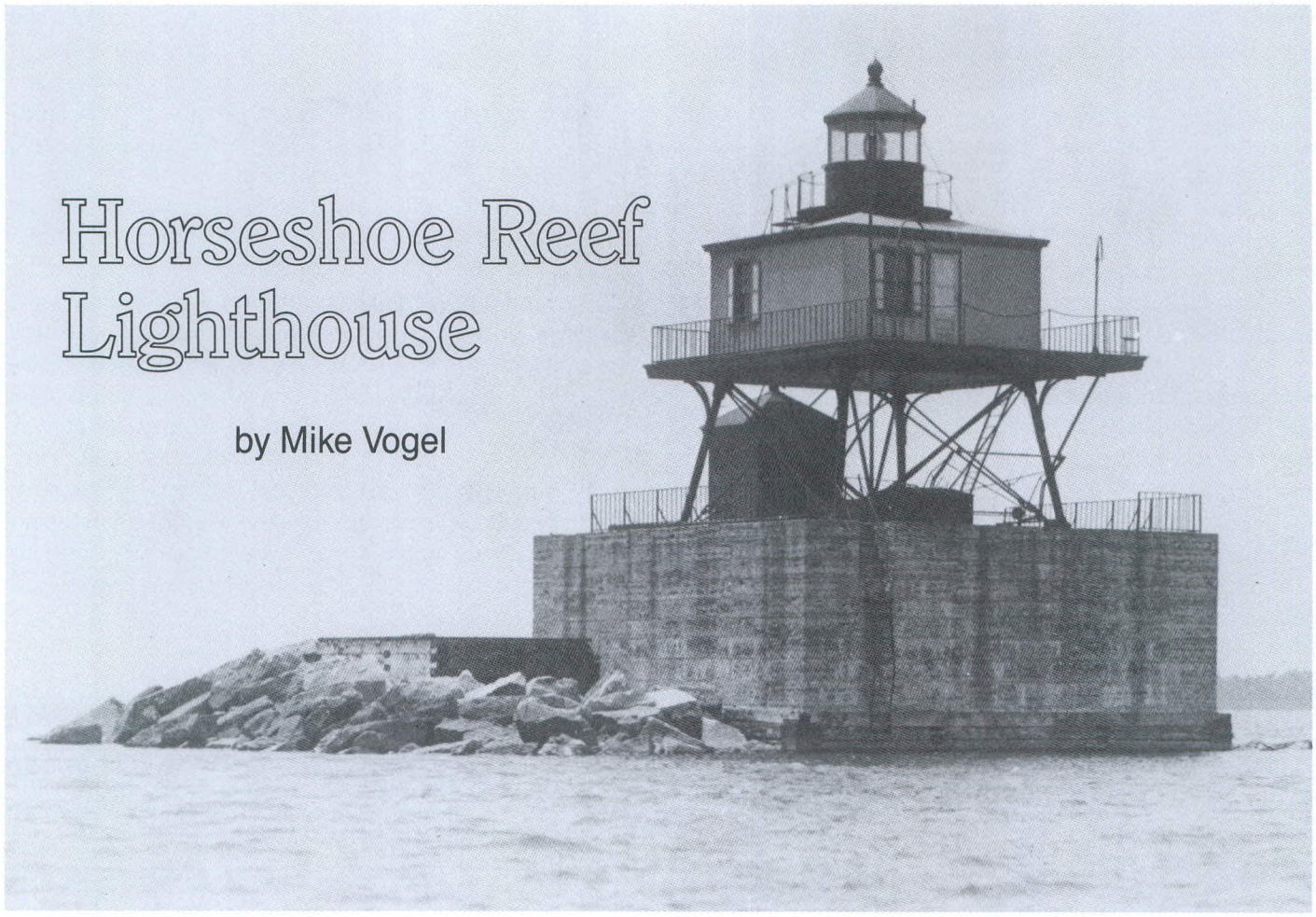
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Horseshoe Reef Lighthouse

