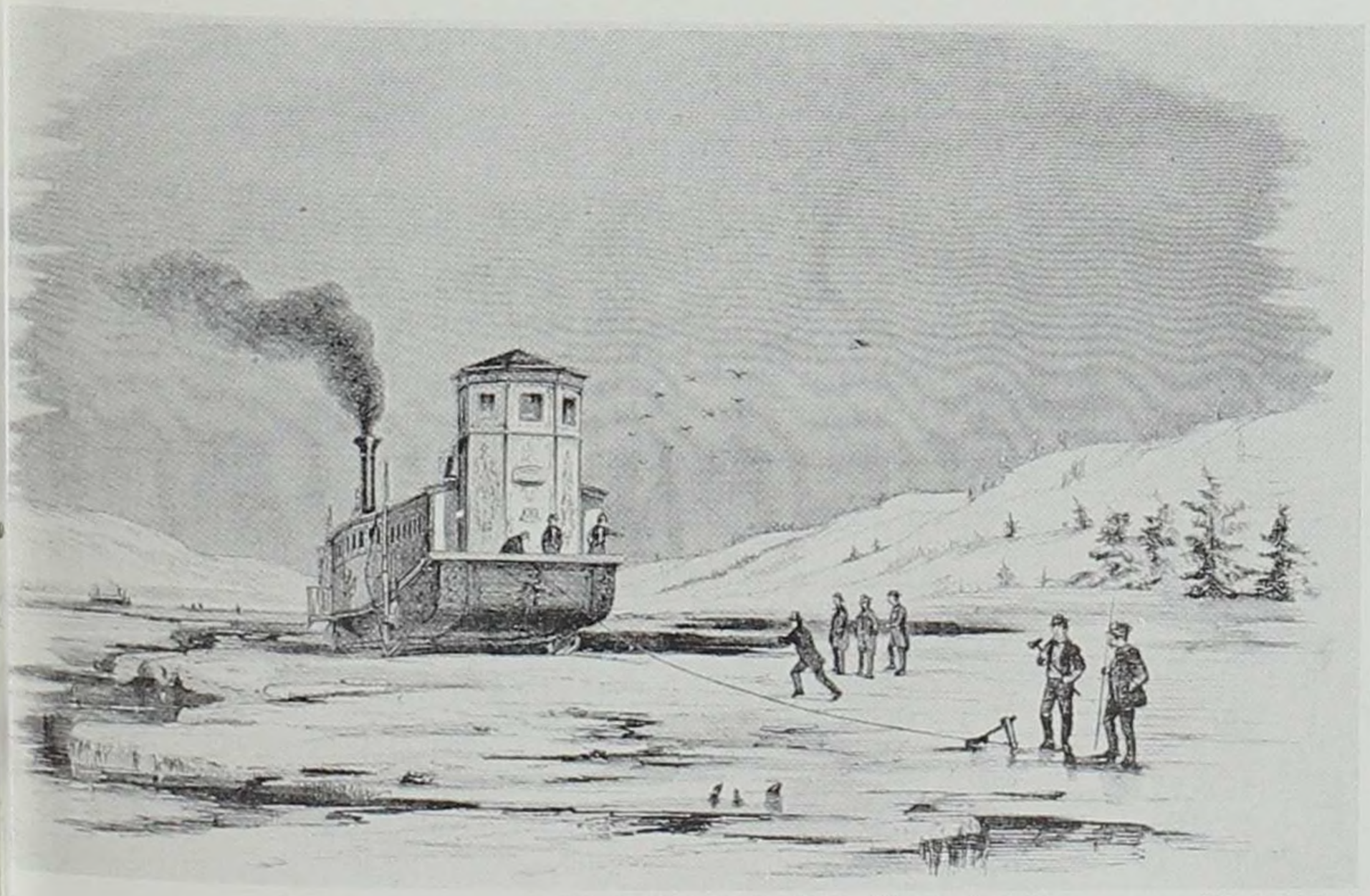
Of course the completion of various railroad lines to the Mississippi and the spread of the telegraph throughout the upper Mississippi Valley lessened the interest of most river towns in the opening of navigation. With the decline of steamboating early in the twentieth century the thrill attending the opening of navigation became only a cherished memory for old-time rivermen.

