

(No Model.)

A. M. BLAKESLEY.

STOVE OR RANGE.

No. 338,701.

Patented Mar. 30, 1886.

Fig. 1.

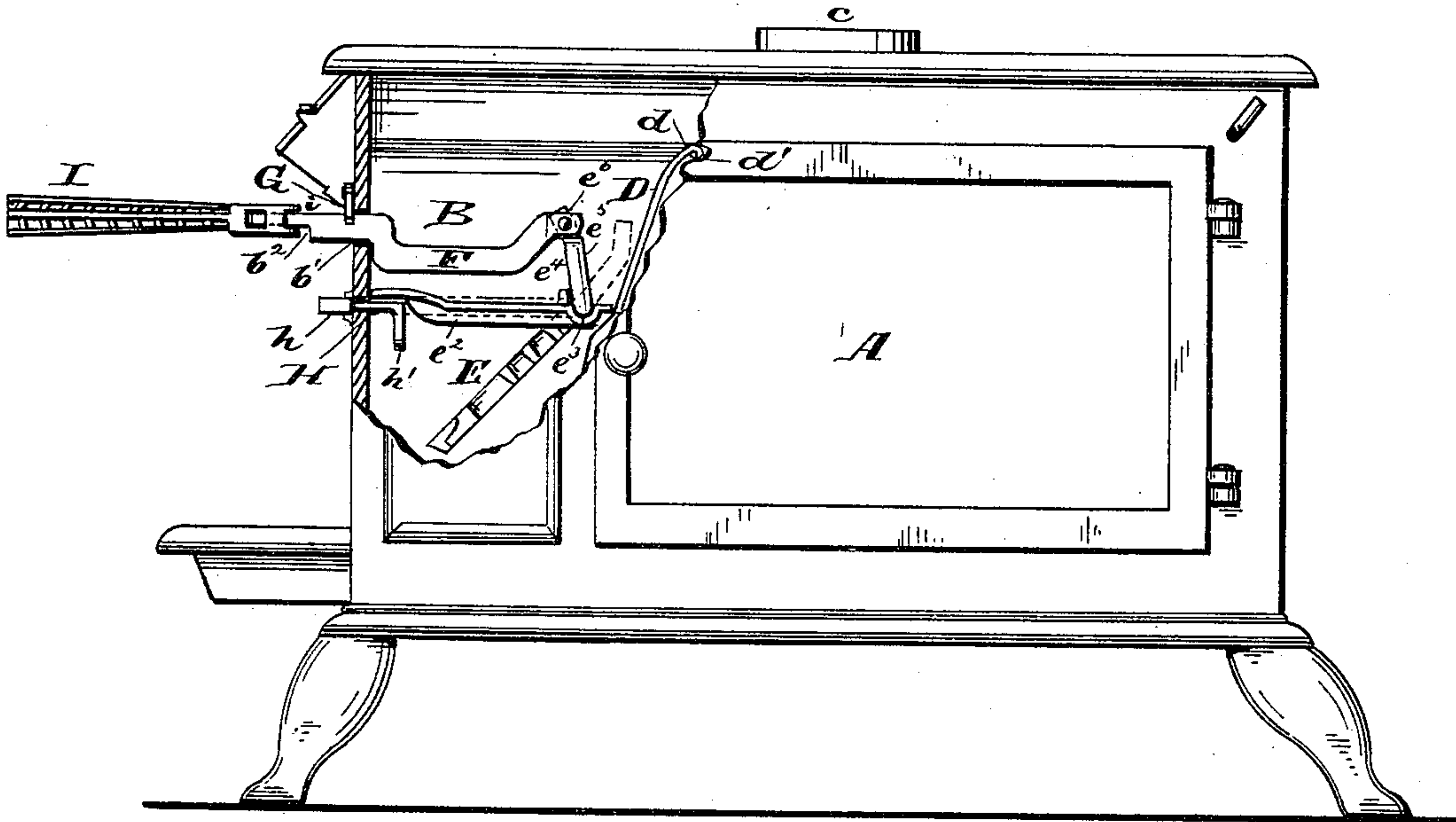


Fig. 2.

