

(No Model.)

M. T. ANDREWS.

STRAW BURNING ATTACHMENT FOR STOVES.

No. 389,351.

Patented Sept. 11, 1888.

Fig. 1.

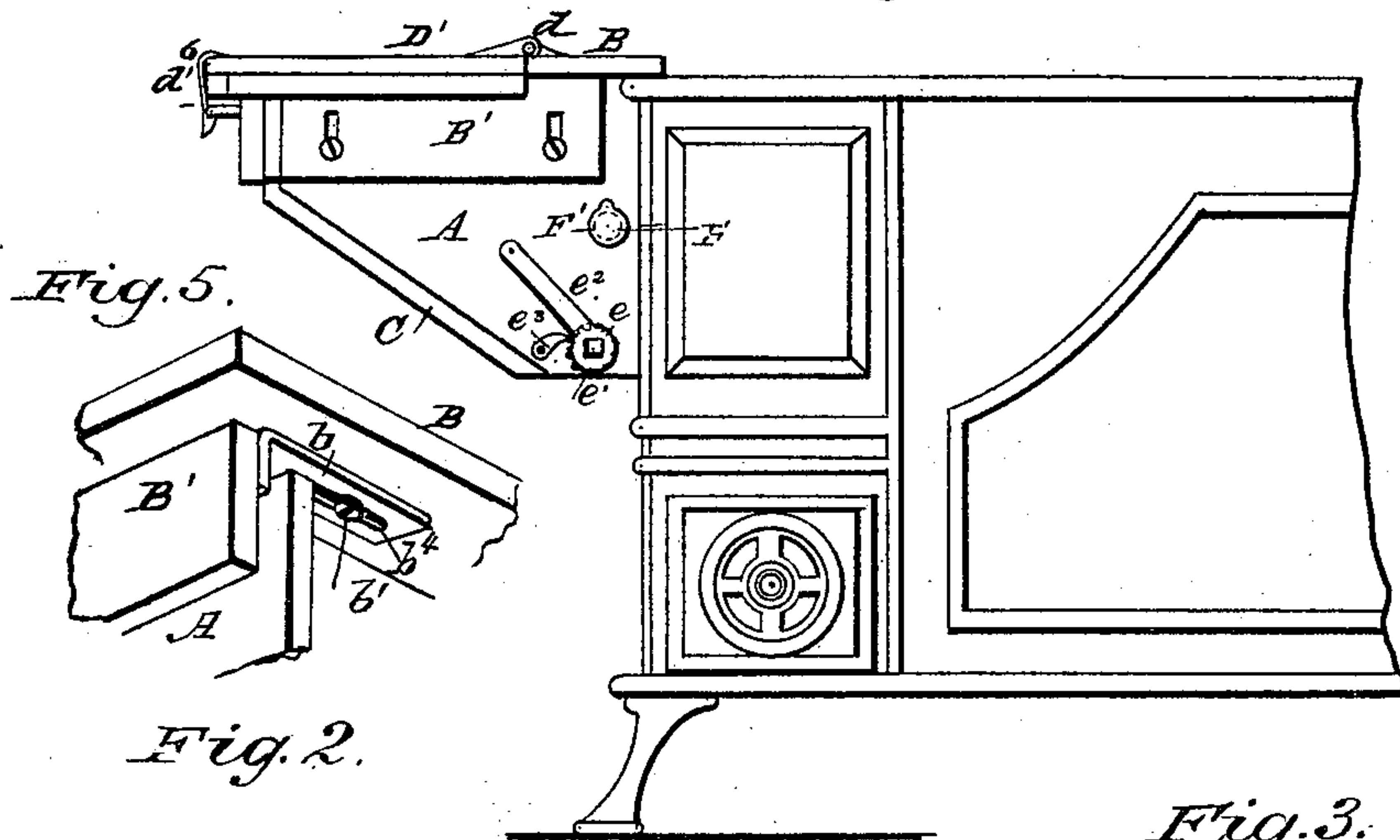


Fig. 5.

