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# Pencarrow

New Zealand's First Lighthouse

by Tricia Glensor

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**New Zealand's coastline has always been a dangerous place for ships and boats. Early Māori knew that. Several traditional stories tell of waka being washed onto rocks in storms. Since the 1790s, when the first Pākehā reached New Zealand, more than 2,300 ships have been wrecked in New Zealand waters.**



## The wreck of the *Maria*

In July 1851, the ship *Maria* was sailing towards Wellington. It was night, and there was a storm. The *Maria* struck a rock near the entrance to Wellington Harbour. The ship broke in half, and its lifeboat was smashed on the rocks. Only two of the twenty-eight people on board survived. After this disaster, many people in Wellington asked for a lighthouse to be built.

# What is a lighthouse?

A lighthouse is a tower with a light at the top. It guides sailors into harbours at night and warns them of hidden rocks and reefs.

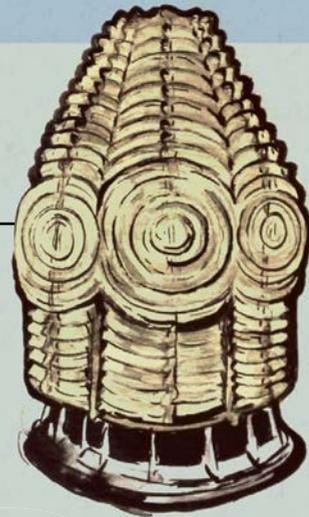
In early lighthouses, wood or coal were burnt to make the light, but these fuels don't burn very brightly. Later lighthouses burnt oil or **kerosene** and then **acetylene gas**, which give off a stronger light. Today, most lighthouses use electricity.

The lights in lighthouses have special **lenses** that bend the light and make more of it travel in the same direction. This makes the light much brighter.

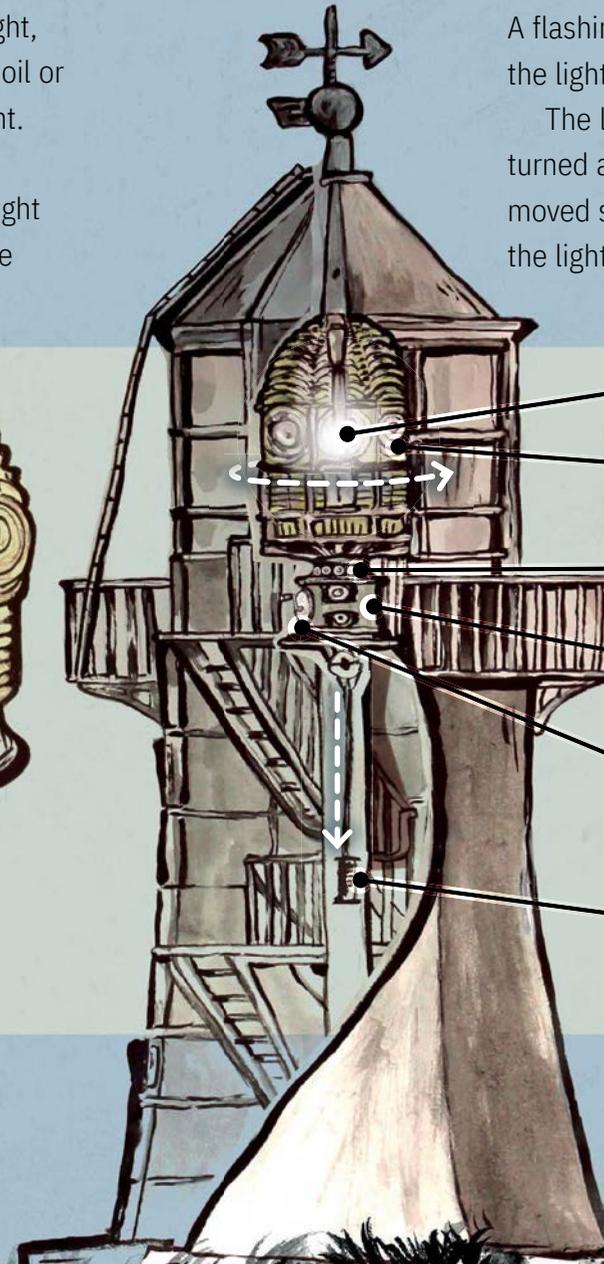
## Fresnel lenses

Lighthouses use special lenses called Fresnel lenses.

