



ALBERT CARRINGTON.....EDITOR.

Wednesday,.....Feb. 15, 1865.

IRRIGATION.

A mass meeting of the citizens of Great Salt Lake County, living on the East side of the Jordan river, was held on Saturday, Feb. 4th, 1865, in the Tabernacle in this city, to organize a company for the construction of an irrigation canal, according to the provisions of "An Act to incorporate Irrigation companies," passed Jan. 20th, 1865, and published in the News of Feb. 1st, 1865. At that meeting, Twelve Trustees, a Secretary and a Treasurer were elected. This Board afterwards held a meeting, elected a President, and appointed three of their number a committee to make a Report embodying the estimates required of the board of Trustees in that part of Section 3 of the before-mentioned act which reads as follows: "It shall be the duty of the Trustees, so elected, to * * * determine the amount and quality of the land to be benefitted thereby, [i. e. by the Irrigation canal,] to estimate the cost including dams, flumes, locks, waste-wiers and all the appurtenances belonging thereto." That committee made the following report:

To the President and Board of Trustees, of the Deseret Irrigation and Canal Company:

GENTLEMEN:—Your Committee, to whom was referred the cost of excavating the Canal, constructing the dams, locks, wiers, aqueducts and sluices on said Canal, the probable amount of land not now in cultivation to be benefited by its waters, together with the amount of land to be taxed, now owned and needing irrigation, beg leave to submit the following report:

We find by the survey of Mr. Fox, Chief Engineer, that the Canal is thirty-two miles and one-fourth of a mile in length, commencing at a point a little below the Indian Ford, at the north end of Utah Valley, running through Willow Creek settlement, and crossing Dry Creek above the Territorial road; Little Cottonwood, near Union Fort; Big Cottonwood, a little east of Bishop Brinton's; Mill Creek, between the upper and lower County roads; Canyon Creek, on the west side of the County road, near the Sugar House, and thence northerly, through the five-acre lots, thence through the First, Tenth, Eleventh and Twelfth Wards, to its present terminus; opposite the northeast block of the Thirteenth Ward, near Mr. Camp's house.

The Canal is to be twenty feet wide, at the bottom, with a slope of one base to one perpendicular, or an angle of forty-five degrees. It is to be excavated three feet in depth, and is calculated to draw three feet of water, with a capacity for four feet, which will make it twenty-eight feet wide at the top.

From the river Jordan to Canyon creek there will be a descent of twenty inches to the mile, from Big Canyon creek to this city it will be a dead level.

There will be required a heavy substantial dam in the river Jordan, with flume and gates to protect the Canal at its entrance, also ten locks, varying from six to ten feet in depth of fall between the entrance and terminus of the Canal. It is proposed to build these locks of plank and timber, they will be fourteen feet wide;—twelve feet wide at the gates—seventy feet long, and between the gates, inside, in the clear, forty-five feet long. The whole depth of the locks to be from ten to fourteen feet.

There will be required six flumes, twenty feet wide and varying from forty to one hundred and forty-three feet in length, and three and a half feet in depth. These flumes will cross Willow creek, Dry creek, Little Cottonwood and Big Cottonwood creeks, Mill creek and Big Canyon creek.

It will be necessary to construct ten

waste wiers, to guard the locks, placed a little above the locks, to allow any extra water that may come down the Canal to overflow, and thus protect the locks from danger in times of high water.

Six large and several smaller waste wiers will also be required at the several creeks and main water sects, to convey superfluous water to the creeks and sects, and thus protect the banks of the canal.

Six or eight feeders from the various creeks and streams will be required to supply the Canal, also a number of loose temporary gates, to dam up the waters of the Canal and preserve them in case of a break in any part of it, and a large number of sluice ways of various dimensions, to convey the waters from the Canal into the various channels for irrigation purposes.

In regard to the estimates for the excavation and material for the above work, your Committee would respectfully represent, that, although they have availed themselves of the most reliable authorities and statistics, and have consulted the best informed and most practical gentlemen in this city, and on the line of the proposed Canal, that they find it impossible to give any other than an approximate estimate of a work so extensive, embracing such a variety of materials to be excavated, and such varied circumstances attending the crossing of creeks, many of the difficulties, of which, can not be foreseen, and may require a larger amount than is herein specified, to protect them from the fierce erratic influence of our rushing mountain streams. Similar difficulties attend the excavation. There is in many parts, immediately beneath the surface, a species of conglomerate called "hard pan," which is very difficult to penetrate, while in other places it is very easy digging. Two estimates have been given us, one by Mr. John Sharp, and the other by Chief Engineer Fox; one predicated upon an average of different kinds of cutting, the other calculated from the cost of the different kinds of cutting on the route; the difference in their estimates for the whole excavation was not more than two thousand dollars.

