

MUNICIPAL DEPARTMENT

TO MUNICIPAL OFFICERS.

The CONTRACT RECORD is desirous of publishing, as far as possible, advance information regarding projected works of construction in all parts of Canada, such as sewerage and waterworks systems, railways, street pavements, public and private buildings, etc. Municipal officers would confer a favor upon the publisher by placing at our disposal particulars of such undertakings which are likely to be carried out in their vicinity, giving the name of the promoter, character of the work, and probable cost. Any information thus furnished will be greatly appreciated.

VALUABLE REPORT ON ROAD- MAKING.

Mr. A. W. Campbell, Provincial Instructor in Road-Making for Ontario, has issued his first annual report, which is a work of much interest and value to municipal officers, councillors, etc., containing as it does suggestions and methods for improving the streets in towns, villages and the country. Any person desiring a copy of the report may obtain the same upon application to the Department of Agriculture, Toronto.

CEMENT-CONCRETE SIDEWALKS.

Under the above heading Mr. Campbell says :

In connection with the improvements streets, there is a widespread tendency to replace wooden sidewalks with others of more permanent material. In fixing grades it will generally be necessary to undertake the construction of the entire street roadway, sidewalks, boulevards—if the best results are to be attained, and for the purpose of economically and easily handling the excavated earth. Wooden sidewalks are lacking in durability, need constant attention to keep them in a safe condition, are not agreeable to walk on when a little worn, and will, in their ultimate cost, be found more costly than those of cement-concrete.

In constructing this latter class of walk, the space over which it is to be laid should be excavated to a depth of twelve inches below the top of the proposed walk, perishable or objectionable material being removed to a greater depth if necessary. The bottom of the excavation is then

compacted by pounding or rolling until as firm as possible.

On the bed so prepared a layer of clean gravel or broken stone is spread to such a depth as will give, on thorough consolidation, a thickness of seven inches. Temporary curbs of pine should be set on each side of the excavation, to be removed after the walk has hardened.

On this foundation, and in the mould formed by the curbs, is placed four inches of concrete, which should be composed of small broken stone, of a size not greater than one and a quarter inches in any direction, and entirely free from dirt or dust; clean screened gravel, sharp sand and Portland cement. This should be thoroughly rammed, and may be of the following proportions :

Cement	1 part
Broken stone	5 parts
Clean gravel	2½ parts

Slab or flag divisions are then marked off from 16 to 20 feet in length. This provides for settlement, expansion and contraction from frost, and lessens the tendency of the walk to crack irregularly from these causes. The joints should be filled with sand or other approved separating material.

Before the concrete has set, and while it is still adhesive, there should be laid on it a wearing surface one inch in thickness. This surface coating may be composed, if a sand finish is desired, of :

Portland cement	2 parts
Sharp sand	3 "

Over this should be sifted a layer of the best Portland cement, the whole to be then levelled, neatly trowelled, and rolled with a tooth roller to make a surface which will not be slippery. A more durable surface coating, known as granolithic, may be had by using broken granite in place of the sand. This broken stone should have a square or cubical fracture, be clean and fresh, and of sizes three-eighths of an inch downward. The composition will then be :

Portland cement	2 parts
Broken granite	3 "

The work should be kept moist, and protected from the rays of the sun with canvas, until thoroughly set. Traffic should be kept off for a period of about fifteen days.

The various parts, cement, sand

and broken stone, should be measured and mixed when dry, water then added as required, and the whole again thoroughly manipulated and mixed. There is a great necessity for careful and skilled workmanship, and an experienced man should have charge of the work.

If the sub-soil is of a nature to retain water, is low-lying and not sufficiently underdrained, a line of common field tile should first be placed below the centre of the walk. The surface of the finished walk should have a slope towards the gutter of one-quarter of an inch to each foot of width.

When built by a contractor, he should be required to guarantee that the walk shall last and remain in all respects in perfect order and condition, and free from all cracks and defects, and of perfect hardness, consistency, smoothness and finish, for at least the term of five years from the date of its completion, unless subjected to other influences than the ordinary effects of wear and weather.

Colonel Waring is, as he should be, a man of ideas, and one of his latest ones, says the American Architect, is that a great deal of unnecessary waste goes on in New York, owing to the practice of throwing all kinds of rubbish indiscriminately into the sea, or burning it as garbage. It is said that a certain contractor, before Colonel Waring's time, made a fortune every year by monopolizing the privilege of picking over the garbage before it was put on the dumping-scows, and preparations are now being made for having the city do its own picking over, by having the dry refuse, or what the street-cleaning department calls "paper," dumped on an endless belt, which moves slowly between two rows of men, who pick out the bottles, corks, tin cans and other things that can be utilized. How much profit there will be in this operation remains to be seen, but, as Colonel Waring says, if every family of ten people should waste five cents' worth of utilizable matter per day, and the city could save it, the proceeds would amount to nearly four million dollars a year, or enough to pay the expenses of the street-cleaning department, and the cost of sprinkling the streets in addition.

JOSSON CEMENT .. Manufactured at.. NIEL ON RUPELL

Is the Highest Grade Artificial Portland Cement and the Best for High Class Work. Has been used largely for Government and Municipal Works.

TO BE HAD FROM ALL CANADIAN DEALERS

C. I. de Sola, Manager in Canada .. 180 St. James Street, MONTREAL

BELLHOUSE, DILLON & CO., 30 St. Francois Xavier St., Montreal
Sole Agents for the Compagnie Generale des Asphaltes de Franco (Rock Asphalt).

PORTLAND CEMENT NORTH'S CONDOR

Paving and Fire Brick a Specialty

SITTING LION and WHITE CROSS Brands

NORTH'S "CONDOR" BRAND AWARDED FIRST-PRIZE AND GOLD-MEDAL AT THE ANTWERP EXHIBITION