Stannard Rock

The Loneliest Place in the World

by
Elinor DeWire

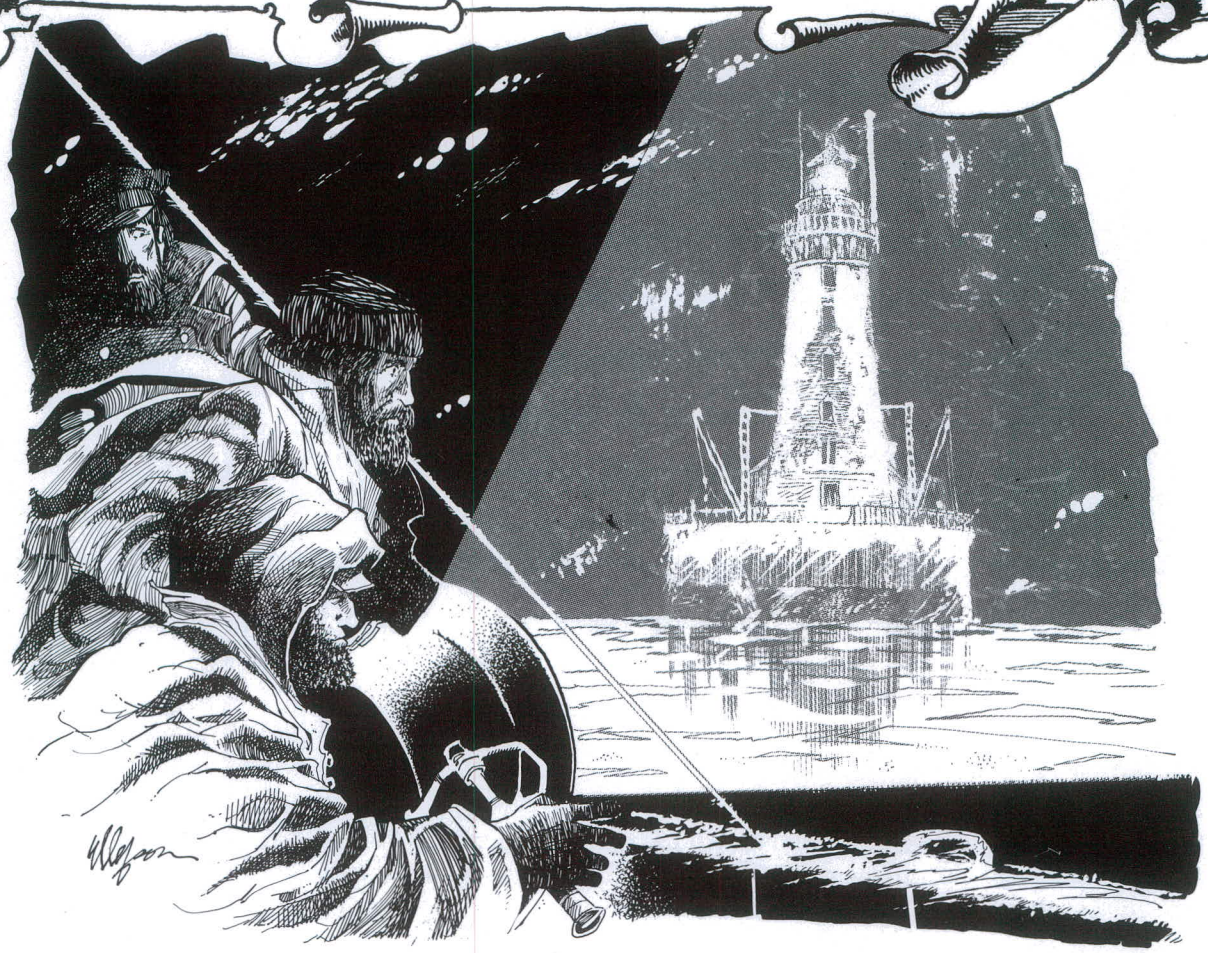


Illustration by Dennis Ellefson

The Lighthouse tender *AMARANTH* slowly inched her way through the frigid waters of Lake Superior. The date was December 4, 1929, and the *AMARANTH* was performing one of her most important duties as workhorse of the lakes—taking keepers off remote lighthouses at the close of the Great Lakes shipping season. Ahead, the reduced winter signal of Stannard Rock Lighthouse flashed the anticipation of its lonely keepers. Cold, weary, and stressed by severe isolation and a heavy, premature freeze, they anxiously awaited departure from their frozen, round prison.

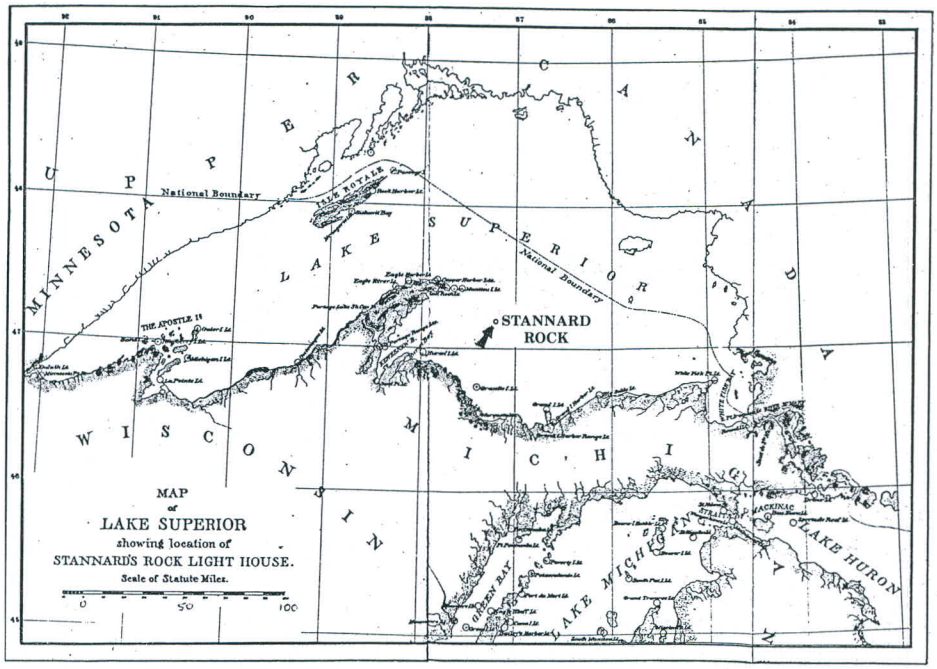
"...the weather during the latter part of November at Stannard Rock Lighthouse was the worst that I have ever experienced in my thirty years or more on the Great Lakes," wrote the head keeper in a report to the Lighthouse Service. "...snow squalls...very cold...spray went over the dome every minute and plate glass outside of the lantern became one solid mass of ice...everything iced up from top of tower down to water's edge..."

