

(No Model.)

F. H. DE GUERRE & W. W. DE LANO.

STOVE GRATE.

No. 315,255.

Patented Apr. 7, 1885.

Fig. 1.

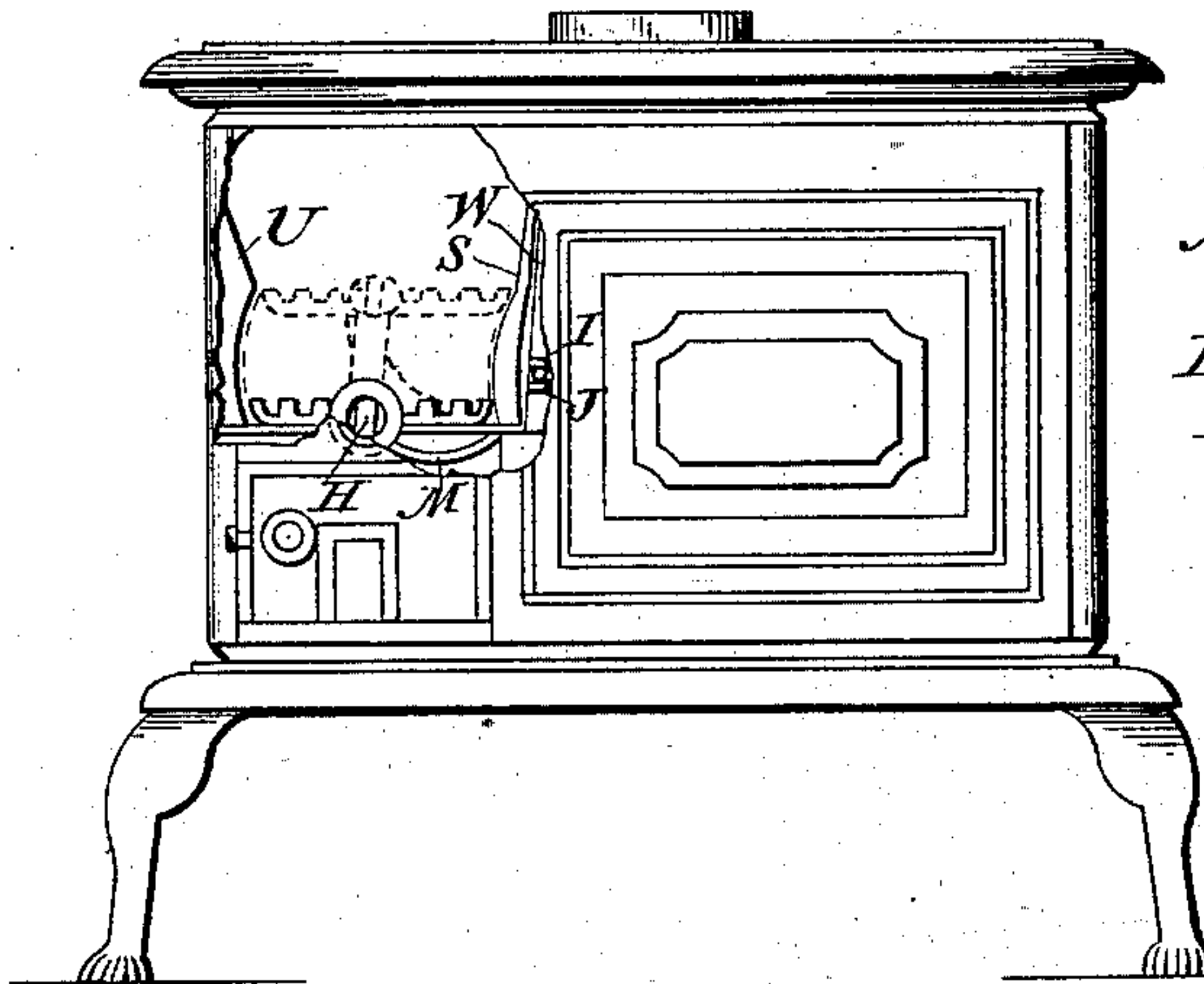


Fig. 3.

