

(No Model.)

W. A. SPICER.

Check Draft Damper for Stoves and Ranges

No. 230,832.

Patented Aug. 3, 1880.

Fig. 1.

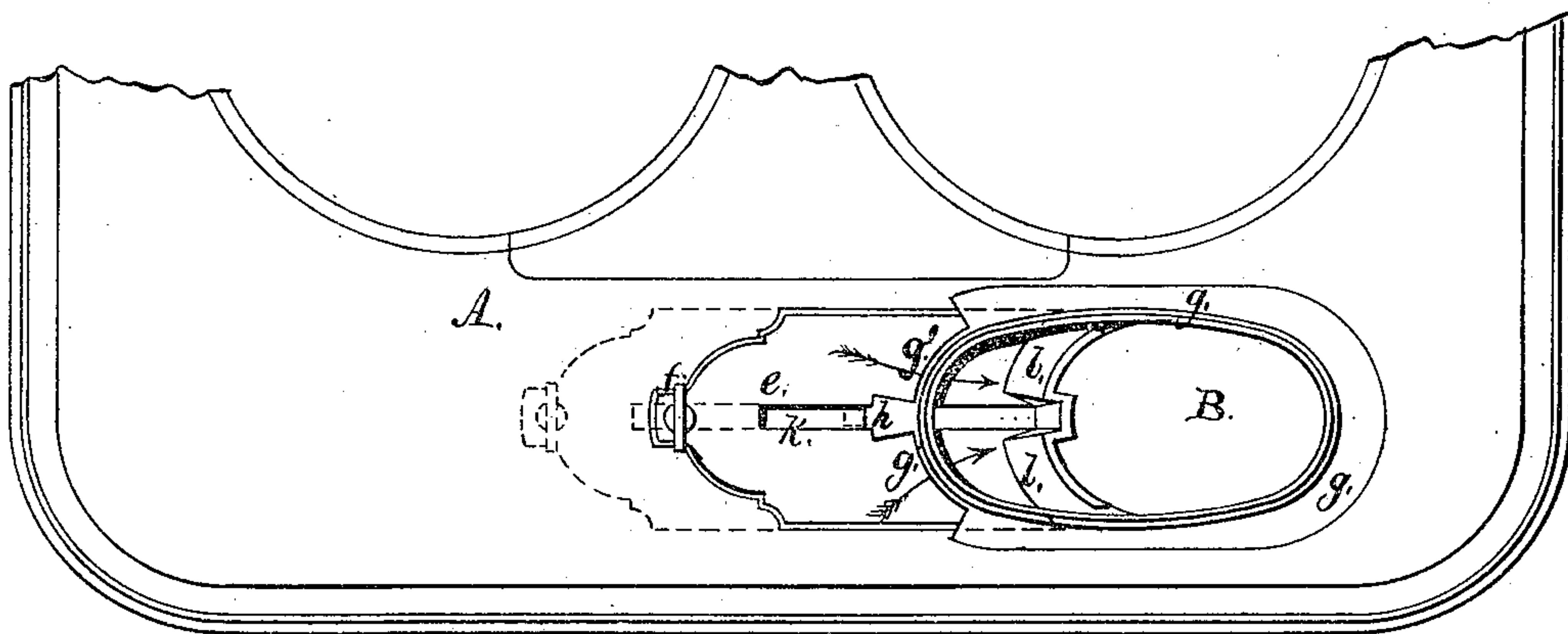
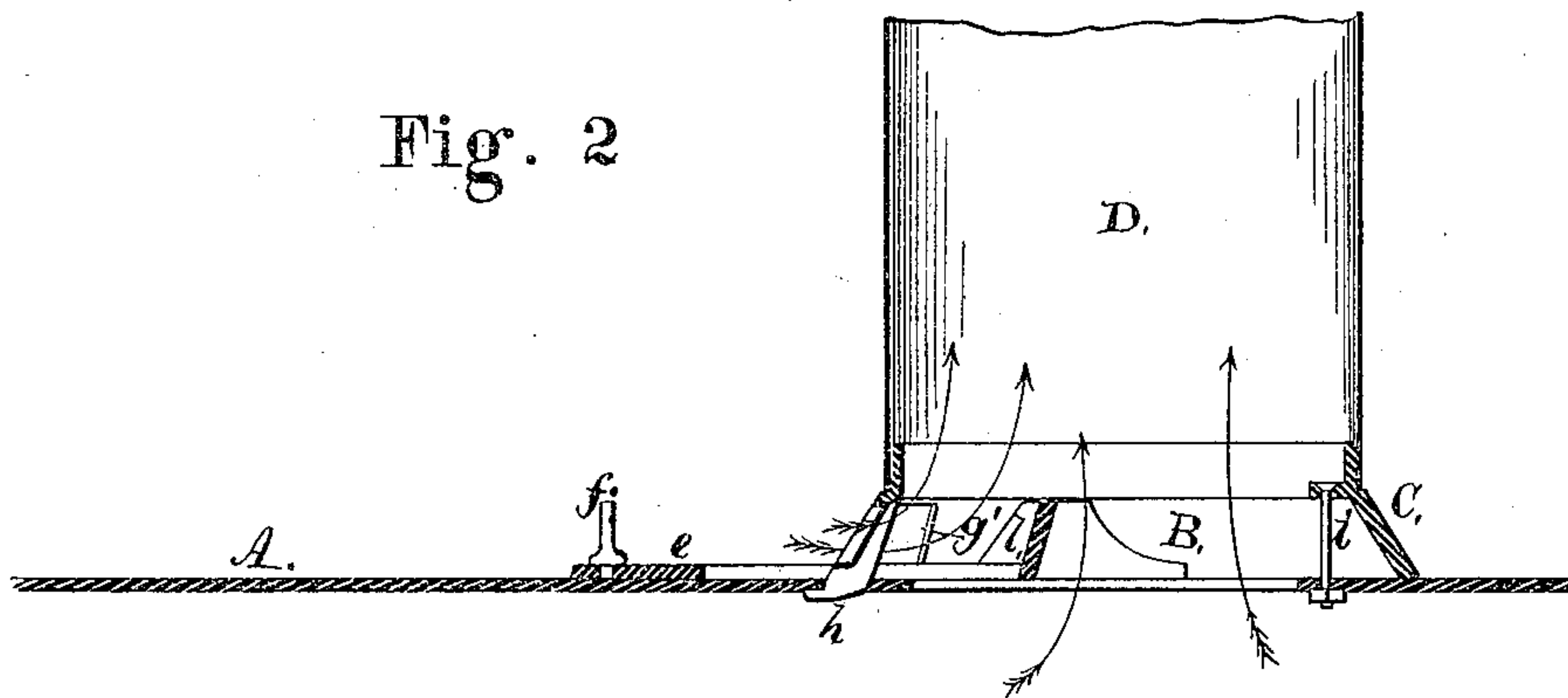