A Fresnel lens bends the light so it travels in the same direction.



Light source (lamp)



Light

Lens

**Rollers:** The lens was on rollers that turned.

**Gears:** The gears controlled the speed at which the weight dropped and the rollers turned.

**Winch:** The lighthouse keeper turned the winch to lift the weights back up.

**Weight:** As the weight slowly dropped, it turned the rollers.

Early lighthouses had solid panels between the lenses. These made the lights flash when the lenses were turned. A flashing light is easier to see, and it helps sailors know the light is coming from a lighthouse.

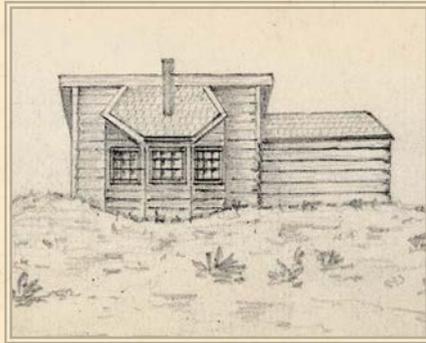
The lenses were turned by heavy weights. The keeper turned a **winch** to lift up the weights. As the weights moved slowly back down, they pulled the lenses around the light on rollers.

In today's lighthouses, the lenses are turned by electricity or the light simply flashes on and off.

# The lighthouse is built

Plans were made for a lighthouse at Pencarrow Head. In 1852, George Bennett was given the job of New Zealand's first **lighthouse keeper**.

George, his wife, Mary Jane, and their children moved into a two-roomed cottage at Pencarrow and waited for the lighthouse to be built. While they waited, they set up a lamp in the cottage window as a warning for ships.



A sketch of the cottage



The children of George and Mary Jane Bennett (1859)

But in 1855, George Bennett drowned, and Mary Jane Bennett became the main keeper of the Pencarrow light. She is the only woman ever to be a lighthouse keeper in New Zealand.

The lighthouse was made of **cast iron**. It was built in England and shipped out to New Zealand in 480 packages. When the ship arrived at Pencarrow, the heavy packages had to be dragged up the cliff on rails by a steam-powered winch. The lighthouse was assembled at the top of the cliff, 120 metres above the sea.

On 1 January 1859, the Pencarrow lighthouse shone for the first time. Its light could be seen for 48 kilometres, right across Cook Strait. Ships on Wellington Harbour flew streamers to celebrate.

