

# White River Light Station

By Thomas A. Tag



White River Lighthouse in 1995. Photograph courtesy of Thomas Tag.



he western edge of the state of Michigan was a lush, densely wooded area in the early 1800s. The land was covered by a massive forest of pine and hemlock, and lesser numbers of hardwood trees such as maple and

oak. In 1838, Charles Mears built the first sawmill on White Lake, approximately six miles east of the old White Lake Channel to Lake Michigan. This mill used water power to cut logs into high grade pine planking. Charles built several mills in the area in the following years, some of which also produced wooden shingles.

In 1849, the Reverend William Ferry and his son, Thomas, first purchased land around Stony Creek. They then began the construction of a timber dam on Stony Creek with a water-powered sawmill located approximately ten miles north of White Lake. They also purchased land at several points on, or near, White Lake, and built a

small steam lumber mill at the mouth of the old channel from White Lake into Lake Michigan. Lumbering camps were set up and the thick forests began to succumb to the onslaught of the lumberjacks.

Local officials began requesting a lighthouse at the entrance to White Lake in the early 1850s and the Michigan Legislature officially requested a lighthouse at this location on January 19, 1853. Charles Mears, the mill owner, and Giles and Elliott Slocum, local land owners and merchants, began urging the government to build a new channel from White Lake into Lake Michigan in the early 1860s, and the U. S. Congress appropriated \$67,000 for the project in 1866. W. F. Nufer built a shingle mill near the town of Whitehall at the east end of White Lake in 1877 and became one of the leading employers in the area until the last major log drive in 1903.

Some finished lumber was used for construction in the local area, but the major users of the finished planks and shingles

were from Milwaukee and Chicago. Lumber carrying schooners, and later steam powered bulk carrier ships, began to ply the waters in the White Lake area. The Chicago fire in 1871 brought a major increase in the lumber trade and it was said that a large proportion of the lumber used in re-building Chicago came from the White Lake mills. The *Ellen Ellenwood*, a cargo schooner, worked the area between White Lake and Milwaukee. Railroads did not enter the area until the 1870s, and logging trains did not begin to have a major impact until about 1888.

Logging of the pine forest progressed rapidly, and, by about 1884, most of the pine trees in the White Lake area had been removed. The lumber companies shifted to cutting the hemlock forest, which lasted only 10 to 15 additional years. By the time the hemlocks were gone, the most significant part of the logging era had ended. Only a few lumber companies stayed and they began removing hardwood trees using mostly the railroad and local roads for shipment;



Staples & Covell was the last of the mills to close in 1907. The lake steamers turned to carrying passengers, fruit, and food grains while still relying on the light station at the entrance to White Lake for their protection.

Congress appropriated \$10,000 on July 28, 1866, for "A new lighthouse at the harbor of White River, Muskegon County, in the State of Michigan: Provided that no expenditure shall be made upon the afore-said works at White River, until a careful survey shall have been made, and the character of the structure required shall have been thus determined."

Improvements being made at the harbor delayed any survey of the area for several years. Each yearly report to Congress from 1867 to 1869 stated the survey could not be done until further improvements are completed. Finally, the report from 1870 shows the \$10,000 appropriation "reverted to the treasury under the act of July 12, 1870. An appropriation is recommended, and the amount has been included in the annual estimates of this year."

The recommended appropriation was not granted, however in 1871, \$1,059 was spent to erect a beacon on the South Pier. A local man and former seaman, Captain William Robinson, became the first keeper of the beacon. There was no dwelling provided for Keeper Robinson and a request for \$4,000 to build one was made.

Captain William Robinson was the first keeper of the South Pier-head Beacon and the first keeper of the White River Light Station. He received his official letter of appointment from Commander McCann of the Lighthouse Service, on May 12, 1876 although he had worked as keeper of the South Pier-head Beacon from its installation in 1871.

Keeper Robinson was born in 1832 in Lynemouth, England. His father and grandfather were both ship owners and sea captains in England. When Keeper Robinson was a young man, he ran away to the sea and worked on ships in various capacities for over ten years before coming to Michigan in 1867 with his wife and first six children.

When the South Pier-head Beacon was first built, it housed a 5th Order Fresnel lens and lard oil lamp. It produced a fixed red light that was visible for approximately 11 1/2 miles. The wooden tower was 27-feet high and, with the addition of the pier height, the focal plane of the lens was set at 33-feet above the water. It was a square pyramidal framework with the upper half enclosed. The lantern room was made of metal and painted black, while the wooden tower was painted white. The tower remained white until April 19, 1917, when it changed to red.

Nothing was done about the request for a keepers dwelling, and by the time the 1873 Annual Report was printed, more than just