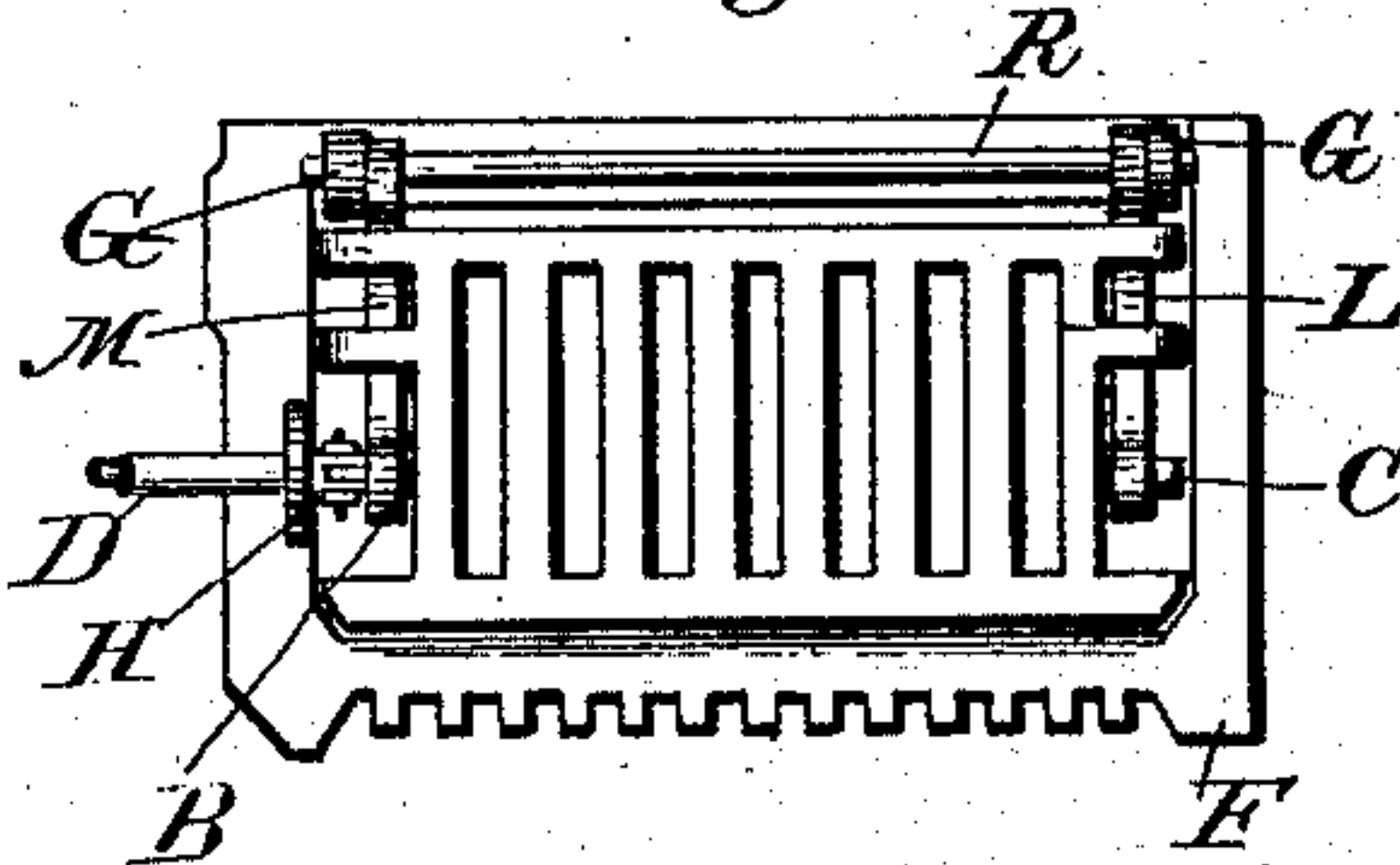


Fig. 4.

