History of the Locks -

By Al Lewis

CONQUERING THE FALLS

The Willamette Falls Locks

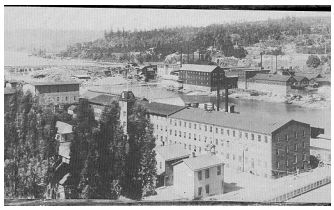
Introduction

Since the earliest days of human habitation, the Willamette River has provided the major means of north-south transportation in Western Oregon. The arrival of settlers coming to claim free land and a few years later the introduction of steamboats to the Northwest sparked the beginning of a water transportation system that though much diminished still exists. The building of the Willamette Falls Canal and Locks, which opened 130 years ago last January 1st was the final step in speeding river traffic past the falls at Oregon City. What came before is a story of high finance, dirty tricks, ingenuity and plain hard work.

Al Lewis at the winch

Steamboats, operated by their owners, and small steamboat lines all competed for freight and passenger business on the Willamette River. In 1860, they joined to form the Oregon Steam Navigation Company, doing business on both the Columbia and the Willamette Rivers. Oregon Steam dominated transportation on both rivers until 1862 when a group of upper Willamette Valley farmers and shippers challenged them by forming the Peoples Transportation Company. For two years, the companies battled for supremacy and due to a rate war, both lost heavily. Finally, in 1864 they reached an agreement: Oregon Steam would operate only on the Columbia and Peoples Transportation only on the Willamette. Immediately, freight and passenger fares jumped to pre-competition levels.

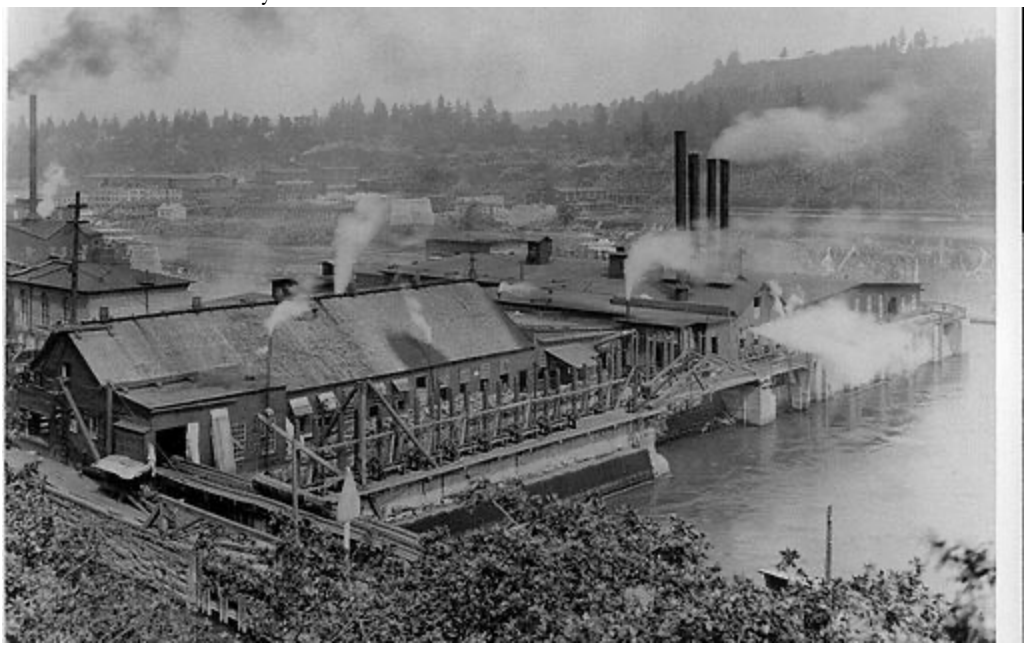
By the early 1850's agriculture and timber products from farms and industries along the Willamette Valley were being shipped by steamer to Portland, and to Astoria on the Columbia River for shipment to world markets. However, twenty-six miles upstream from Portland and the Willamette's confluence with the Columbia stood the 40-foot-high Willamette Falls, requiring portaging of boats and/or cargos.



Early Solutions

From time immemorial the Falls had presented this insurmountable obstacle to unrestricted navigation and commerce on the river. The early settler in his bateau (flat bottomed rowboat) with some help, could manually carry the boat and its cargo around the falls. When the vessels became too large to carry, entire boats with their cargos and passengers were hoisted over the falls. This process, called "cordelling", was dangerous and time consuming, adding to the cost of shipping.