As it regards the construction of the dam in Jordan we can, at present, form no reliable estimate. The cost of that work will depend materially upon the manner of its construction. From fifteen to twenty thousand dollars will, in our estimation, make a very good substantial dam. It is proper to observe, however, that the "Jordan Irrigation Company" will be expected to perform part of this labor; how much, or whether that company will be prepared to perform that labor in time for the completion of this Canal, your Committee cannot at present determine. It would only be reasonable to suppose that, in case we built the dam, the aforesaid company should refund a proportionate amount of the expense incurred in its construction.

It is also very difficult to determine the cost of the excavation round the point of the mountain, as it is very steep and gravelly; your Committee have, however, considered this, and have, therefore, placed a very high price upon this cutting; and are hopeful that the estimate will cover the expense.

The following is an approximate estimate for the Deseret Irrigation and Navigation Canal.

For Excavating Canal and Locks, 20 feet wide, 3 feet deep, between the terminus at the N. E. corner of the 13th ward, G. S. L. City, and Little Cottonwood, 12 1/2 miles,	\$110,000.00.
For construction of the Dam, on the Jordan river,	\$20,000.00.
For materials and work upon ten Locks,	\$40,000.00.
For 10 Waste-wiers,	\$10,000.00.
For Sluice-ways,	\$4,000.00.
For Flumes to cross Willow Creek, Dry Creek, Little Cottonwood, Big Cottonwood, Mill Creek and Big Canyon Creek, varying from 40 feet to 132 feet in length,	\$40,000.00.
Total,	\$403,000.00.

The amount of land, now unoccupied, that will be susceptible of cultivation, on the completion of the Canal, will be, as per Chief Engineer Fox's estimate, 3000 acres. It is supposed that double the amount can be cultivated, but not of the best quality; we have, therefore, estimated it at \$10 per acre, which will be \$30,000, which amount, and also the amount to be paid by the "Jordan Irrigation Company" must be deducted from the above total.

It will be seen from the annexed report of Mr. Fox* that there are 1,700 city lots, 600 five acre lots, and 600 ten acre lots.

These, with the amounts in Big and

Little Cottonwood Districts, Jordan bottoms, Willow creek, and the 3,000 acres of unsurveyed land, will make a total of 24,750 acres, to be watered; but as the 3,000 unsurveyed is not yet taken, the full amount we can calculate upon, is 21,750 acres. There are, as per report, some two hundred acres on the East side of Jordan (and consequently part of the Irrigation District) including a number of city lots, not mentioned in the above estimate; but as they are expected to irrigate from the Jordan Canal, your Committee deem it improper to include that amount in this estimate.

RECAPITULATION.

For Construction of Dam	\$20,000.
Excavating Canal and Locks,	\$284,000.
Materials and work upon 10 Locks,	\$40,000.
For Waste-wiers of various kinds,	\$10,000.
Materials and Labor on 6 Flumes,	\$40,000.
	\$403,000.

There should be deducted from the above \$30,000, for uncultivated land, and from five to ten thousand on the dam to be assessed on the "Jordan Irrigation Company," say \$7,500, which will reduce the amount to be provided for \$37,500—and will leave the amount to be expended, by the people of this District, \$365,500.

All of which is respectfully submitted.

JOHN TAYLOR.
JOS. A. YOUNG.
JOHN SHARP.

*The following is the estimated amount of land in the Deseret Irrigation and Navigation Canal district:

In City lots,	2000 acres.
In Five Acre lots,	3000 "
In Ten Acre lots,	6000 "
In Big and Little Cottonwoods,	8500 "
In Jordan Bottoms,	1200 "
In Willow Creek,	1000 "
In Unserved Lands,	3000 "
	24,700 acres.

The above report includes 1700 City lots, 600 Five Acre lots, 600 Ten Acre lots.

P. S.—There are some two hundred acres on the east side of Jordan and west of City lots, not included in the above report of City lots, as the occupants are interested in and expect to irrigate from the Jordan Irrigating Canal.