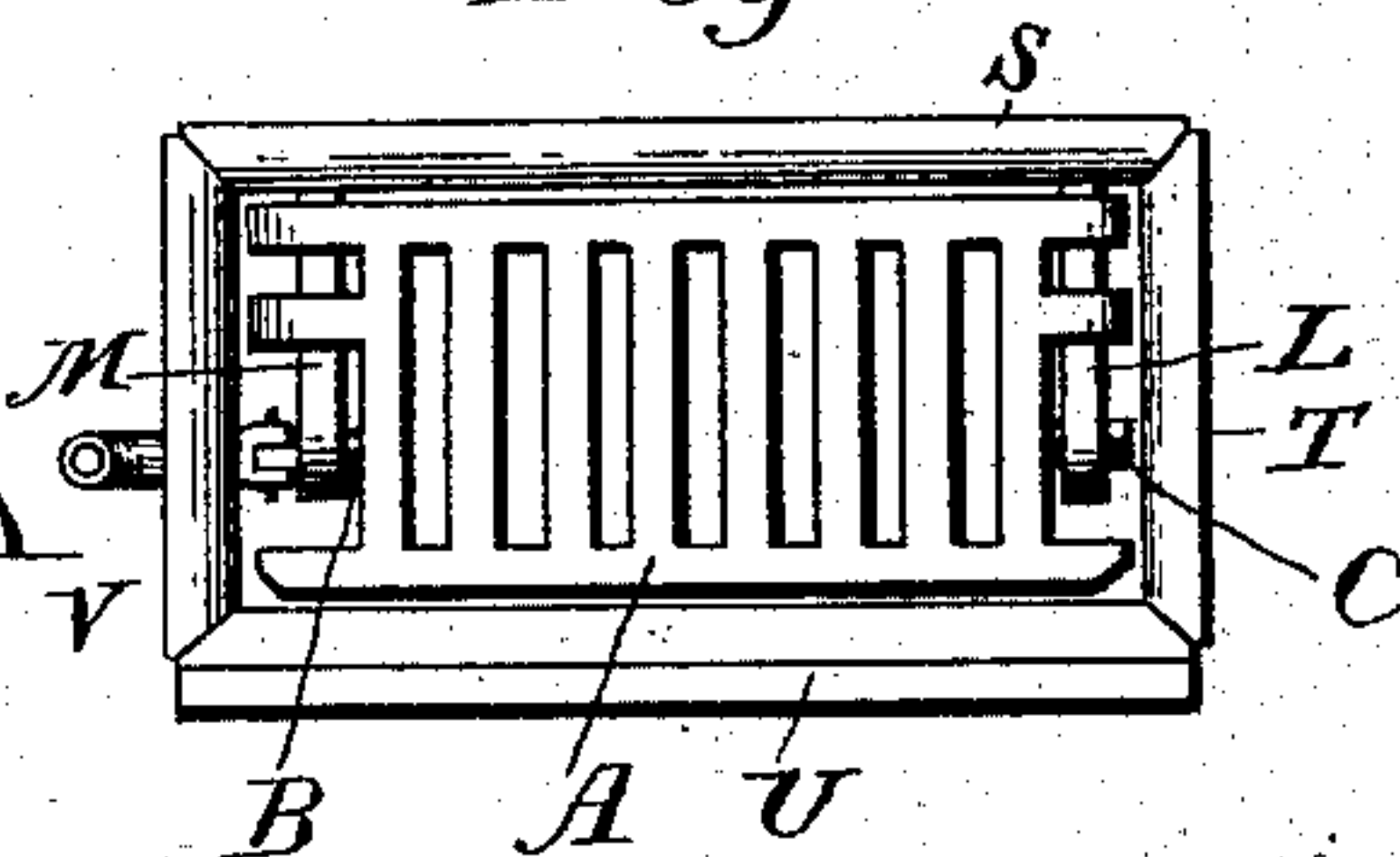


Fig. 2.