One alternative to cordelling was to off-load the cargo and passengers at the falls and re-load them at the other level of the river. Portaging, though safer than cordelling, was difficult and inefficient as only a crude trail connected the two levels of the river.



Pre 1920's Mill Photo

More Sophisticated Schemes

In 1850, a half-mile portage road was blasted out on the east side of the falls, and the process of portaging speeded up considerably. The road ran from Canemah (the upper river city located just south of Oregon City) past the falls and down to docks on the lower river at Oregon City. Warehouses were built at each end for cargo storage. Cargo and passengers were loaded on

mule drawn wagons that hauled them along the road to the other river level where they boarded another boat to continue their journey. After the flood of 1861 carried away the warehouses, they were rebuilt, and a "railroad" was built on the road. Still mule powered, the wagons were now on tracks and could transfer 100 tons of cargo per day. This low tonnage capacity caused considerable delay for the high tonnage steamboats. Passengers either walked or paid 25 cents to ride.

In 1865 Peoples Transportation bought the Road and in a move to further speed the transfer of cargo and passengers built a breakwater on the east upriver side of the falls. This created a 60-foot-wide basin along the east bank of the upper river extending from Canemah north, past the falls, to docks at mills on the upper river level in Oregon City. At that location, a water powered elevator lowered cargo to boats waiting at docks below in the lower river. A stairway was provided for passengers to transfer from one level to the other. This system which was completed in 1865 not only saved time, it allowed passengers to step off an upriver boat and instead of the "mule wagon" ride mentioned above, merely walk down a stairway to the boat below. A planned future improvement to this east side basin was to add a three-lock canal to connect it with the lower river. The canal was to be built "whenever the business of the Willamette River demanded it." It was never built.

With the purchase of the portage road and the building of the basin, Peoples Transportation now completely controlled freight and passenger service both above and below the falls,

In 1858, long before commerce on the river could justify the cost, there was talk of building a canal around the falls. Ten year later with the increases in river traffic and in an effort to reduce freight rates by ending the Peoples Transportation's monopoly, a group of local business men organized the Willamette Falls Canal & Locks Company, intent on building a multiple lock canal around the falls along the west side of the river. Capitalization was $100,000 with additional funds to be supplied by the Oregon Legislature

Rise and Fall of Linn City

Whereas the falls area on the Oregon City side of the river was bursting with commercial activity, the west side riverbank was virtually barren. In 1843 Robert Moore had platted a town site there naming it Robin's Nest, later changing the name to Linn City. Moore built mills, warehouses and a breakwater and portage basin (not unlike the one built on the Oregon City side in 1965 -see above). In April of 1861 a fire broke out in one of the warehouses and soon spread to the other buildings. Then, in December of that year a flood carried away most of what was left of Linn City, and the property remained unused until the canal was built.

Ben Holladay

At this point we must introduce Ben Holladay into our narrative. Holladay, a promoter and financier was born in Kentucky and operated stagecoach lines in the West. By 1864 he had a near monopoly of the stage, mail and freight business between the Missouri River and Salt Lake City. In 1866, at the age of 42, he sold these to Wells Fargo Express for $2,400,000. In 1868, he moved to Oregon to build railroads.

Holladay entered a state competition to build a railroad from Oregon to California. He won the competition, helped by his spreading entertainment and bribery money around the State Legislature to influence their decision, and started building his railroad down the Willamette Valley. Fearing that the canal planned at Willamette Falls would be a strong competitor for his railroad, Holladay who was described by various people that had done business with him as "much feared and disliked", "a scoundrel", "a venturesome exploiter," and "a devotedly vulgar character," went again to the Legislature. As he had done with his railroad venture he "convinced" them to withhold State funding for the canal. The scheme worked. The Legislators waited two years (until 1870) to grant a subsidy of $200,000 to the Willamette Company. They also specified that the toll on the canal be limited to 50 cents per ton for freight and ten cents per head for passengers. The State would receive 10 percent of the net profits and after 10 years of operation the State could purchase the property. Holladay also convinced the Legislature to set a completion date for the project. A bond of $300,000 was posted by the Willamette Company to assure that the work would be completed by January 1,1873. "Completion" being defined as "a steamboat successfully passing through the canal".

