

## WATERWORKS REPORTS.

It is unfortunately the case that comparatively few of the municipalities in the Province having public waterworks systems have adopted the plan of publishing annual reports, showing the results of operation. In the great majority of cases a very meagre statement of the expenditure for the year is given. As a rule the consideration for which the payment was made is not given, merely the name of the person to whom the money was paid. There is no attempt at classification, even so far as to distinguish between new construction and operation. Such a system of book-keeping is an entire absence of system; it reflects credit neither upon the citizens nor their representatives in the council or commission. Surely the intelligence of the citizens of the average Ontario town should be above being satisfied with the simple knowledge of the person to whom a few dollars were paid. Such a statement of expenditure in connection with municipal works can do little more than assure Harry Jones, hardware merchant, and Tom Brown, opposition hardware merchant, that the hardware patronage of the institution is being equally divided, etc.

What the intelligent citizen will, as a rule, want to have answered is not to whom was the money paid, but rather for what was the money paid? And this information he wishes properly classified, so that he may know the financial standing of the works. Does the revenue cover operating expenses, depreciation, and interest? Is it being conducted at a profit or a loss? Should the rates be lowered or increased? Is the municipality being charged too much or not enough for fire protection and other public purposes? Is the system being managed economically or otherwise? These are among the questions which a proper annual statement will answer when the right kind of information is given and suitably classified.

To the successful management of a private enterprise a proper system of book-keeping is essential. This is none the less the case when the industry is under public ownership. From the absence of a correct system of accounting arises one of the chief weaknesses of municipal ownership. New men are elected from year to year to manage these institutions. In the past records they find little or nothing to guide them. Water rates established twenty years ago continue unchanged. Are they to-day rightly proportioned within themselves, and in relation to the total cost of operation? There is nothing to answer. A special annual report such as is published in St. Thomas, Berlin, Windsor and a few other places, is one of the needed solutions. Another is that financial statements should be prepared on a uniform basis throughout the Province, these to be collected and published annually in the form of comparative statistics.

## STREET GRADES

One of the first requisites for general street improvement, is the establishment of a permanent plan of street grades. When this has been done, street improvement can be carried out systematically and when all is completed the different works will unite, and fit into one another in a proper manner. When a permanent plan of grades has been established, the subsequent erection of buildings can be carried out in accordance with it.

The following of a definite plan of street grades generally means considerable excavating and filling along the street and while a work of improvement is in progress those living on the street are very apt to see much injury being done to their property. In the end, however, it generally transpires that the grade being followed is the most suitable for those concerned, and the finished work, with lawns graded or terraced to harmonize with it, is satisfactory to all.

## ST. THOMAS WATERWORKS IMPROVEMENT.

The city council of St. Thomas, on the recommendation of the Board of Water Commissioners will apply to the Lieutenant-Governor in Council for permission to pass a by-law authorizing the issue of debentures to raise the sum of \$14,000 for the requirements of the board for the following purposes: For 90 acres of land, \$6,000; for the new dam, \$2,500; for puddle wall around reservoir, \$500; for concrete platform for storage of coal, \$250; for repairs to suction tank, \$150; for new centrifugal pump and gasoline engine for use in building dam and cleaning reservoir, \$600; for increasing capacity of storage, \$1,000; for extending a six-inch main to join present main in vicinity of proposed Pere Marquette shops, \$3,000; a total of \$14,000. The necessary land and supplies for new dam, including pump and engine, have already been purchased. City Engineer Bell is of the opinion that it is absolutely necessary to secure the additional storage capacity of the land purchased. There are 32 acres of high lands which the commissioners do not require, but they could not afford to have these lands sold for residences and the sewage run into the flats and contaminate the creek. •

## THE ROAD GRADER.

Road improvement should be in full operation on township and county roads at this season of the year. Particularly is this true of the grading and the use of grading machines. The ground is now moist and in its best condition for working. Later in the year the roads will be hardened and baked by the sun, the soil, particularly clay, difficult to handle, and the results of the work will be less satisfactory. When this work is done early in the summer, the soil settles more readily and the greatest benefit will result for the ensuing season.

The season's work of grading should be planned in advance, and each piece undertaken and completed in its proper order, as the grading machine is moved from one side of the township to the other. In this way a useless outlay is avoided in moving the grader, men and teams here and there about the township without system.

A grader is, in some townships, used in connection with statute labor. Any pathmaster can get the grader (if it is not in use) and he is expected to find men and teams to operate it. A grader used in this way cannot give satisfaction. To operate a grader successfully, experienced men and horses accustomed to the work are essential. These can be had only by hiring men and teams for the entire season, to work independently of statute labor, taking up the work as above outlined—systematically throughout the township. A grading machine has not intelligence; it will not do good work unless skilfully directed. The operator must be a man of experience, of good judgment, and have a knowledge of the principles of road-making.

In planning the season's work, the members of the council or township road commissioner should, early in the spring, go carefully over the roads of the township. Acting on the information obtained in this way, the work to be done may be selected and proper instructions be given the operator of the machine.

Instead of using horses at all times on the grader, there is certain work for which a traction engine can be used to advantage. This is the case where the grader is sent over long stretches of old gravel or stone road, to cut off the shoulders and scrape away the surface coat of mud that has collected. A traction engine will not work to advantage on new ground, which is soft and uneven; but on old roads, where the work is largely one of scraping, and can be done in long stretches without turning, a traction engine will do better and cheaper work than can horses.