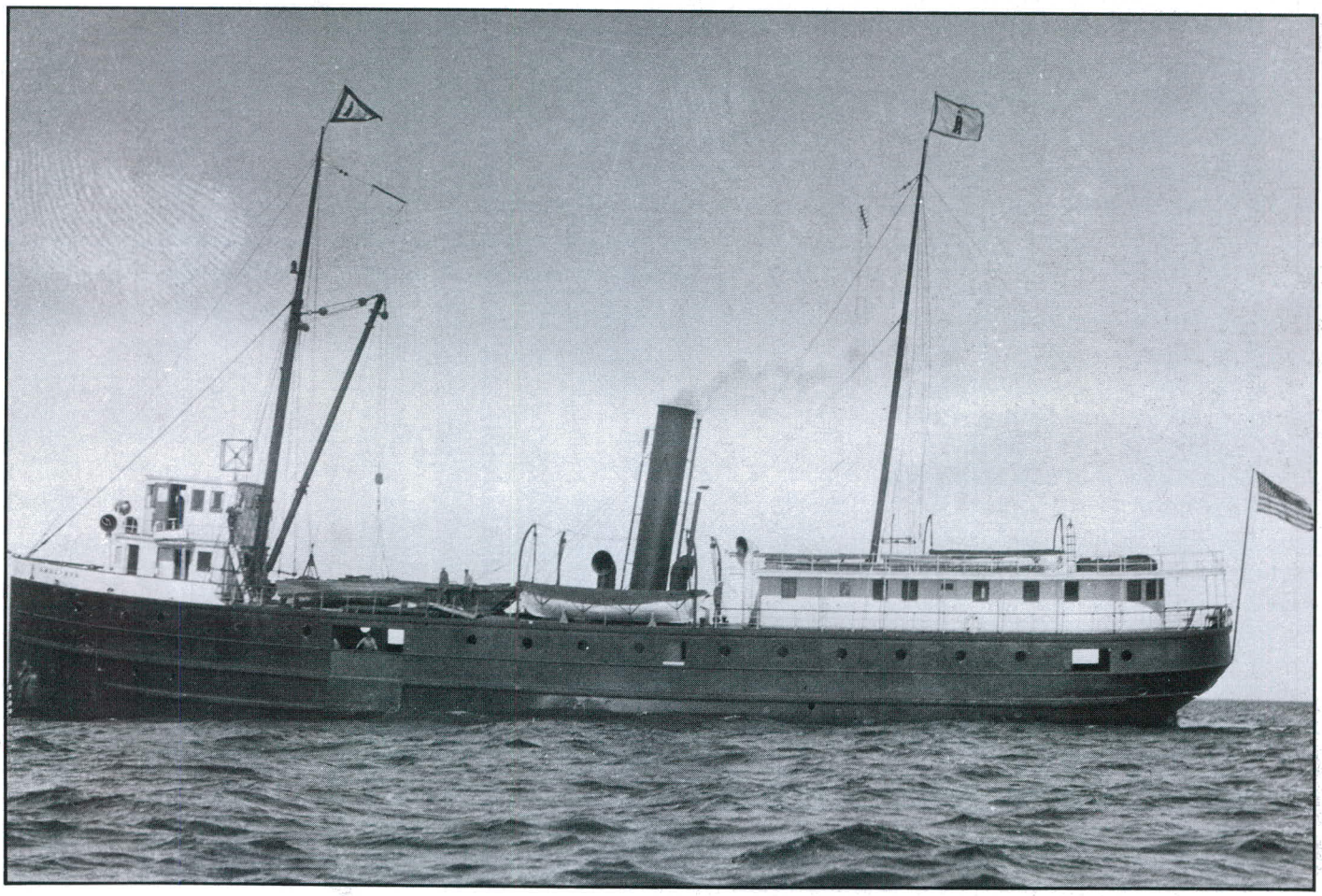
As the *AMARANTH* neared Stannard Rock Lighthouse in the darkness that evening, she slowed to a crawl and threw her searchlight on the station. An awesome spectacle of winter power greeted the tender crew—a scene that smacked of fantasy and science fiction. The 110-foot stone tower was totally encased in ice and glistened like a mammoth iceberg. Greenish light reflected off the ice; long icicles hung from the gallery like monster teeth. Over the pier and the base of the tower, the ice was several feet thick, and the lantern, more than 100 feet above the lake, was wrapped in a shroud of ice patiently deposited by minute droplets of spray. Were it not for the steady, revolving beacon and the elated shouts from the keepers, the tower could easily have been mistaken for a frozen tomb.

