THE FOX-WISCONSIN WATERWAY 1836-1872:
LAND SPECULATION AND REGIONAL RIVALRIES
POLITICS AND PRIVATE ENTERPRISE

A thesis submitted to the Graduate School of
the University of Wisconsin in partial fulfillment
of the requirements for the degree of Doctor of
Philosophy.

by

ROBERT WELWOOD McCLUGGAGE

Date MAY 27_________ , 1954
To Professors: Beale
Carstensen
Morgan

This thesis having been approved in respect to form and mechanical execution is referred to you for judgment upon its substantial merit.

[Signature]
Dean

Approved as satisfying in substance the doctoral thesis requirement of the University of Wisconsin.

[Signature]
Howard K. Beale
Major Professor

[Signature]
Theodora Morgan

Date 5 June, 1954
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Robert W. McCluggage, M. A. 

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In outline, the story of the Fox-Wisconsin Waterway from 1836 to 1872 is simple. At Portage, in the south central part of the state, the Wisconsin River, emptying into the Mississippi, and the Fox River, flowing to Green Bay on Lake Michigan, are but a short distance apart. During the days of the fur trade, this route between Lake Michigan and the Mississippi was an important thoroughfare. Wisconsin became a territory in 1836 at the height of the canal fever in the United States. Partisans of the Waterway conducted a long campaign for government aid to render the Waterway navigable from end to end by opening a canal at the Portage and by-passing the falls and rapids of the lower Fox River. A federal grant of land was finally won at the end of the territorial period. For a time, construction was under the direct supervision of the state. Unable to achieve a practicable Waterway without incurring a state debt, the state turned the project and the land grant over to a private company. The first company failed. It was succeeded by another company that continued the effort to build a profitable transportation line across the state until the federal government intervened and resumed control of the Waterway.
As a study in local history, the Waterway poses some fascinating problems. A persistent characteristic of the whole experience was the unfailing consistency with which the Waterway frustrated the enthusiasts who favored its development. The reasons for these failures were never quite the same, but the rule of failure held throughout. Although the Waterway was never successful as a transportation route after the demise of the fur trade, the practicability of the scheme was never seriously questioned. The power of the attraction of the scheme, moreover, was so great that it never lacked supporters. There may be a curious sort of moral to be drawn from the observation that the only successful advocates of the Waterway were those who used it in seeking other ends. A history of the Fox-Wisconsin route, however, makes contributions to broader interests in American history, for the fate of the project was involved in events on the national scene.

Transportation has been central to American development. Only by the lines of roads and rails and navigable waterways strung across the face of the continent can the nation be held together. The availability of natural facilities of communication has meant advantage to one locality over others less favored. When the inhabitants of a favored locality have been able to develop or exploit new techniques in artificial means of transportation, their initial advantage has been confirmed and has endured. In the case of New
York, for example, the natural advantage of a splendid harbor, plus fine natural water routes to the interior, was cemented first by the opening of the Erie Canal and then by the construction of railroads. The result was the dominance of New York in American commerce. Commercial activities drew manufacturing enterprises to the vicinity. The profits of both fostered the rise of New York as a financial center. The economic predominance of New York distorted the development of the rest of the country, provoked regional and sectional controversy, and permitted the exploitation of three-fourths of the nation by the favored one-fourth. Only in very recent years have the natural and human forces in the rest of the country begun to act to bring about a balance.

It is necessary to emphasize that the rise of New York does not rest alone on natural advantages. New Yorkers exploited those advantages to the fullest, but they also acted vigorously in the economic and political field to develop artificial means of transportation that increased their initial advantage. It is with this human factor that the historian is most concerned.

In the history of Wisconsin there is a situation in many respects analogous to that of New York. The Fox-Wisconsin Waterway and a fine harbor at the end of the chain of Great Lakes gave to the little settlement at Green Bay a tremendous initial advantage over other early sites. The story of the Waterway, however, failed to produce the happy
ending enjoyed by New York. To some extent this result came because the natural situation of Green Bay is not precisely like New York's. Indeed, in many ways, the relation of Green Bay to Chicago and Milwaukee is more like that of Montreal or Quebec to the Atlantic seaboard cities. Green Bay, like the Canadian cities, is best reached by water from the east. The weather handicaps Green Bay, too, in competition with its more southerly rivals. And finally, both Green Bay and the Canadian cities are farther removed from the centers to the east by the most direct means of transportation. Yet, again, the outcome of the struggle is not to be found solely in terms of natural factors, nor in the history of the development of the railroad network of the country, which naturally favored Chicago. Local economic rivalries, state and national political differences, the very fact of the initial advantage of Green Bay, all contributed to its eventual subordination to the cities at the lower end of Lake Michigan.

The efforts of Waterway advocates to improve the natural route involved them in national affairs. National policy for internal improvements — federal aid to transportation — was one of the liveliest issues in mid-nineteenth century politics. The development of the Fox-Wisconsin route was one of many transportation projects whose fate was determined by variations in internal improvements policy. A study of the history of the Waterway seems to
indicate a need for reassessing the generalizations that have been used in treating the question. It is clear that the Democratic tradition of opposition to internal improvements, established when Jacksonians fought the American System of Henry Clay, was never consistently followed. This has been quite generally appreciated. On the basis of the experience of the Fox-Wisconsin project, it appears that the Democrats, on the contrary, regularly gave support to such developments. In the Democratic program, as it was expressed in party actions rather than in the statements of its presidents and platforms, aid to internal improvements had a definite and positive role. Aid to internal improvements usually took the form of grants of land. In this fashion, internal improvements policy was allied with the evolution of land policy.

The problem of the disposition of the public domain has been another commanding subject in American historiography. Frederick Jackson Turner taught that the free land on the frontier was deeply significant in the development of democracy in America. This emphasis led land policy historiography into a preoccupation with the campaign for a homestead bill offering free farms to all who wanted them. As a political force, it is true, cheap or free land for the common man was exceedingly potent. This aspect of the matter unquestionably received most attention in public discussions of the land question. Recently there has been a
broadening of perspective on land policy. There has been a tendency to treat the struggle for the public domain as an early example of the efforts of powerful private interests to gain control of the natural resources belonging to the nation. It begins to appear that the land interest of old wielded power similar in many respects to that enjoyed by the oil interest today.

The Democratic policy of extending land-grant aid to transportation projects must be fitted into the picture of the Democratic program as it actually worked out. It is evident that Democratic favor was important in obtaining a federal land grant in aid of the Waterway. It is also evident that Democratic politics was significant in subsequent enlargements of the grant. Finally, it will be noticed that the techniques developed by the Waterway promoters to divert government largess to private profit set the pattern that was later utilized by the companies that abused the railroad land grant system.
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CHAPTER I

A DREAM AND ITS SUBSTANCE

The history of the Fox-Wisconsin Waterway has been sustained throughout by a dream, the dream of the Northwest Passage, a water route through North America to the Pacific Ocean.

The water systems of the continent are admirably designed to sustain the dream of a Northwest Passage. The illusions created by the great estuaries of the central Atlantic coast were soon dispelled, but further to the north the mighty St. Lawrence pierces deep into the interior and at its head sprawls the succession of Great Lakes that carry the traveler almost halfway across the continent. They carried the dreams of men even to the Western Sea. Just to the west of the westernmost of the Great Lakes are the headwaters of the Mississippi River. The widespread tendrils of that vast dendritic system drain the soil of almost two-thirds of the United States. The major westward-reaching branch of the Mississippi system, the Missouri, finds its source deep in the tumbled fastnesses of the Rocky Mountains scant miles over the divide from the point where

\[1\]
Reference notes have been placed at the end of each chapter.
rise the Snake, the Salmon, the Clearwater, and Clark Fork, whose waters ultimately meet to for the Columbia River emptying into the Pacific Ocean.

These two great drainage systems come close together in the vicinity of Wisconsin. It is a location well calculated to catch the eye of a seeker for the Northwest Passage.

The map of Wisconsin is like a mitten with the fingers to the north and the thumb to the east. Along the western border of the state flow the waters of the Mississippi; the eastern side is washed by the waves of Lake Michigan. The space between the thumb and the palm is Green Bay. Straight down the center of the state the Wisconsin River runs until it is quite close to the base of the palm, then it abruptly veers to the southwest and empties into the Mississippi River. The Fox River has its headwaters in the vicinity of the big bend of the Wisconsin River and winds its way in a predominantly northeasterly direction to find its outlet in Green Bay. At their closest point, the two streams are hardly more than a mile apart. This proximity between eastward and westward flowing streams, between waters emptying into the Gulf of St. Lawrence and waters pouring into the Gulf of Mexico captured the imagination of dreamers in search of the Northwest Passage. On a map, the near-junction of the two rivers is striking. The Portage between them has been the focus of dreams for over
Father Claude Dablon assessed the findings of Jacques Marquette and Louis Joliet after they had passed over the Waterway to discover the Mississippi in 1673. In a way their voyage was a disappointment, for they had not found a water passage to the Western Sea. Dablon was not altogether cast down by this failure; he thought something might yet be salvaged from the findings of those bold adventurers. He wrote: "As it would have been highly desirable that the terminus of that discovery should prove to be the Vermilion sea, —which would have given at the same time access to the sea of Japan and China, —so, also, we must not despair of succeeding in that other discovery of the western sea, by means of the Mississippi [sic]. For, ascending to the northwest by the [Missouri] river which empties into it at the 38th degree, as we have said, perhaps one would reach some lake, which will discharge its waters toward the west. It is this that we seek."

Nearly two centuries later, although the Waterway as a transportation route had repeatedly disappointed its supporters, the dream still lived. The possibility of a water passage from the sources of the Missouri River to the Atlantic Ocean was a prominent weapon in the arsenal of the advocates of federal aid to improve the Fox-Wisconsin Waterway. One of their tracts declares, "The success of [the Erie Canal] suggested the project of extending it,
by creating a navigable channel through the Fox and Wisconsin Rivers, to the Mississippi, and thus securing a network of canals and lake and river communication reaching all the States east of the Rocky mountains. One of the most notable of the dreamers of a transcontinental waterway, Horatio Seymour, implicitly carried the route on to the Pacific Ocean. He described the route from New York harbor through the Mohawk valley, the Great Lakes, the Fox-Wisconsin Waterway, and the Mississippi and Missouri rivers and concluded, "But a single mile separates the head waters of the Missouri from those of the Columbia river." Seymour was not the only enthusiast for water transportation to proclaim this deceptive fact.

Underlying the dream of a transcontinental water route has always been the hope of a practicable connection between the Great Lakes and the Mississippi. Father Dablon found in the discoveries of Joliet and Marquette "a very great and important advantage, which perhaps will hardly be believed." "We could go with facility to Florida in a bark, and by very easy navigation," he declared. "It would only be necessary to make a canal by cutting through but half a league of prairie." The site for this project, however, was not the Fox-Wisconsin Portage but the height of land between the Chicago River and the headwaters of the Illinois. In the very account that first reported the transit of the Fox-Wisconsin Waterway and assessed the value.
of its discovery, a rival route was proposed.

The Waterway was always a part of the continental transportation pattern. As a link between the Great Lakes Basin and the Mississippi Valley, the Fox-Wisconsin route claimed many advantages. By this connection, the distance between the Lakes and the River was least of any of the practicable alternatives. In 1839 Captain Thomas Jefferson Cram believed it to be the cheapest route to improve. It was closer than any of its rivals to the states of the upper Mississippi Valley whose lands and products were just beginning to be developed through the middle of the nineteenth century.

On the other hand, the Fox-Wisconsin Waterway in 1836 was far removed from the centers of population, production, and exchange. As late as 1860, the frontier line, denoting a population of less than two persons to the square mile, ran not far north of the path of the Waterway across the state. Opponents claimed there was not yet any need to develop transportation facilities there. Lack of population, moreover, meant lack of political strength. Green Bay and other partisans of the Fox River route found it correspondingly difficult to press their claims for government aid over those of rival centers.

Much of American history can best be understood as the story of competition between rival routes and modes of transportation. Horatio Seymour, whose place in American
history is secure, but whose role should perhaps be reassessed, displayed an appreciation of the importance of transportation that has been shared by few statesmen. The approach to the American past implicit in his observations has been exploited by few students of our heritage. Yet Horatio Seymour compressed in a few lines of an almost-forgotten legislative report a statement of the principal elements that operated to make the history of the Fox-Wisconsin Waterway, and much more of American history as well. He said: "In this country, which is so rapidly improving, as a general rule, every public improvement, from the rude track which is cut through the forest to the expensive canal, is designed to create and facilitate communication, rather than to accommodate existing wants. The history of every part of our country shows that trifling advantages of this description have fixed the sites of our important towns and cities. . . . There is hardly a town or an important manufacturing or commercial place which has not been fixed by the enterprise of some individual, or by some considerations of convenience which might easily have been transferred to other points. It is for this reason that so much importance is attached to the construction and lines of improvements in the early stages of settlement." 12

Thus it was with the Fox-Wisconsin Waterway. Its history involves the dreams and schemes, the bargainings and parliamentary maneuvers, of politicians and speculators
MAP
OF THE
WISKOSIN & NEENAH
OR FOX RIVERS,
Accompanying the Report of
THOMAS JEFFERSON (JIM. CAPT. E.
upon the Survey of those Rivers with a view to
the Improvement of their Navigation.
1839.

SCALE

The Delta proper
delimit this River
with due accuracy.

MASSACHUSETTS
WISCONSIN
ILLINOIS
NEENAH

CITY OF THE 4
LAKES

EAST WISCONSIN

WEST WISCONSIN

MANCHESTER

POWDER RIVER

BATTLE GROUND

FORT CALL

FORT WAYNE

FORT WASHINGTON

FORT WASHINGTON

BATTLE GROUND

FORT CRAWFORD

FORT WASHINGTON

MASSACHUSETTS

FORT CRAWFORD
in Madison and New York City, in Green Bay and Albany, Milwaukee and Utica. This is a story of men of large affairs intimately involved in the political and economic history of the United States. These men sought control of the trade of the large regions of the country; they fought to exalt one town site over another; they struggled for political advantage for its own sake and to further these other ends.

II

History is mostly about people. But in the history of the Fox-Wisconsin Waterway, the fortunes of the people were intimately bound up in the environment of central Wisconsin through which the Waterway runs. As the route appears on a map, the feasibility of uniting the Great Lakes and the Mississippi River by cutting across the Portage seems obvious. Yet the detailed features of the terrain from Green Bay to the Mississippi have frequently conspired to thwart the realization of the dream the map so delusively fosters.

Again, the earliest travelers in the Fox and Wisconsin valleys have left behind descriptions of the country that amply forecast the difficulties. In the autumn of 1670, Father Dablon accompanied Father Claude Jean Allouez on a mission to the "Fire Nation," a tribe living in central Wisconsin. On his return, Dablon reported to his superiors, "If the country of this Nation somewhat resembles an earthly
Paradise in beauty, the way leading to it may also be said to bear some likeness to the one depicted by our Lord as leading to Heaven."

Father Dablon explained his analogy: "Scarcely has one proceeded a day's journey up the river from the head of the Bay des Puans, when he finds three or four leagues of rapids to contend with; and they are more difficult than is usual in other rivers, since the pebbles on which the men must walk barefoot, dragging the Canoes, are so sharp and cutting that they have the utmost difficulty in withstanding the swift current which flows there." These were the rapids of the lower Fox between the outlet of Lake Winnebago and Green Bay.

In that short distance — it is not more than thirty-eight miles by the path of the stream — the river falls 170 feet over eight falls and rapids, an average of over five feet to the mile. Upstream from Green Bay for a distance of five miles, the Fox River is some 1000 feet wide and has a depth of ten feet in the channel. Then comes the first obstacle, a minor rapids at De Pere. Captain Henry Whiting, who traversed the Waterway in 1819 with the Fifth United States Infantry, prepared a map of the route with marginal notes of the terrain. He reported that above De Pere, "the current is generally so rapid as to render a tow-line and setting-poles necessary, and the boats are for the most part moved up in this way."
In times of reasonably high water, boats passed over the first rapids above De Pere, those at Little Kaukauna, without the necessity of a portage. At Rapid Croche, six miles above Little Kaukauna and twelve miles above De Pere, although there was an abrupt two-foot fall, the boats were able to negotiate the obstacle without unloading. Four and a half miles beyond Rapid Croche was the Grand Kaukauna, a mile of rapids, "very broken and violent." A portage was necessary here. In later times, many cargoes left the river at Kaukauna and passed overland directly to the head of Lake Winnebago, a distance of only ten miles. The difficulties above Kaukauna increased. Two and a half miles further on, the Little Chute was encountered and once this was mounted the Cedars interposed another barrier. These two were small falls and rapids that did not require a portage, but three miles above the Cedars the Grand Chute, a perpendicular fall of four feet, necessitated a half-mile portage. Once the Grand Chute was passed, the river was passable clear to Lake Winnebago some five miles away, although there was a small falls and rapids at the outlets of the Lake on either side of Doty's Island.

None of the falls represented an insuperable obstacle to navigation. The light-draft canoes and Durham boats that plied the Waterway in the early days commonly passed with full loads over all but the Grand Kaukauna and the Grand Chute. With heavy loads or low water, it was
sometimes necessary to lighten the boats over some of the other rapids. In the year after the Fifth Regiment passed over the Waterway going west, Lewis Cass and his party traversed the route in the opposite direction. They were returning to Detroit from an exploration of the country around the head of Lake Superior and the upper Mississippi. Charles C. Trowbridge, one of the members of the expedition, described the descent from Lake Winnebago: "From this place to Green Bay the river is very rocky, and at present in consequence of the lowness of the water, very dangerous. We were obliged to make a constant succession of discharges to the Bay, and in addition to our other ill fortune, we broke our barge on the rocks, so that we were under the necessity of employing indians to carry its lading, in their Canoes; to which act of industry nothing would tempt them but the promise of a barrel of whisky."

Senator Lucius Lyon of Michigan, reporting to the Senate in 1839, explained the changing requirements of transportation in Wisconsin. "These streams have been navigated with canoes and batteaux for many years," he said, "and so long as the country was only occupied for the purposes of trade with the Indians, these were sufficient." The promoters of the Fox River valley were acting on the principles Horatio Seymour later enunciated so clearly when they determined to make the stream passable for vessels of larger dimensions. They decided at the outset to erect dams and
looks at all eight barriers so that the route could be used regardless of the water level. The specifications at first called for a low-water depth of but two feet. Subsequently, these requirements were increased, then increased again. Each increase in the minimum tolerable depth necessitated raising and strengthening the dams and deepening and lengthening the canals. The attendant increased water pressure often was beyond the strength of the relatively simple construction of the dams so that leakage and minor breaks were constantly encountered and there was an ever-present danger of the dams carrying away. Interruptions in the navigation of the lower Fox were a common occurrence for many years. This lack of dependability is a factor that must be considered in explaining the ultimate failure of the Waterway.

The problems the lower Fox presented were at once so obvious and so apparently simple in their solution that little heed was paid to the quite different set of difficulties that arose once Lake Winnebago had been reached. Charles Trowbridge found Lake Winnebago's waters "very shallow and rocky." A stubborn shoal or reef of hard clay and gravel menaced the exit at Menasha for many years, but the Lake itself offers inconsiderable obstacles to navigation. Winnebago is the largest of Wisconsin's inland lakes — about thirty miles long, north and south, and ten to eleven miles wide. The Niagara escarpment, marking the crest of the Lake Michigan watershed, runs quite close to
the eastern shore of Lake Winnebago. On the south, not far from the lake, a low height of ground constitutes the divide from which run the waters tributary to the Rock River. As a result of these two limits, most of the land drained by the lake lies to the west and north of it. The principal stream feeding Lake Winnebago is the Fox River, which enters the lake about halfway down its western shore.

Above Lake Winnebago Father Dablon reached "in compensation for all these difficulties overcome, the fairest land possible to behold,—in every direction, prairies only, as far as the eye can reach, cut by a river which gently winds through it, and on which it rests the traveler to paddle his canoe." "Winds" was the verb the narrators usually hit upon to describe the course of the stream. General Warren reported in 1876, "The present traveled route between Oshkosh and Fort Winnebago is one hundred and four miles, the air-line being fifty-four miles. As near as can be estimated, there have been made 18,000 feet of cut-offs by dredging, making a saving of about three-fifths of the distance." The engineer observed one location where a further cut "about a mile long... would save seven or eight miles of the distance."

Aside from the tendency of the river to meander leisurely about as it worked its way across country, the characteristic most frequently noted by the voyagers through the years was the vegetation. The stream leading
to the Portage, Father Marquette wrote, "is so full of wild oats that it is difficult to find the Channel." The Cass expedition encountered "immense fields of wild rice, which are from one to four miles wide, and greatly obstruct the navigation in some places." The river, Captain Whiting complained, was "often entirely overgrown with grass and wild rice."

Here and there, the stream broadens out to form lakes, Mud Lake, Lake Apuckaway, Lake Menomin, and Lake Buffalo. "Lake Buffalo is a large rice field," General Warren decided, and applied the same description to Lake Menomin. Lake Apuckaway he referred to as a "sheet of water . . . the lower end . . . very shallow and full of reeds and wild rice." Trowbridge said the lakes "may be called more properly expansions of the river to the solid banks." The surveyors in later times noted occasional sand bars and mud banks that presented obstacles to navigation, but everyone found ample water in the stream through most of the distance. Not until the channel specifications exceeded four feet did the promoters begin to worry about the sufficiency of the water in the stream.

By and large, the terrain along the upper Fox was friendly to the aspirations of the promoters of the Waterway in that it presented few obstacles to development of a transportation route. It did, however, betray them in the extra distance its tortuous channel imposed. Lewis Cass,
then Secretary of War, wrote in 1838: "It is desirable that there should be the means of an easy and more rapid intercourse between Fort Howard at Green Bay, Fort Winnebago at the Portage, and Fort Crawford at Prairie du Chien than is afforded by the Fox and Wisconsin Rivers. The former of these is very crooked in its course, and the length of the route by water probably exceeds by one-third a practicable route by land."

The country through which the upper Fox runs — if that term can be applied to so indolent a stream — presented an uncertain aspect to the travelers. Most remarked upon the prairies and the lack of trees. The river "winds through a narrow prairie bordered by oak openings and undulating lands, generally of a beautiful appearance, but probably not remarkably rich in their soil, which wherever the river washes them seems to be a sandy, reddish loam." The land to the north of the stream, other observers agreed, was of "a very inferior quality." "The soil is for the most part, sandy, and is inferior in richness to that of the more southerly parts of Wisconsin," an official of the General Land Office acknowledged. He insisted, however, that it was "well adapted for agriculture, and the great abundance of timber, and the superior healthfulness of the climate, render the country exceedingly valuable, and present great inducements to actual settlers." Nonetheless, enough of the soil was sandy or marshy to give the whole
district a merited poor reputation in the land markets. Suitable for agriculture the land along the route may have been, but the rich farming country to the south was more attractive to the pioneer. The rich variety of animal life and the abundance of wild rice in the gently flowing stream sustained an Indian population for many years. Not until 1852 were the last of the lands along the route opened to white settlement. This, too, operated as a check on the development of the Waterway by reducing the production seeking an outlet from the area. The ease with which the traveler could paddle his canoe over the reaches of the upper Fox proved as delusive in its way as was the apparent ease of cutting a canal across the Portage.

"The Portage," the Cass expedition found, "is made through a low prairie, much infested with Rattle Snakes." The difficulties this obstacle presented to the Waterway dreamers gave less warning than the snakes. But the problem was not one of distance. Marquette made the distance to be 2,700 paces. George Featherstonhaugh, who crossed it a century and a half later, insisted that the figure should have been "exactly 2,650 paces" but here, as elsewhere in his journal of travels, Featherstonhaugh was much concerned with correcting the errors perpetrated by his Catholic — and Jesuits at that — predecessors. In any event the distance is not much over a mile.

The land between the two streams is low. Henry
Rowe Schoolcraft, also a member of the Cass party, described the Portage in his *Narrative Journal*. "Such is the little difference in the level of the two streams that during high water, canoes frequently pass, loaded, across the lowest parts of the prairie, from one River to the other." Although Father Dablon did not remark upon the feasibility of cutting a canal here, perhaps because he knew from personal experience the difficulties of the lower Fox, Charles Trowbridge and the others of the Cass expedition, who had not yet traversed the lower Fox, agreed that "no one can doubt of the practicability of constructing a canal, which would save much time and expense." Few indeed thereafter doubted the practicability of uniting the two streams by means of a canal. Only dour John Petitval, observing the soggy combination of black mud and sand through which the canal had to be cut, questioned the stability of walls of this material and warned that it would be necessary to line the entire length of the canal to prevent the frequent rises of the Wisconsin from breaching the walls. Petitval's premonitions were all too accurate. The struggle to stabilize the banks of the canal was a long one and contributed substantially to the difficulties of the enterprise.

In the long run, however, it was the Wisconsin that finally proved the greatest obstacle to achievement of the dream. Marquette told how the friendly Indians assisted his party across the Portage. "After which they
returned home," he said, "leaving us alone in this Unknown country, in the hands of Providence." So the adventurers set off, the first white men who left a record of their travel on the Wisconsin River. "The river on which we embarked is called Meskousing," Marquette wrote. "It is very wide; it has a sandy bottom, which forms various shoals that render its navigation very difficult." This comment from a voyager in an Indian birch-bark canoe boded ill for the aspirations of those dreamers who saw the River as a thoroughfare for steamboats. The Cass party had a similar experience. Trowbridge relates: "The water being very low makes our traveling more irksome, for we are frequently obliged to wade." Subsequent observers acknowledged the innumerable sandbars of the Wisconsin, but they tended, until quite late in the history of the Waterway, to minimize the shifting shoals as an effective impediment to a navigation.

Caleb Atwater came to Prairie du Chien in 1829 to serve as commissioner in negotiating a treaty with the Indians. In returning from the council, he crossed the Wisconsin a few miles above its mouth. It was, he told his readers, "very shallow, full of sand bars and small islands, and at that low stage of the water, not more than forty rods in width." Atwater's knowledge of the Waterway was based on hearsay, but his description of what
he observed is good. "The Wisconsin has worn itself a deep basin, from one to three miles in width, probably; but the river itself, from appearances, rarely occupies more than half a mile in width, even in high water." His conclusion, nevertheless, was favorable to the Wisconsin as a thoroughfare. "Like all the rivers of this region, there had been no freshet in it during the year I saw it, and it was unusually low, but keel boats carrying fifteen tons freight, ascended it from its mouth to Fort Winneba-
go, and the whole fleet of Indian canoes, after the trea-
ties were made, went up it without impediment."

There appears to have been something about the ruggedly handsome valley of the Wisconsin that bemused the engineers who surveyed it. None of their proposals to improve the river provided an enduring answer. Some of the schemes required continuous maintenance. Some were entirely impracticable. A few of the engineers disposed of the difficulties by minimizing them. Thomas Jefferson Cram, in 1839, actually concealed none of the difficulties, but he insisted it would be a simple matter to overcome them. Almost a quarter of a century after his initial survey of the route, Cram was called upon for his opinion of the feasibility of the Waterway. The magic spell of the Wisconsin River held good over the years, for Cram persisted in his optimistic view of its navigability. He wrote: "This route, from the time La Salle explored Lake
Michigan, has been a military route in every sense of the word. Within my own service I have seen large Mississippi boats, in times of 'good water,' coming up the Wisconsin to Fort Winnebago (now Portage City) to carry off a regiment of troops at a time; and our government has, from its early existence, used it all the way through for the transportation of troops, provisions, and articles for payment of the Indian annuities." Again, the engineer acknowledged the existence of the sand bars in the River, but he added that they constituted no problem in the spring and fall of the year. Furthermore, he suggested that the Wisconsin could also be used to furnish additional water for the upper Fox.

In 1867, Gouverneur K. Warren interrupted his endless round of conferences all over the country on bridging and improving the western rivers to traverse the Wisconsin in a small boat accompanied by a lone companion. Warren found that settlement had ebbed from the shores of the stream due to the failure of the Waterway as a transportation route. The valley was, he thought, returning to its natural state. "Long reaches of river became the almost undisturbed homes of wild animals. The Indians, who had been moved farther west, began to straggle back to their old haunts. While we were examining the rivers the smoke of their camp-fires could be frequently be seen, and around them they cooked and ate their game in primitive
simplicity. Their canoes were often met by us. Almost
every feature of the landscape as it was two hundred years
ago, seemed in places restored, and it required no effort
of the imagination, in the haze and mists of twilight, to
poiturer to ourselves the canoes of Jdliet [sic] and Mar-
quettse as they glided down the stream on their adventurous
voyage of discovery." Warren, be it noted, despaired of
improving the Wisconsin itself. The mists of the valley
had affected him somewhat differently. Warren proposed to
build a canal some 120 miles long paralleling the River:

Daniel C. Jenne, engineer for the Fox and Wiscon-
sin Improvement Company, floated down the river in October,
1857 (when the waters, as usual in the fall, were high),
and concluded: "I am satisfied that [the Wisconsin] can
be successfully navigated." C.D. Westbrook, who sur-
veyed the route in 1853 on behalf of some Eastern inves-
tors, accurately but optimistically assessed the diffi-
culties of the Wisconsin: "It seems that a sufficient
supply of water for steamboat navigation is had in this
stream, excepting from the middle of August to the latter
part of October, when, in common with all Western rivers,
so many interruptions exist precisely at the very period
when their services are most needed, that they fail to
meet the wants of the growing West, and are superseded to
a considerable extent by railroad transportation." The
Wisconsin delusion, as it had with Warren, expressed
itself in the solution Westbrook proposed for meeting the difficulty. Westbrook's remedy was the construction of huge reservoirs on the upper Wisconsin. The officials of the Fox and Wisconsin Improvement Company briefly shared this hallucination.

Another favorite fantasy of the engineers in connection with the Wisconsin River had to do with the effect of navigation on the stream bed. They thought the action of passing boats would form a channel. This was a delusion on a par with the hoary myth that plowed fields on the plains produced increased rainfall. Major Charles R. Suter of the Army Engineers stated the theory: "In former years, when the Wisconsin was navigated by steamboats, it was found that the frequent passage of boats not only deepened the channel but tended to keep it permanently in the same location."

Suter's successor, Colonel Houston, belonged to a different school of thought. According to the theory of this group, the channel could be stabilized and deepened by the construction of wing dams along the sides of the stream thus forcing the waters through a relatively narrow opening. It was thought that this would increase the force of the current, which would have a tendency to wash the sand out of the way. The plain fact of the matter was that this method was utterly ineffective. A year or so after Houston's crew installed dams along one section
of the Wisconsin, a committee of the Wisconsin Assembly reported that in some places the deepest water was found above the sites of the dams. In fine, the Wisconsin resisted all efforts at improvement, and was never consistently navigable.

III

The physical difficulties in the way of realization of the Fox-Wisconsin Waterway were not insuperable. That one or another or a combination of them frequently thwarted achievement of the dream was not due to the fact that the obstacles were beyond the capacities of the engineers. The repeated failures resulted because the promoters were never able to coordinate the means at hand with the cost of construction on a scale that was adequate for the services the Waterway was expected to perform. This was, in part, a failure of the engineers, but it was a failure of the American political system as well. Our government has never exploited its technical advice well. On the one hand, the decisions left to the experts have been too restricted in scope, while on the other, the questions have too often been couched in a form that required a political rather than a technical answer.

After the early adverse comments on the route by the military, the reports of the engineers were rather consistently misleading. The government surveyors, Cram
and his successors, Warren and the rest, were not commissioned to advise on whether the Waterway was practicable or desirable in relation to a given amount to be expended. Not at all. The engineers were called upon to assess the obstacles to the Waterway and to estimate the cost of overcoming them. So, too, were the engineers employed by private interests. Soldiers and civilians alike, the technical experts approached the Waterway solely as an engineering problem—a challenge to their engineering skill. In all fairness, it must be emphasized that the important question was never posed. The engineers were never asked whether the route constructed on the stipulated scale would fill the function expected of it. Whether or not construction according to the estimate would be worthwhile was left for the decision of the politicians and the entrepreneurs.

Favorable action on a Waterway proposal constituted an implicit answer in the affirmative. To judge by the arguments advanced in behalf of the Improvement, the decisions were often grounded on absurd reasoning. One advocate of the Improvement based his estimates of the prospective traffic on the assumption that the entire trade then being carried by other means would follow the Waterway once it was constructed. Comparisons of the cost of water transportation with railroad rates to the East ordinarily left handling costs out of consideration.
Most appraisals of the desirability of the Improvement were made by its advocates. And if their conclusions were largely the product of wishful thinking, it must be admitted that concrete evidence of the future traffic was not available — then as now, the future was a matter of speculation.

The opposition at least had the advantage of facts upon which to ground their arguments. The opposition could truthfully say that the population of the area was insufficient to sustain the expense of construction and that the trade following the proposed route did not warrant the Improvement. But these arguments were also fallacious, for they implied that construction of the Improvement would bring no change in the existing patterns of settlement and commerce. A few far-sighted contemporaries perceived the function of transportation in building population and trade. Horatio Seymour's excellent analysis, quoted above, was seconded by the observations of Israel D. Andrews that new routes fostered new business.

Some of the others who favored improvement of the Waterway argued in this vein, but too frequently their advocacy led them into absurd exaggerations that failed to convince and at the same time aroused opposition from rival routes.

As a result of the failure to achieve an adequate method of estimating the impact of a change in the transportation pattern, the question of whether or not to
undertake the construction of a new project was pitched on a political level and received a political answer. This mode of solving an essentially technical problem rendered the question even more misleading. The decision became inextricably involved in issues of national and local politics that had little or nothing to do with the practicability of the Waterway or the feasibility of construction on a given plan within estimated costs. The result was commonly a compromise that disappointed the opponents as well as the friends of the scheme.

If the opposition to the Improvement could summon some misleading but incontrovertible facts to their aid, so could the dreamers. Ready to hand for use on behalf of schemes to build the Waterway was its long history after Marquette and Joliet discovered the route in 1673. For a hundred and fifty years after their day, the Waterway figured prominently in continental strategy of war and the fur trade. Invaders and defenders of the Northwest country, French, Indians, British, and Americans marched up and down the Waterway until the area was pacified by the Treaty of Ghent in 1815 and the defeat of Blackhawk in 1832. Until the frontier was well beyond the line of the Waterway, the strategic importance of the Portage and the entrances at Green Bay and Prairie du Chien were fully recognized.

Early in the War of 1812, British forces captured
Fort Dearborn. In July, 1814, a British raiding party passed over the Waterway and drove the American garrison from Fort Shelby at Prairie du Chien. The ease with which American troops were ejected from the Northwest underscored the importance of guarding the communications lines in the frontier area. William Woodbridge, acting governor of Michigan Territory, wrote the Secretary of War in 1815 urging the establishment of posts at Mackinac, Detroit, Green Bay, and Chicago. Shortly after, Lewis Cass echoed Woodbridge's recommendations. Cass emphasized the importance of communications in defending the interests of American fur traders. He reported: "There are three great channels of communication by which traders may introduce the goods into the Mississippi and Missouri Country from the British Dominions, One is by the way of Chicago, and down the Illinois. Another by the way of Green Bay up the Fox River and down the Wisconsin. This has been the great thoroughfare along which goods have been taken. Immense quantities have been smuggled to the Mississippi and it is calculated that not more than one third part of those sold in the Indian Country, every [year] pay duties." Cass thought that the worst of this smuggling could be stopped by the establishment of garrisons at Prairie du Chien, Green Bay, and Chicago. "I am inclined to believe if these posts are all established and proper regulations adopted at the various agencies, that British traders may
be admitted without very serious inconvenience," he de-
clared. "Certain I am that their admission will not be
attended with the same evils, which have heretofore been

At the time, the problems of frontier de-
fense were intimately involved in the global competition
of the great fur trading companies, but even when the
question was discussed solely in terms of defense against
possible Indian uprisings, the importance of the Waterway
was recognized.

Fort Howard at Green Bay was established in 1816
by troops of the Fifth Infantry sent by water from Detroit.
Almost simultaneously Fort Crawford was set up at Prairie
du Chien by troops advancing up the Mississippi. For
some years thereafter Fort Howard was an important trans-
portation center through which troops passed over the Wa-
terway to garrison the posts being built in the upper
Mississippi. In 1819 the Fifth Infantry traversed the
Fox-Wisconsin route from Green Bay to Prairie du Chien
and Captain Whiting prepared the notes that give such a

vivid picture of early conditions along the Waterway.
Jacob Brown, Commanding General of the Army, viewed Fort
Howard in the mid-twenties as a sort of distribution cen-
ter for frontier garrisons. "The most numerous body of
troops might occupy Green Bay," he explained, "where the
comparative mildness of the climate and fertility of the
soil, would contribute to their comfortable subsistence."
From Fort Howard, Brown contemplated the occasional relief of the troops stationed at the more inhospitable St. Mary's.

For all its strategic significance, the Waterway claimed the attention of the military only sporadically. The fur trade, on the other hand, maintained a constant concern with the route from the earliest times well into the territorial period. Nicholas Perrot led the French traders into Wisconsin during the earliest days of exploration. Even before the momentous discoveries of Jolliet and Marquette, his skilled ways with the Indians had swung the center of the French western trade from Lake Superior to Green Bay. For more than a century-and-a-half thereafter the Waterway was an important artery of the fur trade. Most of the citizens of Green Bay were involved in one way or another in the fortunes of the fur industry, a consideration that accounts for their acute appreciation of the importance of transportation.

At the same time, the connection of the Green Bay businessmen with the fur trade helps account for many of the difficulties that were encountered by Waterway promoters as the fur trade began to pass from the scene and the settlement of Wisconsin as an American farming and industrial community began. The fur trade was a frontier industry. It could not support a large population in a relatively small area. Neither could the fur trade thrive
among a thickly settled population. So, in a way, the story of the fur trade ends just as the story of Wisconsin as we know it today begins.
1. Any standard geography of North America gives some consideration to the pattern of the distribution of water and land on the continent; so do many histories. Few can match the deep appreciation coupled with descriptive power that is displayed by John B. Brebner in *North Atlantic Triangle: The Interplay of Canada, the United States, and Great Britain* (New Haven: Yale University Press, 1945). For the area considered here see especially pp. 1-3, 7-10, and 105.

2. Among the many histories that have dealt with the search for a Northwest Passage the best written works are also, as it happens, those that show the fullest appreciation of the multitudinous facets of the problems involved. Bernard DeVoto, *The Course of Empire* (New York: Harper & Bros., 1952), is unquestionably the outstanding work in the field. John B. Brebner, *The Explorers of North America, 1496-1806* (New York: The Macmillan Co., 1933), is not such a tremendous effort as DeVoto's, but it is a knowing work profusely illustrated with maps contemporary to the explorations he describes. See also Nellis M. Crouse, *In Quest of the Western Ocean* (New York: William Morrow and Co., 1928); and Lawrence J. Burpee, *The Search for the Western Sea: The Story of the Exploration of Northwestern America* (Toronto: The Musson Book Co., Ltd., 1908).


4. River Improvement Committee, *Fox and Wisconsin Rivers Improvement, Letter of the River Improvement Committee in Regard to the Fox and Wisconsin Rivers Route between the Mississippi and the Lakes* (Green Bay: Robinson and Brother, Book and Job Printers, 1875), 3.


7. C. Dablon, "Relation de la descouverte ... 1673," Jesuit Relations, LVIII, 105.

8. River Improvement Committee, Letter ... in regard to the Fox and Wisconsin Rivers, 4-5.

9. U. S. Senate, Report of the Secretary of War ... with Copies of Reports, Plans, and Estimates, for the Improvement of the Neenah, Wisconsin, and Rock Rivers ... (Senate Docs., 26 Cong., 1 Sess. [1840], sen. doc. no. 318, ser. no. 359), p. 3. "U. S. Senate" is hereafter cited "U. S. S."

10. See, for example, River Improvement Committee, Letter ... in Regard to the Fox and Wisconsin Rivers, 5-6.

11. See, for example, the remarks of Senator Benjamin Tappan of Ohio in opposition to the Tallmadge proposal in Congressional Globe, 23 Cong., 1 Sess. (1844), 157. Senator McDuffie of South Carolina declared that the measure would be a "gratuitous donation ... for the purpose of cutting a canal through a wilderness." Ibid., 397.


15. Whiting's notes are paraphrased in ibid., 22-23.
16. On this portage, see Wisconsin Legislature, *Assembly Journal* (1849), Appendix, 783; and *ibid.*, (1850), 553 and 448-559.


27. Ibid., 53-54.


land viewers was confirmed by the soil surveys of the twentieth century. See Andrew R. Whitson, Soils of Wisconsin (Wisconsin Geological and Natural History Survey, Bulletin no. 68. Soil Series no. 49; Madison: The State, 1927), 78, 83, 102-104, 173-184, and the accompanying map.

35. See infra, p. 197 and n.


37. J. Marquette, "Marquette's First Voyage," Jesuit Relations, LIX, 106. See also G. K. Warren, Report on the Transportation Route, 20, where a slightly different translation of this passage is quoted.


41. U.S.H.R., Survey-Neenah or Fox River, &c. Letter from the Secretary of War, transmitting a Report and Map of the Survey of the Neenah or Fox River, in Compliance with a Resolution of the House of Representatives (House Docs., 25 Cong., 3 Sess. [1839], ex. doc. no. 102, ser. no. 346), p. 6. See also H. R. Schoolcraft, Narrative Journal of Travels, 364: "The portage is very muddy in the spring and fall, being over a rich alluvial soil, but we found it dry and pleasant." See also G. W. Featherstonhaugh, Canoe Voyage, I, 155; "The portage was a dead flat of black mud and sand, measuring exactly 2650 paces: it took me exactly twenty-eight minutes to walk across it." The periodical flooding of the Portage is described in Cram's report, U.S.S., Report of the Secretary of War transmitting Copies of Reports of the Topographical Bureau in relation to Internal Improvements in the Territory of
Wisconsin . . . (Senate Docs., 26 Cong., 1 sess. [1840], ex. doc. no. 140, ser. no. 357), pp. 6-7.


44. Caleb Atwater, The Writings of Caleb Atwater (Columbus Ohio; The Author, 1833), 337. The work cited is a combination of several travel books by Atwater. The passage quoted is from Remarks Made on a Tour to Prairie du Chien: Thence to Washington City, in 1839. (Columbus, Ohio: The Author, 1831). Father Louis Hennepin's shaky reputation for veracity is not bolstered by his description of the Wisconsin River. See Louis Hennepin, A New Discovery of a Vast Country in America . . . , ed. by Reuben G. Thwaites (Chicago: A. C. McClurg, and Co., 1903), 305: "As we went up the River Ouissconsin, we found it was large as that of the Illinois, which is navigable for large Vessels above an hundred leagues."


46. U.S.S., . . . Improvement of the Neenah, Wisconsin, and Rock Rivers . . . (Senate Docs., 26 Cong., I sess. [1840], sen. doc. no. 318, ser. no. 359), p. 3.


49. Ibid., 27.

50. D. C. Jenne, Fox River Improvement, 6. This statement
is cited in G. K. Warren, Report on the Transportation Route, 41, in the course of Warren's summary of attempts to construct the Waterway.


52. Otto Tank, Green Bay, to William A. Barstow, Dec. 1, 1854, Archives, ser. no. 1/1/4-1.


55. Wisconsin Legislature, Senate Journal (1875), 281-3.


57. See, for example, River Improvement Committee, Fox and Wisconsin Rivers Improvement, 15; and Prairie du Chien Canal Convention, Water Communication between the Mississippi and the Lakes, 22.

58. See infra, ch. iii, passim.


60. See infra, ch. iii, passim, and ch. viii, passim.

61. The early period in the history of the Northwest and the role of the Waterway in it have been admirably treated by Louise P. Kellogg in The French Regime in Wisconsin and the Northwest (Publications of the State Historical Society of Wisconsin, Wisconsin History Series, 1; Madison: The Society, 1925) and The British Regime in Wisconsin and the Northwest (Publications of the State Historical Society of Wisconsin,
Wisconsin History Series, II; Madison: The Society, 1935).


63. Loc. cit. See also L. P. Kellogg, The British Regime, 322-326.


65. Lewis Cass, Detroit, to Alexander J. Dallas, June 20, 1815, printed in WHC, XIX, 378.


70. In addition to Miss Kellogg's books, cited above, see also WHC, XVIII, XIX, and XX, and scattering letters in Grace L. Nute, Calendar of the American Fur Company's Papers (American Historical Association, Annual Report [1944]), II and III; and some very fine letters, not included in Miss Nute's calendar, in Morgan L. Martin MSS.
CHAPTER II

THE WATERWAY DURING THE TERRITORIAL PERIOD:
I. PRIVATE ENTERPRISE AND REGIONAL RIVALRIES

In 1836 Wisconsin and the Waterway passed many landmarks. When John Jacob Astor sold his trading post at Green Bay in that year, the sale symbolized the passing of the age of the fur trade. Another sign of its passing was the treaty Henry Dodge negotiated in September, 1836, with the Menomonee Indians. By the terms of the treaty, the Menomonee ceded a large tract of their lands bounded by the Wolf, Fox, and Menomonee rivers, and Green Bay. The annuities provided by the treaty helped sustain the Indian traders for a time, but, what was more important, the cession opened the way for the development of lumbering and the expansion of the white population of the area.

As the Indian trade declined in importance, the traders of the Fox River valley turned their attention to other endeavors, though the Waterway was still the pivot. One group obtained a charter from the legislature in 1836 to build a dam across the lower Fox at Depere. Development of water power was the primary purpose of the company, but its activities soon broadened to include quasi-banking functions and the carrying trade on the Waterway. Although
Daniel Whitney of Green Bay sold his shot tower on the Wisconsin River to a group of Buffalo merchants in 1836, this was the beginning rather than the end of a period in which lead, and the lead region, were of great importance in the history of the Fox-Wisconsin route. In that same year, Green Bay merchants organized the Wisconsin Mineral Transportation Company in an attempt to divert some of the lead trade in their direction.

In 1836, Wisconsin assumed territorial status and proponents of the Waterway began the long campaign for governmental assistance in achieving the dream of a Lakes-to-Mississippi water route. The ambitions of other routes intruded from the beginning, too. The citizens of Milwaukee held a public meeting in September, 1836, and adopted resolutions for the development of railroad connections with the Mississippi. Milwaukeeans, with a tenuous hold on the lake shore, and high ambitions for the prices of their city lots, reached out in this way for the lead trade. Through the territorial period, business and political rivalries maintained this roughly triangular aspect, with Green Bay in the northeast and Milwaukee in the southeast suing for the favors of the lead-rich southwest. In the years after 1836, the interrelations of these elements wove the history of the Waterway.
The lead region was well known to many of the important players in this act of the drama. James Duane Doty, here as elsewhere, was among the first on the scene. In the summer months of 1820, Lewis Cass, Governor of Michigan Territory, which then included Wisconsin, set out from Detroit at the head of an expedition to explore the upper Lakes and the northwest. The party proceeded to the head of Lake Superior, then down the Mississippi to Prairie du Chien, returning to Detroit via the Wisconsin and Fox rivers and Green Bay. Young Doty, then secretary of the Territorial Legislature of Michigan, kept the official journal of the expedition. Along with its other duties, the expedition observed "the geological and mineralogical aspect of the country . . . , especially the copper mines, lead mines and gypsum quarries, their quality and quantity, and the facilities of obtaining them." Thus the lead region was linked with the East via the Waterway on Doty's earliest visit to that country.

Some years later, Doty, now judge for the western district of Michigan Territory, returned to Prairie du Chien via the Fox and Wisconsin route to preside at a murder trial. This time he brought with him from Green Bay his cousin, whom he had commissioned special U. S. District Attorney to try the case. The young man was Morgan L. Martin, who was deeply interested in the Waterway
through the remainder of its history. Years later, prompted by the editor of the State Historical Society, Martin described the trip. He recalled that he and his companions negotiated the Portage with the assistance of the team belonging to an enterprising habitant who had settled there.

When the party arrived at Prairie du Chien, they found a regularly-appointed counsel for the United States had been sent up the river from St. Louis. But, in the history of the Waterway, Martin's trip was not a waste of time. Before returning to Green Bay, Martin toured the lead country. His companion on the journey was Lucius Lyon, then U.S. surveyor for the district. Later, as United States Senator from Michigan, Lyon played an important part in early attempts to obtain federal aid for the Waterway.

Martin was impressed with the possibilities of a water route linking the Mississippi to the Great Lakes as an outlet for the lead trade. In October of the following year he instituted a public meeting at Green Bay that petitioned Congress, not only "to improve the Fox and Wisconsin Rivers," but also to build a road to Chicago, as an aid to communication during the winter months. Martin's part in the early maneuvers to join the lead region to the East via the Waterway was not yet done, for in 1834, as a member of the Michigan Territorial Council, he secured a charter for the Portage Canal Company to dig a canal across the Portage that would permit the passage of boats
bearing lead for the East. After Wisconsin Territory was organized, he assumed an even more important role.

Daniel Whitney of Green Bay, who was the most prominent promoter of the Portage Canal Company, is typical of the fur traders who were seeking new fields of endeavor in these years. Whitney built a lumber mill on the upper Wisconsin River and had a store at the Portage before the Blackhawk uprising. About 1830, he further extended his interests in the Wisconsin Valley by constructing the shot-tower at Helena. This enterprise was apparently begun in 1831—under the direction of Whitney's factor at the Portage. The War on the Sac and the Fox interrupted construction, but the defeat of Blackhawk permitted its completion. Operations at the tower began in late 1833 or 1834. At about the same time, Whitney prevailed upon Martin, then a representative in the Michigan Territorial Legislature, to secure a charter for the Portage Canal Company.

It is typical, too, of the old fur trader class, that Whitney regarded the Canal as ancillary to his other interests. Most of the product of the shot-tower was consigned to Green Bay and the East because, though Whitney had St. Louis connections and obtained many of his stores from there, shot from the upper Mississippi region could not compete successfully with the product of the Missouri mines and St. Louis shot-towers. It is true that Whitney sold his shot-tower (to eastern, not southern mer-
II

While the merchants of Green Bay sought new outlets for their energies after the passing of the fur trade, the Wisconsin lead region, freed of the Indian menace, began a boom period of development. The lead region was naturally oriented to the Mississippi trade. The streams of southwestern Wisconsin are tributary to the Mississippi. Up these streams, from the lead country of Missouri and the farms and hills of the Old Southwest, had come the men who opened the Wisconsin mines. From earliest times, much of the product of the upper Mississippi diggings had gone down the river. The prior large-scale development of the Missouri district helped perpetuate this tendency by the establishment of a subsidiary market at St. Louis and by opening outlets for the larger trade via the Mississippi. All of these historical forces constituted a formidable barrier to the efforts of the merchants of the Waterway to divert the lead trade along the Fox-Wisconsin route.

Several factors, however, were on their side in this endeavor. The upper Mississippi mines were much farther from the market than their Missouri competitors. Mere physical distance was aggravated by the obstacles to navi-
gation on the upper Mississippi, where the formidable Des Moines and Rock River rapids constituted a menace during all seasons, and interposed a positive barrier when water was low. By reason of the natural hazards of transport on the stream, shipping costs were high. They were driven higher by the sheer amount of traffic a relatively sparse up-river fleet was called upon to carry. Yet another economic factor contributed to the dissatisfaction of the lead region with their access to market. This was the matter of time. It sometimes took as long as three months to obtain returns from New York when shipments went out via the Mississippi and three months was a long time in a frontier community chronically pinched for capital. So the pioneer miners of the lead region were willing to listen to suggestions of an alternative route to market.

The Waterway appeared to offer a "natural" answer to the problem of a cheaper outlet for the product of the upper Mississippi mines, for the Wisconsin River flows along the northern boundary of the lead region in Wisconsin and enters the Mississippi in the vicinity of the Iowa diggings around Dubuque. Furthermore, some lead had always found its way east over the Fox-Wisconsin route ever since the mines had first been discovered by Frenchmen coming into the country from Quebec.

The former fur merchants of the Green Bay area sought to take advantage of the dissatisfaction of the lead
miners and the handy facility of the Fox-Wisconsin route. For the next years, their efforts were directed toward substituting the carriage of lead for the old trade in furs. Their experience was not a happy one. They were men accustomed to thinking of transportation in terms of the canoe and the high costs of transshipping bulky cargoes did not occur to them with sufficient force. So a succession of transport companies, with "improvement" of the Waterway as a secondary purpose, found charters from the legislature and bankruptcy on the Waterway. Freight charges steadily mounted on the "natural" Fox-Wisconsin route, because of the handling necessary in crossing the Portage and by-passing the rapids of the lower Fox, while the lead trade slipped away overland to Milwaukee. Private resources managed to maintain just enough activity to create an illusion of imminent success. Consequently, interest in obtaining government assistance for the Waterway was perfunctory in other areas of the Territory because aid did not seem necessary. Rival aspirations, indeed, often rendered these other regions positively antagonistic. Not until private efforts had clearly failed, and the attention of rival interests had been diverted elsewhere, did the proponents of the Waterway manage to gather sufficient political strength to obtain government support for realizing the all-water passage from the Lakes to the Mississippi.

The first failure was the Portage Canal Company,
chartered in 1834. Actual operations were deferred until the following year, when John Wilson came from Buffalo to direct the project. Wilson and his family proceeded from Green Bay up the Fox River on flatboats poled by Menomonee Indians and reached the Portage in May. Digging did not begin, however, until a house had been constructed for the family and the crew. In spite of the delay, Wilson and his men managed to cut a shallow trench across the Portage, sufficiently deep to float a canoe, before the Wisconsin River flooded the area and put a stop to operations. Wilson and his crew removed to Helena where they were employed in constructing various buildings as part of the shot-tower project. Efforts to cut the land between the Fox and Wisconsin rivers were apparently abandoned, for Wilson and his men were discharged the following summer.

It was not their employers alone who failed to appreciate their efforts. Morgan L. Martin referred to their handiwork as a "ditch . . . dug across the prairie." He recalled that it "was never filled with water except when the Wisconsin was high, and proved to be of no use." Two years after the excavation was made, John B. Petitval, a civilian employed by the Topographical Engineers, reported on their work in similarly disparaging fashion.

While the engineer was inspecting the Waterway, Daniel Whitney, representing a reorganized Portage Canal Company, was in Washington to seek government aid. In the
summer of 1837, he addressed a letter to Secretary of War Joel R. Poinsett asking for the right to buy a tract of land at the Portage at the minimum government price. In consideration of this favor, the Company offered to dig the Portage canal within three years and thereafter convey government goods and passengers free of cost to the nation. "The canal will be of very great importance to that part of the country," Whitney declared, "and, I think, of much more benefit to the Government than the value of the land asked for."

There followed a series of letters and reports within the War Department. The commandant of Fort Winnebago at the Portage gave the proposal his hearty endorsement. The Acting Quartermaster General was dubious. The interest on the capital obtained by selling the land through the usual channels, he thought, would amount to more than the savings realized from the remission of tolls. Furthermore, he observed that the Company asked more than a right-of-way. The request called for the purchase of a tract of some eight hundred acres stretching across the Portage and fronting on both rivers. Such a location would be very valuable as a townsite. Still, he concluded, as a work of internal improvement "designed to connect the waters of the Upper Mississippi with those of the great western lakes, the proposed canal is undoubtedly entitled to be regarded with liberality." John Petitval's findings were
apparently not consulted, for he made it clear that the
Portage was not the only obstacle to an uninterrupted tran-
sit of the route. In addition to the formidable rapids be-
low Lake Winnebago, Petitval commented sourly on the uncer-
tainty of the upper reaches of the river. Poinsett did
not try to solve these problems of the remote frontier, but
seized upon a point raised by one of his officers and pas-
sed the buck to Congress. Only Congress could grant the fa-
vor requested.

The Wisconsin delegate to Congress brought all of
the documents together and obtained from Whitney a list of
all the stockholders in the Company. Then he prevailed
upon a staunch friend of the Territory, Senator Lewis F.
Linn of Missouri, to take charge of the matter. Linn of-fered a resolution granting the request on March 5, 1838,
and the resolution, along with the documents, was referred
to the Committee on Public Lands. After some time on
the Committee desks, a bill was reported out and read for
the second time on May 29. On the thirty-first, the bill
was considered in Committee of the Whole and ordered to a
third reading. The next day, Senator Clay of Alabama
withdrew a motion to reconsider the decision and the bill
was passed. In the House, the bill was referred to the
Committee on Public Lands, which reported adversely on
June twelfth. So the bill failed in Congress, but the
Company continued its efforts.
In Wisconsin's Territorial Legislature, the experience of the Company was somewhat more happy. In June, 1838, they petitioned for an extension of time in which to construct the canal. The bill was passed without difficulty. Granted a two-year extension by this legislation, the Company resumed operations at the Portage. The Green Bay Wisconsin Democrat reported in August, 1838, that the Canal was about to be built. Echoing Claude Dablon, the editor envisioned the union of the St. Lawrence and the Gulf of Mexico through the completion of this short link. In a more practical vein, he recognized the trade lines as they actually were: the Canal would be the connection between Buffalo and "the mining regions of the West."

