

106689

B. D. GREENE.

PATENTED AUG 23 1870

Improvement in Vapor Cook Stoves.

Fig. 1.

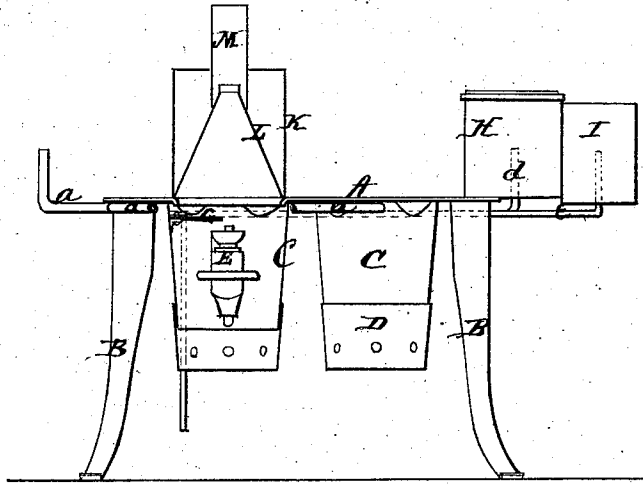
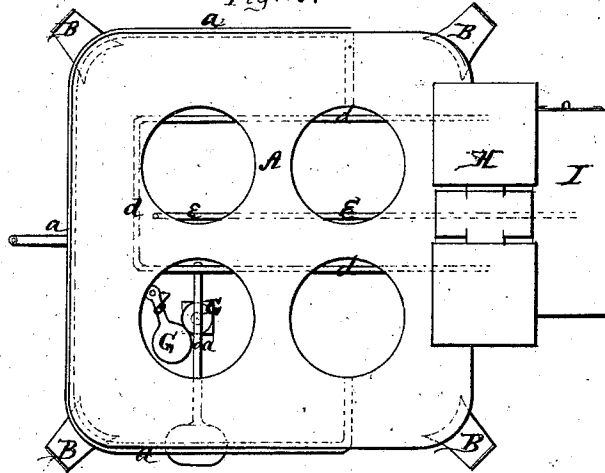


Fig. 2.



Witnesses:

Chas Jacobus

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Inventor:

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Attg.

United States Patent Office.

BENJAMIN D. GREENE, OF STURGIS, MICHIGAN.

Letters Patent No. 106,689, dated August 23, 1870.

VAPOR-BURNER.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, BENJAMIN D. GREENE, of Sturgis, in the county of St. Joseph and State of Michigan, have invented certain new and useful Improvements in Vapor Cooking-Stoves; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon which form a part of this specification.

The nature of my invention consists in the construction and arrangement of a "vapor cook-stove," which can be used for heating one or more rooms, as will be hereinafter fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawings, in which—

Figure 1 is a side elevation, part in section, and Figure 2 is a plan view of my stove.

A represents the top of the stove, resting upon legs B B, and having any desired number of holes.

Under each hole in the top plate A is secured a fire-cup, C, which is tapering downward, provided with holes around the upper end, and open at the lower end.

Upon the lower end of the fire-cup C is placed a surplus cup, D, which is perforated around its sides, as shown.

In each fire-cup C is placed a burner, E, which is supplied with oil through the pipe *a*, which passes around the edges of the plate A, branches leading inward above each burner, and then downward and up to the burner.

Through the burner E passes a stem, *f*, for the purpose of letting on and shutting off the flow of gas.

This stem is, inside of the burner, provided with a notch, so that, by turning the stem in either direction, more or less gas can be let on, as occasion may require.

The stem *f* runs through the stove, so that it can be turned on the outside without removing anything on the stove.

On top of the burner E is a small cup, *h*, which is to be filled with gasoline or oil, when desired to start it.

The stem being turned off, the gasoline in the cup is lighted, which burns up against the pipe over the disk G, and generates gas.

When the pipe becomes hot, the stem is turned

again, letting on the gas, and it is in full operation at once.

In the side of each fire-cup C is pivoted an arm, *b*, having a disk, G, at its outer end, which, when thrown outward, comes in between the burner and the branch of the supply-pipe *a*, immediately above it.

At the rear end of the plate A is placed a water-reservoir, H, in which the two ends of a pipe, *d*, pass upward through the bottom, the body of said pipe passing through the fire-cups C C, so as to be heated by the burners.

One end of this pipe being higher within the reservoir than the other, the cold water is forced through the lower pipe, becoming heated during its passage, and the warm water rises to the top, and so on, a constant current, until it all boils.

In rear of the water-reservoir H is placed a closet, I, which is heated by means of air admitted through a pipe, *e*, one end of which is near the floor, taking in cold air, then passing under the top A, so that the air may become heated when it passes into the closet, through the other end of the pipe *e*.

For heating purposes, a cylindrical vessel, K, is placed over the fire-cup, said vessel being covered on top, except a hole in the center, and provided on the inside with an inverted cone, L, or funnel, as shown in fig. 1. Within this cone the air becomes heated and passes into the room.

By placing a pipe, M, on the top of the cone L, and carrying the same to the upper story, the heated air may be conducted into them, when so desired.

Having thus fully described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination and arrangement of the stove A, cups C D, burners E, disks G, reservoir H, closet I, and pipes *a*, *d*, and *e*, all substantially as and for the purposes herein set forth.

2. In combination with the above, the cylinder K, cone L, and pipe M, constructed and used substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing as my own, I affix my signature in presence of two witnesses.

B. D. GREENE.

Witnesses:

SAMUEL B. FOLLETT,
C. W. W. CLARKE,
T. C. CARPENTER.