

# Fuel Demonstration

FOR THE

Canadian  
Society of Civil Engineers

IN CONJUNCTION WITH THEIR

First General Professional Meeting

TORONTO

March 26th and 27th, 1918



ONTARIO OAKOAL CO., LIMITED

908 Royal Bank Building

TORONTO,

CANADA

# Oakoal Burning Demonstration

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The demonstration is designed to show the burning qualities of "Oakoal," a sanitary, domestic fuel, which, in its manufacture, consumes the unhealthy and valueless waste of municipal garbage and refuse.

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## Variations in Demonstration

ON MARCH 26TH.

1.45 p.m. or 15 minutes before opening address—light a fire composed of 3 "Oakoal" briquettes (approximately 6 pounds weight), each briquette broken into four pieces and placed on a small quantity of paper and kindling.

3.00 p.m. Add 5 whole "Oakoal" briquettes (approximately 10 pounds weight).

6.30 p.m. Add 2 whole "Oakoal" briquettes (approximately 4 pounds weight). Total weight of fuel approximately 20 pounds.  
Do not add any more fuel, and allow this fire to burn itself out.

ON MARCH 27TH.

8.45 a.m. or 15 minutes before first address—light a fire composed of 5 "Oakoal" briquettes (approximately 10 pounds weight), each broken in two parts, and placed on a small quantity of paper and kindling. Do not add any more fuel, but allow this fire to burn itself out, which it should do during the afternoon, allowing an opportunity for examining the ash, so that those interested may see for themselves the reason we claim: 1st, practically complete combustion; 2nd, its value as a domestic fuel in comparison with anthracite and other coals.

The demonstration is being conducted in the coach house of the University stable building, directly south of the Physics Building, and half-way down to College Street.

# Oakoal Garbage Fuel

A short description of the objects and process of converting the organic or disease-breeding matter in municipal garbage and waste into a fuel, known in its manufactured form as "Oakoal."

## OBJECTS

The fundamental and primary object of "Oakoal" is sanitation.

In greatly assisting to solve the problem of municipal sanitation, "Oakoal" does so with due consideration to economics. An economic gain is not only what is earned—what is saved is just as important.

In addition to "Oakoal" being acknowledged one of the best domestic fuels by those who know it, will assist in eliminating municipal fuel worries.

## PROCESS

While an "Oakoal" plant is in reality a fuel manufacturing plant, it is at the same time a conservation and salvaging plant, performing the same municipal duties as a reduction plant in the salvaging of inorganic matter, but goes farther and eliminates the destructive features by manufacturing the organic matter into fuel.

The problem of collecting and hauling city waste to the plant still rests with the municipality, consequently there is no reduction in objectionable odors until the garbage and waste reach the "Oakoal" manufacturing plant.

From the wagons it is dumped into a receiving hopper, where it is immediately treated with a disinfectant and deodorant. From the hopper it is carried on a distributing or sorting belt, where the inorganic and organic matters are separated; the organic matter being carried to a hammer masher or grinder, where the mass is prepared for the centrifugal dryer, without destroying its fibrous qualities. It then passes into the dryer, and in going through the dryer, which is specially designed and constructed for the purpose, the required amount of moisture is removed, and at the same time all (or nearly all) greases or oils. From the dryer it passes through a specially designed and constructed mixer, and, without anything additional added, is fed to a second mixing machine in which carbon is added, usually in the form of bituminous dust, anthracite dust, coke breeze, or some combustible dust of this nature, and thoroughly mixed. As it passes out it is again disinfected and waterproofed with a liquid having an asphaltic base, such as tar, water tar, pitch, residue from oil refineries or something of this nature, which, while not necessary as a binder, acts as one, in addition to protecting the product from decomposing, should it be exposed to excessive moisture before being used.

The "Oakoal," which at this point is now a conglomerate of refuse, carbon and refinery product wastes, proceeds through a pug mill to a briquetting machine, from which point it is taken through a surface drying dryer and emerges ready for shipment and immediate use, or for storage in the ordinary way until required.