

No. 711,389.

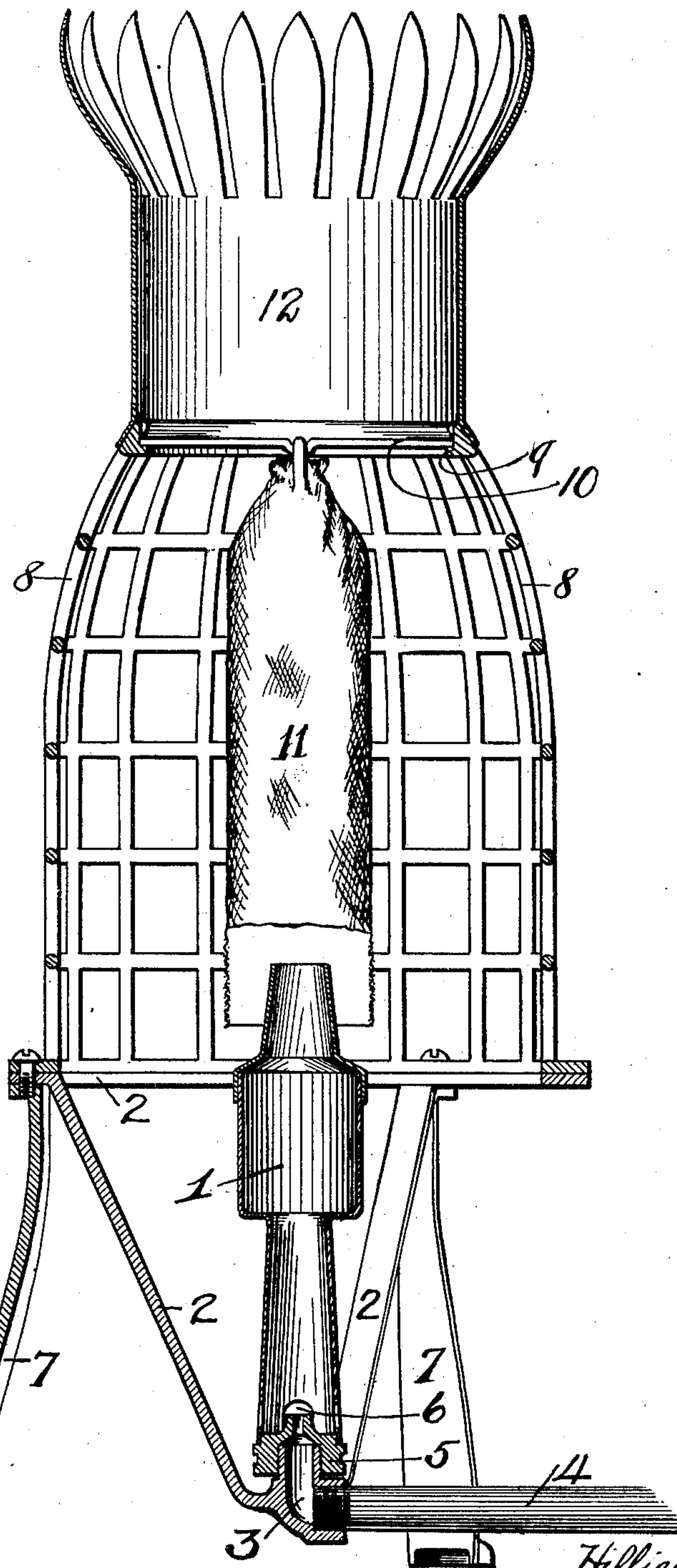
Patented Oct. 14, 1902.

H. ELDRIDGE.

GAS STOVE.

(Application filed Dec. 7, 1901.)

(No Model.)



WITNESSES.

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UNITED STATES PATENT OFFICE.

HILLIARY ELDRIDGE, OF MEMPHIS, TENNESSEE.

GAS-STOVE.

SPECIFICATION forming part of Letters Patent No. 711,389, dated October 14, 1902.

Application filed December 7, 1901. Serial No. 85,078. (No model.)

