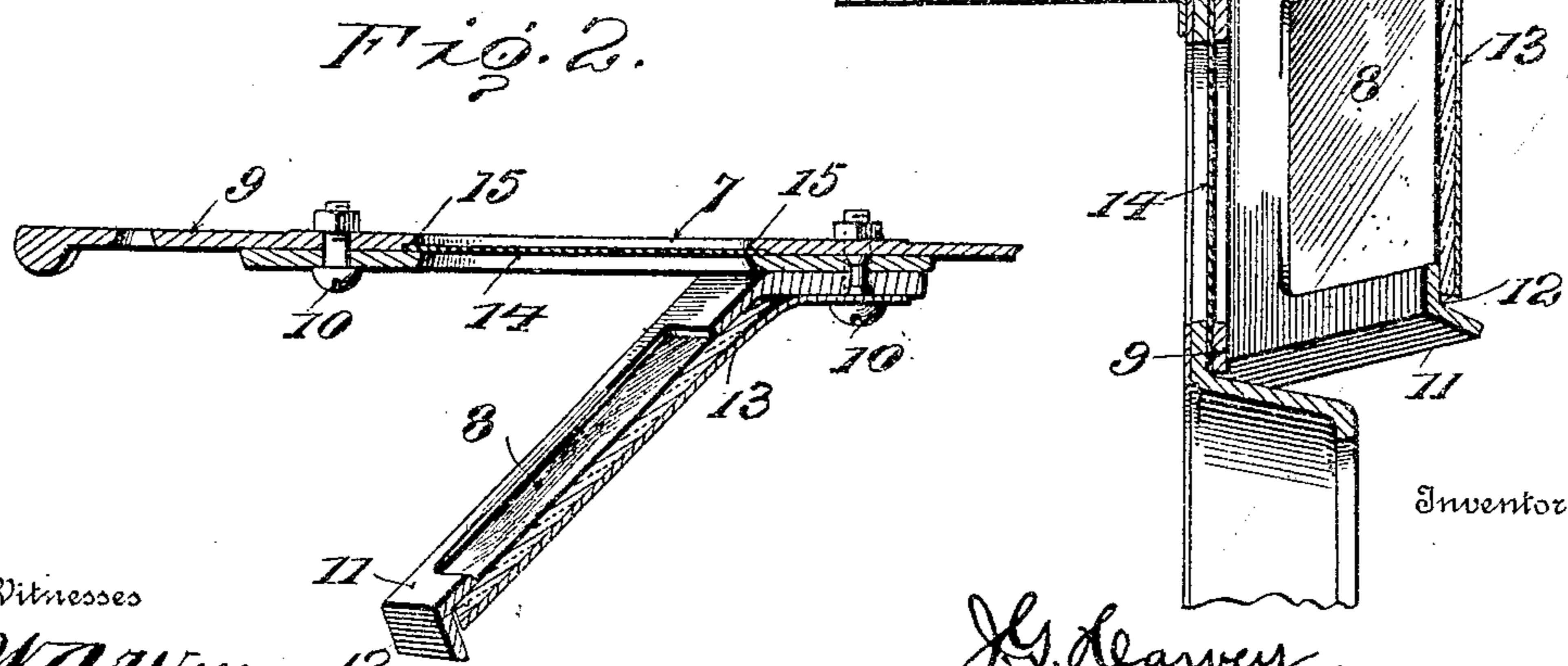
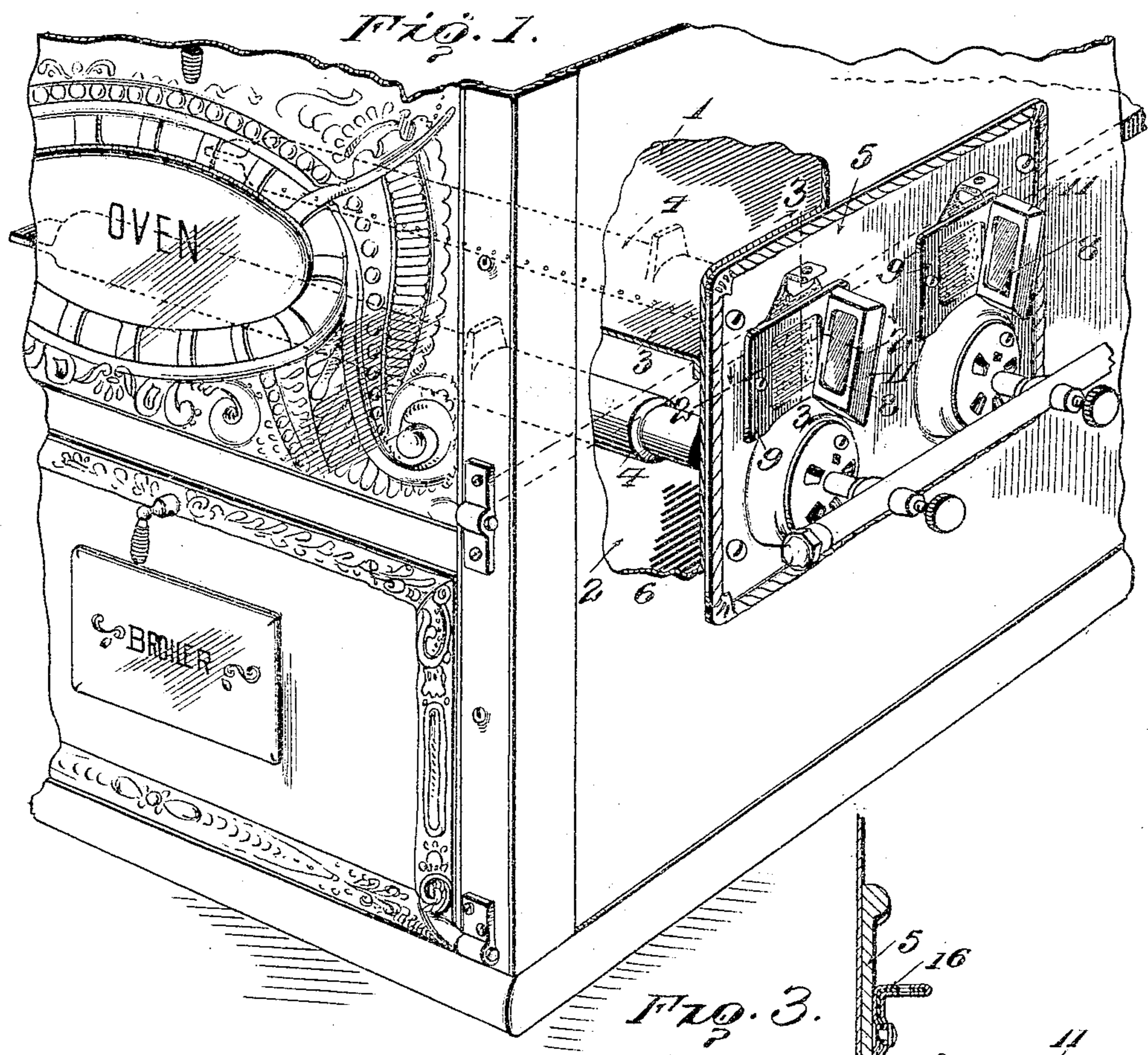


