

Brigham Jarvis and the Cottonwood Canal

The Cottonwood Water Story

By Mabel Jarvis, daughter of Brigham Jarvis

One of the most intriguing stories of St. George is the history of this city's culinary water supply. This water is proved by chemists to be as pure as Ivory Soap, and much better tasting. It reaches the consumers without coming in contact with any polluting agents from the time it bursts forth in large springs known as "Cottonwood Springs" at the foot of the south slopes of Pine Valley Mountain, until it reaches the city. This is the story, gathered from city minute book records, from written histories, and from those who took part in bringing this supply eighteen miles over ridges, gullies, and swales.

When the pioneers landed in St. George valley in early December 1861, they found springs both east and west of the town site. These afforded sufficient water for general use as well as for irrigating a portion of the valley on which the lots were laid out. There were also two or three smaller springs higher up on the red hills that were, in time, developed to supply those who made their homes in that area.

Glad as they were for this water supply which, of course, was responsible for the location of the town site, it was not long before they found that the water, especially during the summer months, had a brackish taste. They were sure the elements it contained were responsible for the prevalence of mouth canker, dysentery, and other ailments.

In order to get this water in as pure a state as possible, the city established what was known as "The drinking hour", when animals must be kept away from the streams while the people filled their barrels, buckets, and tubs for the day's use. This was really a great improvement, and people were generally willing to cooperate.

In the winter the drinking hour was usually from 7:00 a.m. to 8:00 a.m., and in the summer was usually from 5:00 a.m. to 6:00 a.m. At this time, the streams at the east and west of the city were divided so that for a full hour a small stream would run down one side or the other of regular ditches on every north and south street in town. And while the stream ran, or within the hour, people were required to carry the water in buckets from the street ditches to their homes. People in the middle of the blocks really had a job, as they had to have fresh water every day, especially in summer, for with the constant dipping into the barrels, the water soon lost its freshness. In the summer people packed the outside of their barrels with pieces of carpet or discarded quilts, dampened just to keep the water a trifle cooler. The shadiest spot near the house or on the porch was always chosen for the "Drinking Barrel", and a clean cloth was used to cover the top of the barrel to keep out dust, flies and other possible waste. Even with all this care, the water was often unpleasing to the taste, especially if a person were ill. In July and August it was almost impossible to get a cool drink.

People today, who draw cool, clear, pure water from their taps, can't realize how different it used to be. There are many still living who remember clearly and who watched with keen interest everything that was done to improve the water supply. They also had to dip up water in barrels for laundering, but this was usually done when the water was on their lots for irrigating. It was often a job the children had to do. It was really work, and in those days not many people had lawns for the water had to be used for gardens, though we did have flowers and shade trees, grape vines, and fruit trees.

When storms came in those days, the water would be muddy although not for long, but the water ditches had to be cleaned often or the water did not taste so good. Generally, at every corner and here and there along each block, stone or wooden water falls were made. This kept

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the ditch banks from wearing or washing out so fast and afforded an easier place to dip the buckets of water. Often, too, when there was sickness, people would drive over to Washington for barrels or bottles of water, but that took much time out of a busy day.

As early as 1865, enterprising men of the city were out looking for other sources of water. The best supply from the first was the water of the big Cottonwood Springs, which many men had enjoyed when they went to the mountains for wood. There were also cold springs on the mountain ranch taken by the Blakes of St. George and Gublers of Santa Clara. I can well remember, even in the early 1890's. before the Cottonwood water was brought to town, how glad we were when Father came home from that area with a load of wood or posts and brought his five-gallon water keg at least partly full of that good clear water. It was great to fill our cups from the keg when they took out the wooden corks or stoppers. We were cautioned not to waste it.

Early in 1879 the people of St. George often talked of bringing the Cottonwood supply down. The idea was discussed at city meetings and in church, but everyone knew the cost of such a project would be terrific, also finding the course over which it might be brought was something to puzzle even surveyor's heads. But that was the water supply they wanted, and the idea was often discussed and wondered about. The people knew that if they could just have this water, it would mean improvement in health, to say nothing of other advantages including more water for irrigation.