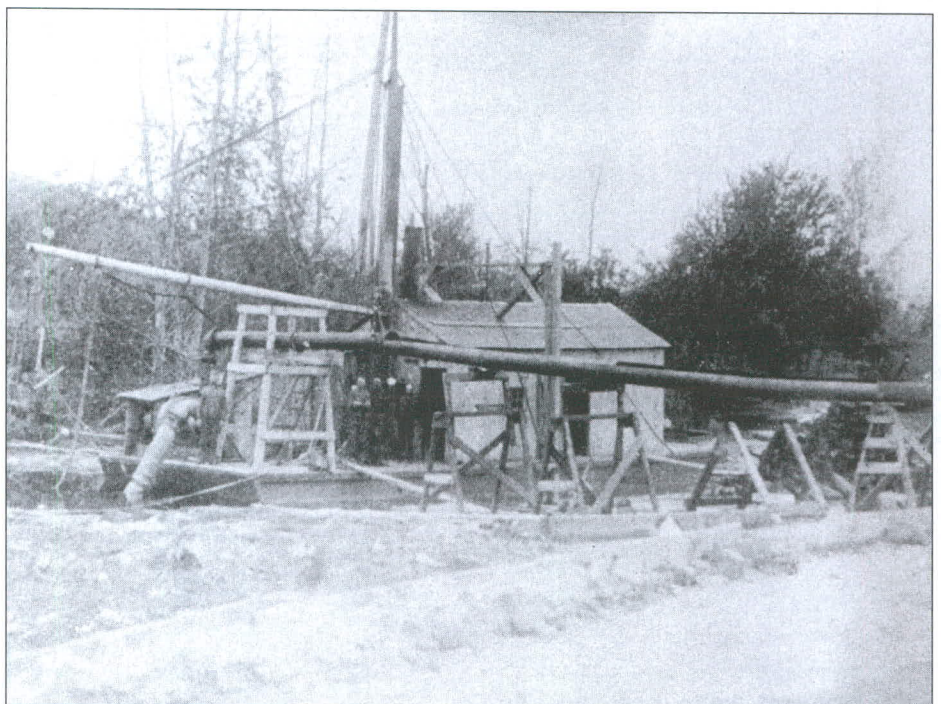
a dwelling was needed:

White River, Michigan, Lake Michigan - This light marks the entrance to the White River, on the banks and near the mouth of which are two thriving places, Whitehall and Montague. Very large interests, especially in lumber, are centered here, and a larger light than the present pier light should be placed here. There is therefore recommended an appropriation for a new station at a cost of \$15,000.

Near the south pier was a small oil storage building that housed small barrels of lard oil known as butts. This building was destroyed on December 4, 1873. Keeper Robinson described the destruction of this building in his log:

Terrible sea wind at 4 o'clock. Sea washing around storeroom on the beach. Got two men to help to remove the oil butts. Saved the government property with a great deal of danger from the driftwood washing around us. At 8 o'clock storeroom was beginning to move and break-up.

The same storm created problems for the crib on which the South Pier-head Beacon stood. The Lighthouse Board reported "An appropriation of \$15,000 having been made for a new tower and keepers dwelling at this station, plans will be prepared and the work taken in hand without unnecessary delay."



Charles Mears lumber mill. Photograph courtesy of Thomas Tag.



Keeper Robinson began to build a new, small, oil store-house near the South Pier-head Beacon in July 1874 to replace the one destroyed six months earlier. This store-house was completed by early August and he moved the oil butts into it. The store-house was only temporary and would be removed when the new dwelling and lighthouse were completed.

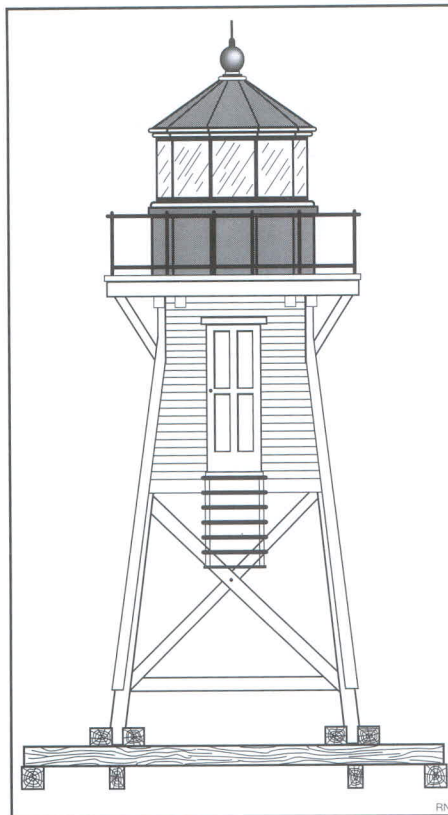
Even as the Keeper worked on the store-house, tragedy was striking his family. Keeper Robinson and his wife, Sarah, had thirteen children altogether, eleven children grew to adulthood, one died as a child, and one died as a baby as shown in the keeper's log entry for July 30, 1874, "Died at the light station, my infant son aged 26 days."

The jurisdiction of the land for the new light station was ceded to the U. S. government by an act of the Michigan Legislature approved on March 24, 1874 and approved by the U. S. Attorney General on October 14, 1875. There were two deeds to the property signed over to the State of Michigan: one from Edward P. Ferry, executor for the will of William M. Ferry, dated September 21, 1874, and one from Charles and Carrie Mears dated March 8, 1875.

One of the first problems to befall the South Pier-head Beacon occurred on July 28, 1875 when the paddle steamer *John-A-Dix* struck the south pier end with her paddle-box. The keeper reported "The force of the blow shook the beacon light severely."

