

declared that sewage contained the necessary organisms for its own purification. Dibdin, of London, England, has shown us the way to compel sewage to clean and purify itself. Adney, of Dublin, has proved that domestic sewage requires three times its own bulk of air regularly and evenly supplied and distributed to every particle or atom of the sewage to enable the friendly bacteria to destroy the poisons, etc., the sewage contains. Lowcock, Birmingham, has shown us a method of applying the atmospheric air to the sewage, and Reid, of Staffordshire, recommends that all sewage should be purified while fresh before putrefaction sets in or sewer gas begins to generate. The fathers of the city of Cologne have shown us by their experiments that the sewage will split up into fine threads of spray and take up atmospheric air in larger quantities even than Adney tells us is needed during the time it is falling vertically down the waste pipes. Therefore the bacteria can secure all the oxygen needed for a short period and when the sewage is in a fresh state. If every house rain water leader and waste water pipe were made to form a street sewer ventilator, and the water coming down each of the pipes will bring down four times its own bulk of air, which will go a long way towards providing all the air that is needed to do the necessary work of cleaning the sewage, and in that case the public sewers will be changed from a gas generating chamber to a receptacle for the aeration and purification of sewage and dirty filters, in that case they would be harmless. While under obstructive plumbing by-laws and private drain arrangement of interception traps, no aeration of the sewers can take place, therefore putrefaction immediately sets up and sewer gas is generated abundantly, which poisons the dwellings and the atmosphere of dense populated towns.

The Cologne investigation has demonstrated that most sanitary appliances can and ought to be made of glass, that all soil pipes and lines of waste water pipes should finish with an opening outside, that no rain water leader should join to soil or waste pipe until it reaches a point below the inlet of the last branch pipe coming from the lowest sanitary fixture.

The German scientists are reliable, and their experiments and judgments can be acted upon with safety, and the expensive experiments they have made may be freely taken advantage of by other towns.

#### THE QUEEN CITY OIL COMPANY.

The location of business houses in Toronto has been undergoing considerable change of late years, and the tendency of trade has been towards concentrating on Yonge street, as near King as possible. Among other well known firms which have moved with the times is the Queen City Oil Co., which has just transferred its extensive business from 30 Front street east to the handsome new Lawlor Building, corner King and Yonge streets, Toronto. The offices occupy the whole of the flat, a dimension of 60 x 90 feet, with 14-foot walls, and are the finest in Toronto for ventilation, light and convenience. They will be occupied by a staff of twenty-five, the hands employed in Toronto, the headquarters, numbering about 200.

The phenomenal progress made by this organization during its history of nearly a quarter of a century is largely due to the tireless energy, conspicuous business ability and unswerving integrity of Samuel Rogers, the founder and present manager of the company. When Mr. Rogers started in the oil business in 1876, he found difficulties confronting him in every quarter. But armed with an iron will, and a resolve to be second to none, he overcame the obstacles one by one. From the very first he determined to encourage Canadian industry, and he has resolutely persevered in that course, to the advantage of the people at large, as well as of the large force of men in his employ.

With the firm, Fairbank, Rogers & Co., he opened a refinery at Petrolia, which has since been merged into the refinery at Sarnia, now the largest in Canada. Although he is now over sixty years of age

Mr. Rogers has not relaxed his efforts in one particular, and he is still the central moving spirit in the large and successful company of which he is the founder. He has now associated with him in the company his two sons, Albert S. Rogers, secretary and treasurer of the company, and Joseph P. Rogers, manager of the lubricating department.

The Queen City Oil Company, besides the works on Princess street, Toronto, has branches established in all of the principal towns in Ontario, and sells in Canada the products of the Standard Oil Company. By care in treating the oils they have been able to furnish a product at least equal to the best American oils, and the company has gained the confidence of the public wherever its goods have been offered. The various oils are too well known to need extended mention. Among the best known are the Sarnia White Burning Oil, and the Peerless Oil for farmers' use, one of the best lubricating oils on the market.

Altogether Mr. Rogers is to be congratulated upon the success which has crowned his labors during the past quarter of a century.

#### METAL IMPORTS FROM GREAT BRITAIN.

The following are the sterling values of the imports of interest to the metal trade from Great Britain during May and the four months ending May, 1897, 1898:—

	Month of May.		Five months ending May.	
	1897.	1898.	1897.	1898.
Hardware and cutlery .....	£7,730	£2,131	£25,647	£10,243
Pig iron .....	563	569	1,018	5,793
Bar, etc. ....	316	1,143	4,205	5,110
Railroad .....	6,935	..	20,286	6,972
Hoops, sheets, etc. ....	5,436	6,122	16,445	11,592
Galvanized sheets .....	3,975	6,909	15,998	20,980
Tin plates .....	8,652	21,423	80,972	61,968
Cast, wrought, etc., iron .....	3,880	3,408	14,965	13,658
Old (for re-manufacture) .....	..	606	572	1,504
Steel .....	3,493	4,877	18,480	24,298
Lead .....	1,672	3,745	4,454	8,050
Tin, unwrought .....	1,609	3,157	8,923	9,087
Alkali .....	3,533	5,179	11,722	16,737
Cement .....	1,825	2,771	4,778	8,262

#### SEWAGE DISPOSAL.

Editor CANADIAN ENGINEER:

My attention has been drawn to a letter published in the June issue of the CANADIAN ENGINEER signed by "Expert," which is false, malicious and libelous in its statements. I hereby ask "Expert" to be manly enough to come out in his own name and repeat his statements so that I may have an opportunity to meet him in the open; I will not brand him as a coward yet until we see whether or not he will have the manliness to sign his own name as requested.

Yours respectfully,

JOHN MACDOUGALL.

635 Cass Ave., Detroit, Mich., June 22nd, 1898.

Editor CANADIAN ENGINEER:

There is an article in the June issue of your valuable periodical signed by "Expert," which contains misrepresentations of the sewage and garbage disposal processes mentioned therein which I consider to be injurious to the Company represented by John Macdougall, therefore, in justice to that company, provided his statements are true, the writer of the article should have had the manliness to sign his own name instead of a nom de plume. My knowledge of the International processes of sewage disposal and of Warner's garbage destructor, which has been obtained from a long period of study of such subjects, as well as from a personal examination of many works of that character in Great Britain last year, has compelled me to arrive at but one conclusion, namely, that the above-mentioned processes for the disposal of sewage and for the destruction of garbage have no equal either in Europe or America for efficiency and economy in their operations, and I am backed up in that opinion by many of the leading sanitary scientists in those countries, especially in Great Britain. Let "Expert" come out like an honest man under his own name, which he should do if his statements are true.

Yours very respectfully,

J. A. SMITH.

Windsor, Ont., June 27th, 1898.