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Gold Rush Town's Water Plant

Completes 74th Year of Service

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Connection to Valve at Reservoir

This hub end type valve was originally installed in 1874.

IN late November, 1851, a small party of miners made their camp on the banks of a small stream in a beautiful little valley nestled at the foot of the far eastern slopes of the Sierra Nevada Mountains. These men had come from the placers of California to try their luck in the Washoe District, but after a brief sojourn in Gold Canyon, they had turned back toward the coast. As they made camp for the night, they were all struck by the agricultural possibilities offered by the valley around them. And the site of their camp, being on the well traveled Emigrant Trail, appeared to be an ideal spot for a trading post. The return journey was abandoned, a small settlement was established, which was later to grow into a thriving city and become the capital of a famous state.

In 1858, a new group of settlers arrived and immediately proceeded to lay out the ranch around the settlement as a town site. Abram Curry, the energetic leader of this group, supervised the layout of the town, insisting upon wide streets and a large plaza which he said would some day be needed for the site of a state capitol. He named the town Carson City.

Water Company Organized in 1860

With the growth of the city, there grew the demand for an adequate water supply, so on February 29, 1860, the Carson City Water Company was organized by a group of private individuals "to supply the town with water for domestic and other purposes."

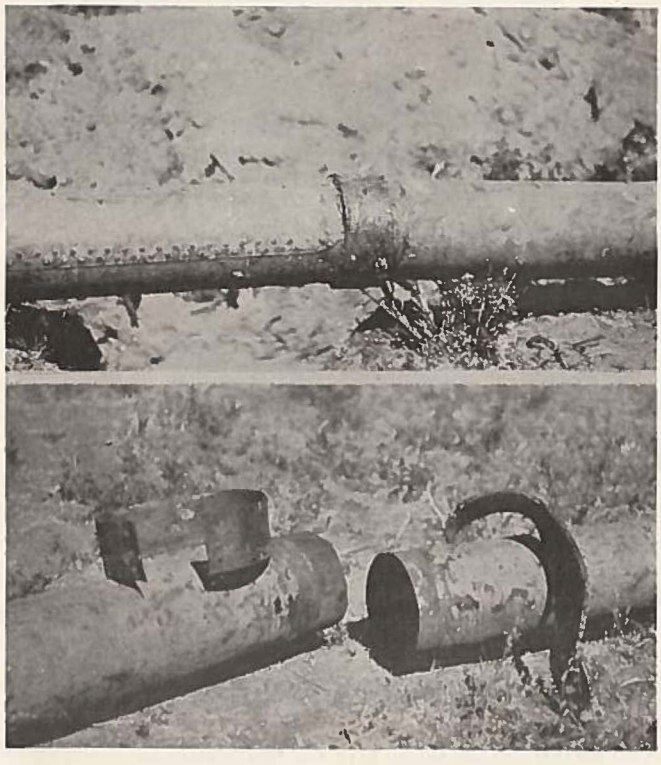
Carson City soon became the most important town in what was then western Utah. Due to its proximity to the Comstock Lode it became the acknowledged center of business and offered a more desirable location for homes than the barren hillsides around the mines. In March, 1861, President Buchanan approved a bill organizing the Territory of Nevada and soon thereafter Abraham Lincoln appointed James W. Nye as the first territorial governor. Among the first acts of the legislature was a statute passed in November, 1861, granting to the water company in Carson the right to lay certain pipes for water supply purposes. In 1864, Nevada was admitted into the Union as a state and shortly thereafter there began the construction of the U. S. Mint, the State Orphans' Home, the State Penitentiary and the State Capitol.

Additional Supply Developed

In 1873, the Big Bonanza was struck on the Comstock Lode, and Carson City continued to grow and prosper. It had outgrown its water supply. More water was needed for domestic uses as well as to provide adequate fire protection, so, in 1874, the water company began construction of additional works. A reservoir was built about two miles west of town, near the foot of the Kings Canyon Grade on the site of old Camp Nye, a former cavalry outpost. This reservoir had a capacity of 200,000 gallons and was fed from Taylors Springs and other springs in the neighborhood. At a later date, a second reservoir was constructed near the first one and additional water was drawn from Ash Creek to the North.

Delivery Line to City

A pipe line was laid to connect the reservoir with the city distribution system. This line was approximately



The Type of Field Joint Used on Riveted Pipe Installed in 1874

The upper view shows the complete joint and the lower view, the break-up of joint with inside band, or butt strap, outer band and lead collar.

