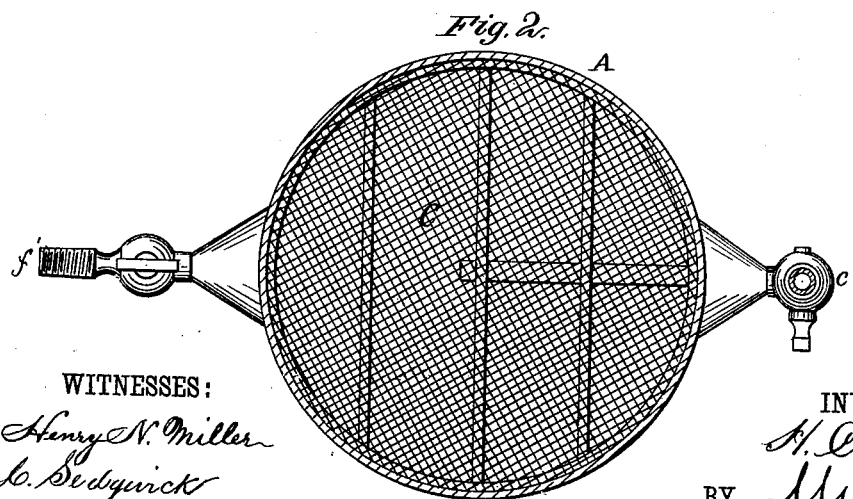
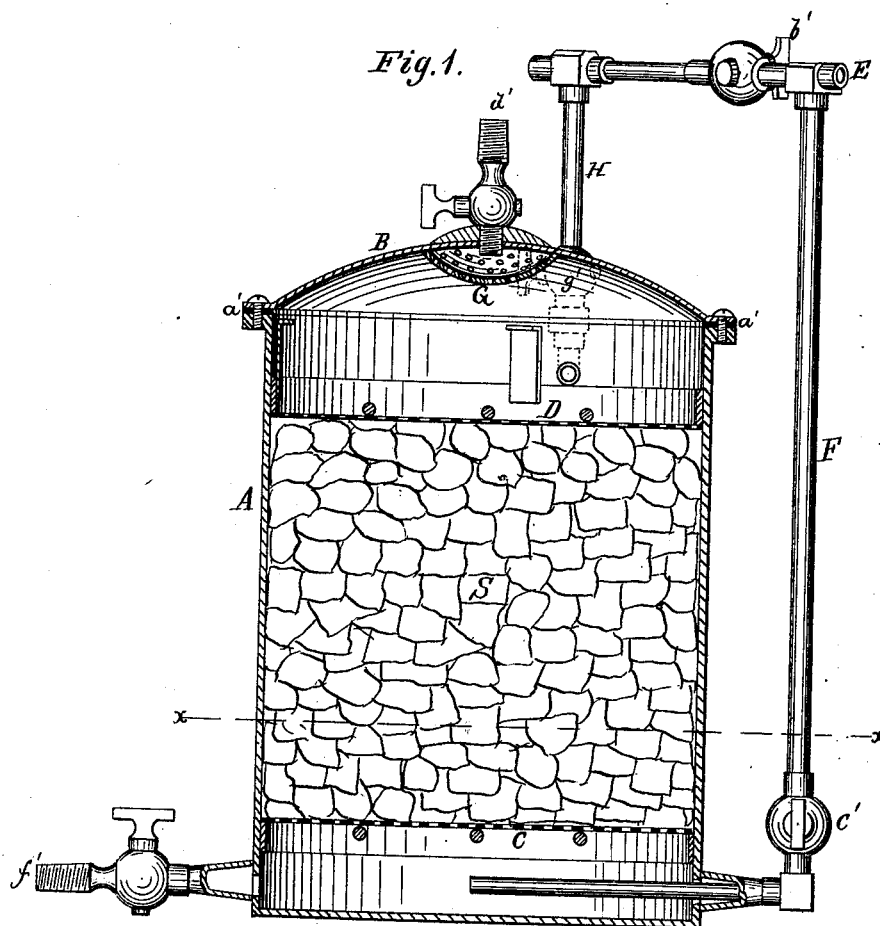


H. C. TRAIN.
Gas-Carbureter.

No. 220,001.

Patented Sept. 23, 1879.



WITNESSES:
Henry N. Miller
L. Sedgwick

INVENTOR:
H. C. Train
BY *Mumford & Co.*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

HORATIO C. TRAIN, OF KANSAS CITY, MISSOURI.

IMPROVEMENT IN GAS-CARBURETERS.

Specification forming part of Letters Patent No. **220,001**, dated September 23, 1879; application filed January 28, 1879.

To all whom it may concern:

Be it known that I, HORATIO CHURCH TRAIN, of Kansas City, in the county of Jackson and State of Missouri, have invented a new and Improved Gas-Carbureter, of which the following is a specification.

Figure 1 is an upright sectional view of the carbureter. Fig. 2 is a transverse section through *x x*.

Similar letters of reference indicate corresponding parts.

The invention consists in the combination, with a carbureter, of a packing that consists of broken corn-cobs, applied as hereinafter described.

A represents the carbureter shell or cylinder, which is preferably made of copper, brass, or galvanized iron, and furnished with a flange, *a'*, around its upper edge. B is the domed cover of the apparatus, which is secured to the cylinder with bolts passing through its rim and the flange *a'*, as shown.

Within the cylinder are two wire-gauze screens or screens of perforated metal, C D, the one adjusted and permanent at about two inches (more or less) from the bottom of the cylinder, and the other removable and placed near the top of cylinder. Between these the space is filled with dry corn-cobs S, broken into irregular pieces of from one-fourth to one-half inch face, and thoroughly freed from dirt and chaff.

I find that this packing will absorb more hydrocarbon or gasoline than any other material that will allow the gas to pass freely through it.

Gas will pass through a depth of four feet of this packing, and the packing will not become soggy or pack.

The screen placed above the packing is to prevent its moving should the machine be turned upside down.

E represents the gas-supply pipe to which

the apparatus is attached, and through this the gas would flow directly to the burners were the cock *b'* open.

When I wish to fill the carbureter I shut the gas off by closing the cock *b'* and the cock *c'* in the pipe F; then I open one or more burners in some part of the house remote from the carbureter in order to give a vent; then I attach the filling-can of gasoline or other liquid hydrocarbon to the filling-cock *d'* and light the gas escaping from the burners just previously opened. Should any oil (hydrocarbon) pass entirely through the packing it can be drawn off through the cock *f'*.

When the packing is saturated, the cock *c'* is opened to permit the flow of the gas through pipe F to the center of the cylinder under the packing, as shown. The gas then rises through the packing, becoming charged with hydrocarbon on its passage, and flows out through the pipe H, whose cock *g'* has been opened into the pipe E, which supplies the burners.

I find that corn-cobs in this condition will hold nearly twice as much hydrocarbon oil as sawdust or anything else I have tried, (perhaps in this statement I may except the pith of the cob,) and will allow a very free passage for the gas.

I introduce the gasoline into the carbureter through a rubber tube attached to the cock *d'*, and attach the tube to cock *f'* when drawing off any surplus of oil. This I do in order to decrease the risks of the operations.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

In combination with a carbureter, a packing consisting of broken corn-cobs, substantially as and for the purpose described.

HORATIO CHURCH TRAIN.

Witnesses:

J. E. GUINATTE,
CHAS. D. TRAIN.