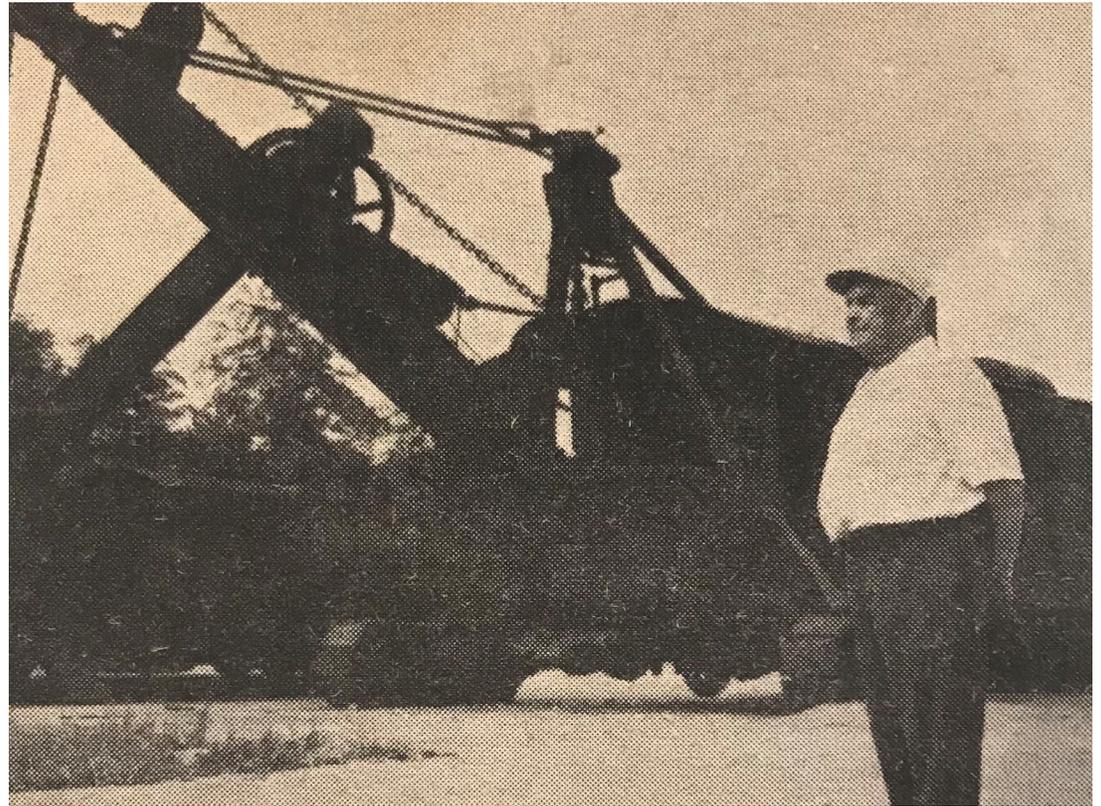


How Do You Move a 100 Ton Steam Shovel

by Lynne Belluscio

Hopefully this summer there will be some signs at the steam shovel on Gulf Road explaining the importance of this huge piece of equipment and why it is in LeRoy. The signs will also include the story of Onondaga Limestone; General Crushed Stone Company; how the shovel works (what the four engines do); and the men who worked in the quarries. The Historical Society bought a Marion Steam Shovel catalogue on Ebay. It wasn't cheap but it has wonderful information and several photos of other Marion shovels #91, like the one in LeRoy. One of the most interesting photos shows a Marion #91 packed for shipment. Originally these huge steam shovels were equipped with railroad wheels, also called "trucks." When the shovels were working in the quarries, the men had to lay railroad track down so the shovel could move to the rock face. But the railroad trucks made it easier to ship these huge machines. They were moved from the factory in Marion, Ohio, by railroad. The boom, handle and dipper were removed and placed on a flatbed car, as shown in the photograph. The two stabilizing jacks were hinged and could fold up out of the way.

When the shovel was in operation, it required several men to keep everything moving. The fireman worked in the back and kept the boiler fired with soft coal and regulated the water level. There was a crane man who sat on the left side of the boom and tripped the bucket door. This was accomplished by pulling a rope attached to the



levers in the bottom of the bucket. The rope was made of 1 inch thick hemp. The engineer raised and lowered the bucket and maneuvered the machine on the tracks. The boom was manipulated by a huge steel-link chain. Each link was made from 1-inch stock steel.

There are several videos posted on the internet that give you an idea of how these machines worked. There are a couple taken at the Panama Canal. But there is no sound. There are a couple of videos that do have sound, and it gives you an idea of the noise of these monsters. When the consultants from the National Park Service were on site in November, they talked about the noise. They said that just the noise of the chains as they moved the parts and gears must have been deaf-

ening. And they wondered how the three men, who operated the machine talked to each other. They all agreed, that the men had to work as a team, probably using hand signals to keep the steam shovel working. In the 1920s the Marion Shovel Company replaced the railroad trucks with caterpillar tracks, which must have added to the incredible noise. Adding caterpillar tracks eliminated the need for a team of men to build train tracks in the quarry.

Amazingly, the LeRoy shovel continued in operation for over forty years. And it survived the scrap drives of World War II. In 1949, Dominic Stefani, who lived in Limerock and had worked in the quarries for 46 years, drove the giant machine out of the quarry and parked it up by Gulf Road. For

fourteen years he had been the operator of the machine.

The Model #91 was known as the Consulship. The working weight, including water and coal, was 120 tons. These Marion shovels were used to dig the Panama Canal. (Whether any of the shovels in LeRoy were used to dig the Canal is up for debate. The Marion Catalogue has a photo of the notorious Model #91 in the Calubra Cut in Panama, which in July 1908, set the record for the most rock moved in 25 eight-hour days. Equipped with a five cubic yard bucket, the shovel moved 53,430 cubic yards of rock.) The Model #91 had double hoisting engines, double swing engines, double crowd engines which were powered by a boiler designed to work with 150 pounds of pressure.

