

(No Model.)

A. E. DETWILER.
GAS STOVE BURNER.

No. 575,051.

Patented Jan. 12, 1897.

Fig. 1.

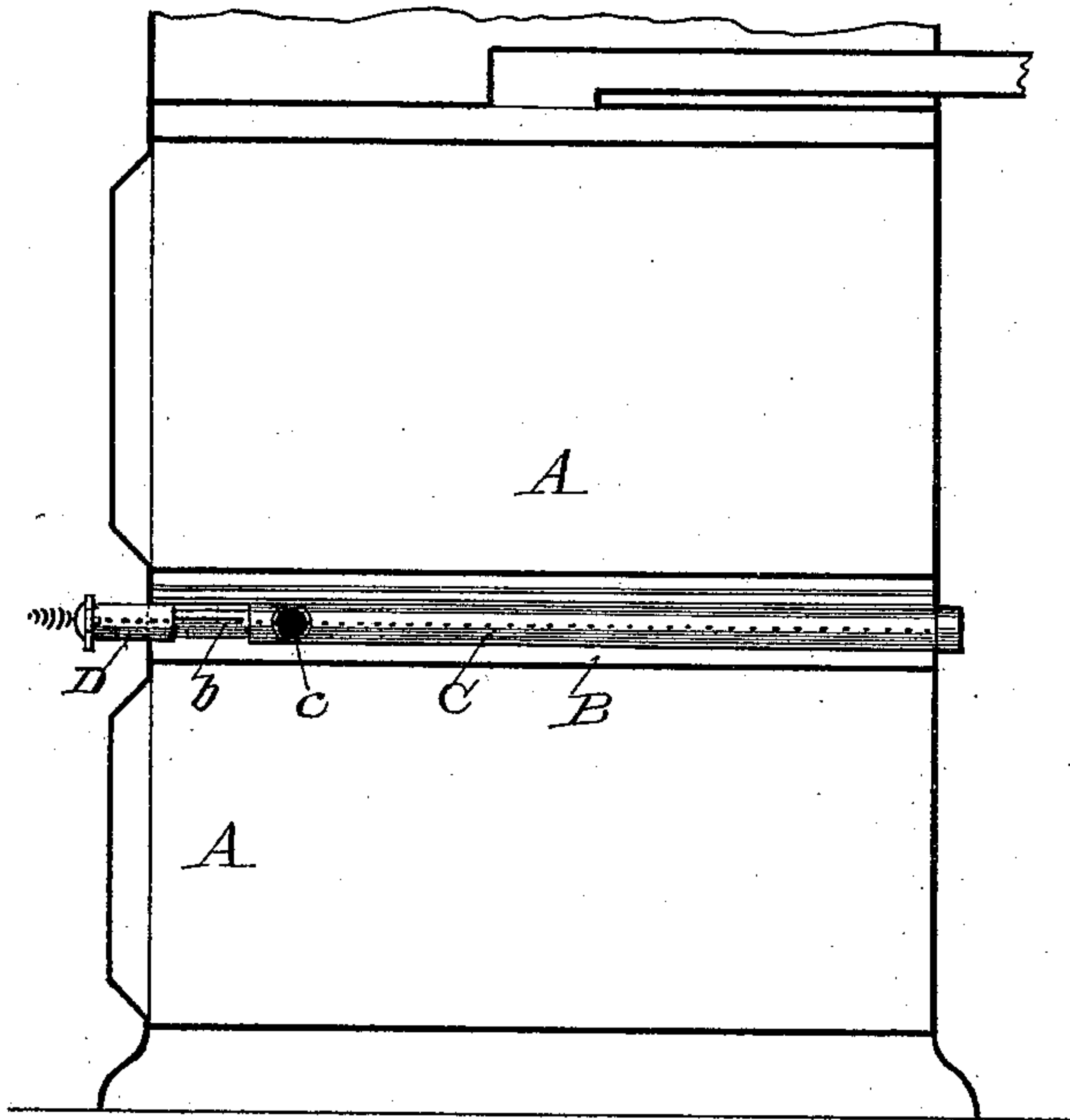


Fig. 2.

