

A. C. E. HOJGAARD.

DEVICE FOR AUTOMATIC EXTINCTION OR DAMPENING OF THE FLAME IN GAS COOKERS.

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1,352,001.

Patented Sept. 7, 1920.

Fig. 1.

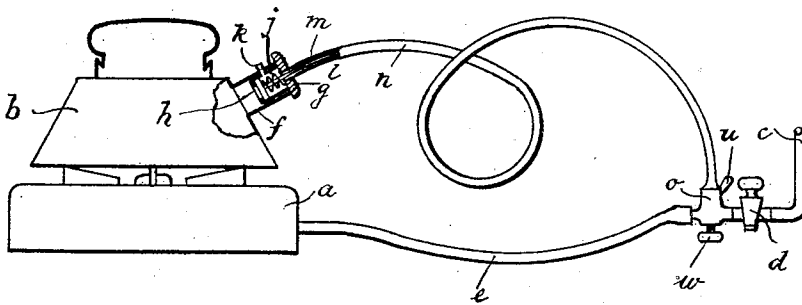
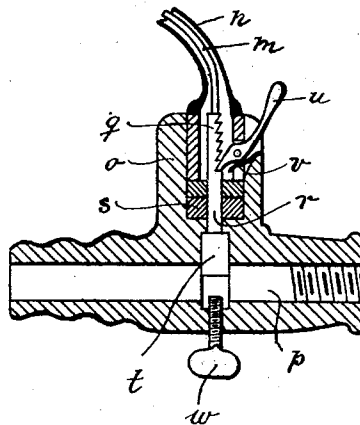


Fig. 2.



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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ANDERS CHRISTIAN EMIL HOJGAARD, director, a subject of the King of Denmark, residing at Copenhagen, in the Kingdom of Denmark, have invented new and useful Improvements in Devices for Automatic Extinction or Dampening of the Flame in Gas-Cookers, of which the following is a specification.

Devices are known for automatic extinction or dampening of the flame in gas-cookers, which are fitted with a piston actuated by the steam pressure and connected, by means of a flexible rod, to a dampening member for the gas supply.

The distinguishing feature of the present invention consists in the piston actuated by the steam-pressure being placed within the hood serving as lid for the kettle and fastened to one end of the flexible rod to the other end of which the stopping member proper is fastened.

Another portion of the invention consists in the provision of a locking device, by means of which the stopping member may be retained in the position into which it has been moved, so that the supply of gas may either be cut off entirely or maintained to an extent corresponding to the dampened flame.

The invention is illustrated on the drawing, where—

Figure 1 shows a gas cooking device with a kettle and with the gas-supply piping, in side view, and

Fig. 2 a vertical longitudinal section of the dampening device, on a larger scale.

a is the gas-cooker, *b* the kettle, *c* the gas-supply piping with an ordinary cock *d*, and *e* the hose leading to the gas cooker. *f* is the spout of the kettle into which a hood *g* is inserted. Within the latter, there is provided a plate or piston *h* which is actuated by a spring *j*, which tends to press the plate toward the bottom end of the hood, where the edge is turned slightly inward so as to prevent the plate from being pressed out of the hood. In the wall of the latter and opposite a whistle *k* placed on the spout *f*, there is provided a hole or a slot, so that the steam may escape through the whistle

and cause the latter to sound, when the plate *h* is pressed sufficiently far forward in the hood. In order to insure the hood *g* being inserted in such a manner in the spout that the hole comes directly opposite the whistle, a projection may be provided on the hood and, in the spout, a corresponding slot, into which the projection is to enter, when the hood is inserted in the spout. The plate *h* is supported by a rod *l*, which passes through a hole in the bottom of the hood, and is connected, beyond the same, to a flexible rod *m*, which is adapted to move in an equally flexible sleeve *n*. The sleeve end farthest from the hood is fastened to a housing *o*, which is formed on the hose-cock *d*, and is fitted with a passage *p* for the gas. The end of the flexible rod *l* within the housing is fastened to a rack *q* adapted to be moved up or down in the housing *o* and fitted, at bottom, with an extension *r* passing gas-tightly through a stuffing box *s* or the like and supporting below the same, a dampening member *t*, which may be shaped either as a stopping plate or a plug, which may be moved up or down in the passage *p*. *u* is a lever whose upper end is shaped as a handle and whose lower end is shaped as a pawl; pressed by a spring *v* against the teeth of the rack *q* so as to prevent the rack and, thereby, the stopping member from being accidentally withdrawn from its stopping or dampening position, when the steam pressure drops.

w is an adjusting screw, by means of which the downward motion of the stopping member may be limited, so that it becomes practicable to prevent the gas supply to the burner from being stopped completely. An arrangement of this nature will be especially suitable for cooking in cooking vessels in which for instance the food is heated to the boiling point, whereafter the flame is to be dampened to such an extent that a slow boiling may be maintained. If the adjusting screw happens to be adjusted in such a manner that the flame cannot be extinguished or dampened, the hood *g* will be pressed out of the spout by the steam, so that no danger may occur on account of the kettle or cooking vessel bursting.

