

ENGLISH SEWAGE AND WATERWORKS.

In the article published in your last issue I made an error when describing the carbonized refuse system of sewage purification adopted at Baildon, England, when saying, on page 159, that "I believed there is no patent on the apparatus." Since writing the paragraph I have read a paper published April, 1894, by Duncan & Pickard, engineers, giving details and particulars of both the carbonized refuse and ferrozone methods of cleaning sewage, showing that Baildon and other similar works were then built from designs patented by B. & H. B. Jagger

It also gives a report of an analysis of the carbonized refuse taken from the destructors, viz.: Carbon, 12.50; oxide of iron and alumina, 15.52; carbonate of lime, 10.60; phosphate of lime, 3.00; carbonate of magnesia, 3.14; alkaline salts, 3.00; insoluble matter (sand, etc.), 47.70; moisture, 4.71. They describe the Baildon system as an artificial land filter that can be cleaned or renewed when necessary, having a continuous flow which can be kept in action in all kinds of weather. This cannot be done with irrigation farms, which get too fat and are often flooded. The filters extract over 60 per cent. of the albuminoid ammonia, together with all other solid matters from the sewage.

In my opinion the settling tanks at Baildon could be improved upon, and the cost of erecting such works materially decreased, at the same time increasing their efficiency, making it easier to remove the sludge and compel the sewage to release more sediment before passing to the filter beds

This carbonized refuse system requires no precipitant, and the filtering medium costs nothing. After the destructor is once lighted the refuse burns itself, therefore there is no expense for fuel. Formerly the towns were put to considerable expense carting the night soil, etc., to a distance, now it is dumped within their own limits at less than half the cost and the towns' refuse purify the towns' sewage. Moreover, the skimmings and top dressing of the filters after being used become a useful fertilizer, and can be sold at four shillings per ton. It may be interesting to explain of what the ferrozone and polarite used by the Huddersfield corporation to clean their sewage water with is composed. Quoting from Messrs. Duncan & Pickard, ferrozone costs fifty shillings per ton, and contains sulphate of iron, 24.42; sulphate of alumina, 3.15; carbon, 0.81; matter insoluble in water, 45.09; moisture, 20.86; other matters, 7.72. Polarite costs six pounds per ton and contains sesquioxide of iron, 53.98; magnetic oxide of iron, 19.19; protoxide of iron, 7.25; calcium oxide, 1.43; silica, 15.10; carbon, 1.50; water,

r.44. Through the kindness of J. H. Cox, Esq., M. Inst. C.E., I have in my possession a book giving a full description of 53 public sewage works, including the cost of erection and present management.

W. M. WATSON.

47 Dundas street, Toronto.

METAL IMPORTS FROM GREAT BRITAIN.

The following are the sterling values of the metals imported into Canada from Great Britain during September, 1895 and 1896, and the nine months to September, 1895 and 1896:

	Month of Sept.,		Nine m'ths end'g Sept.,	
	1895.	1896.	1895.	1896.
Hardware and cutlery	£6,647	£6,195	£41,227	£46,867
Pig iron.....	5,502	3,838	21,626	21,230
Bar, etc.....	1,118	1,101	9,820	12,606
Railroad	23,612	28,040	107,715	158,153
Hoops, sheets, etc.....	8,519	4,354	41,581	35,758
Galvanized sheets	6,815	5,291	48,135	42,212
Tin plates	13,211	6,401	95,492	91,909
Cast, wrought, etc., iron ..	7,730	5,103	41,090	40,651
Old (for re-manufacture) ..	4,970	1,058	11,543	14,862
Steel	9,595	10,519	52,642	73,060
Lead	2,536	1,015	17,219	10,486
Tin, unwrought	1,844	419	17,037	11,716
Cement	4,173	5,279	21,066	24,589

The business of James Cooper, railway supplies, etc., Montreal, is being turned into a joint stock company, with a capital of \$99,000. The incorporators are: James Cooper, merchant; S. J. Simpson, manager; F. H. Hopkins, manufacturer; W. H. C. Mussen, clerk, and T. J. Kennedy, engineer, all of Montreal. The company will manufacture and deal in railway and mining plant.

WANTED By a qualified engineer holding a 3rd class marine license, also an experienced steam-fitter, charge of a stationary plant heating apparatus. Apply "ENGINEER," care of the CANADIAN ENGINEER.

FOR SALE (good as new)

20,000 feet 3-in. Boiler Tubes; 20,000 feet 4-in. Boiler Tubes, large quantity Steam Pipe 1-in. to 9-in.; large stock second-hand Halls; Pulleys, Hangers, Shafting, Valves, Gauges, Hercules Bab-bitt Metal, Solder, etc.

FRANKEL BROS.,

METALS, SCRAP IRON, COTTON WASTE, ETC. 116-130 GEORGE STREET, TORONTO

The ROYAL ELECTRIC COMPANY

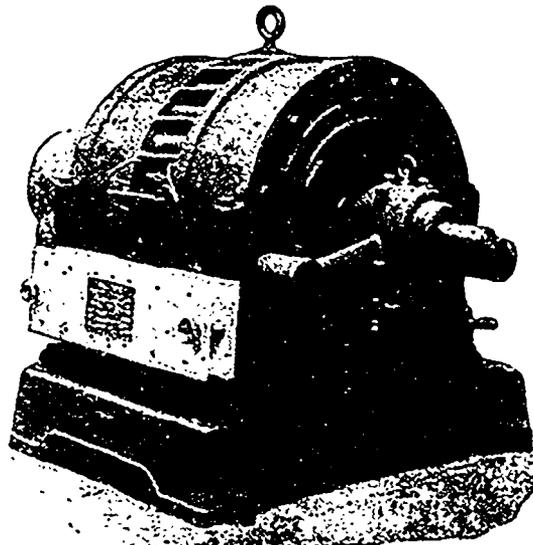
MONTREAL, Que.

Western Office, TORONTO, Ont.

S.K.C. TWO-PHASE ALTERNATORS

Incandescent Lights, Arc Lights and Power from the same dynamo and circuit

Highest Efficiency
Best Regulation
Slow Speed
Least Attention



No Collector
No Moving Wire
No Exposed Parts
No Compounding

S. K. C. 150-KILOWATT TWO-PHASE GENERATOR