In spite of its beauty, the icy blanket was a harbinger of the hard winter to come, and Stannard Rock's keepers were glad to be leaving the remote tower. Only through continuous attention with a steam hose had

they been able to keep the exterior doors and pipes open and unclog the iced fog trumpets. The combined concussion of wind and waves battering the tower had necessitated installing the old wick-burner lamp. Its beam snaked through the prisms of Stannard Rock's delicate Fresnel lens only to be dispersed by the thick ice coating the lantern panes.

Such an ordeal was the scene at Stannard Rock Lighthouse many winters during its manned years, and even today the Coast Guard still removes massive ice buildup to get maintenance crews into the tower each winter and spring. Farther from shore than any other lighthouse in America, Stannard Rock has been





Top of Page: Stannard Rock Lighthouse is located in the center of this map about 40 miles southeast of the tip of the Keweenaw Peninsula.

Lower Photo: The U.S. Lighthouse Tender AMARANTH. This ungainly single screw steel steamer is typical of many Lake tenders which were often called "steam barges." Constructed in 1892 she was 166 feet long with a beam of 28 feet and a 14 foot draft. Her steam engine was rated at 672 horsepower. Home ported out of Detroit, Michigan, the AMARANTH typically logged 7,000 miles a year between the Spring thaw and Winter freeze. Her complement was 6 officers and a crew of 20. The triangular flag on the foremast was flown on all Lighthouse Service tenders and lightships. The aftermast displays a rectangular flag indicating that the District Inspector is aboard and probably engaged in his annual inspection of lighthouses along the ship's route.

(Official U.S. Coast Guard photograph.)

called "the loneliest place in the world." No land lies within sight of it—Manitou Island is 23 miles away and the northern reaches of Keweenaw Peninsula lie 30 miles distant—and the station suffers the full force of Lake Superior's worst tantrums. During its manned years it was referred to as "the rock," as men were often marooned on it for long periods.

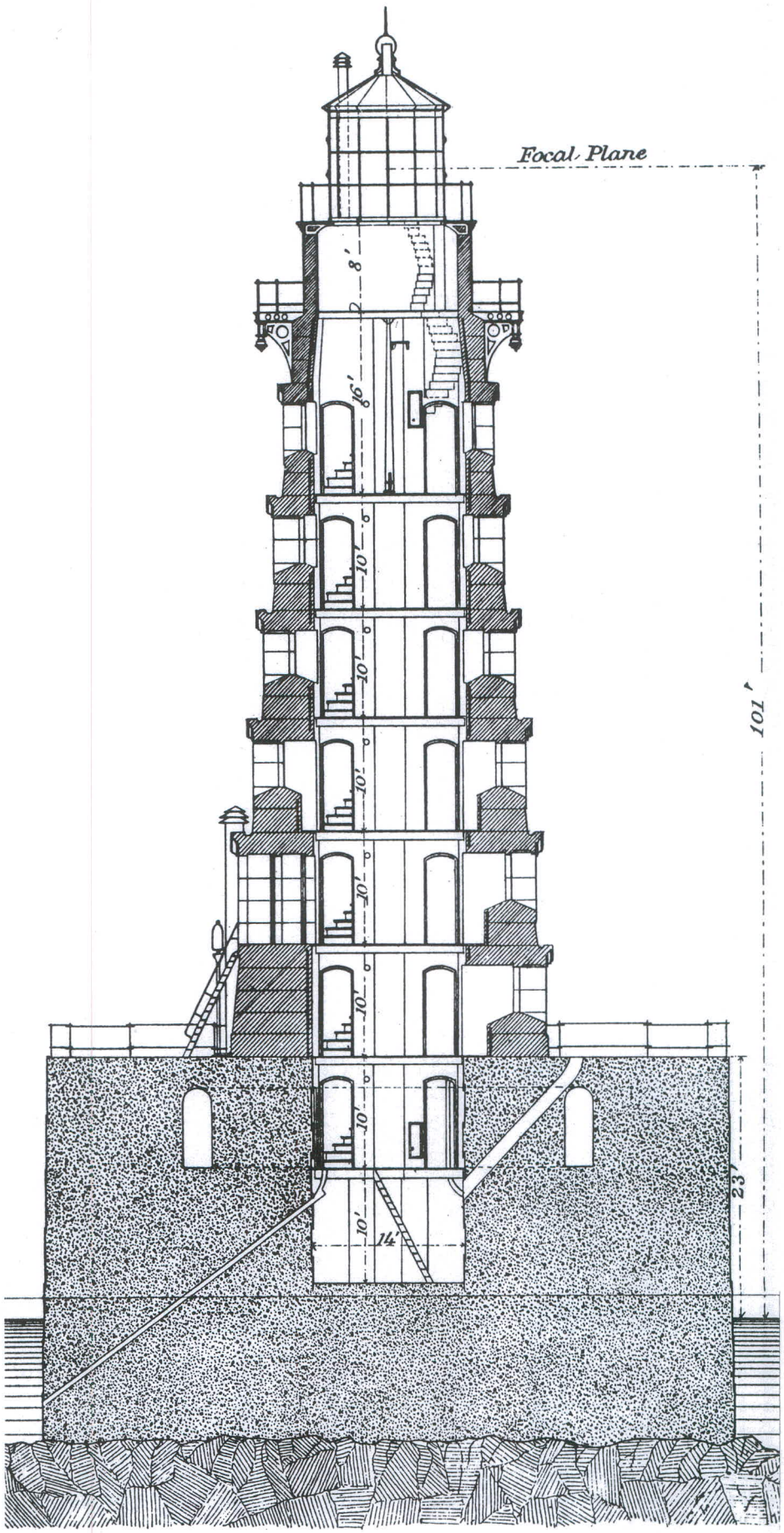
The narrow, 1800-foot-long reef the lighthouse marks is named for Captain Charles Stannard who discovered it in August 1835 while taking a fur-trade schooner on its maiden voyage through the lakes. Most of the reef lies covertly submerged, but at its southern extremity a hunk of defiant rock juts 3 feet above the surface. Stannard Rock was long regarded as the worst hazard in Lake Superior. With increasing travel between Duluth and the lower lakes in the mid-1800s, the need for a substantial navigational aid on the reef became paramount.