Events now moved at a rapid pace — according to the published reports. Governor Dodge told the Territorial Legislature in December, 1838, that "the canal commenced two years since . . . was suspended during the last season. The company chartered for that purpose have again resumed their operations . . . and the early completion of that important work may be expected." Six weeks later, the Madison Wisconsin Enquirer announced the improvements at the Portage complete. Again, in the summer of 1839, an immigrant tract published in the same paper reported the completion of the canal. Coupled with the statement was the extraordinary assertion that the United States Government provided free steamboat transportation over the Waterway.
As a matter of fact, these reports were more than a little exaggerated. The canal was never completed and the barrier of the Lower Fox remained. In 1840, the Canal Company again came before the Legislature to request an extension of time. A year's grace was granted, but thereafter the Portage Canal Company disappeared from the records.

Another group of merchants from Green Bay, meanwhile, had been attempting to clear the rapids of the lower Fox. The Fox River Hydraulic Company was incorporated at the first session of the Wisconsin Territorial Legislature. The chief purpose stated in the act was the erection of a dam across the Fox at the Rapids des Peres and the utilization of the water power. The Company was required to construct locks around the dam to permit the passage of boat traffic.

Certain auxiliary rights granted the Company, however, seem to have been of equal, if not greater, importance. The act included the right to hold and convey real estate. This opened the way for activity in the land business and offered the possibility of dealing in mortgages. The banking functions of the Company were made fully explicit in an amendment to the charter approved at the next session of the legislature. The amended charter now permitted the directors "to give and receive all evidence of debt, as they may deem advisable, for the interest of company."
Banking and real estate operations were not sufficient to satisfy the Company. They also sought a share of the lead trade. On one expedition to the lead country, a Company agent was reported to have purchased "one hundred thousand pounds of lead, to be transported by the way of the Wisconsin and Fox rivers and the Lakes, to a market in some of the eastern cities ... which is no doubt the cheapest and most expeditious [route]." Regardless of where the Company turned in search of profits, however, the rapids at Depere continued to obstruct traffic.

Because of the barrier of the rapids, transportation on the Fox River portion of the Waterway remained relatively crude during the territorial period. In January, 1838, John Petitval reported that traffic was "nearly the same as it has been described by the oldest travellers — flats or barges and Indian bark canoes are the only means of conveyance." Through the years the basic craft for the Fox River trade was the Durham boat, a barge-like affair poled by the boatmen and later towed by steamers.

The Madison Wisconsin Enquirer in the spring of 1839 reported the formation of a company to build and operate two steamers on the Fox. One would operate above the rapids, the other below. A year later, the Fox and Wisconsin Steam Boat Company was incorporated for the purpose of building one or more steamers to navigate the Fox or the Wisconsin. The act permitted the Company to take over
the Henry Hubbard, then in the stocks at Green Bay, with the owner's consent. The incorporators included so many of the Green Bay businessmen interested in the trade of the Waterway that it seems doubtful that the Company reportedly organized in the previous year represented a different group. By 1844, the Blackhawk and the Manchester were operating in the Fox River trade. The Milwaukee Courier described one of the Fox River steamers as "the queerest looking steam watercraft that ever condescended to pay us a visit . . . nothing more or less than an Erie canal boat, propelled by a small but powerful engine, with a paddle-wheel astern, and a smoke-pipe in the center."

Newspaper references scattered over the years create an illusion of a considerable trade along the Waterway, but it is difficult to find references to more than one or two steamers operating at any one time. Furthermore, as late as 1842 the press reported as a big improvement the establishment of a line to run from each end of the Fox one weekly barge of fifty to ninety tons' burden. While it was true that the land between the Fox and Wisconsin was "all the portage required between Galena and New York, by way of the Lakes," the lead still had to be transferred into Lake boats at Green Bay and into canal boats at Buffalo. And these were the minimum transfers, for low waters on the lower Fox required at certain seasons portage of some sort there, too. Of Fox River
shipping, a Green Bay booster said, "It is but paving the way . . . because there are rapids to overcome, and when this is accomplished, [the Fox-Wisconsin Waterway] will be one of the greatest thoroughfares the mind of man is capable of imagining."

The smaller steamers of the upper Mississippi trade plied the Wisconsin with some success during the thirties. Captain Smith Harris took his Jo Daviess up to the Portage in July, 1834, and duplicated the feat twice more that season. The steamer Science made a number of trips between St. Louis and Fort Winnebago in the summer of 1837. The newspapers of the day contain frequent mention of the traffic. Advocates of the Waterway constantly emphasized the established navigability of the Wisconsin. But it appears they protested too much, especially when their comments are weighed against the observations of Thomas Jefferson Cram of the Topographical Engineers, who surveyed the route in 1839. Cram found the Wisconsin unsuitable for navigation by the upper Mississippi steamers except in the spring and fall, although he was confident of the feasibility of constructing vessels that could negotiate the shifting channel at any season.

While maintaining their energetic efforts to develop the Waterway by private endeavor, the businessmen of Green Bay constantly bombarded the legislature and Congress with requests for governmental assistance in removing
the final barriers to direct water transit from the Lakes to the Mississippi. Just as the many private projects for utilizing the Waterway failed to win the lead trade, so, too, did the political campaign bring many disappointments.

III

Inevitably, in the new community growing toward statehood, personal, regional, and political rivalries developed. Many of these delayed and frustrated the destinies of the Waterway and the aspirations of its supporters. In the new Wisconsin taking shape after Blackhawk's defeat, it was the ill-fortune of the Fox River Valley to have been the heart of the fur trading country. The fur trade's day was done, and the numerous Indians along the Valley had inhibited white settlement. Proponents of the Waterway were thus handicapped in maneuvering for government aid because they lacked the political strength of a sizable white population.

The passing of the old order of things in Wisconsin was clearly evident in the deliberations of the so-called Rump Council, self-styled the Seventh Legislative Council of Michigan Territory. This body convened early in 1836 under legislation adopted by the Michigan Territorial Legislature in anticipation of statehood, since Wisconsin was not included in the new state. The Council was to maintain the continuity of civil government in the
western portion of the Territory. Like many other episodes in the history of Wisconsin, the meeting of the Rump Council had aspects that smack of opéra bouffe. The Governor who signed the proclamation convening the Council ran afoul of the General in the White House and lost his post. His successor promptly and arbitrarily issued a proclamation convening the Council one month earlier than the first date set. News of this change reached Wisconsin less than a month before the new date. The legislators, piqued, stubbornly convened on the date set in the original proclamation, while the high-handed governor failed to put in an appearance at either of the times specified in the conflicting proclamations. Whether the Council was legally assembled or not, without the presence of the governor to approve their acts, they could not legislate. This consideration did not prevent some very active debating and the adoption of a number of resolutions and memorials. More important, perhaps, than these bootless actions, was the appearance of a triangular rivalry among the three principal settled areas of the territory.

The original proclamation summoning the Rump Council apportioned its membership among the six counties that remained outside the new state of Michigan: Brown, Milwaukee, Iowa, Crawford, Dubuque, and "Demoine." The latter two were trans-Mississippi counties that formed the nucleus of Iowa Territory two years later. These formed a
fairly compact body of settlement with the two southwestern Wisconsin counties, Iowa and Crawford, while, separated from this group, and from each other on the eastern side of the Territory, were Brown County at the head of Green Bay, and the fledgling community of Milwaukee. The country between these centers of population was almost wholly unpopulated except for roving bands of Indians, an occasional trading post, and Fort Winnebago at the Portage. Henry Rowe Schoolcraft went overland from the mining district to Fort Winnebago in 1831 and was roused to enthusiasm by the rich prospects of the country. But, he noted, "the common deer is still in possession of its favorite haunts; and the traveller is very often startled by flocks of the prairie-hen rising up in his path." When the territorial government moved west of Lake Michigan, the development of the intervening regions began, as Schoolcraft predicted.

Although the Green Bay area boasted the oldest continuous white habitation, the other regions had outstripped it in population growth. Even the new settlement in Milwaukee and vicinity outnumbered Brown County. The Milwaukeeans allied with the representatives of the lead region from the first deliberations of the Council. James R. Vineyard of Iowa County, and his colleague, William S. Hamilton, united in proposing Cassville on the Mississippi as the territorial capital. William B. Slaughter, spokesman for Green Bay, opposed this location. He sought the sup-
port of the southeastern contingent for a center somewhere along the Rock River. A member from Crawford County opposed the Rock River location. After a brief plea for his home center, Prairie du Chien, he concluded by supporting Cassville. Gilbert Knapp of Racine rejected the Brown County overture and the decision was in favor of the Cassville location. Only Slaughter and John Lawe, the other Green Bay representative, recorded their opposition in the final vote.

The alliance between the lead region and the Lake shore area was even more clear in the deliberations of the Council on internal improvements. A Milwaukeean headed the committee and his colleagues were both from the lead region. Before the committee began its deliberations, it received instructions from the Council. Edgerton of Milwaukee moved that the committee ask harbor improvements at several locations, all on the Lake shore from Milwaukee south. In addition, he proposed that the government be asked to survey a railroad route from Lake Michigan through the mining district to the Mississippi. A member from Des Moines urged the committee not to forget the interest of his constituents in the removal of obstructions to navigation of the Mississippi, a suggestion that probably gave his Milwaukee allies a slight chill. At last, just before the committee went to work, Slaughter of Green Bay managed to instruct the members regarding the improvement of
harbors northward from Milwaukee and the necessity for surveys and improvement of the interior rivers of the Territory, the Fox, the Wisconsin, and the Rock.

Slaughter had to come to the defense of his section again when the committee brought in its report. The resolutions offered by the committee asked Congress for south-shore harbor improvements and the survey of a railroad from Lake Michigan to Cassville on the Mississippi. One clause requested the improvement of the Fox-Wisconsin Waterway. "The benefits to be derived from such a communication," said the committee's report, "your memorialists deem so obvious as not to require a distinct rehearsal." This perfunctory treatment of the northern reaches of the territory brought Slaughter to his feet to propose amendments. He demanded more harbor surveys for the long stretch of shoreline north of Milwaukee and an investigation of the possibilities of a canal from the source of the Manitowoc River to Lake Winnebago. Knapp of Racine objected that this was asking too much. Excessive greediness might jeopardize the whole. Hamilton from the lead country seconded Knapp's views, adding testily that the Fox River improvement had been agreed to, and one route should satisfy the Brown County interests. Slaughter subsided with a gibe at Milwaukee, suggesting they feared the competition of the northern route even though the request for their railroad had been adopted.
The rivalry continued when the Territory was regularly constituted. Colonel Henry Dodge of Mineral Point was appointed Governor. When the first legislature met in October, 1836, Dodge's address included some discussion of desirable internal improvements. He told the joint convention of the two houses that the Fox River should be surveyed from Green Bay to Fort Winnebago. He also brought forward the pet measure of the southern Wisconsin interests at the Rump Council. The legislature should petition Congress for assistance in locating a railroad to run from the Mississippi through the lead country and the Rock River valley to Lake Michigan, he declared. But to these two standard projects, Dodge added two of particular interest to his own region. The first was a request for improvement of the Rock River. The Rock River had its headwaters not far from Lake Winnebago, but it flowed through a portion of southern Wisconsin that was as yet little developed. Since Dodge's rival, Judge Doty, owned land on the town-site of Fond du Lac, the gesture carried a note of political conciliation. Dodge's concern with the Rock River, however, rose from the fact that its principal tributaries drained much of the lead region. The other proposition offered by Dodge called for connecting the Four Lakes with the Wisconsin River. Dodge's interest centered on the lead region, and so far as his ideas reflected any immediate orientation, it was toward the Mississippi
and the South. As among sections within the state, his address presented an admirable balance, favoring neither northeast nor southeast.

The deliberations of the first legislative assembly were racked with contention over the initial spoils of territorial status: the inevitable boom in the city lots of the place chosen as territorial capital, and the funds granted by Congress for the construction of public buildings at the capital. Joseph Schafer has admirably described the regional coalitions and personal alliances that preceded the final decision in favor of Madison. In this, as in many other things through the territorial period, James Duane Doty had his way. Although Doty's connection with the northeast might have given the Fox River Valley partisans some ground for optimism, the Judge was not one to put all his eggs in one basket and he had several alternative town-sites prepared for the choice of the first legislators. Doty seems to have maneuvered the selection of Madison by a skilful manipulation of the jealousies of Dubuque and Des Moines counties and of the rivalry between the promoters of the Milwaukee town-site east of the Milwaukee River and west of it. The final location was central so far as the two southern regions were concerned, but the Waterway proponents must have been sadly disappointed. They were destined to suffer many more slights before the Fox-Wisconsin route came into its own.
With the choice of a capital out of the way, the bickering legislators turned to the problems of developing the new domain. Here again, the desires of Waterway advocates were frustrated. The memorial of internal improvements, which came to be an annual institution of the legislature, asked Congress to provide territorial roads from Milwaukee to Blue Mounds via Madison and from Fort Winnebago at the Portage to the Fort Howard (Green Bay)–Chicago road at some point south of Milwaukee. The legislators asked for the improvement of every river mouth and potential harbor along the Lake Michigan shore. Specific appropriations were requested for surveys of the Rock and Wisconsin and the improvement of the Fox and the Mississippi. The sum recommended for the latter stream was ten times the amount requested on behalf of the Fox. The legislature asked Congress to survey a canal route from the Sheboygan River to Lake Winnebago. As a final triumph for the southern sector of the state, the memorialists desired the plotting of a route for a railroad to run from the Mississippi through the lead country to either Racine or Milwaukee. Here was something for practically everybody, but the Waterway was clearly slighted. The sum for Fox River improvement was obviously inadequate for establishment of unimpeded transit, and no provision was made to eliminate the Portage. At the same time, the northerners managed to foil the dreams of the Milwaukeeans, who had come to Belmont seeking a
charter for a railroad along the line of the territorial road to Blue Mounds and also for a canal linking the Milwaukee and Rock Rivers.

In successive annual meetings, much the same pattern was repeated. The combination of the lead region and the Milwaukeeans persisted, for the southeastern promoters had a grand design in view, while the strength of the Waterway advocates was dissipated among several contending groups. The Milwaukeeans returned home from their defeat at the first legislative assembly and began organizing for another attempt to gain sanction for an improved connection with the lead region. A series of essays appeared in the Milwaukee Advertiser through the spring and early summer of 1837 urging the importance of a canal to the Rock River. These were generally attributed to Byron Kilbourn, promoter of the canal and of Milwaukee's west side. By September, supporters of the project felt ready to announce their intention of seeking a charter from the coming legislature. A bill to charter the Milwaukee and Rock River Canal Company was introduced in late November and finally worked its way through the legislative mazes to receive the governor's signature in January, 1838. The act allowed a capital stock of $100,000 and stipulated that construction must begin within three years and be completed within ten.

Delighted with their success, the promoters of the Milwaukee-Rock River canal next secured a land grant in aid
of the project from Congress. At the next session of the legislature, they returned to Madison to ask the Territory to borrow $500,000 for the building of the canal, the loan to be secured by the proceeds of the land sales, by the Territory's share of the canal revenues and of the canal itself, and by the credit of the Territory. Aroused, the advocates of the Waterway objected and succeeded in amending the bill until it was totally unsatisfactory to the Milwaukeans. The Territorial loan was limited to $50,000 and the governor was forbidden to negotiate the loan until the canal route had been specifically located and estimates of costs submitted to him for approval. Land purchased from canal reserves could be acquired by a down-payment of ten percent. The crowning blow was a clause prohibiting commissioners, directors, stockholders, and engineers from bidding on any contract with the Company. In short, the Canal promoters were forbidden to make any money on the side from the project.

Supporters of the Waterway, observing the success of the Milwaukee promoters, began comprehensive counter-moves in the spring of 1838. On March 15, John P. Arndt, merchant and builder of Durham boats, presided over a public meeting in Green Bay. The assembled citizens declared that internal improvements were necessary to the prosperity of the Territory and of their area. Their trade in lead and lumber was more than sufficient to repay the costs
of building the improvements. The meeting made a bid for support from other parts of the Territory by calling for a general convention at Madison in June to prepare a general plan for internal improvements in the Territory.

The "Address to the People of Wisconsin," drafted as a result of the meeting of March fifteenth, showed the desire of the Fox Valley promoters to enlist widespread support for the Waterway improvement. The Fox-Wisconsin route, the Address declared, offered the "most practicable and best method of accomplishing" the union of the waters of Lake Michigan and the Mississippi. Cost of the improvement of the Fox would be trifling compared to the advantages accruing from its achievement. "It is well known," the Address continued, "that the Wisconsin River has been navigated by steamboats as far up as the Portage, and to connect the navigable waters of the Fox with that river, needs but the construction of a canal one mile and a quarter in length, through a portage, over which in times of high water, loaded boats have passed." But, said the Address, the Waterway is not the only route in which the people of the Territory are rightly interested. The proposed convention should consider these other routes on their "respective merits" and reach an agreement "that united and energetic endeavors may be made to secure the accomplishment of those which are deemed most essential."

Having succeeded in amending the bill on behalf
of the Milwaukee and Rock River Canal Company to death, the Green Bay representative brought forward a counter-proposal. Alexander Irwin, who had invested in Fox River transportation companies, introduced a comprehensive internal improvements bill into the deliberations of the Council. The bill contemplated the establishment of a board of commissioners on internal improvements and would permit the state to borrow up to $300,000 on behalf of the Fox-Wisconsin Waterway. David Jones, a merchant with investments in Fox River shipping, Arndt, and John G. Knapp, another Waterway shipper, who had surveyed the Portage canal route in the fall of 1838, organized a public meeting at Green Bay on January 5, 1839, to spark the drive for passage of the bill. The meeting voted to instruct the Brown County representative to press for the bill all he could and to oppose any measures or amendments that would "tend to defeat the improvement of the Fox and Wisconsin rivers."

The Waterway faction had managed to foil the aims of the Milwaukee promoters, but found they had insufficient strength to carry the Fox-Wisconsin project through unaided. A Green Bay constituent wrote Morgan L. Martin in Madison suggesting that he enlist Racine support for the Irwin bill by adding provision for a railroad survey from that city to the Mississippi. One amendment apparently invited others, and the Waterway proposal was soon tied up with numerous other projects for roads and railroad surveys.
Both southeast and northeast withdrew to lick their wounds.

Neither the Milwaukeeans nor the advocates of the Fox-Wisconsin route could take any satisfaction from the legislation in the Territory during 1839. Oddly enough, in addition to blaming each other for their troubles, each found a villain in the person of Judge Doty. In the case of Milwaukee, Doty's alleged animosity was linked with the differences between Milwaukee east of the river, where the principal speculators were Solomon Juneau and Morgan L. Martin, the latter a cousin of Judge Doty, and Milwaukee west of the river, where Byron Kilbourn was chief and also the prime mover of the Milwaukee and Rock River Canal project. The disgruntled Green Bay people likewise felt bitter toward the Judge. The Madison correspondent of the Green Bay Wisconsin Democrat blamed the failure of the Waterway bill on "personal feeling ... against a certain man ... as he is supposed to be very much interested in its accomplishment." The reporter added disgustedly, "'Judge Doty' - 'Judge Doty' - is a standing argument against everything which originates with the Brown county delegation; and it is too frequently a decisive one." This may have been unfair. The Judge was in Washington that year, of course, and there was a different power to be reckoned with in Madison.

Henry Dodge was still Governor of Wisconsin Territory and the lead region, for which he spoke, was still a power in the Territory. Neither the activities of the
Waterway advocates in the territorial legislature, nor those of Judge Doty in Congress that year could have been particularly pleasing to the lead region. Accordingly, 1840 witnessed efforts on the part of the disgruntled Milwaukeeans and the lead region contingent to work more closely together. The financial stringency following the Panic of 1837 was still pinching the money marts of the country, so that the Canal Company was unable to negotiate the $50,000 loan for which they qualified during the summer of 1839. Dodge reported this to the legislature that convened late in the year. Shortly thereafter came a memorial from the directors of the company begging for help and offering to vacate the charter if this would result in the construction of the canal. Certain elements in the legislature were more than willing to watch the canal promoters squirm, but canal supporters managed to pass a bill early in 1840 that authorized use of the proceeds of land sales for construction until the loan could be negotiated.

Encouraged by this success, the governor from the lead country and the Milwaukee company made another effort to gather funds to begin the project. In August, the Governor announced that Byron Kilbourn, president of the company, had been appointed special agent of the Territory to negotiate the sale of the bonds. Later in the fall, both the board of canal commissioners and the directors of the company submitted optimistic reports and scolded the legis-
lature for failing to come to the aid of the Company. The
lead region and the Milwaukeeans rallied their forces and
secured the passage of a bill in February, 1841, that cheap-
ened the required quality of the construction and increased
the territorial bond issue in aid of the project to $100,000.
Solid support for the measure was enlisted across the south-
ern portion of the state by providing that one-fourth of the
proceeds should be spent at the western end of the project,
that is, on the Rock River, and by remitting the interest
due on the unpaid balance of land purchases until the loan
was negotiated and construction actually begun. Kilbourn
was making some progress in finding the money when the
change in the national administration removed Dodge from
the governorship and replaced him with Kilbourn's arch-
enemy, James Duane Doty.

From that date, the affairs of the Milwaukee and
Rock River Canal Company rapidly declined. Doty immediate-
ly repudiated Kilbourn's appointment as special agent of
the Territory to sell the bonds. A select committee of the
legislature, Morgan L. Martin, chairman, investigated the
affairs of the company and reported, on February 3, 1842,
that Kilbourn's agency was improper and improperly conduc-
ted. In consequence of this irregularity, the committee
declared, the Territory was not liable for any of the bonds
outstanding. A fortnight later a bill passed the legisla-
ture remitting the interest due on purchases of canal land
and limiting future interest payments to assessments for interest due on the outstanding territorial bonds plus $300 expenses of collection. The coup de grace came on the night of February 18, 1842, when Morgan L. Martin introduced a bill repealing the authority to negotiate loans and depriving the canal commissioners, and other territorial officials connected with canal affairs, of all powers. The opponents of the Canal obtained a suspension of the rules and rushed the bill through the Council. The bill was hurried to the hall of the Assembly where another suspension of the rules permitted its immediate consideration. It was amended and passed, rushed back to the Council, which concurred in the amendment, delivered to the Governor, and signed into law, all on the same night. For practical purposes, the arch-rival of the Waterway was dead.

Another formidable rival remained. Indeed, only the day before the demise of the Milwaukee and Rock River project, Governor Doty approved an act incorporating the Fox River Improvement Company. That its articles of incorporation authorized the Company to open a canal from Fond du Lac to the headwaters of the Rock River, although the principal purpose of the Company was the development of the lower Fox River, testifies to the extraordinary appeal of this competing route linking Lake Michigan and the Mississippi via Lake Winnebago and Rock River. In many ways this rival constituted a greater menace to achievement
of the Waterway than the Milwaukee and Rock River proposal.

This Fond du Lac system led from Lake Winnebago at Fond du Lac to the headwaters of the Rock River. From that point, the line divided, one suggestion being for a canal across the central swamps and plains to the Wisconsin near Dekorre, while the development of navigation down the Rock River, with branch connections to Milwaukee, to the Four Lakes, and to the lead country via the Pecatonica, made the system truly territorial in scope. Politically, such a system could reasonably expect support from the southern portions of the territory, east and west. Governor Dodge had spoken on behalf of the southern branch of the system.

The northern portion of the network, which would furnish the connection from Lake Winnebago to Lake Michigan, was equally versatile. In addition to the obvious outlet down the Fox River, the backers of the scheme proposed to cut the escarpment on the east shore of Lake Winnebago to meet the headwaters of the Manitowoc or the Sheboygan rivers. The wide political appeal of the system was buttressed by hasty reference to maps of the country, where the streams are indicated but little information is readily conveyed about their dimensions or the heights of ground dividing them. The system, which was acknowledged to be far more expensive than the Fox-Wisconsin route, drew its stoutest support from the redoubtable James Duane Doty.

From the earliest suggestion of this Fond du Lac
system to the end, it was sustained by the efforts of Doty and his followers. The system was first mentioned in the Rump Council by William B. Slaughter of Green Bay, who was also Doty's lone defender when the latter's performance as fiscal agent for the Council was called into question.

Alone among the delegates Slaughter rose above the practicality of the pork-barrel to indulge in purple prose on behalf of a territorial system of internal improvements. He reviewed the waterway resources of the territory with some feeling: "Through our western border, rising in the exhaustless lakes of the north with its thousand tributaries, flow [sic] the majestic Mississippi in lonely grandeur. Passing through the center is the Wisconsin, already navigable for steamboats to a point from which one mile of canal will unite it with the navigable waters of the Fox River; further south is the Rock River, rising near Lake Winnebago, with which it must shortly be united by railroad or canal, and which will then form the connecting link between the lakes of the north and the Mississippi on the south." Here was an endorsement of the Waterway, but the Lake Winnebago-Rock River link, central connection of the Fond du Lac system, was given equal prominence. Later in the meeting of the Rump Council, Slaughter again tried to further Doty's schemes when he sought vainly to amend the resolutions offered by the Council's committee on internal improvements by requesting a survey of a canal route from
the sources of the Manitowoc to Lake Winnebago. Doty sponsored a paper town where this line entered Lake Winnebago.

Doty's intimate connection with this system cannot be questioned. In his masterful exposition of the maneuvers preceding the selection of a territorial capital, Joseph Schafer has described the Judge's interest in the town-site at Fond du Lac and along the northern reaches of the proposed canal, from the head of Rock River to the Wisconsin. He returned to the subject with additional material when he discoursed on the Fox-Wisconsin improvement.

It seems reasonably safe to attribute to the interest of Doty and, to a lesser degree, the interest of Colonel Dodge, the persistent appearance of fragments of the plan in the memorials to Congress asking for surveys of the Sheboygan to Lake Winnebago route, the Fond du Lac to Rock River canal route, and so on.

Two reports on Wisconsin terrain and internal improvements by members of the Corps of Topographical Engineers formed the basis of congressional discussion of Wisconsin internal improvements during these years. Both devoted some space to consideration of the Fond du Lac system. In the earlier Petitval report, the sections on alternatives to the Waterway were written by Judge Doty himself. Thomas Jefferson Cram covered the same ground two years after Petitval, but his report on the Waterway
was accompanied by detailed estimates of the cost of constructing the works. Cram gave as much space to the Fond du Lac system as to the Waterway.

As long as Doty remained in Washington, Wisconsin internal improvement schemes discussed there invariably included one or more portions of the Fond du Lac system. The Judge managed to secure appropriations in 1839 for seven Wisconsin projects. Three of these represented parts of the delegate's pet scheme.

In 1841, Doty returned to Madison as the new Governor. With the chief proponent of the Fond du Lac network in the gubernatorial chair, its backers began a concerted effort to establish it at the next session of the legislature. As successive blows beat down the Milwaukee and Rock River Canal Company, Morgan L. Martin introduced into the Council a bill to incorporate the Fox River Improvement Company. After the bill had been printed, it was considered by a select committee of which Martin was chairman and approved without amendment. The next day, the bill was considered in Committee of the Whole, and, although it was amended, the Committee ordered the bill to a third reading by an overwhelming vote. When the division came on the final passage of the bill, only Moses M. Strong of Iowa County, a doctrinaire Jacksonian Democrat, voted against it. At this stage, the proposal was calculated to delight the Waterway proponents, for the purpose of the com-
pany was to clear the channel of the lower Fox.

In the Assembly, however, matters did not move so smoothly. It was here that Lucius Barber, whose district included the headwaters of the Rock River, held up the bill until the Fond du Lac - Rock River connection was included. This combination of the two routes was irresistible. From that point, the act moved rapidly through the final stages of legislation.

The bill was returned to the Council within four days. The amendments were further amended and concurred in on the same day. Just short of two weeks after its first introduction into the Council, Governor Doty signed the bill into law.

The political forces marshalled by the Green Bay interests and the adherents of Governor Doty acted with soldierly discipline in securing the incorporation of the Fox River Improvement Company. The investing public proved less willing to fall into line. According to the Act, one-tenth of the capital had to be subscribed through the treasurers of the counties of Brown, Fond du Lac, and Portage, within six weeks after the first Monday in April, or the Company could not be organized. The Fond du Lac scheme, and with it the Fox River Improvement Company came to grief on this provision. While the books were open for subscriptions to the new Company, Congress was considering a bill for Wisconsin internal improvements reported from the Com-
mittee on Roads and Canals. Wisconsin legislators had cannily inserted a provision in the Act that repealed the Company's authority to construct any portion of the proposed improvements that Congress should undertake. Investors hung back all along the route, for, while the act provided for the return of subscriptions if the Company failed to organize, money was tight in Wisconsin during the spring and summer of 1842. The congressional bill failed to pass a House preoccupied with foreign affairs, but by the time the news of this failure had reached Wisconsin, it was too late to fill the required stock subscriptions and the Company was never organized.

The failure of the Fox River Improvement Company marks the end of efforts by private enterprise to develop the Waterway during the Territorial period. From the experience of those years its proponents might have read a bitter lesson, for, while they struggled mightily with rival schemes of rail and water transportation, an unobtrusive wagon traffic had been stealing their trade away. A route compounded of trans-Portage carts and Durham boats required too much handling of freight to meet the competition of loads of lead handled only once between the mines and the Lake vessels. The establishment of direct water transit of the Waterway was clearly beyond the means of private investors, so long as the carrying trade alone was the source of profit from the enterprise.
The carriage of lead overland by wagon was profitable because the building of the roads was undertaken at publf expense. If the Waterway wanted to compete on better terms, greater efforts to secure government support for construction of the improvements would have to be made. Such favors could only come from the federal government. To secure federal assistance its advocates would have to give the case for the Waterway a national appeal. This meant involvement of the scheme in national issues. Furthermore, as the population of Wisconsin increased and the achievement of statehood seemed nearer, national political affiliations and issues assumed more importance in Wisconsin affairs. The same reasons tended to create greater interest in Wisconsin matters on the national scene. All these considerations combined now to transfer the most important activity relating to the Waterway to Washington, where, indeed, it had long been appreciated.
CHAPTER II

FOOTNOTES

1. Reuben G. Thwaites, ed., "Papers of James Duane Doty," Wisconsin Historical Collections, XIII, 183-219. It is unfortunate that the journal stops on the morning of the day the party arrived at Prairie du Chien, so that Doty's appraisal of the Waterway at this early date is not available. Hereafter "Wisconsin Historical Collections" will be abbreviated "WHC."

2. Ibid., 164.


4. Ibid., 396-399.

5. Ibid., 403; U.S.H.R. Journal, 21 Cong., 1 Sess. (1829), 54.


14. O. G. Libby, "Lead and Shot Trade," \textit{WHC}, XIII, passim, especially 295-296. J. Schafer, \textit{The Wisconsin Lead Region}, 33, states that the upper Mississippi mines enjoyed transportation facilities superior to those of the Missouri mines, but this statement is premised on the ability of the traffic to pass the Des Moines and Rock River rapids without hindrance. On these problems, see William J. Petersen, \textit{Steamboating on the Upper Mississippi, The Water Way to Iowa: Some River History} (Iowa City: The State Historical Society of Iowa, 1937), passim.


19. See "Report of John B. Petitval, Civil Engineer, to the Chief of Topographical Bureau," dated Jan. 18, 1838, on his survey conducted during August and September, 1837, in \textit{U.S.H.R., Survey — Neenah or Fox River &c.},


27. Ibid., 438.


29. Wisconsin Territory Assembly Journal, Special Sess. (1838), 12, 18, 40, and 47; Wisconsin Territory Laws (1837/1838), 338.


32. Ibid., Jan. 19, 1838.

33. Ibid., June 1, 1839. See also the more temperate report from the New York Evening Post, dated Boston, May
18, 1839, where the completion of the improvements on
the Fox-Wisconsin Waterway is anticipated "next fall."
Ibid., June 15, 1839.

34. Wisconsin Territory Laws (1839/1840), 43.

35. Wisconsin Territory Assembly Journal (1836/1837), 40,
43, 51, 52, 53, 58, 116, and 122; Wisconsin Territory
Council Journal (1836/1837), 40, 52, 74, and 75. Ebene-
zer Childs of Brown County had charge of the bill in
the Assembly, while John P. Arndt, one of the organi-
izers of the Company, piloted it through the Council.
The charter is found in Wisconsin Territory Laws (1836/
1837), 35-37.

36. Wisconsin Territory Laws (1837/1838), 72-73. The act
to amend the charter was introduced in the Council and
passed the Assembly under a suspension of the rules.
Wisconsin Territory Assembly Journal (1837/1838), 285
and 311. On the banking operations of the Fox River
Hydraulic Co., see Joel S. Fisk, Green Bay, to Morgan
L. Martin, May 16 and June 14, 1846, Martin MSS.

37. Madison Wisconsin Enquirer, June 22, 1839, quoting the
Green Bay Wisconsin Democrat. See also Madison Wiscon-
sin Enquirer, May 18, 1839.

38. U.S.H.R., Survey of the Neenah or Fox River, (House
Docs., 25 Cong., 3 Sess. [1838], house doc. no. 102,
ser. no. 346), p. 9.

39. Madison Wisconsin Enquirer, Nov. 8, 1838, May 18, 1839,
and April 25, 1842; Milwaukee Courier, July 5, 1843;
Madison City Express, Jan. 4, 1844.

40. Madison Wisconsin Enquirer, May 18, 1839.

41. Wisconsin Territory Laws (1840/1841), 80-83.

42. Madison City Express, Jan. 4, 1844; Buffalo Commercial
Advertiser, Oct. 17, 1844. See also Madison City Ex-
press, Mar. 21, 1844; and Green Bay Republican, Mar. 12,
1844.

43. Milwaukee Courier, July 5, 1843.

44. Madison Wisconsin Enquirer, April 25, 1842.

45. Milwaukee Courier, July 5, 1843.

46. Buffalo Commercial Advertiser, Oct. 17, 1844, quoting
the Green Bay Republican.


49. Madison Wisconsin Enquirer, Nov. 8, 1838, and Jan. 15, 1839, quoting the *New York Evening Post*.

50. See, for example, the prospectus signed by Doty in U. S.H.R., Survey — Neenah or Fox River, (House Docs., 25 Cong., 3 Sess. [1838], house doc. no. 102, ser. no. 346), p. 4; and "Address to the People of Wisconsin" in *Green Bay Wisconsin Democrat*, Mar. 24, 1838.

51. The report is printed in U.S.S., *Report of the Secretary of War . . . on the Neenah, Wisconsin, and Rock Rivers* (Senate Docs., 26 Cong., 1 Sess. [1839], sen. doc. no. 318, ser. no. 359). The comments referred to may be found on page 3. Thirty-odd years later, another engineer commented: "That the natural navigation [of the Wisconsin] was greatly overvalued [by Cram and his contemporaries] is shown by the little use made of it after the route along the Fox River was subsequently opened, which later failed mainly of its utility from the inadequacy of the Wisconsin River for navigation." See Gouverneur K. Warren, *Report on the Transportation Route along the Wisconsin and Fox Rivers, in the State of Wisconsin between Mississippi River and Lake Michigan* (Washington: Government Printing Office, 1876), 27.


55. Henry R. Schoolcraft, *Narrative of an Expedition through the Upper Mississippi to Itasca Lake, the Actual Source of this River . . .* (New York: Harper and Brothers, 1834), 295. See also George W. Featherstonehaugh, *A Canoe Voyage up the Minne Sutor; with an Account of the Lead and Copper Deposits in Wisconsin, of the Gold Region in the Cherokee Country; and Sketches of Popular Manners; &c. &c. &c.* (London: Richard
Bentley, 1847), I, 148-203. Featherstonhaugh made his trip through the Territory in 1835.


59. Ibid., 79-85. See also Moses M. Strong, History of the Territory of Wisconsin, from 1836 to 1848 (Madison: Democrat Printing Co., State Printers, 1885), 198-199.


64. See the summary of the message in M. M. Strong, History of Wisconsin Territory, 225.


66. The memorial is summarized in M. M. Strong, History of Wisconsin Territory, 230.

67. Milwaukee Advertiser, May 20 and 27, June 3, 10, and 17, 1837.


69. Milwaukee Advertiser, Sept. 16, 1837.


73. Green Bay Wisconsin Democrat, Mar. 24, 1838.

74. Loc. cit.

75. Ibid., Jan. 2, 1839.

76. Madison Wisconsin Enquirer, June 1, 1839.

77. Reported in Ibid., Feb. 9, 1839.

78. Joel S. Fisk, Green Bay, to Morgan L. Martin, Jan. 22, 1839, Martin MSS.


83. Ibid., 390-410.


85. Wisconsin Territory Laws (1841/1842), 33.

87. Ibid., 110.
88. Ibid., 135-137.
91. See Dodge's annual messages to the legislature. These are usually found in the first few pages of the Journals of the two houses. They are also summarized in M. M. Strong, *History of Wisconsin Territory*.
92. These appeals to Congress are summarized in the annalistic *History of Wisconsin Territory* by Moses M. Strong. See, for example, pp. 230 and 340 (the memorials for 1836 and 1841 respectively).
95. The appropriations are summarized in M. M. Strong, *History of Wisconsin Territory*, 277.
97. Ibid., 295 and 296.
98. Ibid., 302.
99. Ibid., 316.

104. Wisconsin Territory Laws (1841/1842), 33, sec. 25. A territorial opponent of the bill tried to stop action on the grounds that Congress was considering Waterway improvement, but was beaten down by the bill's supporters. Madison Wisconsin Enquirer, Feb. 23, 1842.

105. Wisconsin Territory Laws (1841/1842), 28, sec. 8. The pages of the newspapers are crowded with notices of bankruptcy through this period. See, e.g., Madison City Express, May 19, June 16, and 23, 1842.

106. The company won an extension of time in which to take subscriptions, but was unsuccessful in filling the subscription. See Wisconsin Territory Laws (1843/1844), Act approved Jan. 3, 1844.

107. See Petitval's comment in U.S.H.R. Neenah or Fox River, (House Doc., 25 Cong., 3 Sess. [1839], house. doc. no. 102, ser. no. 346), p. 9; and O. G. Libby's conclusion to the same effect in "Lead and Shot Trade," WHC, XIII, 311.

108. See infra, ch. iv. References to road construction are frequent, but usually incidental to discussion of the large-scale improvement projects. See, for example, M. M. Strong, History of Wisconsin Territory, 230, 277, 314-315, 360, and passim; M. B. Hammond, "Financial History," Proceedings of the State Historical Society of Wisconsin (1893), 148 and passim. Hammond also has numerous citations on federal road legislation. The territorial Laws are filled with general and local road acts.
MAP of the NEENAH or FOX RIVER.

With the proposed improvements for the navigation

Drawn on a Scale of 6 Miles to one Inch.

Langtree & Sullivan, Washington D.C.

To accompany Dec. 162.

No. of Rep.

23 Congr., 39th sess.
CHAPTER III

THE WATERWAY DURING THE TERRITORIAL PERIOD:

II. THE NATIONAL SCENE

The Committee on the New Territorial Government of the Rump Council in January, 1836, declared, with smug assurance and ambiguous phraseology, that internal improvements for Wisconsin, "we doubt not, will receive that attention from the national counsels, which their merits deserve." If the importance of Wisconsin internal improvements is measured by the attention given them by the Congress, the improvements were of small significance: the only full-scale debate in which a Wisconsin project was considered hinged on the land question. Nevertheless, from the meeting of the Rump Council, when Wisconsin promoters first began to speak for themselves, their needs and wants in the matter of internal improvements were constantly dinned into the ears of Congress. Legislation for the Waterway, though not the occasion of spectacular and prolonged debate, was constantly before them.

The cause of the Fox-Wisconsin route got off to a slow start in the House of Representatives. The delegate, George Wallace Jones from the lead region, had no special interest in the project. Then, too, friends of the route
made little effort to attract the attention of the government. Although Jones brought forward a number of petitions in the session of 1836-1837, none pertained especially to the Waterway. The Upper House, however, welcomed the new government with provision for surveys and the construction of roads. John Petitval, a civilian employee of the Topographical Engineers, was assigned to conduct the surveys.

Petitval was not impressed. He arrived on the scene in late winter and sputtered impatiently for some days until sleighs and teams were engaged to carry him on his way. Later, his report told of the incident and Wisconsin partisans were outraged. "Old Petitval must have been dreaming of the campaign of Moscow," fumed the Green Bay Republican. The salubrious summer air of Wisconsin, even then a prominent argument of the boosters, did not perceptibly improve his humor. Perhaps the giant mosquitoes that infested the line of the upper Fox jaundiced Petitval's eye as he conned the prospects of establishing an all-water connection between the Great Lakes and the Mississippi, for it was late summer when he surveyed the Waterway. At any rate, he reported that the construction of a canal across the Portage would be unreasonably expensive. The land between the two streams, he found, consisted of a sodden combination of black muck and sand that was frequently flooded by the Wisconsin. Petitval said that these factors would make it exceedingly difficult to
stabilize the bed of a canal at the Portage and the foundations for locks would be very uncertain. He was equally impatient with the meanders of the upper Fox. Through much of its distance, he grumbled, "no channel can be seen anywhere, . . . the appearance of these floating prairies being different every year."

According to the engineer, the obstacles to navigation made the freights on the route very high. He reported a small west-bound traffic consisting of dry goods, provisions, and hardware, while the east-bound trade consisted of buffalo robes, skins, and furs. He found that little lead made its way to market by this route because of the high rates. But he held out some hopes to the Waterway enthusiasts for he said it was the natural outlet for the lead trade.

The letter of Judge Doty, which accompanied the Petitval document, could only partially offset that gloomy picture. Surely, he argued, "no one can doubt that it is a national object to create a perfect navigation from New York, or from the Gulf of St. Lawrence, to the Gulf of Mexico." This was "a measure worthy of the attention of the General Government, whether it is viewed with reference to operations in war, or the convenience and business of its citizens." Symptoms of unrest along the Canadian border gave timeliness to Doty's reference to war operations in connection with the Waterway. Not long afterward the
Secretary of War put an official seal on the military desirability of the route.

For some time before Wisconsin became a territory, reports had been finding their way to the War Department emphasizing the importance of communications in that area. As early as 1823, John C. Calhoun, then Secretary of War, displayed an acute appreciation of the strategic significance of Green Bay. Faced with the necessity of abandoning some of the posts in the Northwest, he decided to give up Chicago and retain Green Bay. "Tho' Chicago may be important in War," he explained, "I cannot consider it, in a general view, . . . near as important as Green Bay, which constitutes an essential link in the general exterior line of military posts, which is so well calculated to break the force of foreign influence and to rivet [sic] our own." Prairie du Chien was another vital post. Efficient communication between the two sites was highly important. This link the Waterway provided — after a fashion. The Inspector General of the Army reminded Secretary of War Cass in 1831, "The navigation of the Wisconsin and Fox rivers is closed from about the middle of November to the 1st of April, and at all times difficult on account of rapids in the one and sand bars in the other." On this account, one element of the military favored development of overland connections.

As the Blackhawk War approached, the role of the
Waterway in the transportation system of the frontier remained uncertain. In 1831, Samuel Stambaugh, Indian Agent at Green Bay, submitted a report urging the negotiation of Indian treaties to clear the way for white settlement because of the "dazzling attractions offered by the country." Stambaugh outlined the water route from New York through Buffalo to the upper lakes in its relation to the development of the region. His conclusion underscored the importance of Green Bay. Stambaugh, however, was not definite as to whether a water route or a road across Wisconsin was preferable. He wrote: "It is very evident that the period is not remote, when the great thoroughfare between the Mississippi and the City of New York will pass through Green Bay. Nature has done so much for this country that there must soon be a commodious highway, connecting the waters of the Lakes with the Mississippi river; and then the whole business of Galena, the lead mines and the upper Mississippi will take this route, by which the value of property at the line of ship navigation will be greatly enhanced and the commerce of the Lakes much benefited." The observations of the humble Indian agent were seconded by the more august, though equally ambiguous, pronouncements of Henry Rowe Schoolcraft.

Perhaps because this series of reports was either non-committal or unfavorable to the Waterway, they did not figure in the discussions of the Waterway project. Certain-
ly they did not have the impact of a diffident paragraph in
the annual report of the Secretary of War of December, 1838.
Poinsett merely asked for a survey of the Fox-Wisconsin
route with an eye to opening direct water communication be-
tween the Lakes and the Mississippi. If the canal was prac-
ticable, the Secretary noted calmly, the improvement would
be desirable in time of war and would effect a considerable
saving in the movement of troops and supplies in time of
peace. The reception of this simple declaration, sand-
wiched between paragraphs discussing improvements of great
rivers and coastal harbors, was far out of proportion to
the significance Poinsett apparently attached to it. Wis-
consin newspapers virtually turned handsprings of jubila-
tion, and for some years to come, advocates of the Improve-
ment harked back to the endorsement of the project by the
Secretary of War. Scarcely a speech or newspaper editori-
al through the balance of the territorial period omitted
reference to it.

Endorsement by a cabinet officer gave impetus to
a strong campaign for federal aid that gathered momentum
through the fall and winter of 1838-1839. The energy was
provided by the appearance on the scene of James Duane
Doty. Doty was elected delegate over George Wallace Jones
in October, 1838, and immediately sought to take his place
on the floor of the House of Representatives. Jones in-
sisted that his term expired with the terms of the Con-
gressmen then sitting. The contest was not settled until January, but, once admitted to the halls of the national legislature, Doty made his presence felt. The Clerk's table was soon buried under the petitions the Judge offered on behalf of his constituents. On February 4, 1839, for example, Doty presented twenty-one petitions concerning Wisconsin internal improvements and the next day offered another series on the same subject. Another day, the delegate twice obtained the floor offering a handful of petitions from his constituents on each occasion. More than this, through Doty's agency, Pettitval's report was printed along with a tract by the Judge himself advocating a system of canal and river improvements covering the whole of Wisconsin Territory.

While Waterway advocates back in Wisconsin tried to obtain sanction for a territorial debt to build the Fox River improvements, Judge Doty brought a similar proposal onto the floor of the House of Representatives. In view of what is known of the business activities of the Judge, the argument he used is surprising. He urged immediate construction under government auspices because, so the report ran, a later undertaking would result in the diversion of public funds into the hands of private or chartered companies. These, Doty observed piously, "are at all times highly dangerous to the public."

Of the projects reviewed in this second paper, Doty
laid greatest emphasis on the Fox-Wisconsin route. He ignored the doubts raised by John Petitval, insisting the improvement would be a simple matter. "Nature has formed a valley," he wrote the Chairman of the House Committee on Territories, "in which the waters of two rivers occasionally mingle and then separate and flow to the Gulf of St. Lawrence and the Gulf of Mexico." He emphasized strongly the national character of the proposed improvement. "Its benefits would extend from New York to New Orleans," Doty argued. His imagination faltered when he tried to envision the future to which the Waterway held the key. "No calculation can be made of the advantages to trade and the Union, hereafter, of this navigation."

According to Doty's plan, the territory would finance the project through a loan secured by "the proceeds of a grant of alternate sections of land along each route, if the land is not disposed of until the works are completed." In the event Congress refused to make an outright gift of land, he proposed to compensate the government by doubling the price of the reserved sections.

In spite of the care with which Doty drafted his bill and marshalled arguments in its favor, the plan came to grief after it emerged from the Territories Committee. When the bill came up for discussion in Committee of the Whole, David Petrikin of Pennsylvania moved to strike out the enacting clause. A veteran of the Revolution and a
rigid Jacksonian Democrat, Petrikin argued that Congress could not authorize the Territory to do something the General Government itself could not do. Several other members, Democrat and Whig, spoke in opposition to the bill. One Whig, Horace Everett of Vermont, insisted that the grant should be made conditional on prior acceptance by the territorial legislature. The manager of the bill agreed to an amendment adding this condition, but this was not enough to save the plan. When the division came on Petrikin's motion, it carried and the bill was lost.

At the other end of the Capitol, Senator Lucius M. Lyon of Michigan, an old friend of Wisconsin and the Waterway, demonstrated that he was also a friend of Judge Doty. He proposed a Wisconsin internal improvement system along the lines of the Doty plan and further specified alternative routes for the Waterway that were identical with the Judge's proposals of 1838.

Lyon dwelt on the importance of communications to the development of the Territory. "Several of these streams," he noted, "have been navigated with canoes and batteaux for many years; and so long as the country was only occupied for the purposes of trade with the Indians, these were sufficient." More elaborate transportation facilities were needed now to foster settlement where the Indians had so long held back the entrance of white farmers. The Waterway, he said, is "a national work, as it unites
. . . the valleys of the great lakes and the Mississippi, and opens a free communication to commerce between the western and northwestern parts of the United States and the Atlantic cities." With this report Lyon submitted a bill, which was read for the second time and ordered printed — and never heard from again.

The session, where Wisconsin matters had been much agitated, was not a total loss to the Territory nor to the Waterway. While the actual improvement of the Waterway was deferred, Doty managed to secure an appropriation of $2,000 for a survey of the route on a more elaborate scale than Petitval's. Indeed, the engineer this time was not charged with reporting on the feasibility of the project, but with making estimates of the cost of its accomplishment. The same bill included an appropriation for buoys at the head of Green Bay and the mouth of the Fox River, and directed the survey of a railroad route from Lake Michigan to the Mississippi River. A further concession to the southern portions of the Territory was made in an appropriation for a road from Racine via Janesville to Sinipee on the Mississippi. But the Judge never permitted his own interests to be neglected. The bill provided for the construction of a pier at the north end of Lake Winnebago where Doty had erected a paper town, Winnebago City. Furthermore, two roads were to be constructed, both of which had termini or junction points at locations where Judge Doty held property.
The officer appointed to conduct the survey authorized by the appropriation of 1839 was Captain Thomas Jefferson Cram. A New Hampshire appointee to the Military Academy in 1822, Cram remained as an instructor at West Point for ten years following his graduation. He resigned his commission in 1836 and spent the next two years as a civil engineer employed by railroads in Maryland and Pennsylvania. When he returned to the army in 1838, his first assignment was the survey of the Fox-Wisconsin Waterway. Perhaps it was his brief experience in civilian life that gave his attitude the optimistic turn that was lacking in Petitval's view of the Waterway. Cram's report was more comprehensive and detailed than the earlier Petitval survey and at the same time revealed his appreciation of the importance of widespread support if the project was to be realized. Cram's political consciousness made his report the chief source of arguments in behalf of the Waterway for many years to come.

The report began on a very high plane. New England, New York, and Pennsylvania, as well as the states to the South should all be concerned with a connection, on a proper scale, between Lake Michigan and the Mississippi, Cram argued. In addition to the manifest advantages to internal trade, this inland route, linking all sections of the country, would be of great importance in the event of a blockade of our coast-line in time of war. Even if Britain were
the enemy the connection would be valuable for moving troops and supplies.

Having established the importance of uniting the lakes and the interior valley, Cram next outlined the routes by which the link might be made. The Rock River (on which construction had already been authorized) would involve too great expense, the engineer thought. The Illinois-Michigan canal was already being undertaken by the State of Illinois. Work on that project was at a standstill due to the high costs of construction and the existing depression, Cram reported, but the State could be counted on to complete the job. This left the path by way of the Wisconsin and Fox rivers. According to Cram's calculations, this last route was not only the shortest, but also the cheapest of those available.

Passing lightly over the difficulties of navigating the Wisconsin River, Cram concentrated his attention entirely on the Fox River. He proposed to stabilize the canal across the Portage by lining it with plank. Drawings, and estimates reduced to dollars and cents, gave the report a great air of precision. Cram's plan for overcoming each barrier to a direct transit from the St. Lawrence Basin to the Valley of the Mississippi showed that the Waterway was a great bargain. The balance of Cram's report, surveying the Lake Winnebago-Rock River system, reveals his political acumen.
First, the engineer gave a technician's endorsement to the prevailing system of land grant aid to internal improvements. Even at this early date, the pattern had been tentatively established. Keystone of the system was a federal grant of alternate sections of the public land for a distance of five miles on each side of the right of way. This much of the program had been established first in a grant to the state of Illinois for the Illinois-Michigan Canal in 1827. The technique was continued in a grant to Indiana, approved on the same date, and may be regarded as fixed and confirmed after the act for the benefit of Ohio of the following year. In 1838, the grant to Wisconsin Territory for the Milwaukee and Rock River project followed the earlier precedents in this respect.

A point yet to be settled was the price to be charged for the land granted and for the alternate sections remaining in federal hands. Section Four of the Land Act of 1820 apparently set the minimum at which the lands might be offered for sale, for that law provided that no lands were to be offered at less than $1.25 per acre. At any rate, the earliest canal grants, to Illinois and Indiana, made no mention of price. The opponents of this program of aid apparently objected to such indirect raids on the public treasury, since the proceeds of the sale of the grant were, of course, lost to the government. This objection was met in a provision of the grant to Ohio in 1828. The
act tendered to Ohio alternate sections of land for five miles on each side of the line of the proposed canal. The balance of the land remained in federal hands. "Which lands, so reserved to the United States" the act read, "shall not be sold for less than two dollars and fifty cents per acre." Now the advocates of such aid could argue that the grant would not cost the government anything since sale of half the area at double the minimum price, or $2.50 per acre, would bring as much money into the treasury as sale of the entire tract at $1.25. The grant for the Milwaukee and Rock River Canal was only the second to contain this stipulation. Captain Cram endorsed the sound policy of the grant. It was, he declared, "unworthy of the name of donation," because the lands reserved to the government were to sell at the double minimum price.

The engineer made sure of his popularity in the lead region by another comment. Without even a cursory survey, Cram advocated improvement of the Pecatonica branch of the Rock River, draining part of the lead region. He cited as his authority for the practicability of the scheme none other than Henry Dodge!

From Cram's day on, the reports of engineers, which theoretically furnished the objective, factual basis for the deliberations of the statesmen, retained this political cast.

Heartened by the generosity of Congress in the ap-
propriations for surveys and roads during the session of 1839, and armed with the detailed estimates of the Cram report to buttress the comments of the Secretary of War as to the desirability of the project, advocates of the Waterway began a concentrated effort to secure the improvement during the excitement of the presidential campaign of 1840. "A large and respectable meeting of citizens of Wisconsin Territory" adopted a memorial requesting improvement of the Fox-Wisconsin route on February 12, and thereafter both houses of Congress were deluged with copies of the memorial which the recipients duly submitted to their respective houses.

William Savin Fulton, Democratic senator from Arkansas, offered a resolution calling for the Secretary of War to communicate the results of the Cram survey. After the report had been received, Henry Hubbard, veteran Democrat from New Hampshire, secured the printing of five hundred additional copies. The Whigs had been seeking political support from the West by charging the Democrats with opposition to internal improvements. James Duane Doty made the question central in his plaint, "The Voice of an Injured Territory," in which he announced his adherence to the Whig party. So Fulton's and Hubbard's actions partake of the character of political gestures. For Hubbard, at least, there was also an element of personal interest involved. Hubbard was a heavy speculator in land in Wisconsin Terri-
But memorials and petitions and resolutions were to no avail. Although a bill for the Waterway did finally emerge in April from the House Committee on Territories, it was never acted upon.

The efforts of the Democrats to counteract Harrison's popularity in the West failed. Van Buren was defeated at the polls. An era came to an end.

In a way, this marked the end of an era in the history of the Waterway as well. During the period of changing administrations, Senator Linn of Missouri died. Norvell, Hubbard, and Lyon among the friends of the project left Congress at this time as did Petrikin among its enemies. James Duane Doty was appointed Governor of Wisconsin Territory to succeed the Democrat Henry Dodge, and with him another vital force left Washington.

During the last years of the Jacksonian epoch in Washington, the major national problems had revolved around the Panic of 1837. For projects of internal improvement, this was tied to the problems arising from the repudiation of debts by the states. The essence of Doty's plan for the achievement of the Waterway was a territorial debt. The plan undoubtedly came to grief because of this feature, although the proposal to sell the lands after the improvement was completed represented an attempt to give greater security to the proposed loan. In the future, plans for building the Waterway would have to avoid any suggestion of the creation of a state or territorial debt.
II

The tribulations of John Tyler's administration exposed to the full the lack of unity among both Whigs and Democrats. During that time, Wisconsin Territory under an appointed Whig governor elected a Democrat as its delegate to Congress. The chief congressional advocate of the Waterway during the period, a Whig named Nathaniel P. Tallmadge, differed sharply on matters of finance with President Tyler, who was neither Democrat nor Whig. The Whigs sought to make political capital out of the state debts and the bursting of the internal improvement bubble by proposing a distribution of the proceeds of the public land sales. Since this would involve maintaining the price of public lands and continuing the existing system of sales, the Democrats identified the Whigs with the speculator class. The Democrats assumed the mantle of protectors of the settlers by fighting for a general preemption law and limitation on the size of tracts sold. Throughout the Tyler administration, Democrats were loud in their denunciation of land speculators. The Waterway was the innocent victim of this division.