The inauguration of upper Mississippi traffic by the Federal Barge Line in 1927 caused river towns once more to consider the handicaps that resulted from the limited season of navigation. As work on the twenty-six locks and dams progressed and river commerce increased, citizens along the upper river took a more than casual interest in the revival of steamboating. "Ahoy there, you river barges!" sang out the Minneapolis *Star* on April 12, 1934. "Two thousand-ton omen of Spring, vanguard of renewed river traffic, harbinger of Spring business, Spring optimism and Spring enthusiasm! Of all vernal emblems . . . the first barge tow is the most impressive and convincing. Robins aren't in it with the first glimpse of the S. S. John

A DREAM TO INSURE WINTER TRAFFIC



Wiard's Steam Ice Car Leaving the Snow on Land for the Frozen River.



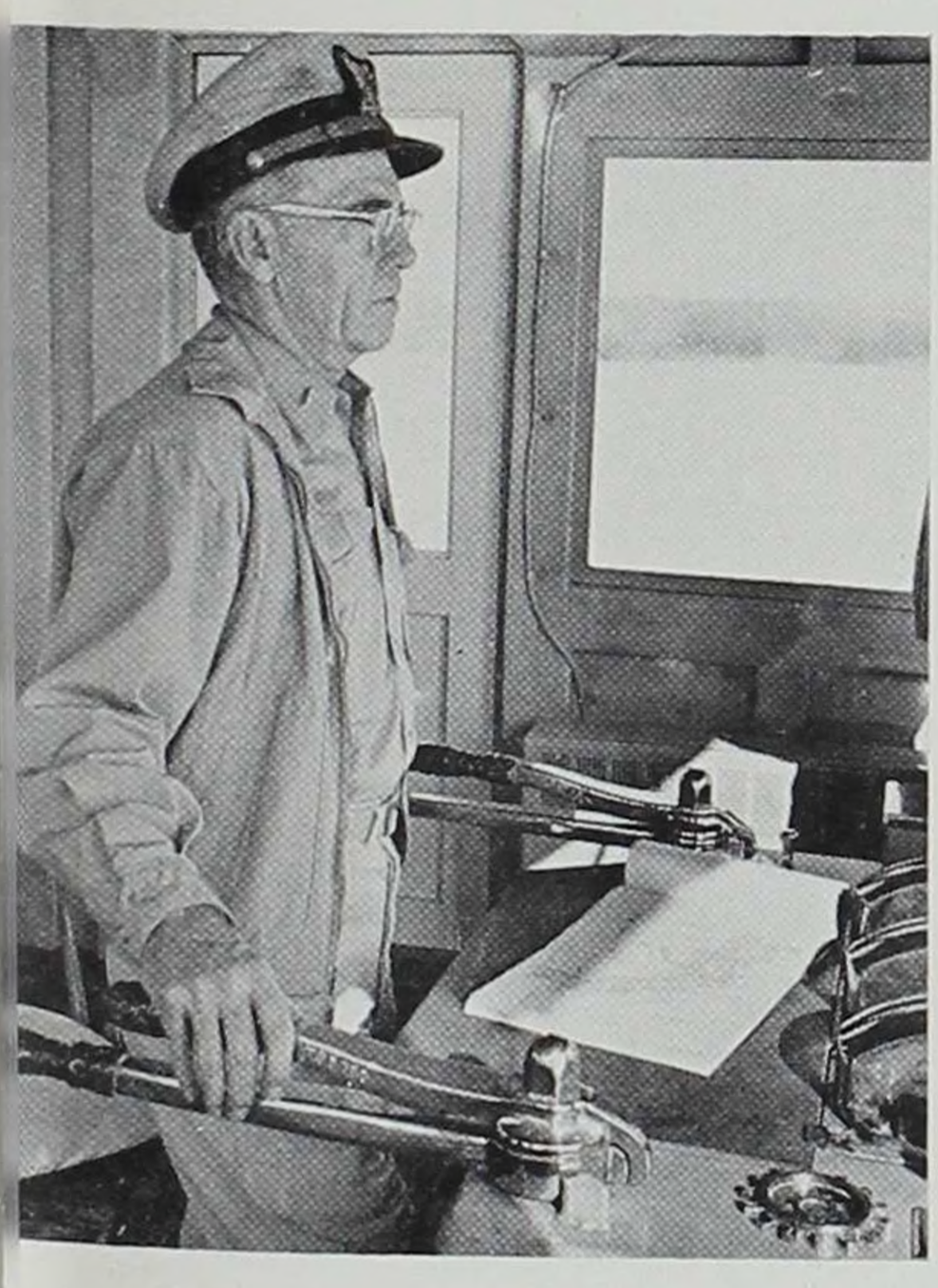
From Frank Leslie's Illustrated Newspaper (12-3-1859)

