

This Day in History... August 29, 1869

Marsh's "Railway to the Moon"

On August 29, 1869, Sylvester Marsh demonstrated the world's first mountain-climbing cog railway, earning the recognition and funds needed to complete it.

In 1857, Marsh, a businessman, visited New Hampshire's White Mountains. Tourism in the era had just recently begun expanding, so roads and paths were not fully developed. On a sunny August afternoon, Marsh and a friend hiked up Mount Washington. After passing the tree line they became caught in the middle of a terrible storm with hurricane strength winds, freezing rain, and near-darkness. They lost their way, but eventually found one of the mountain's hotels. Once they reached the safety of the hotel, Marsh realized what his new mission was – to create a safe and easy way to climb the mountain.



Mount Washington was featured on the Wonders of America sheet as the "Windiest Place."

Marsh immediately began researching possible types of railways that could climb the steep mountain. He then realized that he needed an engine that could propel itself up the mountain as the railway was being constructed. He found his answer in the cog railway. Though cog railways had existed for sometime, none had been designed to climb a mountain such as this. Marsh designed a cog locomotive and applied for a patent in 1858, though it wasn't approved until three years later.

In 1858, Marsh applied for a state charter and demonstrated his train with a wind-up model. The legislators weren't convinced and burst out laughing. One even joked that he might as well build a railway to the moon. In spite of this, they agreed that Marsh could "fool away his own money" and granted him the charter.

Construction was delayed by Marsh's other business ventures, as well as the Civil War. Work finally began in the spring of 1866. Marsh oversaw the creation of the first 660 feet of track as well as a six-mile road to the site and the experimental locomotive, *Old Peppersass*. However, he also needed to convince the nearest major railroad, the Boston, Concord & Montreal (BC&M), to extend its line so customers could easily reach his railway. They agreed, if he could prove his invention worked. So on August 29, 1866, the *Old Peppersass* moved railroad executives, engineers, and reporters up the completed portion of the track with ease. No one was laughing at Marsh now – his doubters were silenced. He earned the backing of the BC&M and completed the railway in 1869.

The Mount Washington Cog Railway was the first in the world built to climb a mountain. The train runs on a track with a toothed center rail. There are wheels on the locomotive that have teeth that interlock with the rail so the train can travel safely up steep grades without slipping. The engine and cars are not coupled to each other, and the cars are pushed up the mountain from behind. The passenger coach has its own brake system to slow the descent down the steep slope.

Still in operation today, the Mount Washington Cog Railway uses two steam locomotives and four biodiesel-powered locomotives along the second-steepest rack (cog) railway in the world.



Stamp pictures engine number 5, The Cloud, climbing Mount Washington in New Hampshire.



Old Peppersass received its name due to its vertical boiler's resemblance to a pepper sauce bottle.

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