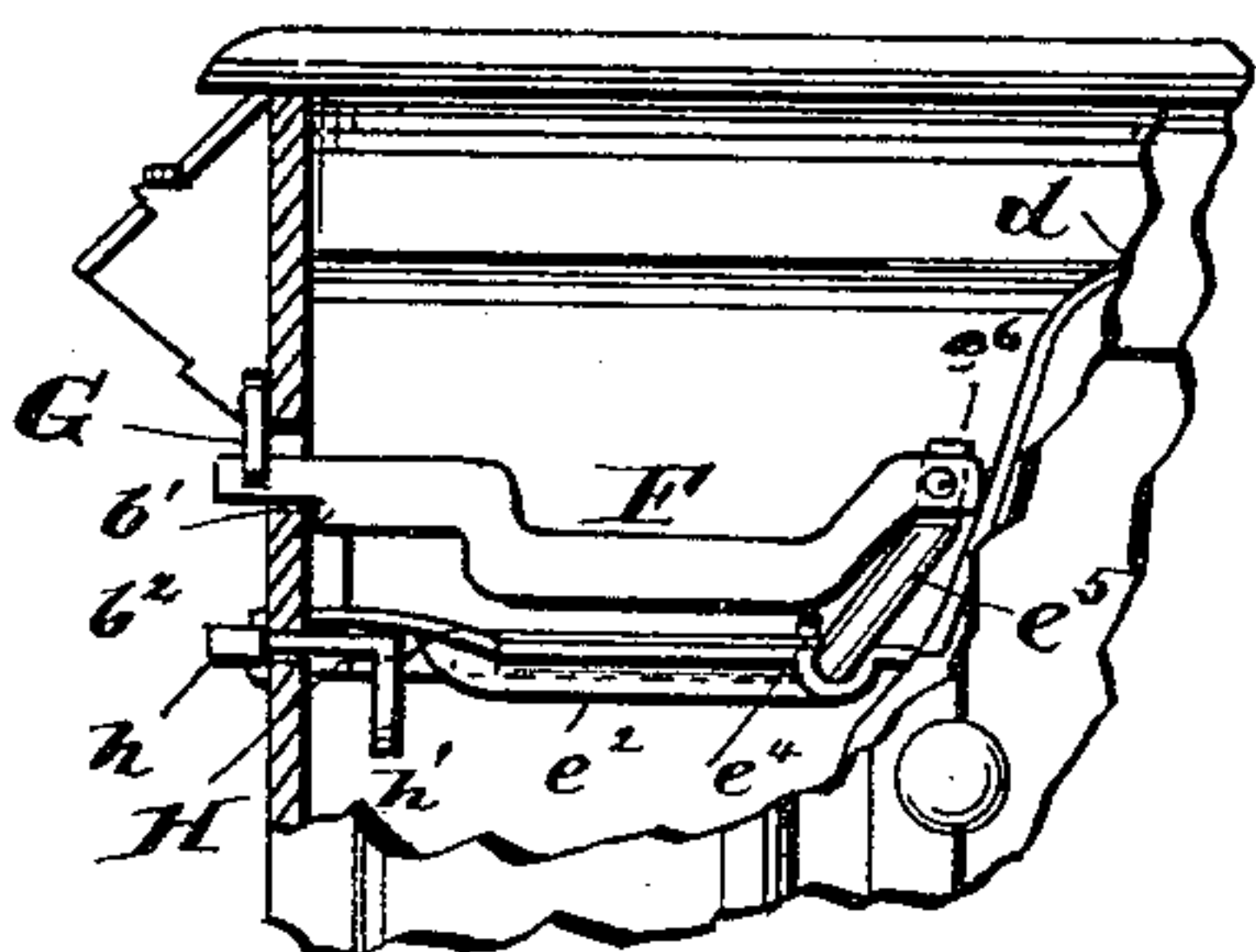


Fig. 3.

