THE CANADIAN ENGINEER.

Annual cost of mianapeurent.	£36.800	8,100	4.370	5		1.700		1,800	1,800			1,100	1,300	3,500	1,296				ĝ
Commenced about .	1860	1856	1884	New	1874	1886	Ncw	1878	1885	_ _	1890	1854	1883	1876	1880	1870	1875	1874	1893
Total area of land in acres.	1,300	ç ç	22	1.700	510	25	• 0	20	12	:	80	280	22	0	3	320	-	375	35
Men employed.	114	58	09	8		2	•	2			11		13		20		~	•	-
-ni son, nasion o sono Contra da su son , nasion da su sono contra da su	\$ 75.000	32,000	000 701			30,000		35,000	19.500		12,500	75,000	10,000	13,000	20,800	22,400	10.000		0,000
forst capacity of Local capacity of Local capacity of callons.		1.500,000	000.000.5		500,000	5,200,000	Area 4.460 sq. yds.	1,150,000	1,750,000		300,000	500,000	1,500,000	1,600,000	1,000,000			1,250,030	240,000
How many tanks?	<u> </u>	ŝ	12		5	ñ	5	12	~		~		5		0		6	-	**
Is the flow of sew- age into the tanks continuous of In- termittent?	Both ways	Intermittent	Both ways		Continued	Intermittent	do.	Continuous	Intermittent	(Continuous	do.	Intermittent	Continuous	Intermittent		Continuous	do.	Intermittent
How is the sludge	Intoland	Wasted	Wasted	Wasted	Vasted 1	Wasted		Pressed	Pressed		- CSCG	Sold	Wasted	Wasted	Pressed			_	Givenaway
Do you filter the clarified sewage?	Yes	Yes	No	°7.	ŝ	°20	Ycs	Ycs	°Z	:	YCS	Ycs	Ycs	Yes	Yes		°2		Ycs
-276 a finit of a pre- cipitant is used ?	Lime Alumina and lime	Lime	1.ime	Ferrozone and lime	Lime	Lime	Polarite and Sand	Line	Hanson's sulphurous	powder and lime	spence's alumio terric		Lime	Sulphate of alumina	Sulphate of iron	Only Farms let to tenant.	Lime	By Farm lands	l'errozone
How is the sewage purified.	Clarified and filtered	- - - -	Limped into the sea	Clarified	do.	do.	By filters.	Clarified and filtered	Clarified		Clarined and intered	<u>(</u> 0,	do.	do.	do.	Broad irrigation	Clarified	Land irrigation	Clarified and filtered
ls manufacturers' sewage allowed ?	Yes A few	Yes	Yes A few	Ycs	Vcs	Yes	Yes	A few	A few		V ICW	Ycs	Yes	Yes	Yes	Yes	No No	°20	Yes
Ачегаке Пои с'dry wrather эсчаке рег day in zal- lons.	20,000,000	12,500,000	9.000,000	2,000,000	4.500,000	3,250,000	5,000,000	1,325,000	1,750,000	_	1,250,000	1.500,000	1.750.000	2,250,000	1,200,000	1.250,000	2,500,000	750,000	300,000
Population.	(00,000 600,000	324.243	265,000 198,000	180,000	120,000	115 000	96 , 000	90,000	20,000		72,000	64.000	55,000	53,000	42,000	38,000	37,000	27,000	16,000
Names of towes in Uttaln.	Birmingham	Sheffield	Salford	Leicester	Blackburn	Jolton	Huddersfield	Jurnley	cyton	Jack Jal-	vocudate	Northampton	Ianley	oventry	lncoln	Darlington	Chester	camington	Swinton

Less than a century ago most of the water courses in England were bright and clean, and well stocked with fish. Since the beginning of the present century manufactories and dyeworks have largely increased and each discharges a large quantity of dirty fluid, which combined with the sewerage from a dense population, has fouled the streams. About thirty years ago the Government very properly made a determined effort to stop the wholesale pollution of water courses by compelling each municipality to purify its own sewage.

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Last fall I visited England after an absence of fourteen years and saw that several rivers were quite as fonl as when I left, though every town in the watershed was supposed to be cleaning all its sewage. This shows that to leave the purification of sewage to local effort is a mistake.

Wild schemes and showy expensive plants can easily be talked into inexperienced representatives of the people by trained drummers, and some of the most costly works built. and guaranteed to do all the necessary purification of the township's sewage, are little more than monuments of wasted resources. Many plants are too small, and cannot handle all the sewage requiring treatment, and some managers are very careless, and let the untreated fluid go forward uncleaned when an opportunity serves, such as during a heavy rain storm, or during darkness. As a result the country gets a very poor return for the large sums of money expended on sewage disposal works, and those persons who have actual experience in the treatment of sewage know enough to place very little faith in the many glowing reports made and circulated.

Before reasonable efficiency can possibly be secured each township must have a separate set of drains for sewage and storm water, and no sewage plant should be allowed to have a by-pass channel or an overflow weir in the main drain of the sewage works, but to enable the works to be closed down for necessary cleaning and repairs, also to obviate Sunday work, all works should have a screening reservoir sufficiently large to hold at least an average day's sewage.



WM. M. WATSON.

Wm. M. Watson was born in Bradford, England, 1845. At the age of fourteen, he was bound apprentice for seven years to John Schofield, plumber, gas and steamfitter. Before terminating the apprenticeship, he was put in charge of the plumbing and pipe-fitting required in the eraction of almshouses, hospital schools and other principal buildings in the model town of Saltair. For six years he was in business at Bradford, afterwards in the general building trade at Cleethorpes, Lincolnshire. He then accepted the position of fore-