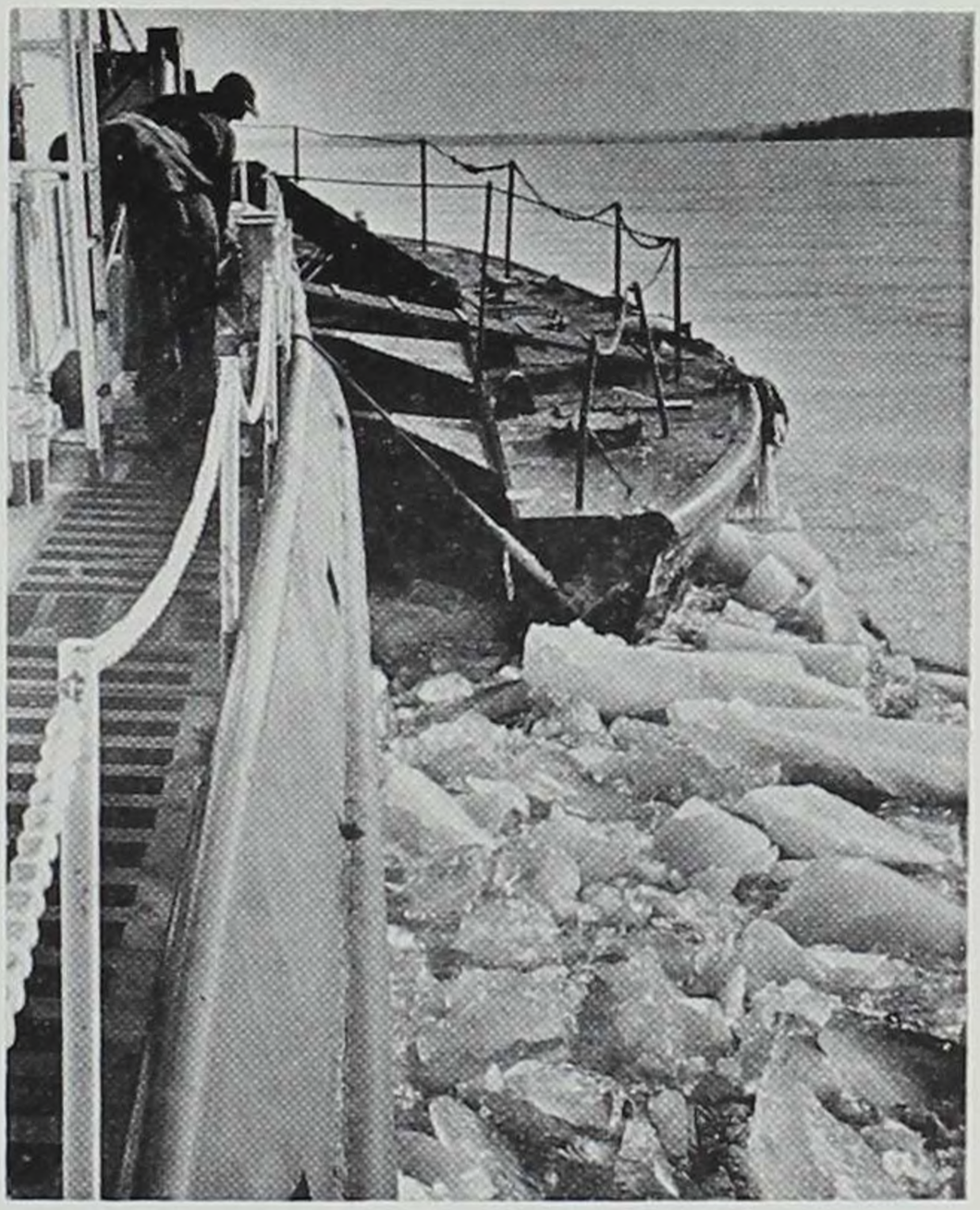
Hauling the Ice Car out of the Water by Means of the Anchor, Worked by the Engine.