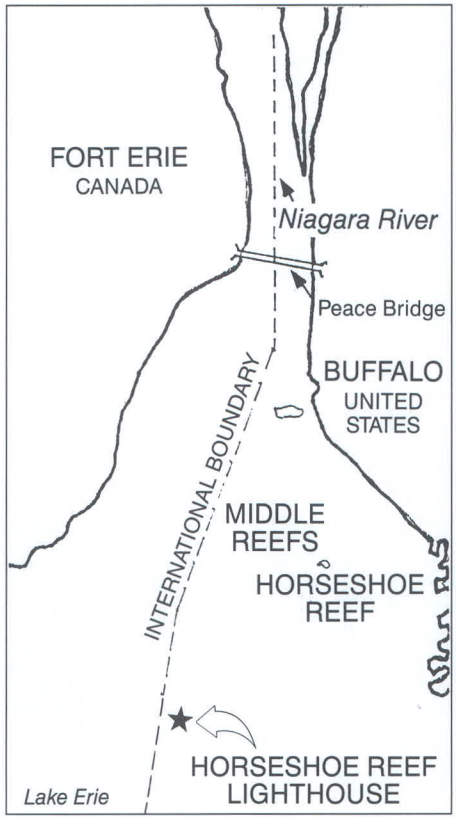
by Mike Vogel



Not one in a hundred Buffalo area sailors today could name the spidery metal framework that guards the entrance to the swift flowing Niagara River and marking the eastern end of Lake Erie. Fewer still would identify it as a place where men once lived and worked, lost in desolate solitude between two nearby cities.

Long neglected and derelict, the offshore relic is seldom visited. Even local Coast Guard personnel, stationed within sight of the black iron platform, would be hard pressed to tell the casual visitor its history. No one visits, save the seagulls. The Niagara waters that stream by its base are swift, and the treacherous rocks of a reef lurk just inches below the surface.

This old platform, and the familiar framework of a lantern room still standing on the skeleton of a long vanished watch room, once played a part in history...and helped move an international border.



Horseshoe Reef Light, it was called, and it has one of the most curious histories of any American lighthouse on the Great Lakes. Added to the usual difficulties of building an offshore lighthouse on an underwater reef was a requirement to engage in international diplomacy—and before this 19th Century lighthouse was completed, the Lighthouse Service required not only a Congressional appropriation, but an opinion of the government of Canada, a formal protocol of Her Majesty's Government in London and the signature of the President of the United States.

The fascinating story of Horseshoe Reef Light, at one time in its history a one acre American island surrounded by the British Empire, was recently traced by Commissioner Alec C. McEwen of the International Boundry Commission in Ottawa, Canada. His search was not made any easier by passage of time and the fading memories of the old light-

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house; nor was it aided by the fact that Horseshoe Reef Light doesn't mark Horseshoe Reef, but sits on another outcropping known as the Middle Reef.

Buffalo already had two lighthouses by the time consideration was given to construct a lighthouse to mark the entrance to the Niagara River. One was a fine stone tower constructed in 1833 to mark the entrance to the Buffalo River and Harbor. This tower remains today (see Buffalo Lighthouse, *Keeper's Log*, Fall 1987). The other, the original Buffalo lighthouse, was constructed sometime between 1818 and 1820 and in that era stood dark and abandoned a bit farther up river.

The Lakes trade was booming and ships streaming down the Niagara with lumber and other goods, bound for the tiny harbor of Black Rock, needed a beacon to chart their way through dangerous reef dotted waters. They needed a light to assist them navigate the swift currents that narrowed and eventually, a few miles downstream, cascaded over the Niagara Falls.

In 1849 Congress approved an appropriation for a lightship or lighthouse to mark Horseshoe Reef at a point where Lake Erie empties into the Niagara River. In their wisdom the lawmakers decreed that $10,000 should be ample funding for a "light boat" or $20,000 should suffice for a tower should a survey of the situation deem that a more attractive alternative.

Some 25 days later the District Inspector, CDR Abraham Bigelow, recommended that a lighthouse to be placed about 1,500 feet south of the point where the river begins to gather speed for its 11 knot rush through the narrows.