Brigham Jarvis Sr. surveying for St. George water line from Pine Valley



One day during the hot summer of 1874, Brigham Jarvis, then a young man, rode horseback over to Washington with the head of this mission, Erastus Snow and Anthony W. Ivins (who later became an Apostle of the L.D.S. Church.). They went mainly to see if it would be possible to divert a portion of the Factory Wash stream, provided they could purchase it, across to St. George. They all understood a little about land elevations and were quick to see that this would not be feasible.

Then they began talking about the Cottonwood Springs. Turning to them, Erastus Snow said, "Someday St. George will have that water supply, and I shall not be surprised, Brig, if you help make this possible."

During the 1880's people had become more and more determined to get Cottonwood water into St. George. The idea was studied by the city council, local surveyors, and others who made several trips to study the possibilities. Money was appropriated for surveys, one of which proposed bringing the water down what is known as Cottonwood Wash, damming off the wash, and bringing the water across from

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that location to St. George. However, tests and rechecking proved this and other schemes out of the question. Almost eleven thousand dollars was spent in these surveys.

From the time Erastus Snow had made his statement, Brigham Jarvis was deeply concerned. He went over the area repeatedly in his wagon, on horseback, and on foot, and surveyed it with his homemade surveying equipment. Finally, he told the city council he knew the water could be delivered by canal. Some men present ridiculed the idea, called him crazy, and said the route he outlined on paper would take the water uphill. But Brigham insisted it could be done. On suggestion of the Mayor, Edward M. Brown, a motion was put and carried, for a group to go over the proposed route with Brigham Jarvis, which they did. It did look like an impossibility. However, in time the city council accepted the proposal made by Brigham, that he be permitted access to two thousand dollars in cash, mostly for explosives and a little for the men, and be permitted the authority to issue labor certificates. These labor certificates allowed the men to get shares of water stock to hold until such time as increase in the city population demanded the entire supply. Then the stockholders could be bought out at a reasonable price. The work began in earnest.¹

City Surveyor Isaac MacFarlane, was authorized to make an official check of the proposed line. He did and approved the route. The project was launched, and it required many months. Though men still insisted the project would fail, the work went forward.

Brigham Jarvis worked for the same wage as the regular laborers. Every group was given so many feet, or rods, to complete. As each day's work was completed, the water was turned down and allowed to run through the night to wash the loose soil out and to prove that the engineer of the project, Brigham Jarvis, had made no mistake.

Many men still live (January 1953) who well remember the patient, arduous work, and what cheers went up when finally (1896) the water came pouring over the red hill.

This was an occasion for public celebration, and people did celebrate in a big way. It wasn't too long before the city water system was put in, the water being settled first in an open pond and later in a brick-walled head-house. Now it is piped the entire distance.

One fact is worth mentioning. Later when the pipe was laid from the springs, the pipe was laid in the original canal without further excavations. This is a tribute to the man who first laid out the water course with only an ordinary spirit level, which he purchased for \$75.00.

The water first came over the red hills in the summer of 1896. The city made its first extensive piping in 1918 and completed piping in 1936. In 1946, they added the water of the Blake and Gubler Springs as well as developing the original supply.

One fact that the children of Brigham Jarvis and others remember is that for several years, before the project was started and even after the project was completed, he kept valid filings on this water in the name of the city at his own expense so that the city's rights would not be jeopardized.

Today when you draw a glass or bucket of this clear, pure, good-tasting water; when you turn on the hose to water your lawns or wash your cars; when you see how this city has grown; when you see how many modern conveniences the people enjoy; even how much property loss is averted because the very efficient city fire department can draw an adequate water supply; remember with kindness what the people who first came to this city went through. Remember how constantly they labored to bring about the luxury we enjoy today with one of the best and purest water supplies in the entire west. --January 1, 1953, Mabel Jarvis