U. S. COAST GUARD CUTTER *FERN*

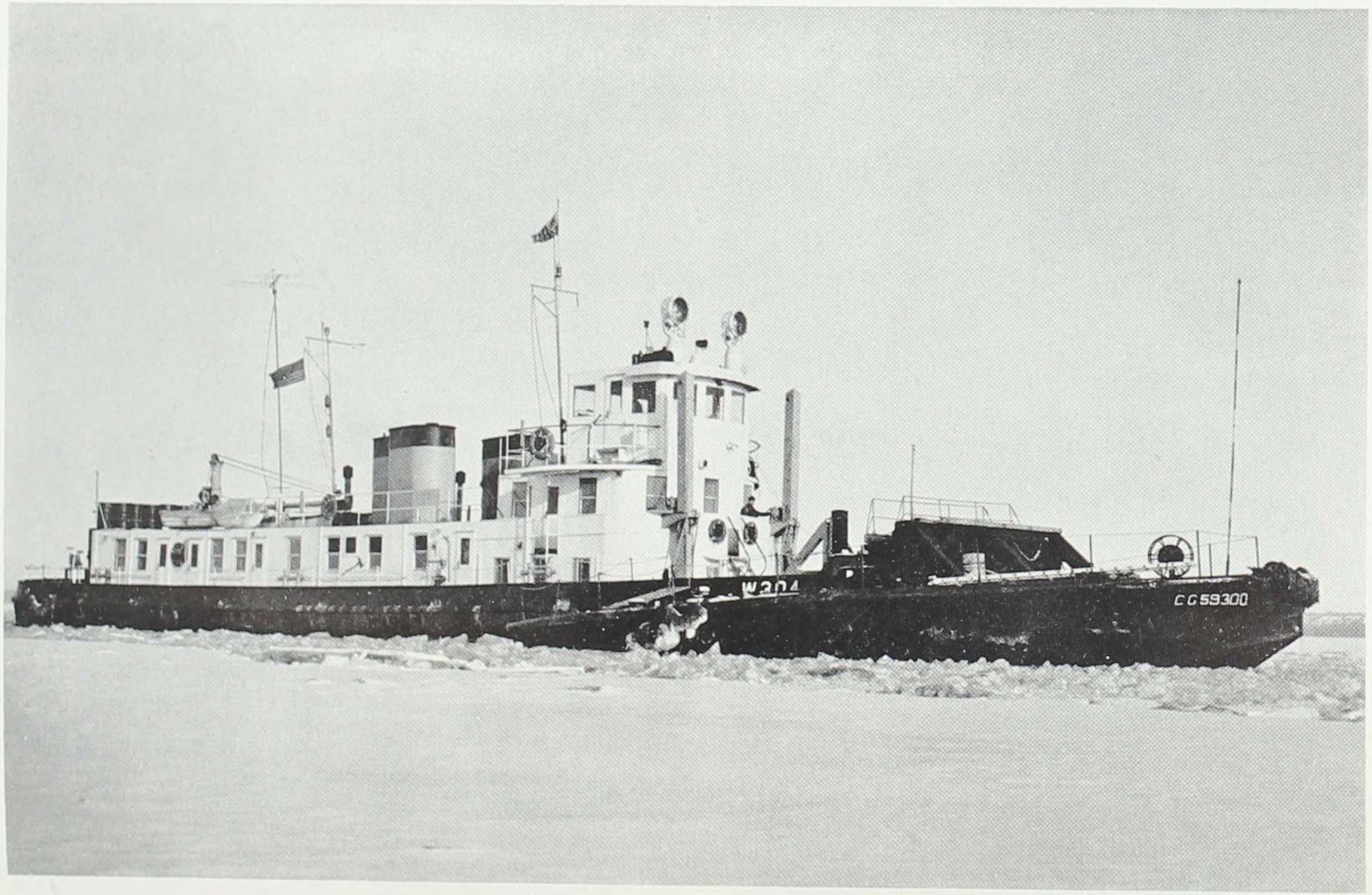
Photos Courtesy Des Moines Register

BREAKING UP THE ICE IN WINTER — 1961-1962





Photos Courtesy Des Moines Register



Official U. S. Coast Guard Photo

W. Weeks chugging up Ol' Man River with barges of merchandise from the sunny south." The opening of navigation in 1934 was one day earlier than the average between 1844 and 1884.