To all whom it may concern:

Be it known that I, HILLIARY ELDRIDGE, a citizen of the United States, residing at Memphis, Shelby county, State of Tennessee, have
5 invented certain new and useful Improvements in Gas-Stoves, of which the following is a specification.

My invention relates to certain new and useful improvements in gas-stoves, and has
10 for its object to make a simple and efficient stove which will give out the maximum of heat for the gas consumed and which will effectually distribute the heat. I carry out the objects as will be more fully hereinafter
15 set forth.

Referring now to the drawing, which is a vertical section on the center line, the stove consists of a gas-burner 1, which may be of any desired type, but which is preferably of
20 the modified Bunsen-burner type shown, forming and using a self-burning mixture of gas and air. This burner 1 is supported by a triangular frame 2, supporting an elbow 3, into which the gas-supply pipe 4 screws.

5 5 is the usual form of gas-check, and 6 the air-inlet holes for the burner 1. The frame 2 is supported by legs 7 and in turn supports a guard-frame or shield 8, which is preferably of open network to permit free radiation
30 of the heat. At the top of this shield 8 is a ledge 9, on which rests a mantle-support 10. From this support a foraminous mantle 11 depends, hanging just over the burner 1. An ornamental cap 12 completes the stove.
35 This cap is made removable, so that water may be heated or cooking done, if so desired, the vessel resting on the top of the shield 8. If it is desired, a pipe leading to a flue with a hood on its lower end can be suspended over
40 the top of the stove for the purpose of carrying off the products of combustion. This, however, has not been shown, since no claim is made for it.

The mantle 11 is of special construction and
45 differs from mantles used for lighting purposes in that it is much heavier, has more material to radiate the heat, and is treated to cause it to emit the red or heat rays.

The mantle I use is formed of foraminous
50 material and may be made by dipping an asbestos fabric in a solution of an iron salt, preferably a cheap one, such as sulfate of iron,

and is more fully described in my pending application, Serial No. 85,080, filed December 7, 1901.

In using my stove gas and air are admitted
55 to the burner 1 and burn at the upper end of same in contact with the foraminous mantle 11, heating the latter to a bright red and radiating heat from it through the open network of the shield 8 into the surrounding
60 room.

It is of course evident that the design and construction of the various parts may be varied without altering the spirit of my invention.
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Having now fully described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

1. In a heating-stove the combination of a
70 Bunsen burner and a mantle above the same said mantle heating to a red heat and made foraminous to allow the flame to penetrate to, and be burned upon, the outside of the mantle, whereby direct radiation is effected, and
75 a foraminous shield surrounding the mantle on all sides.

2. As an article of manufacture a heating-stove comprising a Bunsen burner, a foraminous mantle heating to a red heat and radiating the heat-rays said mantle supported
80 above the burner, and a foraminous shield surrounding the mantle on all sides said shield permitting the heat radiation in all directions.

3. As an article of manufacture a portable
85 heating-stove including a Bunsen burner, a mantle of foraminous material heating to a red heat and radiating the heat-rays, a foraminous shield surrounding the mantle on all sides and extending continuously above and
90 inclosing the upper portion thereof and suspending the mantle over the burner, and a base or stand upon which the lower portion of the shield is supported.

4. A portable heating-stove including a
95 base or stand, a Bunsen burner, a mantle of substantially non-fragile material, a foraminous shield surrounding the mantle on all sides and permitting uniform heat radiation in all directions said shield of greater length
100 than the mantle and suspending the latter from its upper portion, and a cap-piece surmounting the shield.

5. A heating-stove including a Bunsen

burner, a mantle above the burner and heating to a red heat, a foraminous shield surrounding the mantle on all sides and a cap surmounting the shield and disposed in a
5 higher horizontal plane than the top of the mantle.

6. As a gas-stove, the combination with an open-work shield, an annular flange around the bottom of said shield, legs fastened to
10 said flange and supporting said shield, a triangular frame depending from said flange, of a ring around the top of said shield, ledges

on the inside of said ring, a bar across the top of said shield resting on said ledge and a mantle of refractory material suspended from said
15 rod, substantially as and for the purposes set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HILLIARY ELDRIDGE.

Witnesses:

J. H. WEATHERFORD,
J. B. HILDEBRAND.