

Sable Point Lighthouses



Big Sable Point Lighthouse

Big Sable Point Lighthouse is located nine miles north of Ludington in Ludington State Park. It is a 1.8 mile walk to the lighthouse from the state park. In 1855 twelve ships wrecked between Big Sable Point and the city of Ludington, and forty-eight lives were lost. Charles Mears, a senator from Ludington, Michigan, began to ask Congress for money to build a lighthouse at Big Sable Point so ships on Lake Michigan could navigate around the point as they traveled. Finally, on July 28, 1866, Congress budgeted \$35,000 to build a lighthouse at Big Sable Point. The 112-foot tower was built with Milwaukee cream brick and had walls that were five feet thick at the base of the tower and two feet thick at the top. A Third Order Fresnel lens was installed in the tower.

It wasn't long after the tower was built that the brick began to crumble. It was decided to install steel cladding or plates around the light tower. The plates were made at the Milwaukee Lighthouse Depot and brought across the lake on lighthouse tenders, or flat boats. When the steel cladding was installed around the brick tower, cement was poured between the bricks and the steel cladding adding to the thickness of the walls.

One of the characteristics of a lighthouse is its visual appearance in the daytime, which is known as its "day-mark." Mariners had complained they could not see the Big Sable Point tower during the daylight hours because the cream-colored brick looked too much like sand. When the steel cladding was installed, it was painted white with a black band. This became the new "day-mark" for Big Sable Point Light.

Electricity was brought out to the light in 1949. The last keeper left Big Sable in 1968, and the lighthouse was closed. Today the light still comes on, but it comes on automatically at dusk and turns off at dawn. The light can be seen for approximately 18 miles out in Lake Michigan. Each lighthouse has a distinctive light characteristic called its "signature." The Big Sable Point light is white, and it does not flash.



Ludington North Breakwater Light

The Ludington North Breakwater Light stands out on a pier in Lake Michigan. It was built in 1870 on the south pier as a simple white painted timber-framed pyramid structure standing 25 feet high. The upper section was enclosed to serve as a service room and a shelter for the keeper. Above the service room, an octagonal cast iron lantern was centered on a square gallery with iron handrails and outfitted with a Fifth Order Fresnel Lens with a fixed red beam. An elevated timber walk led from the shore to a door in the rear of the service room, allowing the keeper to walk out to the light, high above the crashing waves of Lake Michigan.

During the winter of 1876 the structure was destroyed in a December storm. The following spring a new replacement light was built. The larger replacement light stood 29 feet tall and featured two rooms above its open timber framework.

In 1923 Congress put money in the budget for a new breakwater lighthouse and fog signal. Before the construction began, plans were changed and the light was built on the north breakwater. Over the summer of 1924 a unique structure took shape at the end of the north breakwater pier. The main tower was made of steel plates and took the shape of a four sided pyramidal tower with four round porthole windows on each of three decks. The white painted tower was capped with a square gallery and an octagonal iron lantern installed at its center. A new Fourth Order lens was installed. The entire section below the gallery was given a white coat of paint and the lantern painted black giving the light its day-mark. The north breakwater light's signature is flashing green. Since light towers must show a contrast to the light's background, this flashing green helps mariners locate it against the city lights of Ludington.

In 1994 renovations and reconfiguration of the concrete breakwater pier took place, the 1924 tower suddenly settled, and the tower shifted to an approximate four degree list to the northeast. The Army Corp of Engineers made the decision not to straighten the light tower because it was still stable and it would be too expensive.



Little Sable Point Lighthouse

Little Sable Point Lighthouse is located south of Silver Lake in Silver Lake State Park near Mears. The light was built in 1873 and opened for business in 1874. The first keeper, James Davenport, was joined by an assistant keeper, J. Larky, in April of 1874. A one and a half story house was built behind the tower. The first floor of the dwelling was a living room, kitchen, bedroom and an oil storage room where the fuel for the lamp was stored. The second floor had bedrooms for the keeper and his family.

In 1889, a barn was added to the station, and in 1892 a circular 360 gallon oil storage tank was installed to keep the oil for the light out of the keeper's house.

The original tower was constructed of red brick. Not long after it was finished, mariners began complaining that they could not see the light tower from Lake Michigan during the daylight hours. The red-colored brick looked too much like the background forest. On September 24, 1900, the tower was painted white.