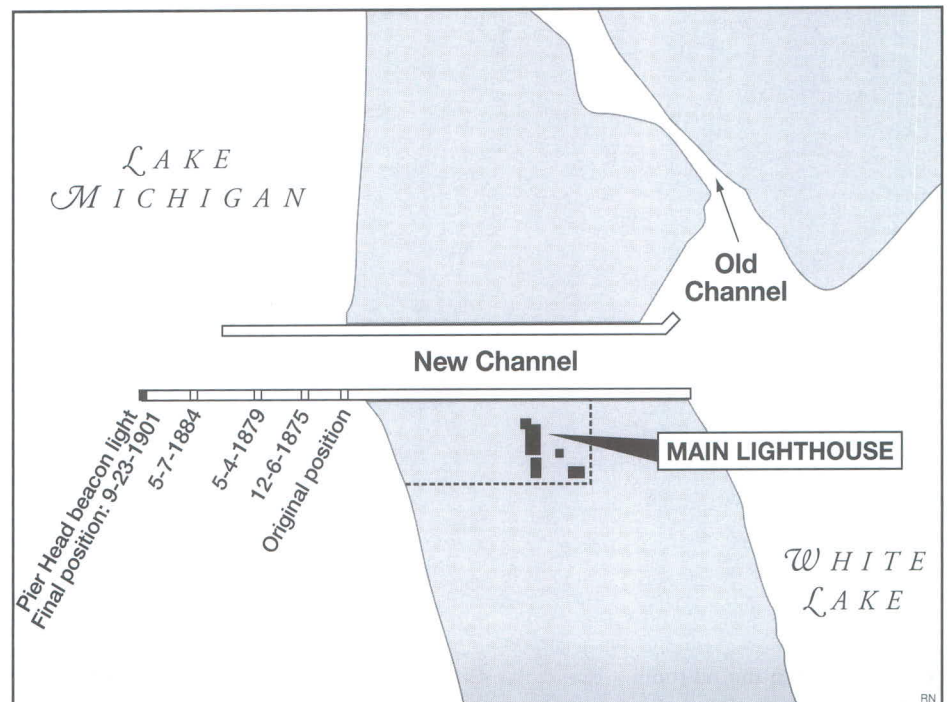
The South Pier-head Beacon was accessed from a double decked walk along the south pier. The walk was originally made of wood and consisted of a walkway on top of the wooden pier with a second, elevated, wooden catwalk above. The catwalk was built to protect the keeper from wave action during storms and to reduce the effect of ice in the winter. However, the catwalk was still not complete protection for the keeper.

The original catwalk construction began in August 1875, when a construction crew was sent by the Lighthouse Service to build new pier cribs to lengthen the South Pier. There were two crews involved, one from the Lighthouse Service and one from a local contractor. On August 25, 1875, the timber frames for the first catwalk were placed. Work continued for the next few months and the catwalk was finished in November 1875. In December 1875, the construction crew completed the final pier-head crib and the South Pier-head Beacon was moved to



Above — A standard design for an unmanned pier-head, or breakwater, beacon. The lantern is for 4th Order or smaller Fresnel lenses.

Below — Locations of the pier-head beacon are shown as the pier was extended over the years. The building indicated below the lighthouse is a storage shed, bottom right a garage, and the small dot is the oil house. Drawings on this page and opposite courtesies of Thomas Tag.

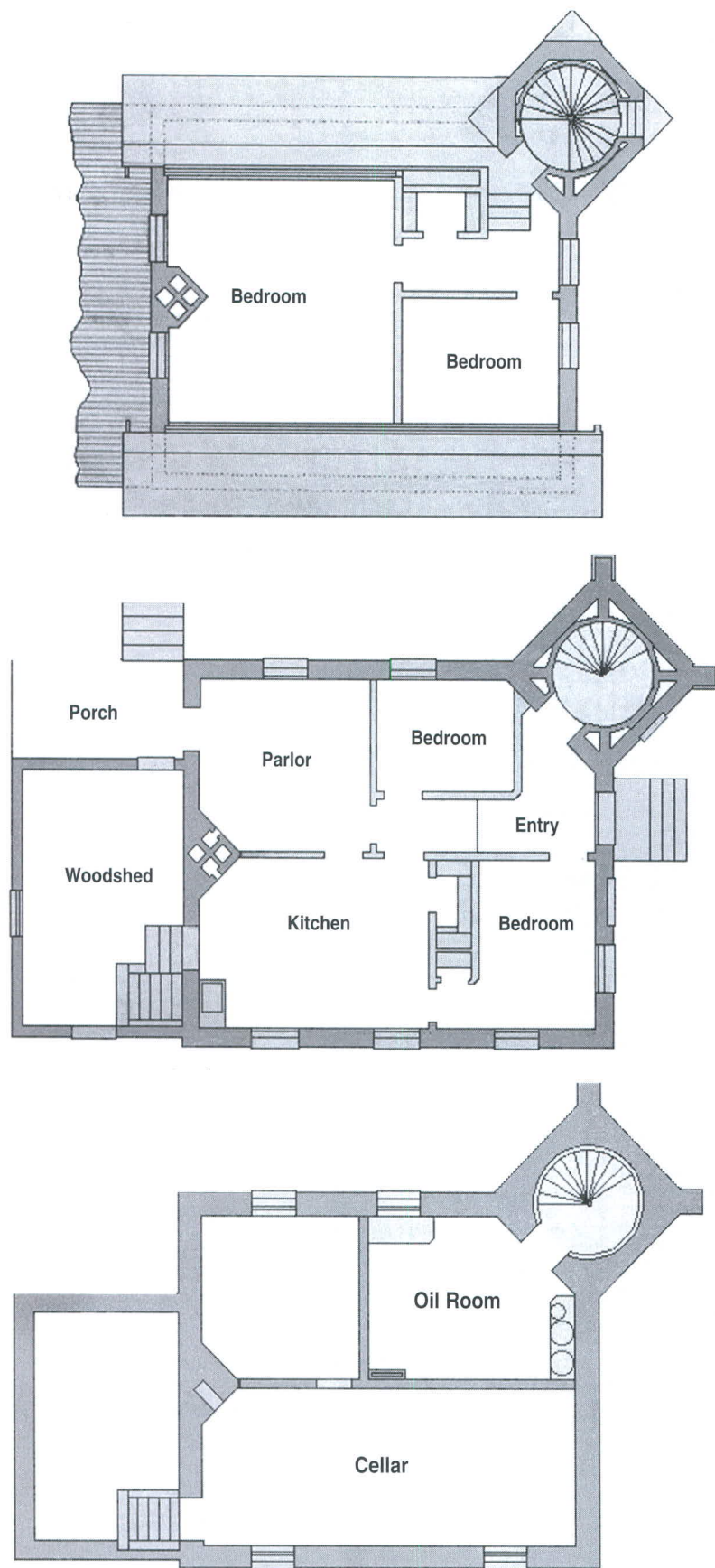


its new position on December 6, 1875.