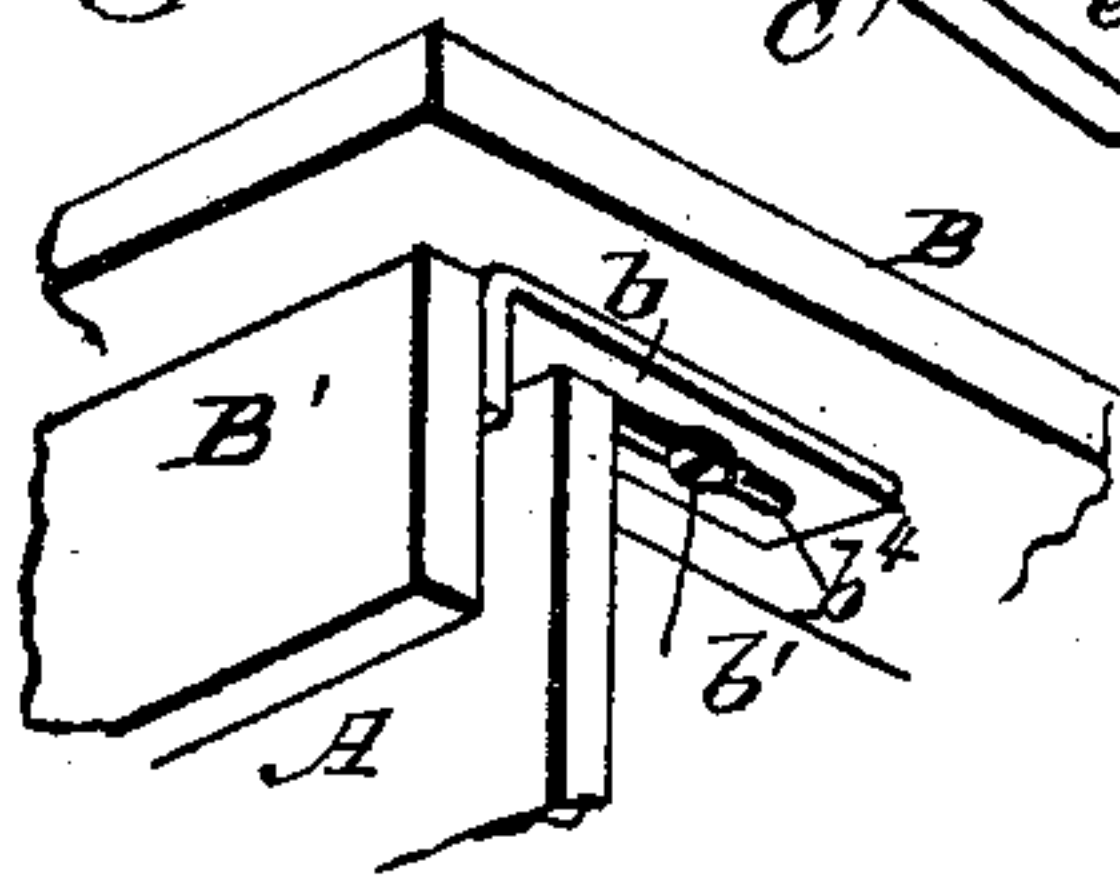


Fig. 2.

