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mills and steel works of the United States; of the "Duff" type. Perhaps the best gas producer on the market is the Duff-Whitfield; in which the produces of distillation are removed in the middle of the producer, and re-introduced near the bottom; rising up through the zone of incandescent fuel, where they are burnt and converted into fixed gases, thus eliminating the sulphurous coal, tar, etc., which clog the mains and interfere with the operations of the gas engine.

One of the advantages of the gas producer system is, that you can use as fuel, almost anything which contains carbon wood, peat, sawdust, even cabbage stalks and potato peelings, etc. The only trouble when using these low grade fuels is, that larger and more expensive auxiliary plants for scrubbing and washing have to be provided to take care of the waste by-products. It is analogous to the stomach of a man on the one hand, and that of a cow on the other. Human beings have comparatively small stomachs; because they use concentrated foods; beef steaks, mutton chops, etc.; whereas the cow has a large stomach, because she feeds on grass, and has to take in immense quantities of it in order to get a small amount of nutriment therefrom. (Laughter.)

The figures quoted by the lecturer showing the economy of small suction-gas producer power plants when compared with large, modern steam plants, were remarkable. This agrees with DeClercy's experience in Eastern Canada. I will read from my note-book figures based upon his experiments:— After indicating that the average coal consumption of steam engines of 10 to 30 horsepower is 4 to 8 lbs.,—including starting; and 100 to 500 h.p.—2 lb. per brake h.p., he shows that in small suction gas producer plants the consumption of anthracite coal is 1 lb. per h.p.; while in plants of over 60 h.p. it is 0.8 lb. per h.p. With low grade fuels the data is as follows:—

1 E.H.P. - 3 lb. wood.

1 E.H.P. - 21 lb. raw peat.

1 E.H.P. - 31 lb. sawdust.

developing an efficiency at the engine of 80%.

But the best practical results in Canada—as far as I have been able to glean—have been achieved at the little town of Wellington, with its 800 inhabitants, situated on the banks of the St. Lawrence in Prince Edward County, Ontario. The plant consists of a 65 h.p. "Fairbanks-Morse," suction gas producer installation, and gas engine, combined with 3 wire Westinghouse generator; and they are at the present time supplying electrical energy to the factories at \$20 per 10 hour h.p. per year; 18 arc lamps for street lighting at \$530 per annum. Stores and residents pay ½ cent, per night for continuous incandescent lights; while for such lights intermittent, the rate is only 4 cent per night. There is not a steam or hydro-electric plant in the Dominion of Canada supplying power as cheaply