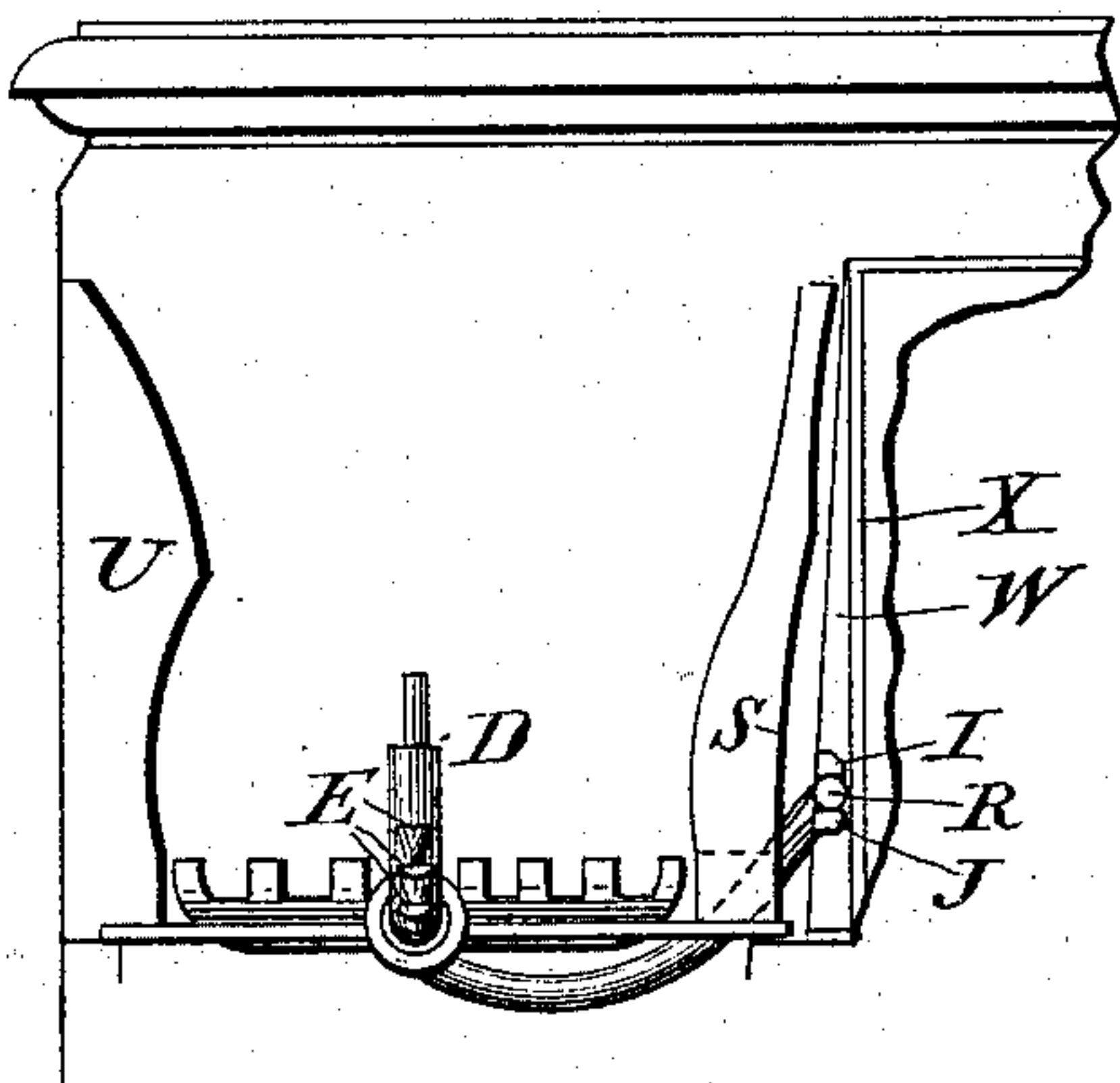


Fig. 6.