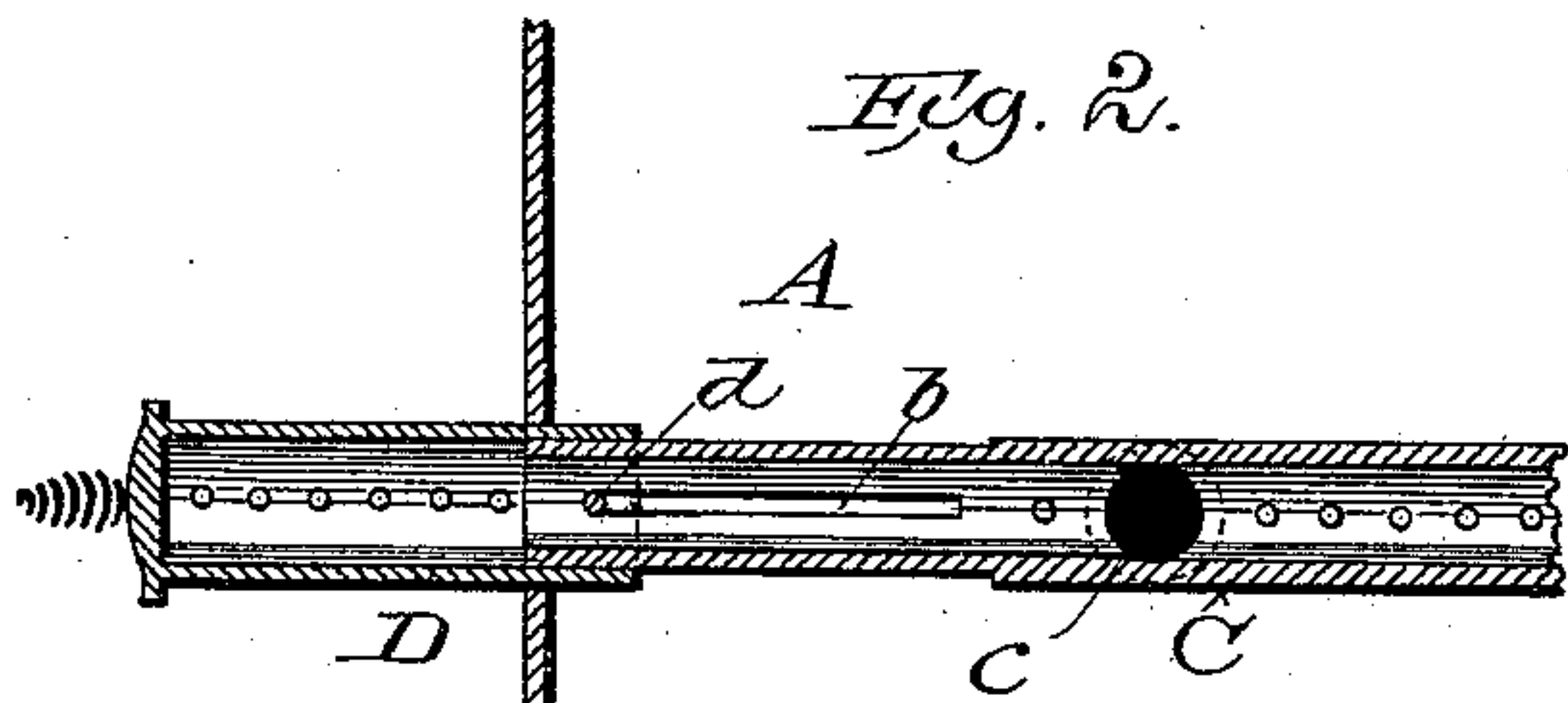


Fig. 3.