The area near the proposed light station site was desolate with little access from the land side; the nearest dirt road was more than a mile away. There was a small community located approximately one-half mile north of the light station, across the new White River channel. The lack of land access made it necessary to bring many construction materials, and most workers, in from Lake Michigan and White Lake. While there were a few workers from the nearby area, most were supplied by the Lighthouse Service and Army Corps of Engineers. Most came from Milwaukee, Detroit, and the industrialized areas at the southern tip of Lake Michigan.

Construction of the main lighthouse began at the same time the crew arrived to work on the south pier. Keeper Robinson was instructed to employ five men and commence grading the hilltop for the main lighthouse. Keeper Robinson and his crew completed the grading work in early September, and Mr. Rhodes, the construction foreman, and a Lighthouse Service construction team began building the new lighthouse on September 28, 1875. Keeper Robinson assisted in the construction by doing some of the masonry work himself, and the work progressed rapidly. The new tower's yellow colored bricks and limestone foundation came from various locations in Michigan, and the Lighthouse Service





This floor plan was used in several Great Lakes locations. When lard oil was the illuminant, it was stored in the oil room in the cellar. Once kerosene was introduced, a separate oil house was constructed.

brought in the cast-iron lantern room wall fittings, glass, copper roof, and special parts. The cast-iron steps in the tower were made by the Ryerson company in Muskegon, some 20 miles south of the light station. The work was completed on December 28, 1875 and Mr. Rhodes and his team left the site.

All that remained to be done was installing the Fresnel lens and clockwork machinery. In mid April 1876, Mr. Crump, the Lighthouse Service Lampist, arrived to fit the new lighthouse with a lens and lamp. The work went smoothly and the light was exhibited for the first time on May 13, 1876.

When first installed in 1876, the White River Light Station had a 4th Order Fresnel lens with a brass lamp that burned lard oil. The lens revolved once every two minutes. It sat on chariot wheels on a cast-iron pedestal being powered by a mechanical clockwork. The clockwork was driven by a 50-pound weight that was attached to a cable wound around a drum in the clockwork mechanism. The weight traveled up and down a special channel built into the wall of the lighthouse tower. The weight had to be wound twice each night and would keep the lens in operation for approximately eight hours on one winding.

Keeper Robinson was given the task of finishing some of the detail work on the lighthouse. He began by painting the inside of the lighthouse, and completed the work several weeks later when he painted the inside of the lantern room.

The Lighthouse Service inspected each station approximately every three months and the first inspection of the new light station was made by Commander McCann on August 19, 1876. Later, Keeper Robinson wrote a letter to Commander McCann:

"I would respectfully call to your attention to the state of the enclosed grounds, there is no fence. On the west side, the cattle come onto the grounds and trample the place bad.

Likewise, there is much need of a good drain cut from the house to the west bank, the cellar is very damp. I have had great trouble to keep them dry. Also, I would call your attention to the state of the foot-walk [Ed. sidewalk] between the shore and the catwalk, there is a great deal of difficulty in getting out in heavy gales of south west winds, the water has risen this year which makes it worse."



No immediate action was taken on Keeper Robinson's requests and he put down some wooden plank sidewalks on his own.

The pier and beacon continued to have problems during the construction of the main lighthouse. On January 2, 1876, one month after the South Pier-head Beacon was moved, Keeper Robinson wrote in his log: "The filling of the new pier cribs was greatly disturbed by a storm today. The outside of the South Pier-head Beacon Light is settling a great deal." By October, conditions worsened and he wrote: "The South Pier-head Beacon Light is in very unsafe condition. The crib is breaking up." No immediate action was taken and several other problems occurred to further complicate the situation, and damage or weaken the pier.

On October 9, 1876, there was a severe gale and the keeper recorded in his log "Sea very heavy with waves going over the elevated foot-walk [Ed. catwalk]."

On August 15, 1877, Keeper Robinson wrote: "The steamer *Tempest* entered this harbor and a spark from her smoke stack fell into the pier and burnt the foundation of the frame of the South Pier-head Beacon Light."

Thomas Robinson was the oldest son of Keeper William Robinson. He was born in 1860 in England. On November 8, 1877 Keeper Robinson reported "Received authority today to employ an assistant. Employed my son Thomas Robinson." Later, Thomas became keeper of the Muskegon Light Station and retired from there in 1928.

April 24, 1878 Keeper Robinson wrote: "The schooner *Hercules* of Chicago, hit the South Pier and got its jib-boom broken off in the elevated foot-walk." Two years later, the Lighthouse Service began the first of several reconstructions of the pier, and over the years the pier was repeatedly re-built, strengthened, and extended.

One of the most famous shipwrecks in the area occurred on October 31, 1878, when the bark, *L. C. Woodruff* ran into trouble on the western side of Lake Michigan and drifted across the lake in some of the worst weather seen on the lake in many years. By 8 p.m. that night, the *Woodruff* was lying approximately one-half mile offshore at anchor. A tug from White Lake checked her condition and found her severely damaged with her sails split and fore-topmast, jib-boom, and bowsprit gone.

By 4 a.m. the next morning, the storm

had worsened and the *Woodruff's* anchor began dragging with the vessel slowly drifting towards shore. At 9 a.m., the bark's mizzen mast and main topmast fell into the raging sea. She continued to drift toward shore and struck bottom in approximately 13 feet of water. She began to break up several hundred yards offshore from the White River Light Station. The captain and crew could not get off the ship due to the severe wave action, and climbed into the rigging in an attempt to save themselves.



White River's first keeper, William Robinson. Photograph, taken sometime after 1885, courtesy of Thomas Tag.

