

cient, but from Parley's and it, about double the needed amount can be obtained, within reasonable time, without resort to storage.

To enter into the distribution system, the waters from any source must be brought in under cover. The present open canal from Parley's Creek, while it will furnish sufficient water, does not reach the city in a condition to be used for other purposes than irrigation. Analyses of the waters of both Parley's and Emigration Creeks show them to be practically as valuable as those from City Creek for all household and manufacturing purposes.

The plan which we submit for immediate relief, by increasing the supply to the pipe systems, is, in brief, to bring into the city, by pipe or masonry conduit, the natural flow of Emigration Creek, 3,000,000 gallons, and 5,000,000 gallons from Parley's Creek. We also herewith submit estimates of the cost of bringing in the whole amount that can be obtained from these sources with their natural flow, say 13,000,000 gallons, and the entire amount that can be had therefrom. By entire amount we mean that flow which can be depended on during the "dry months" supplemented by the storage in reservoirs; which amount in round numbers is 20,000,000 gallons daily from the two sources.

On the basis of 8,000,000 gallons daily from the creeks we find that by lines of riveted steel pipe (California system) the cost will be, \$166,454. By conduit of brick masonry from Parley's to city and pipes from Emigration, 150,487. To bring in 13,000,000 gallons it will cost, 208,906. For riveted steel pipes, 208,906. For brick conduit from Parley's to city and pipe from Emigration, 183,140. To carry entire available supply, 20,000,000 gallons, will cost for brick conduit, pipe, etc., 201,198.

The element of time being an important factor in obtaining material, it is believed from the best information we can now obtain that brick obtained in the territory can be earliest furnished. At least the amount necessary for the first two miles, which will make connection with the pipe line from Emigration creek and admit of an immediate water supply from that source of 3,000,000 gallons. It should also be here mentioned that the line of pipe, or conduit, follows a route that will not interfere with the present line of canal, which can continue to be used for surface irrigating until it ceases to be needed.

The route thus contemplated for bringing in the increased supply is such that the water will reach the city sufficiently high to enter into the "upper system," which has an elevation of 451 feet above the level of the Liberty Park wells.

The "lower system" is 292 feet above these wells, and any method of pumping will require, at least, elevation to this latter height.

From quite full returns we find the cost of a 5,000,000 pumping plant and cost of raising the water to be as follows:

Cost of engines, boilers, engine house and stack, \$50,000. For a main, 30-inch diameter, 13,650 feet at \$6.80, 92,140.

Total cost of plant, \$142,140.

Pumping to reservoir, 292 feet above wells, 5,000,000 gallons per day, \$105.

355 days, at \$105, \$38,225 per annum.

\$38,225 capitalized at 5 per cent., 766,500.

Equivalent cost for 500,000,000 gallons by gravitation, \$908,640.

Cost of 8,000,000 gallons from Parley's and Emigration creeks to enter city 451 feet above Liberty Park wells by gravitation through conduit, 150,487.

Cost of 13,000,000 same height and source, 183,140.

Cost of 20,000,000 same height and source, 201,198.

Cost per million gallons pumped 292 feet high "lower system," 181,528.

Cost per million gallons conveyed by gravitation 451 feet high, above Liberty Park wells, or to "upper system" on basis of 8,000,000 gallons per day, 18,811.

Cost per million gallons on basis of 13,000,000 gallons per day, 14,088.

Cost per million gallons on basis of 20,000,000 gallons per day, 10,069.

The comparative merits of obtaining a supply of 5,000,000 gallons by pumping or gravitation shows that the relative costs are as ten for pumping to one for gravitation. The five millions pumped will only enter

the "lower system," while the gravity supply enters a little above the upper and can be utilized for either or both systems.

No matter what the increased supply brought to our doors, it will be of no avail unless means for its distribution be had, since the present pipe service is entirely inadequate. With a correctly devised system the present income of the city should be increased four-fold or more in a comparatively short time. This necessitates proper sized mains, especially in the "lower system." The methods for such distribution are now under investigation and as soon as the requisite data is obtained, the estimates of cost and details of pipe work will be furnished the Council. Respectfully submitted,

A. F. DOREMUS,  
M. J. MACK,  
C. L. STEVENSON,  
Water Commission.

City Engineer Doremus said the water commission was in favor of bringing in the whole of Emigration Creek, in pipes, at once.