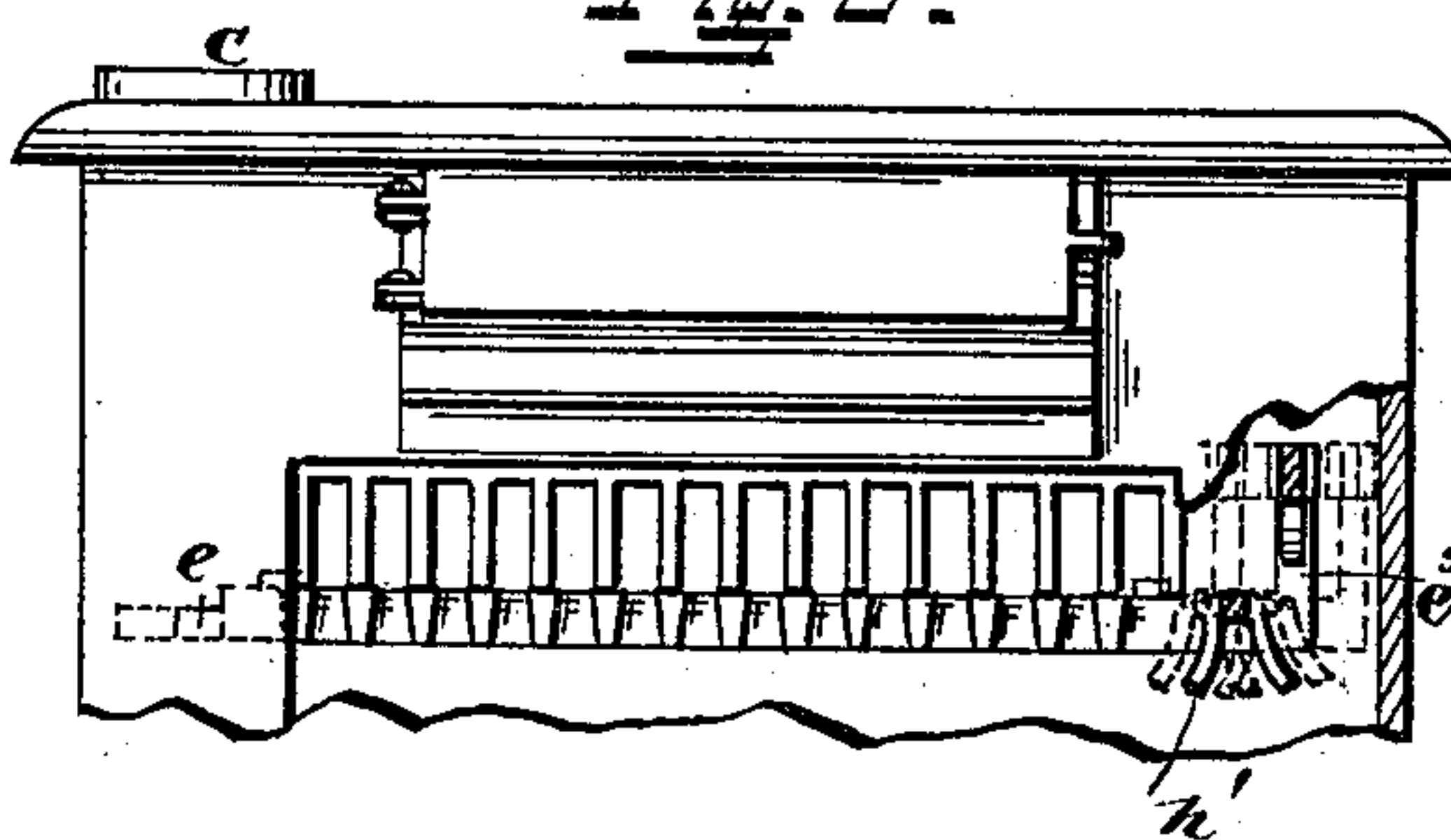


Fig. 4.

