

# Engineering Department

A. W. CAMPBELL, O. L. S., C. E., M. C. S. C. E.

## TOWN STREETS.

There is no truer indication of the refinement, intelligence and prosperity of a community than well designed streets, with good roadways and walks, trim boulevards, handsome shade trees, and nicely kept lawns on either side. Throughout Ontario, until but recently, streets had been neglected. They were little better than the township roads from which they had developed—or perhaps degenerated. But a new order has taken possession, and in street and road construction and maintenance, more than any other branch of municipal work, there is a determined effort being put forth to effect an improvement.

The old-time plan of a residential street was to lay plank sidewalks on the street allowance immediately beside the fence. Outside the walk a row of trees was planted; outside the trees was an open ditch or gutter; and then the roadway in the centre of the street.

The more modern practice is to remove the sidewalk from its old position and place it outside the row of trees, high-board and other disfiguring styles of fences are removed, and the boulevard where the sidewalk had been, is, in effect, added to the lawn. Walks when outside the trees are more effectively lighted from electric arc lamps suspended in the center of the street, and the public are farther from the citizen's portico or verandah.

The township style of roadway is giving place to one more distinctly urban. There is no longer an open ditch with the road a mound of gravel. Instead, the road is levelled down, under-drains keep the sub-soil dry and displace the deep open ditch. The latter becomes a shallow gutter for surface water only, and is often merely the angle between the gentle camber of the roadway and the curb. Between the curb and the sidewalk there is frequently room for a strip of sod, the road way being narrowed to a width of twenty or thirty feet.

The narrowing of the roadway between the curbs reduces the cost of construction and maintainance, and the widths given are found quite sufficient to accommodate traffic on the majority of residence streets, even in large cities. The narrow roadways give vehicles ample room to pass one another, while to turn, it is always convenient for them to go to a street intersection where there is sufficient space.

Good streets are of prime necessity to the welfare of a town. They are the objects of an annual outlay which, if wasted, re-acts in a two-fold manner by increasing taxes, at the same time permitting the evils of bad streets

to remain. With town streets as with country roads, the object of the road and street reform movement is not to urge increased expenditure but to obtain a better use of the money now expended.

The defects most observable as a rule arise from the fact that durable and permanent work is not undertaken; in order to correct which, there is need of reforming the present systems of street management in two particulars—the method of expenditure, and the method of oversight.

## THE EXPENDITURE.

The expenditure should not be distributed over the street area in patchwork and repairs, but a reasonable amount should be provided for permanent work. Small sums of five, ten or one hundred dollars quickly exhaust an entire yearly appropriation, whereas one-half the appropriation spent in properly macadamizing a few blocks, would in a few years revolutionize the condition of the streets in most towns.

The annual expenditure is usually divided among the different streets and wards of a town, and this is again subdivided by the ward representative in doing odd jobs here and there. It is not spent in accordance with the needs of the work, but as certain electors think it should be spent. The logical outcome of the system is that this money becomes a legitimate campaign fund; the people expect it and the council has no other course to pursue. It is the inevitable result of such a system that too much money is provided for one piece of work, and not enough is devoted to another—usually the latter. It is productive of shoddy roadways, and is always wasteful in the end.

Many towns have been making an effort to keep in repair a class of roadways not suited to the traffic over them. They might be considered very good township roads. Cheap in first construction, they are expensive to maintain, and after a term of years, are very costly. The repairs made to these streets are supposed to be such as will eventually provide a solid roadway; but this method of sinking stone in the mud year by year, and in the spring carting off the mud which has been forced to the surface, is an extravagant and useless process, which will not make good streets. The waste that arises is of a two-fold nature, combining high taxation and bad streets. It is not to be supposed that streets can be built without money, but when the expenditure is made as now, it should be to provide good streets.

In order to get the best result from street construction, the work has to be undertaken on a proper scale. A roadway, like a house or any other structure, should be



A STREET IN WOODSTOCK