Keeper Robinson was observing the stricken ship from the light station and saw the deteriorating condition of the *Woodruff*. The nearest life-saving station was located in Grand Haven, Michigan — more than forty miles to the south. Shortly after 9 a.m. he requested a tug boat be sent to Montague. From there, a telegraph could be sent to Grand Haven requesting a Lyle gun, other life-saving gear, and a trained crew.

By 9:20 a.m., the *Woodruff's* anchor chain parted and the vessel drifted approximately one-half mile further north from the light station. Three attempts were made by Keeper Robinson and a group of local men and ship captains to reach the stricken ship in a small yawl, but, each time, the yawl was swamped.

No word about the Life-Saving crew had reached Keeper Robinson and the men onshore by noon, and Thomas Robinson, the Assistant Keeper and 18-year old son of William Robinson, was dispatched on horseback to the Collector of Customs at Montague where the telegraph could be used again. The original telegraph message had been received, and Grand Haven sent the equipment and five men on a special train. The train arrived in Whitehall at one in the afternoon and was met by a tug boat and Tom Robinson, who would guide the life-savers to the stricken ship and assist with the rescue.

By two p.m., the rescue party reached the beach and the *Woodruff* had been pushed by the waves onto another sandbar approximately 150 yards from the shore. The *Woodruff* was

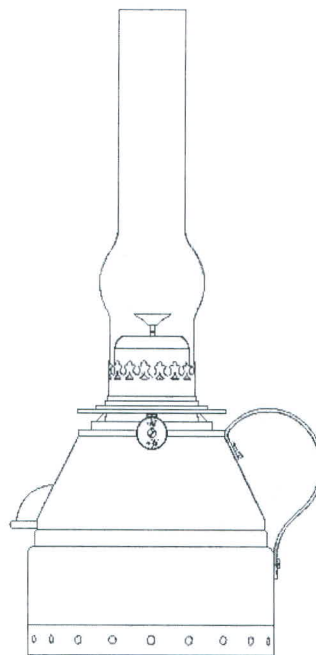




now aground on the sandbank and severely swamped, with all of her ten man crew still hanging precariously in her rigging.

The rescuers immediately set up their Lyle gun and tried to shoot a line into the rigging of the *Woodruff*. On the third attempt, a line was secured in the rigging. The yawl, with Tom Robinson aboard, attempted to reach the ship, guided by the line, but again was swamped, nearly drowning one of its men. Night was coming on, and four men of the *Woodruff's* crew lost hope of rescue and jumped into the very cold water holding onto the rope. The crowd on shore grabbed the rope and began pulling it taught, at that point it broke loose from the ship. The crowd continued to pull the rope, dragging it and the four men toward shore. The capsized yawl was about half way to the ship and still attached to the rope. The men were pulled crashing into the sunken yawl and both the yawl and men were pulled to shore. All four men survived their dunking, but one died the next day from injuries sustained during the rescue.

The *Woodruff* was loaded with corn and after the lake water totally filled her, the corn expanded and burst open her hull, breaking the ship in two. Her captain and remaining five crew fell from the rigging into the lake water, grabbing anything that would float. The captain and three of the crew found debris and floated to shore, some distance to the north; the last two men failed to find floating debris and drowned.



Typical oil lamp for a 4th Order lens. The same kind of lamp was used with smaller lenses also. Drawing courtesy of Thomas Tag.

Tom Robinson won a citation for his life-saving work that day and Keeper Robinson won much praise for his help during the rescue.

The original lamp in the main lighthouse used lard oil as an illuminant. The lamp was modified in 1879 to allow the use of kerosene. Kerosene lamps remained in use until 1918 when electricity was installed in the lighthouse tower and the light was produced by an incandescent bulb.

The piers and catwalks continued to take a beating from the weather. Worse than

mother nature, however, were the ships that left their marks. November 1879 seemed to be particularly bad:

11-19-1879 The bark *H. B. Moore* ran her jib-boom into the elevated foot-walk and broke off about forty-eight feet of the foot-walk.

11-22-1879 The schooner *Bates* hit the elevated foot-walk today.

11-22-1879 The schooner *Little Belle* hit the end of the North Pier today.

During 1880, the South Pier-head Beacon was moved out 100 feet and the same distance of elevated catwalk was built. Two hundred and twenty-six feet of elevated catwalk, carried away by a storm, were also rebuilt, and some slight repairs were made to the beacon. Besides this maintenance, a cistern was finally built for the keepers dwelling, the dwelling was drained, and the roofs of the wood-shed and dwelling re-shingled.

The clockwork machinery was generally reliable and easy to repair and maintain. It consisted of a wind-up clockwork with a drum onto which the steel cable from the tower weight was wound. The steel cable would gradually mar and break or get jammed on the clockwork drum. The cable broke for the first time on November 2, 1882.

The remaining clockwork machinery required little more than careful cleaning and lubrication to remain fully functional, but the main ratchet wheel within the clockwork would wear out and have to be replaced. The ratchet wheel was replaced in 1878 and 1884, and the clockwork was repaired by the lampist, Mr. Crump, on May 24, 1882 and October 2, 1889.

The drainage remained bad around the light station, and during early July 1883 there was a heavy rain that caused the Keeper's dwelling cellar to flood. The rain was so heavy that the Duck Lake Dam, a few miles south of the light station, burst. It took Keeper Robinson almost two weeks to get the water out of the cellar. There was an almost exact repeat to this flooding in 1905, and the drainage remains bad to this day. During the heavy rains in late May and early June 1996, the cellar was again flooded.

By 1884, the South Pier-head Beacon needed to be moved again. The Lighthouse Board was accustomed to moving this bea-



White River South Pier-head Beacon and catwalk circa 1903. Photograph courtesy of Thomas Tag.



con as the report for that year states only that “the tower was moved out 150 feet nearer the end of the pier, painted, and the elevated walk extended to it.”