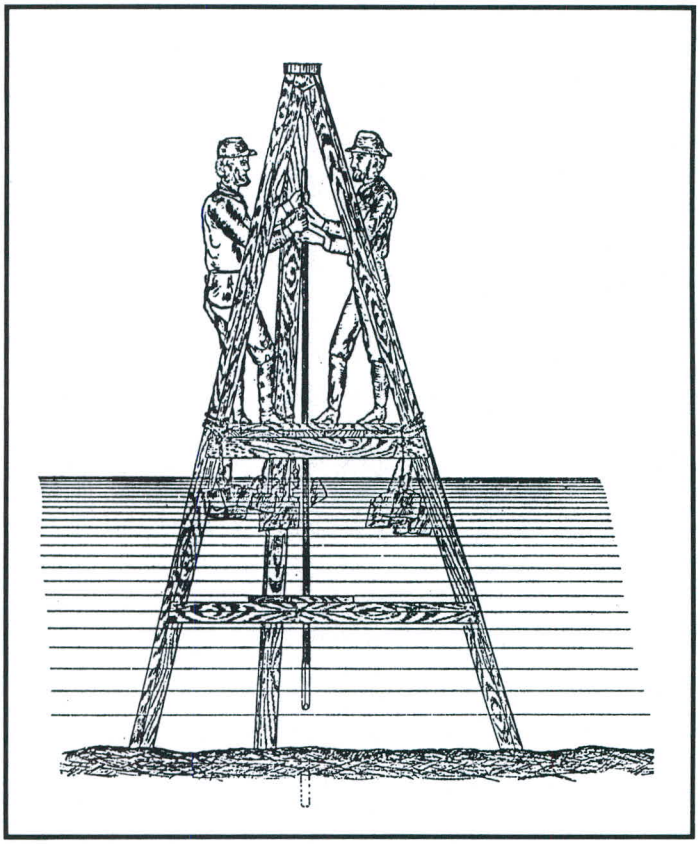
In October 1866 Eleventh Lighthouse District Engineer, W.F. Raynolds, recommended a daybeacon be placed on Stannard Rock.

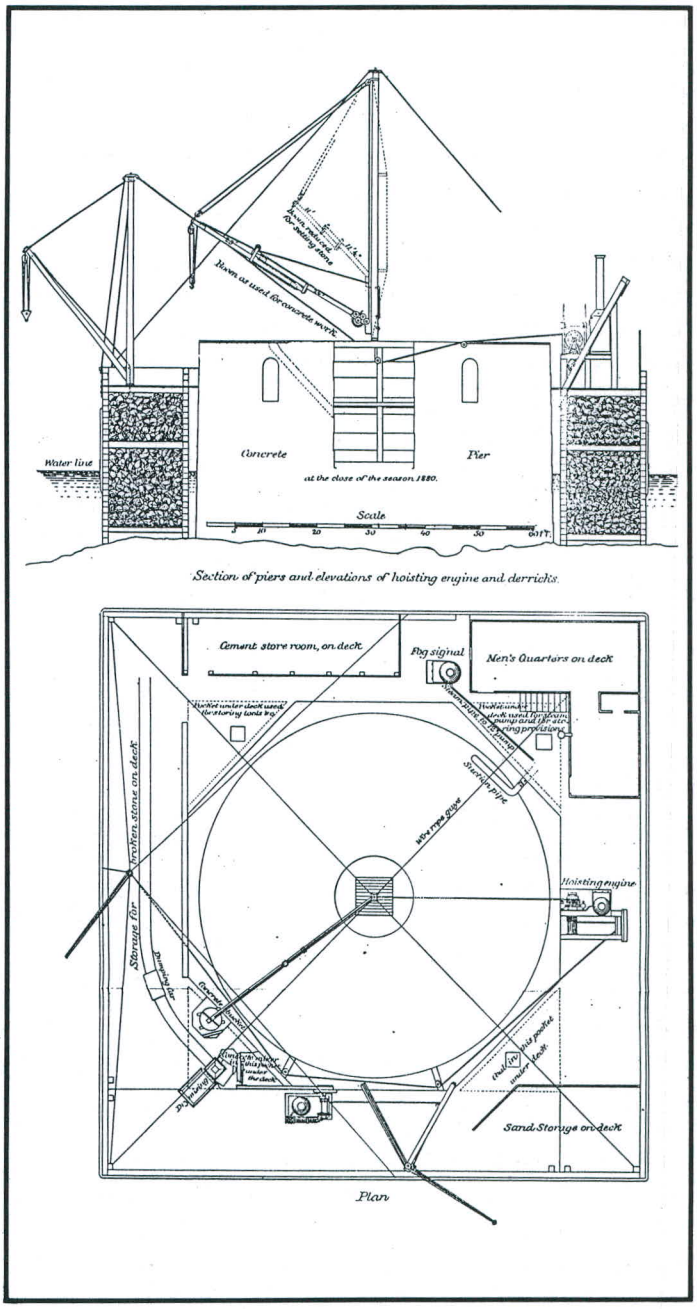
"The increasing commerce of Lake Superior will at no distant day demand that it should be marked by a lighthouse," said Raynolds. "As a preliminary aid to this end...I recommend that it be marked by a daybeacon to be formed of a single, wrought-iron shaft, not less than one foot in diameter, surmounted by a cage that would be visible not less than five or six miles."

The Lighthouse Service concurred, calling Stannard Rock "...the most serious danger to navigation in Lake Superior." Congress appropriated $10,000 for the recommended daybeacon the following year, and Raynolds oversaw its construction.