The advantage of the device described consists mainly in the simple arrangement for transmission of the motion imparted to the plate or piston *h* by the steam pressure, and in the adaptability of the device to kettles or cooking vessels of any kind, provided that they are fitted with a spout into which the hood may be inserted, so that the entire device may remain attached to the gas cooker, and no special device will be required for each kettle or each cooking vessel.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:—

1. A gas supply controlling device, comprising in combination, a kettle having a spout, a flexible sleeve in communication at one end thereof with the gas supply and having at its opposite end a member adapted to close said spout, a flexible rod within said sleeve, means secured at one end of said rod for obstructing the passage of gas, and means at the opposite end of the rod and adapted to be actuated by pressure within the kettle for operating said obstructing means.

2. A gas supply controlling device, comprising in combination, a kettle having a spout, a flexible sleeve in communication at one end thereof with the gas supply and having at its opposite end a member adapted to close said spout, a flexible rod within said sleeve, means secured at one end of said rod for obstructing the passage of gas, means at the opposite end of the rod and adapted to be actuated by pressure within the kettle for operating said obstructing means, and means for limiting the operation of said obstructing means.

3. A gas supply controlling device, comprising in combination, a kettle having a spout, a flexible sleeve in communication at one end thereof with the gas supply and having at its opposite end a member adapted to close said spout, a flexible rod within said sleeve, means secured at one end of said rod for obstructing the passage of gas, means at the opposite end of the rod and adapted to be actuated by pressure within the kettle for operating said obstructing means, and means for preventing the return of said obstructing means to inoperative position.

4. A gas supply controlling device, comprising in combination, a kettle having a spout, a flexible sleeve in communication at one end thereof with the gas supply and having at its opposite end a member adapted to close said spout, a flexible rod within said sleeve, means secured at one end of said rod for obstructing the passage of gas, means at the opposite end of the rod and adapted to be actuated by pressure within the kettle for

operating said obstructing means, means for limiting the operation of said obstructing means, and means for preventing the return of said obstructing means to inoperative position.

5. A gas supply controlling device, comprising in combination, a kettle having a spout, a flexible sleeve in communication at one end thereof with the gas supply and having at its opposite end a hood removably inserted into said spout, a flexible rod within said sleeve, means secured at one end of said rod for obstructing the passage of gas, and a spring-pressed piston secured to the opposite end of the rod and slidable within said hood.

6. A gas supply controlling device, comprising in combination, a kettle having a spout, a flexible sleeve in communication at one end thereof with the gas supply and having at its opposite end a hood removably inserted into said spout, a flexible rod within said sleeve, means secured at one end of said rod for obstructing the passage of gas, a spring-pressed piston secured to the opposite end of the rod and slidable within said hood, and means for preventing the return of said obstructing means to inoperative position, said means comprising a ratchet carried by said rod and a spring-pressed pawl for engaging said ratchet.

7. A gas supply controlling device, comprising in combination, a kettle having a spout, a flexible sleeve in communication at one end thereof with the gas supply and having at its opposite end a member adapted to close said spout, a flexible rod within said sleeve, a plug at one end of said rod in position to obstruct the gas supply, means at the opposite end of the rod adapted to be actuated by pressure within the kettle for operating said plug, and means for limiting the obstructive movement of the plug.

8. A gas supply controlling device, comprising in combination, a kettle having a spout, a flexible sleeve in communication at one end thereof with the gas supply and having at its opposite end a member adapted to close said spout, a flexible rod within said sleeve, a plug at one end of said rod in position to obstruct the gas supply, means at the opposite end of the rod adapted to be actuated by pressure within the kettle for operating said plug, and means for limiting the obstructive movement of the plug, said means comprising a screw extending into the gas passage in position to contact with said plug.

9. A gas supply controlling device, comprising in combination, a kettle having a spout, a flexible sleeve in communication at one end thereof with the gas supply and having at its opposite end a member adapted to close said spout, a flexible rod within said

sleeve, a plug at one end of said rod in position to obstruct the gas supply, means at the opposite end of the rod adapted to be actuated by pressure within the kettle for operating said plug, a screw extending into the gas passage in position to contact with said plug for limiting its obstructive movement, a ratchet carried by said rod, and a spring-pressed pawl for engaging said ratchet to

prevent the return of said plug to inoperative position. 10

In testimony whereof I have signed my name to this specification.

ANDERS CHRISTIAN EMIL HOJGAARD.

Witnesses:

H. BRUNN,

A. CHRISTOFFERSEN.