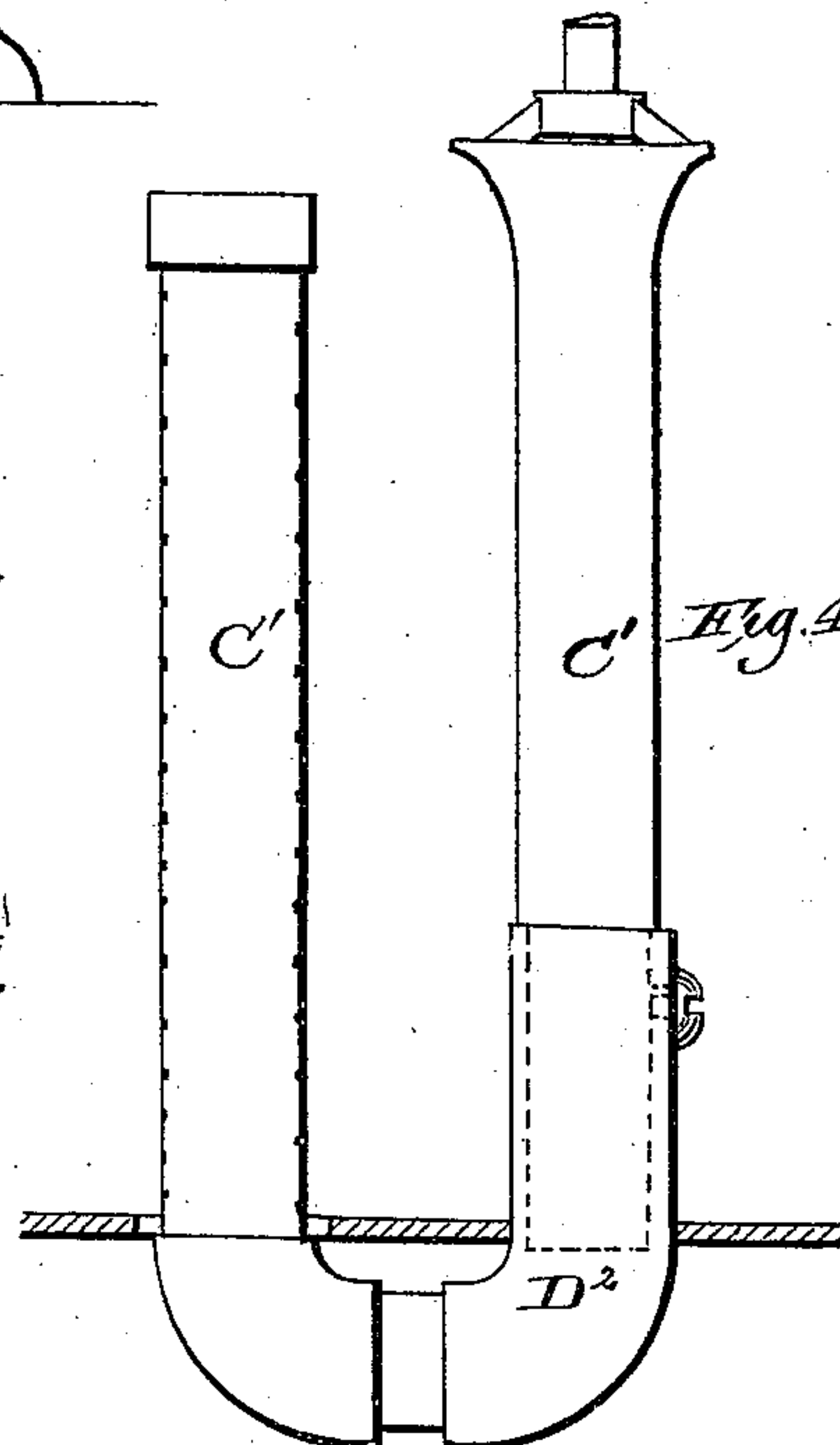
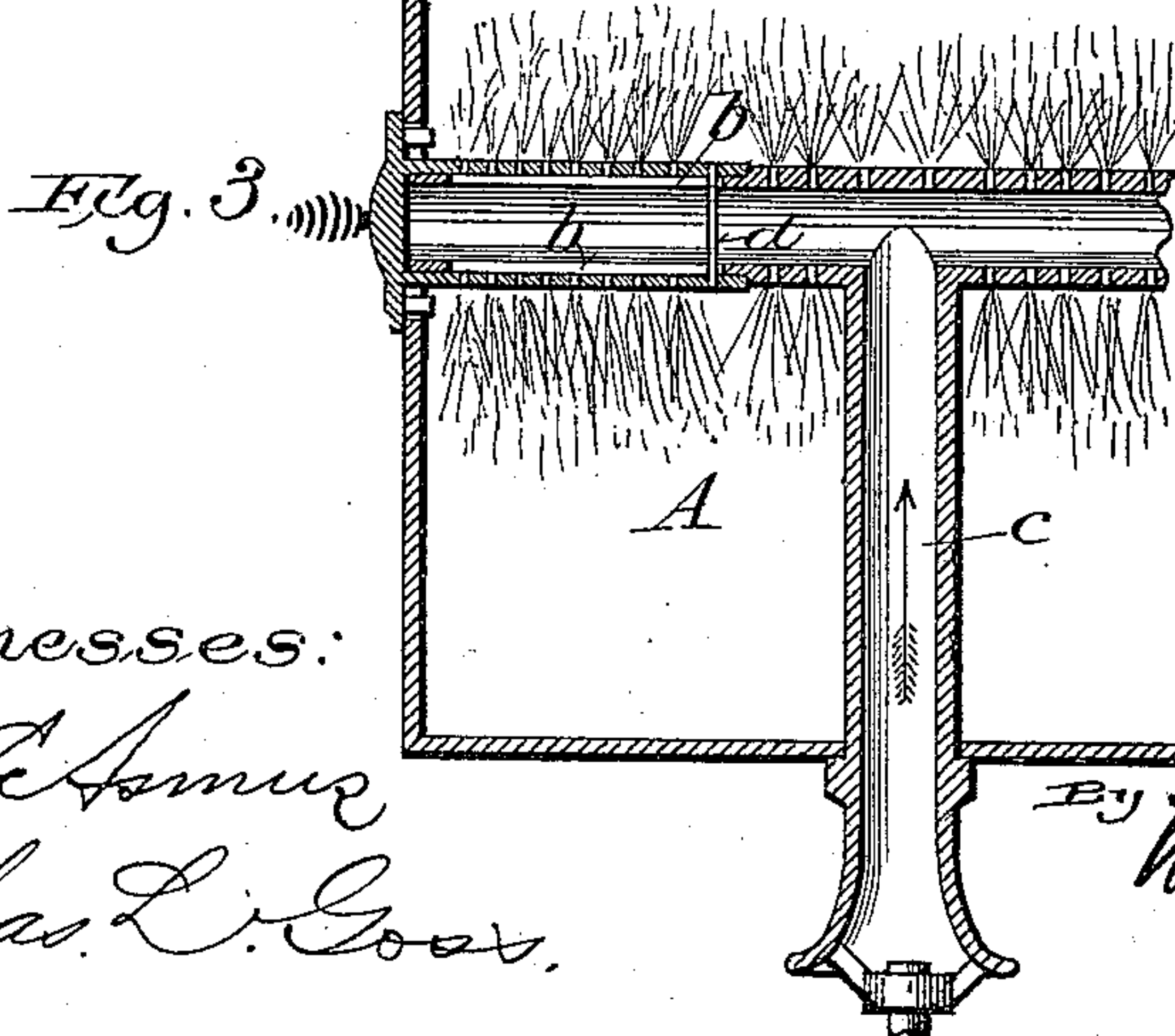