Meanwhile, Eleventh District engineers focused their energies on the construction of a lighthouse at Spectacle Reef, another remote, wave-swept peril near the Straits of Mackinac that very much resembled



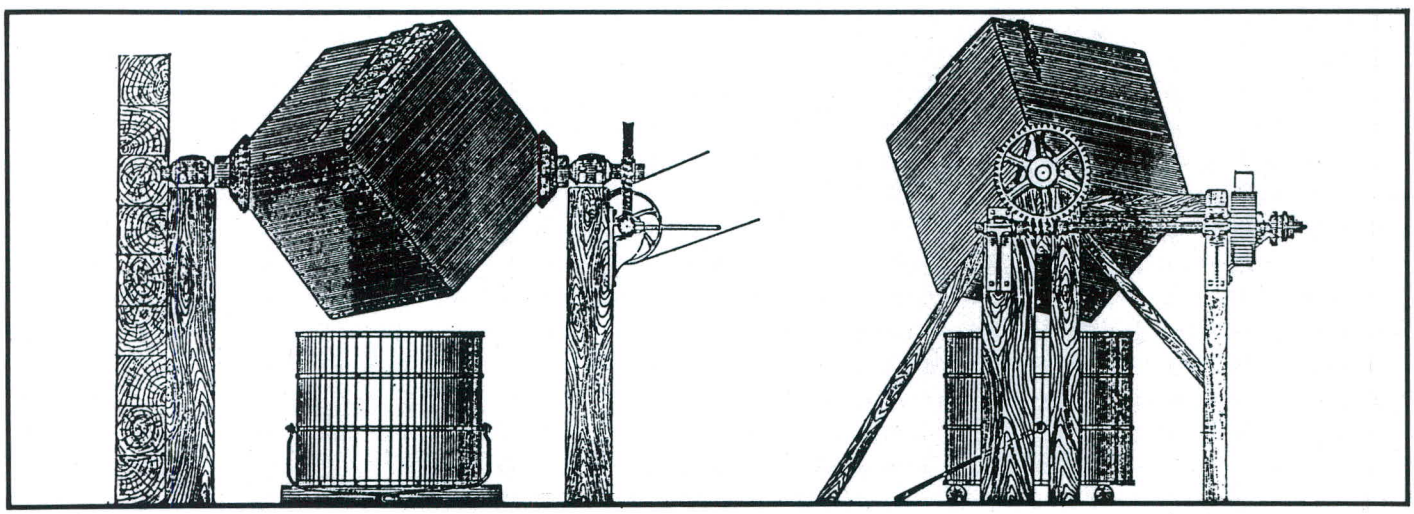




Above: An engineering drawing showing the laborious method of drilling holes for range posts and ring bolts.

Right: Two elevations of the concrete pier surrounded by the temporary wooden crib which is filled with stone ballast. The top of the temporary crib was decked over with heavy planks. Under each corner of the crib (bird's eye elevation) was a triangular pocket. The upper left pocket was for tool storage. The upper right housed the steam pump and crew provisions. Cement was mixed in the lower left pocket and coal stored in the lower right space. On top of the deck were two buildings, one for dry cement storage and one for the crew.

Below: Col. J.C. Duane's concrete mixer which was employed at Stannard Rock. The diameter of the mixing chamber is 7 feet.



Stannard Rock. The successful completion of Spectacle Reef Lighthouse, utilizing new offshore construction techniques, buoyed hope for a lighthouse at Stannard Rock.

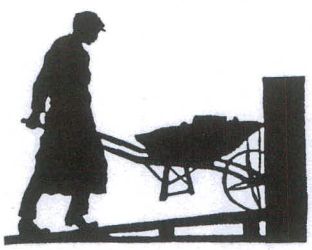
"The case will be similar to that of Spectacle Reef," wrote Raynolds' successor, O.M. Poe, "and all the costly apparatus and machinery purchased for the latter (Spectacle Reef) can be made available for the former (Stannard Rock), thereby greatly reducing the cost of construction."

An appropriation of $10,000 was made in 1873 to survey Stannard Rock for a suitable site for the lighthouse. General G. Weitzel of the Army Corps of Engineers selected a site on the south side of the reef that could easily be approached from three directions. Here, the reef was submerged at depths of eight to fourteen feet. Weitzel accurately estimated the lighthouse would cost $300,000 (the final figure would be $306,000) and made the necessary arrangements to purchase the site from the State of Michigan. However, bureaucratic wheels turned slowly and it was not until 1877 that construction of the tower and pier actually began.

The equipment used to build Spectacle Reef was moved to Huron Bay where a depot was set up for the project. Though 51 miles from Stannard Rock, Huron Bay was the best location for a work center because its harbor afforded adequate space to build the large, protective crib necessary for the tower pier. It was decided that the crib should be prefabricated at Huron Bay in four watertight sections to facilitate easier transport to Stannard Rock. The timber framing of the crib was completed and towed to the site in August 1878 by the tug *DUDLEY* and the steamers *WARRINGTON* and *IRA CHAFFEE.* By October, when work halted for the winter, the crib had been positioned on and securely bolted to its submarine foundation. Three of the five required courses of iron sheathing for the permanent pier had also been fitted.

During the work season of 1880 the permanent pier was completed and made ready to receive the tower. The pier measured 64 feet in diameter and was cased in ½-inch-thick wrought-iron plates to protect it from grinding ice. It contained 7246 tons of filler and rose 35 feet from the bedrock to its face 23 feet above the lake. Journalist W.H. Law described the construction of the pier after it had been positioned and pumped dry:

"Great stones weighing from twelve to thirty tons already dressed are let down into grooved beds until the first tier is lain, circular in form and 64 feet across. Workmen get on each and every one of these stones



with diamond drills and make holes through them and 30 inches into the bedrock, large enough for a 1½-inch iron drift bolt, split at one end with an iron wedge in it, and so on until they get 20 feet above the water. Now the tower proper begins in the center of this stonework."