However, the Commissioner of the Lighthouse Service, Stephen Pleasonton, found that the selected site on Middle Reefs, was on the Canadian side of the international boundary line. This line had been established by the Peace Treaty following the Revolutionary War and reaffirmed after the War of 1812. According to McEwen's research, Pleasonton, nearing the end of his 32 year tenure of the Lighthouse Service, recommended that the Department of State contact the British government and request permission to construct a lighthouse on the selected site, although he was sure that the request would be refused. The British had rejected a similar request to construct a light station in the Bahamas twenty years earlier. He was wrong. An aid to navigation at the proposed site would benefit the growing commerce in Canada as well as the United States. The British were essentially faced with the choice of ceding enough territory to America to construct the lighthouse or the expense of building it themselves.

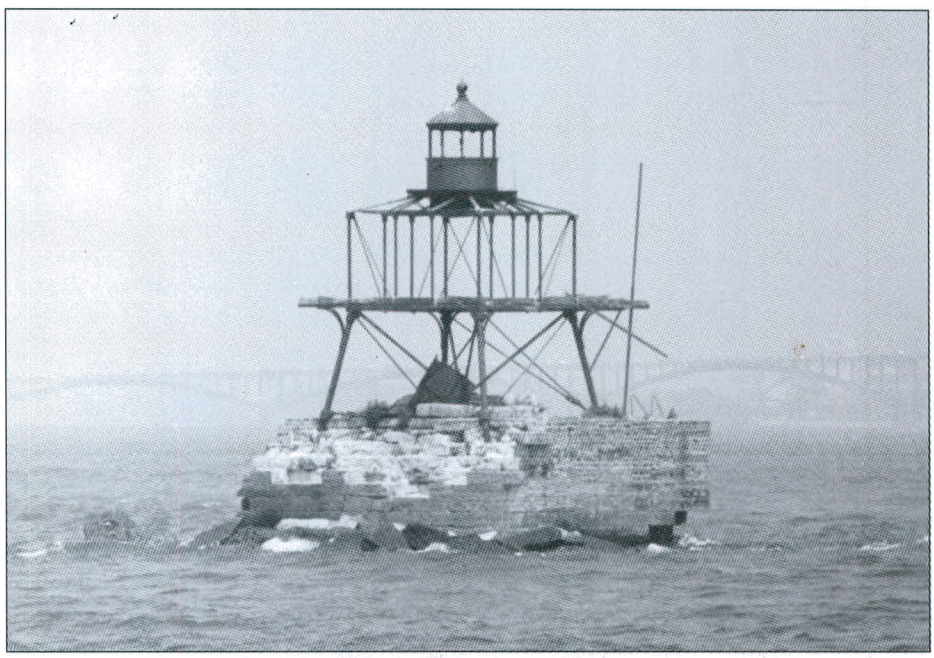
In London U.S. Minister Abbott Lawrence sent a note to Viscount Palmerson, the Foreign Secretary, who in turn relayed the American request to Early Grey, the Colonial Secretary, who in turn asked Lord Elgin, the governor general, to consult the provincial government in Ontario.

Lawrence's note, sent on February 5, 1850, was accompanied by a memorial and a petition by "several hundred merchants and residents of Buffalo." Canadian commercial interests also supported the idea of a lighthouse to mark the entrance to the river. On April 23 the Executive Council of the Province of Canada, meeting in Toronto, approved the idea.

The decision worked its way back up government channels and that December 9 Palmerson and Lawrence met at the Foreign Office in London to sign the Protocol transferring part of the reef to the United States—provided that the United States constructed a lighthouse there and refrained from erecting any type of fortification.

And so, the British Crown gave the United States an acre of underwater reef representing about one third of the entire Middle Reefs located about 1,150 feet inside Canadian territory and just a short cannon shot from the shore where more than 1,000 British, American, Canadian and foreign mercenary troops died in the Battle of Fort Erie some 36 years earlier. President Millard Fillmore, a Buffalo native, approved the deal two months later.