In the first Congress under the Tyler administration, Wisconsin matters figured merely as pawns in the maneuvers of Henry Clay and his cohorts to establish the American System. At the second meeting of the Twenty-seventh Congress, however, Waterway prospects assumed a somewhat
brighter aspect. Henry Dodge, who had exchanged places with Judge Doty and assumed the duties of Territorial Delegate, presented a series of petitions relative to establishment of the Waterway. These were referred to the Committee on Commerce and shortly thereafter received unfavorable action. Not so with the succeeding memorials and petitions, which Dodge managed to have referred to the Committee on Roads and Canals. Chairman Lane reported a bill for Wisconsin internal improvements. The bill was read twice and referred to the Committee of the Whole. The Green Bay Republican exulted: "It seems to us appearances are brighter than we have ever seen them before as to the probability of actually having an appropriation from Congress . . . for the opening of a channel almost formed by nature from Lake Michigan to the Mississippi, via Green Bay, Fox and Wisconsin Rivers." The editorial went on to aver that "the American Congress could not appropriate money, which would serve their people so well, in any other way."

The members of the House, however, were bent on serving the American people at the next session as well. Consequently, their attention was readily diverted to the more universally interesting Mexican question and the improvement bill was never acted upon. Senator Smith of Indiana introduced a bill for the improvement of the Waterway during the session that suffered the same fate.

During the winter of 1842-1843, the Wisconsin
Territorial government was brought to a standstill by the quarrel between the Whig Governor, Doty, and a legislature of Democratic persuasion. The preoccupation is reflected in the congressional records, for the Journal of the House reports but two petitions with regard to the improvement of the Fox-Wisconsin rivers. These were both sent to the Committee on Roads and Canals where they reposed until the end of the session.

In the summer of 1843, however, an event of considerable importance for the history of the Waterway occurred. Senator Nathaniel P. Tallmadge, sometime Democrat, now a leading Whig, toured Wisconsin Territory and, through the agency of Governor Doty, acquired land in the vicinity of Fond du Lac.

At the ensuing meeting of Congress, Tallmadge was very active in his endeavors to forward action by the Senate that would enhance the value of his holdings in Wisconsin Territory. The Twenty-eighth Congress was scarcely organized before he began the submission of a flood of petitions and memorials favoring Wisconsin projects. Most of these he managed to have directed to the Committee on Public Lands.

From that Committee on January 4, 1844, Tallmadge presented a bill for the development of the Fox and Wisconsin rivers and a canal joining them at the Portage. The bill was read for the first time and passed to a second
reading. On January eighth Tallmadge submitted a report to accompany the bill that marshalled all of the arguments on behalf of the improvement that were then at hand.

The Secretary of War had urged the connection of the waters of Lake Michigan and the Mississippi as long ago as 1838, Tallmadge began. Establishment of the Waterway, according to the War Secretary, "would be in the highest degree important to the [War] department in time of war, and useful for the transportation of supplies in time of peace." "A glance at the map will show," the report continued, "that this improvement will open to the lake country, to New York, and Boston, a direct trade with the whole of the interior of Wisconsin, embracing its lead and copper mines, and with the entire valley of the Upper Mississippi, extending from 42 degrees of latitude to the northern boundary of the United States; a valley which is not surpassed for the health and temperature of its climate, the fertility of its soil, or its mineral productions." Tallmadge pleaded the precedents set by the grants to Illinois, Indiana, and Ohio for the construction of their canals. He emphasized the great antiquity of the Waterway — the first to be used by the white man and for many years the only one between the mouth of the Missouri and the "plains of the Minisoto river." More recently, he went on, the discoveries of lead and copper in the region and the rapid settlement of Iowa had magnified the importance of the projected route. Furthermore,
Tallmadge argued, ignoring the difficulties on the lower Fox River, the improvement was the shortest of all proposed routes, requiring only one and one-quarter miles of canal to complete it. Finally the report disclosed, "it is not the rival of any other route," its origin on Lake Michigan is three hundred miles north of Chicago and its end on the Mississippi some four hundred and fifty miles north of the mouth of the Illinois.

The Portage Canal Company had come to grief because it seemed to open the way for huge profits through speculation in land. On the other hand, the Milwaukee and Rock River enterprise was a victim of legislative caprice. Tallmadge's plan was free of the taint of the profiteering of a private undertaking and the uncertainty of a project under territorial auspices. The petitioners had asked that "an appropriation of land or money may be made, to be expended under the direction of the War Department."

"On this plan," Tallmadge declared, "this great work, so important in a national point of view, as well as to the region of country through which it passes, would be constructed without the cost of a dollar to the General Government." This amazing declaration was supported by the following calculations. The plan asked for a grant of alternate sections in a belt two sections deep along each side of the route, a total of about five hundred sections. The first tier would sell at $2.50 per acre, and the second
at the government price of $1.25. The returns on this basis would exceed the entire cost of the canal and improvements. The alternate sections, retained by the federal government, if sold at $2.50, would compensate the government for the grant. "The time and circumstances are peculiarly favorable to this undertaking," Tallmadge concluded. "It is believed that only a small quantity of the lands has been entered, and, therefore, there is no obstacle to the commencement and progress of the improvement as fast as the sales of the lands thus granted will justify."

Two days after Tallmadge presented the report, the bill was brought up for a second reading and considered as in Committee of the Whole. Then began a running debate on the bill that ran through January and flared up again for several days in March.

It had been clear from the beginning of the year that the Waterway had sufficient senatorial backing to assure its passage through the Upper House. Opponents of the measure could only hope to delay its passage. During the first round of debate on the Tallmadge bill this characteristic of the opposition was clear. Haywood of North Carolina brought forward a number of miscellaneous objections. He sought to raise the bogey of chartered monopolies, which he charged the Wisconsin legislature with establishing. More serious was his assertion that the bill plunged precipitately into the construction without proper safeguards to
make sure the appropriation would be expended wisely. This objection suggested a further point: regardless of whether the improvement was subsidized by a grant of land or of money, the subsidy constituted an appropriation, which was improper to the Senate. Haywood revealed some ignorance of the geography of the territory under discussion in his next objection. He raised up the ghost of the unhappy Milwaukee and Rock River Canal Company to haunt the supporters of the Waterway. The charter of that unfortunate enterprise had included authority to build a branch to the Fox River. Might not this bill be taken as reviving the defunct Company? None of his colleagues bothered to point out that the Fox River referred to in the Milwaukee and Rock River legislation was the Fox River of Illinois.

Tallmadge was suffering from ill health through the spring and seldom occupied the floor for any period of time during the discussion of his proposal. The burden of defending the measure was borne throughout by William Woodbridge of Michigan. Woodbridge was a Whig with a long record of support for internal improvements reaching back to his service as first territorial delegate from Michigan. He was serving as governor of his state when the exigencies of factional politics resulted in his election as senator to succeed Lucius Lyon in 1840. While Lyon was a Democrat and Woodbridge was a Whig, they were singularly alike in the interests they represented: both had the support of large
land-holding elements and were sponsors of internal improvements. Indeed, a portion of Woodbridge's support came through an alliance with Lyon's old constituency when the radical and conservative wings of the Whigs were unable to agree. During the debates on the Tallmadge bill, Woodbridge proved to be a worthy successor of Lyon as a champion of the Waterway.

Woodbridge turned aside the factious thrusts of Senator Haywood with relative ease. He encountered more difficulty when he had to cope with Benjamin Tappan. Tappan was a Democrat from Ravenna, Ohio. During the 1820's, when the Ohio canal system was being forged in the fires of regional rivalries, Tappan had served as a canal commissioner. He brought his experience (and, no doubt, some of the old arguments as well) into the debate in opposition to the Waterway proposal.

In Tappan's view, there were three means of accomplishing the object of the legislation. The best and cheapest method was construction by a private company. Next in order of efficiency and economy was performance of the undertaking by local or state governments. The third method, the most expensive, the most inefficient, the least desirable, was construction by the federal government. Tappan proposed that the project wait until the new state was formed. Let the state decide if it wanted to construct the improvements. One final argument Tappan advanced. The
Waterway was really far too expensive for any agency to build ahead of traffic as this measure proposed.

Woodbridge countered that the project should not wait. Like the landlord he was, he argued that its construction would enhance land values "by bestowing on a beautiful but neglected portion of our country the facilities and advantages of a market." He cited Gallatin's report on internal improvements as providing the principle on which the legislation was based. To build the Waterway was a capital investment, which in the future would yield returns that would more than equal the cost, Woodbridge insisted. The Waterway was a prudent undertaking, the Senator argued, like that of a farmer who tiles and drains his land, knowing that his increased crops will repay him for his expense.

Tappan then offered an amendment in the form of a substitute bill. He proposed to leave the project for the state to undertake. Others came to his support when they were reminded of the 500,000 acres that had been set aside for internal improvements in each new state as it entered the Union. This suggestion introduced the land problem into the debate and from that point on, the Waterway was merely a sounding board for the reiteration of all the various points of view on the land question.

Senator Haywood again raised a flurry of objections. It was not clear, he declared, who was to get the grant.
Senator King of Alabama chimed in, complaining that the limits of the grant were too vaguely phrased. If the proposed band of two sections on either side of the route followed all of the shorelines of the lakes along the way as well as the winding course of the Fox River, a monstrous tract of land would be reserved. Haywood declared that he had heard that such land as was not already entered along the route was either sterile or mountainous. This was a damaging charge. King said that he had heard similar allegations, but he was unwilling to have the bill killed on the basis of rumors. He suggested postponement of further action until the supporters of the measure could obtain further information about the entries of the land along the route.

When the discussion was resumed in mid-March, William Allen of Ohio proposed an amendment that required prior acceptance of the terms of the grant by the Wisconsin Territorial Legislature. Woodbridge objected to this proposal insisting that the measure was national, not local, in character. Most of the people of Wisconsin, he pointed out, resided to the south of the line of the proposed improvement. Mindful of the fate of such enterprises at the hands of the territorial representatives, he declared that they "would come to the consideration of the question with local prejudices, which would lead each one to look to his own interests in preference to the national good."
Senator King of Alabama used this occasion for denouncing the neglect of the South in the matter of internal improvements. He declared in favor of the bill, including a proviso excepting the grant from the 500,000 acres already earmarked for Wisconsin internal improvements. If the Fox-Wisconsin route was truly a national project, the grant should rightly be excluded from the 500,000 acre grant. Alabama, he pointed out aggrievedly, had actually received only 100,000 acres in the great distribution, because she had expended the proceeds of 400,000 acres on the improvement of the Tennessee River, which was really a national responsibility. He contended bitterly that Ohio should not object to the exception since she had received more than twice 500,000 acres in aid of Ohio projects.

After King's diatribe, the floor was held mainly by William Allen. He was a formidable opponent. A contemporary reported that he looked "like a cross between William Pitt and an angry cockatoo — a tall, peering, wedge-nosed, cadaverous, thin-lipped specimen of irascible timidity." Allen hailed from Chillicothe, Ohio, a town that enjoyed the benefits of a location on one of the main Ohio canals. Although he declared that he was not unsympathetic to the improvement of the Fox-Wisconsin route, he was a Democrat, and unremitting in his opposition to private speculation in land. Speculation, he insisted, was fostered by attaching a double-minimum price to the reserved sections
along the route. "All the lands which had been entered up-on those rivers, had been entered by land companies who resided in New York, and other eastern States," he charged. "The lands were entered during the inflation of paper currency — most of them by large companies, immediately in the beginning of settlement; and these companies, when they found the lands would not command even the Government price, now proposed by this bill . . . to do one of two things: either to compel the people of Wisconsin to pay [the speculators] $2.50 an acre for their lands, or to pay the Government $2.50, if [the Government cuts] this canal to connect Fox and Wisconsin rivers." Allen pointed out that the Wisconsin legislature had memorialized the general government to do the job because a land company had failed to complete the Improvement. All of the land not reserved or still held by Indians was now in the hands of speculators he proclaimed, flourishing maps to illustrate his point.

Tallmadge could only lamely reply that Allen ex-aggerated. A mere forty-six thousand acres along the route had been entered "long since by some sagacious men."

Allen returned to the attack on the double minimum provision as a tax on the people of Wisconsin equivalent to the value of the land. "The only effect [of the pro-posed bill] would be to throw the public lands out of the market, for the sole advantage of the speculators who had taken up lands along these water courses, and who would
undersell the Government to get clear of their lands," he thundered. "It was a fallacious donation—a gilded pill, which the people of the Territory would not swallow." On that prophetic note, the debate came to an end and, as predicted, the bill went whooping through the Senate. Wisconsin hopes ran high.

In the House the bill was read twice and referred to the Committee on Public Lands. Here it lay for a fortnight and was reported out without amendment. It never came up for discussion in the Committee of the Whole and died with the adjournment of Congress.

At the next session of Congress, 1844-1845, the efforts of Henry Dodge won for the Tallmadge bill one last hearing. Early in the session, he asked leave to introduce a bill, that was referred to the Committee on Public Lands. Early in February, the Chairman, Jameson of Missouri, reported the bill from his committee accompanied by a written report that adopted the Tallmadge document of the previous year verbatim. The bill was then sent to Committee of the Whole where it was accidentally passed a few days later along with a number of other bills. Cave Johnson, leader of the House, called attention to the error and the vote on the bill was reconsidered. And still the bill had not been debated in the House. In the waning days of the session, after the bill had mouldered on the calendar of the Committee of the Whole while the House discussed
statehood for Iowa and Florida, Henry Dodge interrupted proceedings to plead for consideration of the Fox-Wisconsin bill since this was "the last day that there was any hope of obtaining action upon it."

Dodge pointed out that this bill was the same that had passed the Senate in the previous session. "It was emphatically of a national character," he declared, "and one in which the government of the United States was more interested than were the people of the Territory of Wisconsin. "The proposed canal," he said, "would form a line of intercommunication between the Mississippi and the great lakes, and in time of war would be of incalculable benefit."

Dodge opposed an amendment to strike out the provision for construction by the War Department, but was unsuccessful in trying to stave off a motion to amend so that the grant would come out of the proceeds of the five-hundred-thousand acres' grant. On this note, the Committee rose and reported progress.

John W. Davis, the Indiana legislator who had proposed this last amendment, interrupted proceedings on the regular appropriation bill the next day to demand resumption of the debate on the Fox-Wisconsin bill. Back in Committee of the Whole, Davis withdrew his amendment and his colleague, Owen, seized the opportunity to urge passage of an Indiana canal project also then pending. Another member tried to obtain consideration of the Cumberland Road
bill without success. And the debate continued. Congressman Collamer stigmatized the bill as an "experiment" in canal construction by the federal government. The proposal was ridiculous, Collamer charged. It called for financing "out of the avails of the public lands, yet it was to be done at once — a matter utterly impracticable." Cave Johnson then obtained amendments eliminating War Department supervision of construction and adding a proviso donating the canal to the State of Wisconsin if the constitutional convention accepted it. The bill was then set aside for reporting to the House.

This apparently ended proceedings on the bill. It also brought to an end the history of the Waterway during the period of the Tyler administration.

III

The advent of the Polk regime seemed propitious for the success at long last of a bill for the Fox-Wisconsin Improvement. Under both the Van Buren and the Tyler administrations, the advocates of the development in Congress had been at variance with the president. Doty's Whiggery showed through his protestations of democracy. Dodge was a Democrat. Tallmadge was a Whig during a nominally Whig administration, it is true, but he was also vigorously opposed to several policies of the President, John Tyler, who was scarcely a Whig even in name. Neither Dodge nor Tallmadge
could muster support among the diverse elements that constituted the Congress sufficient to secure adoption of a Waterway bill.

For the first time, under the Polk administration, the Waterway was represented in Washington by a man whose politics was in tune with that of the national administration. Morgan L. Martin was unquestionably a Democrat, one of the leaders of the party in Wisconsin.

Membership in the wrong party, however, was only a partial explanation of earlier failures. Promoters of the Fox-Wisconsin improvement had never taken trouble to draft legislation that would satisfy the scruples of the sundry congressmen who had to be appeased. Doty's plan met severe criticism because it proposed to finance the Waterway by means of territorial loans at a time when states on all sides were repudiating their debts. The Tallmadge bill was lost because of the diversity of points of view in Congress at the time, but the plan was gravely handicapped by its vulnerability to the charge of being a land speculation scheme. After nearly a decade of trial and error, a bill was finally hammered out that commanded majority support in both Houses of Congress. At the same time, and rather mysteriously, the bill did not offend the tender constitutional sensibilities of James K. Polk.

Always in earlier days, advocates of the Waterway had to meet the objection that the country was not suffi-
ciently developed to support it. By 1846, whether they knew the precise location of the route or appreciated the purposes it was expected to serve, the congressmen knew that Wisconsin would soon be prepared to take its place in the circle of states. In the close-drawn political struggles of the day, both contending parties were anxious to win adherents from the new constituency. As a result, an act extending to the prospective state of Wisconsin a grant of land in aid of the Fox-Wisconsin Waterway passed the first session of the first Congress of the Polk Administration with almost anti-climactic ease after the mighty efforts expended on earlier proposals.

The campaign for Waterway legislation began early in the year. Henry Dodge, restored to the Governor's chair by the Democratic victory, urged the legislature to memorialize Congress on behalf of the Waterway. Martin offered petitions in the House in mid-January. Action on the project was slow to materialize, because Congress was concerned with other matters.

Through the early months of 1846 the highly complicated international problems facing the nation along both borders excited and distracted the country. Letters from Wisconsin Territory were favorable to Polk's stand on the Oregon question. Accordingly, Martin did not hesitate to identify himself and his constituency with the foreign policy of the administration. In February, he and his friend,
Augustus C. Dodge, son of Governor Dodge of Wisconsin, offered a statement to the house that was spread upon the pages of the *Journal*:

Augustus C. Dodge, delegate from the Territory of Iowa, and Morgan L. Martin, delegate from the Territory of Wisconsin, not having the right to record their suffrages on the journals of the House on the joint resolution of notice to Great Britain, passed on the 9th instant, and being penetrated with a firm conviction of the propriety of the measure, ask the indulgence of the House to express their own and the sense of their constituents, ... in support of the said resolution of notice, and of the honorable and dignified attitude which the government of their country has assumed in vindication of its rights to the Oregon Territory, and against the arrogant pretensions of the British government.

Such was the preoccupation of the House with the Oregon question that it was April before a bill for the Waterway emerged from the Committee on Public Lands. When it did, it was read twice and referred to the Committee of the Whole. The crisis with Mexico and the outbreak of war intervened before the bill came up for discussion. Even then, consideration of the bill seems to have been part of a parliamentary maneuver by Representative McClernand of Illinois to save a bill permitting the sale of mineral lands. There was a brisk and business-like discussion of the technical provisions of the bill in which Jefferson Davis, who had served in the army at Fort Crawford and Fort Winnebago, participated. The debate was suspended briefly and resumed some days later. The House finally approved the measure on June 8, 1846.
In the Senate, the history of the bill was as protracted as it was uneventful. Senator Breese of Illinois from the Committee on Public Lands reported the bill without amendment on June 25. The Committee of the Whole did not discuss the bill until August seventh. It was passed the same day. The President gave his approval August 8, 1846. The long campaign was over.

The provisions of the bill contained the seeds of several victories for the promoters of the Waterway, but also the portent of their ultimate defeat. The grant was indefinitely worded and was smaller than those extended to similar projects in other states. The exponents of the Waterway were later able to take advantage of this fact to secure additional grants of land. The Improvement, unfortunately, was fated by the terms of the law to be a football of politics. First of all, the grant was contingent upon the acceptance of its terms by the state. This not only delayed the commencement of the project until the attainment of statehood, but necessitated a campaign to secure legislative approval. The proceeds of the grant were to be expended solely on the Fox-Wisconsin route in the construction of "such kind and plan of improvement . . . as the said legislature shall from time to time determine for the best interest of said State." "From time to time" in the years to come, the great project seemed on the verge of final achievement only to have the legislature "deter-
mine" a different plan of improvement was "for the best interest of said State."

These provisions of the bill satisfied the congressmen who had insisted that construction await the attainment of statehood and those who wanted the state to assume responsibility for the construction. Another clause guarded against a wasteful and hasty disposition of the lands. The grant could be sold only as the work progressed. As soon as $20,000 had been expended, the governor was to certify this fact to the President and then another increment of the grant could be sold. As a consequence, the construction was chronically in want for funds. A penalty clause rendered the state liable to the federal government for the amount received through the sales of lands if the project was not completed within twenty years. Such a law was bound to meet formidable opposition in the legislature of the state-to-be.

The constitutional convention that assembled in Madison in October, 1846, was predominantly Democratic in politics. This did not, however, imply the opposition to acceptance of the Fox-Wisconsin grant that might have been expected. Morgan L. Martin, one of the leaders of the party in Wisconsin, was foremost among the promoters of the Waterway. Furthermore, the Democratic party was not united on the question of internal improvements. One faction, it is true, had long since generalized the political measures of
Jackson's program into a permanent and rigid dogma with the sanctity of holy writ. On the other hand, as the dominant party for many years in the territory and in the nation, the Democrats had developed many politicians who fully appreciated the practical necessity of bending doctrine to suit the circumstances. In addition, Democratic policy on matters of internal improvements, especially among westerners, was by no means as clear as Polk's vetoes of river and harbors bills implied. Indeed, after the disaster that followed adoption of Jackson's policy on banking and currency questions, the Democratic platform was far from rigid and the policy that lay behind it was not fixed for some years to come. With partisan doctrine in this uncertain state, the fate of the Waterway was not foreordained by Democratic dominance of the Constitutional Convention. Finally, the men who drafted the Constitution of 1846 sought support for the instrument they drafted wherever they could find it. And doctrine or no, the improvement of the Fox-Wisconsin route had many friends in the territory.

The ambivalence of the Democrats' attitude on the internal improvement question is reflected in the deliberations of the convention. On October 31, Edward G. Ryan, a Racine Democrat destined for many years to play a prominent role in the politics of the state, suggested a special committee to consider the tentative articles on taxation,
finance, debt, and internal improvements. There was general agreement among the members of the convention, Ryan asserted, on "the leading principles" involved: "First, Power to the legislature to pass special acts of incorporation for internal improvements. Second. The state to be restricted to such works of internal improvements as grants are made in aid of, but no power to contract any debt or liability. Third. All lands not specially dedicated to be added to school funds." Ryan was appointed chairman of the committee.

A fortnight later, the committee brought in its report with the principles embodied in parts of two articles and two resolutions that were to be appended to the constitution when it was submitted to the Congress. According to the committee's interpretation of the principles, companies incorporated to secure special works of internal improvement were to be severely circumscribed. Any such charter must pass two successive legislatures by majorities of all members elected. Powers of the corporation were to be limited to only "one distinct and special work." Finally, each member of these corporations was to be held individually liable for the debts of the corporation.

Nathaniel Hyer, a Dane County Democrat and active supporter of internal improvement projects, opposed adoption of this section on two grounds. First, he insisted that the regional jealousies of the legislators must be recognized. Because of this feeling, he declared, it would
be almost impossible to get a charter through two successive legislatures. Secondly, he argued, the unlimited liability provision was tantamount to forbidding the establishment of internal improvement corporations. Yet the interior of the state needed transportation facilities. "It is very well understood that the lands in the interior are more productive than on the lake shore ... and if we can have a market for our produce at home nearly equal to that on the Lake shore, than our lands are as valuable as theirs," he declared. "A judicious system of internal improvements will create that market; then, sir, why should they not be encouraged." The convention agreed that the terms of the Ryan committee's article on charters for internal improvement companies were too stringent and the section was stricken from the draft.

The article on internal improvements that the Ryan committee proposed encountered little difficulty. The first section affirmed the state's sympathy, but it declared that the state "shall not carry on, or be a party in carrying on, any work of internal improvement." Exception to this interdict was made in cases where the state received grants in aid of specific projects. The state, the proposed article read, "may carry on such particular works, and shall devote thereto the avails of such grants so dedicated thereto; but shall in no case pledge the faith or credit of the state or incur any debt or liability for
such works of internal improvement." Here was an apparent victory for the Fox-Wisconsin project, but it was conditioned so that it might be construed as refusal of the grant, since Congress, by the penalty clause in the Act of 1846, demanded that the state assume responsibility for completion of the Improvement whether or not the grant was sufficient for the purpose.

The resolutions that accompanied these draft articles linked the Milwaukee and Rock River Canal Company and the Fox-Wisconsin Improvement. The first of the resolutions declared that the state repudiated the Milwaukee and Rock River project, refused the grant in aid of it, and refused to assume the trusts created by the grant. The second resolution sought to avoid with the Fox-Wisconsin Waterway the embarrassments the Milwaukee-Rock River enterprise had brought to territorial and state governments. It refused the Fox-Wisconsin grant on behalf of the state and instead requested that Congress adopt a law "granting the net proceeds of the lands granted . . . , when sold by the United States, . . . to this state in aid of the work mentioned." On this basis, the resolution stated, "the funds accruing from such a grant are hereby irrevocably pledged" to the Fox-Wisconsin Improvement.

The discussion of this resolution furnishes an interesting example of the flimsiness of party designations as indicative of an individual's attitude on internal im-
provements. There were two Democrats and two Whigs among the principal disputants. One member of each party was on each side of the question. Arguing for the resolution, the fiery Democrat, Ryan, found himself in the unaccustomed company of the suave Judge Doty. Doty spoke for the first time in the convention. In support of the resolution, he undoubtedly cited the demise of the Milwaukee and Rock River Company because of a change in state administration, an event in which the Judge himself had played a prominent part.

Although of different parties, the advocates of the motion to strike out Ryan's resolution were a somewhat more congruous team. Henry S. Baird, whose motion was being debated, was a well-known early settler and landholder from Green Bay. His ally on the question was Samuel Wotton Beall. Beall, former receiver at the Green Bay land office, had accumulated sufficiently substantial landholdings after a decade in the territory to retire briefly to Cooperstown in 1837 before his losses in the panic forced his return to the frontier.

Ryan and Doty argued against the Fox-Wisconsin bill of 1846 because it carried an implied obligation on the part of the state to complete the Improvement even if the avails of the grant were insufficient. But the oratorical pyrotechnics of Ryan and the glib persuasiveness of Doty were without effect, abetted though they may have been by refer-
ence to the ill-starred Milwaukee and Rock River Canal venture. The convention could not be brought to look the congressional gift horse in the mouth. A substitute motion by Doty failed in the evening of the debate. Ryan made another attempt the next day to accept the grant on condition that it impose no obligation on the state to expend more than the avails of the grant and no obligation to refund any of the proceeds of the lands expended on the Improvement. Beall led the attack on this compromise. He moved to postpone its consideration indefinitely. The motion carried, 58 to 40, although more than enough members abstained to have defeated it. "Almost all admitted the propriety of some such resolution," commented the Racine Advocate, "but fear of losing votes for the constitution defeated this resolution and its predecessor." The statesmen also exhibited the regional jealousies Nathaniel Hyer had deplored. Not one vote in opposition to Beall's motion, not even one of the numerous abstentions, came from a representative of a constituency along the Waterway between the Portage and Green Bay.

The public discussion of the new constitution and its provisions concerning internal improvements echoed the arguments advanced on the floor of the convention. Those in favor of a liberal policy toward internal improvements urged their necessity to build up the country, while the opponents of internal improvements pointed to the dire
consequences that had befallen other states that had undertaken extensive programs of internal improvement. The article on internal improvements, however, was sufficiently ambiguous that there is little likelihood that the question had any influence in the matter. Although the constitution was defeated by a decisive majority, there is no apparent connection between the location of prospective internal improvements and the size of the majority against the constitution.

Governor Dodge immediately called an election to choose delegates to a second convention. At this conclave the Whigs were somewhat more liberally represented, and, according to students of such matters, the Democratic contingent was less radical than at the earlier session. Still, the draft produced by this group was scarcely distinguishable from the earlier product. With respect to internal improvements, there was no substantial change between the two documents.

One member proposed to liberalize the section on internal improvements so as to permit creation of a limited state debt provided a tax sufficient to liquidate principal and interest within fifteen years was simultaneously levied. Furthermore, the proposal would have required submission of legislation creating such a debt to the people at a general election more than four months after passage of the act. Harmless as such a section would have been, the convention
rejected the amendment after a member, sympathetic to the Waterway, "maintained that submitting propositions of the kind to the people was no safeguard at all."

Morgan L. Martin presided over the second convention. It was Martin who secured the principal alteration in the phraseology of the section on internal improvements. During the discussion of the section in Committee of the Whole, Martin offered an amendment that would permit the state to pledge the income from a work towards its completion where the donation received for that purpose did not suffice for its completion. When a Rock County representative objected that this amendment would permit the creation of a debt, Martin exploded, "The gentleman must have shut up his ears, for the amendment prohibited the very thing he feared." "[The amendment] merely gave the power to pledge the revenue of the incomplete work to any person or company which would complete it," he said.

His opponent declared that the phraseology of the Martin proposal did not make this clear. "Mr. Martin said he did not pretend to be a linguist, and the long discussion he had listened to that afternoon on education had not improved him any, even though the gentleman from Rock had participated largely in it." Other members came to the support of Martin’s critic, and a revised version of his proposal was adopted.

After the turmoil that had accompanied the first
draft of the constitution, the contest over ratification of the second and final form was surprisingly moderate. The instrument then passed into the hands of Congress for their consideration. There the discussion regarding the fate of the Waterway again turned on the double-minimum price on the government reserved sections. In the course of his opposition to Wisconsin's proposal to accept the grant provided the minimum price for the reserved sections was also reduced to $1.25 per acre, Vermont's parsimonious Congressman Collamer reviewed the achievements of the double-minimum device and the history of federal grants in aid of internal improvements.

The internal improvements of a great many of the states had been promoted in that way; but, finally, in 1838, the government came to the conclusion that grants of this sort ought not to be made. Some, under President Jackson's administration, viewed such grants unconstitutional; and they insisted that such grants had been made for internal improvements since. But many then contended that in as much as the money could not be had, the internal improvements could not go on, and that they ought to have the avails of the public lands distributed, that they might therewith make internal improvements. It was on that principle that the distribution act was framed [but the tariff clause rendered the distribution act inoperable]. Well, what next came up? Why, then came the new states claiming this and that improvement, this river and that road, and then a canal; and grants of public land were made to them for such purposes. Why? Of course, because they could not get the money. But was not this an abuse of the elder states? Should the public lands be used for internal improvements in the new states only?

On and on rolled the complaints of Congressman Collamer. The double minimum principle had been used to settle country that could not be settled in any other way,
he declared. The Portsmouth Canal in Ohio had been constructed on this principle, and had not cost the government a dollar. Then he listed the other projects that had used the principle of the double-minimum: the Wabash and Erie Canal and the Dayton extension, the Illinois-Michigan Canal, and the railroad from Chicago to Cairo. None of these improvements represented any expenditure on the part of the federal government because the grants in aid of them had been compensated by the double-minimum feature.  

His opponents argued that it was unfair to extend to Iowa, whose Des Moines River grant had been passed at the same time as the Wisconsin bill, the advantage of federal reserved lands at $1.25 per acre, while denying this to Wisconsin. Collamer retorted that the provision in the Des Moines grant had been included by inadvertence. Abraham Lincoln endorsed the views of Mr. Collamer in part, although he argued that Easterners could not fully appreciate the Western attitude toward the public lands because they did not live among them. Lincoln thought Wisconsin ungrateful not to accept the conditions of the original grant. A grant was a grant, he declared sententiously, and he would accept any grant gratefully even if it included the double-minimum reservation. He acknowledged, however, that a smaller price on the reserved sections would be preferable.

Collamer's grievance became quite explicit in an
exchange of arguments with Congressman Smith of Illinois. Collamer insisted that payment on the double-minimum principle was compensation for the losses of the "elder states." The East, according to this Vermonter, supplied both the people who settled the land and the money with which the lands were purchased. Smith's rejoinder well expressed the Western feeling on the matter. Most of the settlers earned the money to buy their land after they came to the Western country. Very few pioneers came to the frontier with wagonloads of money; more frequently they came with wagonloads of household goods and children. They purchased their land with money earned in the West, he insisted, and three-fourths of the money then went to the East to build harbor improvements at federal expense.

In an election year, Congress was disposed to be generous. The bill providing for the admission of Wisconsin acceded to the requests of the second convention. Section Two of the Act amended the Act of 1846 so that the reserved lands were "offered for sale at the same minimum price and subject to the same rights of preemption as other public lands of the United States." The section included a proviso for the benefit of the settlers on Milwaukee and Rock River lands. It allowed those who had purchased land at $2.50 an acre to obtain a certificate from the General Land Office entitling them to a quantity of lands elsewhere in the public domain equal to the excess they had
paid over the minimum of $1.25 per acre.

The first legislature of the new state showed its appreciation of congressional generosity by accepting the grant promptly. The Assembly committee report by David Agry of Green Bay reviewed the long history of efforts to obtain the grant. "To improve the navigation of the Fox and Wisconsin rivers became one of the earliest aspirations, and called forth the most earnest efforts of the first American inhabitants of the territory," he reminded the Assembly. "Without sufficient resource to effect this improvement unaided," he went on, "they appealed to congress, and frequently brought forth on their behalf favorable opinions." Congress failed to come to the assistance of the promoters, he explained, because "the locality of the improvement was remote, the advantages prospective, the cost and disbursements certain and immediate."

Warren Chase, leader of the Fourierites at Ceresco, made a last effort to absolve the state of responsibility except to act as trustee. The amendment failed with only four members supporting Chase's position. Another defender of the state coffers wanted to provide explicitly that all expenses incurred by the state in connection with the grant be paid out of the proceeds. This, too, failed by an overwhelming majority. The unamended bill passed the Assembly by a vote of 58 to 2. At the same session a Board of Public Works was established to carry out the
Improvement. Apparently, the political obstacles to the Waterway had been cleared. Only the physical obstacles of the route itself remained.
CHAPTER III

FOOTNOTES


2. Congressional Globe, 24 Cong., 2 Sess. (1838), 33, 42, 68, 100, 120, and 141; Green Bay Wisconsin Democrat, Feb. 3, 1838.


5. Green Bay Republican, Jan. 16, 1844.

6. The depredations of these monsters are vividly described in George Featherstonhaugh, A Canoe Voyage on the Minnay-Sotor; with an Account of the Lead and Copper Deposits in Wisconsin; of the Gold Region in the Cherokee Country; and Sketches of Popular Manners &c. &c. &c., 2 vols. (London: Richard Bentley, 1847), I, 175.


8. Ibid., 3-4.

Go, l935), 264n. See also Jacob Brown, Washington, to James Barbour, Secretary of War, Jan. 11, 1826, and Lewis Cass, "Memoir from Governor Cass," in U.S.H.R., Military Road in Michigan (House Docs., 19 Cong., 1 Sess. [1826], report no. 42, ser. no. 141), pp. 3-4 and 16-17.


12. Schoolcraft twice traversed the country and published his reactions before the congressional discussion of the Waterway began. See Henry R. Schoolcraft, Narrative Journal of Travels through the Northwestern Regions of the United States extending from Detroit through the Great Chain of American Lakes, to the Sources of the Mississippi River. Performed as a member of the Expedition under Governor Cass. In the year 1820 (Albany: E. E. Hosford, 1821), 363-364; and Narrative of an Expedition through the Upper Mississippi to Itasca Lake, the Actual Source of this River embracing an Exploratory Trip through the St. Croix and Burntwood (or Broule) Rivers; in 1832 (New York: Harper and Brothers, 1834), 121 and 296-297.

13. The report of the Secretary of War is included in U.S. S., Message from the President of the United States to the Two Houses of Congress at the Commencement of the Third Session of the Twenty-fifth Congress (Senate Docs., 3 Sess. [1839], ex. doc. no. 1, ser. no. 338), pp. 98-114. The reference to the Fox-Wisconsin route is on page 108.

14. See, for example, Green Bay Wisconsin Democrat, Jan. 2, 1839; Green Bay Republican, Jan. 16, 1844; and Madison Wisconsin Enquirer, Jan. 19, 1839.


18. U.S.H.R., Wisconsin—Internal Improvements. *Letter of the Honorable J. D. Doty* (House Docs., 25 Cong., 3 Sess. [1839], ex. doc. no. 175, ser. no. 347). The letter bears the date Feb. 2, 1839, and was submitted to the House on Feb. 9, 1839. See also *Madison Wisconsin Enquirer*, Mar. 23 and June 1, 1839.


28. This is the judgment of Joseph Schafer. See The Winne-

bago-Horicon Basin: A Type Study in Western History
(Wisconsin Domesday Book, General Studies, IV; Madison:
State Historical Society of Wisconsin, 1937), 91-92.
Certainly the Tallmadge Report (U.S.S., Report from the
Committee on Public Lands [To Accompany Senate Bill No.
33] [Senate Docs., 28 Cong., 1 Sess. (1844), sen. doc. no. 28, ser. no. 432]) draws heavily upon it. Even as
late as 1876, the elaborate description of the route
and its problems by Gouverneur Warren quoted liberally
from Cram's work. See Gouverneur K. Warren, Report on
the Transportation Route along the Wisconsin and Fox
Rivers between Mississippi River and Lake Michigan
(Washington: Government Printing Office, 1876), passim,
but especially 26-27.

29. U.S.S., Report of the Secretary of War . . . Copies of
Reports, Plans, and Estimates, for the Improvement of
the Neenah, Wiskonsin, and Rock Rivers . . . (Senate
Docs., 26 Cong., 1 Sess. [1839], ex. doc. no. 318, ser.
no. 359), pp. 2-20.

30. 4 Statutes at Large, 234, act approved Mar. 2, 1827.
See also Benjamin H. Hibbard, A History of the Public

31. 4 Statutes at Large, 236 and 345, acts approved Mar.
2 1827, and May 24, 1828. See also U.S. -Laws, Stat-
tutes, etc., General Public Acts of Congress, respect-
ing the Sale and Disposition of the Public Lands . . .
(2 vols.; Washington: Gales and Seaton, 1838), II,
404-405, where the Commissioner of the General Land
Office directs the Registers of the District Land Of-

cine to set aside these reservations.

32. 3 Statutes at Large, 566-567, act approved April 24,
1820.

33. 4 Statutes at Large, 345, act approved May 24, 1828.

34. 5 Statutes at Large, 245, act approved June 18, 1838.
The act may also be found in U.S. -Laws, Statutes,
 etc., General Public Acts . . . respecting . . . the
Lands, I, 571-574. The double-minimum principle later
became fixed in federal land policy (and enshrined in
American historiography) by the successive land grants
for railroad building. See U.S. -Laws, Statutes, etc.,
The Existing Laws of the United States of a General and
Permanent Character, and relating to the Survey and
Disposition of the Public Domain, December 1, 1860 . . .
152, pp. 62-63: "The price to be paid for alternate
reserved lands, along the line of railroads within the limits granted by any act of Congress, shall be two dollars and fifty cents per acre." It must be emphasized, however, that, prior to the railroad land grant vogue, the double-minimum principle was by no means firmly established in federal land policy and the practicality of the device was seriously questioned. The Milwaukee and Rock River Canal legislation set a minimum price of $2.50 on the reserved sections and on the lands granted to the Territory as well. This provision may have figured in the difficulties Wisconsin promoters encountered in disposing of the canal lands. Joseph Schafer concluded that this was the case. He wrote that the government-reserved sections in the canal lands "were sold at the double-minimum of $2.50 per acre, which proved a drag on their sale." See Four Wisconsin Counties Prairie and Forest (Wisconsin Domesday Book, General Studies, II; Madison: State Historical Society of Wisconsin, 1927), 107n. In Wisconsin Domesday Book, Town Studies (Madison: State Historical Society of Wisconsin, 1924), I, 10, Schafer reports: "Brookfield [township, Waukesha County], where the south one-third of the township was outside the canal zone and the balance in, seems to prove the point that settlers were unwilling to pay more than $1,25 for raw land even though it had special advantages of location." In any event, the grant to Iowa for the Des Moines River project abandoned the double-minimum principle. See 9 Statutes at Large, 80, act approved Aug. 8, 1846. The Fox-Wisconsin bill of the same date (ibid., 83) had a double-minimum proviso. Thomas Donaldson (The Public Domain. Its History with Statistics . . . [Rev. ed., Washington: Government Printing Office 1884], 280) is doubly incorrect in stating that the Fox-Wisconsin legislation was the first to increase the price of the reserved sections to $2.50. As pointed out above, the Ohio legislation included this provision, as did the Milwaukee and Rock River Grant. Furthermore, before the Fox-Wisconsin grant became operable, it was amended to eliminate the double-minimum clause. See infra, 130. B. H. Hibbard, Public Land Policies, 238, follows Donaldson into these mistakes. Roy M. Robbins, Our Landed Heritage: The Public Domain, 1776-1936 (Princeton: Princeton University Press, 1942), does not deal with the question of the price at which the reserved lands were to be sold.

35. U.S.S., Plans, and Estimates, for the Improvement of the Neenah, Wisconsin, and Rock Rivers . . . (Senate Docs., 26 Cong., 1 Sess. [1839], ex. doc. no. 318, ser. no. 359), pp. 2-20. J. Schafer summarizes the report in The

36. Messrs. Ogle, Doty, and Fillmore presented these memorials in the House. U.S.H.R. Journal, 26 Cong., 1 Sess. (1840), 598 and 935. In the Senate this was done by Senators White, Davis, Norvell, and Hubbard. U.S.S. Journal, 26 Cong., 1 Sess. (1840), 238, 241, 243, and 263. Norvell also presented the annual memorial from the Wisconsin legislature requesting survey of a rail route from Lake Michigan to the Mississippi, which was adversely reported from the Committee on Roads and Canals. The Senate concurred in the report. Ibid., 213, 263, and 265.

37. Ibid., 106 and 111.

38. Ibid., 146 and 154.


41. U.S.H.R. Journal, 26 Cong., 1 Sess. (1840), 759; Congressional Globe, 26 Cong., 1 Sess. (1840), 305.


45. Quoted in the *Madison City Express*, May 19, 1842.


49. A clipping from the *Washington National Intelligencer*, Sept. 9, 1843, in the Nathaniel P. Tallmadge MSS, reports Tallmadge's return from the Western tour, but scours any rumor that Tallmadge was planning a move in that direction. On his interests in Wisconsin, see James D. Doty, Madison, to Nathaniel P. Tallmadge, Sept. 3 and Dec. 14, 1843, and Jan. 21, 1844, Nathaniel P. Tallmadge MSS. See also J. Schafer, *Winnebago-Horicon Basin*, 95 and n.


62. *Loc. cit.* The statesmen never seem to have agreed whether internal improvement legislation was intended to meet existing wants or aid in the development of new territory. Thus those favoring the Waterway argued that the project would increase transportation and trade, while the opponents countered with the objection that there was not enough business on the route to warrant improving it!


64. *Ibid.*, 157, 185, and 204-205. See also *Green Bay Republican*, Mar. 19 and Apr. 2, 1844.


69. Congressional Globe, 28 Cong., 1 Sess. (1844), 414-415. Senator McDuffie seconded Allen's position. Loc. cit. and Milwaukee Commercial Herald, Apr. 3, 1844. He also contributed a note of hyperbole to the debate when he referred to the bill as a "gratuitous donation . . . for the purpose of cutting a canal through a cold, sterile, uninhabitable wilderness." Congressional Globe, 28 Cong., 1 Sess. (1844), 397; and Green Bay Republican, Apr. 9, 1844. The Milwaukee Commercial Herald, Apr. 3, 1844, suggested that the bill had been held up for the amusement of the Senate during the whole session. "The Senate having started the game, were not inclined to give up the chase . . . they take it up two or three times a week, turn it and twist it, and lay it down again." This interpretation of the debate may be contrasted with that of the Green Bay Republican, Apr. 16, 1844. The Republican said the bill had "haunted the Senate like a gaunt ghost since the meeting of Congress."

70. Congressional Globe, 28 Cong., 1 Sess. (1844), 420. See James D. Doty, Madison, to Nathaniel P. Tallmadge, Mar. 5, 1844, Nathaniel P. Tallmadge MSS.

71. Congressional Globe, 28 Cong., 1 Sess. (1844), 420. The vote was 31 in favor of the bill to 7 against it. U.S.S. Journal, 28 Cong., 1 Sess. (1844), 181-182. See also Milwaukee Commercial Herald, Apr. 3 and 8, 1844; Green Bay Republican, Apr. 16, 1844; and Madison City Express, Apr. 4 and 11, 1844. But see the pessimistic note, ibid., Apr. 25, 1844.


76. Ibid., 381; Congressional Globe, 28 Cong., 2 Sess. (1845), 286.

77. Loc. cit. See also Francis Gilbert, Green Bay, to Morgan L. Martin, Feb. 3, 1846, Morgan L. Martin MSS., on the literal truth of Dodge's statement that the nation was more interested in the Waterway than was Wisconsin.


81. See the interesting letter to this effect from E. Crosby, Akron, Ohio, to Morgan L. Martin, June 22, 1846, Morgan L. Martin MSS.

82. See *Madison Express*, Dec. 25, 1845; Charles S. Hurley, Milwaukee, to Morgan L. Martin, Jan. 3 and Feb. 27, 1846, John White, Milwaukee, to MLM, Mar. 4 and Apr. 9, 1846, Francis J. Dunn, Mineral Point, to MLM, Apr. 7, 1846, Joseph G. Knapp, Madison, to MLM, Apr. 11, 1846, and C. M. Baker, Geneva, to MLM, Apr. 14, 1846, Morgan L. Martin MSS.


86. *Loc. cit.*


90. *Loc. cit.*

M. M. Quaife, 18-29.


95. Madison Wisconsin Democrat, Nov. 21, 1846, in ibid., 484.


97. Ibid., 407. The resolutions are also quoted in Madison Wisconsin Democrat, Nov. 21, 1846, ibid., 484-485, along with the debate on the resolutions, ibid., 483-489.


100. Ibid., 47.

101. The roll-call is recorded in M. M. Quaife, ed., Convention of 1846, 722-723. See also the jubilant comments
in Charles C. Sholes, Southport, to Morgan L. Martin, Dec. 1, 1846, and John Catlin, Madison to MLM, Dec. 8, 1846, Morgan L. Martin MSS.

102. See, for example, the newspapers cited in the preceding notes. See also L. P. Kellogg, "Admission of Wisconsin," in Movement for Statehood, 26-27.

103. The internal improvement article, as finally embodied in the proposed Constitution of 1846, was the same as the draft article reported from Ryan's committee. Compare the Report in M. M. Quaife, ed., Convention of 1846, 404, and Article XI of the Constitution, ibid., 745.


106. The exchange between Martin and his opponents is recorded in the Debates on Jan. 14, 1848, in ibid., 582-583.


108. The congressional discussion is conveniently brought together in M. M. Quaife, ed., Attainment of Statehood. For Collamer's remarks, see p. 137.

109. Ibid., 138-139.

110. Ibid., 139-140 and 143-146.

111. Ibid., 168-169.

112. Ibid., 154-155.

113. Ibid., 165, quoting from the Congressional Globe. See also ibid., 170-171, quoting from the Statutes at Large.


CHAPTER IV
THE WATERWAY AND THE PATHS OF COMMERCE
AT MID-CENTURY

With the acceptance of the congressional grant by the legislature and the adoption of a plan to take advantage of its terms, it seemed that the dream of a link between the Lakes and the Mississippi by way of the Fox and Wisconsin rivers must at last come true. But the grant came too late for the route to fulfill the aspirations of its advocates. For them, the history of the Waterway was a tragedy. Against obstacles that would have discouraged all but dreamers, they continued their efforts to realize their dream. From time to time, their hopes were raised by minor successes. The real fruits of those successes, however, were picked by those who saw the route, not as a link between the waters of the Gulf of St. Lawrence and the Gulf of Mexico or as part of a transcontinental waterway, but as a means to other ends — cheap lands for speculation, water powers to exploit, or a club over the heads of recalcitrant railroads. Before the first spadeful of dirt was turned, before the first contract was let, before the first acre of the grant was sold, the routes of the interior trade of the United States and of Wisconsin had been set.
along lines in which the Fox-Wisconsin Waterway had no place.

During the first half of the nineteenth century, there was a mighty struggle for control of the trade of the interior basin between the routes leading from the east coast and up the Mississippi River. The early history of that battle is a tangled tale of rival trading interests, rival political parties, and intricate international negotiations. The first skirmish was brought to a close with the Louisiana Purchase in 1803. In a sense, this was a victory for the New Orleans outlet, but much remained to be done before the spoils of that victory could be enjoyed. The way was long from the early settlements just west of the Appalachians to the sea. The primitive methods of transport on the inland waterways made the route practicable only for the export trade. Then came the development of the steamboat. Once its ability to breast the current of the Mississippi and its tributaries had been demonstrated, the supremacy of the New Orleans outlet seemed assured. But the construction of the Erie Canal intervened before new lines of trade via the Mississippi could supersede the early commercial dominance of the older seaboard settlements.

The projection and the achievement of the Erie Canal deserve high rank among the significant events of our history. This triumph of imagination, engineering, and
skilful politics turned the ultimate balance in favor of the northern route inland at the expense of the southern. For American history, the efficient combination of what was for many years the best route to the interior, an excellent natural harbor, and a vigorous commercial class bent on exploiting these advantages meant the exaggerated development of New York City. The economic predominance of New York contributed to the sectional imbalance that helped produce the Civil War, and retarded and distorted the development of the rest of the country.

Before the Canal was opened for through traffic, and, indeed, for a short period thereafter while the merchants were adjusting to the new conditions, the vast bulk of the exports of the interior floated down the Ohio and the Mississippi to New Orleans. Goods destined for the west were laboriously carted "over the rugged mountains which nature never intended for the transportation of merchandise for the western country," or, with increasing facility though unsatisfactory quantity, were brought in from New Orleans on the decks of the steamboats that were already achieving notable success in upstream navigation. Yet as early as the 1830's, the carriage over the Erie Canal was beginning to turn the direction of traffic to the east instead of down the river, while the return traffic to the west brought new settlers for the lands of the Lakes basin as well as goods from the markets of the East and of
Europe. The increasing population of the Old Northwest made for increased activity, and enhanced the economic and political attraction of the section. All the port cities in the older sections set out to win the prize.

In competition with the natural advantages of New York, the other Atlantic coastal regions sought to develop alternative paths against the stubborn opposition of the natural mountain barrier. The saga of their efforts can be read in the histories of the Cumberland Road, the Chesapeake and Ohio Canal, the James River and Kanawha Canal, the Pennsylvania Canal system, and, later, in the story of the travails of the New Englanders with the Boston and Albany Railroad, and the Grand Trunk Line. In the end, advances in technology allowed a measure of success to each of these routes, but none succeeded in preventing the major portion of the interior surplus from funneling down the Mohawk-Hudson line for distribution to the markets of the world through the harbor of New York. Of greater significance for American history was the assistance these rival routes gave to the Erie Canal in drawing traffic away from the Mississippi River system.

The Canal and the River first clashed over the traffic of the upper Ohio river. Then, as settlement pushed steadily westward, the struggle was extended to the upper Mississippi as well. In this battle the output of Wisconsin, first lead and later wheat, was one of the stakes.
Advocates of the Waterway always looked upon the route as an extension of the east-west lines of trade rather than as a connection between north and south. On the threshold of the territorial period, Henry Schoolcraft traveled through Wisconsin and observed, "In the present situation of the country, there appear to be two objects essential to the lasting welfare of the settlements: — first, a title to their lands from Congress; second, a northern market for the products of their mines and farms." The sentiment was echoed and repeated with variations through all the years that followed, sometimes with surprising naïveté about the effects on the South of a connection between the Lakes and the Mississippi. During the debates on the Tallmadge bill, for example, the ordinarily sagacious Doty counseled Tallmadge: "I hope you will inform Mr. Senator Haywood [of North Carolina] that the object . . . is not so much to benefit the present settlers along these streams as to unite the trade of the Upper Mississippi and the Great Lakes." The constant appeals of Wisconsin promoters to businessmen of the East, of New York and especially Buffalo, for aid in their projects also reveal their Eastward bias. The appeals were not always in vain. Daniel Whitney listed Portage Canal Company investors from all of the major cities along the water route to the East: Detroit, Buffalo, Oswego, Albany, and New York City. Morgan L. Martin's connections with New Yorkers were close. It was through these
relationships that petitions for the Waterway from outside Wisconsin were secured. But there never seems to have been enough aid from the East to satisfy Wisconsin boosters.

Shut off from the downriver outlet by the Des Moines and the Rock River rapids, advocates of the Waterway seldom took notice of the Mississippi route to the sea. With great satisfaction the Green Bay Republican quoted the Mississippi Intelligencer to the effect that the internal improvements of Wisconsin and Illinois were diverting $20,000,000 annually from the trade of the Mississippi. This was the common attitude toward the Southern route outside the lead region. Seldom indeed did Fox-Wisconsin promoters suggest that the Southerners had anything to gain by permitting the construction of yet another tie binding the interior to the Atlantic seaboard. During the height of the campaign for the Tallmadge proposal in 1844, however, a series of very interesting articles by "A Citizen of Brown" appeared in the Green Bay Republican. The "Citizen" canvassed all the arguments on behalf of the Waterway with great fervor and at considerable length. He appealed to the South by pointing out that when the Waterway was open the lake states would use Louisiana sugar instead of the West Indian product. He even hinted that the Waterway would create new cotton markets when he predicted that Wisconsin and Michigan would become cotton manufacturing states. In the same article, however, the "Citizen" argued that the output of the lead
region would be able to go to any market by water — and this was already the case if the product used the Mississippi outlet. Tallmadge himself made a rather feeble bid for Southern support in one of his few contributions to the debates in the spring of 1844. "The object in view was no less than that of connecting the lakes and rivers in that beautiful and interesting section of the country, with the Mississippi, the Father of Waters, and thereby effecting an uninterrupted navigation from north to south." 

The fact of the matter was that the Green Bay and of the Waterway had nothing to offer the Southern regions. It was merely an extension of the Northern and Eastern routes to the interior. Rival connections between the Lakes and the southwestern trade, however, could reach that market more readily than the Fox-Wisconsin.

There are five major natural lines of connection between the Great Lakes and the Mississippi River system. One by one through the years Congress assisted their development. Two of the routes are in Ohio: the Ohio Canal, which bisects the state from north to south from Cleveland to Portsmouth, and the Miami Canal linking Cincinnati and Sandusky. The Wabash and Erie Canal cuts diagonally across Indiana. One of the first of the routes to be authorized, it had a stormy technical, economic, and political history and was not opened along the whole line until 1853. The Illinois-Michigan Canal joins the headwaters of the Illinois
River with Lake Michigan at Chicago. Construction on this work was brought to a standstill by the Panic of 1837. It was long dogged by financial difficulties so that it was opened a short five years before the last of the routes, the Fox-Wisconsin Waterway, was completed.

Buffalo, at the head of the navigation of the lakes, early supported the Miami Canal. Through this connection, Buffalo could gain the trade of the southwest. In later years, as the Illinois-Michigan Canal revived, Buffalo gave increasing attention to that line. The city at the head of the lakes did not oppose completion of yet another line to attract Western output to the East, but advocates of the Waterway felt constantly impelled to sue for her support and made frequent complaints that Buffalo did not feel the advantages of the Fox-Wisconsin route with the intensity its merits deserved.

To all but the more complacent Southerners of New Orleans, it was evident by mid-century that the east-west direction of traffic via the Erie Canal and parallel routes was superseding the river trade. The competition was of considerable interest to the people of the interior; its outcome was fraught with peril for the Union. Israel D. Andrews surveyed the transportation system of the country in the early fifties. He reported a phenomenal increase in east-west traffic, especially on the Great Lakes, a cheap and expeditious route from the Atlantic to the Great
West... by the internal communications, by railroads and canals, opening the way through the great lakes and through the Alleghenies, instead of being restricted to the rivers flowing southward."