A motion for the engineer to make a permanent survey of the lines for a new system of waterworks, from Emigration Canyon, and report, was carried, and the report of the water commission was laid on the table, pending the engineer's report.

The report of the water commission, in regard to laying an eight-inch main on Sixth Street, in addition to the six-inch pipe now there, was discussed. During the proceedings, Mr. Noble, of the committee on waterworks, declared that not another extension of the water mains could be made till larger mains or a new system of waterworks should be put in.

The council ordered that an eight-inch main be laid on Sixth Street, to reinforce the six-inch main now there, and to form a part of an additional system for a water supply. The cost is estimated to be \$9000.

The vote was: Ayes—Spafford, Anderson, Noble, Cohn, Lynn—5. Noes—Pickard, Heath, Wostenholme, Hall—4. Not voting—Pendleton.

The committee on finance reported on Mount & Griffin's request for \$1000, recommending that \$700 be paid, and \$300 be reserved on the price of the carts. Adopted.

The claim of Jas. F. Brim, for sprinkling the east and west drives, for \$75, was allowed.

Attorney Merritt called attention to the faulty printing of the paving bill, and on his suggestion the vote by which it was passed was reconsidered, and the corrections made.

The curbing and guttering bill was read the third time and passed. It provides for a special tax for defraying the expense of the work.

The following appropriations were made:

Waterworks fund.....	\$5000.00
Census Enumerator's.....	1407.75
Mount and Griffin.....	700.00
Joseph Silver.....	123.00
J. F. Brim.....	75.00
<b>Total</b>	<b>\$7,205.75</b>

An ordinance creating Paving District No. 1, was read the third time and passed.

The committee on streets reported that the property owners on Commercial street were continually asking that paving be done there, and recommended that it be done forthwith, asphalt to be used, as that was the desire of the property owners. The report was adopted.

The following was presented by Mr. Cohn, and was adopted.

"Resolved that the supervisor of streets is hereby authorized and instructed to grade, under the direction of the city engineer, such portions of First South street, between East Temple street and Sixth East street, as may be necessary to make the said street conform to the established grade thereof, at all places where the street is above the grade of the cement sidewalk now being constructed along the north side of said street, and that the work be done at the earliest possible moment.

The recorder reported having received five sealed bids for the keeper's lodge in the cemetery. The bids were opened, and were found to be as follows.

Thomas Wilson.....	\$3186
Jay & Black.....	3125
Jennings & Morrow.....	3293
Geo. D. Webster.....	3700
T. K. Lloyd.....	2874

The matter was referred to the committee on cemetery, with the mayor associated, with power to contract with the lowest responsible bidder.

The council then adjourned for one week.

## GROWLS ABOUT GRADING.

WHILE the paving of sidewalks is a public improvement and convenient, the bulk of the benefit is presumed to go to the owners of property abutting upon the pathway treated to a smooth finish. Upon this theory the property holders are subjected to special taxation; otherwise the levy would be unlawful, because unjust. Some of the owners of property protest against the treatment they are receiving at the hands of the City Council in this connection. They complain, and properly too, that in grading for pavement purposes, no attention is being paid to the contour of the lots with whose frontage the sidewalks run parallel.

This is notably the case with regard to some portions of the eastern section of the cement sidewalk laid along South Temple Street. In some instances the grading is of such a character that some of the property owners claim that they would have been better off had the sidewalk never been laid, and that they have been taxed for what they deem to be an injury in place of a benefit to their property. If this course continues to be pursued against the well-grounded protests of interested citizens, the Council will undoubtedly reach a hitching place. Similar complaints are made in reference to ordinary street grading.

It is perhaps fortunate for other classes of citizens who have strongly objected to the method pursued in the matter of making sidewalks and streets, that some conspicuous "Liberals" are indulging in sonorous growling on the same subject.