

many years ago men were paid to haul cotton seed off to get it out of the way; now it is sold at \$5 per ton, wholesale. From weeds are now made ropes, awines and strings. No stronger example of the utilization of waste can be given than the process through which old clothes pass. In England men make a business of gathering old clothes. After the society man considers them no longer good, they are taken, fixed up and sold to one who is a step lower in the social world. And so the clothes pass through many stages, until they can no longer be called clothes. The cotton and linen in them is then made into paper and the wool used as a fertilizer. And so the coat that did service on a beggar's back may appear with the seal of an emperor or the thoughts of a poet upon it. Here again we see mutual dependence. But these economies of man are as nothing to those of nature. Waste thrown off by animals is utilized by plants, and *vice versa*; and so one is dependent upon the other. Water is continually circulating; it has a mission given by its Creator to perform, and not a drop is wasted. Man has a mission to perform, and he has been given just enough vital force to accomplish that mission; but if he wastes his energy by smoking, drinking for other deleterious habits, or by shiftlessness, he will go to his Maker without having accomplished his mission, and with the disfavor of his heavenly Father. In all his doings man will hear the still small voice saying unto him: "Man should not waste for he cannot create," and sooner or later an account of his stewardship will be demanded of him.

THE GRAVITY SEWER SYSTEM.

"The greatest problem with which Salt Lake City has ever been confronted is immediately before her today," said one of the staid members of the City Council this afternoon, "and," he continued, "it is of the utmost importance that steps be at once taken towards its successful solution. Not a day, not an hour, not a moment should be lost in making preparations to do the preliminary work, which can all be done under cover where the inclemency of winter weather will not interfere. Then active outdoor operations can be commenced early in the spring. For one I am willing and anxious that all bickerings and unnecessary troubles and technicalities should be dropped in our Council deliberations, and work, good, hard, sensible and effectual work, take their place. I refer to the disposition of the city's sewage by adopting the gravity system."

The idea seems to conform exactly with City Engineer Doremus' views on the matter, who is more than anxious that the work should be uninterruptedly pushed to a rapid completion. The preliminary survey of the route for a gravity sewer has already been made. It will intercept the present main sewer at the intersection of First West and Fifth South streets. From here it will extend northward and westward for a distance of between four and five miles, or as much further as the Council may direct. It will terminate at a point north of the Hot Springs, at which

place the city has an option on a forty acre tract of ground at \$2.50 per acre.

In regard to the cost of construction, City Engineer Doremus stated to a News representative today: "From Fourth North street northward the gravity system—calculating upon and building for a population of 200,000 people—will cost not to exceed \$325,000. This talk about it probably running to \$1,000,000, or even \$500,000, is all moonshine. My estimates are the result of careful and considerate calculation, and when I say that the work all told—if my present recommendations are carried out—will not exceed \$325,000 I mean it and know that I am correct. No piece of work upon which I have ever figured has cost the city more or even as much as my estimate and I know that this will not. Not a thing has escaped my attention. The purchase of land, right of way, extra engineering, incidentals, in fact, everything has been calculated upon and given place in the estimate."

"How long, Mr. Doremus," asked the reporter, "will it take to complete the system?"

"Well, every detail as to office work, which means the getting out of plans and specifications, can be prepared this winter, so that in the spring when manual labor will be necessary it will only be a matter of men. I shall recommend that enough men be employed to complete the work by next fall. I do not hesitate to say that if this is done that the system can be in use one year from now." It is, in my opinion, the only natural course to build it. Along the route are the railroads by which transportation of mains is made easy and convenient, while the mountains parallel our line and from which we can easily procure at much less cost than from any other source all the rock, gravel and sand necessary to secure a solid base for the mains."

In answer as to what disposition should be made of the sewage on reaching the terminal or output, Mr. Doremus stated that it could be used with great success for irrigating upon a barren plain in that section of country, aggregating 5,000 acres of land. It would, he believed, yet be proven that the city's sewage would be a source of revenue instead of a continuous expense.

In case, he explained, that the city should decide to convert the forty acres of ground referred to into four filtering tanks the sediment could be used as a fertilizer and the liquid as an irrigating stream. The water that would flow from these tanks, he said, would be as clear as where it bubbled from the earth in the mountain springs. "And a most thorough analysis has failed to demonstrate," said Mr. Doremus, "that it would contain anything that would be detrimental to the health of human beings; cattle, horses and sheep could drink of it with safety. When we once convince the people owning property in that vicinity that the sewage will be a blessing to them, inasmuch as arid land will be made valuable, our sailing will be clear."

"What do you estimate the output of liquid sewage will be, Mr. Doremus?"

"Well, the most comprehensive way to answer that question would be to

say that when the system is complete all of the water of City Creek, Emigration and Parley's canyon will flow into it from the thousands of pipes in the city. Once in the mains there can be little or no loss. I fancy that many men would gladly avail themselves of the opportunity to use those streams for reclaiming land for agricultural purposes in this the greatest county in our Territory—and that, too, within a few miles of this city. I am sanguine over the results of the scheme. I know that it means much to this city both as a financial investment and as a safeguard for health."

"What proportion of the city as to area and population will be below and west of the gravity mains?"

"As to area about one tenth, and as to population considerably less than one tenth, I should say."

"How do you propose to supply that portion of the city with a sewerage service?"

"By laying the usual pipes and pumping into the gravity mains at the nearest connecting point. This is the only thing that can be done."

Mr. Doremus further expressed himself that he knew beyond a question of doubt from levels run by himself and assistants that there was sufficient fall to carry the sewage of the city to the locality chosen, but was very anxious for the satisfaction of the council that an expert engineer with a national reputation be employed to go over the ground and confirm his findings and representations. It is very difficult to secure the services of such a man on short notice; but if such a man can be found in any of the large eastern cities who is at liberty to come he will be engaged at once.

NEWS FROM LOGAN.

A brakeman named Dennis Dee has been badly hurt at Smithfield. He and others were switching some cars standing on a side track, and Dee was trying to loosen a brake which had been tightened by some mischievous boys. He was unable to do so with his hands and used a stick for a lever. By this means he succeeded in releasing the brake; but the wheel whirled swiftly round and the stick struck him on the back, knocking him off the car. On the other track some coal cars were standing, and Dee was thrown against the edge of one of them, and landed on the ground. He was brought to Logan and Doctors Parkinson and Read were summoned. In addition to other injuries there were many contusions, and a severe concussion of the spine.

The election for school trustees resulted in a victory for the Democrats in the First, Second and Fifth precincts, and for the Republicans in the Third and Fourth. A light vote was polled.

Five head of horses have been run over and horribly mutilated by the train between Hyde Park and Smithfield.

Coal has been found in Dry canyon by William Palmer. There are three small veins, separated by layers of rock. The upper vein is eight inches thick, the middle one eighteen inches and the lower one two and a half feet. The new discovery is