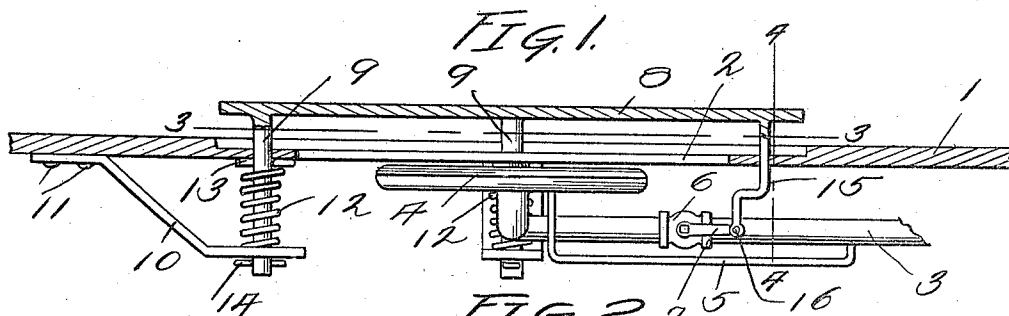
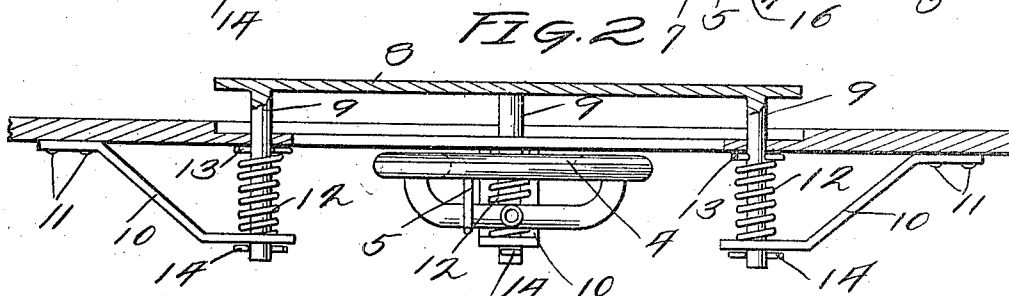
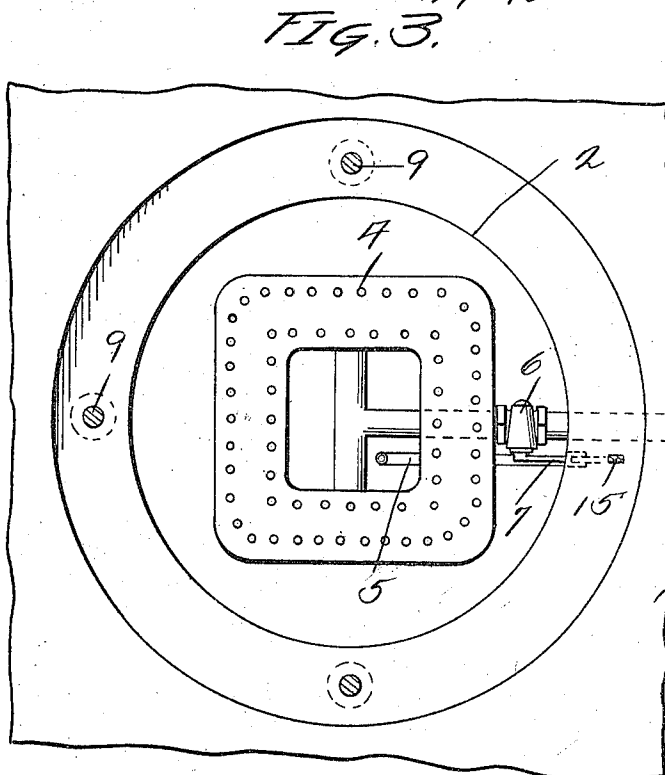
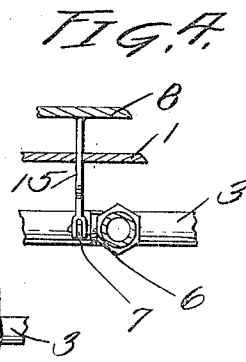


R. A. MACE.
SAFETY DEVICE FOR GAS RANGES.
APPLICATION FILED APR. 14, 1916.

1,236,327.

Patented Aug. 7, 1917.



Witness
B. B. Bram
Sh. Morris

Inventor
R. A. Mace

By *Charles C. Canale*
Attorney

UNITED STATES PATENT OFFICE.

ROBERT A. MACE, OF NEW HAVEN, CONNECTICUT.

SAFETY DEVICE FOR GAS-RANGES.

1,236,327.

Specification of Letters Patent.

Patented Aug. 7, 1917.

Application filed April 14, 1916. Serial No. 91,181.