From then on, keepers assigned to work at the light had to paint the tower each year. Like Big Sable Point's tower, the walls at the base of the tower are five feet thick, tapering to two feet at the top. The lens in Little Sable is a Third Order Fresnel Lens.

Electricity was brought to the light in 1954, and the kerosene lamp was replaced with a 250-watt electrical lamp inside the Fresnel Lens. In 1955 the Coast Guard demolished all the buildings except the tower. In 1977 the tower was sand blasted back to its original red brick color, its present day-mark. The light in the Little Sable Point tower flashes white, its signature.



White River Light Station

The White River Light Station sits on a channel that goes from Lake Michigan to White Lake. Lumber mills used to surround this area of Michigan, and the first sawmill was built on the shores of White Lake in 1838 by Charles Mears. Some of the lumber from this area was used for construction in the area, but a majority ended up being shipped to the growing cities of Chicago and Milwaukee. This brought a number of ships into White Lake from Lake Michigan to load up with lumber. Since there were many ship wrecks in the area, in 1853 the Michigan Legislature asked Congress to build a lighthouse at the entrance of White Lake.

In 1866 Congress put money in the budget to build a new channel between White Lake and Lake Michigan and a lighthouse at the harbor entry. It took four years to complete the channel and to build the lighthouse. The light was a square white pyramidal tower made from wood and stood 27 feet in height. The iron lantern room was outfitted with a Fifth Order Fresnel Lens. It was a fixed red light and could be seen for eleven and a half miles out into Lake Michigan.

William Robinson became the first keeper in 1872. The lighthouse board asked for more money to build a keeper's house on shore near the pier head light. There was no response to this request so the following year the Lighthouse Board recommended to Congress that the amount of money be increased to \$15,000 to allow for the construction of a larger shore-based light station.

A new light was completed in 1876. This new light was built with limestone blocks, and the walls were constructed of yellow Michigan brick. The spiral cast iron stairs were made in Muskegon, and the lantern room was manufactured at the Milwaukee lighthouse Depot and brought across Lake Michigan on a lighthouse tender. A Fourth Order Fresnel Lens was installed in the tower in April of 1876, and keeper Robinson turned on the light for the first time on May 31. The light was a fixed white light varied by a one minute flash.

Electricity was brought to the light on the pier in 1917, but the main light and keeper's house were not electrified until 1924. The end came for the pierhead light in 1930, when the pier was completely refaced with concrete, and the wooden tower replaced by a steel structure.

The lighthouse was closed in 1960, and the Fresnel lens was removed and shipped to the Detroit Coast Guard Depot. Fruitland Township bought the light in 1966 and converted it into a museum. The museum opened for the first time in the summer of 1970. In 1972 the Coast Guard returned the Fresnel lens, and it was reinstalled in its original position in the lantern room. Its constant-white light continues to go on automatically, but it is no longer an aid to navigation.

Keepers of the Light

Great Lake lighthouses usually were called a light station and consisted of several buildings; the lighthouse, a combination tower and home for the keepers, an oil house to store the kerosene and a fog signal house. A pier or dock was also built to provide a place for lighthouse tenders, or flat bed boats, to land and deliver supplies to the keepers.

The daily routine of the lighthouse keeper was difficult and demanding. Often it was tedious and boring. The light had to be maintained in a constant state of readiness. The keepers had a manual called, "***Instructions to Light Keepers.***" In this manual it said the main responsibility of the keeper was to keep the lamp burning from sunset to sunrise. In addition they had to clean and polish the lens, check and fill the oil lamp, dust the framework of the light and trim the wicks. If the light had an assistant keeper it was his job to clean the brass and copper fixtures of the light lens and all the tools in the lantern room as well as the walls, floors and balconies. He was to sweep the tower stairs, landings, doors, windows, recesses and passages from the lantern room to the oil room.

In the early years two people were needed to maintain the light. The keeper and his assistant each usually worked a twelve hour shift, noon to midnight or midnight to noon. The assistant keeper usually had to check the light at night to make sure the wick had not gone out. If it did, he had to climb the steps to the tower top and go into the lantern room and re-light the wicks. The job got him the nickname of "wickie."