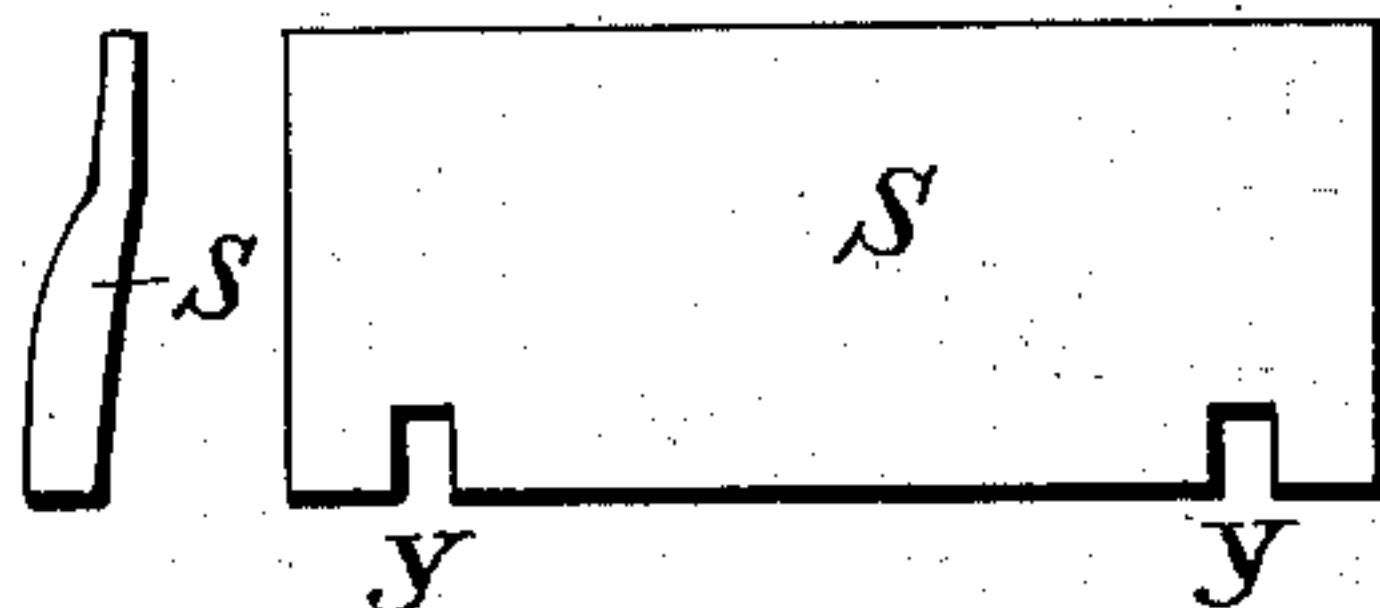


Fig. 5.

Fig. 7.

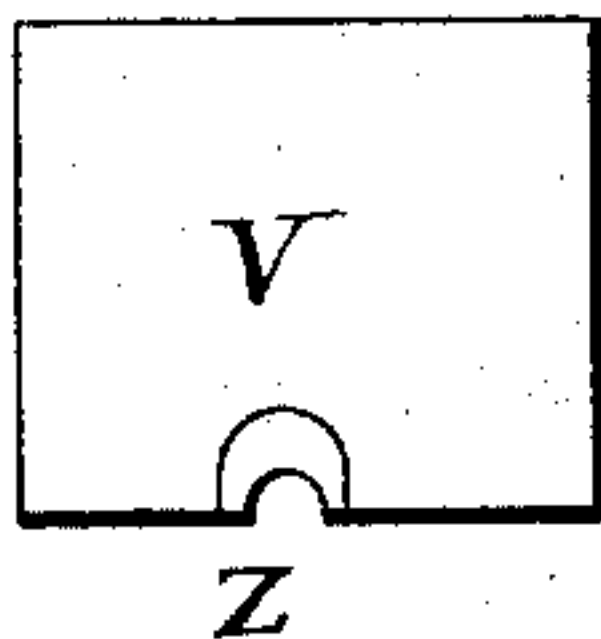


Fig. 8.

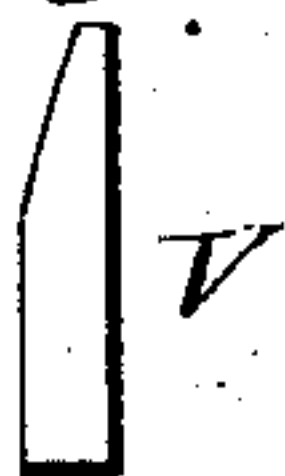


Fig. 10.