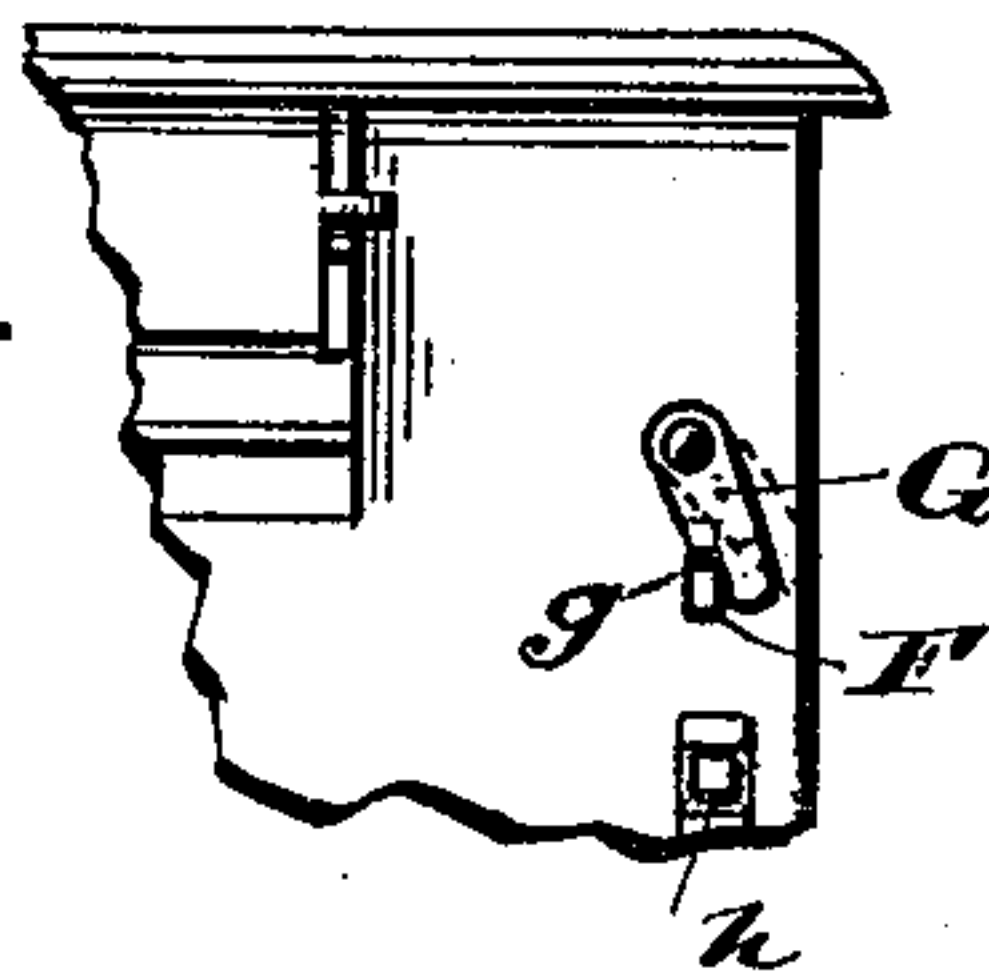


Fig. 5.