Fig. 4.

Witnesses:

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UNITED STATES PATENT OFFICE.

ALFRED E. DETWILER, OF MILWAUKEE, WISCONSIN, ASSIGNOR TO THE
MILWAUKEE GAS STOVE COMPANY, OF SAME PLACE.

GAS-STOVE BURNER.

SPECIFICATION forming part of Letters Patent No. 575,051, dated January 12, 1897.

Application filed October 26, 1891. Serial No. 409,767. (No model.)

To all whom it may concern:

Be it known that I, ALFRED E. DETWILER, of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Gas-Stove Burners; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

The main object of my invention is to facilitate the lighting and regulation of the burners, which are inclosed in the stoves or ovens or are not easily accessible.

It consists, essentially, of a burner comprising two parts, one having a gas supply and regulating connection and another having a telescoping connection therewith and constructed and arranged to be withdrawn, lighted, and burned outside of said casing, and in that position to communicate its flame to a portion of the burner within through a suitable opening in the casing.

In the accompanying drawings like letters designate the same parts in the several figures.

Figure 1 is a vertical section of a gas-stove supplied with my improved burner. Fig. 2 is a vertical axial section, on an enlarged scale, of a portion of a burner embodying my improvements. Fig. 3 is a horizontal axial section of the same, and Fig. 4 is a plan view of another kind of burner provided with a modification of my lighting and regulating device.

Referring to Figs. 1 to 3, inclusive, A A represent the ovens of an ordinary gas stove or range, and B a horizontal burner-space commonly inclosed between them. Frequently, however, this inclosed burner-space is dispensed with and the burner is placed directly in the upper part of the lower oven itself.