Andrews's observations of the situation at the time are sufficiently shrewd to be worthy of particular attention. "Modern commerce has sought, and is constantly creating, at great expense, artificial channels; and this is so true of the United States, that such channels have, in a great degree, superseded the natural routes," he declared, "for the reason that the direction of American internal commerce is between the agricultural, and the commercial and manufacturing districts, which are not connected by the two great outlets, the Mississippi and the St. Lawrence rivers."
At the time Andrews wrote, however, he thought the issue was still in doubt. He emphasized the tendency of new routes and new modes of transportation to develop new business, citing the contribution of the Erie and Ohio canals to Ohio's gigantic strides in material prosperity and the similar advances then underway in Michigan as a result of internal improvements. The figures that accompanied his report he interpreted as indicating ample business for both outlets. Furthermore, Andrews said, for some varieties of produce, the river was the best means of transportation, while for others the canal and lake system leading to the East was more suitable. Both routes were occasionally closed due to
natural phenomena, so that there was a real need for the alternatives they offered.

Andrews was an optimist. It is perhaps for this reason that he assumed the Fox-Wisconsin Waterway would be completed and fulfill the hopes of the most sanguine of its promoters. "The juncture of the Wisconsin and Mississippi rivers is, in fact, by this route brought closer to the lakes than to St. Louis," he noted, adding, "The transportation of goods being by an uninterrupted line of steam-boat navigation throughout the whole chain of lakes and across the State of Wisconsin, the trade to be one day transacted by this route will be enormous." By means of the Waterway, Andrews thought, "the whole trade, springing into existence throughout that vast upper country, is, in a great degree, rendered tributary to the lakes." Green Bay, in Andrews's roseate view, would soon rival Chicago as "the lake depot for all that most important branch of the lake trade, which has its origin on the borders of the upper Mississippi."

In sum, as Andrews saw it, the future of the Waterway was bright. The east-west route of the lakes and the Erie Canal would supersede the outlet via the Mississippi River; and the Waterway would play a prominent role in the achievement of that victory.

Though Andrews may have been led astray by his enthusiasm over the potentialities of the Fox-Wisconsin
Waterway, the elements portending its ultimate fate did not escape mention. Few, he found, shared his vision of its future greatness: "Though it may be appreciated by a few far-reaching minds, [it] is little [sic] forseen or understood by the people at large." Yet apathy among the people of Wisconsin contributed a large share to the difficulties that defeated the Waterway. He entirely discounted Milwaukee, which, as his own figures showed, even then exceeded the trade of Green Bay. "There are no very important channels of communication tributary to the lakes [south of Green Bay] until we reach Chicago," he reported.

Andrews's error may be attributed to his neglect of two developments, roads and rails, that denied to Green Bay and the Waterway the golden future he predicted for them. Roads had already established Milwaukee as the metropolis of the state. The railroads were already establishing lines of east-west trade that by-passed the long detour by water around Michigan to the western lakes and the upper Mississippi. Centering on Chicago, they were to make that city, not Green Bay, the great entrepot for the entire Northwestern country.

II

After Thomas Jefferson Cram surveyed the Waterways of Wisconsin Territory, and gave to the advocates of the Fox-Wisconsin route the powerful weapon of his report, he remained in the Territory in charge of the federal surveys
and the construction of United States roads. Just as his report on the Fox-Wisconsin Waterway provided a great stimulus to the campaign for federal aid to that project, so the roads he surveyed and opened in the next few years established lines of trade that finally thwarted the great aspirations of the Waterway promoters. "It is a wonder that our Citizens have so long neglected this subject [of roads]," a Green Bay businessman wrote in 1846.

Two of the routes outlined by Cram and built at the expense of the federal government were more or less parallel to the line of the Waterway. One was to run from Fond du Lac via Fox Lake to the Wisconsin River. Parallel to the Waterway some miles to the south of it, the road was considered merely a market road giving farmers of the vicinity access to Green Bay and Portage. A military road was planned to run from Fort Howard to Fort Crawford at Prairie du Chien by way of Fort Winnebago.

The remaining routes opened by Cram and his contractors were of greater importance for the Territory and for the future of the Waterway. The most extended of these was the road from Fort Howard south to the Illinois boundary. The route passed to the east of Lake Winnebago by the falls of the Manitowoc and Sheboygan rivers through Milwaukee and Racine. Pleading for additional appropriations to complete the road, Cram argued that it was necessary in order to settle the country. "A large portion of the land in
the immediate vicinity of the line of the road still belongs to the United States," he declared, "and so long as it shall be allowed to remain without means of convenient access, just so long will it continue to be the property of its present proprietor, unsaleable and unproductive." An argument that failed to obtain aid for the Waterway effectively commanded appropriations for roads.

Cram offered additional reasons for building the road. Much of the territory through which it passed was heavily timbered. Clearing farms in the forests, the engineer said, would produce wood to fire the boilers of the increasing fleet of lake steamers. The road, Cram argued, would bring settlers to cut the wood. The road would furnish a means of carrying the wood to the lake shore. Under the existing primitive facilities of travel, the engineer went on, mail took five days to pass from Chicago to Green Bay. Delivery was handicapped because north of Milwaukee there was no passage for wheeled vehicles. Finally, Cram pointed out that the completed road would be of high military importance in the event of an Indian uprising around Lake Superior.

The remaining federal roads paralleled each other, running east and west from the lake shore to the Mississippi or the Wisconsin. The northernmost was the route from Sauk Harbor to Dekorree, a few miles below the Portage on the Wisconsin River. According to Cram, this road would
furnish an outlet for Wisconsin River lumber. Dekorree would forward the timber overland to the headwaters of the Rock River and thence down that stream to the large markets below in the prairie counties of Wisconsin and Illinois.

Some miles to the south, another road led from Milwaukee through Madison to the Mississippi River opposite Dubuque. In 1840, the initial $10,000 appropriated for this route had already been spent in locating the route as far as Madison. Cram asked for an additional $5,000 to complete the road over the low-lying, ill-drained lands between the Rock River and Madison. On the other hand, he estimated that a mere $10,000 for a few bridges would suffice to complete the road to the Mississippi on the other side of Madison.

The last of the federal roads in Wisconsin Territory was to link Racine with Sinipee, a now-forgotten Mississippi port town. From Racine to Janesville, Cram declared, the route "passes through, and near by, the most thickly settled parts of the Territory." The next stretch from Rock River to a point some six miles beyond the Sugar River, was largely untenanted and was apparently in the hands of speculators. Beyond that point the road ran through the rich Pecatonica valley and the lead region to the Mississippi. Served by this connection with the southwest, Sinipee, in Cram's eyes, was destined to become a center for the lead and copper trade of Wisconsin and a
distributing point for lumber from the upper Wisconsin River pineries.

Whatever the object the government had in view in constructing federal roads in the territory, their function in the transportation and economic history of Wisconsin is plain. The military road from Prairie du Chien to Green Bay skirted the northern fringe of the settled area of the state. It was thus auxiliary to the Fox-Wisconsin route. The effect of every one of the other roads was to draw trade away from the line of the Fox-Wisconsin toward the lake shore.

The tendency fostered by the federal roads was carried further by the system constructed under the aegis of the Territory. In sharp contrast to the difficulties experienced by more elaborate internal improvement projects, roads legislation passed the succeeding legislatures with surprising ease. Ordinarily, the routes outlined in the legislation were unpretentious, usually providing for the connection of two or three towns lying fairly close together. The local appearance of the road projects tended to allay sectional jealousies that were aroused when the trade of larger areas was obviously at stake. The device of an omnibus bill with something in it for everybody, later developed to a fine point in federal rivers and harbors legislation, also tended to still the bickering of regional antagonisms. Advocates of internal improvements could not
consistently oppose road construction. Besides the river and canal enthusiasts also tended to minimize the effectiveness of competition from overland modes of travel.

Not the least of the advantages of roads over more pretentious means of transportation was economy. The territorial roads authorized by the Wisconsin legislatures involved no expenditures by the Territory. The acts merely named a board of commissioners for the proposed road and outlined in general the route it was to follow. The commissioners then superintended the survey and improvement of the road. The expenses incurred in the process were assessed against the county through which the road passed. These amounted to very little, for the roads were crude indeed. They were mere tracks across country marked by posts driven into the ground. Occasionally trees were removed from the path, but seldom were the stumps. The Army order on road building gives a good picture of the prevailing practice. It read: "The Road is to be cut out thirty feet wide; all trees less than twelve inches in diameter, will be felled within six inches of the ground; and those of a greater diameter within twelve inches; the stumps to be hollowed to the center, so as to retain the rain that they may the more readily decay." Only the very worst spots caused the building of a few bridges and fills. Donations and subscriptions of the local citizens financed these major improvements. Where these resources failed, the com-
missioners could turn to private enterprise, granting toll privileges under the same general regulations as those applied to ferries.

These qualities of simplicity and cheapness were especially attractive to an impecunious community desiring local connections. During the territorial period, some hundreds of roads were authorized by the penurious legislatures. The second meeting of the legislature drew up a general law for laying out territorial roads, setting the forms within which the numerous special road acts were passed. The cumulative effect of the transportation network thus developed has not been fully appreciated. Roads set the pattern of Wisconsin commerce, which the railroads thereafter cast in iron. The bias of the system against the direction of the Fox-Wisconsin route was evident from the beginning.

The outline of the network was drawn in a series of acts passed before 1840. The very first territorial legislature authorized three roads, all of which ran east and west across the southern sections of the Territory. One of these routes led west from Milwaukee to Blue Mounds. The other two supplemented each other: one running eastward from the Mississippi to Rock River, the other west to that stream from Lake Michigan.

At succeeding sessions the network was expanded. The lead region was crossed and recrossed by roads binding
it to Madison, to the towns of the Rock River valley, and finally to the lake shore. A series of roads were extended from the various ports along the lake into the interior intersecting with the Fox-Wisconsin route and ultimately diverting traffic from it. In 1838, for example, an omnibus bill authorized a road northwest from Twin Rivers to Green Bay, another from Kewaunee to Green Bay, and yet another from Sheboygan via Manitowoc to De Pere. The next legislature passed acts for roads from Watertown to Fort Winnebago at the Portage, and from Watertown to Milwaukee. At the same time a route from Milwaukee to Fond du Lac was provided for. In the years that followed, the trend continued until the southern section of the state was interlaced with roadways radiating from the towns along the lake into the interior. At the last meeting of the territorial legislature the system of roads was still expanding. A listing of the terminals filled more than two pages of the index of the laws adopted. The list comprised mostly east-west connections, but, symbolic of the whole trend, it also included a line from Neenah, at the outlet of Lake Winnebago, to Manitowoc on the lake shore and two different connections between Milwaukee and Beaver Dam, well into the territory that might have been tributary to the Fox River system.

A lively rivalry sprang up between Racine and Milwaukee for control of the interior trade. In seeking governmental favors, Racine kept pace with her northern
neighbor. Milwaukee, however, enjoyed a considerable natural advantage in reaching the hinterland lying to the northwest and far west of the Territory, for the Milwaukee River leads naturally toward the northwest and the way is relatively open straight west from Milwaukee to the Military Ridge, the divide between the Wisconsin and the Mississippi drainage systems in the lead region. Racine, on the other hand, while enjoying easy access to the immediate southeastern regions, had to cross every major southward-flowing stream to reach the heart of the lead region. In addition, Milwaukee could boast a far more impressive array of speculator-promoters than her competitor. As a result of this combination of factors, the issue favored Milwaukee. The attraction of the lake cities, plus Chicago just to the south, finally bent the lines of trade away from the Fox-Wisconsin route.

By the middle forties, there was sufficient trade along the east-west line that refinements in the form of plank roads were warranted. Governor Tallmadge, in his message to the legislature, urged plank roads as the answer to the need for improved transportation facilities. So did Byron Kilbourn when he became mayor of Milwaukee. Editors invoked the wooden highways as weapons in the rivalry among the cities of the lake shore. Build plank roads or lose "much of the trade which now seeks this mart," the editor of the Milwaukee Sentinel and Gazette warned his
The editorial might have been written by any of the lake shore publicists.

The evolution of a plank road network followed the pattern already set by the territorial roads. The pioneer road led west from Milwaukee to Lisbon. Two years later, one of the final acts of the Territorial Legislature permitted the Company to extend its road through Watertown to Madison. At the same time, charters were granted for roads from Racine and to the Rock River, between Milwaukee and Janesville, and Neenah and Manitowoc. Tallmadge is listed among the directors of a proposed Fond du Lac-Beaver Dam plank road. The elementary connections between lake shore and interior were extended by other charters: Fond du Lac to Beaver Dam, Horicon to Marquette, Hustisford to Columbus, and Madison to Oconomowoc. The vigor with which the merchants and promoters of the lake shore adopted plank roads demonstrates their determination not to surrender their control of trade to the nascent Fox-Wisconsin route.

By the end of the territorial period, the supremacy of the lake towns, won by means of the humble roads, was clearly evident. Huge wagons bumped and jolted across the state from the lead region to Racine and Milwaukee with cargoes the Des Moines and Rock River rapids denied to St. Louis and New Orleans. Back from the thriving lake ports rolled the manufactures of the east. "Our large river towns are threatened with a ruinous diversion of their
business and capital — with being a part of the circumference, instead of the centre of trade," lamented the Lancaster Wisconsin Herald. "Goods brought by the way of the lakes can be sold quite as cheap at Madison or Mineral Point as goods brought by the river can be sold at Galena or Potosi." And to the export of lead, the forties were adding wheat, as the agricultural population made headway in breaking the prairie sod and clearing the oak openings of the southern counties of the state. In 1849, shipments of wheat from Milwaukee exceeded a million bushels, a figure that was not equalled for several years, but a clear omen of the future. When Israel Andrews surveyed the lake traffic he reported a trade for Milwaukee that was five or six times as large as Green Bay's, while the latter's figure was closely crowded by other lake ports.

III

While securing commercial supremacy over the state by means of roads, the entrepreneurs of the lake shore were endeavoring to establish a railroad network paralleling the lines of trade established by the roads. The earliest pleas of the lake shore counties for federal aid to internal improvements included a request for the survey of a railroad route from the lake shore to the Mississippi. This much was at last granted them in the appropriations that sent Thomas Jefferson Cram to Wisconsin.
The portion allotted for the railroad survey along a line to run from Milwaukee to the Mississippi was entirely inadequate. All but $400 of the sum was expended in the survey of a scant ten miles west from the lake. Even the route for that short distance was unsatisfactory, Cram reported, for the rise, though not excessive over the whole distance, was not even and gradual. A railroad along the route surveyed would be entirely too expensive because of the many cuts, fills, and curves that would have to be constructed in order to negotiate the distance. He was hopeful, however, of locating a feasible route within a few miles to the north or south of the first line attempted. Cram asked appropriations for an additional two seasons of surveying. He estimated it would take at least that long to complete a reconnaissance of the entire route and a survey of the crossings over the divides between the streams.

The engineer was not optimistic about the prospects of a straight east-and-west railroad to pass through the lead region and reach the Mississippi between the Wisconsin River and the Illinois border. Invoking evidence that has confused and deluded as often as it has enlightened those who used it, he wrote: "By glancing at the map it will be perceived that the directions of the Pashtie, the Rock, the Sugar, the Peekatonekee, the Fever, and Platt rivers have a southerly course. One who has made the surface of the ground his study between Lake Michigan and the Mississippi,
must be convinced that the undulations and rolling character of the ground, and elevated summits which are encountered in passing from one of these streams to the next, hold out no favorable prospect for the construction of a railroad, with easy grades." Cram's prescience in this matter was good. "Such roads may," he said, "be constructed along some of the valleys of these streams, but not traversely thereto, for such an extent as the whole distance between Lake Michigan and the Mississippi river." Today, but three routes cross from the Wisconsin lake shore to the Rock River below Watertown, and only two penetrate the southwestern section of the state from the east. None extends so far as the Mississippi south of the Wisconsin River.

Cram's dubious view of railroad prospects did not inhibit the promoters. Many were the conventions held to forward one or another projected line. Many were the newspaper editorials advocating this or that construction. A few corporations won charters, all severely limited, from the territorial legislature. One of the most interesting of these projects was the La Fontaine Rail Road Co. This corporation was sponsored before the legislature of 1836 by David Jones, James Duane Doty, and Morgan L. Martin. According to the charter, the company was to construct a railroad from LaFontaine, a paper city on the lower Fox, to Winnebago City, Doty's abortive real estate venture at the north
end of Lake Winnebago. At the session of 1839, the corporation secured an amendment to their charter authorizing location of the terminal at any point on Lake Winnebago and permitting construction of a canal or railroad from Fond du Lac to the headwaters of the Rock River in the vicinity of Waupun. Nothing appears to have come of the venture. The other corporations chartered during these years were equally unsuccessful. When Andrews surveyed the transportation facilities of Wisconsin in 1851, he reported a mere forty miles of track in operation.

It may be seen from the proposed termini, however, that the railroads of the state were planned to continue the tendency established by the roads of the territory. In country that was already settled, the railroads furnished connections between markets established by other means. The Milwaukee and Mississippi Railroad reached Waukesha in 1851 and the next year pushed on to Milton. A road was projected from Dubuque east via Janesville to the lake. Nathaniel P. Tallmadge was associated with a Sheboygan to Fond du Lac railroad chartered in 1847. Fond du Lac and Beaver Dam were termini of another road chartered in the same year. As early as 1840 the Michigan and Rock River railroad, to run from Kenosha to Beloit, was proposed. Soon, the railroad promoters were looking beyond the Wisconsin River to the territory just opening to the northwest. A road was projected from Milwaukee to La
Crosse via Fort Winnebago; another from Fond du Lac north-west to Lake Superior. From Fond du Lac another road would eventually provide connections through the Rock River valley to Chicago.

While efforts at construction were ineffective during the territorial period, inhabitants of Wisconsin maintained a lively interest in the progress of the new marvel in other sections of the country. "Boston is wide awake," wrote a Mississippi River partisan. "Taking advantage of the stupid inertiae [sic] of government, in opening for us our natural channel of trade, she is extending a line of railroad by the way of Ogdensburgh, Canada, Detroit and Chicago into our very midst. When this road is done, none of our towns east of the Mississippi will have any radius of trade worth mentioning. Everything will become tributary to the East." Shortly after, this editor turned wholeheartedly to advocacy of railroad construction.

The pattern of railroad construction in the country at large was of far-reaching importance in fixing the lines of trade in the mold already laid down by the watercourses. After the first experimental beginnings with short-line roads that were considered mere feeders for the waterways, the imperial significance of trunk line construction burst upon the entrepreneurs of the land. Iron rails were laid down paralleling the water routes from the East. By the early fifties, the Allegheny barrier had been breached in
several places. At the same time, roads were under construction in the Old Northwest. The Buffalo Commercial Advertiser at first minimized railroads, but by 1845 had changed front and editorialized, "We consider this proposed railroad on the south shore of our lake [to the Mississippi] vastly important not only to the interests of Buffalo but of the Great West at large." From routes paralleling the watercourses, the railroad builders passed to the projection of roads tapping markets formerly served by other routes or slashed across to old markets, by-passing the detours that nature had imposed on transportation by water. It was in this way that the race from the eastern cities to the Mississippi River began, with St. Louis and Chicago as the prizes.

The ability of railroads to ignore the watercourses dealt a near-fatal blow to Green Bay and the Waterway as an accidental result of the race for Chicago. In 1849, when work on the Fox-Wisconsin Waterway was just beginning, the Michigan Central Railroad was completed along the entire line from Detroit across the state to New Buffalo on Lake Michigan. The road was extended to Michigan City, Indiana, during the next year, and by 1852 a connection with Chicago was available. At the same time, the Michigan Southern completed a parallel line from Monroe and Toledo on Lake Erie to Chicago on Lake Michigan. These roads, permitting east-west travel to avoid the long and difficult
route across the St. Clair Flats, through the Straits of Mackinaw, and down Lake Michigan, doomed Green Bay to mediocrity and assured the supremacy of Chicago in the commerce of the northwest. As early as 1847, this result was foreseen by a "prominent Eastern Capitalist" in a letter printed in the Lancaster Wisconsin Herald. "The southern bend of Lake Michigan must be forever the key and railroad outlet to the East for the whole country northwest of it," the writer said. "Arrangements have been made and elements are at work which will, it is believed, gather into one bond at the south end of Lake Michigan all the great Railroad interests of Ohio, Maryland, Pennsylvania, New York and New England, and the Canadas, from thence to radiate over all the country between Milwaukee and St. Louis and Cairo."
CHAPTER IV

FOOTNOTES

1. Contemporary evidence of the conflict is scattered through the sources of the period. Among the more vivid statements of this view, see U.S.S., Communication from the Secretary of the Treasury transmitting . . . the Report of Israel D. Andrews . . . on the Trade and Commerce of the British North American Colonies and upon the Trade of the Great Lakes and Rivers . . . (Senate Docs., 32 Cong., 1 Sess. [1852], ex. doc. no. 112, ser. no. 622), p. 705; and Buffalo Commercial Advertiser, June 20, 1846, where the remarks of the participants at a canal enlargement convention are particularly revealing. Among many historians dealing with this subject see Louis Hunter, Steamboats on the Western Rivers: An Economic and Technological History (Harvard University, Studies in Economic History; Cambridge: Harvard University Press, 1949), 503-504; and Frederick J. Turner, The United States, 1830-1850: The Nation and Its Sections (New York: Henry Holt and Co., 1935), 583-584.


4. R. G. Albion, New York Port, 83-87; Theodore W. Van Metre, "Internal Commerce . . . ," in Emory R. Johnson,


9. Ibid., 503-504; W. F. Gephart, Transportation in the Middle West, 51; R. G. Albion, New York Port, passim, but especially 373-386; and F. J. Turner, United States 1830-1850, 308 and 309-310.
10. Although it is not altogether satisfactory from the point of view presented here the best work on the Cumberland Road is Philip D. Jordan, The National Road (The American Trails Series, ed. by Jay Monoghan; Indianapolis: The Bobbs Merrill Co. [1948]). See especially pp. 67-102. See also 49-51.


16. U.S.S., Report of Israel D. Andrews (Senate Docs., 32 Cong., 1 Sess. [1852], ex. doc. no. 112, ser. no. 622),


19. H. R. Schoolcraft, Narrative of an Expedition through the Upper Mississippi, App. IV, 303.

20. James D. Doty, Madison, to Nathaniel P. Tallmadge, Mar. 5, 1844, Tallmadge MSS.

21. See, for example, Green Bay Wisconsin Democrat, Aug. 4, 1838; and Madison City Express, Feb. 15, 1844.


23. Martin was a New Yorker by birth. His family continued to reside there. His business connections in the East were also numerous. See, e.g., John Smith, by Jonathon W. Thornton, New York, to Morgan L. Martin, Mar. 27, 1839, and Pliny Freeman, New York, to MLM, Apr. 4, 1839, MLM MSS.

24. A very revealing letter in this connection is Col. T. S. Morgan, Oswego, to Morgan L. Martin, MLM MSS.


26. The Lancaster Wisconsin Herald long battled vigorously against the trend away from the Mississippi route. See, e.g., the issue of May 7, 1847: "The difficulty in navigating the Upper Mississippi seems bound to drive our trade out of its natural channel into the basin of the lakes." By the end of another year, the Herald had switched its allegiance to the east-west trade-line. See the issue of June 10, 1848: "We need
annexation to the lakes; some access to the markets of
the great world."

27. Green Bay Republican, Jan. 2, 9, and 16, 1844.


29. Congressional Globe, 28 Cong., 1 Sess. (1844), 156.


31. Ernest L. Bogart, Internal Improvements and State Debt
in Ohio; An Essay in Economic History (New York: Long-
mans, Green and Co., 1924); Chester E. Finn, "The
Ohio Canals: Public Enterprise on the Frontier," Ohio
State Archaeological and Historical Quarterly, LI
(Sept., 1948), 1-40; W. F. Gephart, Transportation in
the Middle West, 111-116 and 119-120; A. F. Harlow,
Old Towpaths, 241-262; and L. C. Hunter, Steamboats,
483-4.

32. Elbert J. Benton, The Wabash Trade Route in the Devel-
opment of the Old Northwest (Johns Hopkins University,
Studies in Historical and Political Science, ser. XXI,
nos. 1 and 2; Baltimore: The Johns Hopkins Press,
1903); Lee N. Newcomer, "Construction of the Wabash
and Erie Canal," Ohio State Archaeological and Histor-
ical Quarterly, XLVI (Dec., 1937), 199-207; A. F. Har-
low, Old Towpaths 263-278; and L. C. Hunter, Steam-
boats, 483-484.

33. John H. Krenkel, Internal Improvements in Illinois,
1818-1848 (Urbana; University of Illinois, 1957); A.
F. Harlow, Old Towpaths, 279-288; and L. C. Hunter,
Steamboats, 483-484.

34. Buffalo Commercial Advertiser, Nov. 8, 1845. On the
rise of Buffalo see U.S.S., Report of Israel D. An-
drews (Senate Docs., 32 Cong., 1 Sess. [1852], ex.
doc. no. 112, ser. no. 622) pp. 87-89, 90, 92, and
151; and U.S.H.R., Message from the President . .
Report of the Chief of Topographical Engineers (House
Docs., 28 Cong., 2 Sess. [1844], ex. doc. no. 2, ser.
no. 463), p. 228.

35. See, e.g., Buffalo Commercial Advertiser, June 20,
1846.

36. Wisconsin papers frequently printed favorable notices
of the Waterway from the Buffalo Commercial Advertiser.
See, e.g., Green Bay Advocate, Sept. 10, 1846.
37. See, for example, Milwaukee Courier, May 31, 1843; and Madison City Express, Feb. 15, 1844.


42. U.S.S., Report of Israel D. Andrews (Senate Docs., 32 Cong., 1 Sess. [1852], ex. doc. no. 112, ser. no. 622), pp. 5 and 55-57. See also L. C. Hunter, Steamboats, 483-484.

44. U.S.S., Report of Israel D. Andrews (Senate Docs., 32 Cong., 1 Sess. [1852], ex. doc. no. 112, ser. no. 622), p. 58. See also *ibid.*, 204 and passim.

45. *Ibid.*, 57-58. See also *ibid.*, 204.

46. *Loc.cit.*


50. Francis Gilbert, Green Bay, to Morgan L. Martin, Feb. 3, 1846, MLM MSS. See also Hiram Knowlton, Prairie du Chien, to MLM, Feb. 17, 1846, MLM MSS.


52. U.S.S., . . . Copies of Reports . . . in relation to Internal Improvements in the Territory of Wisconsin . . . (Senate Docs., 26 Cong., 1 Sess. [1840], ex. doc. no. 140, ser. no. 357), pp. 2-3.


56. On this point see the illuminating commentary on an omnibus bill in Green Bay Wisconsin Democrat, Feb. 19, 1839.


59. *Wisconsin Territory Laws* (1837-1838 and June, 1838),

60. Ibid., 45-46 and 117-124.

61. See, among the contemporary observations, U.S.S., Report of Israel D. Andrews (Senate Docs., 32 Cong., 1 Sess. [1852], ex. doc. no. 112, ser. no. 628), p. 58. Andrews declared that there were "no very important channels of communication tributary to the lakes" between Green Bay and Chicago. Andrews, however, was far from typical of his contemporaries, especially those on the frontier. The manuscript collections for this period abound in references to the importance of roads. See, for example, Hiram Knowlton, Prairie du Chien, to Morgan L. Martin, Feb. 17, 1846, MLM MSS., where Knowlton avers that a road from Prairie du Chien to La Pointe on Lake Superior, with perhaps two intersecting roads into the pineries, would open the entire northern part of Wisconsin for settlement.

62. In addition to the discussion below, see the map of the developed network, *infra*, following p. 148.


64. Ibid., 61.

65. Ibid., 67-68.


68. See the Laws for each session of the legislature consulting the index.


70. The rivalry is discussed in Orin G. Libby, "Significance of the Lead and Shot Trade in Early Wisconsin History," WHC, XII, passim but especially 314.

72. In 1852, Andrews reported commercial activity in Milwaukee nearly six times as large as Racine's. Loc. cit.

73. Wisconsin Territorial Legislature, Assembly Journal (1845), 12.

74. Byron Kilbourn, Inaugural Address of Byron Kilbourn, Mayor of the City of Milwaukee, in City of Milwaukee —Miscellaneous Documents, pamphlets in the Library of the State Historical Society of Wisconsin.

75. Milwaukee Sentinel and Gazette, Sept. 2, 1848.

76. For description of plank roads and a discussion of their cost, see ibid., Jan. 10, 1848; and the report of Philo White, editor of the Southport American, on plank roads in Wisconsin Territorial Legislature, Council Journal (1848), Appendix. See also Fort Winnebago River Times, May 29 and July 17, 1851, and April 19, 1852.


78. Wisconsin Territory Laws (1848), 29.

79. Ibid., 54, 88, 118.

80. Ibid., 161.

81. Ibid., 161, 177, 199, 225, 298, and 316.

82. Issue of Dec. 31, 1846. See also Fort Winnebago River Times, July 31, 1851, reporting the departure of the steamboat Enterprise with a cargo destined for Minnesota that had been brought in from Milwaukee by wagon.

83. On the importance of the roads in the wheat trade, see Milwaukee Sentinel and Gazette, Jan. 4, 11, 28, 1848.


87. Ibid., 8-9.

88. This statement is based on an examination of the Rand McNally Pocket Maps of Wisconsin . . . (Chicago: Rand McNally and Co., 1941); and Encyclopaedia Britannica World Atlas . . . (Chicago: Encyclopaedia Britannica, Inc. [1951]).

89. Madison City Express, Jan. 17, 1842, for example, reports a convention of Iowans who met in Madison, Jan. 12, 1842.

90. See, for example, the editorial in the Lancaster Wisconsin Herald, Sept. 26, 1846, urging a Chicago-to-Mississippi-River railroad as essential to "complete the prosperity of Chicago." See also ibid., Dec. 25, 1847, and June 10, 1848; Milwaukee Sentinel and Wisconsin Farmer, Jan. 29, 1842; Madison City Express, Feb. 15, 1844; and Milwaukee Advertiser, Mar. 24, 1838.

91. See, e.g., Wisconsin Territory Laws (1838/1839), pp. 74-79. This was an act, approved Mar. 6, 1839, that incorporated the Pekatonica and Mississippi Rail Road Co. to construct and operate a road between Mineral Point and the Mississippi River. One section of the act established rates; another provided for the optional purchase of the road by the state.

92. Wisconsin Territory Laws (1836), 33-35.

93. Ibid. (1838/1839), 73-74.


95. Wisconsin Territory Laws (1839/1840), 12-18, provided for a road from Beloit to Southport, the present-day Kenosha. Wisconsin Territory Laws (1847), 23-31, incorporated a road to run from Sheboygan to Fond du Lac;
ibid., 72-82, for a line across the state south of Milwaukee; ibid., 158-167, for a connection between Fond du Lac and Beaver Dam; ibid., 194-203, for the construction of a road from Milwaukee to Waukesha. See also the discussion of proposed roads in Milwaukee Sentinel and Wisconsin Farmer, Jan. 29, 1842; and U.S.S., Report of Israel D. Andrews (Senate Docs., 32 Cong., 1 Sess. [1852], ex. doc. no. 112, ser. no. 622), pp. 374-376. Fort Winnebago River Times, Jan. 30, May 22, and June 26, 1851. The map here reproduced (between pp. 186-187) exaggerates the tendency under discussion because it is intended to indicate the railroad system of Milwaukee and shows projected lines as well as those actually under construction.

96. Cf. F. J. Turner, The United States, 1830-1850, 583-584. Turner's presentation of the matter is from a slightly different point of view, but the material is in accord with the statement in the text. See also Frederic L. Paxson, "The Railroads of the 'Old Northwest' before the Civil War," Wisconsin Academy of Science, Arts, and Letters, Transactions, XVII, 243-274; and O. G. Libby, "Leaq and Shot Trade," WHC, XIII, 300-301n and 328.

97. F. L. Paxson, "Railroads of the 'Old Northwest,'" Wisconsin Academy of Science, Arts, and Letters, Transactions, XIII, 263. See also Fort Winnebago River Times, May 22, 1851.


100. Ibid., 158-167.


102. Fort Winnebago River Times, Jan. 30 and June 26, 1851.

103. Loc. cit.

104. Ibid., Feb. 13, 1851.

105. See, for example, Milwaukee Advertiser, Mar. 24, 1838; Milwaukee Sentinel and Wisconsin Farmer, Jan. 29, 1842; Lancaster Wisconsin Herald, Dec. 31, 1846; Milwaukee Daily Sentinel, Mar. 5, 1852; and Fort Winnebago River Times, Nov. 11, 18, and 25, 1850, May 22, June 26, and July 31, 1851.

107. Cf. ibid., May 7, 1847, and June 10, 1848.


110. Buffalo Commercial Advertiser, Nov. 13, 1845. See also ibid., Oct. 23 and 25, 1845.


113. Lancaster Wisconsin Herald, Dec. 25, 1847. See also ibid., Sept. 26, 1846.
CHAPTER V

A "ZIGZAG POLICY" ENDS IN A GRAND SPECULATION

I

The Congressional grant in 1846 came at a critical time for the promoters of Green Bay. The prosperity and activity that the fur trade had brought to the settlement was now long gone, and there was nothing as yet to take its place. "The Fox River Improvement is nearly worn out, or rather it is getting to be an old story," wrote a man from Green Bay early in the year, "yet the necessity of the improvement was never as apparent as at present." "You are aware that the Steam Boat Columbus is fitting up expressly to run between this place and Buffalo next season," the writer explained. "Capt. Walker writes us that he thinks he will succeed in getting up another boat to run in connection with her so as to give us a boat a week." In May, another Waterway advocate reported, "The Steamboat Columbus has made us two trips, the last had a number of families for Lake Winnebago country." He added dejectedly, "I do not however anticipate any great increase either to the business or population of Green Bay." The lead trade had
been lost to Milwaukee and Racine and the lake steamers went with it. In June, another writer from Green Bay complained, "[The Columbus] has stopt a-coming here Reasons not known yeat [sic] the Steam Boat Astor has left this morning for Mackinaw with a full load of passengers Green Bay is as Dull as it can be since the News of the S. B. Columbus."

News that Congress had at last approved a grant in aid of the Fox-Wisconsin Waterway worked a revival among the promoters of the Fox River Valley. In type that dwarfed even the patent medicine advertisements, the Green Bay Advocate announced passage of the bill "for which Green Bay has labored so long." The leading citizens of the area, irrespective of party, formed a committee to celebrate the achievement and fete the man who had accomplished it. The festivities began with a dinner at the Navarino House. Editorial jubilation triumphed over grammar as the Green Bay Advocate reported, "The way the good things were piled on the board, and vanished before the guests, done honor to the excellent catering of the host." Compliments to Morgan L. Martin, which were "many and not stinted," continued at the ball, which followed at the Astor House. "The dance wore well — the 'small hours' came, and found the music and assembly still there and not idle," the report stated, adding, "We are not sure but that many had the morning sun to lighten the way home."
"With the prospect of the improvement . . . , business seems to take a fresh start for Green Bay," the Advocate noted with satisfaction. "Our citizens wear a decidedly happier expression on their countenances — such an expression as we have often seen a hungry man show on the eve of sitting down to dinner." Martin, Timothy O. Howe, Henry S. Baird, "and about fifty others" united in a call for a public meeting September 19, 1846, to consider an "entirely feasible and safe" proposal for a transportation line to run from Buffalo to the Mississippi. In December, Martin heard of "a sort of convention at Fond du Lac, all about our Fox River improvement, and, the creation of a transportation company, from Buffalo, to Prairie du Chien."

"There was a much better spirit manifested than I expected," said his informant, "about 70 delegates were in attendance."

Even the maligned Columbus responded (in characteristic fashion) to news of the grant for the Waterway. "This accidental craft is again making her regular time to this place, i.e., no time at all," Charles Robinson, editor of the Green Bay Advocate, told his readers. "She has surprised us occasionally through the summer by erratic visits, but we are happy to learn that she has resumed her regular trips, which of course, are equivalent to staying away."

The Advocate's editor was particularly exasperated with the Columbus because he was conscious of the importance of a steamer connection to the East. The very article announce-
ing passage of the bill to aid the improvement concluded:

"The next step . . . is to secure a permanent line of steam communication with Buffalo. We must have this and in its absence are losing an immense amount of trade."

Robinson was also sensitive to the drift of trade away from the line of the Waterway towards the lake shore. "What shall we do?" he asked his fellow-townsmen. "Shall we fold our arms, and supinely witness our legitimate business done by rival towns, while the grass grows in our streets and our water channels become choked with weeds?"

He violently attacked a "disingenuous" article in the Chicago Democrat because it was "so palpably an attempt to create a feeling in the southern and eastern portions of the Territory, against our River Improvement." "The rapid forming of the country above us [in the upper Fox River valley] forcibly suggests to us our apathy here, and the absolute necessity of immediate action on the part of Green Bay to secure her legitimate country trade," he cried. "Our friends at Milwaukie [are] taking the trade from Green Bay." Early in the new year, a persistent booster of the Waterway wrote from Akron, Ohio, to ask whether or not the grant had actually been received. "I still cherish a hope that I shall yet at no distant day have an opportunity of contributing my mite toward so worthy an object as a steam Boat connection of the Lakes & the Mississippi." The writer expressed a desire to have an active role in the con-
struction. "It [is] a business with which I profess to be well acquainted." Of more significance here than help in construction of the Waterway was the writer's final note: "In case I should go to that country I should most likely lead on a respectable colony." Whether the writer actually did come to Wisconsin does not appear, but many others did. As migrants came to the valley, business activity increased along the line of the Improvement. The construction of steamers for the river trade was soon underway at many points along the route. In this enthusiastic atmosphere, the Board of Public Works began to carry out their duties.

That the enterprise made any progress at all under the terms of the legislation seems remarkable. The congressional grant, supposedly to prevent wasteful application of the proceeds, required the sale of land in increments calculated to bring in $20,000. After half of this sum had been expended, additional lands could be sold. The Wisconsin legislature was determined to comply with the terms of the act without incurring a state debt. Since the congressional act required the expenditure of funds before the land could be sold, some short-term liabilities were apparently inevitable. The law adopted to meet these conditions was exceedingly complicated. Its purpose was primarily to clear the state of responsibility, not to achieve the construction of the Waterway.
Everything depended on selling the land; yet the procedure for acquiring title to a tract in the grant was intricate and slow. The state law established a Board of Public Works to administer the grant and direct the construction of the Waterway. The actions of the Board were severely circumscribed. The law directed the Board to select and offer for sale tracts not exceeding 16,000 acres in extent, giving priority to preemptors according to the dates of settlement. Sales were to be advertised three months in advance. The Board did not have direct control of the sales they administered. A "Register of the State Land Office," annually elected by the legislature, managed the sales of land and the conveyance of patents of title. The legislature directed that "the register shall enter in his books . . . the application of persons who may apply for the purchase of any of said lands . . . , and who shall produce to him a receipt from the treasurer . . . for the purchase money . . . ." The applicant did not, however, acquire title to the land he sought to buy. Instead he received a certified copy of the register's entry of the application to purchase.

The next step in the process involved the Board and contracts for construction on the Improvement. The legislature stipulated that the total contracts let at any one time must not exceed "the available means devisable from the lands . . . applications for the purchase of which shall
have been filed prior to the times of letting such contracts." Then, and only then, were the lands to be "sold." Not before contracts had been let obligating the proceeds from the applications to purchase could the applicant secure a final title to his land. In this way, the legislature sought to make sure that the funds were on hand before work under the contracts began. The procedure was extraordinarily vexatious and undoubtedly served to inhibit sales of the land. Uriah Peak, later one of the incorporators of the Fox and Wisconsin Improvement Company, declared in the legislature that he could "see nothing in the language or spirit of the grant to warrant the belief that congress intended to confine the state to any such zig-zag policy." The complicated machinery for disposal of the grant might have been overcome. Indeed, it appears that the law was rather liberally interpreted. The legislature, however, pursued toward the project a "zig-zag policy" that went far toward preventing its successful completion.

True to the principles of the congressional act, the state legislation supposedly protected the rights of preemptors. Yet the act of 1848 made it difficult to qualify as a preemptor. In effect, preemptors were put on the same terms as an ordinary purchaser, although they were sure of being able to buy 160 acres at $1.25, provided they complied with the terms of the act.

The conditions were many. To qualify as a preemptor,
settlement, improvement, and erection of a habitable dwelling were required. The preemptor could not leave property elsewhere in the state in order to take up a preemption right on the Waterway lands. A preemption right could not be claimed on land important to the improvement or useful for hydraulic or commercial purposes. As a further safeguard against a businessman's taking advantage of a provision intended for agricultural settlers, another clause specifically excluded from purchase under preemption rights land occupied for purposes of trade. Thus, if a settler established a store in conjunction with his agricultural enterprise, the portion occupied for trading purposes had to be purchased separately from the farm. Finally, the law required filing a declaration of intent to claim preemption rights within three months after passage of the act and within thirty days after settlement. The preemptor had to submit proof of compliance with the terms of the act and pay for the tract before the land was placed on sale.

Selection of the land began at once under the direction of Morgan L. Martin himself. The first two lists, from lands in the Green Bay Land Office District, were approved by the President on May 9, 1849. Before approval was actually recorded in Washington, the impatient Board advertised three 16,000-acre tracts for sale to minimize the time lost in the construction season of 1849.

In the fall of 1848, the Board appointed C. R.
Alton engineer and dispatched him on a survey of the route and the sites of projected locks and dams. In December, Alton reported his findings and offered his plans for constructing the Waterway. The engineer envisioned a channel forty feet wide at the bottom with banks raised to eight feet where necessary to guard against flooding. He contemplated a draft at low water of four feet. Thus, at the outset, the plan departed from Cram's proposal, on which the estimate of the cost was based, for Cram proposed a low-water depth of two feet.

Alton's plans called for locks of 125 feet between the gates and a width of thirty feet. These specifications would permit the passage of steamers 110 feet long with a beam of sixteen feet and a deck twenty-eight feet wide at the level of the guards. A vessel of such dimensions could transport a cargo of about eighty tons. To increase the carrying capacity of such small steamers, Alton added, "Barges would be used in connection with these boats."

For the Fox River between Lake Winnebago and Green Bay, where there was a fall of 170 feet, Alton thought some sixteen locks were necessary at seven different locations. Only six dams were required, since a dam already spanned the river at Depere. The Improvement also required several miles of canal giving access to the locks and by-passing the rapids. According to Alton's estimate, which the Board adopted, the total cost of the improvement would exceed the
estimated receipts from the land grant by about $25,000. The Board decided that tolls and water power rights would easily yield returns sufficient to make up this difference.

On the basis of Alton's recommendations, the Board adopted a procedure for effecting the most improvement in the shortest time. Alton reported that "considerable quantities of merchandise [sic]" passed up the lower Fox River to the Grand Kaukauna in Durham boats. From that point, the goods were portaged to Lake Winnebago by one of two routes. The first followed the west side of the river; the other the east side "across to 'the coupé,' a point at the northern extremity of Lake Winnebago, whence the goods are carried by a small steamboat to their points of destination." Accordingly, the Board decided to open the Portage canal, improve the upper Fox by dredging, and improve the lower Fox below Kaukauna. In anticipation of the approval of Martin's land selections, the Board advertised for bids in March, 1849, and let contracts under the Alton plan. Early the next year, they reported "fair progress." Completion of the work under contract, said the Board, "will furnish an uninterrupted steamboat navigation from the Mississippi to Green Bay, with the exception of the Portage of ten miles from the foot of Lake Winnebago to the foot of the Grande Kaw-kaw-na."
II

After this first glowing report of progress on the Improvement, troubles multiplied. Land sales lagged. Lack of funds inhibited construction and threatened the maintenance of that already achieved. These economic difficulties were aggravated by uncooperative weather. Individual contractors felt favored or slighted. Disappointed bidders scattered charges of favoritism and incompetency. Petty personal jealousies were magnified into rivalries between different segments of the route. The old sectional divisions of the state revived to compound the personal and local difficulties. These myriad complaints were tried in the political arena, for the "zig-zag policy" was variously construed. Inevitably the Fox-Wisconsin Waterway became a political issue. After five years of temperate discussion, rancorous bickering, and innumerable investigations and reports had failed to bring the Improvement any nearer to achievement than it had been after the first season, the legislature was ready to surrender. State construction was abandoned in favor of private enterprise.

Only about two-thirds of the land offered for sale during the first year was taken up, largely by preemptors. At the end of the second year, the proportion was about the same. The returns from these sales were scarcely half of the amount necessary to complete the contracts let during the same period. By the end of 1850, all the works on the
Fox River were under contract except at the inner pair of rapids, Little Chute and Grand Kaukauna. The Board had early determined to defer contracting for the elimination of the Grand Kaukauna, which would require five locks and about a mile and a half of canal, "until there is absolute certainty of funds being at command for its completion." During 1850, "insufficiency of funds . . . compelled the contractors to suspend their operations, to a great extent."

The Board told the legislature, "Work cannot be resumed, until additional amounts of land shall be placed at the disposal of the Board."

Where lack of money did not prevent work on the Waterway during 1850, lack of water did. Not only was construction delayed, but some of the work at Depere had to be redone in consequence of a lower lake and river level.

One of the members of the Board refused to sign the annual report because, he held, delayed construction of the Portage canal was not solely attributable to low water. Thomas Reynolds, the contractor, was dilatory. The disgruntled member charged that Reynolds had been encouraged by one of the members of the Board, who had assured the contractor that it would be all right to delay completion of the canal until spring brought down lumber prices. Reynolds had also been told that he might have the use of the dredge built by the Board. When operations on the upper Fox kept the dredge occupied through the entire season, Reynolds used this as
an excuse for failure to carry out the contract. He applied to the legislature for relief. Unfortunately for Reynolds, the bill at first fell into the hands of a committee whose chairman was a disappointed aspirant to a contract for one of the lower Fox improvements. The bill was reported unfavorably. Only the efforts of two Portage politicians, both of whom later proved to be firm friends of the Improvement, saved the bill after provision was made for the other Portage contractor as well.

In spite of the disappointing progress of the Improvement during 1850, the Board anticipated completion of all the projects under contract during the coming season. Nevertheless, the legislature expressed its disappointment by changing the membership of the Board of Public Works, while other legislation during the spring gave yet another turn to the "zig-zag policy."

Early in the year, Governor Nelson Dewey received a letter from Morgan L. Martin that seemed to offer a solution to the financial problems created by slow land sales. Martin proposed to complete the improvement of the lower Fox at Little Chute and Grand Kaukauna for $25,000 less than the cost estimated by the Board of Public Works in 1849. The promoter assumed that the resources of the Improvement would yield slightly over $200,000. About half of this would be needed to close out the contracts already let, improve the Wisconsin River, and pay dredging and en-
gineering costs on the Waterway. Martin offered to accept payment from the balance.

Martin's estimate of the available resources was optimistic. He reached his conclusion by adding together the assumed value of the unsold land in the grant, the estimated worth of the unsurveyed portion of the grant lying north of Fox River, and a guess at the amount that could be realized from additional acreage that might be given the state if the federal government could be persuaded to make a compensatory grant for lands that had been sold prior to adoption of the Fox-Wisconsin bill. Even this trebly hypothetical sum was short of Martin's bid.

An additional feature of Martin's proposal represented at once a hedge against a possible overestimate of the returns from the land and a suggestion for making up the deficit in resources painlessly. Martin offered to wait for revenues from tolls on the Improvement and future sales of lands — the balance due him to draw interest at twelve percent in the meantime. "It is a great undertaking, involving a vast responsibility, and one which I should be gratified to have placed in other hands," he wrote, "but feeling a deep personal interest in the early accomplishment of the work, and a confident reliance upon the ultimate security to any person or association of individuals, who should advance the necessary funds," he persuaded himself to make the offer.
Governor Dewey forwarded the proposition to the legislature with some relief. He told them that he thought Martin's figures were accurate and that the offer constituted a good proposition for the State. He recommended its acceptance.

The proposition was debated for two or three weeks, but to an optimistic legislature the offer appeared too good to refuse. In the Senate, the bill was managed in a select committee of which Theodore Conkey was chairman. Conkey was an associate of Morgan Martin in promotion of the settlement at Grand Chute, the site of present-day Appleton. Later, he was one of the incorporators of the Fox and Wisconsin Improvement Company. Martin's proposition was obviously safe in his custody. Under the urging of Conkey, the Senate readily passed the bill. Little more difficulty was experienced in the Assembly. On March 11, 1851, Nelson Dewey gave his approval. Martin and the Governor promptly executed the contract. Martin provided the required bond to complete the project by June 1, 1853, and set to work at once to accomplish it.

The reconstituted Board of Public Works made vigorous efforts to complete the rest of the Waterway by the time Martin's work was done. Bad luck balked their best efforts through the whole season of 1851. Caleb Crosswell, who had complained so bitterly of the earlier Board's conduct of the project, was chosen president of the Board.
In addition he assumed control of the dredge built by the Board. Crosswell took charge of the vessel on April 5, 1851, and supervised the repair of the hull, which had been forced out of line by the excessive weight of fire brick required by the boilers. The energetic Crosswell soon had the vessel ready for work, but "upon its first trial the king post to which the crane was attached, was thrown from its position and the foot of it passed through the deck, causing considerable damage and much delay."

Misfortune continued to plague the craft. At the close of the previous season, Crosswell's predecessor had left it in "the Cut" off Mud Lake. "The Cut" had been made to avoid the shoals and mudbanks of Mud Lake. Crosswell found that the earth removed from the channel had been piled so high that the scoop could not clear itself. Costly and time-consuming hand labor had to clear the way. More time was lost in leveling the banks of "the Cut" so they would not wash down and fill the channel again. Then it was discovered that "the Cut" resulted in a two-foot fall that had formerly been absorbed by several miles of meanders and Mud Lake. Now, a much deeper channel had to be dug and the swifter current increased the difficulty. As these obstacles were being reduced, high water forced the suspension of operations. Crosswell determined to take the dredge to Portage and dig downstream from there.

"The control of the elements is not a prerogative
of man," he remarked sadly. "Flood and storm may assail and overwhelm the strongest of human barriers." Three breaches in the wall of the Portage canal, caused by high water in the Wisconsin the night of September 28, 1851, prompted this burst of philosophy from the man of action. The dredge arrived at the Portage just in time to repair the breaks. Crosswell then took the dredge through the canal to remove the sand bar that had formed in the Wisconsin River entrance. This job was completed and the dredge was digging its way back through the canal when the ice of the winter overtook it.

Crosswell and the other Board members persuaded the contractors to continue their operations through the summer of 1851. The Surveyor-General assured the Board that the lands between the Wolf and Wisconsin rivers north of the Fox would be surveyed and available for sale in the fall. In the meantime, instead of the monthly payments that the contracts called for, the contractors merely received warrants against the prospective fund. The ill fortune that dogged the State's efforts to complete the Waterway struck again to prevent the completion of the surveys as promised. One of the deputy surveyors died before this work was done. Since the other deputy engaged in the area was dependent on the first for starting points, it was impossible to survey the lands.

Much of the earlier work on the Waterway was not
Much of the earlier work on the Waterway was not too well done, as Crosswell and others had pointed out. In the Portage canal, for example, as the spring thaw came on, citizens of Fort Winnebago awoke one morning to find that "The 'planking' [laid to stabilize the sandy banks was] in great part afloat." The gates of the guard lock at the Fort Winnebago end of the canal were badly set and would not open to the specified width. At the other end, the canal was not wide enough to permit boats to pass each other. In the middle section, the banks needed to be raised above the high-water mark of the Wisconsin River. The Board also perceived the necessity of an overflow basin to take the excess water in floodtime.

Through the late spring, the contractor got the situation under somewhat better control. "The canal will be completed in a week or two," reported the River Times, "when we anticipate the arrival of the eastern mail by steam."

The fine airs of spring had brightened the outlook at the other end of the Improvement, too. The Green Bay Advocate exulted, "We believe we are not over sanguine when we assert that steamboats will pass over the route from Green Bay to the Mississippi before the fall of '52."

The end of May brought the high point of enthusiasm and accomplishment for 1851. "First Boat through the Canal — Almost," the headline announced. "The beautiful steamer John Mitchell nearly accomplished the feat of passing
through the canal . . . . She came up as far as Main Street.
—As the John Mitchell came up the canal, the Enterprise
came up the Wisconsin River to the head of the canal. The
blustering rivalry between these inhabitants of different
waters, (the throat of each giving its best puff and whistle
alternately), was quite exhilarating [sic], and called out
a large concourse of our citizens to gaze upon the scene
present, and make predictions as to the future. After a
short time, boats and citizens withdrew, amid strains of
music, and 'noise and confusion' was over."

The succession of mishaps to the Waterway that sum-
mer was not over. In mid-July, when the workers found that
high water was interfering with construction at Cedar Rap-
ids, they opened a hole in the dam to relieve the pressure.
The force of the pent-up waters swept through the gap to
produce a forty-foot break in the dam. At Rapide Droche,
David M. Loy reported that the dam leaked in a new spot as
soon as the old leak was plugged. In September, water
was let into a new section of the Portage canal. "Next
morning it presented a rather novel appearance," the River
Times commented, "forming two floating plank roads." The
editor then lapsed from wry humor to righteous wrath and
charged the builder with violation of his contract or "un-
pardonable stupidity and ignorance."

Before human faults had been fully remedied, they
were aggravated by the descent of the fall floods of the
Wisconsin River. Soon the guard lock was surrounded by water and the Wisconsin River was flowing through the canal. A week later, the River Times declared bitterly, "The sooner a canal and locks are seriously commenced at this point the better. All as yet done has been child's play." The indomitable optimism that seems to have characterized Waterway supporters is reflected in the rueful conclusion, "Where the excavation has been made, the hole is good of course, and may be in part saved if speedily attended to."

Elsewhere, Curtis Reed, who had contracted to improve the Menasha outlet of Lake Winnebago, abandoned his efforts. He did not give up, however, without firing a volley of charges at the harassed Board. His contract had been made with the understanding that the channel of navigation was to pass from the Lake on the Menasha side of Doty's Island. The Board, he charged, had now arbitrarily determined that the channel should pass by Neenah. As if this were not enough, the rising dams at the outlet created higher waters in the Lake, which promptly overflowed seriously damaging low-lying lands around its margins.

In the face of disaster compounding catastrophe, the Board maintained their optimism and energy. The breaks in the Portage Canal were closed before the end of the season. Work was resumed on the Cedar Rapids improvement by the first of August. The Board concluded its report with the assurance that the entire Improvement would be completed
by June 1, 1853. Then, they cried exultantly, "What a vast field will be opened to the bustle of business of an active commerce and trade."

III

The legislative session of 1852 brought another twist to the "zig-zag policy." The accumulated personal and regional jealousies of the preceding years, plus the mishaps to the works and the financial precariousness of the undertaking, combined to make the Improvement the subject of rancorous political discussion. Step by step the last phases of the "zig-zag policy" under state control led to the final surrender of the enterprise to private businessmen who regarded it as a "grand speculation." For all the bright words of the Board of Public Works, it was obvious that the Waterway was in unsatisfactory physical condition and serious financial difficulties. Furthermore, the gubernatorial chair was now occupied by a Whig, Leonard J. Farwell, whose constitutional feelings were exceedingly sensitive to a state debt, or the appearance of one, especially when it was incurred by Democrats.

Farwell's message opening the legislature began in a moderate tone. He agreed that the present board had managed the enterprise "as economically and judiciously . . . as could be required." The conduct of the predecessors of the board and the current condition of the Improvement, however, he thought sufficiently questionable to call for a
"rigid investigation." Farwell declared that the report of the Board showed the work was in serious financial straits. He demanded that the legislature ascertain "who deserves the credit for the management, or who should bear the responsibility for the mis-management of this large and valuable fund." The Governor turned from operations of the Board of Public Works to challenge the constitutionality of Martin's agreement with the State and alleged that the arrangement also violated the terms of the congressional grant. He concluded, "I cannot see that it is anywhere contemplated by the grant, that this improvement shall ever pass into the hands or under the control of creditors who may have advanced money to construct it, and in this manner, the state become divested of its authority over it." In another year he was to change his mind on this point.

The Governor not only questioned the arrangement of the State Democratic leadership for constructing the Waterway, but also attacked the national Democratic program for internal improvements. "The policy of Congress granting the vacant and unsold lands lying within this state to aid in the construction of works of internal improvement, under the management and control of private companies or corporations . . . is wrong and detrimental . . . having a tendency to embarrass or restrict . . . the improvement of lands yet vacant . . . [and] retard the settlement of the state by engrossing the most valuable portions of the vacant lands . . .
as well as [to] increase the original cost to the settler," he thundered. The Democratic policy, he declared, was calculated "to build up sectional interests and subserve private purposes."

Proponents of the Waterway picked up the gage in both houses of the legislature and sought aid in the executive department as well. Bills were introduced in both houses encouraging the Improvement to go forward under the existing arrangement. The Attorney-General delivered his opinion on the Martin contract in response to an Assembly resolution. Since the Attorney-General was Experience Estabrook of Portage, who had previously shown his friendliness to the Waterway in the Assembly, his favorable report was anticipated.