In 1871 Peoples Transportation, weakened by the death of a principal of the company and faced with increasing competition from the railroads (controlled by Holladay), sold their company and its assets to Holladay who reorganized and reincorporated it as the Willamette Transportation Company.

The Canal is Built

Construction of the canal commenced in early 1872. It consisted of four lift lock chambers, a canal basin, and a guard lock to protect the canal from high water in the upper river. Each lock chamber provided a lift of 10 feet.

In the fall of 1872 construction of the canal was complete and all that remained to meet the requirements of the $300,000 bond was to lock a boat through by January 1, 1873. Enter again Ben Holladay. With a monopoly on the river through his Willamette Transportation Company Holladay attempted to tie up all available boats. His attempts failed and in the afternoon of January 1 the Maria Wilkins carrying local and state dignitaries steamed through. The canal, built in nine months at the cost of $600,000, was open for business.

Early Consequences

The immediate result of opening this alternative means of overcoming the falls was a 50 percent decrease in freight rates. In addition, Holladay and his Willamette Transportation Company's control of the river was finally broken, and those interests were acquired by Oregon Steam. Farmers, lumbermen and everyone else who used the river for transportation

benefited. The Willamette Company did not. It was heavily in debt because the project had been seriously underfunded. To increase its income the Willamette Company began operating its own boats on the river, giving them exclusive privileges to use the canal and at times refusing admission to competitor's boats. Between 1873 and 1875 the rivals competed in a rate war. Finally, Oregon Steam sent two boats to the canal and demanded passage. The president of Oregon Steam notified the Willamette Company that the boats would apply for passage daily and that Oregon Steam would file suit to collect damages for each day passage was refused. The Willamette Company finally capitulated. Its losses during the last ninety days of the stand-off amounted to almost $100,000. Oregon Steam paid off the Willamette Company's debts, and in return secured a controlling interest in the company. In 1875, it was reorganized as the Willamette Transportation & Locks Company.

The Canal Matures

Private ownership of the canal passed through several more hands until 1915 when it was sold to the federal government for $375,000. The U.S. Army Corps of Engineers was charged with operation and maintenance, and all tolls were eliminated. By 1880 the steamboats were losing both passenger and freight business to the railroads, but they didn't disappear until well into the 20th century. The last steamer hauling freight on the Willamette was the Salem Navigation Company's sternwheeler Northwestern. She was taken out of service in 1940.

The passing of the steamboat age didn't mean the end of usefulness for the Willamette Falls canal. Since 1889 there has been a paper mill on the west side of the river adjacent to the canal. The mill used canal barges to bring in raw materials and to take out finished product. At the same time logs were being brought in through the canal, ground into pulp and used to make paper. In 1991 the

mill discontinued making grades of paper that used ground-wood pulp and the logs stopped coming. Furthermore, in 1997a new owner of the mill changed from using barges to trucks. Since then pleasure craft have become the dominant users of the canal. In 2001, due to reduced canal traffic, the U.S. Government began limiting canal operation to the summer months.

Over the years the Army Corps of Engineers has made numerous improvements to the canal. In 1916 they deepened it from two feet at low river level to six feet. As originally built, the massive lock gates and the water transfer valves were manually operated. In the 1940's electrically driven hydraulic systems replaced manual operation. It once took 14 workers to operate the canal, but today it takes just two. It is interesting to note that when the canal opened in 1873 locking-through time was about one-half hour; but today with all the improvements, it takes slightly more time to lock-through. This discrepancy is due to precautions taken for boater's safety.

A Lost Chapter

There should have been one more chapter in this story, a chapter telling of how the federal government redesigned and rebuilt the canal in order to both reduce the time required to lock through and to accommodate larger vessels. Perhaps a tight Depression era Federal Budget prevented it from happening, but the Federal Flood Control Act of 1938 and the Rivers and Harbors Act of 1945 provided for replacing the four 40 ft. by 210 ft. lift locks with a single lift lock measuring 56 ft. by 400 ft. Plans and specifications were completed but Congress never appropriated the funds to do the
work.

~ written by Alan Lewis, West Linn historian and contributor to the Willamette Falls Heritage Foundation.