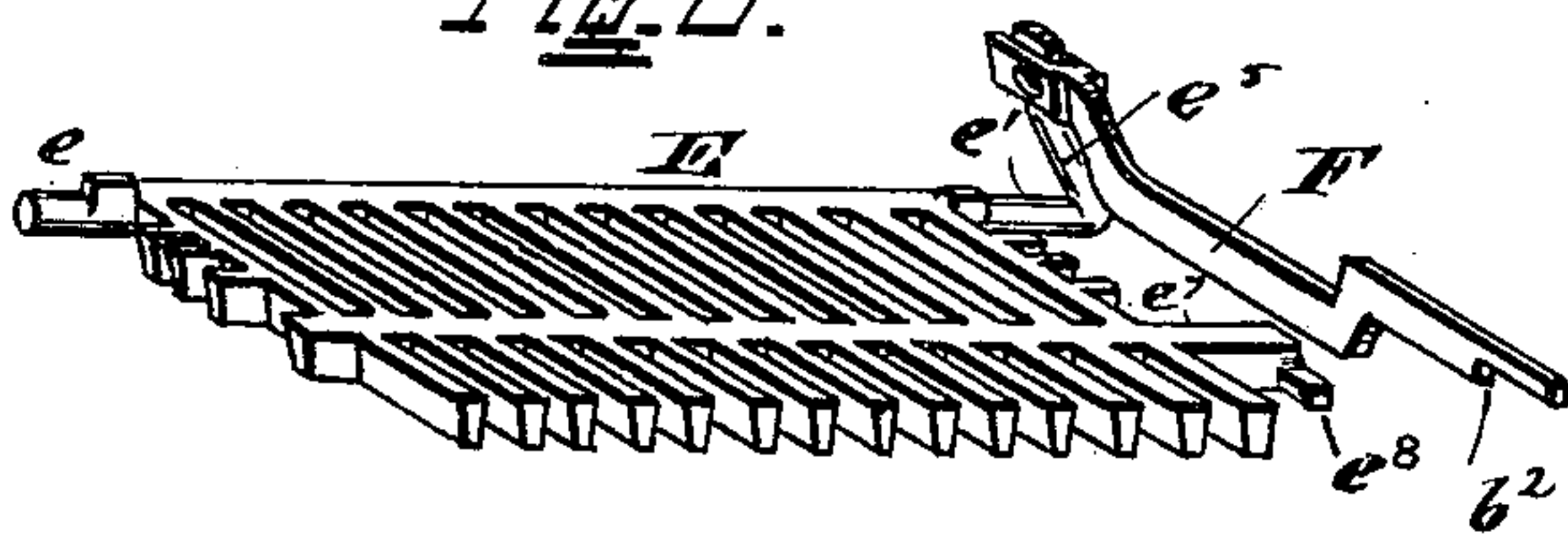
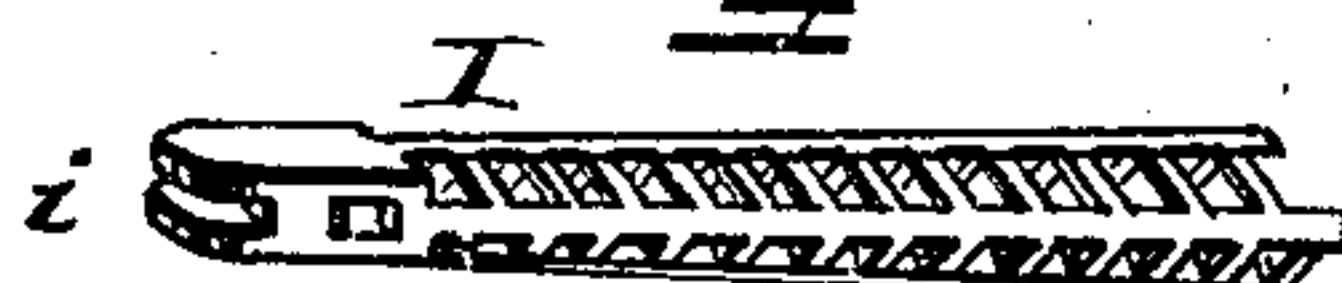


Fig. 6.



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STOVE OR RANGE.

SPECIFICATION forming part of Letters Patent No. 338,701, dated March 30, 1886.

Application filed May 28, 1885. Serial No. 166,906. (No model.)

To all whom it may concern:

Be it known that I, ALPHEUS M. BLAKESLEY, of Rock Island, in the county of Rock Island and State of Illinois, have invented certain new and useful Improvements in Stoves and Ranges, of which the following is a specification.

My invention relates to grates; and it consists in various features and details herein-
after more fully set forth.

My invention may be applied to stoves or ranges of most all ordinary styles, and particularly to those in which the fire-place is in the front part thereof; but I will illustrate and describe it as embodied in a stove or range of this latter description.