On March 3, 1851 Congress appropriated $25,000 to construct the lighthouse. The newly created U.S. Lighthouse Board appointed a three man committee to review construction proposals and Mr. Isaac Smith was awarded the contract, although the committee's recommendation was not favorable toward his proposal. Mr. Smith proposed excavating a six foot diameter, twelve foot deep hole in the reef (which



Opposite page—Horseshoe Reef lighthouse circa 1910. USLHS photo.
Above—Horseshoe Reef lighthouse in 1987, some 67 years after being abandoned. The Peace Bridge connecting the U.S. and Canada can be seen in the background. Photo by Keeper Randy Chase

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was seven feet below water). Into this hole he proposed constructing 42 long shaft, 20 feet cylindrical and 22 feet conical, the outside of this huge shaft to be covered with 1/2 inch boiler plate. The lower, cylindical section would be filled with iron bars and zinc. Constructed around the upper portion of the shaft would be the keeper's living space some 14 feet in diameter, eight feet high and made of boiler plate, lined with three layers of felt. This space was to have one door and four windows with iron shutters. A five foot diameter lantern room would be constructed on top of the living quarters. Isaac Smith stated "As every part of the superstructure is subject to variation to suit the view of the department, I have not made detailed specifications.

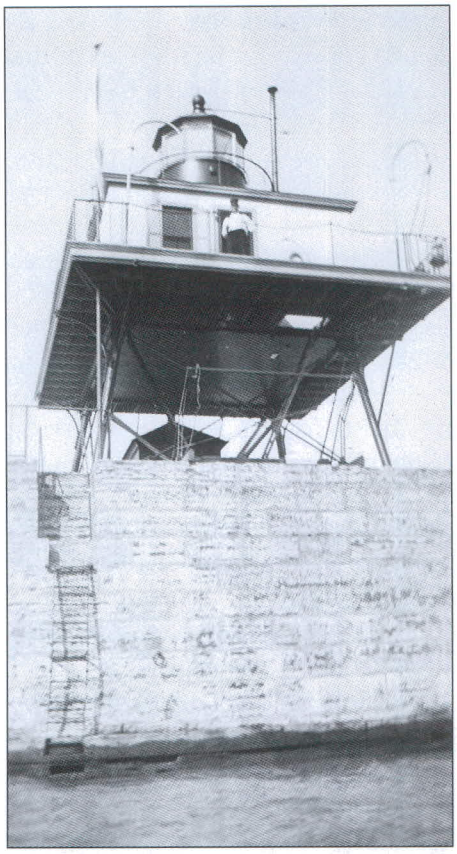
"As I ask no advance money, nor payments faster than portions of the work shall have been satisfactorily completed, I abstain from troubling you with a detail of the various processes." He went on to state that he was most interested in showing his proposal for the solid monolith which was to form the center core of the structure.

Bad weather, the discovery that the reef wasn't solid rock and other problems delayed the project and Smith's contract was eventually canceled.

