

ward from last season and here saw an opportunity to reduce the civic expense. He did not object to the articles of decoration, but expressed his opinion that a lower price could have been paid for the same value and appearance. If the article had been some municipal requirement where utility was the all important point, sarcasm given in answer to a suggestion for expense reduction could not be overlooked; but surely the council member deserves the approval of the citizens in his attempt, however small, to reduce needless civic expenditure.

A GOOD CHANGE IN TENDER WORDING.

In a recent advertisement for the supply of road machinery for one of the smaller municipalities of this country a clause was inserted in the composition to the effect that "Any firm or dealers who personally or through their agents canvass members of the County Council or officials of the council will be disqualified from having their tenders accepted."

This is an unusual clause to notice in a municipal tender but surely it is a criterion of the fair minded intentions of the council members to see that the ratepayers are supplied with the worth of the staple dollar for dollar as well as giving the smaller manufacturer an equal chance in the competition.

PUBLIC HEALTH.

The recent announcement from the Federal Government regarding the new methods to assist the public in the matter of health is the outcome of several suggestions and ideas on the part of municipalities and communities who have tried to combat disease and found themselves handicapped owing to the limited extent of their powers.

The Federal Government are the proper body to direct this campaign for many reasons, chief of which is the unlimited powers enjoyed by that party owing to no restriction being made by boundary lines or municipal borders.

But the federal powers may be greatly strengthened by co-operation of the municipal authorities, and in return the municipal health officers may feel increased powers with the knowledge that suggestions, if practical, will be adopted and enforced with powers that they as individuals do not enjoy.

It is to be hoped that the new office will prove of equal value to the Canadian public with the benefits of the Government inspection of live stock.

Honorable Frank Cochrane has given notice of a resolution providing for a subsidy not exceeding \$6,400 a mile for the Temiskaming and Northern Ontario lines, described as follows: From North Bay to Cochrane, not exceeding 252.8 miles. From Englehart to Charlton, not exceeding 7.8 miles. From Cobalt to Kerr Lake, not exceeding 3.9 miles. From Iroquois Falls to Timmins, not exceeding 33.6 miles. From Nipissing Junction to North Bay, not exceeding 2.18 miles. Provision is made for the payment of the subsidy upon the certificate of the chief engineer of the Department of Railways and Canals as to the mileage constructed in such manner and in such amounts, and subject to such conditions, if any, as the Governor-in-Council may deem expedient.

THE FIRST COLD WEATHER REINFORCED CONCRETE JOB.

It is interesting to note that the first reinforced concrete factory ever built, the Pacific Coast Borax Refinery at Bayonne, N.J., was constructed partly during the winter of 1897-1898. Reinforced concrete buildings are now so general that it is hard to appreciate the boldness of the conception to construct a building to carry actual working loads of 400 lbs. per sq. ft. out of a material which had been previously used almost exclusively in foundations and at a time when the placing of concrete in the winter was considered absolutely erroneous. The contractors for this building were the Ransome & Smith Company, while Ernest L. Ransome was the designer. That the work was well done and the design well made is evidenced by the way the building stood the severe fire which visited it in the spring of 1902.

The construction was begun late in the fall of 1897 when the ground was frozen. In placing the foundations salamanders with long legs were placed in the excavations to keep the concrete from freezing. Most of the broken stone was brought down in scows from the Palisades of the Hudson River and was piled near the cement shed. The size of the stone was limited to particles passing a 2-inch ring, while for much of the work a 1-inch size was employed. There was so much fine material left in the rock that only a small quantity of sand averaging not more than 10 per cent. was needed. This stone pile was heated by steam pipes from a central plant to a temperature of about 80 deg.

The cement and stone were measured in barrows, dumped into a hopper which discharged into a car. This car was hauled by a cable through a subway and then up an incline to about 30 ft. above the hopper and about 400 ft. distant, where it was automatically tipped into a chute leading to the mixer. Salt was added to the water used in the proportion of 8 lbs. of salt to each barrel of water. The mixer was one of the early Ransome mixers, and it discharged into a trough containing a screw conveyor which delivered the concrete to a vertical bucket elevator and this hoisted the material to the storey where it was required, and dumped upon a platform which held about one cu. yd. A steam engine operated the car, mixer and elevator, besides operating a number of machine tools.

One of the most interesting points of this building is the double walls. The total thickness of all of the walls is 16 ins. for the entire height of the building, the hollow space varying from 10 ins. to 12½ ins. These walls were constructed in three feet sections and the concrete was kept from freezing by placing salamanders in the hollow walls. The work was enclosed by canvas, floor by floor, and salamanders were also used here. This method of concreting in cold weather proved very satisfactory, and the cost of this building per cu. ft. of contents was less than 5 cents, which is a remarkable showing when everything is considered.

PANAMA CANAL REPORT.

The recent report of the volcano under the Panama canal has proved, upon investigation, to be false; the steam and other manifestations of heat are said to arise solely from the oxidation of pyrites and that the trouble is disposed of after the portion is uncovered for a few days.