

SHAVOR & CORSE.

Cooking Stove.

No. 38,918.

Patented June 16, 1863.

Fig. 1.

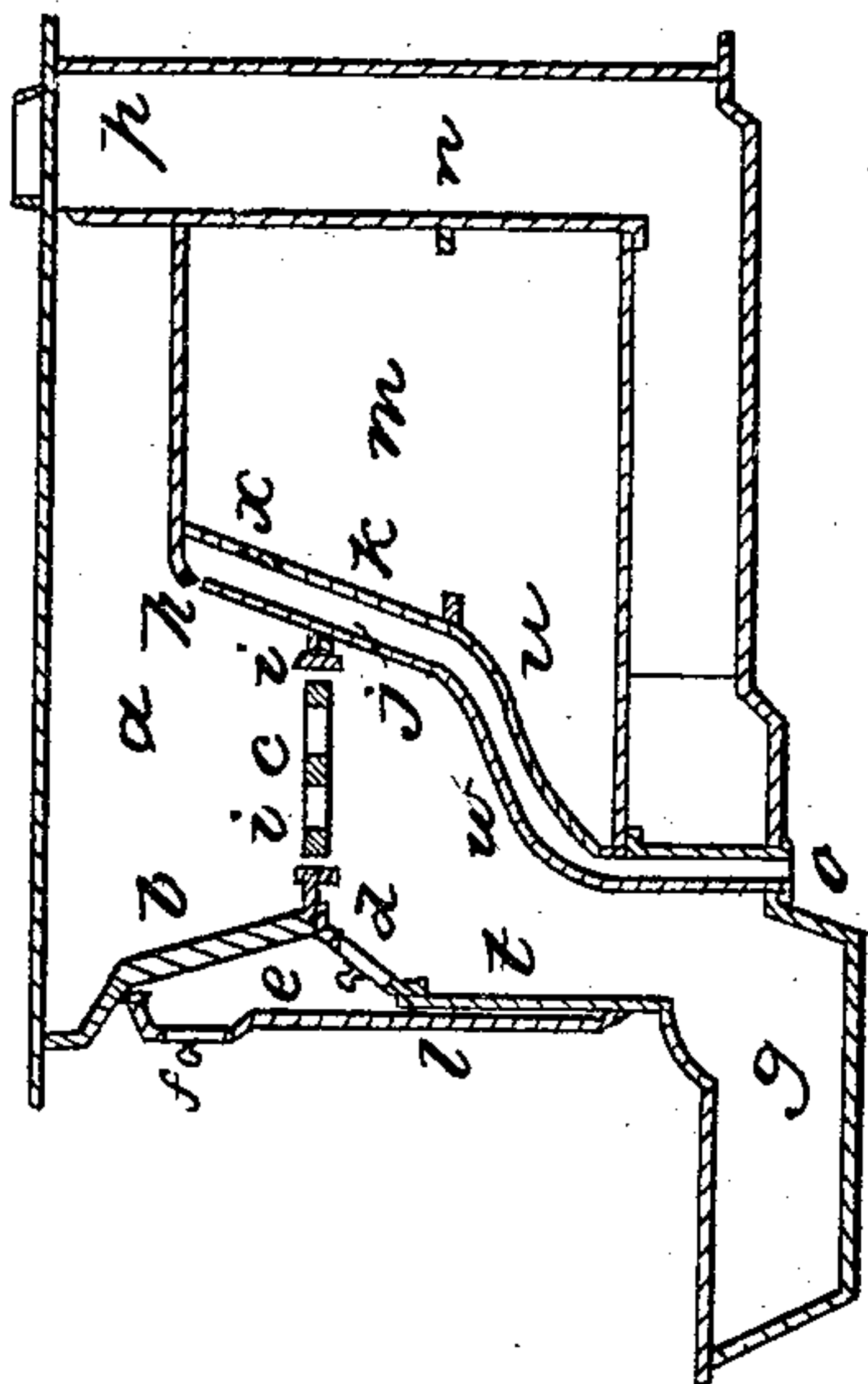