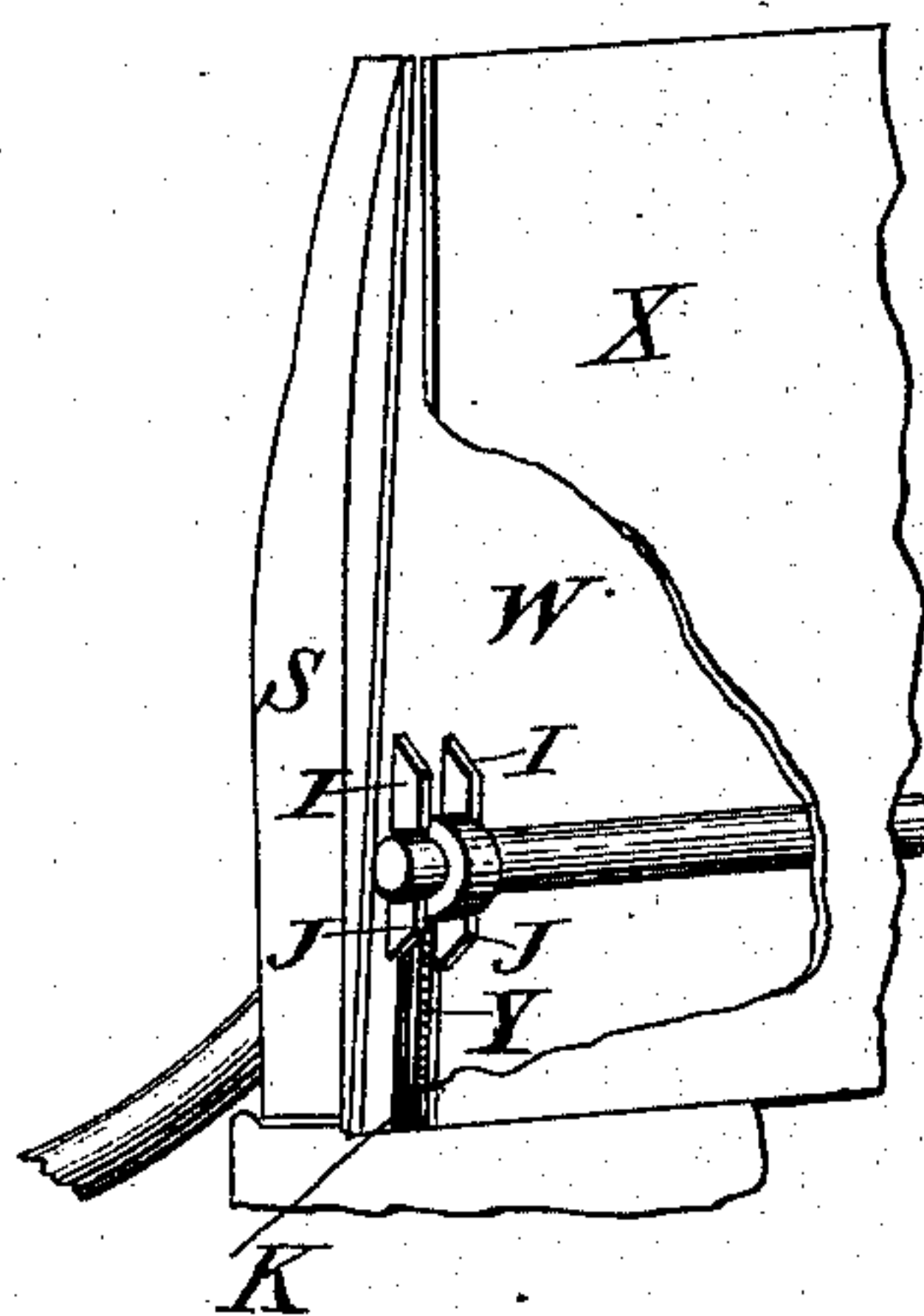
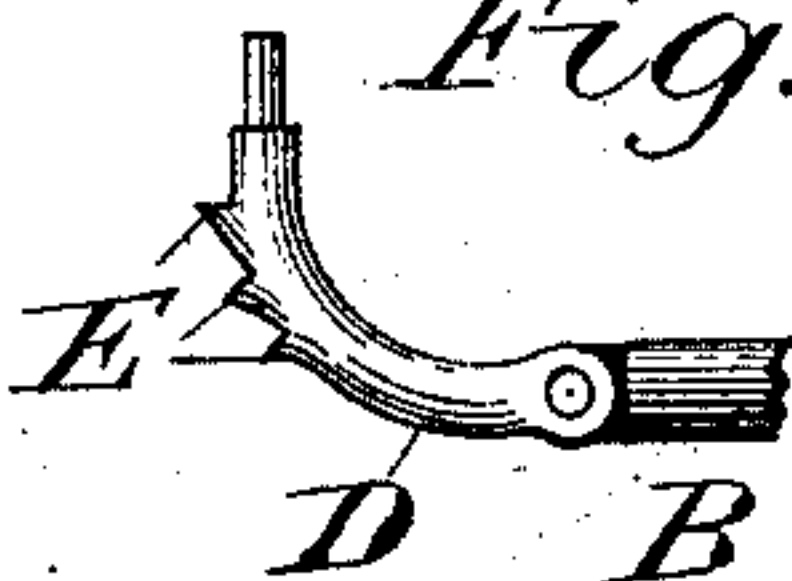


Fig. 9.



Witnesses:

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Inventors,

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Willie W. De Lano
By their Atty. John H. Redstone.

UNITED STATES PATENT OFFICE.

FRANK H. DE GUERRE AND WILLIE W. DE LANO, OF SAN FRANCISCO, CAL.

STOVE-GRATE.

SPECIFICATION forming part of Letters Patent No. 315,255, dated April 7, 1885.