Lights on the Great Lakes were often closed in December when the lakes would freeze over making shipping impossible and then reopen in mid-March or later, depending on the opening and closing of the shipping season on the Great Lakes.

The children of lighthouse keepers often could not go into town to school so they were taught at home. The lighthouse tender would drop off a box of books for the keeper and his family when they delivered supplies, and those books were used to teach the children the basics.

Lighthouse keepers and their families usually had a garden in the summer months and grew vegetables. They also had chickens and would gather the eggs and take them to town to sell at the market. Guy Blake, a keeper at Big Sable Point Lighthouse from 1901 until 1905 kept a journal and he would record the number of eggs his chickens laid each day in his journal. He also talked about riding his bike into town for supplies. The nine mile trip would take him all day.

Lighthouse keepers were “appointed” to the job in early years. It often was a political appointment and considered a “good job.” Alonzo Hyde and his son Alonzo W. Hyde were the first keeper and assistant at Big Sable Point Lighthouse (1867-1869) and were appointed upon the recommendation of Senator Thomas White Ferry of Grand Haven, who was a friend of Alonzo Hyde.

If a lighthouse keeper died while working at the light it was very common for his wife or an older son to take over his job and maintain the light. Michigan had more women keepers at its lights than any other state in the nation with 27 head keepers and 25 assistant keepers.

The Legend of the Loggers Dollar

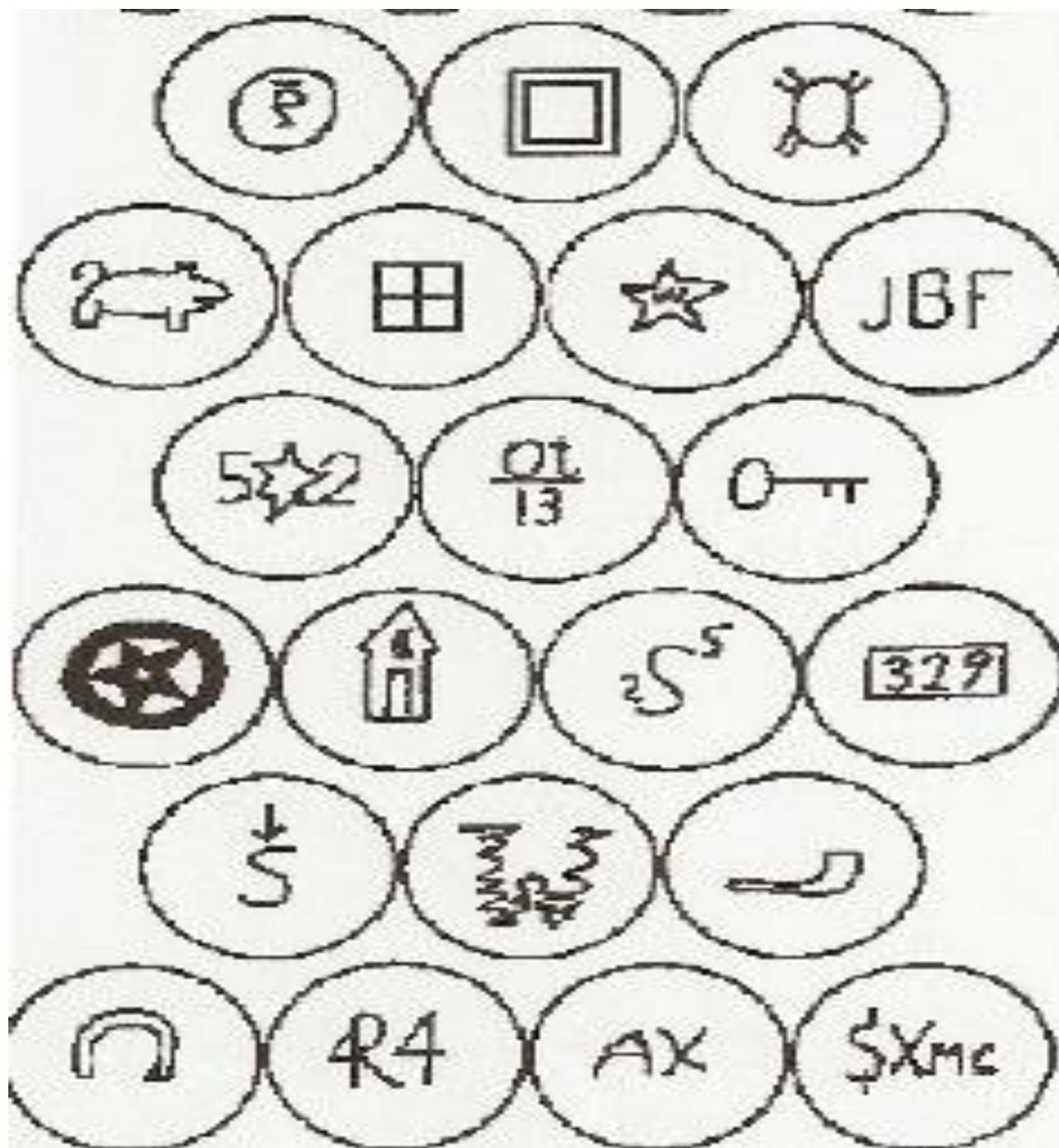
Lumbering was a big business in Michigan between 1840 and 1900. By 1869 Michigan was producing more lumber than any other state. Rivers that could carry logs were quickly transformed into a valuable means of transportation for logs traveling to the sawmill.