Fig. 3

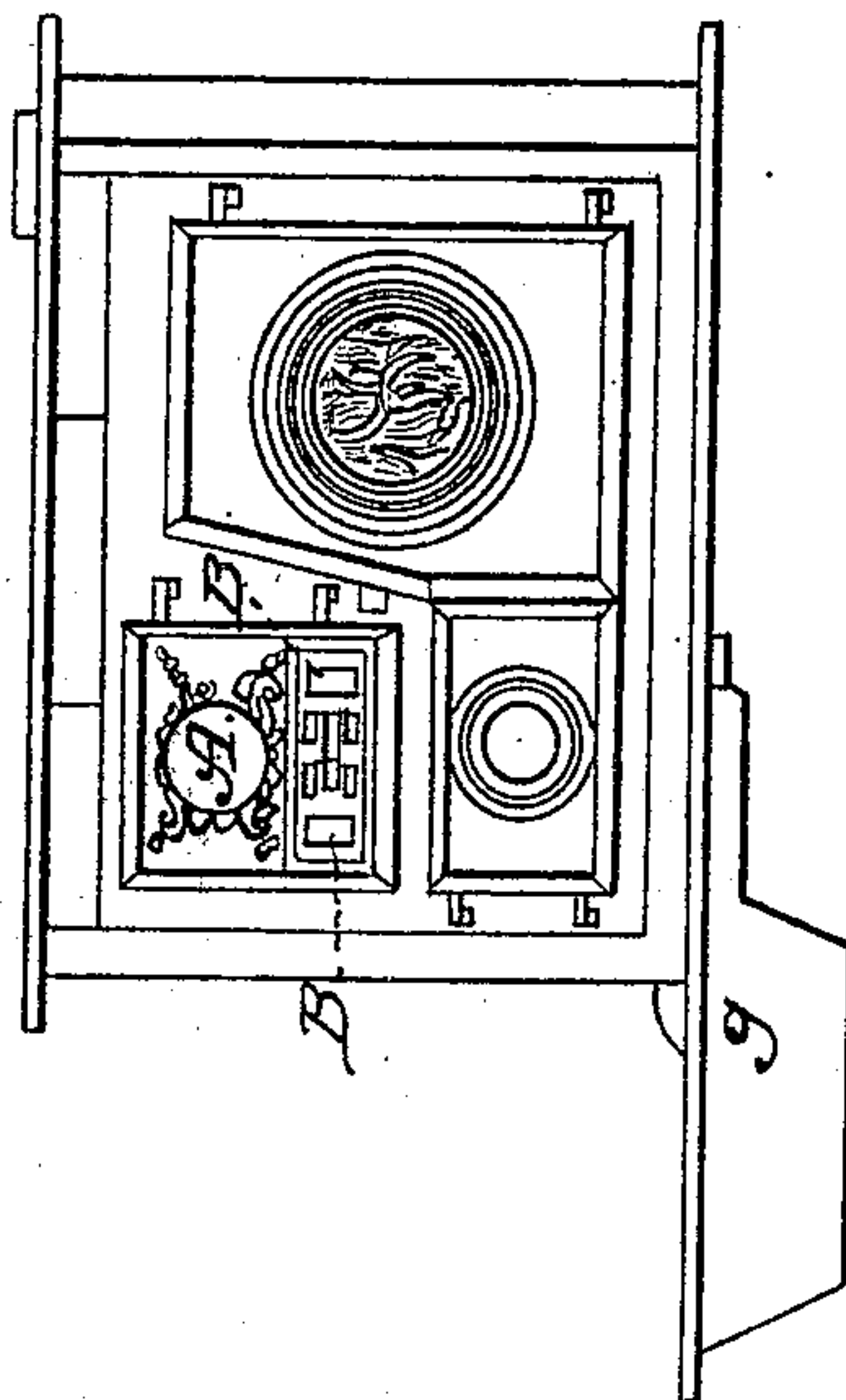
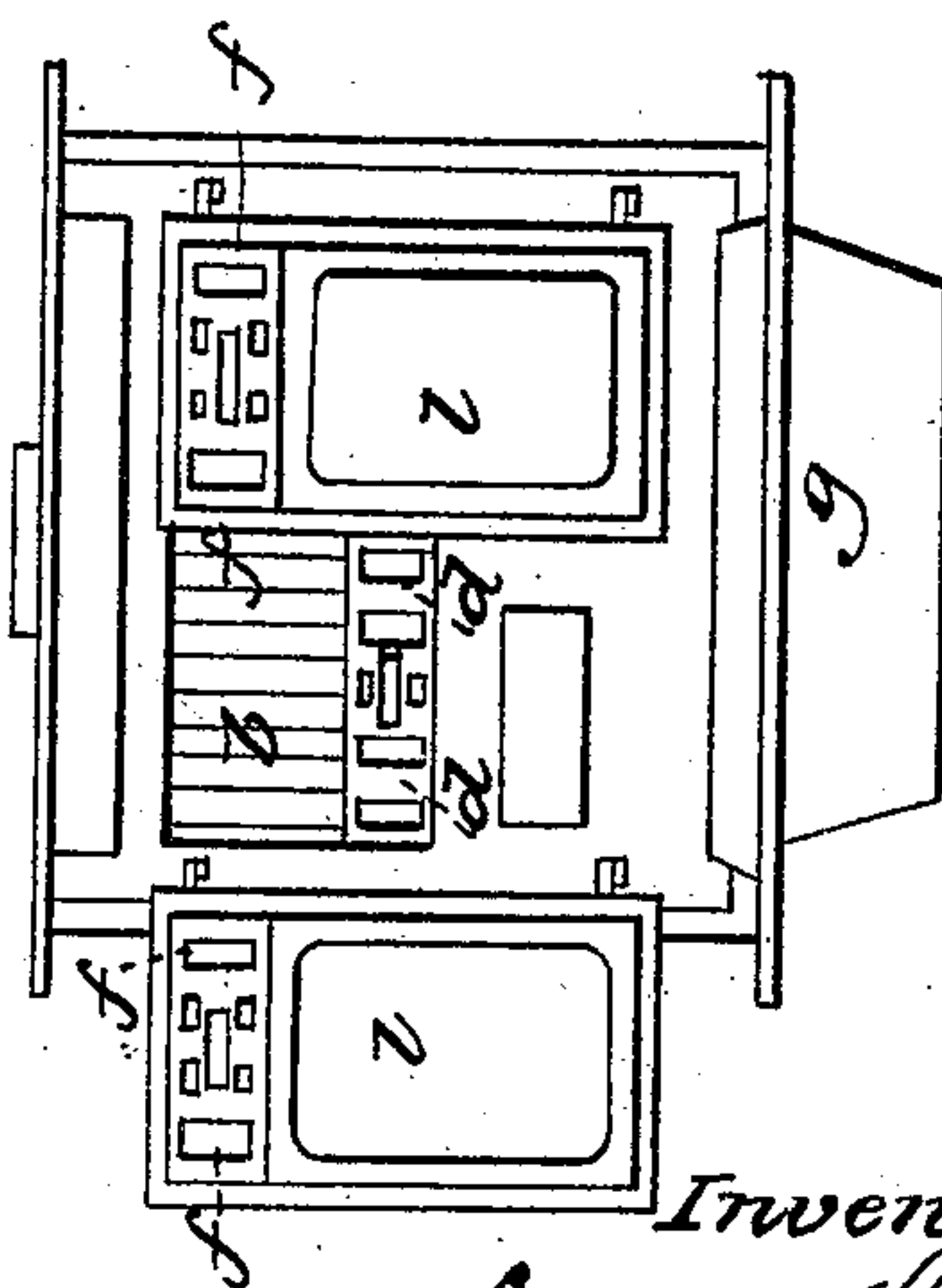