Application filed July 11, 1883. (No model.)

To all whom it may concern:

Be it known that we, FRANK H. DE GUERRE and WILLIE W. DE LANO, both citizens of the United States, and residing in the city and county of San Francisco, and State of California, have jointly invented certain new and useful Improvements in Adjustable Stove-Grates, of which the following is a specification.

Our invention relates to a certain improvement in stove-grates for which Letters Patent were granted to Frank H. De Guerre and Willie W. De Lano, both of the city and county of San Francisco and State of California, bearing date April 11, 1882.

The following is the construction of the same, reference being had to the accompanying drawings and the letters marked thereon.

Figure 1 is a front elevation; Fig. 2, an end view of the grate; Fig. 3, a plan view of the grate; Fig. 4, a plan view of the grate and the fire-bricks forming the fire-box; Fig. 5, an elevation of the rear fire-brick, S; Fig. 6, an end view of the same; Fig. 7, an elevation of the end fire-brick, V, with the opening through which the curved adjusting-rod operates. Fig. 8 shows an end view of the same. Fig. 9 shows the adjusting-lever D. Fig. 10 shows a broken view of the corner of the stove-oven, the end of the rear fire-brick, S, the oven-plate X, the pivot-connecting rod R, and the supporting-levers L and M.

A represents the grate; B and C, the grate-pivots; D, the adjusting and supporting lever; E, notches upon the same to serve as stops to hold the grate at the required elevation; F, the bed-frame forming the grate-rest and brick-rest, and it has the pivot-posts G and the adjusting and guide ring H attached.

L and M are the pivoted supporting-levers, and R the supporting-lever-connecting rod.

S is the rear fire-brick; T, the fire-brick at the inner end of the fire-box; U, the front fire-brick; V, the outer end fire-brick; W, the oven fire-plate; X, the oven-plate.

Y represents the slots in the fire-brick, and K the slot in the oven fire-plate to allow the supporting-lever R to operate through the same when the journals of the pivot-connect-

ing lever R are pivoted by means of nibs attached to the oven fire-plate I and J, forming the journal-bearings of the same.

The following is the operation of the same: When it is required to reduce the fire-space above the grate, the lever D is forced in, raising the grate with the supporting-levers L and M, which swing upon the pivot-rod R in the pivot-posts G, and when at the desired elevation one of the notches E drops against the inner edge of the guide-ring H, which forms a stop, as shown at E E and E in Fig. 9, to hold the grate in a horizontal position. The connecting-rod R may be set in lugs in the oven fire-plate W, as shown in Figs. 1, 2, and 10. We construct the grate-pivots B and C in relation to their bearings so as to allow a little longitudinal motion for shaking the grate. The lifter employed is similar to an ordinary griddle-lifter used for stoves and ranges, with the exception that the handle is made hollow to fit upon the end of the supporting-lever D, and it will be seen that the additional length of the same being added to the lever D gives an excellent leverage for the purpose of shaking or dumping the grate. It will be seen that the grate A, in being raised and lowered, describes a circle whose radius is equal to the distance between the axis of the pivot-rod R and that of grate-pivots B and C; consequently, in order to secure a uniform space between the grate and the fire-brick composing the front and back fire-wall, we have constructed the fire-bricks U and S with curved surfaces adapted to the sweep of the lever-arms L and M in the raising and lowering of the grate. When the grate-pivot-connecting rod is placed in its bearing between the nibs I and J, and the oven fire-plate W is placed in position against the oven-plate X, as shown, a complete and secure journal box or bearing is formed for the grate-pivot-connecting rod, as shown.

Having thus described our invention, we would refer especially to the arrangement of the fire-box of the stove, which may be enlarged and contracted in depth and capacity by operating the adjusting-lever D; and it is essential that the space between the grate and

the fire-wall remain the same in all parts of its motion up and down in raising and lowering, as in case a small piece of coal or other hard substance becomes wedged in between
5 the grate and the fire-brick it would be a decided hinderance to the operation. For that reason the advantage of using the curved bricks S and U is very apparent.

What we claim, and desire to secure by Letters Patent, is—

The oven fire-plate W, having the journal-

box lugs I and J, in combination with the pivot-rod R, the lever-arms L and M, the grate A, having the pivots B and C and the adjusting-lever D, and the curved fire-bricks
15 S and U, constructed and operated substantially as and for the purposes set forth.

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Witnesses:

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