True to expectations, Estabrook held that the issuance of scrip to Morgan L. Martin under the terms of his contract with the State was "in strict accordance" with the Wisconsin Constitution. He acknowledged that pledging the Improvement itself as security for the scrip was somewhat extreme, but justified the pledge under the doctrine of implied powers. On yet another point he took ground at variance with the Governor. The Act of Congress, Estabrook believed, gave virtually unlimited powers to the state, only stipulating certain conditions for the disposal of the grant. Furthermore, he argued that the Martin contract and the warrants issued to the other contractors did not create
a state debt. The state, he held, was merely a trustee of the land grant, and was only obligated to dispose of it according to the terms set down by Congress. In any case, the Attorney-General concluded, the president of the Board of Public Works had informed him that the state was entitled to an additional 200,000 acres of the very choicest land, which would easily yield $500,000 — more than enough to discharge the existing obligations of the Board and complete the Improvement.

In the Assembly, the Select Committee that considered the Governor's remarks on the Fox-Wisconsin Improvement was headed by Urial Peak. Peak's committee presented a bill to the legislature on February sixth. According to this proposal, the remaining lands in the grant, assumed to comprise 200,000 acres, were to sell at a minimum of $2.50 per acre. Lands having special attraction as sites for hydraulic power or commercial purposes were to receive special treatment. These more valuable lands were to be sold in lots of not more than one-quarter acre at a price set by specially appointed appraisers. Funds realized from the sales were to be applied solely to discharging the certificates issued to Morgan L. Martin.

The Speaker referred the bill to the Judiciary Committee, presided over by J. Allen Barber. Barber was publisher of the Lancaster Wisconsin Herald, a strong advocate of railroad transportation, and an inveterate defender
of the interests of southwestern Wisconsin. With such a background, Barber was not overly sympathetic to the Waterway, yet he could not bring himself to destroy it completely. A majority of the Committee agreed with Barber's views. They could see no reason to discommodate the state to aid Morgan Martin or the other contractors. "The committee understand that the act of congress making the grant was drafted by one of the largest contractors [obviously Martin] . . . as well as the law contained in the revised statutes," the majority explained. Neither Martin nor the other contractors, the report continued, could claim ignorance of the conditions under which the work was to be undertaken. The majority report conceded, however, that in justice to the contractors, and for the convenience of the settlers, it might be necessary to accept the certificates of work done in payment for lands in the grant.

The minority report continued the pattern that characterized the opposing points of view through all the discussion of the Waterway. The advocates of the Improvement argued that it would build up the country; the opponents that the territory was not sufficiently developed to warrant construction and that the project would only create a debt. Conforming to type, the minority was less solicitous of the state credit and more impressed with the prospects of the Waterway. "The Fox River is the largest tributary of the St. Lawrence," the dissenters argued. "When the work
is completed, . . . it is believed that all the goods destined to the region of country embraced in the counties bordering on the Fox, Wolf, and Wisconsin rivers, and Lake Winnebago, and much of the Upper Mississippi trade, will find their way through this improvement. "With superlative optimism, the report proceeded to estimate the future revenues from tolls on the assumption of annual increases of one hundred per cent!

The obligations of the present prevailed over the revenues of the future. The recommendation of the majority of the committee was adopted, and the bill was tabled on the motion of William Richardson, soon to be chosen a member of the Board of Public Works.

The atmosphere of the Senate was more congenial to the aspirations of the Waterway. Theodore Conkey managed this bill. It went through with scarcely a hitch. The Committee of the Whole amended the original measure. A friend of the Waterway secured a further amendment after the report was accepted. When the vote came on engrossment, only Duncan Reed of the disgruntled "Menasha clique" was opposed to the measure.

As finally adopted, the Senate bill provided for the sale of the remaining lands at $2.50 per acre. At private sale, land could be acquired by paying down one-tenth of the purchase price plus seven per cent interest for the first year. The balance was to be paid off in ten annual install-
ments also with interest payable in advance. Preemptors, however, could still acquire their holdings by payment in full at a price of $1.25 per acre. Warrants for work done or Improvement bonds were receivable in payment for land. The proceeds of the land sales were to be applied to the current expenses of construction. A fund for the redemption of the stock certificates or bonds, as they would be called today, was to be established with the balance remaining after payment of current expenses. The stock certificates were secured by the proceeds of the land grant and the revenues of the Improvement "without any other pledge or liability on the part of the state." The Act authorized the governor to sell stock certificates or to deliver them to the contractors on vouchers from the Board of Public Works. Income derived from the sale of the certificates was to be used to pay off the contractors according to the date of their contracts. Finally, Martin's certificates were made payable on January 1, 1861, out of the Improvement fund.

The Senate bill was reported adversely by the Assembly Committee to which it was referred. The other members of the Committee overrode Chairman Peak and disapproved on the grounds that preference was given to Morgan L. Martin over the earlier contractors. The Committee insisted on recognition of the prior claim. To favor Martin was contrary to the express stipulation in his agreement with
the state, the majority ruled. The Assembly stubbornly refused to approve the measure until a preamble was affixed "protesting against mismanagement" and reluctantly enacting the bill "in view of the injustice and necessity" created by the "difficulties of gravest character" in which the Improvement was involved. The Senate, led by Conkey, refused to accept the preamble and the bill finally went to the Governor without it.

On April 9, 1852, Governor Farwell returned the bill without his approval. The veto message reiterated his objections to the whole course of proceedings on the Improvement. The plans for the project and the system for its accomplishment had been formulated without considering the amount that might be realized for sales of the lands, he charged. He objected that the legislation called for the creation of "fictitious state credit" in violation of the Constitution. Farwell interpreted the Act of 1846 to mean that the lands could not be disposed of in advance of building. Building on credit amounted to the same thing, he argued. Indeed, resort to construction on credit was worse, for interest charges would increase the debt and the avails of the grant were thus diverted from the project itself. In spite of all the arguments to the contrary, the bill created a state debt, he declared. Furthermore, he insisted, the revenues could not be pledged until they began.
Farwell pointed to a section of the Wisconsin Constitution, based on the Ordinance of 1787, which provides that waters and portages between the Mississippi and St. Lawrence systems "shall be common highways and forever free . . . without any tax, impost, or duty therefor." The plain meaning of the Constitution, he insisted, was that no tolls could be collected for use of the Waterway. The Governor concluded with a catalogue of the contradictions within the bill itself and between its terms and the congressional and state legislation applicable to the case.

The veto message created a sensation throughout the state. The veto, however, served only a political purpose, for the adherents of the Waterway—and the Democratic party—had the necessary votes to override the veto. The Senate did this immediately on receipt of the veto message, but the Assembly did not act until five days later. The reaction of the state press became more intense as the distance from the capitol and the proximity of the Waterway increased. The Democratic Madison Wisconsin Argus commented temperately under the headline, "The Veto Vetoed:" "We have charity enough for the Governor to believe he was honest in his convictions . . . . Neither do we impugn the motives of any opponent of the bill." The Whig Madison Wisconsin Enquirer protested mildly at the lack of restraint shown by the victors within the halls of the legislature.

It reported that Charles Robinson of the Green Bay Advocate,
then Secretary of State, who was sitting at the clerk’s desk when the vote was announced, let out a whoop, leaped over the bar, and tore out of the chamber shouting the news at the top of his lungs. At the Portage, the River Times congratulated her representatives on their victory "against the determined efforts of so foul a combination" and bitterly scourged the "miserable, drivelling apology for a Governor."

As the excitement began to die down, the Whig press noted that "Mr. Martin provided a dinner, at Bird’s for members who had been particularly zealous in his behalf."

There was again a note of well-bred distaste at the victors' enjoyment of their triumph. "Mr. Martin says, publicly, that the State is now in for it, and has got to complete the Improvement, whether the funds hold out, or not."

In addition to new legislation to hasten completion of the Waterway, the legislature provided a new Board of Public Works. The representatives apparently agreed with the reasoning of the Milwaukee Daily Sentinel. "It being granted that the fund has got into debt, and that, while contracts were let below the estimates they have yet been increased since the lettings were made — either nature or chance is dead against the State in going forward with the work, or somebody is in fault," the editorial reasoned. "If nobody is in fault, and there was only ignorance on the part of the managers of the Improvement, that is a reason
why no more of such ignorance should be entrusted with the further progress of that important work."

The new Board occupied itself mainly with the upper Fox, for it found the improvement "has been the means of inducing the investment of a large amount of capital in the lumber business on the Wolf River; and we believe that not less than ten million feet of lumber will pass through the Portage canal to the St. Louis and other southern markets, during the next season of navigation." Still, the existing situation was merely a makeshift. The works were not being completed and the interest on the warrants for work done was piling up.

Farwell continued his opposition. In a long special message to the legislature on February 9, 1853, he reviewed his actions in dealing with the problems of the Waterway and urged the legislature to eliminate the debt, which has "now grown to such an alarming magnitude, and [which] threatens still to increase, under the present policy, to an indefinite amount." The Act of April 14, 1852, he complained, apparently aided in defrauding innocent investors. The Act "required the certificates of State officers, with the Seal of the State, and the interposition and agency of the Executive, in framing, issuing and paying out evidences of debt, with every form and appearance of State Stocks, if indeed wanting in substance."

The Governor canvassed the possibilities before the
legislature. There was so little land remaining in the grant that the proceeds "will perhaps be no more than sufficient to pay off this debt and interest." He was equally dubious about the revenue-making capacities of the Waterway. "If they more than pay the cost of repairs," he said, "I shall be greatly disappointed." "It is certainly to be much regretted," he lamented, "that the means are likely to prove inadequate, to the full completion of this important improvement; and that it seems almost necessary, to arrest the works, to protect the State from a public debt." He concluded: "While the Constitution remains as it does, I see no other way, for the completion of the improvement, except to obtain another grant from Congress, or submit the works to private enterprise."

Here, Farwell proposed the last turn in the "zig-zag policy" of state control. This, at last, was an official endorsement of an idea that was as old as the grant. In the Constitutional Convention, Morgan Martin had insisted on including provision for just this contingency. Martin's clause permitted the state to turn the project over to private enterprise and provided for its recovery by the state after the builders had been reimbursed by land sales and revenues. Martin's contract with the state was a partial attempt to act upon the assumption that a losing venture for the state could be turned to private profit. Others had perceived the possibility soon after construction
began. In 1850, David M. Loy wrote Martin from Depere, "Would you like to go into a speculation of this kind — say a Company of five or six men forming . . . a Capital of some 105,000 $ in all for the purpose of finishing and completing the Balance of the River Improvement. . . . If the right kind of arrangements could be made as I have mentioned with some other items added for the benefit of the Company, it would be a grand speculation in a few years."

Sentiment in favor of turning the Improvement over to private enterprise grew steadily through the spring of 1853, but the legislature recessed without acting on the Governor's recommendations. When the representatives returned to Madison in June, they resumed consideration of the Waterway problem. The legislation providing for the surrender of the construction to private efforts now made its way through the legislature without difficulty. On July 6, 1853, Governor Farwell signed the bill incorporating the Fox and Wisconsin Improvement Company.

In exchange for the state's rights to the works, tolls, water-powers, and lands, the Company undertook to complete the Waterway within three years "in a substantial and durable manner, and so as to enable boats with a draft of two feet and a breadth of thirty feet, during ordinary stages of low water, to pass with facility from Green Bay into the Wisconsin river." The act required the incorporators to file personal bonds of $25,000 each to secure their
compliance with the terms and conditions of the legislation. Characteristically, the legislature tried to protect the state from debt. The bill provided that no rights or property were to pass to the Company until they had procured a release from the contractors of the Board of Public Works. The state retained title to the lands until the Company deposited with the state treasurer evidences of debt against the Improvement. Ultimately, the Company could obtain the entire Improvement, the water-power rights, the tolls, and the lands. The legislature was satisfied that the Waterway problem had at last been solved. "It was a subject of congratulation," a legislative committee noted later, "that the state had at length a prospect of relief from a dangerous and oppressive responsibility."

To the Company, the Improvement was obviously not "a dangerous and oppressive responsibility." They estimated the lands alone were worth over a million dollars. All of this, plus the works, tolls, and water powers, was to be theirs for the expenditure of some $600,000 necessary to complete the Waterway according to the specifications established by the act of July 6, 1853. Furthermore, there was some prospect of enlarging the grant through the political connections of the promoters. For the Company the Waterway was indeed a "grand speculation."
CHAPTER V

FOOTNOTES

1. Francis Gilbert, Green Bay, to Morgan L. Martin, Feb. 3, 1846, Morgan L. Martin MSS.

2. Joel S. Fisk, Green Bay, to Morgan L. Martin, May 16, 1846, Morgan L. Martin MSS.

3. John P. Dousman, Green Bay, to Morgan L. Martin, June 17, 1846, Morgan L. Martin MSS.

4. Green Bay Advocate, Aug. 20, 1846. The rest of the state was largely preoccupied with other matters and gave scant notice to the good news. See Madison Express, Sept. 8, 1846. The Democratic Madison Wisconsin Argus, however, gave the bill thoughtful coverage on Sept. 1, and 27, 1846.

5. Green Bay Advocate, Aug. 27 and Sept. 3, 1846. The celebration was planned at a meeting held at the Astor House in Green Bay, Aug. 29.

6. Ibid., Sept. 10, 1846.

7. Ibid., Aug. 27, 1846.

8. Ibid., Sept. 17, 1846.

9. Albert G. Ellis, Green Bay, to Morgan L. Martin, Dec. 29, 1846, Morgan L. Martin MSS.


11. Ibid., Aug. 20, 1846.

12. Ibid., Sept. 17, 1846.


of Wisconsin, Archives Division, Executive Department — Administration, Routine and Departmental Correspondence, Series 1/1/1-1. Hereafter this collection will be cited Archives, Ser. 1/1/1-1.

16. See, for example, the Green Bay Advocate, Aug. 20 and 27 and Sept. 3, 1846, Feb. 25, Apr. 8, May 6, June 10, and 24, and July 22, 1847, May 18 and 25, 1848, July 19 and Sept. 13, 1849, and Feb. 20 and 27 and Apr. 10, 1851; Fort Winnebago River Times, July 11, Oct. 14 and 21, and Nov. 4, 1850, and May 29, 1851; and Madison Express, July 29, 1847.

17. Green Bay Advocate, May 13, 1847, Apr. 20, 1848, Sept. 13, 1849, June 6, 1850, Feb. 27, 1851, and Apr. 10, 1851. The article of Feb. 27, 1851, is particularly good since it lists the steamers, the costs of construction, and the captains of the vessels. The Advocate also carried frequent accounts of the ships in the Great Lakes trade. See, e.g., Mar. 11, 1847, May 18 and 25, 1848, and Feb. 6, 1851. The Fort Winnebago River Times also gave extensive coverage to the Fox River and Great Lakes trade as well as to the upper Mississippi traffic. See the issues of Aug. 12, 1850, May 1 and 22, June 26, and August 14, 1851.

18. 9 Statutes at Large (1846), 83.

19. Wisconsin Laws (1848), 58-63. The sections containing these bewildering provisions are Nos. 13, 35, and 36, pp. 61 and 65. Emphasis added. The act is conveniently summarized in John B. Sanborn, "The Story of the Fox-Wisconsin Rivers Improvement," Proceedings of the State Historical Society of Wisconsin (1899), 189. See also Testor H. Bakken, "Fox and Wisconsin Rivers Improvement Company," MS. in the possession of its author. Mr. Bakken is Chief Clerk of the State Land Office. The history cited here is a careful compilation summarizing all of the principal bills in relation to the administration of the land grant.


22. Reuben G. Thwaites, "Narrative of Morgan L. Martin, in an Interview with the Editor," WHC, XI, 410-413; T. H. Bakken, "Fox and Wisconsin Rivers Improvement Co.,” MS., 3.
23. "Fox & Wisconsin Improvement Co. and Green Bay and Mississippi Canal Co. — Grants—," MS. volume in the State Land Office, passim. This volume shows the location and disposition of the grant by counties. See also T. H. Bakken, "Fox and Wisconsin Rivers Improvement Co.," MS., 2-3.

24. Wisconsin Legislature, "Report of the Board of Public Works," Assembly Journal (1849), Appendix, 772 and 776. Cf. U.S.S., Improvement of the Neenah, Wisconsin, and Rock Rivers (Senate Docs., 26 Cong., 1 Sess. [1840], ex. doc. no. 138, ser. no. 359), p. 16. The select committee of the Assembly that drafted the legislation of 1848, under the chairmanship of David Agry of Green Bay, reduced Cram's estimate of the cost thirty percent "to conform to present prices." The practice of minimizing the costs and basing the estimates on Cram's figures while increasing the dimensions of the project was the source of a great deal of the financial trouble in which the Board of Public Works and the individual contractors soon found themselves involved.

25. Wisconsin Legislature, "Report of the Board of Public Works," Assembly Journal (1849), Appendix, 776. For a careful discussion of the dimensions of the western steamboats at several different periods, see Louis C. Hunter, Steamboats on the Western Rivers, An Economic and Technological History (Cambridge: Harvard University Press, 1949), 72-100, especially 72-77, Table 4, p. 74, and Appendix, Table 6, p. 647, and Table 8, p. 652.


27. Ibid., 780-782.

28. Ibid., 773-774.

29. Ibid., 783. See also Oshkosh Democrat, June 24, 1850; and Fort Winnebago River Times, July 4, 1850.


33. Wisconsin Legislature, "Report of the Board of Public Works," Assembly Journal (1851), 1006. See also Green Bay Advocate, Feb. 6, 13, and 20, 1851; Fort Winnebago River Times, Feb. 13 and 20, 1851.


35. Wisconsin Legislature, "Report of Caleb Croswell in Response to a Resolution of the Assembly . . . ," Assembly Journal (1851), 1035-1046; Fort Winnebago River Times, July 11, 1850, and Feb. 20 and 27, 1851; Green Bay Advocate, Feb. 6 and 20, and Mar. 27, 1851; and Madison Wisconsin Argus, Jan. 28, 1851.

36. Wisconsin Legislature, Assembly Journal (1851), 117, 452, 535, and 593-594; Wisconsin Legislature, Senate Journal (1851), 721-722. The committee report and the action on it are to be found in ibid., 684-687.

37. Green Bay interests were determined from the beginning of the year to bring about reforms in the conduct of the Improvement. See Green Bay Advocate, Jan. 1, 9, and 16, and Feb. 13, 1851. On the new Board of Public Works, see Wisconsin Legislature, Assembly Journal (1851), 306-313; Fort Winnebago River Times, Feb. 20, 1851; Madison Wisconsin Argus, Feb. 20, 1851; and Green Bay Advocate, Feb. 20, 1851. The Advocate was particularly pleased by the membership of the new Board. The account cited has short paragraphs assessing the qualifications of each member.

38. Martin's proposition is embodied in a letter to the Governor, Nelson Dewey, under date of Jan. 31, 1851. It is printed in Wisconsin Legislature, "Governor's Message and Accompanying Documents," Senate Journal (1851), Appendix, Document (F), 75-83. There is also a draft of the proposition in the Martin MSS. Martin originally made his proposition on Jan. 24, 1851, but withdrew it. On Feb. 6, 1851, Martin renewed his offer and suggested the change of date to Jan. 31, 1851. This correspondence is Morgan L. Martin to Nelson Dewey and to Theodore Conkey (under the dates indicated) in State Historical Society of Wisconsin, Archives Division, Executive Department -- Administration, Lands: Fox-Wisconsin Canal, 1844-1897, Series 1/1/4-1.

39. Wisconsin Legislature, Senate Journal (1851), 226-227,
and Appendix, Doc. (F), 77-78; Fort Winnebago River Times, Feb. 20, 1851; Green Bay Advocate, Feb. 27 and Mar. 13, 1851; Madison Wisconsin Argus, Feb. 18, 1851; and Madison Express, Feb. 20, 1851.

40. There is a typescript biography of Conkey, prepared under the auspices of the W.P.A., in the Manuscripts Division of the State Historical Society of Wisconsin. This short study deals with his well-known activities as a real estate promoter, contractor, and miller at Appleton, and makes passing reference to his service as a contract surveyor for the United States General Land Office. It appears, however, that there is much of interest to be learned from a close study of Conkey's activities in this latter role. There are references to his desire to exploit his advance knowledge of the lands in Albert G. Ellis, Green Bay, to Morgan L. Martin, Jan. 2, 1847, Morgan L. Martin MSS. See also U.S.S., "Report of the Surveyor-General for Iowa and Wisconsin," in "Report of the Commissioner of the General Land Office," Report of the Secretary of the Interior (Senate Docs., 31 Cong., 2 Sess. [1850], ex. doc. no. 2, ser. no. 558), p. 58.

41. The Select Committee on the Fox-Wisconsin Improvement reported the bill on Feb. 17, 1851. It was discussed in Committee of the Whole and reported without amendment three days later. On the following day, the bill was engrossed, read the third time, and passed. Wisconsin Legislature, Senate Journal (1851), 297, 337, 349, and 357-358. See also Madison Wisconsin Argus, Jan. 28, 1851; Madison Express, Feb. 20, 1851; Fort Winnebago River Times, Feb. 20, 1851; and Green Bay Advocate, Feb. 27 and Mar. 13, 1851.

42. Wisconsin Legislature, Assembly Journal (1851), 438-439, 619, and 627; Wisconsin Laws (1851), 191.

43. See Nelson Dewey, Madison, to Morgan L. Martin, May 22, 1851, Alexander Mitchell, Milwaukee, To Whom it May Concern, May 31, 1851, J. Ingalls, Green Bay, to S. A. Spaulding, June 10, 1851, and undated [1851] memorandum of agreement between MLM and Simeon Draper, New York City, arranging for financing Martin's contract, in Morgan L. Martin MSS.; and MLM, Green Bay, to ND, Apr. 14, 1851, Archives, Ser. 1/1/4-1. On August 14, 1851, the Fort Winnebago River Times copied from the Green Bay Advocate: "A Friend in New York writes that Fox River Improvement paper is at par in Wall street, and that Mr. Martin finds no trouble in raising funds, in fact he can get any amount that he will ask for,
and speaks encouragingly of the rapid completion of our river improvement." See also Green Bay Advocate, May 8, 1851, on early progress of Martin's efforts.


51. Fort Winnebago River Times, Mar. 4, 1851. The River Times was slow to express dissatisfaction with the work on the canal, although the actual achievement of the contractors consistently disappointed its expectations. See the issues of July 4, Sept. 9 and 23, Oct. 14, and Nov. 4, 1850. Each of these reports anticipated early completion of the canal.


53. Fort Winnebago River Times, May 22, 1851. David M. Loy, a member of the Board of Public Works, kept Dewey informed of the progress on the work through the spring and summer. See DML, De Pere, to Nelson Dewey, Apr. 8 and 13, 1851, two letters from Cleveland, both dated June 23, 1851, another from Cedar Rapids, Sept. 25, 1851, and one, on the high water, from Fort Winne-
bo, Oct. 2, 1851, in Archives, Ser. 1/1/4-1; and
DML, Oshkosh, to ND, Nov. 4, 1851, Archives, Ser.
1/1/1-1.

54. May 15, 1851.

55. Fort Winnebago River Times, May 29, 1851. The John
Mitchell began regular service on the upper Fox early
in the season. See Green Bay Advocate, May 1, 1851.

56. Fort Winnebago River Times, July 17, 1851; Wisconsin
Legislature, "Report of the Board of Public Works,"
Assembly Journal (1852) Appendix, 78.

57. Loc. cit.; David M. Loy, De Pere, to Nelson Dewey,
Apr. 8, 1851, and MLM, Green Bay, to ND, Apr. 14,
1851, Archives, Ser. 1/1/4-1; and Green Bay Advocate,
Jan. 1, and May 8, 1851.

58. Fort Winnebago River Times, Sept. 8, 1851. The planking
laid to stabilize the banks of the canal had again
come loose and floated on the surface of the water.

59. Ibid., Sept. 15 and 22, 1851; David M. Loy, Ft. Winne-
bago, to Nelson Dewey, Oct. 2, 1851, Archives, Ser.,
1/1/4-1.

60. Fort Winnebago River Times, Sept. 29, 1851. See also
Ibid., Oct. 6, 1851; Green Bay Advocate, Sept. 22,
1851; and Wisconsin Legislature, "Report of the Board
of Public Works," Assembly Journal (1852), Appendix,
77-79.

61. Curtis Reed, Menasha, to Caleb Croswell, July 24, 1851,
Archives, Ser. 1/1/4-1. See also Wisconsin Legisla-
ture, "Report of the Board of Public Works," Assembly
Journal (1852), Appendix, 74-76 and 138-140; and David
M. Loy, Cleveland, to Nelson Dewey, June 23, 1851, Ar-
chives, Ser. 1/1/4-1. A "zig-zag policy" now ensued
with regard to these works at the outlet of Lake Win-
nebago. The Board that was in office 1851-1852 en-
couraged the Neenah contractor to expand his project
to handle the boat traffic since Reed was unwilling or
unable to make satisfactory progress. The legislature
also encouraged the Neenah contractor. The Board for
1852-1853, however, refused to accept his security and
restored Reed at Menasha to favor. See Wisconsin Legis-
lature, Senate Journal (1853), Appendix, 412-415.

62. Wisconsin Legislature, "Report of the Board of Public
63. Ibid., 75-77.
64. Fort Winnebago River Times, July 31, 1851.
67. Ibid., 16.
68. Ibid., 21-25.
69. Estabrook was one of the men who fought for the bill of 1851 compensating the contractors at the Portage. See Wisconsin Legislature, Assembly Journal (1851), 326. At the 1853 session, too, Waterway advocates looked to Estabrook to defend their interests. See Wisconsin Legislature, Senate Journal (1853), 203. See also Appleton Crescent, Mar. 5, 1853.
71. Wisconsin Legislature, Assembly Journal (1852), 206. Such of the manuscript bills as have survived from the early legislatures are on file in the Manuscripts Division of the State Historical Society. The bill here referred to is Number 120 (A) for the session of 1852.
72. The legislative history of the bill is inscribed on the face of the manuscript bill. See also, Wisconsin Legislature, Assembly Journal (1852), 239.
73. Barber was one of the most prominent of Wisconsin's citizens in his day. On some of his activities during the period of this study, see Milo M. Quaife, ed., The Convention of 1846 (WHC, XXVII, Constitutional Series, II; Madison: State Historical Society of Wisconsin, 1919), 722 and 759. See also supra, 149, 163, 167, and nn.
74. Wisconsin Legislature, Assembly Journal (1852), 352; Milwaukee Daily Sentinel, Mar. 5 and 8, 1852.
75. Ibid., 359-371, especially 365, 368, and 369.
76. Ibid., 352.
77. Wisconsin Legislature, Senate Journal (1852), 351 and 415.
78. Wisconsin Laws (1852), 513-518.

79. Wisconsin Legislature, Assembly Journal (1852), 603, 648, and 661-663.

80. Ibid., 668.

81. Ibid., 710; Wisconsin Legislature, Senate Journal (1852), 545; and Madison Express, April 8, 1852.

82. Wisconsin Legislature, Senate Journal (1852), 592-595; Madison Express, April 15, 1852; and Fort Winnebago River Times, April 26, 1852.

83. Loc. cit. Farwell's reference was to Article IX, Section 1, of the Wisconsin Constitution. The issue was not new in the controversy over the Waterway. The Governor first referred to this point in his message of Jan. 15, 1852. The applicability of the provision to the Fox-Wisconsin route was vigorously denied by the select committee that considered the Governor's message. The reference in the Constitution was to navigable streams, the Committee insisted. The Fox and Wisconsin rivers, they argued, "never can become navigable until they are made so by the improving hand of art." Congress, the Committee went on, manifestly did not consider that the provision applied to the Waterway, for the congressional act specified that United States goods and troops were to pass free of tolls and this proviso was unnecessary if the clause of the Ordinance of 1787 and the Wisconsin Constitution covered the case. See Wisconsin Legislature, "Report of the Select Committee on the Fox-Wisconsin Improvement," Assembly Journal (1852), Appendix, 291-292.

84. Wisconsin Legislature, Senate Journal (1852), 597; Madison Express, April 15, 1852; and Fort Winnebago River Times, April 26, 1852.

85. Wisconsin Legislature, Senate Journal (1852), 599 and 600; and Assembly Journal (1852), 848.

86. April 21, 1852. The Fort Winnebago River Times, May 3, 1852, printed quotations from the state press that show the differing intensity of reaction to the veto. See also Madison Wisconsin Argus, April 14, 1852; and Fort Winnebago River Times, April 26, 1852.

87. Madison Express, April 15, 1852.
88. *Fort Winnebago River Times*, May 3, 1852. See also *ibid.*, May 10 and 17, 1852.

89. *Madison Express*, April 22, 1852. See also *Milwaukee Daily Sentinel*, April 17, 18, and 21, 1852.

90. Mar. 8, 1852. See also *ibid.*, Mar. 9, 1852; and *Fort Winnebago River Times*, Mar. 22, April 5, and May 3, 1852.


94. Wisconsin Legislature, "Special Message of Governor Leonard J. Farwell," *Assembly Journal* (1853), Appendix, 13-14. See also *ibid.*, 1-7, where Farwell develops his reasons for the conclusions quoted. In the *Fort Winnebago River Times*, Mar. 8 and 15, 1853, there is a long adverse discussion of Farwell's arguments "from the pen of a distinguished democrat," "Winnebago."

95. See *supra*, pp. 126-127 and nn.

96. David M. Loy, De Pere, to Morgan L. Martin, Sept. 10, 1850, Morgan L. Martin MSS. Loy later planned to work for Martin after the latter took over the construction of the works at Kaukauna. See DML, Cleaveland, to Nelson Dewey, June 23, 1851, Archives, Ser. 1/1/4-1. At the time Loy made his proposal to Martin he was a contractor on the projects at De Pere and Rapid Croche. See DML, De Pere, to Joseph Jackson, Nov. 12, 1850, Archives, Ser. 1/1/4-1.
97. The Fort Winnebago River Times, Feb. 1853, advocated turning the Improvement over to a private company on a lease for a limited term of years. The development of sentiment in favor of private completion of the Waterway can be traced in the pages of the Appleton Crescent. On Mar. 26, 1853, the Crescent editorialized against private control. This attitude persisted through the issues of April 2 and 9, but beginning with the issue of April 23, 1853, the Crescent enlisted in the cause of delivering the project into private hands. Bills were introduced early in the session reflecting all three courses of action the Governor had suggested. On Mar. 25, Albert D. La Due of La Crosse offered a resolution to instruct the special committee on Fox-Wisconsin matters to report a bill to close out the project before the "probable income of the said government grant" was exceeded. See Wisconsin Legislature, Assembly Journal (1853), 630. The representatives from the vicinity of the Waterway offered the measures calling for positive action. Edwin B. Kel- sey of Montello presented a memorial to Congress seeking additional lands on Jan. 18, 1853. See ibid., 50. Randall Wilcox of De Pere was the promoter of the bill incorporating the Fox and Wisconsin Improvement Co. See ibid., 868. In the Senate the policy of construction by private enterprise was introduced by James S. Alban of Portage County. See Wisconsin Legislature, Senate Journal (1853), 389-90.

98. Wisconsin Laws (1853), 92-98.

99. Ibid., 93-94 and 95-96.


101. Ibid., 22-25. See also the manuscript draft of the Company's prospectus, dated Aug. 1, 1853, in Archives, Ser. 1/1/4-1; and Fort Winnebago River Times, Aug. 8 and 27, 1853.
CHAPTER VI

LAND: THE HISTORY OF THE FOX AND
WISCONSIN IMPROVEMENT COMPANY

From the beginning, land — its sale and settlement
— was basic to the success or failure of schemes for the
Waterway. In 1838, the Portage Canal Company applied for
the right to buy the canal site at the Portage at preemp-
tion rates. The acting Quartermaster General objected that
the Company asked for more than a mere right-of-way; they
wanted to acquire a sizeable tract of land at a valuable
townsite. The officer argued that sale of this attractive
land by the government would bring larger returns than the
prospective benefits of the remission of tolls. Congress
rejected the petition. While the ostensible ground was
constitutional, suspicion of Whig land speculation was un-
doubtedly contributory, because, at the same session, Con-
gress gave land for the Milwaukee and Rock River Canal,
sponsored by Democrats. The legislation provided that Wis-
consin Territory was to control the land sales for this
enterprise.

The proposals of James Duane Doty and Lucius Lyon
failed to pass partly because of the alleged constitutional
scruples of the Democrats. But these proposals envisioned
alternatively appropriations of land or money. The distinction between appropriations of land or money is one key to unraveling the perplexing Democratic policy toward internal improvements. This helps explain why Jackson vetoed a money appropriation for the purchase of stock in the Maysville Road venture, but approved extension of the land grant to Indiana for the Wabash and Erie canal. Polk signed the grant to Wisconsin for the Fox-Wisconsin Waterway, and a similarly generous bill for the benefit of Iowa, within a week of his stinging veto of the Rivers and Harbors Bill of 1846. Another Democratic president, Franklin Pierce, vetoed another rivers and harbors bill in 1854. Yet the subsidy of transportation by land grants, by which the Democrats sustained state efforts to build a system of inland water routes, was extended to include aid for railroads under the urging of a Democrat, Stephen A. Douglas, and the practice grew to considerable proportions before the device was usurped by the Republicans during the Civil War and converted into a political triumph and a national disgrace.

Another facet of Democratic policy is illuminated by the fiery diatribes of William Allen on the land question during the debates on the Tallmadge bill in 1844. Allen protested that he was not opposed to internal improvements, but argued that it was unfair to make the settlers pay for the subsidy in a doubled price for their lands. This theme was also played by the Wisconsin Constitutional
Convention, which accepted the proffered grant on condition that the reserved sections be held at only the regular price of $1.25 per acre. This attitude reflected the Democrats' insistence on cheap land for settlers, which found expression in their campaigns for preemption and graduation laws. Furthermore, the rights of preemptors on granted land were always protected with jealous care.

None the less, the legislation extending land grant aid to internal improvements appealed to the land speculating class, a group upon which the Democratic party depended more and more through the years. Allegedly the grants were drawn in a fashion calculated to prevent dissipation of the proceeds without accomplishment. This was the reason given for requiring construction before sale of the land. The policy, however, made it necessary to raise funds somehow before building the improvement. Taxation was politically impractical; the money had to be borrowed on the security of the project and the grant. This was a situation made to order for the speculating class. The attempts of Wisconsin legislators to avoid the consequences of the land grant policy failed. The returns from sales on the "pay-as-you-go" system were insufficient and the state turned the project over to private enterprise. So, too, with the Waterway in private hands, the ebb and flow of the fortunes of the Fox and Wisconsin Improvement Company was keyed to the grant.
At the time the Company assumed control of the Waterway, the congressional grant measured some 306,000 acres. Of this amount, the state had already sold slightly less than 140,000 acres. This left to the Company more than 165,000 acres to finance the completion of the Improvement and discharge the obligations incurred while the works were under state control. Roughly half of the remaining lands were assumed to be either marshy or covered by preemption claims. This land could bring no more than $1.25 per acre. The remaining half, however, was regarded as good farming land worth at least $5.00. All told the remaining grant was estimated to be worth slightly more than $500,000, a sum ample to discharge the state liabilities and complete the construction. This, at least, was the prospect as the promoters explained it.

Unfortunately, the title of the state to a substantial portion of the grant was not clear. By the act of 1846, the state was to receive alternate sections of the public land within three miles of the line of the Improvement. Governor Dewey chose the odd-numbered sections. Before the grant was made, however, nearly 100,000 acres of the odd-numbered sections along the route had already been sold by the United States or were subject to private claims and Indian reservations and so were not available for sale by the state. Confronted with this difficulty, Governor
Dewey, in 1849, selected 60,000 acres from the even-numbered sections, which were reserved to the federal government. The right of the state to dispose of these even-numbered sections was uncertain and remained uncertain for many years. All of the Wisconsin congressional delegation, and many private citizens, among them Morgan L. Martin on his annual trips to the east, tried in vain to secure a confirmation of the right of the state to the even-numbered sections. In 1854, when Congress passed an act interpreting the original grant, it appeared that the status of these lands was clarified, but the Land Office functionaries and the Secretary of the Interior refused to agree on this point. The matter of the even-numbered sections was not settled until 1859. Until then, state legislation regarding the Waterway included provisions protecting settlers on the even-numbered sections.

The balance of the grant in lieu of the lands sold was still unselected in 1853, the Governor having failed to make selections due to the difficulty of securing confirmation of the even-numbered sections. To determine the amount of land located and certainly available for disposition by the Company in 1853, it is necessary to subtract from the original grant, the land sold by the federal government before the grant was made and for which lieu lands had not been agreed upon (about 100,000 acres), and the lands sold by the state (about 140,000). As a result of
these deductions there remained only some 70,000 acres to
which the right of the state and its successor, the Company,
was unquestioned. Of this land, about 30,000 acres were
low-lying meadowland worth $1.25 at best. The remainder was
excellent farming acreage calculated to bring $5.00. The
whole of the grant certainly available for disposition was
assessed at less than $250,000.

Furthermore, the Company had to fulfill certain con-
ditions before they could obtain control of the lands in the
grant. They could acquire lands by depositing with the Sec-
retary of State evidences of indebtedness against the Im-
provement, indicating construction they had accomplished or
a state obligation the Company had paid. Alternatively,
they could deposit United States bonds, or those of any
state, valued at their New York price. Against these de-
posits, the Company could select lands at $1.25 per acre.
The act of 1853 provided further that whenever the obliga-
tions of the state had been entirely discharged, the remain-
ing lands, or the bonds transferred to the state in exchange
for lands, were to become absolutely the property of the
Company. For ten years, all lands held by the Company were
exempt from taxation until sold and conveyed or contracted
to be sold, or leased, or improved by the Company. The
land could be acquired by the Company, but only by some pri-
or outlay of funds — for construction, or in payment of a
state obligation, or for the purchase of bonds to place on
deposit. The promoters were thus discouraged from relying on the grant to meet the current expenses of construction. They were forced to supply funds from other sources at least on a short-term basis.

None of the organizers was a man of great wealth with the possible exception of Morgan L. Martin, who was already deeply involved in the undertaking. The promoters, in addition to Martin, included such well-known political partisans of the Waterway as Theodore Conkey and Urial Peak, and Joseph G. Lawton, a large creditor of the project. Lawton memorialized the legislature in March, 1853, opposing a bill to make warrants for work on the Wisconsin River receivable for lands in the grant. The proposal was inimical to his interest. He said he had negotiated $70,000 of Martin's scrip, which was secured by the lands. Later in the spring, he offered to act as agent for the state in negotiating a loan to complete the Improvement. The other promoters named in the bill of incorporation were all men living in the Lake Winnebago and lower Fox River district of the state. The Company was apparently a local undertaking.

The local sponsorship of the Company was perhaps more apparent than real. Martin negotiated funds for his undertaking outside the state. There seems little reason to suppose that he risked any more of his personal fortune than was already involved. Furthermore, one of the most
important sources from which he obtained money was Simeon Draper, "one of the shrewdest and most popular operators in New York City." Draper's representative in Wisconsin was Joseph G. Lawton, who may well have been speaking for his principal through all his connection with the enterprise.

As early as August, when the Company was just getting underway, the *Fort Winnebago River Times* reported that Draper was interested in the new organization: "The initiated are placing great reliance upon Mr. Draper's tact and influence in New York, to obtain any requisite amount of funds . . . , for the completion of the Fox River Improvement." The Company also sought funds elsewhere. Among the businessmen they contacted was Isaac Seymour, cashier, and soon to be president, of the Bank of America, one of the largest of the New York City banks. Seymour and his associate, William J. Averell, dispatched an engineer, C. D. Westbrook, to the scene to survey the works, the route, and the land grant, and determine whether or not there was sufficient security for the $500,000 bond issue the Fox and Wisconsin Improvement Company wanted to float.

As a report on which a large investment was to be made, Westbrook's survey is a remarkable document. He accepted the Company's estimate of the value of the lands without question and reported enthusiastically about the region in which the grant was situated. On the other hand, he thought the water powers of little value.
Westbrook displayed magnificent optimism in assessing the traffic potentialities of the route. "Of the commerce which this Improvement proposes to facilitate," he reported, "but a small proportion is passing at present along its line." He noted that there was rather sparse traffic on the upper Fox and as yet no through passage from Lake Winnebago to Green Bay. A plank road to Sheboygan furnished an outlet for much of the Lake Winnebago region. Fox Valley "exports of wheat and returns of merchandise," Westbrook told his employers, "principally take the land route to and from the city of Milwaukee, which is about 90 to 100 miles distant from the whole line of the Upper Fox." The engineer found that Wisconsin River produce went downstream to the St. Louis market. The current situation with regard to tolls was clearly not good, but he was confident that the prospects were superb.

Railroads projected and in the process of construction failed to impress Westbrook as effective competition. He contrasted the railroad rates from Portage to Milwaukee with the rate to Green Bay via the Waterway. The former he estimated would be four to five times the latter. He further assumed that once the Improvement was opened Green Bay would offer a market equal to Milwaukee. He concluded with the highly optimistic judgment that the Waterway would take over the entire carrying trade then enjoyed by other routes!

In sum, Westbrook informed his employers that if the
state was entitled to all the remaining lands of the grant, these alone were sufficient to complete the works. Once completed, the transportation route was bound to be an excellent source of funds. In other words, Westbrook's judgment was that the Company's bonds would be a very sound risk. In view of the records even then being made by railroads in competition with water transportation, the most remarkable thing about Westbrook's report is that Seymour and Averell acted on his recommendation and underwrote the 23 bonds of the Company.

Through the Seymour and Averell connection, the Company soon found itself in the hands of a group who turned it into a gigantic land speculation. These men were Erastus Corning and Edward C. Delavan of Albany, Horatio and John Seymour of Utica, Benjamin F. Butler, his son, William Allen Butler, and their law partner, Hiram Barney, of New York City. These were all men of considerable wealth and national renown. More important for the Waterway, the clique comprised men of marked experience and ability in matters of transportation; they were all figures of importance in national politics; and they were bound together by a common interest in speculation in lands.

Erastus Corning, the Albany ironmonger, was active in the promotion of railroads in New York. He served as president and director of several of the roads whose consolidation in 1853 produced the New York Central line, the
largest combination of its time.  On one railroad, the Utica and Schenectady, he was associated with Henry Seymour, father of Horatio and John Seymour.  In addition to hardware and transportation, Corning had extensive banking interests.  It was probably through this activity that he came in contact with Isaac Seymour while the latter was yet a country banker in Peekskill, New York.

Corning also numbered land speculation among his concerns.  In addition to the railroad association with the Seymour family mentioned above, John Seymour and Martin Van Buren were associated with Corning in a scheme for the development of Auburn in Cayuga County, New York.  Another land promotion in which Corning was involved was the American Land Company, organized in 1835, which introduced the Butler family into the clique through Charles Butler, brother of Benjamin F. Butler.  Through the Butlers, William B. Ogden, later the transportation king of the Middle West, obtained the position of Chicago agent for the Company.

Edward Delavan was also a member of the American Land Company.  The interests of the American Land Company were scattered far and wide over the United States — in Ohio and Tennessee, in Mississippi and Wisconsin, and elsewhere.  The New York Land Company concentrated on a more limited territory.  This association was formed to exploit the so-called Half-Breed Tract in southern Iowa.  Delavan was interested in this group also.  Its eastern agent was Hiram
Barney. Henry Seymour, too, was a member of the group that sought to develop the Half-Breed Tract, and his sons, Horatio and John, succeeded to his interest.

In addition to his business activities, Erastus Corning was also a prominent member of the Albany Regency, the junta that ran the upstate branch of the New York Democracy. Twice, in 1857-1859, and again 1861-1863, Corning served as a member of Congress. He thus cut a considerable figure in national as well as state politics because of the pivotal importance of New York in the political struggles of mid-century.

Edward Delavan was a wealthy man whose devotion to the temperance cause brought him to public notice in the reform decades before the Civil War. His association with the Fox-Wisconsin speculation was but one of many such ventures he shared with his friends Erastus Corning and the Seymour family. Both Delavan and Corning were of ripe years by the middle fifties, and the former appears to have served principally as a source of funds, giving little actual direction to the enterprise. Benjamin Butler, too, had little active part in the Fox-Wisconsin scheme; his political activities commanded more and more of his attention through these years. Indeed, it was at about this time that he severed his connection with the law firm of Butler, Barney, and Butler, and the partnership became Barney, Humphrey, and Butler. William Allen Butler and Hiram Barney, on the
other hand, both figured prominently in the Fox-Wisconsin speculation. Barney was active in temperance and abolition circles from an early date, perhaps because of his marriage to the daughter of Lewis Tappan. Barney was prominent in Republican circles from the inception of the party. In 1860 he was an important fund-raiser for Abraham Lincoln's campaign. In addition to his political agitation, Barney served as agent and attorney in the many schemes the clique under discussion projected.

Among this speculative group, Horatio Seymour probably stood next to Corning in national prominence, if not above him. Seymour had just completed a term as governor of New York when he assumed an active role in the Fox-Wisconsin promotion. From the time of his service as Governor of New York, Seymour was regarded as presidential timber. In both political and business matters he was a long-time associate of Erastus Corning.

Horatio Seymour came by his interest in the Waterway naturally. His father, Henry Seymour, had built the family fortune on a firm basis of real estate holdings along the line of the Erie Canal. During the 1840's, as a member of the New York legislature, Horatio himself filled an important part in maintaining state support of that venture in the face of rising railroad competition. In the spring of 1844, Seymour presented a long report ably marshalling the arguments on behalf of maintaining and enlarging the
Erie Canal.

He pointed to the vital part the Erie had played in the competition of New York with Montreal. That role was of diminished importance by the 1840's. By then it appeared that the Canal was working against the western part of the state. "The fertile and low priced lands of the west are now brought into direct competition with the agricultural interests of this State," he acknowledged. Seymour, with his investments in western lands to comfort him, was able to view this development with equanimity. He explained that New England farmers had encountered a similar situation when the Erie Canal brought the products of western New York into the eastern markets. Fortified by his holdings in western New York State manufactures, he urged his constituents to follow the New England example: "Unable to compete with us as agriculturists they became manufacturers," he pointed out.

Erastus Corning perhaps did not fully appreciate the strategic significance of his transportation enterprises. He apparently regarded his railroad holdings as "protected" markets for the products of his iron works. The same charge cannot be sustained against Horatio Seymour, as the conclusion of his report on canals well shows: "In this country, which is so rapidly improving, as a general rule, every public improvement, from the rude track which is cut through the forest to the expensive canal, is designed to create and
facilitate communication, rather than to accommodate existing wants," Seymour declared. "The history of every part of our country shows that trifling advantages of this description have fixed the sites of our important towns and cities." He developed the point further: "There is hardly a town or an important manufacturing or commercial place which has not been fixed by the enterprise of some individual, or by some considerations of convenience which might easily have been transferred to other points. It is for this reason that so much importance is attached to the construction and lines of improvements in the early stages of settlement."

Horatio Seymour had the qualities of a transcontinental dreamer coupled with his keen appreciation of the importance of transportation. In a lecture, of which he was so fond he changed not a word in fifteen years, Seymour revealed the same vaulting imagination that Claude Dablon had shown almost two centuries before. In the course of his narrative, Seymour traced a water-route from New York harbor through the Hudson, the Mohawk, the Great Lakes, Green Bay and the Fox-Wisconsin Waterway, the Mississippi and the Missouri, to the Rocky Mountains, "a distance, by the course of the streams, of more than four thousand miles." "The entire length of the same route can now be traversed by a vessel of burden, by the aid of artificial channels," he announced. Seymour capped this declaration with the delusive
observation that "but a single mile separates the head waters of the Missouri from those of the Columbia river." The lecture was delivered first in 1856, shortly after the Seymours became associated with the destinies of the Waterway. Fifteen years later the lecture was repeated without change at Cornell University. In 1874, still undiscouraged by the demise of the Improvement Company and its successor, he wrote to Roscoe Conkling: "A steamboat route from the Mississippi to the Great Lakes is the first and greatest want of our country . . . . I do not think you have anything before Congress so important as this."

For all his dreams, Horatio Seymour had a long and quite practical acquaintance with the Waterway region. As early as 1836 it is recorded that he purchased a portion of Samuel Stocking's share in the pool of land speculators headed by John Jacob Astor on the site of Green Bay. For that day, the investment was substantial, amounting to $7,500.

These were the men most prominently involved in the affairs of the Waterway during the remainder of its career in private hands. They were businessmen of large vision whose interests spanned the country. Since they were not natives of Wisconsin, their concern with the Waterway was primarily economic. Whether or not the Improvement contributed to the development of Wisconsin was incidental to whether or not the Improvement proved to be a profitable
investment. They were, furthermore, men of considerable political importance and were accustomed to using their political connections to further their business enterprises.

II

The financial situation of the Fox and Wisconsin Improvement Company continued precarious. In late 1854, Otto Tank, then serving as president, reviewed the bitter experience of the first year of operation. "The financial history of this Improvement up to the time the State ceded it we wish to bury [sic] in oblivion but even after it was given over to this Company, even as well the late Governor as the combined interest of the more settled part of the south of the State with the Interest of Milwaukee at the head, did all what ever could be done to check us in every imaginable way and crush us entirely if they could," he complained. "Pamphlets and false reports abundantly distributed in Wall Street and elsewhere made it totally impossible [sic] to raise any money at all until one or two moneyed friends quietly came to our rescue."

The money the Company managed to raise scarcely sufficed to meet the maturing obligations of the project. In desperation, the Company resorted to quasi-banking operations, a device that did not endear the Company to the residents of the Fox Valley. "Terrible growling about the checks," wrote a Company agent from Green Bay. "They are
not taken at all except at a shave." Company representatives parted with the funds they were able to obtain only with great reluctance. In January, 1854, the directors informed the stockholders that only a part of the certificates and warrants had been paid because of the difficulty of determining which claims were justified and which were not.

Even the scrip issued to Morgan L. Martin was not sacred. A Philadelphian who had bought some of the scrip from Simeon Draper finally complained to the legislature in 1856. When the interest for the second year fell due, Martin told him that the scrip was "'considered'" unconstitutional and that the Company would not go to any great trouble to retire it. Martin acknowledged that "'as a matter of honor'" they planned to make some arrangement with regard to the scrip. The disgruntled investor then approached Hiram Barney in New York. Barney insisted that the scrip was a state obligation and that the state would make the scrip good. Under pressure from the creditor, Barney conceded that "'from motives of honor'" the Company would issue 7 per cent bonds at a ratio of $5,000 of the new issue in exchange for $4,000 of the Martin scrip plus accrued interest, "allowing, he said, 25 per cent. at premium, but which, considering the accrued interest, was just one per cent." This policy, the investor complained, had depreciated the value of the scrip, "thus injuring the less wealthy holders, who, on the constitutional pledges of the state, have advanced
money for her improvement, benefiting speculators, and enabling the Company to purchase evidence of indebtedness worth to them 100 per cent. premium or more, at 50 cents on a dollar." The petitioner went on to point out that the act of incorporation permitted the Company to acquire "all the land of any value" by depositing United States bonds, or state bonds at their New York value with the state treasurer. "The agent told me that my bonds could ultimately be made available for swamp land, utterly worthless." It was evident that though the finances of the Improvement might falter, as a land speculation it was destined to prosper.

While the state controlled the Waterway, her representatives struggled in vain to obtain a generous interpretation of the grant of 1846. Many officials, especially in the lower echelons of the Civil Service, were friendly. James H. Piper, Acting Commissioner of the General Land Office when the grant was made, immediately wrote the Register and Receiver at Green Bay: "Having been advised by the Hon. M. L. Martin, that an act had been passed by Congress . . . you are hereby directed to reserve from sale or entry of any kind until farther orders, all the land directed to be reserved by the letter from this office of the 11th of April, and one full section on each side of the lands then reserved." Later he wrote Governor Dodge to assure him that the Fox-Wisconsin Grant was not to come out of the
500,000 acres offered the state by the act of 1841. Piper's service as Commissioner was over before he could do more. The officials of the Land Office at Green Bay were cooperative, especially after the Waterway advocates succeeded in having Doty's henchman, John S. Horner, replaced by John F. Meade. Edgar Conklin, later one of the original incorporators of the Fox and Wisconsin River Improvement Company, served as Receiver of the Green Bay Land Office at the time the grant was accepted by the state. Alexander Spaulding, one of the trustees of the Company after 1856, also saw service in the Green Bay Land Office.

In Washington, on the other hand, Waterway matters did not go very well. In the General Land Office itself, the state agent received "much courteous aid from Mr. Randall," a long-time clerk who proved thoroughly familiar with the intricacies of the correspondence, legislation, and rulings concerning the claim. The friendly Piper had meanwhile been replaced as Commissioner, first by Richard M. Young, and then by John Butterfield. Butterfield was opposed to land grants for special purposes. In his annual report for 1849 he wrote, "The sales of the public lands have also been materially interfered with by the State selections under the act of 4th September, 1841 [granting new states 500,000 acres of internal improvements], and by selections under acts making large grants to several States for canals, improvements of rivers, &c . . . . all of which
interfere with and reduce the sales of the public lands." The ultimate decision on the interpretation of the grant lay in the hands of the Secretary of the Interior, and that functionary resisted even the blandishments of James Duane Doty, insisting on further legislation before he would permit the state to have the full acreage claimed.

So long as there was a Whig administration in Washington, efforts to secure this additional legislation were unsuccessful. Wisconsin's press and legislature begged for congressional generosity without effect. The endeavors of senators and congressmen failed to obtain the desired result.

Then, in March, 1853, the administration changed. The Democrats returned to the White House and the departmental offices in Washington. Robert McClelland of Michigan, a warm friend of internal improvements and of the waterway, assumed the duties of Secretary of Interior. John Wilson was now Commissioner of the General Land Office. Wilson was a strong advocate of the policy of land grants in aid of internal improvements. In the annual report for 1852 he had written, "I beg leave to state that the roads and canals constructed with the assistance given by the government, and the improvement of the navigations of rivers effected through the same instrumentality, have brought into market immense bodies of land, which otherwise would probably have remained unsold for many years." Pointing to
the case of the Illinois Central Grant, Wilson said that the policy helped sell land even though the sections reserved to the federal government were held at $2.50 per acre. "I respectfully recommend that grants of this character be made to the several States for every work of the kind they may undertake."

In Congress, matters took a decided turn for the better. At the first session under the Pierce administration, Wisconsin's Senator Isaac Walker presented a report and a bill for the benefit of the Fox-Wisconsin Waterway from the Public Lands Committee. The report was short, merely stating that progress had been made on the construction and that the state had now turned its interest over to the Fox and Wisconsin Improvement Company. The report was ordered printed and the bill was laid aside for a fortnight. On March 22, 1854, Senator Walker moved to take up the Fox-Wisconsin bill. "I will state that it is a copy of a bill for the benefit of Illinois, which has been passed at the present session," he said, "I think we can pass it in a minute without objection." With no more ceremony than this, the bill passed the Senate. The measure progressed through the House of Representatives in much more leisurely fashion, but apparently without any vocal opposition. After it had been delivered to the House, it was not read until April 12, 1854, when it was referred to the Public Lands Committee. It did not emerge from the Committee until August
3, but on that day the bill was passed, enrolled, and approved by the President.

The act of 1854 was certainly generous. It authorized the governor of Wisconsin to select additional lands yet due the state under the grant of 1846, "the quantity to be ascertained upon the principles which governed the final adjustment of the grant to the state of Indiana, for the Wabash and Erie canal." The Land Office construed the act as permitting the governor to select, in lieu of lands sold prior to the grant, acreage from unsold public lands anywhere in the state. This principle, applied to the Wisconsin situation, actually increased the grant by some 110,000 acres. The Indiana act established a method of measuring the grant that followed the meanders of the streams and included the shore lines of lakes along the route. Even before the bill emerged from the Senate Public Lands Committee, John Wilson jubilantly, though mistakenly, assured Governor Barstow that the act was a confirmation of Dewey's selection of the even-numbered sections within the limits of the original grant. He also told Morgan L. Martin, who was in Washington at the time, that this was his interpretation of the act.

The Company exploited the generosity of Congress so far as they were able. The Company Land Department found some purchasers for land in the even-numbered sections before the General Land Office decided that selections in the
United States reserved sections were not authorized. At about the same time, a change in Company policy put a stop to land sales. The New York promoters next sought to establish the interpretation that the act of 1854 increased the limits of the grant from three to five sections on either side of the right of way. Because the Indiana grant was five sections, they argued, the Fox-Wisconsin grant should also be of that size since the quantity of the grant was "to be ascertained upon the principles which governed . . . the grant to the state of Indiana."