The south pier seemed to be plagued by bad luck. August 1885, the schooner *Dan Davis* hit the south pier catwalk causing some damage. The poor original construction, and frequent damage, caused the pier cribs to settle and the South Pier-head Beacon began to tilt.

Mr. Lango and several men from the Lighthouse Service arrived in July 1887 to level the South Pier-head Beacon and make other repairs. While the beacon was repaired, it continued to gradually tilt as the pier crib settled further and various ships crashed into the pier.

The White River Light Station had a telephone supplied by the government and was one of the first locations in the area to receive one. Keeper Robinson reported in his log for May 23, 1888, “A telephone instrument was put into the main lighthouse dwelling today.”

April 1890 appeared to be another bad month for the south pier. The Annual Report of the Lighthouse Board reported:

“On April 13 the schooner *Lillie Pratt*, of Chicago, ran into the elevated walk and broke four hand rails, two foot rails, and one stringer. On the 18th the schooner *Ellen Ellenwood* ran into the walk and broke three hand rails, three foot rails, and displaced three bents. The keeper reported shallow water as being the cause of the collisions. Due repairs were made and the tower, which inclined towards the lake, from the settlement of the crib, was straightened up and provided with iron strap-bolts at the base.”

While the repairs were being made to the crib, the roof of the keeper's dwelling had to be repaired. Settling continued, and the South Pier-head Beacon had to be repaired again in November 1893, when workmen began the installation of a new sill under the light.

On November 1, 1890, Mr. Crump, the lampist from the Lighthouse Service, arrived at the White River Light Station and took measurements of the Fresnel lens in the main lighthouse and its flash panels. This was preparatory work for the addition of a new flash panel. Adding a panel would require the hand manufacture of the necessary mounting brackets and the importation of the glass flash panel from France. Over a

year and one-half later, on May 23, 1892, Mr. Crump returned and fit the extra flash panel to the main light and did other repairs. The flash panel was tested and removed. It was re-installed on December 12, 1892, after notification of the proposed change was made to mariners. With the new flash panel, the characteristic of the light was changed from a fixed white light, varied by a red flash every minute, to a fixed white light, varied by a red flash every forty seconds.

In 1894, the Lighthouse Service finally supplied fencing that Keeper Robinson requested eighteen years earlier. The south pier had 204 feet of elevated catwalk removed and re-built, and various other repairs were made around the station during the same time.

In July of 1900, the clockwork machinery was re-built by replacing the chariot wheels, ventilators, and cable pulley. Material for a new elevated walk was delivered and 640 running feet were erected.

In September 1900, the first cribs were sunk to extend the north pier-head. By the end of November, all of the new cribs had been placed for the north pier-head and new piles had been driven for the piers on both sides of the channel. The South Pier-head Beacon was moved about 18 feet to a temporary position so repairs could be made to the pier. The Lighthouse Board Report for 1901 states “Owing to the extension of the pier at White River by the War Department,

the work of moving the beacon 100 feet outward and the erection of 214 feet of metal elevated walk will be done at an early date.”

On September 23, 1901, the South Pier-head Beacon was moved to the outer end of the pier. About 216 running feet of metal catwalk were erected, new braces were provided for its additional strength, and steps were built from the walk to the entrance of the tower.

This was the last move for the South Pier-head Beacon. In all, it had been moved four times from its original position — each time moving further into the lake. In 1902, the beacon lens was reduced to a 6th Order with a kerosene lamp.

The station had general repairs completed at the same time. Approximately 235 running feet of concrete sidewalks were laid around the dwelling, and the foundation for the oil house was laid and the brickwork was started. Keeper Robinson moved the kerosene from the former oil room in the basement of the dwelling into the new oil house on July 21, 1902.

The characteristic of the main light was changed on February 20, 1902, from fixed white, varied by a red flash every 40 seconds, to flashing alternately red and white, with intervals between flashes of 20 seconds. The light was discontinued 10 days during the installation of the apparatus. The apparatus consisted of a pedestal,



White River South Pier-head Beacon and steel catwalk circa 1910. Photograph courtesy of Thomas Tag.



ball bearings, and other improvements to the revolving machinery.

There was never an official fog horn at the White River Light Station, but beginning about 1905, there was a small hand-carried brass pump horn. The keeper could carry this horn on the pier and pump, or crank, it to make a loud, somewhat trumpet-like sound. This horn was used by the keeper to alert passing ships in fog, or other poor weather conditions, as to their proximity to the shore and piers.

During the summer of 1910, many repairs were made at the station and new floors were put in the dining and sitting rooms of the dwelling. New screens were provided and a new sink was installed in the kitchen. On June 21, 1910, the small water pump house burnt down and had to be re-built.

1911 seemed to be the year for nature to make its mark on the light station. March 9, 1911, the entry in the keeper's log read: "Earthquake felt here today. The doors and windows rattled and shook." Then, in August 1911, the catwalk was hit by lightning and approximately five feet of it had to be replaced.

The last change to White River's main lighthouse characteristic occurred in 1912. In February, Keeper Robinson received orders to close the light and ship the lens and clockworks to the Lighthouse Depot in Milwaukee. On March 12, 1912

a new lens and clockwork were received. After the installation, the light flashed white for 10 seconds, then was dark (known as occulted) for 10 seconds and then flashed white again.

The keeper sometimes used local craftsmen when repairs were needed. June 19, 1912, the clockwork failed and the keeper took it to the clock maker in Whitehall for repairs, where it was fixed and back in operation the next day.