Wellington Harbour about 1840



Pencarrow Head

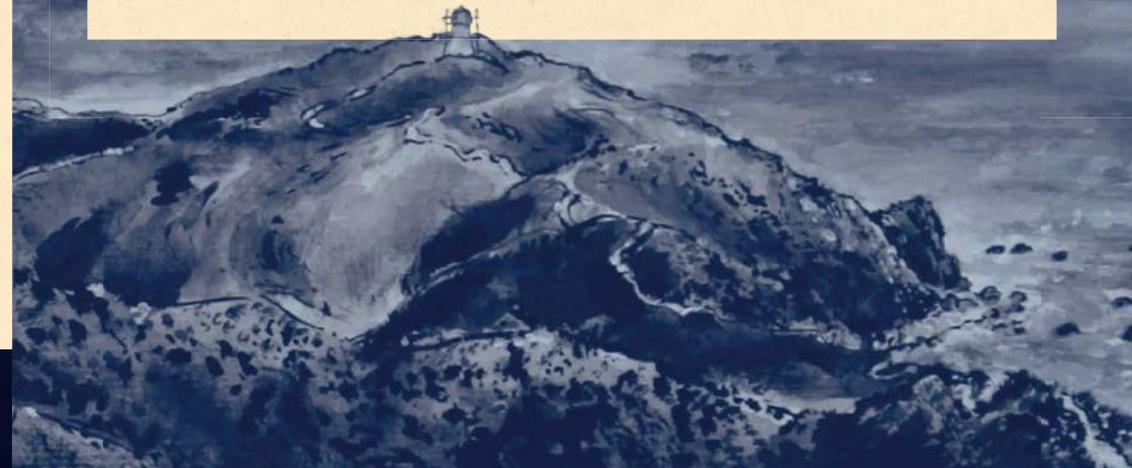
# Working night and day

A lighthouse keeper had to work very hard. Their most important task was to make sure the light burnt all night, every night of the year. Every fifteen minutes, they had to pump oil to the light to keep it burning. Once every hour, they had to wind up the heavy weights that turned the lenses. Any keeper who fell asleep or let the light go out would lose their job immediately.

Mary Jane Bennett could not afford to lose her job. She had six children to feed. In the 1850s, jobs for women were hard to find and badly paid, and there were no **benefits** for single parents or unemployed people.



During the day, there were other tasks to do. The lenses had to be cleaned and polished daily. Mary Jane and her family had to cut firewood, bring up coal from the bottom of the cliff, clean and paint the tower, and repair any damage. They grew vegetables on the land around the house, and they also kept animals for food. There was no electricity, so meals were cooked on a coal range and clothes were washed by hand. Everyone had to help, including the children.



All supplies, including fuel for the light, had to be brought in by ship. The heavy boxes had to be hauled up the cliff. In stormy weather, it was dangerous work.