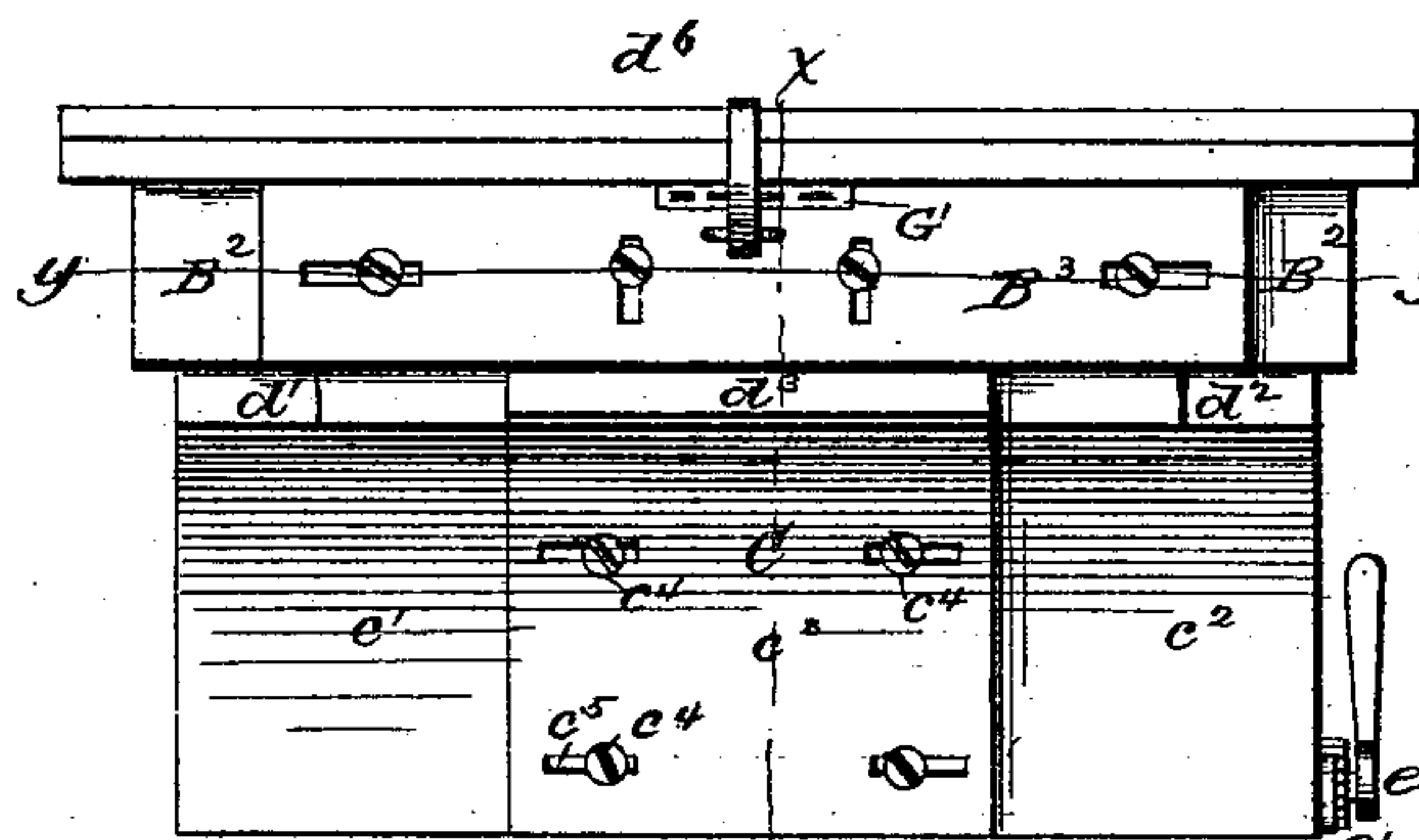


Fig. 4.