In the drawings, Figure 1 is a side view of the front of a stove embodying my invention, the side plate broken away to show the various parts. The grate in this figure is shown as dumped, the normal positions of the various parts being indicated by dotted lines. Fig. 2 is a like view of the front of a stove or range with grate closed and shaker-handle removed. Fig. 3 is a like view of the front of a stove with the front plates broken away and closed grate, showing in dotted lines the limit of the movement of the grate when shaken. Fig. 4 is a front view of a portion of a stove, showing the escutcheon. Fig. 5 is a detail of the shaker-handle. Fig. 6 is a detail of grate and dump-lever, and Fig. 7 a detail view of the shaking mechanism.

A is a stove or range of the well-known pattern, having a fire-place, B, in front, and exit-flue C in the center of its closed side.

D is a fire-back, sustained in its position on the upper part of the front oven-plate by its hooked upper end, *d*, resting on the projecting top *d'* of such plate.

E is the grate, with shafts or pintles *e e'* on its rear side, the former working in a bearing formed on the closed side plate, the latter having a grooved bearing, *e³*, in a support, *e²*, between the front stove-plate and front oven-plate. This support is provided with a lug, *e⁴*, in front of the groove, to prevent the escape of the shaft therefrom when in operation. The shaft *e'* has an upwardly-projecting radial arm, *e⁵*, either made integral with the grate or rigidly secured thereto. The upper end of

the arm is preferably flattened, and, by a rivet, *e⁶*, passing through a central hole therein, as well as in the rear end of a slotted link, F, in which such end of the arm rests, is swiveled thereby. The forward portion of the grate has a lateral projection, *e⁷*, the end of which is provided with a forwardly-extending lug, *e⁸*.

F is a link with its rear end slotted to receive the flattened upper end of the radial arm from the grate, and to which the arm is swiveled by the rivet *e⁶*. This link is curved downward in the middle to clear the open side of the fire-place to a line with the bottom of the fire-door, and thus permit the ready introduction of fuel and avoid the obstruction to the free access thereof which a straight link would cause, the front portion of such curve, when the link is actuated to bring it in contact with the rear side of the front plate serving also as a stop to such link, and consequently to the further actuation of the grate. The forward portion of the link-bar is supported in a slot, *b'*, in the front stove-plate, through which the link plays, and has also a notch, *b²*, therein, with the end of such link from the notch adapted to be received within the hollow end of the shaker-handle by which the link is actuated. The action of link through its connection with the upwardly-projecting arm from the rear side of the grate is to rock the grate upon its bearings as the lever is moved backward and forward, the former closing and the latter dumping the grate.

G is a latch, pivoted at its upper end to the stove-plate, slightly above the slot for the link in the front plate, and provided with a notch, *g*, on one or both sides of its free end, the position of the notch or notches being such that when the link is adjusted to close the grate and the free end of the latch drops down upon the link the edge opposed to the notched side of the former will fit into such notch.

H is a shaker-lever, pivoted at or about its center to the front plate of the stove, below that of the dumping-lever above described, its forward end, *h*, projecting through a slot in the front stove-plate, beyond the front face thereof, as shown in Figs. 1, 2, 4, and 7, and adapted to be received within the hollow end of a shaker-handle, its rear formed with a downwardly-extending forked projection, *h'*,

at right angles to its body portion and adapted to receive the forwardly-extending lug on the forward projection of the grate.

I is a shaker-handle with a hollow end adapted to receive the forward ends of the shaker and dump levers. The top and bottom of the hollow end are projected beyond the line of such end in the form of a semicircle, or, preferably, coming to a point at the middle and curving to both sides at the end, as shown at *i*.

It often becomes necessary or expedient in the ordinary use of a stove or range—as, for instance, to clear it of clinkers or accumulated ashes or cinders of such a size as are prevented from being removed through the spaces between the grate-bars or the medium of shaking—to cause the entire bed of the fire to be dumped, and thus rid the fire-place of whatever may be in it. In most styles of devices for this purpose the grate is hung from the middle, and consequently, when the fire is dumped it is thrown on both sides of the grate, and in righting it both sides are opposed by the deposits lying against them, and considerable trouble to turn the grate caused thereby; also, in this form of grate, the space for dumping the fire being thus divided, the removal of the ashes or clinkers is rendered less easy, and especially is this so if there be among such any large chunks or pieces. Then, again, in dumping such a grate the operator has to lift the body of ashes, fuel, or fire on one side of it until the grate is raised sufficiently to allow the deposit to slide through either or both sides.