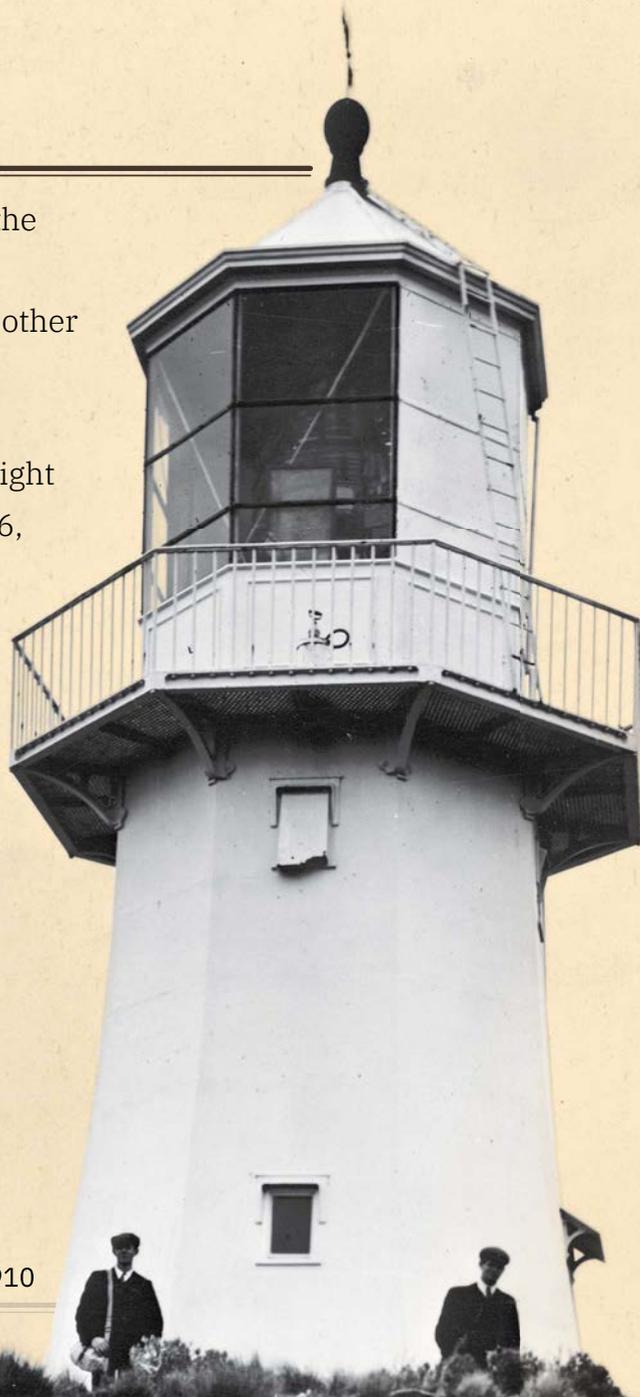
# Out of a job

Mary Jane Bennett was keeper of the Pencarrow lighthouse until 1865. After Mary Jane, there were many other lighthouse keepers at Pencarrow.

Over time, there were changes to the Pencarrow lighthouse. The light was often hidden by fog, so in 1906, a new lighthouse was built at sea level, where there was less fog. In 1955, the lighthouse changed to electricity. This meant that keepers didn't have to stay up all night to look after the light.

These days, solar panels provide electricity for most lighthouses, and the lighthouses are automatic – their lights are controlled by computers in Wellington. There are no lighthouse keepers any more.

People visiting the old lighthouse in 1910



# A historic place

The old Pencarrow lighthouse is now a historic place. People can walk or bike along the coast to visit the lighthouse. It still stands proudly above the coast it once protected.



## GLOSSARY

**acetylene gas:** a colourless gas that burns very brightly

**benefit:** money the government gives to people in need

**cast iron:** a mixture of iron and carbon that has been shaped in a mould

**kerosene:** a liquid that is made from petroleum and used for lighting and heating

**lens:** a piece of curved glass or plastic that bends light rays as they pass through it

**lighthouse keeper:** a person whose job is to look after a lighthouse

**winch:** a machine that can pull a heavy weight by winding a wire or chain around a drum

# Pencarrow: New Zealand's First Lighthouse

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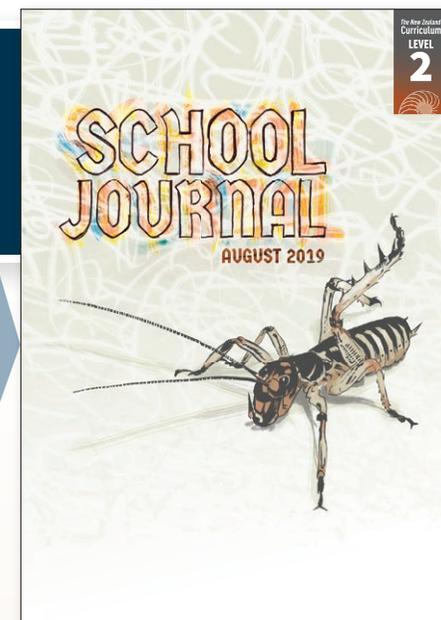
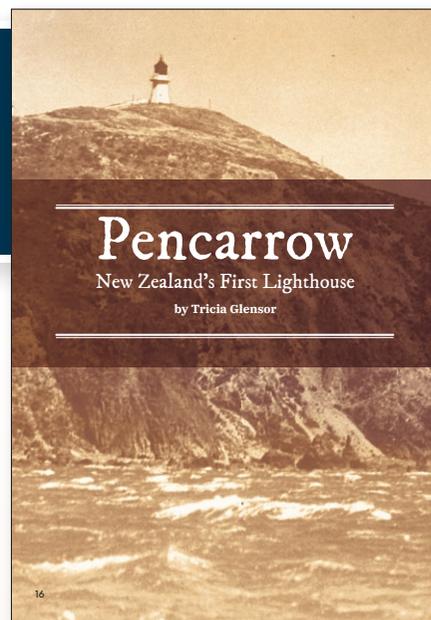
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