925,182.

Patented June 15, 1909.



Witnesses

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Inventor

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UNITED STATES PATENT OFFICE.

JOHN GRIFFITH HARVEY, OF CHICAGO, ILLINOIS, ASSIGNOR TO AMERICAN STOVE COMPANY,
OF ST. LOUIS, MISSOURI, A CORPORATION OF NEW JERSEY.

BURNER-FLAME REFLECTOR.

No. 925,182.

Specification of Letters Patent.

Patented June 15, 1909.

Application filed February 2, 1909. Serial No. 475,681.

To all whom it may concern:

Be it known that I, JOHN GRIFFITH HARVEY, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Burner-Flame Reflectors, of which the following is a specification, reference being had therein to the accompanying drawing.

10 This invention relates to improvements in burner flame reflectors, and is particularly designed and intended to be used for reflecting the flame of burners which are inclosed, and are not visible except with considerable
15 inconvenience to the operator, the object being to so place and arrange the reflector that the burner flame is visible in the reflector from outside of the burner inclosure.

20 This invention is here shown, and is specially designed to reflect the flame of gas stove and range burners used for the oven and the broiler. It is here shown in connection with that type of gas stove or range which is most commonly used, and in which
25 two burners are arranged parallel with the front of the stove and located in the broiler oven at a point near the top or ceiling thereof, which top or ceiling is the bottom of the baking and roasting oven above.

30 In the accompanying drawings, Figure 1, is a perspective view of a portion of a gas stove or range with my improved reflector applied thereto. Fig. 2, is a horizontal, sectional view on the line 2—2 of Fig. 1. Fig. 3,
35 is a vertical section on the line 3—3 of Fig. 1.