Early in 1855, Erastus Corning went to Washington to urge that interpretation upon the officials of the Department of Interior. Otto Tank wrote Morgan L. Martin from New York: "E C is in Washington again, has spent almost the $1000 (Eastman* has got 200) and wants more, hopes to get the interpretation of 5 miles acted upon without the house." Shortly after, Tank again reported that Corning in Washington was "determined to spend more money on the Clerks (Eastman has got some) and others." The persuasive power of the Company money was not sufficient. It was necessary to appeal to Congress to allow the broader construction of the act of 1854.

Again it was Senator Walker who managed the affair on the Senate floor. He reported a joint resolution from the Committee on Public Lands on February 24, 1855. Walker's

*Ben C. Eastman, Wisconsin Congressman.
explanation to his colleagues was at least as vague as the phraseology of the resolution itself. He told them, "I have endeavored to get that measure [the act of 1854] through Congress for several years. I have got it five times through the Senate, but, until the last session, I was not so fortunate as to get it through the House of Representatives." Now, he went on, "a difficulty has arisen at the General Land Office in its construction." Walker next undertook to elucidate the act of 1854. "The intention of the committee and of Congress was to do for Wisconsin, in the selection of the residue of her lands — for she got the original appropriation in 1846 — what had been done for Indiana," he declared.

At no time did Walker even hint that the act of the preceding session had enlarged the original grant, nor did he suggest that the resolution would still further increase the grant to Wisconsin. The whole problem, the Senator insisted, lay in the construction of the act, due to "its peculiar phraseology." With a straight face, Walker told his colleagues that the passage of the resolution was necessary for the administration of the grant; he implied that without the resolution the state would be unable to enjoy any of the benefits of its grant. "This resolution is the form drawn by the Commissioner of the General Land Office," he assured the Senate. "I have his letter addressed to the chairman of the Committee on Public Lands in the House on
the subject requesting this explanatory resolution to be passed to enable him to carry out the act." Apparently satisfied with this lucid and moving appeal, the Senate, by unanimous consent, permitted the necessary readings of the proposal, its consideration as in Committee of the Whole, and its passage, without further recorded discussion.

In the House of Representatives, the course of the resolution was not quite so smooth. After its reception, the resolution lay on the Speaker's table for a week. At last, on March 3, 1855, Congressman Eastman from Wisconsin's Third District asked unanimous consent to take it up. Elihu Washburne of Illinois asked the substance of the resolution. Eastman replied cautiously, "It is a resolution recommended by the Commissioner of the General Land Office, in order to remove from his mind any doubt in regard to the construction of a certain bill." A dissatisfied member denied Eastman's request for unanimous consent. Eastman promptly moved to suspend the rules. Washburne countered with a demand for tellers on the motion but his efforts to block the measure were without substantial support. Eastman's motion carried ninety-two to twenty-five. The spokesman for the Waterway effectively stopped discussion of the proposal by moving the previous question both on third reading and on the passage of the measure. The bill carried ninety-one to forty-two. Needless to say, the measure enjoyed the support of the entire Wisconsin delegation. It was approved by the Presi-
dent on the same day. The resolution stated that "it was the intention of the act of Congress, approved August 3, 1854, and the same shall be construed to give to Wisconsin, in aid of the improvement of the navigation of the Fox and Wisconsin rivers, a quantity of land, equal mile for mile of its improvement, to that granted to Indiana, under the provisions of the act of Congress, approved May the 9th, 1848." Its immediate effect was to increase the grant by nearly 270,000 acres.

The Company took immediate advantage of the resolution, for their financial needs were pressing. Martin carried on an abortive negotiation with Amos A. Lawrence* through the spring. Martin tried to obtain from the philanthropist either money or some very attractive land held by Lawrence in the Fox Valley. Lawrence himself said that he was not interested, but agreed with Martin about the land in question. "If you wd like to raise some money I think you can do it with these lands better than with Bonds — & at not less than $3.00 per acre." He generously conceded, "If I get an offer, I will turn it over to you, if you wish, & ask you how many bonds you will give me for the amount." Martin apparently decided against following through with this

*Lawrence, a Massachusetts industrialist, was a well-known anti-slavery philanthropist and a big contributor to the New England Emigrant Aid Society during the Kansas struggle. He is remembered in Wisconsin for his munificent gifts in aid of Lawrence College in Appleton.
complicated arrangement, for it is not recorded in the later reports of the land transactions of the Company.

Hiram Barney's efforts to sell a large quantity of land to Timothy Dwight* were more disappointing, for a substantial sale came quite close to consummation before negotiations collapsed. In October, 1855, Barney wrote anxiously to Martin, "I trust every exertion will be made to satisfy Mr. Dwight with lands so that he can make purchase & give us $150,000 in cash now—He will see you before you see this." A month later, the deal was on the verge of being closed. Barney complained to Martin that a description of the Company lands had not been sent to him. "I have not yet received anything from Conkey—and cannot of course designate the lands which we will sell to Dwight .... I cannot say what lands we can sell—we cannot sell pine-lands—we can't sell even-sections until the title is settled—we can't sell certain lands of choice value." He went on, "Still it is expedient to say what we will sell. So I agreed to sell him 200,000 acres of our lands to be designated by him before 1st July next." The agreement was couched to protect the Company's more valuable lands so far as possible. "He is to have no pine lands and we have the right to take out of the lands which he may designate 10,000 acres and he to select 10,000 more ...." The terms called for a price of $2.50 per acre with a payment of $150,000 by

*Dwight was president of Yale College.
the first of the year, "when he is to have a deed of sixty thousand acres..." The balance of the purchase was to be spread over the next three years with semi-annual payments and conveyances. Like the Lawrence negotiations, the Dwight transaction fell through. Late in the year, Barney reported meager sales of but 10,000 acres.

Meanwhile, Company representatives in Washington were finding the atmosphere cold. John Wilson retired as Commissioner of the General Land Office and became Land Commissioner for the Illinois Central Railroad, where he found ample scope for his sanguine temperament. His successor was Thomas A. Hendricks, who had been defeated for re-election to Congress. Hendricks was no friend of the Fox-Wisconsin Waterway. He had voted with the minority against the resolution of 1855 in the House. Hendrick's principal assistant was Joseph S. Wilson, the brother of John. Joseph Wilson, however, did not share his brother's leniency toward the Waterway.

The changed attitude in the Land Office may also be attributed to the exorbitant demands the Company now placed before it, for their proposals exhausted the patience of Secretary McClelland himself.

In his annual report for 1855, McClelland reviewed the history of federal generosity to the project. The grant of 1846 totaled 260,433 acres, of which 208,303 acres were selected and approved, the balance having been sold.
previous to the grant. Since the act of 1846 made no provision for replacing these lands, the Secretary went on, the governor of Wisconsin had selected acreage from the even-numbered sections, "which, in a spirit of liberality, was reserved from sale, subject to the further action of Congress, for the purpose of supplying the residuum." Following passage of the act of 1854 and the resolution of 1855, McClelland continued, "The land office assuming these as its guide, determined by a liberal construction of all the acts, and the resolution, to give to Wisconsin five instead of three sections for the width of the grant, and the one half of the sum of the actual meanders of both shores of the canal, the river, and the lakes, with all their sinuosities, including the large lake Winnebago, as the length of the grant." This interpretation increased the grant about two-and-a-half times over the original acreage. "But the company which purports to have succeeded to the rights of the State, . . . preferred a claim for the alternate sections of the Wisconsin river . . . which would enlarge the grant upwards of 352,000 acres, increasing it from 260,433 acres to 1,036,269 acres, and probably much more, depending on the rule that might be adopted." Clearly outraged, the Secretary concluded: "The claim, after full examination by the late Commissioner of the Land Office, and review on appeal by me, with every proper disposition to favor the State, was rejected."
Once the proposition to claim lands for the Wisconsin River was advanced by the Company, they found a ready ally in the often-antagonistic state government. Legislation while the Waterway was yet under state control had insisted on improvement of the Wisconsin. A Select Committee of the legislature, which investigated the affairs of the Company in 1856 and found much to condemn, subscribed to "the correctness of this last construction of the resolution of 1855."

Coles Bashford had written bitterly in 1853 about the "fraud & perjury" of the "land sharks" around the State Land Office alleging that if certain preemptors "ever went upon said premises at all it must have been the night before (& in the night to)." In 1857, as Governor of Wisconsin, however, Bashford sent a special letter to President Buchanan faithfully outlining the arguments in favor of the state and the Company claim. In that year, several Wisconsin luminaries advocated the claims of the state in person before Washington officials. Moses M. Davis, who was then bitterly opposed to the Waterway crowd, complained of money spent on "Hopkins,* Bashford, Alex Spaulding, & Double-headed Brown** for lobbying [sic] at Wash-

*Benjamin F. Hopkins was one of the Madison Regency, a faction struggling for control of the State Republican organization.

**This was probably Beriah Brown, a prominent Madison editor.
ington." Company representatives, too, were often in Washington where Erastus Corning, as a member of Congress from 1857-1859, constituted a sort of permanent lobby.

The emissaries to the Department of Interior encountered a decidedly unfriendly atmosphere after President Buchanan's inauguration. Crusty Jacob Thompson was chosen for the post because he combined southernism with opposition to land speculation. Furthermore, in matters involving the public lands, he necessarily relied upon the advice of his senior civil service employee, Joseph S. Wilson, since Thomas Hendricks, the Commissioner, was a political appointee. After one discouraging interview, Alexander Spaulding reported, "The influence of Joe Wilson is visible in the manner of the Secy and I think he has been governed by Wilson's wishes."

The Company had claims before other departments of the government. Part of the enlarged grant, embracing the shores of Lake Winnebago, was included in the Stockbridge Indian reservation. The efforts of the Company to secure these lands required dealings with the Indian Office. A Company agent found Charles E. Mix, chief clerk and later commissioner, cooperative; his superior, the Secretary of the Interior, was not. Jacob Thompson argued that Indian title to the land had not been extinguished in 1846 when the grant was made and that therefore the United States could not grant land there. In the end, he deferred reluct-
antly to the opinion of Attorney-General Jeremiah S. Black that "when one party grants lands in which he has no estate, a title subsequently acquired by him enures, not to his own benefit, but that of his grantee." Spaulding found Thompson only partially satisfied with the opinion. "The Secretary of the Interior says that the effect of the opinion of Mr. Black is to give us all the lands we claim in the Stockbridge tract; but that he does not choose to certify to the State any of those lands which have been transferred under treaty stipulations." Spaulding continued, "He says that if we consider his action wrong in the premises the Courts can be invoked, and it will doubtless come to that before we can secure our rights." A month later another agent was assured that the matter would be closed. Not until November, 1860, however, were the Company selections in the old Stockbridge reservations approved. Shortly thereafter a portion of the land fell into the possession of Erastus Corning.

The relations of the Company with the War Department were cordial enough. Here the question was whether parts of the abandoned military reservations at Fort Howard and Fort Winnebago could be sold to the Company. Morgan L. Martin wrote Jefferson Davis in 1854 to request the opening of the Fort Howard reservation at Green Bay. Shortly after, he again addressed the Secretary of War, this time concerning land at the Portage. Martin referred to Davis's
"kind offer to communicate with you on any subject of interest to me personally," and asked confirmation of the sale of a portion of the Fort Winnebago reservation as a canal and water power site. In vain, Martin sought the ministerial favor. A year later, he again brought the matter to Davis's attention. In this letter, Martin went to great lengths to disavow any suggestion that he stood to gain personally from the action of the Secretary. He was apparently unaware that the real obstacle in the way of Davis's approval was not the latter's suspicion of speculation, but inadequate legislation. At that time, there was provision for the sale of buildings on abandoned reservations, but not for the sale of the lands on which they stood.

John B. Floyd, Secretary of War under Buchanan, found it possible to cooperate more readily with the Company. Alexander Spaulding sent a note of warning to John Seymour in the fall of 1859. "I think it very important that the matter of Fort Howard should be looked after without further delay. I see by the morning papers that there is a prospect that Gen. Floyd may be sent to Paris." He explained, "Any successor of his may not feel inclined to ratify the arrangement between your brother and the Secretary." He added, "We can get this reservation now — but may experience difficulty hereafter." A fortnight later, in another report, Spaulding was still pleased with General Floyd's attitude. "The Secretary of War expressed a willing-
ness to open his former decision as to the Fort and said that if Mr. Black had decided in the Stockbridge case as I stated he should be inclined to defer to that opinion."

By mid-December, 1859, another agent reported all land matters in the process of settlement.

Only a part of the claim to even-numbered sections continued to elude the grasp of the Company. After considerable agitation by Morgan L. Martin on behalf of the Company, and repeated memorials and petitions by the state, Congress was finally prevailed upon to adopt a law confirming the selection of even-numbered sections that had actually been sold. The members of the House were so suspicious that action could not be obtained until they were assured that the act did not increase the grant to the Company and provided preemption rights for settlers on the United States reserved sections.

Endeavors by the Company to secure the rest of Dewey's selection among the even-numbered sections were to no avail. The Commissioner of the General Land Office held that these lands were excluded from selection because the laws provided for choice from lands subject to private entry and the lands the Company desired had never been offered. Edgar Conklin, who was Register of the Green Bay Land Office in 1849 when Dewey made the selections, insisted that Hendricks was wrong in this. "The even Sections were Proclaimed for Sale by the President during the first
year that I was in the Land Office — on the morning of the
day of Sale Gov' Dewey through his Agents filed the list.
. . . We the Land Officers offered the lands regularly . . .
there were only two or three sales — Why? the State land
officers and other friends of the Improvement advised the
Settlers not to attend the Sale; but to allow the State to
take the lands for the Improvement." The Land office of-
officials, however, remained adamant.

At last the question was presented to the Attorney-
General. Black's opinion was adverse to the Company claim.
For his view, he advanced two grounds. Black reasoned that
the act of 1846 confined the state to alternate sections,
and the act of 1854 authorized selections only from lands
"'subject to private entry at one dollar and twenty-five
cents per acre, and not claimed by pre-emption.'" Since
the reserved sections were priced at $2.50, Black argued,
the selection of even-numbered sections was not autho-
ized. As a matter of fact, Congress in 1848 had provided
for sale of the reserved sections "at the same minimum
price and subject to the same right of preemption as other
public lands of the United States."

That Black was mistaken did not help the Company.
The decision of the Attorney-General was a severe blow to
the Company coming, as it did, in the midst of the Company's
struggles with the after effects of the Panic of 1857. A
Company official in New York advised John Seymour to have
Horatio use the New York copies of the books, which apparently concealed the serious plight of the Company, and John Seymour's statement of conditions in dealing with the trustees. If this plan was followed, he confided, "all will be right." "The Washington decision will give the Governor trouble enough without the accounts which I am afraid are a good deal mixed up."

All in all, the fortunes of the Fox-Wisconsin Improvement Company on the Washington scene were good. As far as the federal government was concerned, the grasp of the Company on the full grant allowed was secure. By late 1858, of the entire subsidy, amounting to 664,269 acres, only 37,759 acres remained to be selected. The Commissioner of the General Land office reported that there were lists on file in various Wisconsin land offices that covered even this remainder. In 1860, John F. Seymour stated that all but some 10,000 acres had been selected and approved. Since receipt of the grant in 1849, barely 250,000 acres had been sold. In other words, well over 400,000 acres remained of the munificent federal grant. While the state and Company officials had been laboring together in Washington to obtain these lands and make title to them secure, the Eastern speculators had been scheming in New York and maneuvering in Madison to eliminate the Wisconsin promoters and snatch the entire remainder of the grant for themselves.
When the Company was organized, Martin, Tank, Conkey, Peak, Lawton, and the other Wisconsin promoters controlled it. Something has already been seen of the rapidity with which out-of-state interests moved in on the attractive speculation. The Company began operations in August, 1853, and in February, 1854, began distributing stock to bond holders who had supplied the funds with which the work was begun. Control of the enterprise continued to slip from the hands of the original promoters.

The financial situation was difficult. It appears that the only funds the organizers put into the enterprise — beyond the investment represented by Improvement obligations due to the promoters themselves — were those involved in the personal bonds required by the act of incorporation. No money was paid in on the capital stock. Even so, the incorporators were unable to handle the needs of the Company on the basis of their own funds. As the finances of the enterprise proved unequal to meeting the maturing obligations inherited from the state, members of the firm who were also its creditors, Joseph Lawton, for example, found themselves in a trying predicament.

Not only were the members unable to make the Company take care of them, but they found the bond markets of the country crowded with railroad promoters and the money available too limited to go around. Yet the obligations of
the Company were pressing. Tank felt the weight of the responsibilities the Company had assumed to the creditors of the Improvement. His letters are filled with inquiries as to what was being done to protect the interest of creditors. It soon became apparent that the funds to be realized from sale of the bond issue would not suffice to pay the debt and complete the Waterway. Tank wrote from New York urging Martin to persuade the other stockholders to put up their stock as security to obtain additional funds. As difficulties multiplied, Isaac Seymour began withdrawing from the enterprise. "We are loaded down with advisers, but none to help materially," Tank lamented. While railroad promoters absorbed funds that might have been invested in the Waterway, Corning proposed to spend more and more of the scanty Company resources in Washington. At that time, Tank observed Corning's activities with misgivings. "So much I see that new thousands of dollars are lost to the Comp, the R.R.s can stop today, and we will get what bribery etc etc deserves — wipping!"

By the summer of 1855, the need for funds was so urgent that the Wisconsin promoters had no choice but to surrender to the exactions of anyone who could supply enough money to keep the enterprise afloat. "Not until the 8th of June 1855 could we get an offer of the money on any terms," Martin testified. The terms extorted were piratical. The transaction put a practical end to the Wisconsin
control of the Company. According to Martin, the men who finally agreed to put up the $160,000 absolutely necessary to prevent failure demanded an immediate stock bonus of $200,000 and places on the board of directors. Furthermore, as security for every dollar they advanced, the Easterners insisted upon the sequestration of two dollars in the 8 per cent bonds of the Company. Finally, they demanded that repayment of the advance begin on September 1, 1855. The generous investors were Horatio Seymour, Erastus Corning, and Hiram Barney. To an Assembly Committee, the incident appeared in a different light. They reported, "Several eastern gentlemen of well known ability and character, were induced to become interested in the enterprises and thereby gave the company a credit and standing abroad which it had never before enjoyed." On the basis of the subsequent course of events, the judgment of Morgan L. Martin seems more accurate. He said, "The big city fish swallowed up the country fish."

It would be too much to say that the exclusive purpose of the New York speculators was to obtain control of the land grant. But there can be no doubt that they made certain that they did not lose money, no matter what the course of affairs. As it happened, the difficulties of construction, the demands of the legislature, and the financial stringency brought on by the Panic of 1857, aggravated by the established commercial supremacy of Milwaukee, combined
to make the land grant the lone sure source of profit in the Waterway. From the beginning, the new management went to extraordinary lengths to protect the land grant, and, as the unhappy Company tottered into bankruptcy, the schemes of the New Yorkers were directed toward securing the land.

The law incorporating the Fox and Wisconsin Improvement Company was apparently well suited for a speculation in land. It provided that the Company could acquire land, at $1.25 per acre, in exchange for cancelled certificates of debt against the Improvement. Alternatively, land could be obtained at the same rate in exchange for United States bonds, or the bonds of states at their New York value. The intent of this latter provision was to make it possible for the Company to sell the lands and obtain money before constructing the Improvement, and, at the same time, to protect the state from liability to the federal government in the event the Waterway was not completed. Upon completion of the project the lands remaining in the grant, or any bonds that had been deposited in exchange for land, were to become the property of the Company. As a dissatisfied creditor of the project pointed out, however, the alternative provision, permitting the Company to acquire land in exchange for bonds, made it possible for the Company to secure title to "all the land of any value." The creditor complained of the arrogance with which this provision of the law had been pointed out to him. "The agent told me
that my bonds could ultimately be made available for swamp land, utterly worthless."

The provision was certainly tempting to speculators. But the grant was under the control of the state. The experience of Morgan L. Martin in his relations with Governor Farwell, as well as the early history of the project under state control, underscored the dangers of this aspect of the situation. True, in 1855, with Morgan L. Martin in the Assembly, the Company had withstood efforts to institute an investigation of their affairs. In addition, Martin in the Assembly and Edwin B. Kelsey of Montello in the Senate secured an act permitting an increase of the capital stock and authorizing the Company to enter and appropriate swamp or overflowed lands belonging to the state. Still, an unfriendly legislature might well cause the Company considerable trouble. By 1856, the efforts of the Company to cope with continued financial difficulties had created the antagonistic atmosphere the promoters feared.

Early in the session of 1856, the Assembly appointed a Select Committee to investigate the affairs of the Company. Moses M. Davis, Portage Republican and a member of the Committee, reflected the attitude of a large number of Wisconsin citizens in his opinion of the promoters of the Waterway. In April, 1856, before assuming his duties as investigator, he wrote a friend that he had seen but two members of the legislature since leaving Madison, both "beautiful specimens."
"[One] followed me to Portage and took a trip down Fox River. Should like to know if he is in the employ of the Company," Davis mused. He assured his friend that he would not be deceived by the maneuvers of the Waterway partisans. "This Improvement Company have had some of their big guns here within a few days, they promise great things but I happen to know that they are now making an effort to identify the company with the Democratic Party of the State," he explained. "They may possibly do this but when they get their corns fairly set, I will expose them. I know that the general course that the company has pursued is anything but an honorable course." In late July Davis set off to join his colleagues on a tour of the Waterway.

The Committee found that little had been accomplished on the works of the Improvement in spite of frequent announcements of the opening of the navigation. "Still it remains of little practical use on the lower Fox," they reported, "while the upper Fox and Portage canal are really in a worse condition now than when they passed from the hands of the state."

The disposition of the Company spokesman, Morgan L. Martin, was as bad as the condition of the works. In advance of their visit, the Committee sent Martin a statement of the information they required. When they arrived in Green Bay, "instead of the promised exhibit of affairs, the vice president [Martin] presented a written reply . . .
insinuating that a part, at least, of the inquiry . . . was actuated by unworthy motives." Martin read the Committee a long lecture on what it was proper for them to investi-

gate. "No individual would exercise common prudence were he to expose all the details and privacy of his business to the gaze of the world, and . . . the same rule of conduct should govern a company," Martin asserted. "The state can only be interested in knowing whether the obligations as-

sumed by our company, and imposed by its charter, are being faithfully performed, and whether its franchises and privil-

ges have been exercised in good faith, to promote the ob-

jects for which they were granted."

Martin blamed the Company's financial difficulties on legislative interference. "Capitalists are extremely sensitive," said he, demonstrating in his attitude the truth of the statement. "A report made at the last session of the legislature, as well as the action of a previous one, in reference to this company, has injured the company to an amount far exceeding the value of all the aid which has passed into their hands from the state." The embattled entrepreneur did at least relate some hopeful news to the investigators. He announced that, in spite of the meddling legislators, the Company now enjoyed the support of "sever-

al gentlemen whose names are known to the whole country, from their intimate connexion with many important works of internal improvement." The very names of these men, Martin
declared, "furnish a sure guarantee to the state of the good faith of the company."

Apparently there was indeed a magical quality to the names of the "eastern gentlemen." As if to mention the names would break the spell, neither Martin nor the Select Committee specified the financiers whose association with the enterprise was sufficient to give it "a credit and standing abroad which it had never before enjoyed." Bewitched, the Committee assured the legislature that the state could best serve itself by permitting the Company to go ahead. Large sums of money had been raised and spent; large plans had been laid. The investigators recommended no punitive action, but suggested that greater security be required to assure completion on the enlarged plan.

The legislature accordingly adopted an act amendatory of the Company charter. The Company was now required to enlarge the Improvement to accommodate vessels of four-foot draft between Lake Winnebago and Green Bay and boats drawing three and one-half feet on the upper Fox River. The reason for thus increasing the specifications of the works was the increased land grant from Congress. The Committee argued, probably mistakenly, "Can any one believe that this last rich gift to the state in aid of the improvement was intended for the exclusive benefit and enrichment of the improvement company, without the least advantage to the state which she would not have gained equally or better
As might have been expected, the new law protected settlers on the even-numbered sections and required the Company to pay off the state obligations.

The most important part of the act concerned the land grant. The state vested title to the grant in the Company, who in turn were to convey the lands by deed of trust to three trustees. The grant was to be administered by the trustees to secure completion of the works and discharge of the state debts and interest thereon. Now the lands were safely out of the reach of the legislature.

Try as they might, the Company still were unable to raise sufficient money to pay the growing debts and construct the Waterway on the enlarged plan adopted in 1856.

Morgan L. Martin explained the financial difficulty: "Now, for every dollar of work done, two or three dollars of indebtedness was created. One dollar went to the contractor, and the balance to the money lender and to pay the increased expenditure required by the State." Economic conditions in the nation worsened as the Company frantically increased its capitalization and floated another million of bonds. As Martin observed, "It is not necessary to dwell on the history of such an administration. . . . The stock of the Company was soon floated above the reach of dividends, and the bonded debt was swelled beyond the ability of the Company to pass interest."

In their construction operations, the Company were
no more fortunate with their contractors than the state had been. Nelson McNeal, who had held contracts at the Portage from the beginning, was seemingly a better bidder than he was a builder. The superintendents of the Company constantly found it necessary to goad him into action. At the Grand Kaukauna, the Company had to contend with threats of a suit for overflow damages caused by the rising dam. At Rapid Croche, Theodore Conkey used his own funds for the reconstruction of the works. By the spring of 1858, his means were approaching exhaustion. Daniel Jenne, the superintendent of the Company, wrote urgently to Horatio Seymour, emphasizing the necessity of sustaining Conkey. Conkey had offered to settle his contract with the Company for $5,000 in cash and the balance in lands at $2.50. After Jenne pointed out that the works Conkey was building were vital to the entire line of transportation, the New York directors reluctantly authorized the settlement.

As the difficulties in the way of enlargement multiplied, Company officials began to question the competence of their superintendent, Jenne, whose plans the legislature had made the basis of the enlargement. Jenne's plan called for further dredging in the upper Fox. It might also be necessary to erect dams at a number of locations along the way. Even these measures might prove ineffective, Tank feared. He thought it possible that the upper Fox did not carry enough water to provide the stipulated channel.
The irritation of the management with Jenne's exigent demands for funds may have contributed to their doubts of his technical competence. In July, 1859, Jenne threatened to resign. His men were leaving him because he was unable to pay their wages, he reported. Already, Jenne complained, he had overdrawn his personal account to pay off his men. He announced that he would have to have the tolls for a month to meet the overdraft. Jenne warned that he had heard of a meeting in Portage "last Saturday night for the purpose of giving this Company 'Hail Columbia'... and to instruct Mr. Munn [recently chosen Assemblyman] what to do." Now, at a time when the Company needed friends in the legislature, Jenne, whose seat was contested, demanded Company money to support his fight.

For all the difficulties and discouragements, a transportation route of sorts was maintained over parts, at least, of the Waterway through the whole time the Company was in existence. There was never any appreciable through traffic. Most of the boats operated between points that were not separated by any large works of the Improvement. In the spring of 1856, the *Aquila*, "a steamer drawing about twenty inches when light, and thirty inches with a fair freight," actually passed through the Waterway, from the Wisconsin River, through the canal at the Portage, and down the Fox to Green Bay - "when both rivers were about two feet above ordinary low water." Thereafter, however, the *Aquila*
operated largely on the lower Fox—between Lake Winnebago and Green Bay when the water stage and the construction would permit, between Kaukauna and Green Bay when the stream above was obstructed. Also engaged in the lower Fox trade were the Pioneer and Indiana. The Badger State and the Tiger plied the upper Fox and Lake Winnebago. Keel boats and barges also continued to be of importance in the traffic of the Waterway. On the upper Fox, lumber scows drawn by horses conveyed the cut from the Wolf River pineries over into the Wisconsin. The traffic on the upper Fox was thus fairly heavy, but it brought little income to the Company.

The management of the Improvement Company bent their energies toward developing traffic on the lower Fox where most of the works were located. Barney inquired anxiously of the condition of the works in the fall of 1855. "I hope you have passed boats through by this time and that a prosperous business may be done in the way of freighting over the works this fall. I hope you will get the iron for the Fond du Lac Road." The Eastern promoters invested in boats and steamers for the Waterway trade, but as their finances grew straitened they disposed of them. By 1859, a respectable traffic had been built up, for Jenne anticipated covering his $500 overdraft with the tolls from a single month. Nevertheless the tolls did not produce income enough to satisfy the Eastern ownership.
The reasons for the disappointing returns from the Waterway as a transportation route were relatively simple, but they presented an almost insuperable obstacle to profitable operation of the Waterway. Milwaukee's position as the "commercial emporium" of the state was virtually impregnable. She owed her supremacy over Green Bay to more than the bare advantage of earlier connections with the interior. As Milwaukee secured an ever-broader hinterland, all the many institutions necessary to handle an extensive commerce—mills, warehouses, forwarding companies, buyers, and bankers became established there. The promoters of the Waterway soon found that it was not enough to offer cheaper rates than the overland routes. Green Bay lacked storage facilities. "The detention of freight is more than sufficient to counterbalance the difference in favor of this route, and has a direct tendency to drive freight over the Rail Road to Milwaukee," warned a Green Bay forwarding firm. The Waterway had to acquire elevators to facilitate the handling of wheat. Jenne proposed establishing a merchant flouring mill at Appleton. As late as 1859, he reported there were no others on the lower Fox. In that year, too, the Directors announced they were trying to make arrangements for "private bankers . . . who will make advances on produce. The want of such advances has heretofore greatly lessened the transportation on the Improvement." Jenne noticed with dismay that wheat was going
to Milwaukee from several cities on the Waterway for lack of buyers at Green Bay. At Berlin he found that shippers paid twice what the freight would have been to Green Bay because at Milwaukee buyers awaited the shipments.

Another problem the promoters had to face in their efforts to establish Green Bay as a commercial center was lack of shipping connections on the lakes. A Buffalo merchant told John Seymour pessimistically, "As the thing now looks Milwaukee will get a great share of the business that should go by the Bay from the fact that only one propeller is now running on Route." To this observer, the situation looked hopeless: "The N.Y. Central folks will not put a propeller on until there is business to pay for doing so and we think there never will be business for another until there is a sufficient number of propellers to make a line."

The writer, however, had reckoned without the connections of the Company. Erastus Corning was president of the New York Central Railroad. Through his influence some of the New York Central ships were pressed into service on the Green Bay-Buffalo run during the peak of the wheat season of 1859. Undoubtedly, it was Corning also who interested Dean Richmond* in handling wheat shipments from Green Bay. None the less the shipping failed to meet the needs of the Bay. The deal with Richmond did not materialize.

* Vice-president of the New York Central, a prominent Democrat, and an important dealer in grains.
failed in his attempt to obtain aid from William Astor. The optimists among the promoters began looking forward to the following year. But the next year was too late. The needs of the Company were too pressing; Seymour and his associates turned their entire efforts to salvaging the land grant.

The grip of John Seymour on the management of the Company was firm and sure. Even the tangled operations of the Company, which had offices and records in New York City, Utica, Appleton, and Fond du Lac, he turned to advantage. He listened, apparently unmoved, to complaints from Jenne in Appleton that the Land Office and agent for trustees in Fond du Lac were handicapping sales of the lands by their delay in issuing title to tracts contracted for sale.

It was apparent by 1859 that the activities of the Company could not supply the funds necessary to maintain the whole ungainly organization. Seymour subscribed to the views of a stockholder that the policy must be to "get possession of the land as well as the works."

Hence the employees of the firm, regardless of how faithfully they served, simply had to wait for their wages. Abraham B. Clark, as treasurer of the Company, managed the New York office and listened patiently to the importunings of creditors. He also waited more or less patiently for a salary settlement with the Company. Alexander Spaulding loyally served the interests of the management as a lobby-
ist in Washington and as a member of the board of trustees. In June, 1859, he informed Seymour that he wanted to give up his post as soon as his claim for services was settled. Apparently the settlement was never made, for Spaulding continued as trustee until the Company was liquidated in 1866. Daniel Jenne's financial problems as superintendent of the works have already been described. His constant dunning finally induced Seymour to sell a few bonds to satisfy Jenne and reduce the bulk of the mail to Utica.

Not all the creditors of the firm were so fortunate as Jenne. Edgar Conklin withdrew from the Company in 1859. He had to threaten suit to obtain his rights. Urial Peak had accommodated the Company in many ways through the years. When Peak's account was brought to the president's attention, Seymour acknowledged, "I notice what you say of Dr. Peak's claim and feel the force of it." The force was not great, for Seymour went on, "we will talk this over when I come out [to Wisconsin] again." Morgan L. Martin noted in 1859 that the Company owed him $16,251.18, for services, expenses, and stock. Martin was obliged to sue in the courts, to petition the legislature, and, finally, to obtain the intercession of congressmen to recover some of the money he had devoted to the enterprise. Martin's suit against Tank tied up some of the Company's materials in Green Bay. There was an injured note in Erastus Corning's comment that Martin should be the last person to obstruct
successful operation of the Company.

With the trustees, the management was more careful. Still, the Seymours handled the trustees skillfully and largely secured their way. Alexander Mitchell, the powerful Wisconsin railroad promoter and banker, was treated with respect. As one of Seymour's advisers pointed out, it was easier to deal with Butler and Spaulding in New York than with Mitchell and Butler in Green Bay "under the influences that surround them."

By late 1859, Mitchell was losing patience with the Company. He wrote to John Seymour that he had heard new rumors of plans to rejuvenate the Company. He declared himself willing to listen. The banker added severely, "if the Directors and other parties in interest are disinclined to put their hands in their pockets farther, it is quite useless to concoct schemes."

Undoubtedly Mitchell's resignation as trustee was greeted with considerable relief.

Mitchell's successor was Moses M. Davis, who had viewed the operations of the Company in 1856 with such a jaundiced eye. The Seymour brothers dealt with Davis amiably and skillfully. On Davis's appointment, John Seymour wrote: "Our directors were pleased ... as were also our bondholders." He went on, "I had the appointment approved by a vote of our Directors at their meeting."

There is some indication that the charm of the Seymours blinded Davis's critical faculties. Moses Davis,
for example, commented on contemporary situations that were analogous in many ways to the affairs of the Fox-Wisconsin Improvement Company. He was an interested and acute observer of the evolution of federal land policy. In 1862, he commiserated his friend, John Fox Potter, on the failure of the latter's Homestead Bill. Justin Morrill of Vermont had voted against the bill. "He ought to be ashamed," Davis said, "but I suppose he expects to redeem himself by urging his Agricultural College Bill." Davis insisted that the Agricultural College Bill should not pass. "Greedy scamps would soon get control of lands donated for agricultural schools," Davis declared. "The donation in the end would be frittered away on corrupt corporations as Land Grants for Railroads have heretofore been."

Seymour's control of Company affairs seems to have been somewhat high-handed and not altogether scrupulous. Against the wishes of such advisers as Martin, Tank, and Abraham Clark, he insisted on attempting to issue $400,000 of preferred stock in the early part of 1860. For reasons that do not appear, the issue failed. The stock issue was a last desperate attempt to keep the Company operating; by the end of the year, the Company was definitely insolvent.

After 1860, the clamor of Company creditors became louder and louder. In Madison, pressure was exerted to force the trustees to sell the assets of the Company. Not only did creditors of the Company complain. Letters from
purchasers in the grant reflected a growing dissatisfaction with the questionable state of land titles. In desperation, the Company husbanded its resources and stalled for time.

Along the Waterway, construction dragged to a standstill. Some small gestures were made in the direction of maintaining the works, but the minor efforts that could be made were only tokens of good intent. In 1860, a Select Committee of the Assembly investigated the affairs of the Company. The Committee examined the books, inspected the condition of the Improvement, and listened to a statement from John F. Seymour. They decided the Company had done as well as could be expected in view of the depression. The Committee brought in a bill in line with the conciliatory recommendations of John F. Seymour. The Act of 1860 increased the number of directors from seven to eleven, provided that five directors must be Wisconsin residents, and extended the time for completion to April 1, 1863.

Subsequent legislation was not quite so favorable to the Company as the insolvency became more widely apparent. Laws of 1861 and 1865 established the procedure to be followed in the event of foreclosure by the trustees. The former act called for evaluation of the works and of the cost of completing them by a board of commissioners to be appointed by the governor and the Company. In 1863 the Company with difficulty withstood a move to require the
trustees to be Wisconsin residents. The officers wavered since the change regarding the trustees was coupled with an extension of time, which the Company desperately needed. The situation of the Company was grave. Moses Davis wrote his friend Potter in the early summer of 1863: "My business in connection with the Improvement keeps me on the run much of the time. Within a few days the Trustees have been called upon to foreclose the mortgage they hold." A further extension of time was won in 1865, but most of the privileges and exemptions the Company enjoyed were rescinded.

The time had come for the speculators to act.

Although the relations between the Company and the state administration before the Wisconsin legislature were ambiguous and guarded, on the national scene their interests were identical and the representatives of both parties worked well together. Early in 1862, the Company brought aid to a movement of Wisconsin citizens to secure the establishment of a national armory and foundry on the Fox River. The Company offered a site for such an establishment free of cost. At the same session, a campaign was begun to obtain a naval armory and depot for the state.

While proposals along these lines mouldered in committee files, Waterway advocates undertook a more direct approach. The objective of these efforts was to secure federal funds to convert the Waterway to military purposes. At the height of the campaign, John Seymour wrote to Governor
Salomon that Senators Doolittle and Howe had been cooperating well and represented all the help needed in that branch. "The House being a much larger body of men — and they all being pressed by the numerous duties daily crowding upon all their time & attention I have thought of asking help in that branch more than I can expect from Messrs Potter & Sloan," he explained. "As a New York Man & President of the Company I can not represent your State quite as strongly as I wish." The help Seymour desired was in the person of Breese J. Stevens. "He is well informed as to the facts in the case," Seymour noted, "and his quite manly manners and appearance would secure him a favorable hearing with all."

Representative A. Scott Sloan, by unanimous consent, obtained a resolution calling upon the Naval Affairs Committee to report on the practicality and cost of enlarging the Fox-Wisconsin Waterway to handle gunboats of two hundred feet length, beam of thirty-four feet, and a draft of six feet. Early in March, 1863, Chairman Pike of the Committee on Naval Affairs reported adversely to the hopes of the promoters.

In the Senate, the lead was taken by Henry M. Rice of Minnesota a few days before Sloan presented his resolution. Shortly after, the Chairman of the Military Affairs Committee brought in a communication from Colonel Thomas Jefferson Cram. Cram spoke with the weight of
his early experience on the Waterway, a long career in the service of the Topographical Engineers, and the latest reports of government and Company engineers. His remarks showed that the years had not dimmed his sure grasp of the arguments that appealed to the politicos and that experience had made him more cautious in technical matters.

"The Lower Mississippi river being cut by the rebels and practically closed to our western brethren, and in the event of war upon our lake frontier, what can be of more importance to consider, in a military as well as in a commercial point, than the question of the most direct natural channel of communication between the great lakes and the Upper Mississippi," he demanded. The Waterway presented just the channel sought. "It would be of immense importance in affording facilities for transportation of troops and supplies to a theatre of military action on the lakes in the event of war there, or as an outlet towards our eastern ports (in the event of the rebel clutch upon the Mississippi being continued) for the surplus staples for a large portion of Illinois [and the rest of the Northwest]." He added a further point: "It is in this precise direction that the tide of free labor has been flowing for the decade just preceding the rebellion in a degree most astonishing."

The engineer was careful not to raise the hopes of the Waterway advocates too high. Cram noted that the
Monitor needed eleven feet of water in which to maneuver. For this reason he was doubtful of the practicality of trying to bring gunboats through the rivers to the lakes. Since Great Britain and Canada would also have trouble getting armed vessels onto the lakes from the high seas, he concluded that both sides would have to build ships on the lakes. Lake Winnebago, he thought, represented an ideal spot for this purpose, offering at once the necessary physical qualities and a technical evasion of the terms of the 1817 Rush-Bagot agreement with Great Britain.

Within a week of the presentation of Cram's communication, Senator James Rood Doolittle of Wisconsin brought in a bill calling for the enlargement of the Waterway for military use. In 1864, Doolittle again presented a bill on behalf of the Fox-Wisconsin. William B. Allison of Iowa performed a like service in the House. Howe brought in a bill in 1865. Both Doolittle and Howe continued to place the Fox-Wisconsin matters before Congress in petitions from their constituency, but their efforts were without practical effect. No congressional legislation regarding the Waterway was passed during the War.

By these diversions on the state and the national scene, the management of the Company delayed a foreclosure sale until the speculative clique mustered the funds to buy up the assets of the bankrupt Company. The syndicate included Erastus Corning, Horatio Seymour, and Edward Delavan.
These men played prominent parts, but some individuals who had previously figured only in minor roles were more heavily involved.

Breese Stevens, upon whom the Company had relied as a lobbyist in Washington, now served the Company interest as attorney for the trustees. By the time of the forced sale in February, 1866, the arrangements had been perfected. The successful bidder was Hiram Barney acting on behalf of a group of Eastern investors. Morgan L. Martin complained that "the capitalists of the Company bought in the whole estate for a sum just sufficient to discharge the old certificates of indebtedness issued by the State; the holders of the stock and bonds received nothing." Stevens explained the transaction to Senator William Windom somewhat more circumspectly. He wrote: "At the trustee's sale in 1866, pursuant to the judgment of the court, all of the lands were sold, and the full proceeds were applied to the payment and full satisfaction of the construction-indebtedness outstanding." Stevens, it will be observed, said nothing of the stock or bonds of the Company. Thus the assets of the Company, the works of improvement, the water powers, and the land, passed into the hands of the speculators while the holders of Company stock and bonds were, as the Appleton Crescent said, "entirely sunk."
CHAPTER VI

FOOTNOTES

1. Cf. supra, 60-61 and nn.

2. For the Maysville veto, see James D. Richardson, Compilation of the Messages and Papers of the Presidents, II, 483-487. The extension of the Indiana grant preceded the Maysville veto, but four days after the veto, Jackson sent to Congress a message specifically approving a money appropriation for a road through Michigan Territory. See U.S.H.R., Appropriations for Examinations and Surveys &c. Message from the President . . . (House Docs., 21 Cong., 1 Sess [1830], ex. doc. 123, ser. no. 198). On Apr. 23, 1830, Jackson approved a large appropriation for rivers and harbors. See U.S.H.R., Laws Relating to Rivers and Harbors, August 11, 1790-Mar. 4, 1913 (House Docs., 62 Cong., 3 Sess. [1913], house doc. no. 1491, ser. no. 6396) vol. I, pp. 52-53. Although the Maysville veto is usually regarded as the classic statement of Jackson's position on internal improvements, his veto of a measure for the improvement of the Wabash River is much more lucid in its exposition. See U.S.S., Message from the President of the United States . . . (Senate Docs., 23 Cong., 2 Sess. [1834], ex. doc. no. 1, ser. no. 266), pp. 20-24.

3. See supra, ch. iii. Democratic opposition to money and appropriations is by no means clear-cut. In 1846, Secretary of War William L. Marcy reported that $5,000,000 had been spent on rivers and harbors improvements during the preceding decade, most of it in bills passed in 1836, 1837, and 1838. See U.S.S., Report of the Secretary of War . . . Aggregate Appropriations for Improving Rivers and Harbors since July 1, 1836 . . . (Senate Docs., 29 Cong., 1 Sess. [1848], sen. doc. no. 451, ser. no. 476).


7. The Fox-Wisconsin grant was typical. See 9 Statutes at Large, 83.


9. C. D. Westbrook, Jr., Fox and Wisconsin Improvement (Kingston, N. Y.: S. S. Hommel, 1853), 10-11. Since Westbrook also published a report bearing the same title in 1854, these two works will be distinguished by the date on which they appeared enclosed in parenthesis after the title. See also the MS. draft of the report of the Fox and Wisconsin Improvement Company under date of Aug. 1, 1853, Archives, Ser. 1/1/4-1; Wisconsin Legislature, "Report of the Select Committee on the Fox and Wisconsin River Improvement," Assembly Journal (1856), Appendix, II, 35; "Fox & Wisconsin Improvement Co. and Green Bay & Mississippi Canal Co. — Grants —," MS. vol. in State Land Office; and Tester H. Bakken, "Fox and Wisconsin River Improvement Co.," MS. in the possession of its author, 2-3.

10. See, for example, John F. Meade (Register of the Green Bay Land Office), to Nelson Dewey, May 22, and June 1, 1849, Morgan L. Martin, Green Bay, to ND, June 1, and 12, 1849, Charles D. Robinson, Green Bay, to ND, June 1, 1849, James Crawford, New York, to ND, July 6, 1849, James Duane Doty, Washington, to ND, June 25, 1850, and Mason C. Darling, Fond du Lac, to Leonard J. Farwell, July 27, 1857 [should be 1853], Archives, Ser. 1/1/4-1; and LJF, Madison, to MLM, Feb. 16, 1852, Morgan L. Martin MSS. Edgar Conklin, New York, to William A. Barstow, Sept. 25, 1854, Archives, Ser. 1/1/4-1, reviews the whole erratic course of the affair. See also Wisconsin Legislature, "Report of the Select Committee on the Fox


12. C. D. Westbrook, Fox and Wisconsin Improvement (1853), 11.


14. Wisconsin Assembly Journal (1853), 569-70. The memorial was introduced by Randall Wilcox of Green Bay.

15. Appleton Crescent, May 14, 1853.

16. Joseph Schafer, The Winnebago-Horicon Basin: A Type Study in Western History (Wisconsin Domesday Book, General Studies, IV; Madison: State Historical Society of Wisconsin, 1937), 106. See also Green Bay Advocate, June 4, 1853; Appleton Crescent, June 11, 1853; and Fort Winnebago River Times, Aug. 8 and 22, 1853.

17. Fort Winnebago River Times, Aug. 27, 1853. See also Memorandum of agreement between Morgan L. Martin and Simeon Draper, [n.d., 1851], Morgan L. Martin MSS.; and SD, New York, Dec. 10, 1852, certifying that MLM had paid all interest due on certificates held by him, in Archives, Ser. 1/1/4-1.
18. Lawton claimed to have negotiated $70,000 of Martin's scrip. This was almost the entire amount issued to Martin. In February, 1854, the Company found it necessary to call in unpaid stock from the incorporators and redistribute it in exchange for services and as payment of principal on outstanding bonds. Lawton's contribution was less than any of the others and it was returned to him intact. Since the Company assumed nearly $90,000 of scrip issued to Martin, most of which Martin negotiated with Draper, and Draper's name does not appear among the recipients of the stock distributed, Lawton's role appears to have been that of Draper's agent. The stock account may be found in Morgan L. Martin MSS.

19. Fort Winnebago River Times, Aug. 27, 1853.

20. Otto Tank, Ft. Howard, to MIL, Aug. 30, 1853, Morgan L. Martin MSS.


22. C. D. Westbrook, Fox and Wisconsin Improvement (1853), passim. The quotations are from pp. 4 and 14.


27. Ibid., 177-182.

28. Ibid., 183-185. Another early connection among the members of this group was the association of Henry Seymour with Benjamin F. Butler on the New York-New Jersey
boundary commission in 1833. See William A. Butler, *A Retrospect of Forty Years, 1825-1865*, ed. by Harriet A. Butler (New York: Charles Scribners' Sons, 1911), 137n.


30. Ibid., 188n.

31. Ibid., 196-205. See also Hiram Barney, Milwaukee to John F. Seymour, July 26, 1859, Seymour MSS.


35. *Cyclopaedia of American Biography*, I, 331. For further insight into Barney's connection with the speculative group, see Hiram Barney, Milwaukee, to John F. Seymour, July 26, 1859, Seymour MSS., which reports Barney's return from over two months in Iowa on the affair of the Half-Breed Tract; and W. A. Butler, *Retrospect of Forty Years*, 211-212. On Barney's connection with Republican politics, see ibid., 349-350 and passim.

36. For insight to the Wisconsin phase of the Seymour-for-President Movement, see Benjamin McNeal, Madison, to John F. Seymour, Oct. 18, 1859, Seymour MSS.


40. Ibid., 47.


43. I. D. Neu, "A Business Biography of Erastus Corning," 85, 97, and 275-300. Miss Neu rests her case for this conclusion on Corning's neglect of a New York City terminus for the New York Central. On the other hand, there is much evidence that Corning did understand the importance of strategic extensions of his railroad lines. His part in the building of the Michigan Central, an investment that eventually led to his connection with the C.B.&Q. system, may be cited in this regard. A like appreciation of continental transportation strategy may be found in Corning's support of the Great Western of Canada. On these points see *ibid.*, 102-118.


46. Horatio Seymour, *History and Topography of New York: A Lecture . . . at Cornell University*, June 30, 1870 (Utica: Grove and Bailey, 1870). The quotation in the text above is on p. 9 of this version of the lecture.

48. The agreement, under date of Mar. 18, 1836, is in the John F. Seymour MSS., State Historical Society of Wisconsin.

49. A draft of this statement in the crabbed hand of Otto Tank is in Archives, Ser. 1/1/4-1, under date of Dec. 21, 1854. See also Otto Tank, Ft. Howard, to Morgan L. Martin, Aug. 30, 1853, and the draft of the directors' report dated Jan. 16, 1854, Morgan L. Martin MSS.


51. A handwritten draft of the report, signed by Otto Tank, Joseph G. Lawton, and Edgar Conklin, dated Jan. 16, 1854, is in Morgan L. Martin MSS.


53. Letter dated Aug. 8, 1846, printed in the Green Bay Advocate, Aug. 27, 1846, and the issues following through the fall. A letter of Aug. 10, 1846, extended the reservation to include unsold lands around Lake Winnebago. It, too, was printed in the Green Bay Advocate, Sept. 3, 1846, and subsequent issues. On the interpretation that the Fox-Wisconsin subsidy was outside the 500,000 acres' grant see James H. Piper, Washington, to Henry Dodge, Dec. 12, 1846, Archives, Ser. 1/1/4-1.

54. On the maneuvers to replace Horner and the background of the contest, see Joel S. Fisk, Green Bay, to Morgan L. Martin, Dec. 9, 1846, Alexander Irwin, Green Bay, to MLM, Dec. 10, 1846, and Albert G. Ellis, Green Bay, to MLM, Dec. 29, 1846, Morgan L. Martin MSS. The United States Official Register (1847), 31, lists Meade as Register of the Green Bay Land Office. Meade appeared friendly enough at first. See John F. Meade, Green Bay, to Nelson Dewey, May 22, 1849, MLM, Green Bay, to ND, June 1, 1849, and Charles D. Robinson, Green Bay, to ND, June 1, 1849, Archives, Ser. 1/1/4-1. Meade and Elisha Morrow, the Receiver, soon proved more concerned with holding onto their positions than with aiding the state. See JFM, Green Bay, to ND, June 1, 1849, and MLM, Green Bay, to ND, June 12, 1849, Archives, Ser. 1/1/4-1.

56. Alexander Spaulding, Green Bay, to Nelson Dewey, Jan. 21, 1851, Archives, Ser. 1/1/4-1; and United States Official Register (1851), 141.

57. James Crawford, New York, to Nelson Dewey, July 8, 1849, Archives, Ser. 1/1/4-1. The clerk was N. A. Randall of Maryland, who stood close to the top of the list of clerks in the General Land Office through the late forties and early fifties. See the United States Official Register during those years.

58. Ibid. (1847), 31; and Ibid. (1851), 33. A study of the administration of the General Land Office during the years prior to the Civil War is badly needed as a complement to the valuable studies of other aspects of the history of the public lands by Paul Wallace Gates. The present literature gives no consideration to this facet of land history prior to the Civil War. The administration of the Land Office after the Civil War has been provocatively treated by Harold H. Dunham, Government Hand-Out: A Study in the Administration of the Public Lands, 1875-1891 (New York: The Author, 1941), and "Some Crucial Years of the General Land Office, 1875-1890," Agricultural History, XI (Apr., 1937), 117-141.


60. See James D. Doty, Washington, to Nelson Dewey, June 25, 1850, Archives, Ser. 1/1/4-1; and JDD, Washington, to ND, Jan. 9, 1851, Archives, Ser. 1/1/1-1.

61. See, e.g., Wisconsin Assembly Journal (1852), Appendix, 16-20; Ibid. (1853), "Report of the Board of Public Works," Appendix, 18; Fort Winnebago River Times, Jan. 21 and Dec. 22, 1851, and April 2, 1852.

63. See supra, 117.


68. U.S.H.R. Journal, 33 Cong., 1 Sess (1854), 630, 632, 1288, 1301, 1306, and 1317.

69. 10 Statutes at Large, 345. For a summary of the act, see John B. Sanborn, "The Story of the Fox-Wisconsin Rivers Improvement," Proceedings of the State Historical Society of Wisconsin (1899), 191.


73. Ibid., 61 and 63; and Otto Tank, Ft. Howard, to William A. Barstow, Sept. 11, 1854, Archives, Ser. 1/1/4-1. The action of the General Land Office is explained in "Report of the Commissioner of the General Land Office," which is included in U.S.S., "Report of the Secretary of Interior," in Message of the President of the United States . . ., Pt. I (Senate Docs., 34 Cong., 1 Sess. [1855], ex. doc. no. 1, ser. no. 810), pp. 146-147. Martin's "Statement" in 1856 says 25,000 to 30,000 acres were sold in the fall of 1854, but C. D. Westbrook, Fox and Wisconsin Improvement (1854), reports cash sales of less than 400 acres. Since the price to preemptors was $1.25, Westbrook reported to the stockholders the sale of around 3,600 acres.
74. Otto Tank, New York, to Morgan L. Martin, Feb. 11, 1855, Morgan L. Martin MSS.

75. Otto Tank, New York, to MLM, Feb. 13, 1855, Morgan L. Martin MSS.


77. Loc. cit.


79. Loc. cit.


81. Ibid., 561; Wisconsin Legislature, "Report of the Select Committee on the Fox-Wisconsin Improvement," Assembly Journal (1856), Appendix, II, 33; and "Report of the Secretary of Interior," in U.S.S., Message of the President of the United States... Pt. I (Senate Docs., 34 Cong., 1 Sess. [1856], ex. doc. no. 1, ser. no. 810), p. 123. The latter source computed the increase over the grant authorized by the act of 1846 as 423, 836 acres! Loc. cit.

82. 10 Statutes at Large, 724; Wisconsin Legislature, "Report of the Select Committee on the Fox-Wisconsin Improvement," Assembly Journal (1856), Appendix, II, 38; and J. B. Sanborn, "Fox-Wisconsin River Improvement," Proceedings of the State Historical Society of Wisconsin (1899), 191.

83. Amos A. Lawrence, Boston, to Morgan L. Martin, April 21, 1855, Morgan L. Martin MSS.

84. Hiram Barney, New York, to Morgan L. Martin, Appleton, Oct. 16, 1855, Morgan L. Martin MSS.

85. Hiram Barney, New York, to Morgan L. Martin, Nov. 14, 1855, Morgan L. Martin MSS.


87. Washington Evening Star, Jan. 11, 1876; and Paul W.

After the Civil War, it became quite common for Land Office officials to resign from government service and join mining or railroad firms with pending or favorably decided claims. See Harold H. Dunham, "Some Crucial Years at the General Land Office, 1875-1890," Agricultural History, XI (Apr., 1937), 117-141.


89. U.S., Official Register (1855), 76; and infra, 256.


91. Wisconsin Laws (1848), 58.


95. Moses M. Davis, Chicago, to John F. Potter, April 5, 1858, Davis MSS. See also Alexander Spaulding, New York, to Coles Bashford, May 7 and 11, 1857, Archives, Ser. 1/1/4-1. On Davis's later service as a lobbyist on behalf of the Waterway, see Horatio Seymour, Albany, to MMD, Feb. 9, 1864, Davis MSS.


98. Alexander Spaulding, New York, to John F. Seymour, Nov. 2, 1859, Seymour MSS.


100. U.S. Department of Justice, "The Fox and Wisconsin River Reservation," 9 Opinions of the Attorneys General of the United States, 346 at 347. Black added an afterthought to the above quotation: "Besides, the United States had title at the time of the grant, and the right of the Indians was no more than a usufruct."

101. Alexander Spaulding, New York, to John F. Seymour, Nov. 2, 1859, Seymour MSS.


104. "Fox & Wisconsin Improvement Co. and Green Bay & Mississippi Canal Co. - Grants -," MS. vol. in Wisconsin State Land Office, 32.