Twentieth century rivermen no longer thought in terms of steam sleighs or steam trains running up the frozen Mississippi, for railroad tracks already paralleled both sides. Instead they turned their attention to some device for keeping the channel open. In May, 1935, the *Upper Mississippi River Bulletin* noted that the U. S. Coast Guard cutter *Escanaba* had cleared the Straits of Mackinac of ice and enabled navigation on the Great Lakes to open twenty-five days earlier than in 1934. There was no reason, engineers declared, why inland waterways could not be kept open the year round by the use of ice cutters. The prospects seemed particularly good on the Illinois River and a substantial portion of the upper Mississippi.

On January 21, 1938, Colonel Philip B. Fleming announced that the United States Engineers in the St. Paul district were considering the advisability of acquiring an ice breaker for the purpose of extending the dates of through navigation on the upper Mississippi between Prairie du Chien and Minneapolis. After pointing out that Lake Pepin formed a real bottleneck each winter, Colonel Fleming concluded: "It is estimated that the use of an ice breaker for the creation of a navigable passage in Lake Pepin during spring ice

break up period should advance the future opening dates of through navigation by a period of from two to three weeks, and in addition the possession of an ice breaker will probably give reasonable assurance that tows will be able to operate up to November 20, instead of November 10, as at present, the above making a total extension in the navigation period of approximately one month."

Three years later, in the spring of 1941, the season of navigation at Minneapolis was opened by the Federal Barge Line steamer *Huck Finn*. Although Lake Pepin offered less resistance because a rise in the water softened the ice, Captain Raymond Fugina of the *Huck Finn* found it no easy task bringing his boat through. "Coming through Lake Pepin," the veteran riverman declared, "we bucked sixteen-inch ice for ten miles, not to mention five miles of lighter ice. It took eighteen hours to get through."

The St. Paul *Dispatch* was delighted with the prospects for 1941. "Fifty-seven tow boats are now operating on the upper river between St. Paul and St. Louis. Barges of 2,000-ton capacity — equal to a 100-car freight train — are common. As many as 3½ million gallons of gasoline have been brought here in a single tow, and experts say that's only a starter." This was no mere flash of optimism, for when the season of navigation closed St. Paul could point with pride to 644,736 tons of barge traffic compared with 7,108 tons in

1927, 105,184 tons in 1937, and 598,481 tons in 1940. The entire upper Mississippi had enjoyed a similar growth — approximately 2,000,000 tons of freight having been moved between St. Louis and St. Paul during the course of the season.

The treacherous attack on Pearl Harbor found the upper Mississippi well-prepared for extra war duty. The twenty-six locks and dams had been completed and a nine foot channel assured. Modern freight terminals were located at strategic points between St. Louis and Minneapolis — those at Burlington, Rock Island, and Dubuque being among the best. Oil terminals had also been planted along the Mississippi encouraging the phenomenal growth of oil cargoes to the point where petroleum exceeded the combined tonnage of all other freight carried on the Mississippi between Minneapolis and New Orleans. On April 6, 19541, the Davenport *Democrat* rejoiced over the inauguration of a new feature in upper Mississippi traffic when the *Bob Gresham* and the *Helen B.* arrived at the Bettendorf terminal of the Quaker Petroleum Company with four barges of gasoline from Galveston, Texas! A few months later the Minneapolis *Times* chronicled the arrival of a huge cargo of gasoline from Louisiana aboard the *Minneapolis Husky* — the only inland oil tanker in the United States. Meanwhile, towboats were arriving at St. Paul and Minneapolis with from 10,000 to 14,000 tons of coal in tow. At the

same time the *Charles F. Richardson* astounded residents of the Twin Cities when she brought up three and a half million gallons of fuel oil weighing 12,800 tons, believed to be the largest oil tow ever transported on the upper Mississippi. Such figures stand in sharp contrast to the 2200 tons of freight discharged at the St. Paul levee in 1857 by twenty-two steamboats!