The invention is here shown applied to the most common form of gas stove or range, and in which there is provided a baking and
40 roasting oven 1 and a broiling oven 2 below it, the two ovens being divided by a horizontal partition 3. In this type of stove or range, the burners 4 are arranged parallel with the front of the stove and extend through or to one side thereof, as shown.
45 These burners are located below the horizontal partition 3 and within the upper portion of the broiling oven 2. As here shown, the inlet ends of the burners 4 pass through a detachable plate 5 which is secured in an opening
50 in the side 6 of the stove, though this arrangement of a plate 5 is not essential to my present improvement.

My improvement comprises an opening 7 in the plate 5 above each burner 4 through

55 which the flames from the burners are visible. The plate 5, it will be understood, is a part of the side 6 of the stove or range, but for convenience is removable therefrom, so that in effect (generically speaking) the openings 7 are in the side of the stove, of
60 which the plate 5 is a part.

In order to make the flames of the burners visible from the front of the stove, without any inconvenience to the operator, in determining whether or not the burner is lighted,
65 and in determining and adjusting the height of the flame conveniently, my improvement includes the arrangement of the reflectors 8 so that the light of the burner flames through the openings 7 is clearly visible in the reflectors 8 from the front of the stove. These
70 reflectors are arranged at what might be termed a compound angle; that is to say, they extend outward from the side of the stove toward the front of the stove, and
75 slightly upwardly. By reason of this compound angle, the flames of the burners are readily visible in the reflectors when the burners are being lighted, or when the flames are being adjusted, and the operator is in a
80 stooping position for that purpose, and the flames are also visible in the reflectors to the operator when standing at some distance in front of the stove. This arrangement enables the operator to at all times conveniently and easily determine whether one or
85 both of the burners are lighted, and to determine the character and height of the flame produced thereby, for a yellow and a blue flame are readily distinguishable in the reflectors to determine the character of the
90 flame.

In detail, I preferably attach this improvement by means of a frame 9 which surrounds each of the openings 7, and these frames are
95 preferably detachably connected with the plate 5 by means of bolts or screws 10. The mirror frames 11 are riveted to the frames 9, so that they are permanently held at the proper angle, and the frames 9 and 11 are together attachable to and removable from the
100 plate 5. Recesses 12 are formed in the back sides of the mirror frames 11, and in these recesses the mirrors 8 are placed, and the mirrors are held in position by the plates 13
105 which engage the outer sides of the mirrors and have their inner edges clamped by one of the bolts or screws 10 which secure the

frames 9 to the plate 5. In this way the mirrors are readily detachable or removable if damaged for substituting a perfect mirror.

For the purpose of closing the openings 7 I provide removable mica disks or plates 14, and these plates slide into and out of a recess 15 which is made in the plate 5. The mica plates project a suitable distance above the frames 9 and are provided with suitable handles 16 by which they are readily removable to be cleaned, or in the event of damage to be substituted by new mica plates or disks.

Attention is particularly directed to the fact that the openings 7 are arranged at points above the burners 4 and below the division wall 3 of the broiler and baking ovens, so that the broiling pan (not shown) which is used below the burners 4, will not interfere in any manner with the reflection of the flame in the mirrors, and so that the flames are visible for all purposes, just as well when the broiling pan is being used as when it is removed, and irrespective of the position of the broiling pan at the various adjustable points below the burners 4. It is well known by those skilled in the art (and need not here be shown) that the broiling oven is provided with means for supporting a broiling pan at various elevations in the broiler for placing it near to and away from the burners, according to the character of broiling to be done.

Various modifications in detail of construction may be made without departing from the present invention, the essential feature of which is in so arranging the opening 7 and the reflectors that they are above the burners. Another feature of the present im-

provement is arranging the mirrors at a compound angle, and also arranging the mirrors so that they extend from the side of the stove and in a vertical direction to throw the reflection to the front of the stove.

Having thus described my invention, what I claim and desire to secure by Letters Patent, is:—

1. The combination with a gas stove, having a broiling oven and a baking oven thereabove, of a burner located in the upper portion of the broiling oven, the end-wall of the oven having an opening therein located on a line between the burner and the top of the broiler and substantially in a line with the burner, and a vertically arranged reflector outside of the oven with its inner vertical edge located at the rear side of the said opening, the reflector extending toward the front of the stove and across said opening.

2. The combination with a gas stove having a broiling oven and a baking oven thereabove, of a burner within the broiling oven, the end wall of the broiling chamber having an opening located on a line between the top of the broiling oven and the burner, and a vertically arranged reflector outside of the oven with its inner rear edge located at the rear side of said opening, the reflector extending across the opening toward the front of the stove and slightly tilted upward.

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

JOHN GRIFFITH HARVEY.

Witnesses:

GEORGE M. CLARK,

A. F. MILLIKAN.