**Keeper William Bush. Photograph courtesy of Thomas Tag.**



**White River Light Station. The building to the immediate right of the lighthouse is a storage shed; the building to the far right is the privy. Circa 1900 photograph courtesy of Thomas Tag.**

William Bush, Keeper Robinson's eldest grandson, and his family moved into the keeper's dwelling in 1910. Mrs. Bush assisted in housekeeping and taking care of the then 78-year old, Keeper Robinson.

Keeper Robinson arranged for William Bush to act as Assistant beginning in 1912. After William Bush became Assistant, there were conflicts between he and Keeper Robinson. Keeper Robinson was very set in his ways of handling the lens and lamp. He demanded everything be done his way by Assistant Bush, or Keeper Robinson would refuse to let Assistant Bush perform the work.

Beginning in April 1917, William Bush took over the major responsibilities of keeping the light station due to the advanced age of Keeper Robinson, who was now 85.

Electricity was installed in the main lighthouse tower in June 1918 and the lamp was converted from kerosene to electricity on August 12, 1918. The kerosene lamp was retained for use as an emergency backup, and it was often needed. While today we enjoy reliable electric service, in the 1920s and 1930s the electric service, especially in a relatively remote location such as White Lake, was far less reliable.

- 8-13-1918 Storm with thunder and lightning, power out, no current. Put in kerosene lamp.
- 12-10-1918 Electric light out of commission.
- 12-11-1918 Electric light out of commission.
- 7-9-1919 Power out again, burned kerosene in tower.
- 10-2-1919 Lightning hit the wires. Power off at seven p.m. back on at 7:30.
- 3-12-1920 Electric light went out at 2 o'clock this morning, changed back to kerosene.
- 6-17-1920 The electric light went out at 9 p.m. Put in the oil lamp for the rest of the night.
- 6-16-1922 No electricity today put in the kerosene lamp.
- 5-20-1923 The electric went out switched to kerosene lamp.



The Lighthouse Service decided in late 1918 that Keeper Robinson was too old to continue, and began a campaign to have him retire. On January 1, 1919, William Bush began signing the keeper's log as 'Keeper'. The Lighthouse Service requested William Robinson vacate his position and the lighthouse dwelling by early April. Keeper William Robinson died on April 2, 1919 in the White River Light Station, where he was still considered the semi-official keeper, just days before he was required to leave. He died at age 87 and was the oldest keeper on active duty at the time of his death. He had completed 47 years of service having first started in 1871 working on the South Pier-head Beacon.

In May 1924, electricity was installed in the keepers dwelling. On June 20, 1924 Keeper Bush reported "I have been fighting fires in the South Pier from 1 a.m. until 3 a.m." The fires took their toll and the wooden pile south pier began to disintegrate. In August 1924, a heavy sea washed out part of the footing under the catwalk and in early April 1925, the catwalk began settling down into the water, due to damage from ice flows. The keeper reported: "There is lots of ice present at the footing."

By early 1925, a decision was made to tear down and remove the catwalk. In May, a removal crew was sent to the site and a Mr. Hnunvan, who was one of the men in the crew, was badly hurt when he fell among the stones of the south pier. The removal of the catwalk was completed on May 14, 1925. The steel framework catwalk itself, and hand rails were disassembled and stored for pick-up and potential re-use at another light station. The Lighthouse Tender *Hyacinth* arrived in June, and took the disassembled pieces of the steel catwalk to the Lighthouse Service Depot in Milwaukee.

At the same time, the lamp in the South Pier-head Beacon was changed to use acetylene gas supplied from a high pressure tank. The acetylene gas was piped to a flasher burner and the light in the South Pier-head Beacon was thus changed from a fixed light to a flashing light.

The piers continued to deteriorate and several attempts were made to strengthen them with stone. Lighthouse Service engineers began working making repairs to the cribs in April 1928. This was followed by the dredge *G. G. Meade* arriving in May to begin

construction work in the harbor, and the tug *Cumberland* arriving later that month with a shipment of stone for the pier.

The final stroke of bad luck for the south pier came on September 9, 1928, when fire broke out at 2 a.m. It got the best of Keeper Bush, and he had to call the Whitehall fire department. The fire burned all night and they finally succeeded in putting it out at 10:30 a.m. on the next day.

More stone was sent to repair the pier throughout 1929, but, in late November, a heavy sea cut behind the stone in the pier. Part of the pier was washed out and sand washed into the channel.

The piers were now beyond repair due to age, rot, fires, and constant damage from ships. A decision was made to rebuild both the north and south piers with stone and face them with concrete at a later date. Four men arrived in June 1930 to work on the channel and piers. During early July, the dredge *G. G. Meade* arrived to dredge the channel and dig out areas for the new piers. In late July, Mr. H. H. Johnson and a crew of workmen commenced work on the foundation of a new South Pier-head Beacon tower. The workmen poured the base for the new steel tower on August 5, and set the new tower in place on August 7. The light was first lit on August 9, 1930. According to the keeper's log for August 12, 1930, the old beacon tower was wrecked to pieces and construction foreman H. H. Johnson left.

The Lighthouse Tender *Sumac* brought a team that installed a Sun-valve on the South Pier-head Beacon lamp on September 6, 1930. This Sun-valve was the newest method of controlling the acetylene gas. Two tanks of acetylene gas were stored in the small building at the base of the steel tower. The tanks were connected together and the combined gas line was run up to the Sun-valve and then into the light at the top of the tower. There was also a 'pilot-light' gas tube that by-passed the Sun-valve.

The Sun-valve extinguished the light in the morning and re-lit it in the evening. It was made from a heat-absorbent black rod in the center of three highly reflective gold-plated copper bars. When the black rod was lit by the sun, it absorbed the heat and expanded downwards closing a small valve in the main gas line. When it was nearly dark, the black rod cooled and contracted, moving upward, thus opening the valve and allowing the Acetylene gas to be ignited by the pilot-light.

