through the fitters in channels instead of percolating through the material, while the beds frequently freeze and become useless in winter.

There is no doubt that the bacterial process of sewage treatment has come to stay. The question raised is no longer shall the bacterial system be used, but which kind of bacterial system best complies with the given conditions. All the methods I have described work

successfully under the proper conditions, but the contact bed system has proved the most generally applicable because of the small fall required and its ability to operate in all weather.

"The Cement of Quality"



## **Portland Cement**

The City Engineer of Toronto for 1903-4

Note the High Grade of National. Compare it with others.

Year.	No Samples Tested.	Soundness Faiji Test.	Specific Gravity	Residue in Test on No. 100 Sieve	Setting Time in Minutes		Tensile Strength in pounds per square inch.										
					Initial	Finat	Neat.					3 (Sand) to 1 (Cement)					
							t dy.	7 d, s.	28 dys.	3 mos	ı yr.	ı dy.	7 dys.	28 dys	3 mos.	ı yr.	
1903	20	O.K.	3.135	2.1	162	345	307	701	783	827		74	214	299	367		
1904	44	O.K.	3,150	2.0	132	342	300	744	848	914	938	86	262	354	401	427	

\* Tests for 1 year were not completed when records closed. 1905 report not yet issued.

THE BEST IS THE CHEAPEST

## The National Portland Cement Company Limited

Head Office and Mills: DURHAM, ONTARIO

## Defy Competition

The Ideal Concrete Machine for the manufacture of Concrete Building Blocks makes it possible to profitably undersell all other building materials in all localities.

Ideal Blocks can be sold far below the cost of brick, lumber or natural stone. Excell them all in durability and fire and weather proof qualities. Adaptable to any possible architectural design.

No chains, springs or gears. Wonderfully simple in construction. Embody the only principle (face down) permitting the practical use of rich facing material with less expensive material in back of blocks. Adaptable to any size block within

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The same machine makes blocks in countless ornamental designs and natural stone effects.

Write and learn how easily, rapidly and profitable one man can turn out Concrete Building Blocks with an Ideal Machine.



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