Fig. 2



Witnesses
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UNITED STATES PATENT OFFICE.

JACOB SHAVOR AND ALBERT C. CORSE, OF TROY, NEW YORK.

IMPROVEMENT IN COOKING-STOVES.

Specification forming part of Letters Patent No. 38,918, dated June 16, 1863.

To all whom it may concern:

Be it known that we, JACOB SHAVOR and ALBERT C. CORSE, each of the city of Troy, county of Rensselaer, and State of New York, have invented new and useful Improvements in Cooking-Stoves; that two years have not elapsed since the discovery and completion of the same; and we do hereby declare that the following specification is a full, clear, and exact description of the same, reference being hereby had to the accompanying drawings, and to the letters of reference marked thereon, and making a part of this specification.

Like letters represent and refer to like or corresponding parts.

Figure 1 is a transverse section perpendicular through the center, and showing the various parts and improvements hereinafter described. Fig. 2 is a front elevation showing the draft-openings *f* at the top of the doors and the draft-openings or damper *d* below the fire-chamber, and each hereinafter described. Fig. 3 is a side elevation showing the oven-doors, and the draft or end damper, B.

The nature of our invention and improvement consists in so constructing and combining a draft-damper, as hereinafter described and set forth, as to admit or conduct air through the damper *f* in the front doors, *l l*, down the front of the fire-box through the said draft-damper, underneath the fire-grate to facilitate the combustion of the fuel, or when closed, with the said front doors open, to expose a large radiating-surface of the stove to the room, whereby a large amount of heat is thrown off and into the said room where the said stove is used, or which front end of the stove may be arranged for roasting purposes by a tin incasement attached thereto.

It also consists in constructing an air-tube, in combination with the curved plate *w* and a ventilating-chamber, *j*, back of the fire-chamber, whereby air is admitted from the under side of the stove up and along the said curve plate, thereby becoming highly heated in its said passage, into the said ventilating-chamber in the rear of said fire-chamber, from whence in its highly heated condition it passes in part into the said fire-chamber over the fire to facilitate consumption of the products of combustion therein, while in part it passes into the oven in its highly heated condition for the purpose of aiding the process of baking there-

in. By this arrangement the oven is also ventilated, all of which are hereinafter described in detail.