Stone-cutting for the lighthouse was done from the trap dike at Port Huron, and as the pier neared completion, the entire complement of dressed, limestone blocks was made ready for transport to the site. Taken to Stannard Rock aboard steamers, the blocks were carefully hoisted into position and secured. All of the drilling for the pier, tower foundation, and the tower itself was accomplished by manual labor, as no power drills existed at the time.

The thickness of the tower walls measured 7½ feet at the base and 22 inches at the parapet. The inside diameter of each of the courses was 14 feet—all round rooms in which square tables and chairs seemed out of place. An enclosed, cast-iron stairway spiraled seven flights to the lantern room. The tower's ten double windows were designed to keep out the water, though they failed to do so on several occasions.

By the close of 1881 the tower had been completed through its 33rd course and workers had pointed the stonework and laid the brick lining. The iron work of the lantern was completed in the spring of 1882 and the illuminating apparatus was installed in time to light the tower for the first time on July 4, 1882. Inside the lantern, light from a small acetylene gas lamp twisted through the 204 opulent prisms of Stannard Rock's second-order Fresnel lens, manufactured in Paris by Henry LaPaute. The white flashing characteristic pierced the darkness every 30 seconds and was visible for 18 miles.

Ice and rough weather were responsible for several delays during construction of the lighthouse. Workmen spent much time removing ice from the site each spring before resumption of work and repairing winter damage. Heavy weather prevented work at the site 61% of the 1878-1879 season. During this period, workmen were quartered on vessels and rode out the storms afloat. Once the protective pier was completed, a barracks was built on it to house the men, but bad weather often caused waves to wash over the pier and prevented both work and habitation of the barracks.

Keepers found Stannard Rock duty to be monotonous and lonely and too frequently punctuated by bouts of severe weather. During the early years of its career, keepers often rowed the dangerous, 5½-hour stretch of water to Marquette, and finding solid earth beneath their feet more pleasant than a concrete pier, many refused to return to the isolated station.

Journalist W.H. Law described the spartan lifestyle of Stannard Rock when he visited the lighthouse in 1907:

"The men are not encumbered with any unnecessary furniture. What they have in chairs and small tables and lockers are very simple, in keeping with their limited space."

Living quarters in the tower were located on the third and fourth floors, but Law was told that "the rooms are now becoming smaller because of the contraction of the walls." Bunk beds allowed a crew of four to occupy the station, with a fifth keeper rotated ashore for leave. Although the quarters were small, they were not cramped, and architects had not neglected to provide for closet space. Each floor had one storage closet situated between the chimneys under the curve of the stairs.

A common complaint of all Stannard Rock lightkeepers was the dampness of the station. Constantly pummeled by the frigid, lake waters, it was nearly impossible to keep the interior of the tower dry. Bedding and clothes mildewed easily, and each spring when the keepers returned to the lighthouse they had to sleep on bare bunks for about a week until mattresses dried out. The lighthouse, perhaps in keeping with its "prison-like" reputation, had the characteristic smell of a dungeon.

Prior to World War II, the 2-ton lens was powered by a clockwork system having a 70-pound weight suspended in a pipe inside the wall of the tower and falling to a depth of 62 feet. Ralph Tinkham, Lighthouse Service Inspector to the station in 1909, noted that the lens was protected during the day by "twelve roller curtains raised and lowered by cords," and it revolved by means of eight brass chariot wheels. In addition the keepers had to maintain the fog signal—two 10-inch, monotone steam whistles located on opposite sides of the tower. The majority of the work here involved removal of ice and tending the cantankerous boilers each of which required nearly an hour to start and frequently refused to work. Lighthouse Service reports to Congress between 1886 and 1907 list many repairs to the fog signal apparatus, and it was eventually moved into its own building on the pier.

Besides the annual seige with ice, there were other perils at Stannard Rock. On November 6, 1922 a flock of ducks collided with the lantern in the early hours before dawn. Two of the upper lantern panes were completely shattered. Flying glass chipped some of the prisms of the lens and broke the mantle on the vapor lamp. Smaller birds frequently crashed into the lantern without damaging results (at least not to the tower), however a goose once hit the ¼-inch, exterior plate glass with such force that its body penetrated the lantern and broke one of the bullseyes of the lens.

When lightkeepers returned to Stannard Rock in 1922 to resume their duties during the shipping season, they discovered the entire wrought-iron sheathing around the pier had been torn away. The ½-inch plate casing had been put in place as a form for the concrete and a protectant from ice. An investigation concluded that heavy, overhanging ice, which had formed early in the winter, severely stressed the sheathing, and it ruptured during a storm.

The Lighthouse Tender *ASPEN* undertook the task of installing a new casing around the pier, adding 3 feet of additional concrete between the original pier edge and the new sheathing. This would serve as a reinforcement belt. The entire incident served to confirm previously held opinions that Stannard Rock receives the worse punishment of any Great Lakes lighthouse.