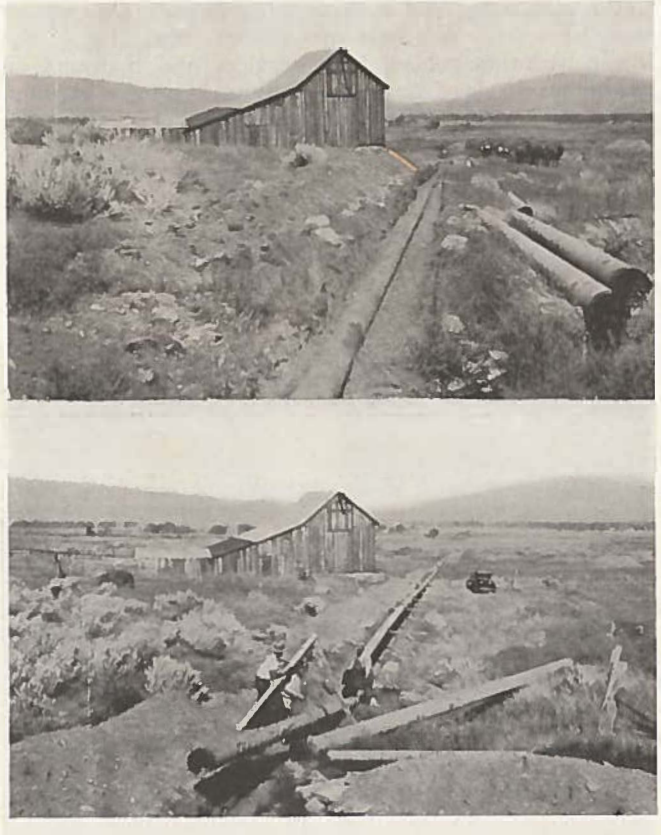
10,000 feet in length. At the upper end, leading from the reservoir, it was 12 inches in diameter, this being successively reduced to 11, 10, 9, 8 and finally to 7 inches in diameter at the lower end.

Early Example of Riveted Pipe

This line was of riveted construction, a method of manufacture developed a short time previously in California to supply the demand for light, practical conduits for use in the hydraulic placer mines to convey water under pressure to the nozzles used to wash the gold bearing gravels. The pipe was fabricated in San Francisco, in the shops of the Francis Smith Company, from 16 gage sheets that had been shipped around Cape Horn from the Atlantic Coast. It was made up in twenty-foot lengths of five 4-foot courses and was delivered to Carson by rail over the newly completed Central Pacific and Virginia and Truckee Railroads. One end of each section of pipe was provided with a six-inch inside sleeve which was riveted into the end, with three inches projecting, to provide a slip-joint connection. In making the field joints, the pipes were driven together over these sleeves until the ends butted together. Then a lead collar was poured and caulked over each connection between the pipe and an outside band three inches wide, which was made one inch larger in diameter than the pipe to provide a one-half inch space for the lead ring.

New Pipe Line Replaces Original Delivery Line

This pipe was provided with a protective coating of natural asphalt, to which had been added a certain percentage of coal tar. The line was completed and placed in service in November, 1874, and was in continuous use until September, 1935, when it was replaced by a new twelve-inch line of spiral welded pipe. All of the old pipe has been removed from the trench and salvaged and will be used again.



Installing New Delivery Pipe Line

Above is a view of the completed trench with the old line in place and new pipe distributed along bank. The lower picture shows the pipe installation work at the same location.

The Electric Welding of a Field Joint

One Trench for Old and New Lines

The trench for the new line was excavated by hand and was dug wide enough to uncover the old pipe and to provide sufficient room to install the new line alongside the old. After the new line had been cut into service, the old line was removed from the trench before backfilling.

The new pipe was fabricated in 40-foot lengths in Berkeley, Cal. After being frabricated, the pipe was tested, preheated, vertically dipped in hot asphalt and was then placed in a wrapping machine, where a second coating of hot asphalt was applied, to be followed by a spiral wrapping of reinforcing fabric, a third coating of hot asphalt and finally an outside wrap of crinkle craft paper. One end of each section was provided with a two-inch bell. Shipped by rail to Carson City, the pipe was distributed along the trench by a four-horse team, hauling six sections to the load on a long-reach wagon provided with padded bolsters. The pipe was carefully handled in unloading and distributing, in order not to damage the protective coating.

Pipe Placed in Trench After Welding Field Joints

Field joints were electrically welded, using a portable electric generator set. The pipe was welded together on skids above the trench and the field joints were painted and wrapped before lowering.

After the new pipe was installed in place in the trench, the reservoir valve was closed, the old pipe was cut out and removed from the trench and the new line was cut in at the upper and lower ends and service restored. This change-over was accomplished in one day's time, during which period, by special arrangement, the town was supplied with water through a by-pass from a small storage reservoir owned by the State of Nevada and used to supply water to the capitol grounds and the Orphans' Home.

The field welding was done by the pipe manufacturer. All other work in connection with the installation was performed by Carson Water Company under the supervision of E. S. Daugherty, President and General Manager of the company. Mr. Daugherty is a pioneer resident of Carson City and has been connected with the Carson Water Company since 1879.