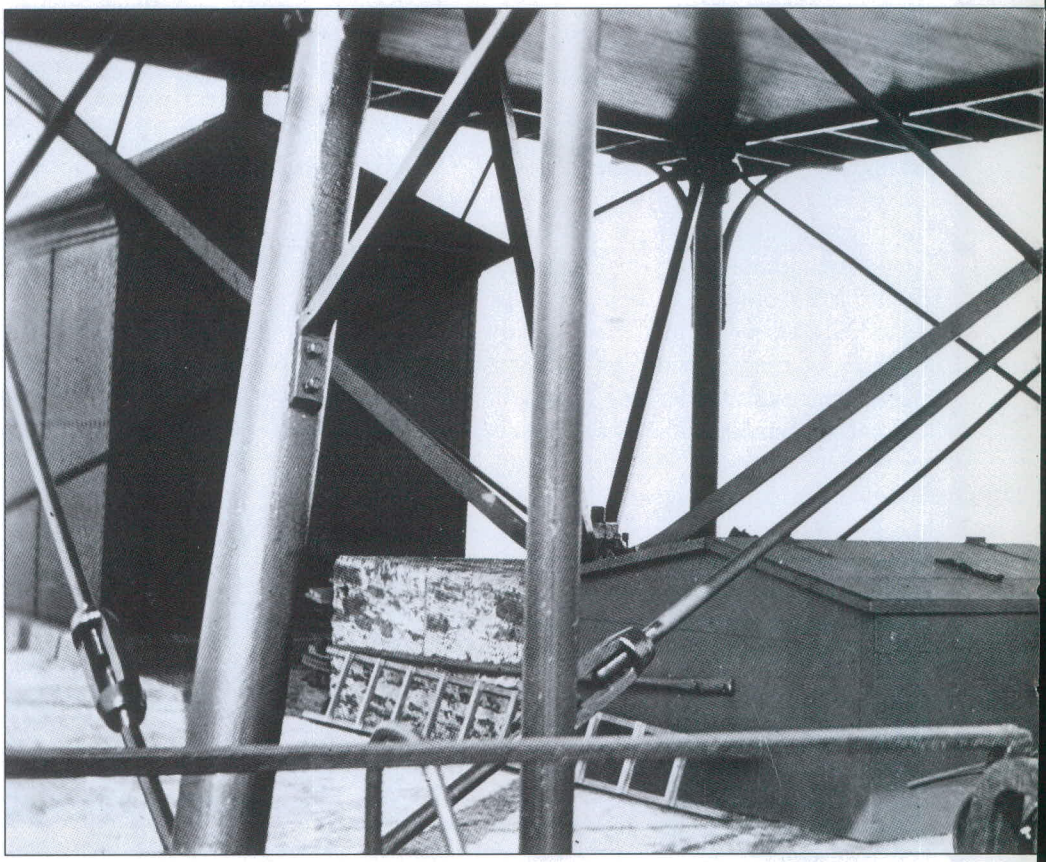
Finally in 1855-56 government workers added stone to the reef to stabilize it, constructed a concrete crib faced with wood and erected a small wooden cottage on four iron pilings. The focal plane of the 4th Order Fresnel lens was placed 50 feet above the water level. It's characteristic a fixed white light varied with flashes every 1½ minutes (FVF) flashed out over the lake on September 1, 1856 and was visible for 14 miles.

Two keepers were assigned to the station with family quarters ashore. They alternated days on the reef, although bad weather occasionally required that the keeper on duty stay aboard for an extended period.

In 1882 a boat launching apparatus was installed and over the years numerous repairs were made, primarily the continual addition of rip-rap (loose rock) to protect the crib. A severe Winter in 1888 required the service to rebuild the three sides of the superstructure of the timber crib and repoint the masonry portion. That same year the gallery platform around the dwelling was widened, boat davits were installed, the entire woodwork of the gallery deck and decayed sheathing of the cottage replaced and a small 6 foot square box for fuel oil constructed and bolted to the top of the crib.



In 1902 the Lighthouse Board noted in its Annual Report, "This lighthouse...requires the services of two light-keepers, who are alternately on duty at the station throughout the entire season of open navigation. The light is built on a crib, and the accommodations in it are limited. The trips to and from the mainland are made in a small rowboat, and the distance 1½ miles. During a large part of the season the trips are made under conditions of difficulty and danger, and the landing at the sta-



Top—A keeper at the rail watches the approach of the station boat with his relief on board. Above—Numerous braces and cross ties securing the lighthouse to the crib deck are the reason this structure still stands 69 years after it was abandoned. The peaked roof shed in the middle is the 1888 box that was constructed to house oil supplies. The 1906 oil house is pictured at left. A portion of the boat hoisting apparatus can be seen in the right foreground. Both photos circa 1905 courtesy of the Ralph Hill collection. Ralph's father, Daniel, was keeper of this station.