G. S. L. City, Feb. 7, 1865. JESSE W. FOX.

This Report was presented to the Board of Trustees and was accepted by it. To comply with the remaining portion of Section 3 of the Incorporation Act where it says, that "It shall be the duty of the Trustees so elected to * * * estimate * * * the amount per acre, or the per centage on taxable property which will be necessary to construct the same," etc., a Resolution was unanimously adopted to the effect "that one hundred dollars be charged as a tax on each city lot in Great Salt Lake City, and one hundred dollars on each five acre lot and one hundred dollars on each ten acre lot in the five acre and ten acre lots' surveys, and that seven dollars and fifty cents per acre be levied on the Big and Little Cottonwood surveys, and ten dollars per acre on the Jordan bottom surveys and fifteen dollars per acre on the Willow Creek surveys."

And another Resolution was adopted, "that twenty-five per cent of this tax be collected and expended this spring (1865) for the construction of the said canal."

If twenty-five per cent of this tax should be promptly paid in by the people, as required by the last-mentioned resolution, in addition to the means already on hand, the Canal can be finished without difficulty from this city to the Little Cottonwood this season. This means will be wanted to apply on the digging of the Canal, in the furnishing and hauling of lumber, in making aqueducts, locks and the appurtenances belonging thereto, so that the Canal can be used for the purposes desired in its construction this coming summer. It is the intention to have the locks built in the first place as cheaply as possible and have them substantial. When the Canal is brought into successful operation, the locks can easily be rebuilt of rock, and in a more durable manner and with every improvement.

In carrying this necessary project into effect, it is important that our citizens should be united with the Trustees and take hold of this work with good feeling and energy. This Canal is being constructed for the mutual benefit of all. We have arrived at such a point when

this work is absolutely required for the growth and development of our city and county. We need more water for our fields and orchards, and for the land which we desire to bring into cultivation. Unless more of this necessary element is brought into our city, we will soon be in such a condition that the increase of our population must stop, or we be subjected to privations that would be most inconvenient and disagreeable to bear. It is not necessary that we should submit to this scarcity of water. There is an abundance of water in our land, if properly used, to supply every want. We have in Utah Lake an unequalled reservoir already provided by nature, which we have but to stretch forth our hands and tap to have such a supply of water—and that of the best kind for the purposes we want, being very rich in fertilizing matter—as will gladden and enrich our soil, and make it teem with grain, vegetables, fruit and every production that we may wish to raise for our use and comfort.

Besides, by the construction of a Canal to bring the water from this reservoir, or from its outlet, the river Jordan, we can have a water communication between this valley and Utah valley which will facilitate intercourse and the interchange of commodities and products, and obviate the wear and tear of teams and wagons—a mode of communication, which, at the present time, is so expensive. That portion of the Canal which it is the expectation of the Trustees to have finished the coming season, namely, between this city and the Little Cottonwood, will furnish a means of transportation which we imperatively require from the granite quarry that has been opened in that canyon. We have proved to our satisfaction that the hauling of rock from that quarry by teams is a very expensive business. Yet there is the rock which we need in this city, and which we must have, to build the Temple and to beautify and adorn the city by supplying material to erect public and private buildings, to lay foundations, and the other numberless purposes to which a handsome, durable stone can be applied.

BRIGHAM YOUNG,
President of the Company.

LOOSE ANIMALS—FENCES.

The new law in relation to animals has been published in the News, attention has been called to it, and still, from what we learn, there are some who seem not to understand its value.

Most of us have come from regions where lawful fences were the rule, we are traditionated in their favor, and find it difficult to comprehend why produce raisers should not be compelled here also to fence against animals running at large without care. Such persons have probably not asked themselves by what fairness or authority the raisers of produce are required to fence their fields, while the raisers of stock are permitted to let their animals roam at will. Doubtless the time-honored and customary fence rule was adopted where the greatest good of the greatest number was in favor of fencing fields instead of stock—where and when fields were small, and to make them a dense growth of timber had to be cut down and burned up—and all outside the few and small fields was a common range. In such cases the requirement to fence might prove most conducive to the general interest, but is questionable even then, except, perhaps, along the lines of roads and adjacent lands. If there are still localities of this description they are becoming rare in the western and north-western States, where, we are informed, Wisconsin already wisely requires the owners to take care of their animals; and they are much fewer west of the Mississippi and Missouri rivers, in which region we are told that Nebraska has