To all whom it may concern:

Be it known that I, ROBERT A. MACE, a citizen of the United States, residing at New Haven, in the county of New Haven, State of Connecticut, have invented certain new and useful Improvements in Safety Devices for Gas-Ranges; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to a safety device for gas ranges.

An object of the invention resides in the provision of a device for regulating the flow of gas to the burner of a gas range in such manner that it will be impossible for the gas to flow to the burner unless weight is applied to the utensil supporting plate.

A further object of the invention resides in the provision of a device of this character in which the flow of the gas to the burner will be controlled entirely automatically.

A still further object of the invention resides in so locating the controlling means that it will be accessible from without the range.

A still further object of the invention resides in the making of the utensil supporting plate the gas controlling means.

A still further object of the invention resides in the provision of means for regulating the flow of gas by means of the utensil support so that the flow of gas will increase in proportion to the weight of the utensil used.

With these and other objects in view, such as will appear as my description progresses, my invention comprises the combination and arrangement of parts as set forth in and falling within the scope of the appended claim.

In the drawing:

Figure 1 is a sectional view through a range showing an embodiment of my device in place thereon;

Fig. 2 is a similar view taken at right angles to Fig. 1;

Fig. 3 is a section on line 3—3 of Fig. 1, and

Fig. 4 is a section on line 4—4 of Fig. 1.

In the drawing, I have illustrated a portion of a range which includes a top 1 having an opening 2 therein beneath which the burner is mounted. Extending beneath this top 1 is a gas supply pipe 3 which extends

to a rectangular burner 4 of the construction shown in the drawing, which burner is located beneath the opening 2 in the top. A pilot pipe 5 extends from the gas supply pipe 3 to the burner where it terminates so that a pilot light may be present adjacent the burner at all times. The pipe 3 is provided with a valve 6 which includes an operating arm 7, which when the valve is closed, extends parallel to the pipe 3.

In order that this valve may be opened and closed in proportion to the weight of the utensil used on the stove, I have provided a utensil support 8 which is located above the opening 2 in the top and is provided with three downwardly extending shanks 9 which pass slidably through the top 1 and through brackets 10 which are secured to the top by bolts 11 and extend downwardly therefrom. These shanks 9 are arranged 90 degrees apart and are provided with coil springs 12 which encircle the shanks between the top and the brackets 10, bearing at their upper ends against pins 13 which extend through the shanks. These springs tend, normally, to move the support 8 upwardly away from the top 1 of the range. This upward movement of the support is limited by pins 14 which extend through the shanks 9 below the brackets 10. The support 8 is further provided with a rod 15 which is arranged diametrically opposite one of the shanks 9. This rod extends downwardly through the top 1 and is connected to the operating arm 7 of the valve 6 and secured in place thereon by a cotter pin 16, the connection being pivoted.

When a utensil is placed upon the support 8 the weight of the utensil and the contents thereof causes the support to move downwardly against the tension of the springs 12 and in this downward movement the rod 15 operates the arm 7 to open the valve 6. It will of course be seen that the opening of this valve will be proportionate to the weight of the utensil upon the support 8. When the utensil is removed the springs 12 will operate to close the valve by moving the plate upwardly and away from the top 1.

It will be seen that I have provided a device for regulating the flow of the gas to the burner by means of which the flow of the gas will be regulated, automatically, and will be increased in proportion to the weight of the utensil placed upon the support. Furthermore I have located the controlling

means entirely beneath the top of the stove so that it will be inaccessible and so that children, therefore, may not start the flow of the gas. Furthermore I have constructed
5 the device so that the utensil support is, in fact, the controlling element, and so that this support will have a rectilinear movement.

While I have illustrated and described a particular embodiment of my invention, it
10 has merely been for the sake of convenience and I do not wish to be limited to that particular embodiment as it is obvious that numerous changes may be made in the scope of the invention without departing from the
15 spirit of the invention or exceeding the scope of the appended claim.

What I claim is:—

In combination with a range including a burner and a gas supply pipe therefor hav-
20 ing a controlling valve, a plurality of brackets extending downwardly from the under face of the top plate of the range and provided near their free ends with perforations,

a utensil supporting element, integral legs depending from said utensil supporting ele- 25 ment and passing through apertures in the top plate of the range and the apertures in the free ends of said brackets, a coil spring surrounding each of said depending legs and arranged between the under face of the top
30 plate and the said brackets, means carried by each leg for engagement with its respective coil spring for resiliently supporting the utensil supporting element for vertical move-
35 ment with respect to the top plate of the range, and integral means depending from the utensil supporting element and pivotally connected to the said valve for controlling
40 the passage of the supply pipe upon vertical movement of the utensil supporting element.

In testimony whereof, I affix my signature, in the presence of two witnesses.

ROBERT A. MACE.

Witnesses:

PAUL RUSSO,
MICHAEL RUSSO.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."