Fig. 2



WITNESSES:

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UNITED STATES PATENT OFFICE.

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CHECK-DRAFT DAMPER FOR STOVES AND RANGES.

SPECIFICATION forming part of Letters Patent No. 230,832, dated August 3, 1880.

Application filed May 31, 1880. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM A. SPICER, of the city and county of Providence, and State of Rhode Island, have invented a new and useful Improvement in Check-Draft Dampers for Stoves and Ranges; and I hereby declare that the following is a full, clear, and exact description of the same reference being had to the accompanying drawings, forming part of this specification.

This invention has reference to an improvement in the construction of the collars connecting the flues of stoves and ranges with the pipe by which the products of combustion are carried to the chimney.

The object of the invention is to simplify the construction of the collar and provide the same with a damper or adjustable air-inlet.

The invention consists in the peculiar construction of the collar provided with inlet-openings, and of a sliding plate, one end of which is provided with a thumb-piece and the other with a deflector, which, when the damper is closed, forms part of the collar.

Figure 1 is a top view of a part of a stove or range provided with my improved collar and draft-regulator. Fig. 2 is a sectional view of the top plate of a stove or range, the draft-regulator, the collar, and the slide.

In the drawings, A represents a part of the top plate of a stove or range. B is the flue through which the products of combustion are discharged. C represents the collar by which the stove-pipe D is connected with the stove or range.

e represents a flat side provided with the thumb-piece *f*. It is shown in Fig. 1, in broken lines, as drawn out so as to close the air-inlets and open wide the draft-flue B, and in both figures, in solid lines, in the position when the air-inlets are open and the draft-flue is partly closed. The damper *e* therefore performs two functions. When the air-inlets are opened by sliding the damper *e* inward the draft-flue is contracted, and the draft is thus diminished by the admission of the air and by the contraction of the draft-flue. When, now, the damper *e* is drawn out the draft-flue is opened the full area and the air-inlet is closed.

g is the collar uniting the stove-pipe D with the flue B, and *g' g'* are the air-inlet openings. Such collars are usually secured to the stove or range by placing the same over a projecting rim surrounding the flue-outlet in the plate. I prefer to secure the same more firmly, and provide a portion of the collar, preferably the portion between the air-inlet openings, with the hooked end *h*, which is entered into a hole in the stove-plate, and then secure the other end by means of the bolt *i*, so that the collar is now firmly secured to the plate A.

The damper *e* is provided with the slit *k*, the end *h* is passed through the slit, and thus the damper is secured and a central guide is provided by which the liability of wedging the sliding damper is prevented and a regular smooth movement is secured. This feature is important in a stove, as dampers have to be frequently moved. When the cook is in a hurry and not often blessed with patience, a damper that will stick or bind will meet with rough usage and frequently with utter destruction.

l l are the inclined segmental portions of the damper *e*, which enter the openings *g' g'*. When the air-inlet is to be closed, as these parts *l l* are vertical and preferably inclined like the sides of the collar, they form deflectors, by which the intruding air is directed upward to check the draft.

By this arrangement great economy in construction is secured over similar dampers as heretofore constructed, in which an extra air-box had to be connected with the flue, into which air was admitted when the damper closed the flue or contracted the area of the same, while in my improved device the air is admitted through the sides of the collar when the damper is pushed inward, and no box or other device is required. The whole is simply secured to the top of a plain plate, as shown, and the air is directed at once into the stove-pipe, quickly checking the draft and flowing in above the contracted flue, and not, as has been the case heretofore, below the contraction of the flue, being cheaper, better, and more effective.

This attachment can be secured to the back of the stove or range, when desired, without

the necessity of providing an air-box, and can therefore be used when the pipe extends horizontally as well as vertically.

Having thus described my invention, I
5 claim as new and desire to secure by Letters Patent—

1. The combination, with the plate A, provided with the flue B, of the collar C, secured by means of the hooked projection *h* and bolt
10 *i*, as described.

2. The combination, with the plate A and the collar C, provided with the openings *g' g'*, of the sliding damper *e*, provided with the por-

tions *l l*, arranged to regulate the air-inlet and the flue-opening, as described. 15

3. The combination, with the plate A, the flue B, and collar C, provided with openings, of the sliding damper *e*, provided with the slit *k*, constructed to control the draft by increasing or decreasing the area of the flue and open- 20 ing or closing the air-inlet, as described.

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Witnesses:

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