In my invention the grate is hung from the rear and the largest chute for the dumping of the fire thereby provided, and being so hung the gravity of the grate when the link is released will, without any lifting or other force applied thereto, be sufficient to dump it. The space between the chute and ash-pan is so large that an ordinary amount of ashes or other material in the fire-place will be readily dumped into the ash-pan without encumbering the grate therewith, and the forward end thereof will be practically clear from contact therewith, and may easily be swung up into place again by the link when the dumping operation is completed.

In ordinary use the grate of the range or stove is held in a horizontal position, to prevent the escape of the fuel while in process of combustion, and such in a stove or range embodying my invention is shown in Fig. 2.

Now, when it is desired to dump the grate the hollow end of the shaker-handle is placed upon the end of the dumping-link *F* and is pushed toward the stove, when the curved or semicircular projections from its end will slide under and raise the latch from contact with the lever, and permit the latter to be lifted until the notch in its forward portion clears the slot in the front plate, when the gravity of the grate, acting through its connection by the arm therewith, will thrust the lever for-

ward through the slot until its further progress is prevented by the forward part of the downward curve on such link coming in contact with the back part of the front stove-plate, and the grate will thus be dumped and held in such position until readjusted. The grate being thus dumped, as shown in Fig. 1, its adjustment is accomplished by pushing the dumping-link back (which through its connection with the grate-arm rocks the grate upward) until the notch on its forward portion passes beyond the slot in the front plate, when the weight of the lever causes it to fall in such slot, with the notch beyond the inner face of the plate, and the grate is thus held in a closed position. The latch then drops down upon the link, with its notch fitting thereon, and prevents the link from being again actuated without the insertion of the shaker-handle or throwing the latch out of contact with the link.

By the use of the forked projection on the inner end of the shaker-bar *H* the latter will always be operative when needed, for in whatever lateral adjustment the grate may be when dumped, when being closed the lug on the lateral projection on the forward part of the grate will invariably come between the tines of the fork, and the shaker be ready for immediate use thereafter.

The shaking of the grate is accomplished in the usual manner by the use of the handle thrust through its hollow end upon the end of the shaker-lever, and then moving the handle from side to side, the long shafts on the rear of the grate and bearings therefor affording ample lateral play thereto.

I claim—

1. In combination with a stove, grate *E*, provided on its rear with lateral pintles *e e'* and radial arm *e⁵*, bars or supports for said grate, and link *F*, connected to the radial arm, extending through the front plate of the stove and provided with a notch to engage with the front of the stove, as shown, whereby the grate may be locked in position.

2. In combination with a stove, grate *E*, provided at its rear with lateral pintles *e e'* and radial arm *e⁵*, bars or supports for said grate, a link, *F*, connected to the radial arm, extending through the front of the stove and notched to engage therewith, and a latch or button, *G*, pivoted to the front plate to engage with the link *F*, as and for the purpose set forth.

3. In a range or stove, the combination of a grate, *E*, journaled upon lateral pintles *e e'* at its rear ends, a radial arm, *e⁵*, secured thereto, a notched link, *F*, connected with the latter and working through a slot in the front plate, a latch, *G*, pivoted to the front plate of the stove to engage the link *F*, and a handle, *I*, to fit upon the end of link *F*, and having its end rounded, as at *i*, as and for the purpose set forth.

4. In a stove or range, the combination of the grate *E*, having pintles *e e'* and radial arm

e^5 , with link F, having notch b^2 , latch G, and shaker-handle I, all constructed and arranged substantially as described.

5 In a stove or range, the combination of the grate E, having shafts or pintles $e e'$, lateral projection e^7 in front portion, forwardly-extending lug e^8 , and radial arm e^5 , with the link F, having notch b^2 , latch G, shaker-lever

H, having forward end, h , projecting beyond the front plate, and forked rear end, h' , and a shaker-handle, I, all constructed and arranged substantially as described.

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Witnesses:

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J. E. LOOSLEY.