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tion is often perilous. Sometimes it is impossible to get to and from the station, and the keeper then on duty has to remain at the station until he can be relieved, which may be several days... The pay of the keeper is $560, and that of the assistant keeper $490 a year, and no dwelling on shore is furnished to either of them. It is one of the most comfortless and unattractive stations in the district, and it would be for the interest of the Government to furnish proper dwelling for the two keepers. The Board is of the opinion that a double dwelling should be built on shore for the use of the keepers. Such a building could be built on Government land...in close proximity to the dwelling occupied by the keeper of the main Buffalo light...It is estimated that such a dwelling could be built for $5,500..."

This recommendation was made again in 1903, 1904 & 1905 only the ante was now up to $6,200. In 1905 $5,000 was appropriated to reconstruct the wooden portion of the lighthouse, but nothing was set aside for the dwelling. Finally, in 1906 the requested $6,200 was appropriated and the same year an oil house was built on the crib. The duplex dwelling was completed in 1908.



Daniel Hall of Buffalo, NY joined the lighthouse Service in 1904 and drew Horseshoe Reef as his first duty station and, as assistant keeper, was paid $490 a year. It was no bargain. Even the Lighthouse Service acknowledged that duty on the reef was "one of the most comfortless and unattractive stations in the district."

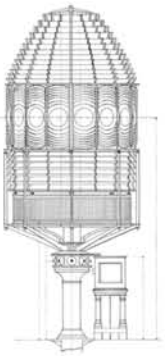
By 1908, though, it at least wasn't duty in foreign territory, however, friendly that territory may have become. A new treaty authorized adjustments in the boundary between Canada and the United States and in 1913 an international commission moved Canada 100 feet to the west of the Horseshoe Reef Light, placing the station in U.S. waters. However, by this period the lighthouse was no longer needed. The river traffic was still heavy and the northern Buffalo suburb of Tonawanda was the busiest lumber port in the world, however navigation improvements had been made in the area . The construction of a wall along the Niagara created a protected channel along the eastern bank of the river. This new channel provided shelter from the swift current of the river. Additionally, the City of Buffalo erected a water intake crib in the middle of Emerald Channel, a stone's throw from Horseshoe Reef. The crib was topped by a light which provided assistance to the mariner and obviated the need for the Horse Reef Light.

In 1920 the station was discontinued, a passing probably not mourned by the keepers who had tended the flame of that crude, dank structure. In time the wooden portions of the tower decayed and disappeared and today only the iron framework remains. Given the severe Winters of the area and howling gales it is remarkable that any portion of the structure remains.

In recent years local mariners and even Coast Guard personnel have assumed that the old structure was the remnant of a Canadian lighthouse. However, recent research, interest in area history and the development of the Buffalo Lighthouse Association has revived interest in the lighthouse. During the Summer of 1987 a cruise in association with the Great Lakes Lighthouse Keepers Association included a swing by Horseshoe Reef. Accounts of the lighthouse, bolstered by documents provided by descendents of keeper Hall, are appearing in local histories. And, as members of the Buffalo Lighthouse Association near completion of their restoration effort, they find themselves casting an occasional appraising glance seaward—toward the old metal structure that once marked a tiny American island amid Britannia's rule of the seas.

The author, Mike Vogel, is a reporter for the *Buffalo News* and President of the Buffalo Lighthouse Association. Mike wrote the outstanding article on the history of the Buffalo Lighthouse that appeared as the cover story of the Fall 1987 Log. He has been the leading "light" of the Buffalo lighthouse restoration project.

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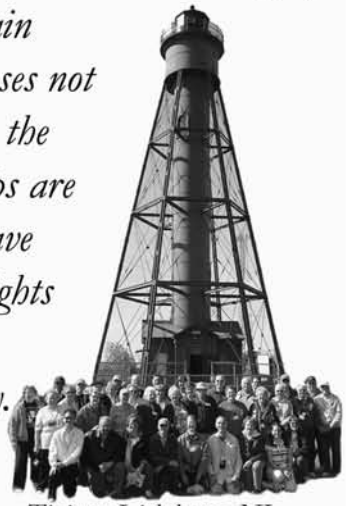
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