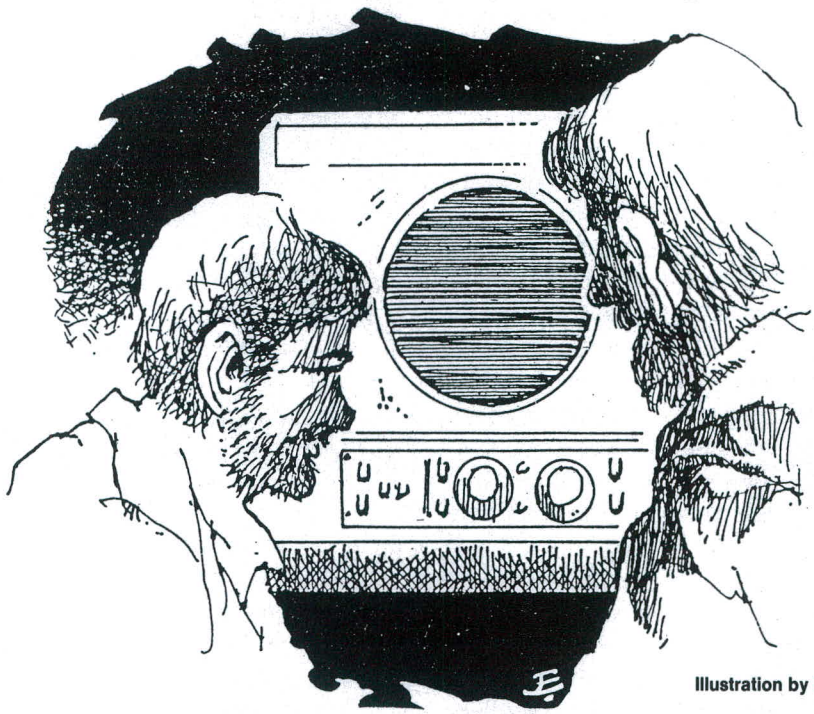


Illustration by D. Ellefson

The isolated duty of Stannard Rock keepers was eased somewhat by the installation of a radiotelephone in the 1920s. Stannard Rock was linked with Marquette Lighthouse, 45 miles away, and while the two stations corresponded on official business and matters of emergency, Marquette keepers showed touching concern for their colleagues on the remote rock.

"I frequently read important items from the morning papers to the Stannard Rock keepers," said one Marquette lightkeeper.

For men who were sometimes marooned on "the rock" for months at a time, even the want-ads were entertaining, and a voice from the outside

was the only link with sanity.

In later years after the Coast Guard assumed responsibility for Stannard Rock Lighthouse, its keepers were given one week's leave a month...if weather permitted the tender to pick them up. Keeper Louis Wilks, who did twenty years of service at Stannard Rock, was once detained at the lighthouse without leave for ninety-nine consecutive days. Less frequently, and less to their disappointment, keepers were detained ashore. In 1936 the keepers were unable to return to the lighthouse until June 27th because a late May storm had totally encased the tower in ice.

Several keepers fell from the 22-foot-high pier. A Coast Guard keeper plunged into the cold lake by accident one night and was unable to reach the nearest crib ladder because of the swift current around the pier. Realizing it was futile to call for help—the din of the station motors would drown out his voice—he allowed the current to push him around the crib where its force was weaker. There he was able to overcome the current and swim to one of the ladders.

During storms the 240,000-ton station sometimes shudders, but usually absorbs the shocks well. Keepers have reported furniture moved about and cans toppled from shelves when waves hit the tower. Occasionally, the crib deck is entirely awash, and the lake seems to crawl up the side of the lighthouse and spit spray over the dome. One November storm took out one of the double windows on the north side of the tower, 34 feet above water.

The lighthouse was not converted to electricity until after World War II, though most major United States lighthouses were electrified in the 1930s. Stannard Rock's keepers were only too happy to be rid of the hazardous kerosene lamps and stoves. The station had operated over sixty years using flammable illuminants, both in the lantern and living quarters. Yet only a few years after electrification, the station's first and only fire gutted the tower.

On the night of June 6, 1961 about 1000 gallons of propane and gasoline inexplicably exploded into flames. The buildings on the pier were completely destroyed and the interior of the tower was severely damaged. One of the four keepers who was standing near the power plant at the