The new Sun-valve was considered a highly reliable item within the Lighthouse Service, however, it was an immediate problem for Keeper Bush at White River. In late September 1930, the Sun-valve refused to work. Keeper Bush put the light back in commission by temporarily by-passing the gas around the valve and later, readjusted the valve setting. In November, he again had to make an adjustment to the Sun-valve,



Storage building. Photograph courtesy of Thomas Tag.



and on November 28, he used the Sun-valve's gas by-pass for a third time.

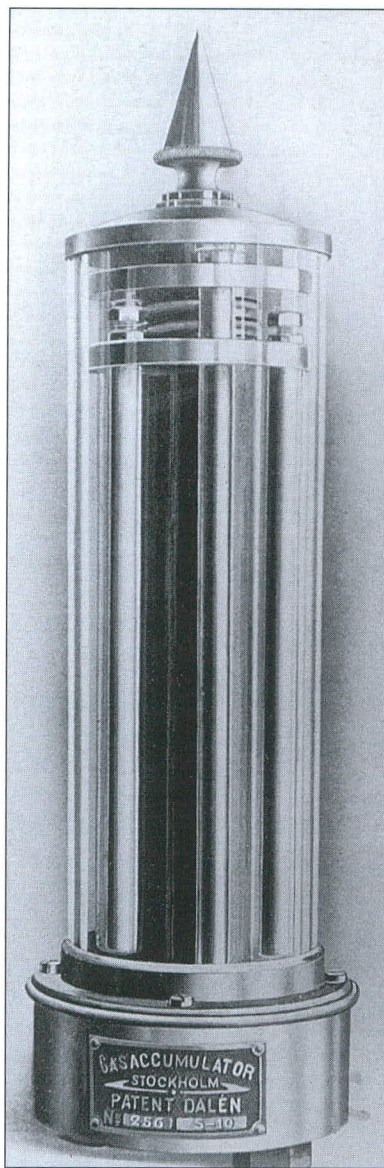
Problems continued during the next year. Personnel from the Lighthouse Tender *Sumac* took the Sun-valve to the lighthouse depot for re-building and adjusting on July 24, 1931. They then re-installed the repaired Sun-valve on August 11. But, by August 29, the Sun-valve was again reported to be malfunctioning. Problems continued with the Sun-valve's operation, from time to time, for the next several years.

A major renovation of the dwelling roof was made during the summer of 1939 when the original chimney was removed and replaced. The storage building was also re-roofed and shingled. In August, the clockwork assembly was sent to the Depot for a complete tear-down and repair.

Although the main light was electric, the lens rotation was still accomplished with the clockwork machinery. In the summer of 1945, the Coast Guard installed a Sangamo electric clock to control the time the light turned on and off each night and installed an electric motor to revolve the lens. At this point the lighthouse became essentially fully automated. In 1949, the acetylene lamp was removed from the South Pier-head Beacon and the light was electrified.



Oil house. Photograph courtesy of Thomas Tag.



Swedish designed Sun-valve (a. k. a. sun relay), a device which allowed lights to be automated. Photograph courtesy of Thomas Tag.

In 1960, the main light was powered off for the last time and the lens and pedestal were removed and placed in crates that were sent to the Coast Guard's Detroit depot. In 1965, Fruitland Township proposed to purchase the property for use as a museum and public park. The property was appraised at \$12,500 and the township was required to pay half, which was provided, at no cost to the township, by gifts from the local residents. The purchase was finalized in 1966.

The property was cleaned up and a parking lot was created for a small park. In 1969, the township began looking for a curator who could create a museum inside the keeper's dwelling and find artifacts for display.

R. C. (Pete) Caesar was chosen as the first curator in 1970, and began collecting artifacts. In very late summer, 1970 the museum opened to the public for the first time. Over the years there have been several other museum curators at the White River Light Station Museum including Richard and Vicki Gebhart from 1975 through 1979, John and Ruth Klunder from 1980 through 1982, and the current curator, Karen McDonnell, who has been in the position since 1983.

In 1972, Pete Caesar located the lens that had been removed in 1960 and convinced the Coast Guard to return it and its pedestal to the museum where it was re-installed in the lighthouse lantern room. In 1975, a vandal shot holes through the lantern room windows and chipped part of the lens. At this time, the lens was removed and placed on the first floor of the museum, where it remains today.

In the late 1980s, the South Pier-head Beacon was changed, yet again, to a single steel pole with a red triangular day mark at the top and a red flashing electric light. The current light flashes once each four seconds.

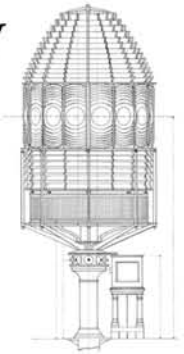
The museum is currently open from Memorial day through Labor day. Tuesday through Friday from 11 a.m. to 5 p.m. and Saturday and Sunday from 12 a.m. to 6 p.m. The museum is closed Mondays. It is also open on weekends only during the remainder of September. Guided tours are available by arrangement throughout the year by calling 616-894-8265.

Approximately 6,000 people visit the current lighthouse museum each year, including many school children from nearby areas. The curator also makes presentations about the lighthouse and its history at schools and other events.





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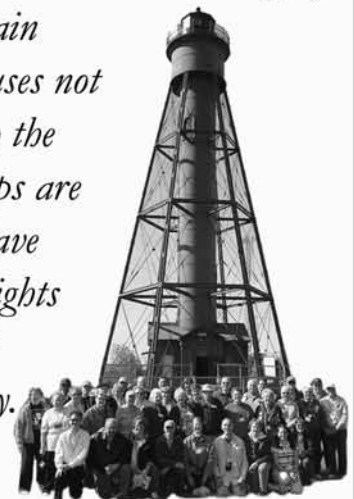
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