One of the first efforts of the United States Coast Guard following Pearl Harbor was to extend the season of navigation on the upper Mississippi and Illinois rivers. The first experiments were undertaken on the latter stream, where the steamers *Illinois* and *Tom Sawyer* of the Federal Barge Line experienced considerable success. The *Illinois* received a tremendous ovation at Alton in mid-January when she plowed upstream through eight-inch ice to begin her work. By January 22, 1942, Captain S. S. Yeandle of the Ninth Naval District at St. Louis was able to report that conditions on the Illinois River were rapidly returning to normal despite some unusually thick ice. On one occasion it took the combined efforts of the *Tom Sawyer*, the *Shepard*, and the *Sylvia T.* to open a gorge near Marseilles composed of ice from twelve to fourteen inches thick.

Not enough equipment was available in the spring of 1942 to tackle the upper Mississippi, hence it was not until mid-March of 1943 that the United States Coast Guard undertook to open

that very stubborn stream. The *Del Commune* of the United States Engineers fleet was fitted with an 85-ton Amsterdam-like ice plow — an ingenious device in the shape of a horse-collar which encircled the bow of the boat. Filled with water to increase its weight, this plow bore the brunt of the attack against the ice and protected the *Del Commune* from damage. As the enormous collar was driven forward on top of the ice, the weight was sufficient to break through eight-inch ice with ease, but in thicker ice the going was slower.

The *Del Commune* met its first difficulties at Clarksville, Missouri. There a huge ice gorge blocked the way but persistent bucking and smashing finally broke the jam and the *Del Commune* continued northward, passed Muscatine on March 16th and arrived at Dubuque on March 18th. The powerful boat failed in her attempt to smash the twelve- to eighteen-inch ice which bracketed the river five miles north of Dam Eleven and was forced to return to Dubuque for repairs, where she remained until March 29th. The unseasonably cold weather was an important factor in Old Man River winning this battle against the best efforts of the Coast Guard.

Muscatine did not greet its first commercial tow in 1943 until March 21st when the *Stanolind A* with her four-barge oil tow passed through Lock Sixteen. The *Tom Sawyer*, equipped with an ice plow, had preceded the *Stanolind A* up the river.

According to Mabel Bartenhagen, veteran Muscatine river reporter, the *Sawyer* had met plenty of ice on the way up. "The ice plow shows evidence of the heavy-going the boat has encountered on the trip up the river. The rail on the plow on the port side was broken off and on the starboard side the rail was bent and out of line. The paint has been scraped off the plow showing the red lead all the way to the top of the plow."

A better opportunity was afforded the United States Coast Guard in the spring of 1944. Although the season of 1943-44 was comparatively mild, efforts to open the upper Mississippi did not get under way until mid-March. On Saturday, March 11th, the Federal Barge Line towboat *Tom Sawyer* fitted with an Amsterdam ice plow, passed upstream through the Rock Island locks. The *Sawyer* was followed by the Coast Guard Cutter *Sycamore*, also fitted with an ice plow. The boats were opening a channel for the first tow of the season which was expected to reach Davenport late on Sunday or early Monday. The Clinton *Herald* reported the *Tom Sawyer* passing through the Chicago and North Western drawbridge at 2:21 P. M. on Saturday, closely followed by the *Sycamore*.

The speed with which the boats traveled from Davenport to Clinton is evidence that ice offered little hindrance. Much the same conditions prevailed as far north as Dubuque, though solid ice

still remained above Dam Twelve at Bellevue. The Dubuque *Telegraph-Herald* reported a "rising trend" in prospect but no serious floods currently indicated. "The pools are frozen immediately above and as far upstream as can be seen from the dams. Some breaking of the ice is to be expected over this weekend." By Tuesday, March 14th, the *Telegraph-Herald* recorded that "Much of the ice which remains, and most of which is confined to the reaches immediately above the dams should become broken today, and much of it should move out today and tonight. The ice has become quite soft in the pools, with many openings appearing, while below the dams only shore ice or floating ice is reported for several miles." From Dubuque the *Tom Sawyer* set out for Minneapolis on March 15th and reached the United States locks at Lynxville at noon on the 16th. The river along the entire eastern border of Iowa was open to navigation by mid-March.