105. Morgan L. Martin, Washington, to Jefferson Davis, Mar. 8, 1854, Wisconsin Historical Society MSS. File 1854, Mar. 8. This is a copy of a letter endorsed by the entire Wisconsin congressional delegation. The lands referred to are not specified. Since there were a great many claims to the lands in the Fort Howard reservation, the request may apply only in part to the Waterway lands.

106. Morgan L. Martin, Green Bay, to Jefferson Davis, April 10, 1854, Morgan L. Martin MSS.
107. Morgan L. Martin, New York, to Jefferson Davis, May 9, 1855, Morgan L. Martin MSS.


110. Alexander Spaulding, New York, to John F. Seymour, Nov. 2, 1859, Seymour MSS.


112. Martin testified that he had spent considerable time in Washington in early 1856 presenting a number of alternative proposals to the Land Office officials in order to clear the title of the settlers who had bought even-numbered sections from the Company. See "Statement of Morgan L. Martin," in Wisconsin Legislature, "Report of the Select Committee on the Fox and Wisconsin Improvement," Assembly Journal (1856), Appendix, II, 60. See also Mason C. Darling, Fond du Lac, to Leonard J. Farwell, July 27, 1857, Archives, Ser. 1/1/4-1. On state interest in the matter, see, e.g., the recommendations of the Select Committee in Wisconsin Legislature, Assembly Journal (1856), Appendix, II, 45; and the memorial adopted as a result in Wisconsin Laws (1856), 293-295.


9 Statutes at Large, 925. Sec. 2 contains this provision. Black is not the only authority who has fallen into this error. See T. N. Donaldson, The Public Domain, 260. It is unfortunate that Donaldson's treatment, apparently satisfactory in other respects, is so inadequate concerning the Fox-Wisconsin problem: The only mention of the grant is in the place cited, and he does not give the size of the grant, nor mention any of the other federal acts respecting the Waterway.

John Rice, New York, to John F. Seymour, June 20, 1859, Seymour MSS.


Wisconsin Legislature, Assembly Journal (1860), 853.

Memorandum of the stock account [Feb., 1854], Morgan L. Martin MSS.; C. D. Westbrook, Fox and Wisconsin Improvement (1854), 50, 51-55.

The Select Committee that investigated the affairs of the Company in 1856 reported, "All funds . . . have been raised upon the credit of the improvement and the grant. No money has paid upon the capital stock." See Wisconsin Legislature, "Report of the Select Committee," Assembly Journal (1856), Appendix, II, 36.

Otto Tank, New York, to Morgan L. Martin, Feb. 11, 1855, Morgan L. Martin MSS.

Otto Tank, New York, to Morgan L. Martin, Feb. 13, 1855, Morgan L. Martin MSS.

Otto Tank, New York, to Morgan L. Martin, Feb. 11, 1855, and Hiram Barney, New York, to MLM, Oct. 16, 1855, Morgan L. Martin MSS.

Otto Tank, New York to Morgan L. Martin, Feb. 13, 1855, Morgan L. Martin MSS.


Hiram Barney, New York, to MLM, Oct. 16, 1855, Morgan L. Martin MSS.; and Wisconsin Legislature, Assembly Journal (1860), 850.


133. Wisconsin Legislature, Assembly Journal (1855), 77-78, 115, 998, 1043, and 1049.

134. Wisconsin Laws (1855), 62-63. For the legislative history of the bill, see Wisconsin Legislature, Senate Journal (1855), 548 and 555; and Wisconsin Legislature, Assembly Journal (1855), 1022. The bill passed the Assembly under a suspension of the rules. On the friendly relations of Kelsey with the Waterway crowd, see Edgar Conklin, New York, to William A. Barstow, Sept. 25, 1854, Archives, Ser. 1/1/4-1.

135. Moses M. Davis, Portage, to John F. Potter, April 24, 1856, Davis MSS.


137. Ibid., 49.

138. Ibid., 55.

139. Morgan L. Martin, Green Bay, to Joshua Stark, Aug. 1, 1856, in Ibid., 69.

140. Loc. cit. See also Morgan L. Martin to Philo Belden ..., 8-9.


142. Ibid., 52.


146. Morgan L. Martin to Philo Belden . . ., 10. See also [name illegible] New York, to Treasurer of the Fox-Wisconsin Improvement Company, Mar. 1, 1859, and Abraham B. Clark, New York, to John F. Seymour [n.d. (Dec., 1859?)], Seymour MSS.

147. Wisconsin was feeling the impact of the Panic of 1857 as early as January, 1858. See the comment by Governor Alexander W. Randall in his annual message to the legislature, *Wisconsin Legislature, Senate Journal (1858)*, Appendix, 42-43. Increased capitalization was authorized by an act introduced in the legislature by Morgan L. Martin. See *Wisconsin Legislature, Senate Journal (1858)*, 522; and *Wisconsin Laws* (1858), 67. See also *Report of the Directors of the Fox and Wisconsin Improvement Company to its Stockholders, January, 1858* (New York: William C. Bryant and Co., 1858) and *Report of the Directors of the Fox and Wisconsin Improvement Company, to its Stockholders, February 1, 1859* (Utica: DeWitt C. Grove, 1859).

148. Morgan L. Martin to Philo Belden . . ., 10. See also Abraham B. Clark, New York, to John F. Seymour [n.d. (Dec., 1859?)], Seymour MSS.

149. David M. Loy, Oshkosh, to Nelson Dewey, Nov. 14, 1851, Archives, Ser. 1/1/1-1; and Daniel C. Jenne, Appleton, to Horatio Seymour, April 27, 1859, Seymour MSS. After McNeal won a contract from the Board of Public Works, Loy had warned, "We shall have some competent person to see the work is done well and proper. There must be some person to attend to McNeal while the work is going on for Mc will take advantage if he can."

150. J. B. Sutherland, Philadelphia, to Morgan L. Martin, Oct. 21, 1859, Seymour MSS.

151. Daniel C. Jenne, Appleton, to Horatio Seymour, April 27, 1859, Seymour MSS.


155. Memorandum concerning sale of bonds dated Nov. 1, 1859, and Daniel C. Jenne, Appleton, to John F. Seymour, Nov. 24, 1859, Seymour MSS.

156. Daniel C. Jenne, Appleton, to John F. Seymour, July 19, 1859, Seymour MSS.


158. Loc. cit.


162. Hiram Barney, New York, to Morgan L. Martin, Oct. 16,
1855, Bill of sale, Uriel Peak to HB, Samuel Marsh, William A. Butler, and Albert G. Allen, April 15, 1856, Memorandum of Oct. 5, 1857, and Receipt of HB, New York, May 26, 1859, Morgan L. Martin MSS.

163. Daniel C. Jenne, Appleton, to John F. Seymour, July 19, 1859, Seymour MSS.

164. C. D. Westbrook, Fox and Wisconsin Improvement (1853), 4 and ibid. (1854), 7; Appleton Crescent, May 14 and June 11, 1853; and Green Bay Advocate, May 19 and 26, 1853.

165. The Seymour MSS. for the summer and fall of 1859 are full of the subject. See, for example, J. H. Palmer, Buffalo, Aug. 15, 1859, to John F. Seymour, Isaac Seymour, New York, to JFS, Aug. 19, 1859, Daniel Underwood, Green Bay, to JFS, Sept. 17 and 20, 1859, and K. A. Darling, Fond du Lac, to JFS, Oct. 1, 1859, Seymour MSS. See also Appleton Crescent, June 13, 1863; and Report of the Directors... 1859, 5.

166. Hathaway and Wood, Green Bay, to John F. Seymour, Sept. 8, 1859, Seymour MSS.

167. Erastus Corning, Albany, to John F. Seymour, Dec. 9, 1859, Seymour MSS.


170. Daniel C. Jenne, Chicago, to John F. Seymour, Sept. 22, 1859, Seymour MSS. See also DCJ, Appleton, to JFS, Oct. 24, 1859, Seymour MSS.

171. J. H. Palmer, Buffalo, to John F. Seymour, Aug. 15, and Sept. 16 and 30, 1859, and JHP, Steamer Appleton Belle, to JFS, Sept. 22, 1859, and many other letters of about these dates, Seymour MSS. See also Report of the Directors... 1859, 5.

173. For Richmond's offer, see D. and A. Dows and Co., New York, to John F. Seymour, Sept. 29, 1859, Seymour MSS. The disappointment felt along the Waterway when the arrangement failed to work out is reflected in Daniel C. Jenne, Appleton, to John F. Seymour, Oct. 17, 1859, Seymour MSS.


175. Daniel C. Jenne, Appleton, to John F. Seymour, Oct. 17, 1859, Seymour MSS.

176. Erastus Corning, Albany, to John F. Seymour, Oct. 17, 1859, Dean Richmond, Buffalo, to Horatio Seymour, Nov. 16, 1859, Otto Tank, New York, to JFS, Nov. 18, 1859, and OT, Buffalo, to JFS, Nov. 30, 1859, Seymour MSS.

177. Daniel C. Jenne, Appleton, to John F. Seymour, Oct. 24, 1859, Seymour MSS.

178. Herman J. Redfield, Batavia, N. Y., to John F. Seymour, Aug. 15, 1859, Seymour MSS.

179. Abraham B. Clark, New York, to John F. Seymour, July 22, 1859, Seymour MSS.

180. Alexander Spaulding, New York, to John F. Seymour, June 28, 1859, Seymour MSS.; L. Blossom, Milwaukee, to Edward Salomon, Apr. 17, 1863, Archives, Ser. 1/1/4-1; and AS to the Editor of the Chicago Tribune in Appleton Crescent, Feb. 17, 1866.

181. Daniel C. Jenne, Appleton, to John F. Seymour, July 19, 1859, and Memorandum copy of notice of sale of bonds to satisfy Jenne's draft on the Company, dated Nov. 1, 1859, Seymour MSS.

182. Edgar Conklin, New York, to Gilles and Conklin, Attorneys, Oct. 25, 1859, Seymour MSS.

183. John F. Seymour, Utica, to Moses M. Davis, Sept. 25, 1862, Davis MSS.

184. Memorandum headed "FWI Co., to Morgan La Martin, Dr.," dated 1859, Morgan L. Martin MSS.; John Rice, New York, to John F. Seymour, Jan. 3, 1860, and Otto Tank, Green Bay, to JFS, Jan. 7, 1860, Seymour MSS.; Morgan L. Martin to Philo Belden, E. H. Galloway, B. E. Eld-
ridge, Commissioners [n.d., n.p. (1873)]; Wisconsin Legislature, Senate Journal (1879), 244-247; and Harrison C. Hobart, Milwaukee, to MLM, Aug. 16, Nov. 22 and 28, 1872, Morgan L. Martin MSS.

185. Erastus Corning, Albany, to John F. Seymour, Oct. 17, 1859, Seymour MSS.

186. Mitchell was inflexible in demanding payment in cash or bonds before he would issue deeds for land. See Alexander Mitchell, Milwaukee, to John F. Seymour, Oct. 4 and 17, 1859, Seymour MSS.

187. John Rice, New York, to John F. Seymour, June 20, 1859, Seymour MSS.

188. Alexander Mitchell, Milwaukee, to John F. Seymour, Dec. 23, 1859, Seymour MSS.

189. John F. Seymour, Utica, to Moses M. Davis, Sept. 25, 1862, Davis MSS. See also JFS, Albany, to MMD, Mar. 23, 1863, Davis MSS.

190. W. A. Butler, Retrospect of Forty Years, 335.

191. Moses M. Davis, Portage, to John F. Potter, Jan. 3, 1862, Davis MSS.

192. John F. Seymour, Utica, to Moses M. Davis, Sept. 25, 1862, Davis MSS.


to ES, Dec. 2, 1862, Archives, Ser. 1/1/4-1.

196. See, for example, David C. Reeve, Kingston City, Iowa, to Secretary of State, [Aug. 20, 1864], A. Loomis, Almond, Portage County, to the Governor, Nov. 1864, and A. F. Lemon, Eau Galle, Dunn County, to Lucius Fairchild, Dec. 3, 1866, Archives, Ser. 1/1/4-1.

197. Horatio Seymour, Albany, to Moses M. Davis, Feb. 9, 1864, Davis MSS. The Superintendent of the Company reported spending less than $7,000 from Jan. 1, 1860, through the end of the construction season of 1862. See G. K. Warren, Report on the Transportation Route, 45.

198. Wisconsin Laws (1860), 159-161. Seymour's recommendations are printed with the report of the Select Committee in Wisconsin Legislature, Assembly Journal (1860), 849-851. For the legislative history of the bill see ibid., 857, 889, and 979.

199. Wisconsin Laws (1861), 306-309; ibid. (1865), 634-635.


201. Moses M. Davis, Appleton, to John F. Potter, June 14, 1863, Davis MSS.


203. U.S.S. Journal, 37 Cong., 2 Sess. (1862), 96. The petition from Wisconsin citizens and the Company offer were presented simultaneously by the Senator from Green Bay, Timothy 0. Howe.

204. Ibid., 380.


207. Ibid., 603-604.


209. Ibid., 128-129.


214. U.S.S. Journal, 37 Cong., 3 Sess. (1863), p. 164; Ibid., 38 Cong., 1 Sess. (1864), pp. 208, 373, and 383. See also Horatio Seymour, Albany, to Moses M. Davis, Feb. 9, 1864, Davis MSS., in which Governor Seymour expresses the hope that Davis and his friend, John Fox Potter, will be able to get to Washington, to aid on Fox-Wisconsin matters.


216. Appleton Crescent, Feb. 10, 1866.

217. Morgan L. Martin to Philo Belden . . . , 9-10.


CHAPTER VII

THE FEDERAL GOVERNMENT RESUMES

CONTROL OF THE WATERWAY

In the brief years, from 1866 to 1872, during which the Waterway was controlled by the Green Bay and Mississippi Canal Company, a cycle in Waterway history came to an end. After less than a quarter century under state and private management, the Fox-Wisconsin route was returned to federal custody and operation. The land grant which had been a powerful motivation behind earlier private efforts, was now in the hands of individuals. While the new company did its best to make an independent transportation route out of the Waterway, a new element, which had a different purpose in view, appeared on the scene. This group, it is true, regarded the Waterway as a link in the national transportation network, but they assigned to it an auxiliary role. The newcomers regarded the Waterway as a supplement to the overtaxed capacities of the railroads and as a competitive check on exorbitant railway tariffs. For several reasons, the Waterway could best carry out this subordinate function as a federal enterprise. The exponents of this view therefore agitated for the federal government to resume control of the route. The Waterway thus became involved in the great
Republican political pork-barrel, the rivers and harbors legislation, just as it had been part of the pork-barrel of the public lands during the days of Democratic hegemony. The involvement of the Waterway in rivers-and-harbors politics meant that the advocates of Fox-Wisconsin appropriations were an odd coalition of Republican politicians and agrarian reformers. But the paradoxes of the last years of this study do not end with this strange picture. The Company that operated the Waterway was controlled by financiers who had made their fortunes in the railroad business. Furthermore, some of the most active promoters of the Waterway in its new role as a putative check on the exactions of the railroad monopoly were themselves railroaders. One more observation completes the congeries of contradictions that form the history of the Waterway in these years. Businessmen and politicos alike set little store by the water powers along the route. In accordance with this view, when the Improvement passed again into the hands of the national government, the water powers were left in the private hands that had minimized them. Yet, over the years to the present day, the water power rights have remained a source of considerable profit to the investors long after all but token efforts to maintain the transportation route were abandoned.
New Yorkers controlled the Green Bay and Mississippi Canal Company as they had controlled its predecessor. Indeed, many of the investors in the new venture had been prominently involved in the earlier project. Horatio Seymour, Erastus Corning, Edward Delavan, and Hiram Barney were among the larger contributors to the new organization. It seems probable that the Butler family was also represented, although the existing records do not reveal it, for their relation by marriage, William B. Ogden is listed among the stockholders. The largest stake in the new Company was held by Samuel Marsh, whose interest in the Fox and Wisconsin Improvement Company had been minor. Marsh became president of the new Company. The man upon whom he relied for business advice was John Magee, also a New Yorker, whose share in the syndicate was as large as those of Seymour, Corning, and Delavan. The name of Timothy Dwight, president of Yale College, may also be found among the Eastern investors.

There was a significant Wisconsin representation among the purchasers of the assets of the Fox and Wisconsin Company. Two of the most exigent of the old Company's creditors, John Catlin and Daniel Wells, Jr., had an interest in the new venture. It is noteworthy, however, that the Wisconsin men whose names had been most prominently linked with the ill-fated Fox and Wisconsin Improvement
Company do not appear on the rolls of participants in the Green Bay and Mississippi Canal Company. Just as there are significant omissions from the Wisconsin membership in the new Company, there are interesting additions. Timothy O. Howe, the Radical Republican senator from Green Bay, for example, constituted a formidable recruit who gave the new Company entrée to the counsels of the dominant Republican party. Breese J. Stevens was the most important of the Wisconsin counselors of the Company. A Madison attorney, Stevens, became vice-president and one of the most active directors of the Green Bay and Mississippi Canal Company.

Samuel Marsh was a New York industrialist whose fortune was based on the cloth-dying and printing trade. He was also deeply interested in transportation. In 1845 Marsh was a contributor to a gigantic fund for the purpose of completing the New York and Erie Railroad. At the same time he became vice-president of the Erie, a position he held, interrupted by occasional service as its president, until 1865. Marsh's connection with the Waterway began at least as early as 1859 and he retained his faith in its possibilities to the end. Under his direction the new Company persisted in their efforts to develop the Waterway as a transportation route.

Marsh was upheld in his views by John Magee. Magee, Marsh told the Company engineer, "is a very thorough businessman, clear headed, very observing and has had much ex-
perience in works of the character of ours — I think you will like him, he expresses his opinions freely and strongly." Magee undoubtedly was a very thorough businessman, having amassed a fortune of more than $40,000,000 in banking, railroad, and mining enterprises. If this pragmatic evidence did not entitle him to express his opinions with freedom, his venerable years did, for in 1866 he was a vigorous seventy-two. Marsh completed his characterization of Magee by noting, "His judgm't is good in all matters of business — studies economy but is not illiberal with those who understand and do their duty — so much for Mr. Magee."

The first concern of the syndicate was the division of the land grant, which had been purchased jointly. Considerable confusion surrounded the disposition of the lands because of this feature. Breese Stevens, who was attorney for the trustees in the proceedings, explained how this difficulty arose: "Some of the parties who were afterward incorporated as the Green Bay and Mississippi Canal Company were purchasers at the public sale, and as individuals, not as a company, continued to hold, undisposed of, some of the lands purchased." Early in September, 1866, Samuel Marsh wrote his protégé, Nathaniel Edwards, "We have got through with settlement with the Trustees and division of the lands very satisfactorily — to all parties."

After the lands had been divided, one further distraction remained. The original congressional legislation
in 1846 allowed the state twenty years to build the Waterway and provided for payment to the federal treasury of the sum realized from land sales if the route was not completed. Since the Improvement could hardly be said to be in a finished state, it was necessary to obtain from Congress an extension of time. For this end, the Company and the state united to levy upon the persuasive powers of Breese Stevens.

Stevens's efforts were not without effect. On December 18, 1866, Representative Ithamar C. Sloan by unanimous consent introduced a resolution concerning the completion of the Waterway. The resolution was read twice and referred to the Committee on Public Lands. The next day, Timothy O. Howe offered a similar proposal in the upper house. In addition to these efforts to preserve the Waterway for the state and its private successors, Howe also submitted petitions requesting the development of the national network of waterways. As the year drew to a close, Samuel Marsh had reason to remark with satisfaction that "Mr. Stevens has returned from Washington where he has been doing good service." The extension of time, however, was still to be won. Marsh noted significantly that "Mr. Stevens and Mr. Barney will go on to Washington early in January."

It is well that these two skilled negotiators were on the scene. Sloan's resolution never emerged from the committee rooms. Howe's was reported from the Public Lands
Committee with an amendment, but no further action was taken on it. Both efforts died with the adjournment of Congress.

Strenuous measures were called for. On March 7, 1867, after the new Congress had organized, Howe obtained unanimous consent to introduce a joint resolution extending the time for completion of the Waterway. An old nemesis of the project, Thomas A. Hendricks of Indiana, inquired if the matter had been investigated by any committee. Howe replied that the resolution had been passed by the Public Lands Committee. Hendricks asked suspiciously, "In this form?" Howe's reply was brief but sufficiently full to clear the way for immediate passage of the resolution. He said, "The resolution as reported by the committee proposed to allow the improvement to be completed within such time and in such manner as the Legislature of Wisconsin might fix. This simply proposes to extend the time five years."

At the same time, Howe settled any doubts that the extension would be ineffective. The extension, he vowed, would assure completion of the project. "The money required to complete the work has been ascertained by the judgment of a court, amounting to some sixty or seventy thousand dollars, and is on deposit with the treasurer of the State."

Without further ado, the resolution passed the Senate and was delivered to the House.

In the lower house, the measure provoked some live-
ly activity that may be regarded as typical, in many ways, of Reconstruction modes of congressional business. George W. Julian, Indiana Radical Republican and chairman of the Public Lands Committee, asked immediate consideration of the resolution. Congressman John F. Farnsworth, from St. Charles on the Fox River of Illinois, wanted to know if the resolution had been considered before. "If it is the same one that was before the last Congress," he explained, "there is a great deal of objection to it." Philetus Sawyer, the millionaire lumberman representing Oshkosh on the Waterway, averred the resolution was entirely different. Farnsworth, however, insisted on information. Julian was impatient. "This is a matter which is entirely local," he snorted. "The measure has the unanimous approval of the Wisconsin delegation," he added testily as if this endorsement should dispose of all objections.

Benjamin F. Hopkins, the Madison Regency's congressman, pointed out soothingly that the resolution was merely an extension of time. The money necessary to complete the project, he said, was on deposit in the state treasury. Farnsworth seized on this point. Had the time expired? he demanded. Hopkins acknowledged that it had. Then, Farnsworth retorted triumphantly, would not the money on deposit revert to the United States. Congressman Benjamin Eggleston of Cincinnati now created a diversion. He pointed out that the Commerce Committee had considered the matter fully
in connection with rivers and harbors legislation and asked reference of the resolution to the Commerce Committee for full information. A champion rose from another quarter to speak on behalf of the "meritorious" project. The speaker was John V. L. Pruyn of New York, long-time associate of Erastus Corning in the New York Central Railroad and other enterprises. The Democratic congressman from Lewistown, Illinois, Lewis W. Ross, asked if the resolution would not tie up the public domain for another five years. This suggestion roused Philetus Sawyer to unusual oratorical heights.

I hope this joint resolution will not be referred [he declared], because there is no reason in the world why it should be. This company has already expended about half a million dollars in this work, and they have until the 3d day of August next in which to complete it. They have deposited in the State treasury of Wisconsin the sum of $70,000 to secure the completion of the work. Some difficulty has arisen in regard to whether the improvement shall be carried out so as to require larger locks than those which they agreed to make originally. If this resolution does not pass, then the company will go on and complete the work with small locks, as they originally agreed to do; but if it is passed, then they will have ample time in which to determine whether to make large locks or not. The appropriation already made for the improvement of the Wisconsin river will not be worth much without the enlarged locks, which will be secured by the passage of this joint resolution. This matter was thoroughly investigated by the Committee on Public Lands of the last House; and there it met with approval; but the committee were unable to get the floor to make their report.

Julian returned to the debate to point out that two committees of congress had unanimously favored passage of the resolution. Overwhelmed by this spate of irrelevancies,
Congressman Eggleston withdrew his request to refer the resolution, while a befuddled Farnsworth declared, "With the explanation of the gentleman from Wisconsin, I can see no objection to the passage of this joint resolution." The resolution now passed the House. Julian closed the door firmly on further discussion by moving reconsideration of the vote and then moving to table the motion. Within a week, the President gave his approval to the measure and the project was safe.

After the lands had been divided the promoters could profit from the project only by developing a transportation route that would carry a substantial traffic. The syndicate determined to defer organizing a new Company until they had inspected their new properties. Marsh had sent Nathaniel Edwards to the scene to supervise operations on the Waterway. Now he warned the engineer of the impending visit of the principal investors in the new enterprise: "The By Laws will not be completed until the return of the Directors who intend visiting the works to examine them thoroughly and report what in their opinion ought to be expended upon them this season." The directors Marsh listed, in addition to John Magee, were Governor Seymour, the sons of Erastus Corning and Magee, Edward Delavan, and John Catlin. "Mr. Catlin is inclined to talk much on matters of detail," Marsh commented. "He formerly resided in Wisconsin and had much experience in Land sales and purchases." Cat-
lin, however, did not remain long with the Company. Marsh purchased his interest, including the lands Catlin received in the division of the spoils, before the year was out.

The survey of the route by the directors soon began to assume the proportions of a triumphal tour, or a congressional junket. Marsh wrote anxiously to Edwards about the arrangements for the trip. "The Gov of Wis is invited to be of the party. Gen Hunter, appointed by the U.S. to make a survey of the River with reference to a ship canal, is also invited to a meeting at Appleton, and will probably go with them -Now can you procure them a suitable Boat?"

Shortly after, Marsh again harried young Edwards about the junket. "I hope you will find Boats for the excursion suitable for the occasion, you may want two, one for the Fox and another for the Wisconsin of a light draft."

The directors met in Appleton on September 20, and proceeded up the Fox River. The United States was not represented at the outset of the trip. At Portage on the twenty-seventh, the expedition was overtaken by Major Charles R. Suter, an Army engineer, under orders to inspect the Waterway "to determine what improvements thereof are required to render [it] safe and convenient for the navigation of the naval and commercial vessels of the United States, and the cost . . . ." Thus early on the scene was a representative of two complementary forces that in a few short years were to drive the private investors out of
business. For Suter's mission was a result of a combination between the reformers, who thought to check railroad abuses by water competition, and the politicians of the pork barrel. The Company officials were either unaware of any conflict of interest, or were undisturbed by it. They greeted Suter "with great cordiality" and he accompanied Governor Seymour and others of the party from Portage to the mouth of the Wisconsin.

The directors of the undertaking could spare hardly a week to enjoy the salubrious late summer air and delightful scenery along the line of their new property. The needs of the project were too pressing. The works along the route were sadly dilapidated. Major Suter estimated that the expenditure of nearly $500,000 was necessary to establish the four-foot channel from Green Bay to Portage required by the state legislation. The dubious condition of the Waterway inhibited the development of traffic. Samuel Marsh told Edwards of a "Mr Kirkland" who was "anxious about the navigable state of the Improvement for his boat with full cargo." New contracts had to be negotiated with holders of water power leases. The rates of toll needed to be readjusted. Most of the details of this character were entrusted to young Edwards. Marsh wrote: "In regard to the rate of toll on Hay & Hoops you will exercise your judgment —If they will not bear the old rate it must be for the interest of the Compy to reduce it." The prospects
of a profitable traffic along the route seemed good. The Company promoters ignored the unfortunate experiences of their predecessors and set out to develop the river trade.

"The country between Berlin and Portage is almost entirely dependent on the river for transportation, and the towns below Berlin generally ship their produce to Oshkosh and Fond du Lac," Major Suter reported. "In consequence of this a large number of steamboats, tugs, and barges find employment on the Fox river, and pay well." The operator of Edwards's boat was even more optimistic. "If we could have a reliable route," the captain declared, "I can secure The biggest [sic] Share of the Frt going East also the most of the Merchandize coming [sic] west the Merchants & Business men through the North Western portion of the state would ship via G Bay providing they was [sic] sure of a reliable line." Kirkland assured Marsh, "I am confident that we can in some measure redeem our losses if the canal is all right." Kirkland needed money. "Mr Magee ... possess's greath [sic] wealth," Marsh reminded Edwards. "Perhaps Mr. Kirkland may induce him to make a loan on his Boat." Mr. Magee preferred to hold onto his money, but Marsh underwrote a shipping contract for Kirkland. In November, 1866, Marsh gloomily informed Edwards that he stood to lose $10,000 on the contract because Kirkland had fallen ill. Edwards was more fortunate. At the end of the 1866 season, the operation of his boat showed a profit of more
than $600.00, although "the first two or three trips she did not pay expenses."

The Canal Company and the transportation companies on the Waterway worked closely together. The operator of one, David M. Kelly, was from Edwards's home town and a close friend of the engineer. In the spring of 1869, Kelly and Edwards arranged a special excursion for a group of newspaper editors. Breese Stevens endorsed the proposal. "I think that good will come of it," he said. "You must arrange so as without risk of failure to be present If possible I will be." Kelly told Edwards of the arrangements on the eve of the expedition: "Tim Wall of the Wolf River Trans. Co. will let me have the Milwaukee a fine new boat with which to take down the Editors to Green Bay. And she is very much better than either of our boats — for that purpose." Kelly explained, "I want to give the party breakfast after starting out of Oshkosh and I hardly know what I should do if the Brooklyn is used but if the Milwaukee, which has a steward, I shall be all right."

Kelly consulted Edwards about placement of the captains on the boats on the river. "I want if possible to let Capt Ed. Neff have the Winnebago next season, for I think he has fairly earned the position," he announced early in 1868. "But I want to be sure that I can get a competent man who is fully posted on the upper Fox to go on the Portage. Is Mr. Granger that man?" Kelly also relied on
his friendship with Edwards for other favors. As the season of 1869 came to a close, he petitioned the engineer: "Am beginning to think about laying up river boats and wish to know if we can use the timber in 3rd level at Kaukauna. Please answer soon."

The Company was necessarily involved in the movement of goods along the Waterway. "Wentworth's Boat has not come down yet," the assistant Company engineer complained, "so I wrote to J. F. Morse & Co today to take ballance of that lumber to Portage if they could do it for $3 per M." Another shipper asked early opening of the locks in the 1869 season so that he could pass "130,000 M feet of logs" to the sawmill at Little Kaukauna. At the end of that season, a shipper sent an anxious inquiry from Green Bay: "Please let me know how soon you are going to take the locks out at Portage we wish to send a boat down the Wisconsin River."

The shippers were, of course, dependent upon the physical condition of the works for the operation of their boats. When the dam at Kaukauna suffered a break in the summer of 1870, Kelly wrote worriedly from Green Bay: "A bad break that at Kaukauna. the Capt of the Winnebago tells me that there is but 27 inches of water there and I don't think he will be able to get up again. It is a bad time for us too." Other observers warned Edwards to be sure the news of the break was published. One shipper had
been buying wheat with the intention of shipping it through to Buffalo. Failure of navigation on the river would ruin him. Kelly spelled out the nature of the shippers' dependence on the Company. "Contracts have been made to take freight through by river and we must pay difference between river and rail rates." He urged Edwards to heroic measures. "Cam Smith told me tonight that the Locks could be got ready by next Wednesday. I do not wish to interfere but can you not let him make the gates with a gang of men while your head man is doing something else." "There are a good many reasons just now why we should have the use of the Canal at the earliest possible moment," he continued. "I think a good deal of extra expense would be money well laid out situated as we now are."

Marsh anxiously watched the physical condition of the Improvement because of its direct relation to the revenues from the route. "I suppose the amount of freight in the River will soon be largely increased, and I trust that your dredges are fully employed in clearing a passage for the Boats—better than they have ever had," he wrote Edwards from Green Bay in the summer of 1869. Marsh approved delaying work on the Portage canal to accommodate businessmen. The water powers along the route, however, he regarded as secondary to maintenance of the Waterway traffic. "I have yours of the 16th and have sent it to Mr Magee for his opinion in regard to Smith & Co. application for a lease
of water power," he told Edwards as the new enterprise was getting under way. "If there is danger of any serious obstruction from their business to the passage of boats on the Canal, it appears to me that we ought not to entertain their proposition." As a consequence of the determined pursuit of this policy, only some 2,000 of the potential 14,000 horsepower were under lease when the arbitrators evaluated the works in 1871.

The construction program of the Green Bay and Mississippi Canal Company was vigorous. Even before the Company was organized, bids were being taken for construction of a lock and dam at Monette on the upper Fox. The importance of the Wisconsin to the Waterway Marsh recognized also. "It is very desirable that the navigation of the Wisconsin should be improved but there is much to do on the canal & Fox River which cannot with safety be neglected," he lamented in 1866. Of necessity, however, most of the work was concentrated on the lower Fox. Most of the construction had to be done during the winter when traffic on the Waterway ceased. During one construction season, Edwards reported installing ten new gates as well as repairing the canals and locks. In spite of all this activity, the engineer boasted that "the route was opened to navigation upon April 29." All of the works along the lower Fox required constant maintenance, but during the period of control by the Green Bay and Mississippi Canal Company,
most of the attention was concentrated on Depere, where a
deeper channel had to be cut in the river and the canal had
49 to be relocated. At Little Kaukauna the works were in
seriously dilapidated condition. Edwards dejectedly com-
mented on the experience of one season. "In the spring &
during June the stage of water for boating was good but
during July the navigation upon the Lower Fox was made dif-
ficult & upon Aug 11th the boats were unable to run with
loads for three weeks." The cause of the difficulty," he
explained, "was principally the settling from 1 to 5 ft of
200 ft of Little Kaukauna dam by reason of its being under-
mined & the action of floating ice in spring carrying out
a crib placed as protection." More serious than this, of
course, was the break that occurred in the summer of 1870
51 when the water level fell to twenty-seven inches. At the
same time as the difficulty with the settling of the Little
Kaukauna dam arose, the holders of water power rights at
Neenah aggravated the problem. Edwards, indeed, blamed the
navigational difficulties principally on the Neenah opera-
tion. "The secondary cause or that which effected the en-
tire closing of river for three weeks was the raising of
Neenah dam by flashboards & earth dams shutting off from
the Lower Fox River the water of Lake Winnebago except that
which passed through past the mills of Neenah & Menasha
running during the 10 hours of the week days & what we
52 could run through the Menasha lock valves."
For all the effort expended on the Lower Fox, especially at Little Kaukauna and Depere, the works were not in satisfactory condition when the government took over the Waterway. Nathaniel Edwards himself, as assistant United States engineer, reported on this section in 1872. He declared that nearly $100,000 would have to be expended to establish a four-foot channel. Much larger sums would be required to create a deeper channel. Over the balance of the route the situation was somewhat better. The guard lock at the Wisconsin River end of the Portage Canal was repaired and the entrance cleared at the close of the season of 1869, but Edwards confessed that the canal and locks needed further dredging and clearing to increase the depth of water above four feet.

On the upper Fox, the Company built a dam and lock at Montello. Two new dredges were constructed and kept at work keeping the channel clear. Still Marsh was doubtful of the reliability of the channel. In May, 1868, he asked Edwards, "What is your opinion in regard to the Dam & Lock at Eureka? if it will ensure an increased depth of Water in ordinary seasons, sufficient for our Boats on the upper Fox, it appears to me that it had better be done even at a little extra expense." Edwards advised against the Eureka site. As the season of 1869 drew to a close, Marsh brought the matter up again. "The two cut-offs will be a great improvement to the navigation of the upper Fox and
when you have completed the guard Lock at Portage and the Depere Lock and repaired the old Lock, the Fox Rivers will be in good condition for business when, as now, there is water enough, but this cannot be safely calculated upon without further improvements," he explained. "We must this winter prepare for at least one new dam & Lock on the Upper Fox. Mr. Stevens will be here soon when I will confer with him on the subject." Preparations for a new dam had not matured when the federal government resumed control of the Waterway. Edwards's report in 1872 recommended a site at Princeton in addition to the existing construction at Montello.

The Company fully appreciated the importance of shipping connections on the Lakes. "See if you can not make some arrangement so that there can be a good line of propellers from Buffalo to G Bay next season," Edwards's captain advised. "If there could be two propellers on that route and one more Boat on the river I think there would be business enough for all and would be an advantage to the Improvement Co." In 1866, there were but four boats linking Green Bay with Buffalo. Three of these were soon bound to the Company, either directly by contract, or through David M. Kelly. In the fall, Samuel Marsh acted swiftly to secure the services of the Pittsburgh. Later he told Edwards that Stevens "after Christmas will go to Buffalo where he will probably meet Mr Magee and I hope
David M. Kelly operated the *Comet* and the *Rocket* out of Green Bay. He kept his friend, Edwards, informed of his activities. In mid-winter, 1868, Kelly wrote from Buffalo, "I arrived here this morning in good health and spirits and intend to start work on the *Rocket* at once." In a fortnight he boasted, "I am getting on with the *Rocket* repairs first rate, and we shall have two good boats in the spring." In late 1869, disaster struck. "'Comet' collided with prop 'Hunter' near Detroit yesterday morning and both were sunk," Kelly reported. "The 'Hunter' [sank] in deep water and the 'Comet' on the bank with cabin out of water." Kelly immediately dispatched an aide to Detroit. "I expect to go soon but must first get a boat to take 'Comet's' place." The next day brought good news. "Capt. Gaylord telegraphs that he thinks 'Comet' will be afloat by tomorrow night — have no particulars." Minor triumphs of this sort were insufficient to establish Green Bay as a leading lake port in comparison with Milwaukee, which, for example, in the same period, enjoyed the services of some eleven lines of lake boats.

Operating the Waterway involved an endless round of petty emergencies and annoyances. Maintaining it involved the constant investment of more and more funds. Still, the directors of the Company hung on grimly. Developments of national scope and political character finally forced the businessmen to surrender their hold on the Waterway.
Transportation to market for his surplus produce has ever been a problem to the American farmer. In primitive times, lack of transportation facilities forced the prices for farm commodities down in proportion to the relatively high cost of getting the goods to market. In the Wisconsin Constitutional Convention of 1846, Nathaniel Hyer, representing a Dane County constituency, advocated a generous policy toward transportation enterprises. He explained the need: "It is very well understood that the lands in the interior are more productive than on the lake shore . . . and if we can have a market for our produce at home nearly equal to that on the lake shore, then our lands are as valuable as theirs. A judicious system of internal improvements will create that market; then, sir, why should they not be encouraged." As the railroad age burst with full force upon the country, Governor Farwell, addressing the legislature, foretold the coming of a new age of prosperity for Wisconsin producers. The rich Wisconsin resources, he announced in 1852, "have already attracted the attention of the eastern and southern markets, and capitalists . . . are already extending towards us from the Atlantic seaboard, and in a short time, it is to be hoped, will bring to our very doors, the facilities of railroad carriage and transportation." He summarized the magnificent prospect: "By
the competition of railroad against railroad, and both against lake transportation, the price of freight will become so reduced, as to give us at home, a market nearly equal to that of New York and New England . . . ."

Twenty years later, Governor William R. Taylor elaborated this analysis. Arguing for enlargement of the Fox-Wisconsin Waterway as one means toward the objective of cheap transportation, he declared: "The general effect [of the Improvement] inevitably must be to increase the present value of agricultural property, to enhance the prices of domestic products, to enlarge the quantity of exports, and to stimulate industry and the spirit of progress."

Students of mid-century transportation had failed to perceive the possibility that railroads would supersede the Waterway. On the contrary, the argument ran "that from the rapidity with which [the railroads] will cause the settlement of the country, they may be looked upon as welcome auxiliaries." In 1853 the Board of Public Works developed the thought fully: "That this improvement is one of very great importance to the interests of the people of the state, seems to be admitted in all quarters, for connections are sought with this thoroughfare, by plank roads and railroads, projected and in progress of construction from different ports on lake Michigan . . . to intersect [the Waterway] at different points . . .; the formation of these various connections must and will add to the revenues of the
improvements by assisting to develop the resources of these fertile and extensive valleys along its line, whose principal trade is to flow through its course."

By the end of the Civil War, the emphasis was entirely different. Observers still agreed that "there is no incident of general prosperity so vital to the producing class as that of cheap transportation." The railroads, however, no longer appeared as the agencies to bring this blessing to the farming community. Now the cry arose for a "defense of the people at large against the oppressions practiced" by the railroads.

The complaints against the iron highways developed from a number of circumstances. The early trans-Wisconsin roads had scarcely been completed when the war broke out. They had been hastily and unskillfully constructed. Suddenly, they found the entire surplus production from a large and growing area thrust upon them by the closure of the Mississippi River. In addition to overtaxed facilities, the managers were harassed by an inflationary war-time price pattern and an increased federal and state tax burden. Freed of the competitive, or potentially competitive, Mississippi route, and saddled with rolling stock and roadbeds that needed replacement almost as soon as they were placed in service, the railroads were strongly tempted to exploit their monopolistic situation. The trans-Wisconsin roads began the practice of non-competitive rate-fixing agreements.
negotiated at periodic meetings in Milwaukee or Chicago. In addition, the railroads fostered establishment and maintenance of a steamboat monopoly on the upper Mississippi that worked in harmony with the railroads.

From the onset of the war through the winter of 1862-1863, the rate schedules fluctuated generally downward. Thereafter, through 1865, the rates rose steadily until the average charge on wheat was twice what it had been in 1860. For the duration of the fighting, the rise in rates bore some relation to the rise in commodity prices. With the disintegration of the Confederacy, however, wheat prices declined precipitately until in April, 1865, the level had fallen to about that of April, 1860. There was, however, no similar relaxation of railroad charges for wheat. The impact of this policy was felt in every cereal-producing community of the Middle West.

Other factors of the situation also served to engender anti-railroad sentiment. Milwaukee millers and warehousemen complained of discrimination and excessive charges for elevator facilities. There were complaints of drawbacks and rebates as well as other forms of favoritism. Another objectionable practice of the roads was their refusal to carry cordwood at peak traffic seasons. In addition to monopolistic rate-making abuses, the leading sources of tension were resentments stemming from the days when the roads were under construction. Municipalities and
county governments had assumed heavy debt burdens to bring the advantages of rail transportation to their communities. Furthermore, many Wisconsin farmers had been persuaded to mortgage their farms in exchange for railroad stocks or bonds. Many farmers soon found their railroad paper rendered worthless by bankruptcies and reorganizations. Such a long catalogue of grievances gave considerable impetus to anti-railroad sentiment.

The movement for transportation reforms can be traced in the almost countless commercial conventions held in the Middle West during the Civil War and the years following. For example, conventions met in Chicago in 1863, in Dubuque and Red Wing in 1864, in Dubuque and St. Paul in 1866, St. Louis and Keokuk in 1867, Dubuque and Prairie du Chien in 1868, and New Orleans and Portage in 1869. These developments, however, proved a mixed blessing at best, for they roused up all the old rivalries among the various routes.

The Appleton Crescent warned its readers to "look out" for the Chicago meeting. The editor urged Wisconsin delegates to keep the Chicagoans "out of mischief." Two Wisconsin congressmen were reported in opposition to the convention. Moses M. Davis attended the deliberations. He proclaimed his satisfaction with the results: "I went . . . to do what I could to get just such Resolutions passed as were passed, and of course to oppose Milwaukee, which
city was represented largely, but we voted the delegates down on a resolution against canals."

Towns on the Waterway eyed Milwaukee activities with suspicion. Not only did Milwaukee already enjoy superior railroad facilities, but she also advocated a rival water route to the Mississippi via the Rock River. The Appleton Crescent snorted that engineers had known for years that the Rock River route was infeasible without more water. Samuel Marsh wrote dubiously to the Company engineer, "I suppose you have here this had an interview with Col. Worrall, who was charge of the Rock River Survey under Gen Wilson. I have a letter from Mr. Barney at Keokuk in which he says he has given Col. Worrall a letter to you, and that the Col. is confident in the opinion that a good Ship Canal can be made from Lake Winnebago to the Mississippi by way of Rock River." Marsh acknowledged grudgingly, "This would be a pretty good substitute for the Wisconsin route — but I have heard doubts expressed about a sufficiency of water on the R.R. route."

The uneasiness the Rock River project created among Waterway supporters is reflected in their relief when the Rock River survey was published. David M. Kelly wrote gleefully from Buffalo, "I see that Gen Wilson has made his report and estimates that it will cost over $18,000,000 to make the Rock River route navigable!"

The Mississippi outlet was treated more gingerly. Increased river traffic was potentially increased Waterway
traffic. Furthermore, western Wisconsin, Iowa, and Minnesota wanted the Mississippi cleared and the support of those areas was also vital to the Waterway. The St. Paul convention in 1866 asked Wisconsin support for Mississippi improvement at the same time support for a New Orleans —St. Louis steamboat line was solicited. The Minnesota legislature asked Wisconsin to curb her railroads. Failure to act, the memorial warned, will "compel the people of our state to seek an eastern market through some other state or follow the Mississippi to the Gulf." The Appleton Crescent argued strongly for developing the Fox-Wisconsin into a ship canal. A critic of the proposal objected to the assumption that the entire surplus of the Northwest crossed the state. The editor acknowledged the force of this observation. A part of the produce of the Northwest, he pointed out, found its way to New York via the New Orleans outlet because that route was cheaper than shipping direct by rail. The River Improvement Committee based its opposition to sole reliance on the Mississippi outlet on the premise that New Orleans could not become the chief entrepot of the country until the centers of population and production had moved "well down the valley of the Mississippi." Even as late as 1865, the Wisconsin legislature treated the Mississippi route with respect. In a memorial to Congress of that year the legislature reasoned: "A northern mouth to the Mississippi is more important than a southern one. Not that it
will transport greater amounts of freight than will go by the southern route, but its effect indirectly, in reducing railroad rates will be greater."

More delicate still were the relations of the Fox-Wisconsin route to parallel waterways to the east coast. Waterway supporters watched the schemes of rival routes suspiciously and mustered imposing arguments to demonstrate the superiority of the Fox-Wisconsin. The River Improvement Committee claimed that the fall and length of the Waterway was not more than rival streams with the least length and fall and not more than half those with the greatest. Furthermore, the Committee argued that the fluctuation of the Wisconsin was less than many if not all of the western rivers. Examination of the maps accompanying the Census of 1870, the Waterway supporters declared, showed that the mouth of the Wisconsin was close to the centers of production of all the major food crops. On all these counts, the Fox-Wisconsin route claimed superiority over rival waterways. Wisconsin backing for other paths of water transportation was lukewarm at best. A correspondent urged Lucius Fairchild, "If possible get some one to put through such a memorial as will cover the Ohio & Virginia & other routes that will tend to cheapen transportation between the valley of the Mississippi & the seaboard." The writer enclosed a letter from an advocate of the "Central Waterline" complaining that Fox-Wisconsin boosters had accepted
his support but had not given him "reciprocity."

At the height of the Civil War, when relations with Canada and Great Britain were tense, Waterway supporters tried to turn the national emergency to good account. They maneuvered a resolution through the House calling for a report from the Committee on Naval Affairs on the role of the Fox-Wisconsin route in the defense of the lakes. The Naval Affairs Committee refused to rise to the bait. Chairman Pike reported: "The true ground, as the committee think, upon which to place the propriety of yielding assistance to this Wisconsin enterprise, is its great national importance in making cheaper and easier the intercourse between the grain regions of the northwest and the manufacturing and commercial States of the east. . . . Whenever some systematic and well-matured plan shall be laid before Congress, which shall compass this result, it is to be hoped that it may be adopted." The earnest comments of the Naval Affairs Committee did not put an end to jingoistic efforts on behalf of the Waterway. The Prairie du Chien Convention ominously reminded Congress, "Great Britain occupies the northern portion of the continent, with a territory coterminous with our own." The memorialists described Canadian internal improvements as parts of imperial strategy and pointed to the Canadian defenses. "To oppose these formidable preparations," the Convention lamented, "we have a few dismantled forts, which a half hour's cannonading with
with improved ordnance would batter down, and which from their weakness would invite rather than deter attack." Furthermore, the patriots insisted, the United States had no naval defenses on the lake frontier worthy of the name and no facilities for improving the situation. "It may be a startling fact, but it is nevertheless true," the memorial concluded, "that a single battery planted on the Virginia side of the Ohio river, below Pittsburg, and a single gunboat anchored near the south shore of Lake Erie, have the power to sever the great arteries of communication between the east and west." The prospect failed to rouse any thrill of horror in Congress. The federal government took no action on the Waterway that aimed specifically at defending the northern frontier. The occasion for alarm faded from view with the Treaty of Washington in 1871.

The whole corps of water transportation advocates were united in agreeing that development of the waterways would operate as a check on the exorbitant rates charged by the railroads. Indeed, faith in the efficacy of water transportation for this purpose was the prevailing delusion of the age. It was the strongest argument of the pork-barrel politicians in urging rivers and harbors appropriations. Improved waterways to curb railroad abuses furnished the theme at the many rivers and harbors conventions of the late War and post-War period.

The argument was urged with all degrees of elabora-
tion. The *Appleton Crescent* pointed out that a shipper on the Waterway received from eight to ten cents more for his crop than one who shipped via Milwaukee. The Prairie du Chien Convention presented a long comparison of the costs and revenues of the competing modes of transportation — that tended to show a higher margin of receipts over expenditures for waterways than for railroads! The River Improvement Committee, some years later, went to equal pains to show, first, that it would cost more to carry a ton of goods across the state by rail and thence by lake to the head of Lake Michigan opposite Green Bay, than it would to cross the state via the Waterway. On the basis of this conclusion, the Committee reasoned the savings of shipment by the Waterway, if applied to an entire year's crop (estimated at 2,500,000 tons), would exceed the estimated cost of the developed Waterway three times. No one appears to have pointed out the similarity between this argument and the reasoning of the woman who purchased a hat, reduced to five dollars from ten, with the five dollars she saved by taking advantage of the bargain!

Politically, the water competition idea was appealing. By fostering water transportation a politician could at once appease anti-railroad sentiment and lay claim to a portion of federal plunder for his constituency. At the same time, the railroads viewed waterway development without alarm. Here was a campaign to which a careful politi-
cian could devote himself with enthusiasm. Governor Lucius Fairchild of Wisconsin figured prominently in the movement to secure large government expenditures for the improvement of the Wisconsin River. He noted the results of government surveys of Wisconsin routes with satisfaction. Fairchild presided over the convention at Prairie du Chien and maintained thereafter an active interest in Fox-Wisconsin developments. This is not to say that he was above turning the fortunes of the project to political advantage. He timed the meeting of the Prairie du Chien convention for political reasons — and received his reward in the shape of renomination. Governor Samuel Merrill of Iowa was scarcely behind Fairchild in his devotion to the cause of the Waterway. Merrill issued the call reconvening the Prairie du Chien Convention at Portage in the fall of 1869. He informed Fairchild of his action and remarked, "Hope it will be successful for good — We must make strong pull the next twelve months."

The Wisconsin legislature was equally enthusiastic in its support of Waterway development. In 1867, the resolutions of the St. Louis Convention were promptly and dutifully endorsed. The Fox-Wisconsin Waterway, averred a Joint Select Committee in 1870, was "one of the greatest improvements of the age." Holding this view, they readily concurred in the requests filed by the Prairie du Chien and the Portage conventions.
All of the pleas for expenditures, of course, were directed at the national legislature. Wisconsin representatives were active in proposing measures for water routes during the post-war years. With the exception of provision for surveys and the purchase of a dredge or snagboat, however, no grants were secured for the Fox-Wisconsin route while the Fox River remained under the control of the Green Bay and Mississippi Canal Company. This lack of success did not dim the ardor of the advocates of water transportation. The enthusiasts placed great reliance on the convention device. An Iowan wrote Governor Fairchild concerning a convention at Detroit "to devise ways and means for opening up the water route, including the Wis & Fox River canal, a work upon which you and Governor Merrill worked so long and faithfully." Merrill outlined the advantages of the convention to Fairchild. "I suppose the call of a convention at Detroit if it should prove a success would tend to strengthen our hold on Congress for the further prosecution of the Fox & Wis River Improvement."

The more practical of the advocates of water competition as a check on railroads might talk of bringing pressure to bear on Congress. The devotees of logic and statistics might bring together the most elaborate arrays of tables and reasoned arguments to demonstrate the efficacy of the measures they proposed. To many, the merits of the device were so obvious that mere assertion sufficed. Ordin-
arily, true believers stated the great truth as a simple
declaration of faith and fact. William B. Allison testi-
fied, "I believe the work to be national in its character,
as when completed it will have the effect to materially
cheapen the transportation of products from the West to the
East and from the East to the West." He vowed fervently,
"Whilst I remain in Congress, I shall use my best efforts
to secure the necessary appropriations for the completion of
the work at as early a day as practicable." Governor
Merrill of Iowa praised a Waterway advocate as "a great be-
liever."

Not everyone's faith was unqualified. The Iowa
legislature memorialized Congress for a "liberal appropria-
tion" for the Fox-Wisconsin route. Congress, according to
the petition, had the power to act under the commerce clause.
The legislators urged the necessity for action, citing the
exorbitant charges of the railroads, especially in Iowa. The
Iowans were unwilling, however, to trust the matter entire-
ly to the federal government. The memorial specifically
stipulated that the request for congressional action was not
to be construed as any abdication of the rights of the Iowa
legislature to regulate rates within the borders of Iowa.

None the less, attempts to regulate rates by legis-
lative fiat were at first unavailing and were always vexed
by bitter opposition from the politically potent railroads.
Competition in rates might be a more effective check on
railroad extortion than direct legislation. Governor Taylor of Wisconsin declared, "That which our laws have hitherto been powerless to enforce is the inevitable consequence of competition by water under government control." In the long run, this conclusion spelled the end of private operation of the Waterway.

III

That the resumption of government interest in the Waterway would eventually mean the eviction of the Company was not at first apparent to them. The Company officers welcomed any indications of interest in completing the Waterway and dared to hope that interested parties might be pushed to the point of supplying additional funds. Yet everyone not connected with the Company who was concerned in Waterway affairs contributed to the ejectment of the Company.

One party prominently involved in the fortunes of the Improvement was the Army Corps of Engineers. When Congress authorized the survey of the Fox and Wisconsin rivers in the rivers and harbors bill of 1866, the Secretary of War assigned Major Charles R. Suter to conduct the survey. Company officials welcomed Suter's mission and offered him any assistance the Company could render. They watched closely the progress of Suter's investigation. He had been on the scene for scarcely two weeks when Samuel Marsh wrote
from New York, "I am glad to learn that Maj. Suter is going on so well in his work, and hope he will complete the Survey in time to be presented early in the Session of Congress." Another dispatch from Wisconsin evoked further comment from the Company president. "You do well to give as much of your time to Maj. Suter as you can," he told Edwards. "I am glad to learn that he has a favorable opinion of the route and hope his report will be made early in the Session of Congress. I was in hopes that he would have time this season to examine and report in regard to the Wisconsin as well as the Fox River."

It was not difficult for Edwards to maintain cordial relations with Major Suter. They were old friends. Suter wrote in May, 1867, "I wish you could come up here [to St. Paul]." He explained, "You know Terry and Col. Smith are both here and we would all be glad to see you." Suter ruefully commented on the report he had filed the preceding winter. "Those beasts of printers made me say some pretty startling things as you probably noticed." He acknowledged, "The Fox part was pretty complete and satisfactory and I hope to get the Wisconsin as thoroughly down this summer." "You must come along with us too," he added.

Suter's reliance on Edwards for data connected with the survey indicates their close relationship. Suter advised, "I think you would do well to accumulate all sorts of statistics for next year's report about the grain & lum-
ber trade, etc — also please get me all the details you can of the Kilbourn City dam, mode of construction, nature of foundations, location & effects." Nor was this the end of Suter's demands. He added, "Also the results of observations with regard to the filling up of the Portage canal with sand from the Wisconsin." Suter minimized the difficulty of bringing the information together. "As you dredged [the canal] out last fall you can form an idea now of the amount carried in and deposited in a given time." "This may come useful in case we submit a project for a canal," Suter explained. "Hurry along the drawings of that dredge you spoke of," he concluded. Suter received a new assignment in the following year. His billet was filled by another officer whose connection with the Waterway was entirely impersonal.

The Company were at pains to cultivate Gouverneur K. Warren, the more august district engineer, Suter's superior. Edwards sent him a survey map of Lake Winnebago and Warren responded cordially. "I am very glad to get the map as it is very interesting to me," he said. "I thank you for what you have done." Breese Stevens cautiously instructed the Company engineer. "Gen Warren has written for Repts of F & W Impt Co. I have explained why we do not want certain statements made public & he may not want them." "If he does," Stevens continued, "he will write Stevens & Flower & Flower will send to you for your
reports (I mean the printed reports of the F & W Impt Co which I gave to you) I take mine to Washington." The attorney repeated anxiously, "I would not submit these reports to the inspection of aliens — except with the request that they be not made public."

Warren's performance was sufficiently pleasing to the Wisconsin Republican party that they attempted to retain his services when the War Department wished to assign him elsewhere. Philetus Sawyer interviewed the Chief of Engineers, General A. A. Humphreys, about it. Humphreys assured Sawyer that Warren would be asked to continue his supervision of the Waterway in addition to his new duties. As it turned out, however, Warren's illness prevented Humphreys's carrying out the agreement. Warren's new station took him far from the scene of the Improvement and he was replaced. Warren's successor, Major D. C. Houston, cultivated Governor Fairchild. As he prepared to take up his duties in connection with the Waterway, he asked Fairchild to recommend a qualified engineer to assist on the Wisconsin portion of the project and a steamer captain to direct operations for the removal of snags from the river. Three weeks later he further confided his plans to the Governor. He assured Fairchild of his intention "to commence work on the improvement at the earliest day practicable." "I shall visit Madison and Portage City this week," he added, "and propose to examine the river for the purpose of deciding upon
the preliminary operations."