C is a tubular burner of the usual construction employed by me in stoves of this class, extending horizontally through the space B from the front to the rear walls of the stove. It is provided on opposite sides with a series of perforations extending approximately the entire length of the burner, and has a gas and air supply and regulating connection c,

commonly called a "mixing-chamber." As heretofore constructed these burners have been reached through small openings in the walls or casing of the stove, or, in certain cases, from below, for the purpose of lighting. An inspection for the purpose of regulation has been obtained only with difficulty by stooping so as to view the flame either through the small openings in the walls of the oven adjacent to the burners or from the open space below. To obviate these objections, I provide the burner with a telescoping extension D, having one or more apertures for the discharge of gas similar to those in the burner inside of the walls of the stove. It is constructed and arranged to be drawn out through an opening made for the purpose in the wall of the stove, so as to expose the aperture or apertures in said extension, as shown in Figs. 1 and 2. The sides of the aperture in the wall of the stove, through which the extension D projects, are extended adjacent to and in line with the openings of the burner, as shown in Fig. 3, so that when the gas escaping from the aperture or apertures outside of the stove is ignited the flame will pass along and light the gas escaping from the apertures inside of the stove. The extension D may be made to telescope inside of the burner B as well as outside, as shown in the drawings, and various devices may be employed for limiting its movement at the proper points and hold it in the proper position. I have shown for the purpose a pin *d*, secured at the ends in the inner end of the extension D and passing through longitudinal slots *b b* in the sides of burner B. These not only limit the lengthwise movement of the extension D, but prevent it from turning, so as to carry the apertures in its sides out of line with the corresponding apertures in the sides of the burner. The slots *b b* also serve to carry the flame from the extension D when withdrawn to the burner within the casing.

Various changes in the details of construction and arrangement of the device may be made in applying it to burners of different forms and employed in different relations within the intended scope of my invention.

Referring to Fig. 4, showing another form

of tubular burner and a modification of my improvement, *c'* designates the air and gas supply connection and mixing-chamber of the burner extending through or into the stove or oven, and *C'* the other or main part of the burner projecting at one end through an opening in the casing of the stove or oven, in which it is free to slide in and out parallel with the mixing-chamber *c'*. It is formed or provided at its protruding end with a return-bend *D*², which projects inwardly through another opening in the casing and has a telescoping connection with the mixing-chamber *c'*. By this means one end of the movable part *C'* of the burner may be withdrawn, so as to expose a portion of its gas-discharge apertures outside for the purpose of lighting and regulation, thus subserving the same end as the construction hereinbefore described.

Openings are formed in the casing on each side of the movable part *C'* of the burner in line with the discharge-apertures therein, so as to allow the flame of the burner outside of the casing to communicate itself to and light the gas issuing from that part of the burner within the casing. After the burner has been lighted and regulated it is thrust back and burns entirely within the casing. It will be understood that the supply of gas to the mixing-chamber *c* or *c'* of either form of the burner is regulated and controlled in the usual manner by a cock or valve (not shown) in the gas-supply pipe of the stove. It will be observed also that in both forms of the device herein shown and described as embodying my invention a part of the burner having a gas-discharging aperture or apertures corresponding in area for any given length with that or those of the other part of the burner is constructed and arranged to be withdrawn, lighted, and burned at will outside of the casing of the stove or oven and to communicate its flame through a suitable opening or openings in said casing to that part of the burner

inclosed and concealed by the casing, so that the condition of the flame within the oven or stove may be determined from that outside and regulated accordingly by means of the cock or valve in the gas-supply pipe, and that when the burner has been thus lighted and the flame regulated the exposed portion burning outside of the casing may be thrust back into the stove or oven without disturbing the adjustment of the flame inside.

I claim—

1. In a gas-stove the combination with the casing, of a burner comprising two parts, one having a gas supply and regulating connection and the other a telescoping connection therewith, and constructed and arranged to be withdrawn, lighted and burned outside of said casing, and in that position to communicate its flame to a portion of the burner within through a suitable opening in the casing, substantially as and for the purposes set forth.

2. A gas-burner for ovens, ranges, &c., provided with a telescoping extension, having one or more gas-discharge apertures outside of the wall or casing of the oven or range when said extension is drawn out, substantially as and for the purposes set forth.

3. A gas-burner for ovens, ranges, &c., having gas-discharge apertures inside of the oven or range, and a telescoping extension, having corresponding apertures which may be drawn out and exposed for the purpose of lighting and regulation, outside of the wall or casing of the oven or range, said burner being provided with stops for limiting the movement of said extension, substantially as and for the purposes set forth.

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

ALFRED E. DETWILER.

Witnesses:

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E. G. ASMUS.