It was not until March 13th that the first commercial tow of the season arrived at Davenport, the powerful 1200-horsepower diesel towboat *Wayne H.* shoving five barges of petroleum products through the Rock Island locks and up to the Bettendorf terminal of the Paroland Oil Company. The *Wayne H.* had reached Lock Sixteen at Muscatine on Sunday night but was unable to make an early start Monday morning because of fog. Floating ice proved to be no handicap, however,

and despite the absence of river buoys she was able to put in at Davenport Monday afternoon.

Some idea of the activity attending the opening of navigation in 1944 may be gleaned from the river news contained in the newspaper columns of a typical Mississippi river town. Since Davenport lies about midway between Keokuk and Dubuque it forms a fairly representative Iowa river town. Moreover, the Davenport *Democrat* is particularly alert to river news. Following the arrival of the *Wayne H.* on March 13th, the Kansas City *Socony* arrived on March 17th with a large cargo for the Socony Vacuum terminal. The *Tri-Cities* was reported in the Canton pool (formed by Dam Twenty) also headed for Bettendorf with gasoline. The arrival of huge cargoes of fuel oil and gasoline did much to relieve shortages. It should be pointed out that the *Wayne H.*, the *Kansas City Socony,* and the *Tri-Cities* probably discharged a greater tonnage for the Davenport area than would have been delivered there by a hundred boats of pioneer days.

Hard in the wake of these oil tows came the coal barges. The first through tow of the season consisted of four barges containing 8800 tons of coal, according to President C. C. Thompson of the Federal Barge Line. The steamer *Huck Finn* had left Alton, Illinois, with this immense tow on March 14th and arrived at the Davenport lock with it at 8:30 A. M. on March 21st. The *Huck*

Finn, the *James W. Good,* and the *Patrick Hurley,* together with the *Tom Sawyer,* which was engaged in breaking a channel through the ice on Lake Pepin, were scheduled to form the upper Mississippi fleet for the Federal Barge Line in 1944.

Ten days later, on March 27th, the Davenport *Democrat* reported ten towboats in the Rock Island district and prophesied that the year 1944 would set new tonnage records. The *Patrick Hurley,* the *Helena,* the *Wheelock Whitney,* and the *Midwest Cities* had passed through the locks in the preceding twenty-four hours and the *Tri-Cities* and the *Twin-Cities* were both in the district. The *Kansas City Socony* had put in its second appearance at Bettendorf while the *Standlind A* made her initial appearance.

Despite this activity in the Rock Island district, the season of navigation had not yet opened at St. Paul. The ice on Lake Pepin was still reported to be "hard and clear and 20 inches thick" on March 23rd and the Coast Guard ice breaker *Fern* lay at Wabasha, Minnesota. Veteran rivermen looked back with triumph to the good old days when the *Grey Eagle* and the *Annie* (frail craft compared with modern steel towboats) reached St. Paul on March 25th. Many of these old timers have scoffed at the effectiveness of ice plows, but their skepticism was shaken somewhat when the *Fern* plowed through Lake Pepin on Tuesday morning, March 28th, and reached St. Paul the same after-

noon. It was the earliest opening in fourteen years and tied the record established by the *Milwaukee* in 1860. In the wake of the *Fern* came the *Demopolis,* the *Huck Finn,* and the *Helena.*

The relative mildness of the winter of 1943-44, the power of modern towboats and the ingenious nature of such devices as the Amsterdam ice-breaker, the desperate need of solving the transportation bottlenecks of World War II, the necessity of conserving precious motor fuel and tires, the urgency of diverting hard-pressed railroad tank cars to the more populous Atlantic seaboard, and the overwhelming demands on railroads, tankers, and pipe lines to provide military depots with the material of war — all these factors point to greater use of river transportation, particularly by shortening the closed winter season.

It does not seem unreasonable to suggest that the Davenport-Bettendorf area might have been kept open eleven months during the season 1943-44, instead of nine months. The strategic character of this region, the vital service the upper Mississippi might be called upon to play in transporting the ordinary demands of the upper Mississippi Valley for fuel oil and coal during protracted cold spells, demand ice-breaking equipment sufficient to keep the river in use much farther north.

WILLIAM J. PETERSEN