In dealing with the Wisconsin legislature, the Company enjoyed some success. There was considerable resentment against the railroads in the southern part of the state growing out of the abuses of the War period. At the same time, the railroad development of the northern reaches of the state was backward in the extreme. In 1867 promoters of rail service for the northern part of the state managed to secure a favorable report from the Judiciary Committee of the Senate for a constitutional amendment authorizing a state debt in aid of railroads. Nothing came of the proposal. Two years later, the matter was again brought up. On this occasion, Breese Stevens was on the scene. "It is of great importance that I should be here until the adj't," he confided. The result of Stevens's labors was yet another favorable report from the Judiciary Committee of the Senate. Again the Committee proposed an amendment to authorize the state to incur debt in aid of transportation enterprises. This time the suggestion embraced not only the construction of railroads but also the completion of the Fox-Wisconsin Waterway, which was to be undertaken in cooperation with the states of Iowa and Minnesota. This effort, too, proved abortive.

By this time, the Company, like its predecessor, was becoming unpopular with the people of the state. The Company managed to retain the good graces of the legislature
in spite of growing sentiment in favor of the government's resuming control of the Waterway. The state official most deeply concerned with Waterway matters at this time was Lucius Fairchild. His object was the return of the Waterway to federal control. Governor Fairchild's message of 1870 called attention to the resolutions of the Portage Convention, held the preceding fall. In particular, Fairchild urged the legislature to consider the problems involving the rights of the government as against those of private companies along the Waterway. He referred to the railroad and wagon bridges across the Wisconsin River. These structures were in violation of state legislation insofar as they obstructed the free navigation of the stream. The Committee reported they saw little need for action until the plan for the Wisconsin improvement had been agreed upon. General Warren had offered three alternative plans to render the river navigable. Two of these involved improvement of the river itself. The third contemplated digging a canal along the banks of the stream. If the latter plan was determined upon, the Committee declared, there would be no need to "compel the remodeling" of the bridges. A year later, Colonel Houston reported to the Chief of Engineers on the bridge problem. "It will be necessary to remove the stone in the draws, which has been placed there to protect the piers, and to put in pile protection above the draws, to facilitate passage of vessels
and prevent injury from collisions," he admitted. Neverthe-
less, Houston thought, the necessity would not constitute a
problem. "No doubt, the railroad authorities will attend
to [the reconstruction of the bridges] when called upon, as
they have shown every disposition to facilitate the pro-
gress of our work."

Governor Fairchild also worried about the willing-
ness of the federal government to make appropriations for
the improvement of the Wisconsin River while control of the
Fox remained in private hands. On this point, too, the
Committee were reassuring. They acknowledged that they had
not obtained a valuation of the Company. They had, however,
received assurances from the Company that they would con-
tract with the general government for surrender of the works.
The Company had even submitted several suggestions as a
basis for negotiation. First of all, the Company were will-
ing to have the government undertake the expense of improv-
ing the whole Waterway. Under such conditions, after re-
pairs had been provided for, the Company proposed to split
the tolls with the federal government, retaining twenty-
five per cent, and delivering the balance to the government
until the government had been reimbursed for its expendi-
tures. Alternatively, the Company offered to make the navi-
gation of the Fox as good as the government would make the
Wisconsin. After the tolls had reimbursed the Company, they
pointed out, the government could then take over the entire
line as an act of eminent domain. As a final suggestion, the Company announced its willingness to sell out to the government at a price to be fixed by arbitration. By this time, matters had reached the point in Congress where the Company had little choice in the matter.

Congress was the stumbling block all along. Petitions there were in profusion — from the Wisconsin legislature, from the legislatures of neighboring states, from citizens, even from the State Board of Tax Assessors. Samuel Marsh complacently watched the movement. "I thank you for the scraps of newspapers on the subject of the Wis. Improvement — Mr. Stevens has from time to time sent me papers containing them," he told Edwards. "It seems that all parties in Wis. Iowa & Minnesota are in earnest in their efforts to procure the aid of the U. S. Govt in carrying the work through, but I fear the cry of economy will induce politicians in Congress to vote on this subject in opposition to what statesmen know to be consistent with true economy — believing it to be unpopular in their district."

Some such feeling had indeed interrupted the succession of annual appropriations for rivers and harbors in 1868. In 1869, however, an appropriation was passed — but the act failed to provide any funds for Wisconsin projects.

In the absence of funds, General Warren continued his efforts on the Wisconsin survey with the small balance remaining from the appropriation of 1867. In 1868, the
General pursued his investigation of the possibilities of a canal paralleling the river. Only a very general survey of the line of the bluffs and the altitudes of the terraces could be undertaken. "Some valuable accurate additional information," he acknowledged gratefully, "was obtained from the maps and profiles kindly furnished us by the officers of the Milwaukee and St. Paul Railway Company." In the same year, he also "made a personal examination of the entire line of the Fox and Wisconsin route." At Oshkosh, in the course of his inspection, Warren "purchased the small steamboat Winneconne, to remove snags from the Wisconsin, but the water was too low to make any use of her that season." In 1869, there were still no additional funds allotted to the Wisconsin project. Warren's multifarious duties kept him occupied elsewhere, but he did not forget to include in his annual report a request for $100,000 to investigate the possibilities of using wing dams to increase the depth of the channel in the Wisconsin. As low water had inhibited the use of the Winneconne in the previous season, so in 1869 the stage of water prevented snagging operations until late in the season. "During September and October the Winneconne was employed (with two barges to carry fuel and working-apparatus so as to secure least possible draught) in removing snags from the Wisconsin between Portage and Sauk," the engineer reported. "This enabled two small stern-wheel vessels to make trips on this portion of the Wisconsin."
Such relative inaction, of course, was entirely unsatisfactory to all concerned.

1870 did not begin well for the Company. A friend of Edwards's noted grimly from Haverhill, Massachusetts, "It strikes me that the Green Bay and Miss. Canal stands a small chance of an appropriation from this congress." He explained, "There seems no doubts about the merits of the case but things of this kind are rarely decided upon their merits now a day [sic] these matters go through Congress or state legislatures by log rolling." This was more or less what was going on in Washington at the time.

The early months of the year were characterized by an unusual volume of petitions from Wisconsin and Iowa and Minnesota. Senator Harlan of Iowa offered a bill for improvement of the Waterway, which was permitted to languish in the Commerce Committee. Over a month then elapsed before Senator Timothy O. Howe inaugurated new action on behalf of the Fox-Wisconsin route. The proposal called for a board of arbitrators to determine the price at which the rights of the Company could be obtained. The bill was read twice and referred to the Commerce Committee. In a fortnight, the Committee reported it with amendments. After another week, the matter came up in Committee of the Whole where it was the subject of some very illuminating discussion.

When Senator Chandler brought the bill to the floor,
Senator Thurman of Ohio asked an explanation of the measure, stating that he thought he recalled a previous appropriation either in money or land. Chandler reassured him. "This bill makes no appropriation of money; but it directs the Secretary of War to ascertain on what terms and conditions the . . . Company's improvements may be given over to the United States. That is all." Chandler invoked the weight of senatorial courtesy on behalf of the measure. "The Senators from Iowa, Wisconsin, and Minnesota are all very anxious for its passage, and I hope the Senator from Ohio will not object." The bill, he repeated, "does not intimate the appropriation of a dollar until Congress shall have acted upon the information asked for."

Thurman retorted, "It certainly has an implication that looks very much like paying something." He read a portion of the bill. Chandler reasoned soothingly, "The object is to ascertain whether this corporation has expended any more than it has received from the United States, and whether it has any rights there that ought to be compensated for."

Another senator interposed to explain at length why the Company should be eliminated:

I will merely say that it seems very desirous [sic] to have the navigation . . . improved. [He began.] The traffic from the States beyond that point is very great. The facilities for transporting their products are not such as to make the transportation as economical as desirable. For that reason it seems important to improve the navigation of these rivers. [The Canal
Company, however, has franchises on the Fox River, the speaker explained.) Now, there is a very serious embarrassment to this Government by that very corporation. The Committee on Commerce do not understand how they can properly aid a canal company, and yet they do understand how they can aid in deepening the channel of the Wisconsin river deep enough to answer the purpose and transport the productions of the West, [but] if it should become a mere feeder to this canal company, and this canal company should hesitate to do what is necessary to open the way so that this communication would be perfect, we should be exceedingly embarrassed.

Senator Thurman insisted he could see no reason why the United States should own a canal in Wisconsin "or any other State." Exasperated, his opponent retorted, "But the point is to see whether the canal company will not do something; that is, remove the very obstacles which are now in the way of this navigation." Then he moved onto shaky ground. "Whether the United States shall ever buy that canal is another question not before the Senate now, and it may never be. When it is, we shall consider it." Thurman muttered that the State of Wisconsin should take the Company in hand and insist that the Company live up to its charter.

This remark brought Senator Harlan into the fray. "It is a matter of very great importance to the people living on the west side of the Mississippi river, and those living near that stream on the east side, to have a channel of water communication . . . for the purpose of cheapening transportation," he declared. Harlan emphasized that the Company had done nothing on the Wisconsin River. "This bill," he explained patiently, "proposes that the Government
shall ascertain whether it can, on proper terms, obtain absolute control of the whole line so as to perfect the line from the lakes to the Mississippi river." This bill, Harlan iterated, "provides merely for an inquiry, for a proper investigation of the subject that we may when we meet again be prepared to dispose of it, if it should then appear advisable." Senator Howe exclaimed enthusiastically, "That is it." Senator Thurman was still dissatisfied. Howe insisted that the measure was more important to the states west of Wisconsin than to Wisconsin itself. "The Government," he argued plausibly, "cannot do anything to improve the Wisconsin river while a private corporation owns that very connection which belongs to the complete line." Senator Thurman was still skeptical, but he permitted the bill to pass the Senate.

In the House, the opposition was more stubborn. Congressman Sawyer from the Committee on Commerce reported an amendment in the form of a substitute bill. Congressman Benjamin announced, "I desire to move an amendment to the second section of the substitute." The Speaker replied imperturbably, "The gentleman from Wisconsin is entitled to the floor." Sawyer held stubbornly to his advantage: "This measure has been thoroughly considered by the committee, and I cannot yield for any amendment." "I call the previous question," he added, invoking his favorite parliamentary device.
"Do I understand that the gentleman refuses to yield for an amendment?" Benjamin demanded indignantly. "Here is a bill which is an entering-wedge to an expenditure of millions of dollars; and it strikes me it ought not to go through the House in this hasty manner without an opportunity to amend it." Sawyer was adamant. "The bill," he repeated, "has been considered very carefully in the committee, and I am not authorized to yield for an amendment." Benjamin had stirred enough curiosity in the House that Sawyer's motion of the previous question failed.

Shelby Cullom of Illinois pointed out reasonably, "I suggest to the gentleman having charge of this bill that he ought to explain it to the House if he expects it to pass." This was too much for Sawyer. Grudgingly, he consented to "hear the amendment of the gentleman from Missouri read." William B. Allison commented after the reading, "I think that amendment ought to be adopted." Sawyer agreed. With this matter disposed of, the substitute bill passed. The margin of victory was slim; the combination of those not voting with the opponents of the measure exceeded the number 147 in favor of the bill. And now the measure had to pass the Senate again.

In the Senate the bill encountered opposition only from its alleged friends. When Howe moved immediate concurrence in the House amendment, Senator Pomeroy of Kansas objected. Howe argued, "Let me assure the Senator from Kansas
that it is almost precisely similar to the Senate bill." Harlan urged, "I hope the Senator from Kansas will let it go through now." Pomeroy justified his opposition: "I think it defeats what the friends of the measure want themselves." "Let them take the chance of that," interposed another senator. Pomeroy acknowledged the justice of this suggestion. "If the friends of the measure take the responsibility I shall not say anything about it," he agreed. Accordingly, after a slight delay, the amended bill passed the Senate. Within a week the President signed the measure into law.

IV

The concluding episodes in this cycle of Waterway history brought back to the stage many of the actors in earlier acts of the drama and called up once again all of the forces that had figured in the foregoing sequence of events. Morgan L. Martin reappeared to voice his bitterness against the Easterners who had perverted his dream. Uriah Peak emerged to press again his claims against the Improvement. Moses M. Davis and others returned briefly to the scene. As it had in earlier days, the land grant operated as a disruptive element that threatened to frustrate the end that all parties desired. The rivalry between the Fox-Wisconsin route and Milwaukee flared up anew. This time the results involved the larger competition between
Milwaukee and Chicago as well. And finally, as always, there were efforts to turn the fate of the Waterway to political advantage. The three factions that had been most actively involved in Waterway affairs since the Civil War, the reformers (allied, strangely enough, with the railroads), the pork barrel politicians, and the Company moved all the other actors on the stage and determined the outcome of the proceedings.

The Company were seriously alarmed by the phraseology of the Act. The second section directed the Secretary of War to determine, within three years, "the sum which ought in justice be paid" for the rights of the Company. The section provided for a board of three arbitrators, one to be chosen by each of the parties in interest, the Government and the Company, and the third to be chosen by the first two. The rules that were to determine "the sum which ought in justice be paid" were also set forth. The arbitrators, the Act directed, were to "take into consideration the amount of money realized from the sale of lands . . . which amount shall be deducted from the actual value [of the franchises and works] as found by said arbitrators." The Company feared that the rule guiding the arbitrators authorized payment only for "expenditures made from their private resources." Stevens also feared that the actual value of the Improvement would amount to less than the cost and less than the proceeds from the land.
As the date of the congressional elections for that year approached, the Company's doubts were expressed in newspaper opposition to Philetus Sawyer, the lumber baron turned congressman. The Oshkosh Times charged that Sawyer had deliberately consented to inclusion of the objectionable rule in order to defeat the arbitration and thus by indirection, to defeat accomplishment of the Waterway. Although the Democrats had tried to use the Improvement issue against him before, Sawyer was alarmed by these developments. He wrote to Governor Fairchild asking him to persuade the Company to agree to the arbitration and to publish their agreement at least two weeks before the election. Such a performance by Fairchild, Sawyer declared, "would be a good thing for the improvement and do me more good than anything else that you can do for me in this canvass." He continued urgently, "I wish you would see Mr. Stevens about it — and I think it would pay for you to write Mr. Marsh and have him meet you in Washington and see the Attorney General and the Secretary of War and have it fixed up at once." "I think the company ought in justice to me to file that agreement at once and think they will unless they want the democrats to make capital out of it in the present canvass," the sensitive lumberman concluded.

Obviously, the criticism of Sawyer was hitting pretty close to home. The opposition alleged that Sawyer's motivation for thus betraying his section was his connection
with the Chicago and Northwestern Railroad, which served the Fox Valley by its line up the Rock River Valley. There is little doubt that the Northwestern, or rather, persons closely connected with the Northwestern, wanted the government to take over the Waterway. Senator Howe, a Radical Republican, followed developments with great interest and sent long letters of admonition to the attorney for the government after the arbitration had been agreed to. Howe's brother, James H. Howe, was general manager of the Northwestern. Still, it is not altogether safe to attribute opposition to Sawyer solely to Democratic factionalism or to regional jealousies. The Oshkosh Times, the paper most violently opposed to Sawyer, was then edited by George Hyer, brother-in-law of Elisha W. Keyes. Since Keyes was chairman of the Republican Central Committee, it seems unlikely that Hyer's Times was playing merely a Democratic game. The implication rather is that Keyes and the Howes were intriguing against Sawyer. This consideration gathers force in view of Hyer's delighted reaction to the successful outcome of the arbitration.

In Sawyer's defense, it must be urged that a large element credited him with having secured passage of the legislation for the Waterway in 1870. In addition to provision for the arbitration, Congress appropriated $100,000 for the improvement of the Wisconsin River in the rivers and harbors bill of July 11, 1870. This bill, managed by Sawyer,
passed the House under a suspension of the rules. A Sawyer partisan wrote urgently from Washington in mid-summer, "It is a matter of great importance to all of our people that Mr. Sawyer should be returned to Congress to follow up and complete that important work [the Fox and Wisconsin Improvement]." "You and I know," the correspondent continued, "that without Mr. Sawyer's influence here, this much could not have been accomplished, and if he is not here in the 42nd Congress, it is very doubtful if anything more will be done with it." The writer insisted that Sawyer's presence in Congress was necessary to push the Waterway to the point "where Congress must go on with it, and not stop or recede from what Sawyer has already accomplished." "I want to bring all the guns I can to bear on him," the partisan concluded, "and would suggest that you should write him your views in regard to his being re-elected in connection with the Fox & Wis Imp measures yet to be brought before Congress."

In any event, the campaign against Sawyer failed. The Company secured an opinion from the Attorney-General on the interpretation of the arbitration bill and filed their agreement to arbitrate on October 25, 1870, in ample time to still the charges against Sawyer. This settlement may have contributed to Sawyer's victory, but it did not end the preliminaries to the arbitration.

The stumbling block was Secretary of War William
W. Belknap. The Secretary refused to commit himself on the proper interpretation of the rule that was to guide the arbitrators in determining the amount of the award. While Belknap persisted in his reticence, the Company, fearing an adverse interpretation of the law by the arbitrators, refused to execute their agreement to accept the findings of the Board of Arbitration.

Unquestionably, matters could not proceed until the Company submitted. "Upon one point I can speak with great positiveness," Howe declared. "It was intended that the Company should file their bond before the arbitration was had — That was well understood by Mr. Stevens & by all the members of the Delegation who participated in the Conferences." Howe's assurance that Congress "had no idea of asking the Government to assume the cost of an arbitration the result of which would bind no one," was hardly necessary. The Act itself stated explicitly that no funds were to be expended on either the Fox or the Wisconsin until the Company agreed to accept the findings of the arbitration. At the same time, this section of the Act clearly stated that Congress was not bound to accept the findings of the arbitrators. The government engineer in charge of the projects in the upper Mississippi region reminded the Company of this provision. After the funds became available to him, he asked assurances from the Company: "The application of the appropriation of $100,000 made for the improvement of the
Wisconsin river," he declared, "depends upon the acquies-
ence of the Company."

While the Company stubbornly held out, Waterway
advocates urged Belknap to submit the Act to the interpre-
tation of the Attorney-General. Philetus Sawyer informed
Governor Fairchild that the Company's interpretation was
the same as the construction of the House Committee on Com-
merce when the Act was considered in the House. Stevens
grudgingly acknowledged that the Company would be content
with the opinion of the Attorney-General, his assistant, or
the Secretary of War. The Company, he argued reasonably,
merely wanted some confirmation of their views to lay be-
fore the arbitrators to counteract the interpretations,
adverse to the Company, then current in the press.

At last, the question was submitted to the Attorney-
General. His opinion seemed to be in general accord with
the construction the Company desired, namely, that the value
of the Improvement less the proceeds of the land grant con-
stituted the amount of the award. Armed with this assur-
ance, the Company filed their agreement to accept the ar-
bitrators' award as binding. Belknap insisted that the
Company's interpretation of Attorney-General Ackerman's
opinion went too far. He rejected the agreement as unsatis-
factory. The Company's acceptance stated that the Attorney-
General agreed with the Company interpretation: Belknap
required that the Company acknowledge merely that the Attor-
ney-General's opinion "is accepted as the proper interpretation."

Alarmed at this action on Belknap's part, the company demanded clarification of the Secretary's views. Governor Fairchild went off to Washington to hasten settlement of the matter. Breese Stevens wrote plaintively to the Governor asking that he see the Secretary. Stevens declared there was no difference between the position of the Company and that of the Attorney-General. How does Belknap consider the two interpretations differ, he demanded.

While these exchanges were taking place, the pressure was heightening on all parties—except the Secretary of War. Fairchild wrote Stevens that the Company had better submit an agreement acceptable to Belknap or there would be no appropriation at the current session of Congress. Their intransigence was holding up work on the Wisconsin River as well, he pointed out. Belknap remained adamant. Soon Howe's voice was raised urging the Company to surrender.

The pressure became intolerable. As 1870 drew to a close, Samuel Marsh and Breese Stevens addressed simultaneous letters to Governor Fairchild, announcing the Company's submission. Stevens declared that he expected the Governor and the congressional delegations to look after the Company's interest. He added piously that the Company was motivated by the desire to have the people of Wisconsin enjoy the benefit of the earlier and more rapid development of the
Waterway by the United States because, he insisted stubbornly, the project would surely have been a good thing for capital.

This did not end the suspense for the politicians. A month later the Company's agreement was still not on file. Another month elapsed. Sawyer lamented that there was no Wisconsin appropriation in the rivers and harbors bill because the submission of the Company had not yet been received. Sawyer confided, "I am fully satisfied that I could at this session have got into the bill and carried through an appropriation of two or three hundred thousand dollars, and I very much regret I have been prevented from doing this at this time as I may not again have so favorable an opportunity of doing it." Not until late in March, far too late for any Wisconsin appropriation for the 1871 construction season, did the Company file an agreement acceptable to Secretary Belknap.

Then began a hurried exchange of letters and telegrams as the politicos set about organizing the Board of Arbitrators. Belknap named William Larrabee of Iowa to act on behalf of the United States. The Company chose James Rood Doolittle, deposed from the Senate recently because of his support of Andrew Johnson's administration. Elisha W. Keyes became attorney for the United States, at the instance of Senator Howe. Larrabee knew what was expected of him. "I shall be pleased to confer with Mr. Keyes before
taking any steps towards making the appointment of the other arbitrator," he informed Fairchild, "and in the mean time shall be pleased to have any suggestions from you in relation to the subject."

Selection of the third arbitrator dragged on through the summer. Stevens worried whether the Board would be organized in time to tour the Waterway while the stage remained high. "The 3d arbitrator is not yet selected," he notified Edwards on June 10, "& of course until he is there will be no going over the river — I hope he will be selected at once." At last Paul Dillingham of Vermont was chosen and arrangements were made for an organizational meeting of the Board on August 1 in Milwaukee.

From Milwaukee the Board proceeded to Green Bay and thence over the Improvement. The inspection trip occupied about a week. Nathaniel M. Edwards and Morgan L. Martin accompanied the Board on its tour. After viewing the object of the arbitration, the Board adjourned to Madison for the purpose of taking testimony.

The hearings afforded an opportunity for all the old grievances to be brought again into the open. "I fully agree with you as to the policy to be pursued in this matter," Curtis Reed of Menasha assured Keyes. "I will come at any time when you desire it. It is of vital importance to this whole section of the State." He continued, "I will try to get some of those who I think will be of service to
you to come . . . there are quite a no. along the river who might be of good service but the difficulty is to get those who would not go the way of Martin." Martin testified as to the value of the works. After Martin's stint in the witness chair, Howe told Keyes, "Martin has just been to see me — he talks all right and thinks the award will not be more than 200,000." Theodore Conkey also appeared before the Board. Howe warned Keyes of his coming. "He says the worth [sic work] is not worth much — But he will want to help Martin." Another of the old promoters emerged from obscurity. Howe advised Keyes, "Dr. Peake is going over to enforce an old lien of his. I think you had better send [for] Dr. Davis of Appleton." Howe wanted to keep the amount to be paid the Company low enough that legislation to buy the Improvement would easily pass.

While the testimony was being taken, Howe pestered Keyes with weekly letters of analysis and council. To keep close touch with the proceedings, he ordered, "Have the testimony reported daily in the Journal & sent to me." On August 14, he admonished the attorney, "The Comm must not be in a hurry." "You must not be overwhelmed by the sudden and unexpected estimates of witnesses," he counseled. "If such are made you must have time to meet them. You must cross examine — How many locks — how much each cost." Howe had in view the possibility of leaving the water powers in private hands, for he enjoined Keyes, "Be careful to have
the value of the tolls stated apart from water power &

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lands." Again, he wrote cagily, "What wd it be worth to
the Company as the owner of the Water power to have the Im-

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provement completed?"

Howe drew upon his recollections of a long resi-
dence in the Fox Valley to pass along helpful suggestions
to Keyes. "Sometime in /55 or /56, Martin was assessed tax
for some 90 000 dollars of those mortgage bonds," he remin-

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isced. "The next year he asked & obtained an abatement of
his taxes upon the ground that his bonds were not worth much.
If the papers can be found they will be sent you. If not
ask him about it." "I believe the lock dam & canal at the
Rapids Croche . . . cost about 40 000 Dolls," he recalled.
"It is the only cut stone lock on the line. But all the
rest of the locks are Composite — costing probably not half
& now nearly worthless from decay — " "The Company Expend-
itures are one thing," he instructed Keyes solemnly, "its
property another."

"I see by the newspapers that the Cos witnesses
talk much of the Company's 'Expectations,'" Keyes's adviser
noted. "The Govt does not probably care to buy any 'Expec-
tations' Its 'locks,' 'dams' — 'Canals' — 'franchises' are
wanted." In line with this view of "'Expectations,'" Howe
reasoned that the franchises were of no great value.

He cautioned Keyes about the motives of the Company.
"If the Company is struggling for an award which will recom-
mend the work not to Congress but to private capital you will naturally want to defeat such an award." Howe urged Keyes to work for a low award. When Martin opined that the award would probably not exceed $200,000, Howe commented, "I wd much rather it wd be less than more."

After two weeks of hearings, arguments, and deliberations, the Board adjourned to reconvene in Milwaukee in November for the purpose of determining the award. This action baffled and irritated Keyes's mentor. "I am distrustful at the postponement of the award," Howe fumed. "I cant comprehend why it shd have been agreed to by Dillingham & Larrabee." The Senator recovered his humor watching the antics of his opponents. "The Fox River Co. & the Dem. party, as you well know, are both demagoging on the improvement question," he noted amidst the heat of a gubernatorial campaign. "The Co. is playing for money & wants a high award. The party is playing for votes & wants a low award." The time of the year and the fact that Judge Doolittle was running for Governor on the Democratic ticket should have furnished the perceptive Howe with an explanation of the delay of the award. His observation on Doolittle revealed at least an inkling of the Board's motive. "Doolittle," he remarked, "has accepted an engagement as is his Custom under both [Company and party]. If it had been in my power I wd have made him play both engagements on the same night tho' it split him."
The Board met again after elections were over and set about deciding on the award. After an agreement had been reached, Keyes informed his mentor of the amount. Larrabee, the government’s arbitrator, defended the result in a letter to Keyes, "We have a pretty hard time of it to come to any agreement at all and although our award is not as low as I should like to have it; yet I think it is the best that could have been done under the circumstances and I think it is not very much out of the way and much better than for me to have dissented." But both Keyes and Larrabee spoke too soon. Two days later, Dillingham wrote Keyes, "Judge Doolittle, myself & Col Larrabee will meet at Madison on Monday next abt noon — I want you to be at home to meet us — " He warned the attorney against indiscretion. "Till then it is not best to state, or make public what the award is — or is to be — as Mr. Stevens insists we are under a mistake as to some facts that he wishes to call our attention to." Stevens's efforts were unavailing. He was unable to shake the determination of the Board.

Howe was pleased. "$145 000? That is not so large a sum as to scare the Govt," he exclaimed. "Now can the Commrs justify their award by their report & will they do so? We want from them a State Paper." Philetus Sawyer's gratification was tempered with the caution of a good politician. "I think you have done well in the award but
still if we could have the cooperation of the Old Company
I think it would be well to give them a little More."
George Hyer, a Waterway enthusiast and Keyes's brother-in-
law, was gleeful. "I congratulate you on the result of the
Improvement arbitration," he exclaimed. "It is a glorious
thing for Central Wisconsin and is the achievement of your
life." Hyer's joy, like Sawyer's, was mitigated somewhat
by the size of the award. Hyer, however, thought the amount
might be too high "but perhaps not fatally so - at least I
am reconciled to it, as you seem to regard it reasonable."
The editor joined Howe in urging Keyes to cap the achieve-
ment. "Now for Congress - follow up the matter and make
it a success."

Governor Washburn dispatched Lucius Fairchild to
Washington to aid the Wisconsin delegation in pushing an
appropriation through Congress. Within two months, Fair-
child accomplished his mission. "I remained in Washington
as long as it was supposed by our members to be necessary,"
he reported as he submitted his expense account. Congress
was at length satisfied. An appropriation of $145,000 was
approved early in June. The Waterway came again under
federal custody.

Now the old pattern began again. The victors
sought at once to realize what immediate profit they could
from the Waterway. Fairchild filed a claim for $2,000 for
his services. "I have waited to see that the state received
some substantial advantage from the legislation before mentioning to you the subject of remuneration," he told Governor Washburn. "My time was of much more value to me... just at the period I was engaged in the matter."

The Waterway continued to perform as before. Time after time over the years new groups took charge of developing the Fox-Wisconsin route, always with hopes of high achievement. Just as frequently, the Waterway frustrated the dreams of its promoters. When the federal government resumed control of the Improvement, the disillusion came early. High water in the Fox River system plus tighter dams at the outlet of Lake Winnebago and on the lower Fox produced overflow damage around the lake and along the river. In January, 1873, the great force behind the movement to recapture the Waterway for the federal government, Senator Timothy O. Howe, acknowledged gloomily, "I don't know that we have bought anything but an embryo law-suit of the Improvement Co."
FOOTNOTES

1. Case for Appellants in Suit of Daniel Wells, Jr., vs. G. B. and M. Canal Co. (1895), Pamphlet in Library of State Historical Society of Wisconsin; Testor H. Bakken, "Fox and Wisconsin River Improvement Co.," MS. in the possession of its author, 2. Bakken said that the syndicate bought in the lands of the defunct Company at as low as two cents per acre.


4. See Samuel Marsh, New York, to John F. Seymour, July 15, 1859, Seymour MSS.


7. Samuel Marsh, New York, to Nathaniel M. Edwards, Sept. 7, 1866, Ballard-Edwards MSS.


12. See, e.g., *ibid.*, 44.


22. Samuel Marsh, New York, to Nathaniel M. Edwards, Sept. 11, 1866, Ballard-Edwards MSS.


24. *U.S.H.R., Survey of the Upper Mississippi River* . . . (House Docs., 39 Cong., 2 Sess. [1867], ex. doc. no. 58, ser. no. 1292), pp. 73 and 104. Suter quotes a resolution of the Board of Directors (unanimously adopted)
tendering him "the use of all the maps, plans, and records of the company, and any assistance in the way of men and materials which might be necessary."

25. This estimate is given first in A. A. Humphreys, chief of Engineers, to Secretary of War E. M. Stanton, Jan. 29, 1867, quoted in ibid., 3. General Warren summarizes Suter's report, ibid., 41-43. For Suter's report itself, see ibid., 73-104. The copy I examined had a map and an elevation of the Waterway tipped in at the end of Suter's report. Both Warren's summary and Suter's report refer to illustrative plates that were not included in the document I consulted.


29. A. Leach, Oshkosh, to Nathaniel M. Edwards, Dec. 1, 1866, Ballard-Edwards MSS.


32. Samuel Marsh, New York, to Nathaniel M. Edwards, Nov. 26, 1866, Ballard-Edwards MSS.

33. A. Leach, Oshkosh, to Nathaniel M. Edwards, Dec. 1, 1866, Ballard-Edwards MSS.

34. Breese J. Stevens, Madison, to Nathaniel M. Edwards, May 17, 1869, Ballard-Edwards MSS.

35. David M. Kelly [no return address or date], to Nathaniel M. Edwards, Ballard-Edwards MSS.


38. G. A. Randall, Appleton, to Nathaniel M. Edwards, Sept. 9, 1869, Ballard-Edwards MSS.

39. Thomas J. Emerson, Racine, to Nathaniel M. Edwards, Apr. 20, 1869, Ballard-Edwards MSS.

40. George T. Percy, Green Bay, to Nathaniel M. Edwards, Sept. 18, 1869, Ballard-Edwards MSS.

41. David M. Kelly, Green Bay, to Nathaniel M. Edwards, July 11, 1870, Ballard-Edwards MSS.

42. E. J. Shaylor, Green Bay, to Nathaniel M. Edwards, June 11, 1870, David M. Kelly, Green Bay, to NME, June 14, 1870, and H. M. Schollar, Menasha, to NME, June 21, 1870, Ballard-Edwards MSS.

43. David M. Kelly [no return address] to Nathaniel M. Edwards [ca. May 20, 1869 (?)], Ballard-Edwards MSS.

44. Samuel Marsh, New York, to Nathaniel M. Edwards, Aug. 30, 1869, Ballard-Edwards MSS.


46. Major D. C. Houston to A. A. Humphreys, Feb. 26, 1872, citing testimony of Morgan L. Martin and Augustus Ledyard Smith in U.S.H.R., Improvement of the Wisconsin River: Letter of the Secretary of War ... (House Docs., 42 Cong., 3 Sess. [1872], ex. doc. no. 176, ser. no. 1513), p. 17.

47. Samuel Marsh, New York, to Nathaniel M. Edwards, July 27, 1866, Ballard-Edwards MSS.


49. On the operations at Depere, see Samuel Marsh, New York, to Nathaniel M. Edwards, May 16 and 22, 1868, and Aug. 30 and Nov. 24, 1869, and Breese J. Stevens, Madison, to NME, Nov. 20, 1869, Ballard-Edwards MSS.; and U.S.H.R., Fox and Wisconsin Rivers Improvement: Letter from the Secretary of War (House Docs., 42 Cong., 3 Sess. [1873], ex. doc. no. 111, ser. no. 1566), pp. 3-12.


54. Ibid., 12. On the Company operations at the Portage, see Samuel Marsh, New York, to Nathaniel M. Edwards, Sept. 29 and Nov. 24, 1869, George R. Percy, Green Bay, to NME, Sept. 18, 1869, and Breese J. Stevens, Madison, to NME, Nov. 20, 1869, Ballard-Edwards MSS.


61. A. Leach, Oshkosh, to Nathaniel M. Edwards, Dec. 1, 1866, Ballard-Edwards MSS.

63. Samuel Marsh, New York, to Nathaniel M. Edwards, Nov. 26, 1866, Ballard-Edwards MSS.

64. Samuel Marsh, New York, to Nathaniel M. Edwards, Dec. 24, 1866, Ballard-Edwards MSS.


67. David M. Kelly, Green Bay, to Nathaniel M. Edwards, Oct. 25, 1869, Ballard-Edwards MSS.


71. Wisconsin Legislature, Senate Journal (1852), 22.


73. C. D. Westbrook, Jr., Fox and Wisconsin Improvement . . . (Kingston, N. Y.: S. S. Hommel, 1853), 16.

74. Wisconsin Legislature, Senate Journal (1853), Appendix, 13. See also Samuel Marsh, New York, to John F. Seymour, July 15, 1859, Seymour MSS.

75. S. S. Burdett, Osceola, to Samuel Merrill, Oct. 26, 1869, Archives, Ser. 1/1/4-1. See also River Improvement Committee, Fox and Wisconsin Rivers Improvement. Letter of the River Improvement Committee in regard to the Fox and Wisconsin Rivers Route between the Mississippi and the Lakes (Green Bay: Robinson and Brother, Book and Job Printers, 1875), 3.


79. Loc. cit.

80. Moses M. Davis, Appleton, to John F. Potter, June 5, 1863, Davis MSS. Davis was satisfied, but see Prairie du Chien Courier, June 11, 1863; "The Chicago Canal Convention proved a total failure, as far as to any good results." The Appleton Crescent, June 6, 1863, reported resolutions adopted favoring linking the Mississippi and the Atlantic seaboard by water but the resolution also opposed collection of tolls on the route and the retention of any part of the line in private or state hands.

81. For example, the Portage City Register, quoted in the Appleton Crescent, June 6, 1863, charged that Milwaukee interests would oppose any ship canal scheme not connected with the Rock River and terminating at Milwaukee. Governor Fairchild reported the results of federal surveys of the Rock River and Fox-Wisconsin routes without, however, comparing the expense involved. "Both projects," he noted complacently, "are considered entirely feasible."

82. Appleton Crescent, Feb. 17, 1866.


84. David M. Kelly, Buffalo, to Nathaniel M. Edwards, Jan. 17, 1868, Ballard-Edwards MSS.

85. See F. Merk, Economic History of Wisconsin, 324 and sources there cited.

86. Samuel Marsh, New York, to Nathaniel M. Edwards, Sept. 26, 1869, Ballard-Edwards MSS.; and Joseph Schafer, The Winnebago-Horicon Basin: A Type Study in Western History (Wisconsin Domesday Book, General Studies, IV; Madison: State Historical Society of Wisconsin, 1937), 129. On the St. Paul meeting see F. Merk, Economic History of Wisconsin, 325-326 and 327. On Wisconsin support of Mississippi improvement, see the legisla-
ture's endorsement of the resolutions adopted at the St. Louis Convention, Feb. 12, 1867, in Wisconsin Legislature, Senate Journal (1867), 330-331, 374, and 674.

87. See Wisconsin Legislature, Senate Journal (1866), 590-591.

88. Appleton Crescent, Feb. 24, 1866.

89. River Improvement Committee, Fox and Wisconsin Rivers Improvement, 6.

90. Wisconsin Legislature, Senate Journal (1865), 328-329.

91. See, for example, Moses M. Davis, Appleton, to John F. Potter, June 5, 1863, Davis MSS.; Appleton Crescent, May 30 and June 6, 1863; and Prairie du Chien Courier, June 11, 1863.

92. River Improvement Committee, Fox and Wisconsin Rivers Improvement, 4-6.

93. Charles Seymour, Chicago, to Lucius Fairchild, Feb. 15, 1872, Fairchild MSS.

94. Thomas M. Monroe, Dubuque, to Charles Seymour, Jan. 1, 1872, Fairchild MSS.


100. U.S.S., Resolutions of the Convention held in Prairie du Chien . . . (Senate Docs., 40 Cong., 3 Sess. [1869], misc. doc. no. 37, ser. no. 1361), p. 7.

101. River Improvement Committee, Fox and Wisconsin Rivers Improvement, 12.


104. See, for example, Fairchild's remarks on the Fox-Wisconsin in his message of 1870, in Wisconsin Legislature, Senate Journal (1870), Appendix, 21-22. See also, J. Schafer, The Winnebago-Horicon Basin, 129.


106. Samuel Merrill, Des Moines, Aug. 14, 1869, Archives, Ser. 1/1/4-1. This an MS. version of the call reconvening the Convention.

107. Samuel Merrill, Des Moines, to Lucius Fairchild, Aug. 15, 1869, Archives, Ser. 1/1/4-1. See also Lucius Fairchild, Madison, to the People of Wisconsin, Aug. 18, 1869, ibid.


110. U.S.S., Memorial from the Legislature of the State of Wisconsin, (Senate Docs., 41 Cong., 2 Sess. [1870], misc. doc. no. 32, ser. no. 1408).


112. Lewis A. Thomas, Des Moines, to Lucius Fairchild, Oct. 5, 1871, Fairchild MSS.
113. Samuel Merrill, Des Moines, to Lucius Fairchild, Sept. 24, 1871, Fairchild MSS.


115. U.S.S., Resolution of the Legislature of Iowa in favor of an Appropriation for the Improvement of the Navigation of the Mississippi, Wisconsin, and Fox Rivers (Senate Docs., 42 Congs., 3 Sess. [1873], misc. doc. no. 54; ser. no. 1546), p. 1.


119. U.S.H.R., Survey of the Upper Mississippi (House Docs., 39 Cong., 2 Sess. [1867], ex. doc. no. 58, ser. no. 1292), pp. 73 and 104.

120. Samuel Marsh, New York, to Nathaniel M. Edwards, Oct. 10, 1866, Ballard-Edwards MSS.


125. Breese J. Stevens, Madison, to Nathaniel M. Edwards, Jan. 29, 1870, and James M. Flower, Madison, to NME, Feb. 10, 1870, Ballard-Edwards MSS.


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132. U.S.S., Report of the Select Committee on Transportation Routes to the Seaboard, with Appendix and Evidence (Senate Docs., 43 Cong., 1 Sess. [1874], report no. 307, ser. no. 1588-1589), vol. II, p. 229. This document is the "Windom Report" and includes a vast quantity of information about the arguments, techniques, and personalities involved in the transportation problem of the Reconstruction period.

133. Wisconsin Legislature, Senate Journal (1870), Appendix, 21-22.

134. Wisconsin Legislature, Senate Journal (1870), 567-568.


137. Samuel Marsh, New York, to Nathaniel M. Edwards, Sept. 29, 1869, Ballard-Edwards MSS.


140. Ibid., 14-15.

141. Ibid., 59.


Ibid., 513. It may be that the treatment accorded Harlan's bill was punishment for his allegiance to Andrew Johnson under whom he served as Secretary of Interior.

The parliamentary history of the bill is best traced in *U.S.S. Journal*, 41 Cong., 2 Sess. (1870), pp. 715, 758, and 812. These references carry the affair through the initial passage by the Senate. See ibid., 926, for the action agreeing with the House amendment.


Ibid., pt. 6, pp. 4959, 4960, and 5011-5012.

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161. Joseph Harris, Washington, to Lucius Fairchild, July 8, 1870, Fairchild MSS.

162. Samuel Marsh, New York, to Secretary of War, Nov. 16, 1870 (copy), Archives, Ser. 1/1/4-1.

163. Timothy O. Howe, Green Bay, to the Governor, Sept. 19, 1870, Archives, Ser. 1/1/4-1.

164. J. N. Macomb, Rock Island, to President or Secretary of Green Bay and Mississippi Canal Company, Sept. 17, 1870, Archives, Ser. 1/1/4-1; and 16 *Statutes at Large*, 189-190.


166. Philetus Sawyer, Oshkosh, to Lucius Fairchild, Oct. 5, 1870, Archives, Ser. 1/1/4-1.


172. Breese J. Stevens, Madison, to Lucius Fairchild, Nov. 29, 1870, Archives, Ser. 1/1/4-1.


182. William Larrabee, Clermont, Ia., to Lucius Fairchild, April 25, 1871, Archives, Ser. 1/1/4-1.

183. Breese J. Stevens, Madison, to Nathaniel M. Edwards, June 10, 1871, Ballard-Edwards MSS.

184. See Breese J. Stevens, Madison, to James R. Doolittle, July 28, 1871, Doolittle MSS.; and U.S.H.R., Wisconsin and Fox Rivers Improvement: Letter from the Secretary of War transmitting a Copy of the Report of the Arbitrators... (House Docs., 42 Cong., 2 Sess. [1872], ex.
doc. no. 185, ser. no. 1513), p. 3.

185. Ibid., 2.

186. Curtis Reed, Menasha, to Elisha W. Keyes, Aug. 13, 1871, Keyes MSS.


188. Timothy O. Howe, Green Bay, to Elisha W. Keyes, Aug. 28, 1871, Keyes MSS.

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190. Timothy O. Howe, Green Bay, to Elisha W. Keyes, Aug. 14, 1871, Keyes MSS.

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202. William Larrabee, Milwaukee, to Elisha W. Keyes, Nov. 15, 1871, Keyes MSS.

203. Paul Dillingham, Milwaukee, to Elisha W. Keyes, Nov. 17, 1871, Keyes MSS.


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209. Lucius Fairchild, Madison, to C. C. Washburn, April 27, 1872, Archives, Ser. 1/1/4-1.


211. Lucius Fairchild, Madison, to C. C. Washburn, Nov. 2, 1872, Archives, Ser. 1/1/4-1. For allegations of corruption against the Howe family in connection with the Improvement funds, see Chicago Industrial Age, June 10, 1876; and Chicago Tribune, May 9, 1876.

212. Timothy O. Howe, Washington, to C. C. Washburn, Jan. 11, 1873, Archives, Ser. 1/1/4-1. See also Charles J. Martin, Madison, to CCW, Jan. 16, 1873, Archives, Ser. 1/1/4-1.
CONCLUSIONS

Several developments in the history of the Fox-Wisconsin Waterway deserve emphasis. Among these, the over-riding importance of the land grant and land policy merits first attention. It should be clear, first of all, that the Democrats were hardly averse to extending aid to internal improvements. The resort to subsidization by land grants, thus avoiding a direct drain on the federal treasury, was a subterfuge that surely deceived no one. The imposition of a double-minimum price for the federal reserved sections was only superficially a refinement of the rationale. The double-minimum principle was a failure in connection with the Milwaukee and Rock River Canal project. The provision was omitted entirely from the Des Moines River grant to Iowa. Wisconsin's constitutional convention refused the Fox-Wisconsin grant until the double-minimum clause was eliminated. These examples are certainly enough to indicate that the device, purporting to reimburse the federal treasury for the granted lands, was not universally accepted. Why then did the double-minimum provision become a fixture of federal land grant aid to railroads? Additional studies of internal improvement projects with this question in mind may furnish the ultimate answer, but the experience of the Waterway makes it possible to hazard some suggestions.
So far as the legislation regarding the Fox-Wisconsin grant is concerned, it is clear that selling the land was a consideration of secondary moment. Congress drafted the act of 1846 in terms calculated to prevent a wasteful disposition of the land. The Wisconsin legislature, mindful of the unhappy experiences of neighboring states, undertook the project beset by an obsessive fear of a state debt. Neither Congress nor the state legislature was primarily concerned with achievement of the Waterway. Both were intent upon preserving the means by which the construction was to be financed. As a consequence of this attitude on the part of the legislators, the procedure for acquiring land in the grant was intricate. Sales were correspondingly slow.

When the project was delivered into private hands the tendency of the businessmen, too, was to retard disposal of the grant. Congress expected the works to be constructed under state direction through state financing. In Wisconsin, the possibility of private construction for private profit was early perceived. Morgan L. Martin, drawing on the example set by Michigan, obtained the inclusion of a clause in the Wisconsin Constitution that would permit turning the Waterway over to private contractors who would be reimbursed by the sale of the lands and by the revenues of the completed project. Martin himself later took advantage of this clause when the cautious policy of the state had
failed to complete the improvement.

Martin may have invested his own funds, but this was not the case when the entire venture was handed over to the Fox and Wisconsin Improvement Company. No money was paid in on the capital stock, a committee of the legislature reported. The professional improvement promoters, who rescued the Fox and Wisconsin Improvement Company when private Wisconsin resources proved unequal to the task, tried ceaselessly to avoid committing any of their own funds. Their technique was to borrow money on the security of the lands. The Easterners were guided by two objectives: first, to operate in such a way that little, if any, of their own money was sunk in the project, and second, to maneuver so that the choice lands were preserved for the promoters no matter what the fate of the Waterway, the Company, or its creditors.

It was to the interest of the state to sell the lands as rapidly as possible while the state was directly responsible for construction. The legislation proved a handicap to the state because it slowed land sales. When free enterprise took charge of the matter, the promoters tried to accomplish the construction with funds borrowed on the security of the grant. The tax exemption allowed on the unalienated portion of the grant encouraged the speculators to retain title to the lands as long as possible. Ideally, they wished to hold the grant until the completion
of the Waterway enhanced the value of the land and the revenues of the works sufficed to discharge the Company obligations. This would permit the promoters to realize a large profit from the lands.

The results of the early grants carrying the double-minimum provision indicated that to hold even a part of a well-located tract at advanced prices tended to inhibit sales in the vicinity. The actions of the shrewd Eastern promoters of the Fox and Wisconsin Improvement Company showed that the speculative interest wanted to hold the land as long as possible. The double-minimum provision thus played into the hands of the speculators not by making the lower priced private portion of the grant more attractive but by delaying settlement in the area until the development of the improvement raised land values all along the line.

Most studies of land speculation have been concerned with large purchasers and with their tribulations in disposing of their holdings. Of equal interest in the Fox-Wisconsin speculation were the political machinations in connection with obtaining the grant and increasing its proportions. Nor were the relations of the speculators solely with the General Land Office and Congress. The Indian Bureau and the War Department figured prominently in the schemes of the Improvement Company operators. Many of the triumphs of the Waterway promoters resulted from their suc-
cess in securing favorable administrative decisions. The manner in which speculators secured their holdings was as important as how they disposed of them.

The maneuvers of the Improvement Company to secure additional lands suggest a new line of investigation in the field of land policy and administration. The experience of preemptors on Fox-Wisconsin lands also raises some provocative questions. After 1841 the rights of preemptors on federal lands were protected. The state legislation for the Waterway also gave preference to preemption claimants. Still the conditions that had to be met by preemptors were many and vexatious. One wonders whether the preempting settler was truly a preferred citizen. In addition to the sundry requirements that had to be satisfied to qualify as a purchaser under the preemption clauses of the state legislation, the act of 1852 actually required a preemption settler to have in hand several times as much cash as a purchaser at the ordinary public sales. The latter had to pay a minimum price of $2.50 per acre, it is true, but the act required a down payment of only one-tenth of the purchase with the balance payable in ten annual installments. The preemtor, on the other hand, had to tender payment in full at $1.25 per acre.

Once the pattern of trade and settlement of a region have been set it is easy to bring together features of the physical and social environment that "explain" the pattern.
Yet, as Horatio Seymour pointed out, "there is hardly a town or an important manufacturing or commercial place which has not been fixed by the enterprise of some individual, or by some considerations of convenience which might easily have been transferred to other points." After the coming of the railroad, it is easy to "explain" the commercial dominance of Milwaukee by pointing to the way in which the railroad network of the middle west had to develop.

Chapter Four above tried to show that Milwaukee had won its place before the railroad arrived. The vigor with which the businessmen of Milwaukee sought connections with the interior by means of the territorial road system was historically more significant than any natural geographic advantage Milwaukee enjoyed. The promoters of Green Bay relied too heavily on the advantage of a "natural" trans-Wisconsin route, the Waterway.

This is not to say that the impact of the road system was necessarily foreseen by the Milwaukeeans. Pursuit of the limited objective of a connection with a nearby community extended stage by stage across the state would furnish an equally plausible explanation of the event. The manner in which policy regarding the Fox-Wisconsin development was debated hardly indicates any great profundity in the statesmen who made the decisions. One side urged the construction of the Waterway in order to build up the country while the opposition retorted that the population and
trade of the vicinity were too sparse to warrant the great expense involved. Obviously, both sides were correct. Unfortunately, the matter was usually settled by a compromise between the two points of view. By keeping the expenditures small the country might be built up a little bit. The projects allowed by the jealous legislators were never of sufficient scale to produce the results of which the promoters dreamed. To state the matter briefly, Waterway advocates never had the means to achieve the ends they desired.
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Manuscripts

All personal manuscript collections used in this study are in the Library of the State Historical Society of Wisconsin. Two of the major collections in the Library, the Elisha W. Keyes MSS. and the Lucius C. Fairchild MSS., have been checked only during the period when their principals are known to have been active in Waterway affairs.

The backbone of the narrative is supplied by three personal collections of individuals closely connected with the Waterway. The largest of the three, and the only one that runs through the whole chronology of this study, is the Morgan L. Martin collection. The Martin papers are fairly bulky and contain much material not directly bearing on Waterway history. Apparently at one time the Martin MSS. were a part of a larger collection of the papers of early inhabitants of Green Bay. Many letters of other Green Bay settlers are still to be found among the Martin papers, for no apparent reason. Also among the Martin materials are a number of letters of officials of the American Fur Company, especially of the Abbott brothers, but also of Ramsay Crooks. Martin's own activities were varied. He was a partner of Solomon Juneau in the promotion of the Milwaukee townsite; he also engaged in real estate operations else-
where in the state. There are some pleadings and other legal papers in the collection, evidence of Martin's successful legal practice. The collection is particularly strong during the period when Martin was in Washington as territorial delegate. The contents of the letters represent the usual run of political mail. The reader cannot help being impressed by the great importance attached to postal routes. More concern was expressed over the matter than postmasterships! Roads and surveys for roads were given considerable attention. These matters, of course, are interrelated. It appears that a careful analysis of what was at stake should bring to light an issue of frontier days whose significance in our history has been lost. The Martin collection thins out considerably after the middle fifties. It is fortunate that at this point another collection begins to assume valuable proportions.

The John F. Seymour MSS. are a small collection extracted from the larger Seymour collection in the New York State Library in Albany. The papers include material from the parent collection that applies clearly and obviously to Wisconsin. As a result, most of the material relates to the Fox and Wisconsin Improvement Company. The activities of the Company, and of the clique that dominated it, were so varied that it seems probable much information still remains in the major Seymour collection.

The Seymour MSS. do not cover the period after 1860.
The State Historical Society of Wisconsin, however, has recently acquired the Anson Ballard-Nathaniel M. Edwards MSS. that carry the story forward to the end. At the time these papers were examined, the sorting of the material had not progressed beyond the first arrangement according to years. Since the papers had not as yet been fully examined, no assessment of their value for subjects other than the history of the Waterway can be attempted.

Two small collections, the Nathaniel P. Tallmadge MSS. and the Moses M. Davis MSS., proved valuable. Tallmadge was involved in Waterway affairs only during the middle forties. Davis's interest runs from the middle fifties, when he came to Wisconsin, to the end of the period of this study.

James Rood Doolittle participated in Waterway affairs as a senator and as a member of the Board of Arbitrators. The Doolittle MSS., however, contain little of value for this study. The bulk of the material in this collection concerns politics and Doolittle’s law practice.

The Archives Division of the State Historical Society of Wisconsin has a collection of the correspondence relating to the Waterway. These manuscripts proved to be quite useful. They are designated "Executive Department. Administration. Lands: Fox-Wisconsin Canal 1844-1897. Series No. 1/1/4-1." Some Waterway material not readily identified as such has been filed in a miscellaneous collec-
tion designated "Executive Department. Administration. 
Routine and Departmental Correspondence. Series No. 
1/1/1-1."

Newspapers

The comprehensive character of the newspaper collection of the State Historical Society of Wisconsin is well known. For the period covered by this study, however, no single paper offers adequate coverage of Waterway history either because the file is not consecutive or because the community served by the paper was not vitally concerned in Fox-Wisconsin developments. As a consequence, no paper has been checked consecutively throughout the entire period. The manuscript sources and the printed materials were used to indicate crucial dates when newspaper coverage appeared likely. Once an important date had been determined available newspaper files were consulted in search of a reasonably varied reaction. Experience proved, however, that coverage of Waterway matters was spasmodic or perfunctory away from the line of the Fox River.

Government Documents

This study has leaned heavily upon government publications. This body of material is virtually limitless both in the variety of subject matter treated and in sheer bulk. The standard finding aids are, of course, indispensable,
but they furnish at best only an introduction to the material. The method of supplementing the standard guides must naturally be tailored to the particular problem.

In this study two checks on the standard guides were utilized. The first check is in the congressional or serial set of documents. The publications of each house for each session of Congress are indexed and also presented in tabular form in the first volume of documents for any given session. Both index and table of documents can be used to supplement the indices covering longer periods of time. The second check involves the use of the journals of the House and Senate. The journals ordinarily have better subject indexes than the Congressional Globe. They also carry tables giving page references to the legislative history of bills and resolutions. Since the journals report only parliamentary action, and do not report debate, it is much easier to follow the parliamentary history of a bill or resolution, or to locate signs of a "public opinion" campaign with a flood of petitions and memorials, in the journals than in the Globe. The journals readily reveal whether a petition or report was printed. On the basis of the proceedings reported in the journals, it can quickly be determined whether the Globe is worth consulting on a given point. It is frequently easier to locate the Globe's treatment of a subject through the date of the proceedings reported in the Journal than to use the index in the Globe.
Finally, neither the Globe nor a given journal is infallible and it is often necessary to resort to both to resolve apparent inconsistencies in parliamentary procedure.

Adequate collections of state publications are rare indeed. The Public Documents Division of the State Historical Society of Wisconsin has outstanding holdings in this field that have been invaluable to the preparation of this study.

Government publications include both primary and secondary source material. In either category, the information contained in these documents is frequently unattainable elsewhere. Each item, of course, must be evaluated by the same methods used in criticizing any other historical document.

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TITLE OF THESIS: The “ox-Wisconsin” Waterway 1836-1872: Land Speculation and Regional Rivalries, Politics and Private Enterprise.

Full Name: Robert Welwood McEluggage

Place and Date of Birth: Birmingham, Ala., Apr. 6, 1921

Elementary and Secondary Education: Elementary and three years high school, Quincy, Ill., Public Schools. Final year of high school, Soldan High, St. Louis, Mo.

Colleges and Universities: Years attended and degrees: St. Louis University, 1940-1943; B.S.; St. Louis University Graduate School, 1946-1948, M.A.; The University of Wisconsin, 1948-1952.

Membership in Learned or Honorary Societies: American Historical Association, Mississippi Valley Historical Association.


Major Department: History

Minor(s): Economics

Date: June 5, 1952

Signed: Howard K. Beale

Professor in charge of thesis