To enable others skilled in the art to which our invention and improvements relate to make and use the same, we will now give the construction thereof, which is as follows, to wit:

a is the fire box or chamber, Fig. 1. *b*, same figure, is a plate, which may be corrugated or smooth, and dividing the said fire-chamber from the front air-chamber, *e*. *d* is a damper, arranged immediately between the lower front corner of the said fire-chamber *a* and the upper edge of the front plate, *t*, at the opening of the front doors, *l l*, by means of which the said air-chamber *e* and the draft-space under and below the fire-grate *c* are separated, for the purposes herein described. *t* is the front plate, having an opening through the upper part thereof for the purpose of giving free admission of air to and from the said chamber *e*, so also to give free admission of air through the damper *f*, at or near the top of said doors *l*, to and through the said damper *d*, when so desired. When the said front doors are shut, and air admitted through the said dampers therein, it is forced against the said plate *b*, down the same to the said damper *d*, through the same (when opened for that purpose) under the said fire-grate *c*, over the said curve plate *w*, and thence upward into the said fire-chamber *a*. When this damper *d* is closed and the said doors *l l* are open, there is a large radiating-surface exposed, by means of which a large radiation of heat from the said surface is thrown forward, and through the said opening in the said front plate, *t*, into the room, or into the baking or roasting oven thereto attached. This arrangement serves a double purpose: first, it warms a room quicker in cold weather and keeps the same room cooler in the summer by retaining the heat within by keeping said doors entirely closed; second, it will bake or roast in front by the use or attachment of a tin oven or casement thereto, while in either case draft or air may be admitted to the fire through the fire-grate *c* by means of the side damper, B, Fig. 3, which said side damper is for such purpose whenever the said intermediate damper, *d*, is closed, as aforesaid. The said oven or tin casement is portable, and of any desired size. The said

damper *d* is supported at or near the top of the said plate *t*, in the said opening therein by projections, or a groove upon said plate for that purpose. It then projects upward therefrom, and inclines back until it reaches the lower front corner of the said fire box or chamber *a*, as aforesaid. It may be constructed with any desired number of openings for the aforesaid purpose, which openings are closed when desired by means of a plate for that purpose passing over them. When this damper *d* is closed for the purpose of warming the room, or for the purpose of roasting or baking; or for any other purpose, air may be admitted as aforesaid to the fire through the side damper, *B*, at the bottom of the side door *A*, Fig. 3, which is at the end of the said fire-chamber *a*. There are two front doors, *l l*, Fig. 2, which, when closed, in connection with said intermediate damper, *d*, forms the said hot-air chamber *e*, as aforesaid. The fire-grate *c* is a common grate, so constructed and arranged as to dump the contents of the fire-box *a* into the ash-pan in the hearth below. *u* is a plate with three sides, which is made to correspond to and fit the said curve plate *w* at or near the center thereof, and extends in length over the entire width of the said curved plate and unites at its upper end with the lower edge of the plate *k*, Fig. 1, whereby and by means of which the air-tube *o* is constructed, which said tube, opens through the bottom plate of the stove passes upward along the said curved or inclined plate *w*, within the said plate *u*, until it reaches the air or ventilating chamber *j* in the rear of the said fire-chamber *a*, Fig. 1. This tube is for the purpose of admitting air from under the bottom of the stove, which becomes heated in its passage along the said curve plate *w* to the said ventilating-chamber *j*, in which chamber it becomes more highly heated, and passes thence in part through the openings *h* into the fire-chamber, thence in part through the openings *x* in the plate *k* into

the oven *m*, for the purposes as aforesaid, which said openings in either plate may be of any required number or size. The steam or gases arising in any wise from the material being baked in said oven may also be conducted away through said openings *x*. When a strong draft is desired, the dampers *f*, *d*, and *B* may each be open. Were it not for this damper *d* there would be no radiation of heat from the said plate *b*, as aforesaid, without admitting a strong draft of air to the fire, because then there would be a free passage for the same under the said fire-grate, the said doors *l l* then being open to allow the radiation of heat as aforesaid. This said damper checks or stops the draft or air while the said front doors are open, which is often desirable, as aforesaid. By closing the said front doors a large amount or radiation of heat is cut off, which is desirable in warm weather.

P, Fig. 1, is the back damper over the oven *m*, and regulates the general draft. *n*, same figure, is a flue-space between the back oven-plate and the end or outside plate of the stove, and is connected to and with the flue-space under the oven.

Having thus described our invention and improvements, what we claim, and desire to secure by Letters Patent, is—

1. The combination of the damper *d* with the front plate, *t*, and with the fire box or chamber *a*, substantially as herein described and set forth.

2. The combination of the air-tube *o* with the curved or inclined plate *w*, and with the air-chamber *j*, substantially as herein described and set forth.

In testimony whereof we have on this 26th day of April, 1862, hereunto set our hands.

JACOB SHAVOR.

ALBERT C. CORSE.

Witnesses:

CHARLES EDDY,

MARCUS P. NORTON.