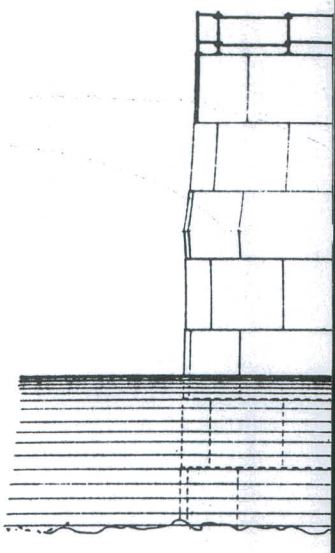
Illustration by D. Ellefson

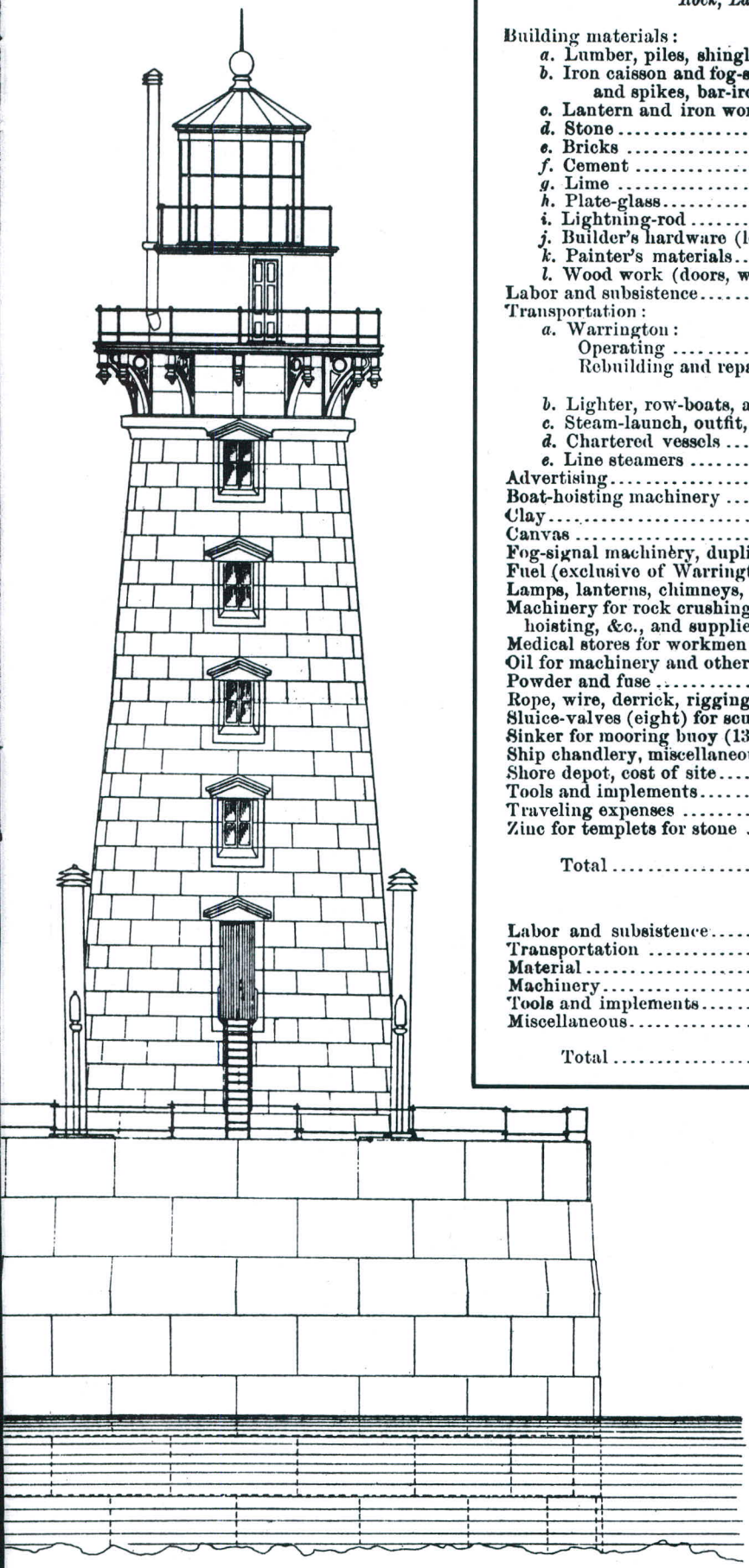
time of the explosion was killed and another keeper was seriously injured. With radio communications out, the three survivors had no means of obtaining assistance. Huddled together on the edge of the cold pier in only their summer uniforms, they waited two days for help. When the tender *WOODRUSH* received reports from passing vessels that Stannard Rock's beacon was dark, she rushed to investigate.

Ironically, the Coast Guard had seriously considered automating the station that same year, despite objections from shipping concerns. Only two years before, a reporter visiting the lighthouse had summed up the opnion of many people:

"It is not feasible to convert the Stannard Rock station to an automatic light, as has been done with so many other lights on the Great Lakes. Because of its distance from land, the light could be checked from the mainland only on exceptionally clear nights. Furthermore, if repair work were needed, it would be difficult to quickly service an automatic light in good weather and impossible in rough weather."

The near destruction of the station and the loss of one keeper in 1961 convinced Coast Guard officials that Stannard Rock Lighthouse was too remote and dangerous for resident personnel. Fire damage was repaired, automatic machinery installed, and the beacon downgraded to 6000-candlepower. For eighty years Stannard Rock had been a stag station—too cruel and sequestered from society for women and children. Now it is recognized as too harsh for men as well. Its white signal continues, but without the formidable reputation of its attended years.





Statement of expenses incurred in the construction of the new light-station on Stannard's Rock, Lake Superior, Michigan, to July 1, 1882.

Building materials:		
a. Lumber, piles, shingles, and lath		$13,050 29
b. Iron caisson and fog-signal houses, bolts, nuts, and washers, nails and spikes, bar-iron and steel, &c		13,362 89
c. Lantern and iron work of tower		12,091 00
d. Stone		22,342 36
e. Bricks		359 30
f. Cement		20,036 56
g. Lime		57 15
h. Plate-glass		276 53
i. Lightning-rod		104 43
j. Builder's hardware (locks, bolts, &c.)		289 42
k. Painter's materials		413 64
l. Wood work (doors, windows, &c.)		202 16
Labor and subsistence		89,934 35
Transportation:		
a. Warrington:		
Operating	$39,028 72	
Rebuilding and repairs	25,866 17	
		64,894 89
b. Lighter, row-boats, and outfit for same		4,061 45
c. Steam-launch, outfit, and repairs		967 81
d. Chartered vessels		14,379 00
e. Line steamers		3,787 94
Advertising		26 75
Boat-hoisting machinery		1,716 90
Clay		40 00
Canvas		266 84
Fog-signal machinery, duplicate		2,315 80
Fuel (exclusive of Warrington's)		6,529 86
Lamps, lanterns, chimneys, wicks, &c		111 20
Machinery for rock crushing, concrete mixing, planing timber, pumping, hoisting, &c., and supplies for and repairs to same		6,118 17
Medical stores for workmen		99 60
Oil for machinery and other purposes		248 09
Powder and fuse		126 70
Rope, wire, derrick, rigging, and blocks		1,611 60
Sluice-valves (eight) for scuttling pier		200 00
Sinker for mooring buoy (13,909 pounds)		327 30
Ship chandlery, miscellaneous articles of		429 21
Shore depot, cost of site		519 00
Tools and implements		2,522 91
Traveling expenses		749 68
Zinc for templets for stone		207 60
Total		284,777 38

RECAPITULATION.

Labor and subsistence	$89,934 35
Transportation	88,091 09
Material	85,002 13
Machinery	6,118 17
Tools and implements	4,869 41
Miscellaneous	10,762 23
Total	284,777 38