Loggers in Michigan could work in swampy land among the trees in the forests. When the ground was frozen they would pile logs on the banks of rivers to wait for the spring thaw. When the rivers were filled with water from the melting snows, they would float their logs to the sawmill. The logs of many lumber companies floated together to the sawmill.

Owners used a heavy marking hammer to mark each end of their logs with a special design, or a log mark. The log mark let everyone know who owned the log. The log mark was first used near Muskegon in 1842. Each owner registered his mark with the county government. Log piracy was one of the earliest types of “industrial” crime in Michigan.

The legend of the logger’s dollar is a story about men that were logging in Mason County, Michigan near the Hamlin Sawmill. The men would cut their logs and stack them on the bank of the Sable River to send to the Hamlin Sawmill. There was a bend in the river and once the logs floated around the bend in the river they could not be seen by the loggers. Log pirates would wait on the river bank beyond the bend in the Sable River and pull out the logs. They would cut off the log ends and remark the logs with their own marks and put them back into the river to send them to the sawmill. At the end of the day the log pirates would go to the sawmill to collect the money for the logs with their mark on it even though they did not cut the logs.

On the next page are some of the marks loggers used to mark their logs.



Fresnel Lenses

The lights used to keep a lighthouse tower lit have evolved over the years as technology has developed and improved the ability to project light great distances. Early lights were lit with a coal fire; other sources of light were candles, oil from sperm whales and lard oil. In 1874 the Argand Lamp was developed which used hollow wicks and was considered a big improvement. The lamp was used with a large reflector which produced as much light as seven candles.

Augustin Jean Fresnel, a French scientist, developed the Fresnel lens in 1823. His lens was used in Europe and eventually came to the United States. The Fresnel lens was adopted for lighthouse use in the United States and is still used today in many lighthouses. The lens produces a bright beam by concentrating and magnifying the light which can be seen over a great distance. The lenses look like a giant beehive or clamshell, and are really an assembly of lenses and prisms so that they magnify and project a strong beam over a long distance.

Fresnel lenses are classified into seven sizes or “orders” relating to the power. The first order lens is the most powerful and would be found in a light on the ocean. A third, fourth, fifth or sixth order lens would be found in the lighthouses on the Great Lakes.

Around 1880 the incandescent or vapor lamp was developed. The fuel (kerosene) was forced into a chamber and vaporized by striking the pre-heated walls of the chamber. The vapor entered a mantle where it burned forming a flowing gas ball, very similar to a modern Coleman lantern.

Around 1900 electricity was being tested for lighthouses and gradually replaced the oil lamps.

The Fresnel lens is still used today but instead of using glass prisms, lenses are molded of clear plastic.

Modern lens and light combinations are called lanterns. They are available in various sizes and from several manufacturers. All have devices to move a new light bulb into position (called lamp changers) when the one in use burns out. They can rotate the light within the plastic lens as well as electronically provide on/off periods as required.

Lighthouse keepers are no longer needed to keep the light burning in today's lighthouses. The lights are automated and come on at dusk and go off at dawn.