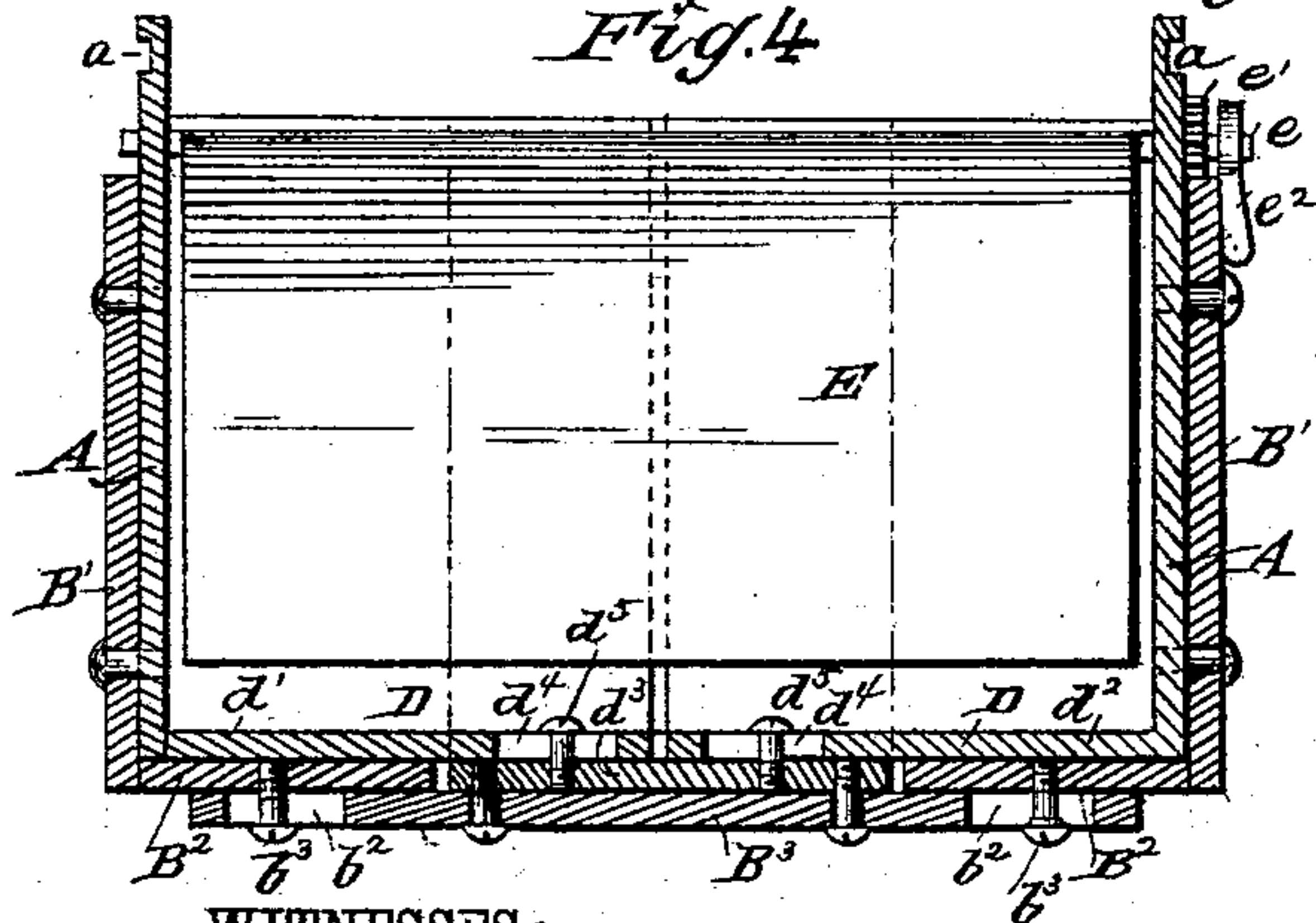


Fig. 3.

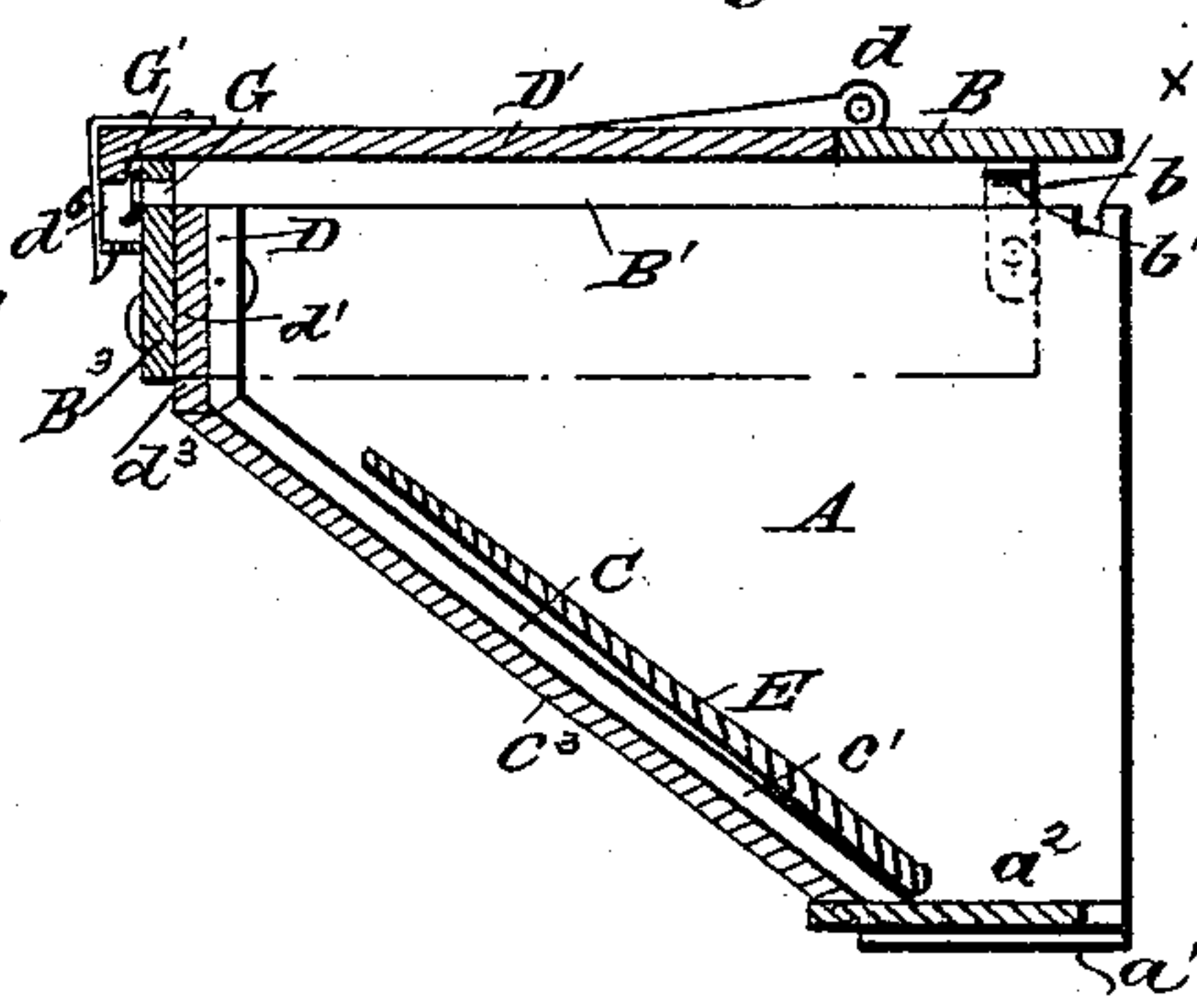
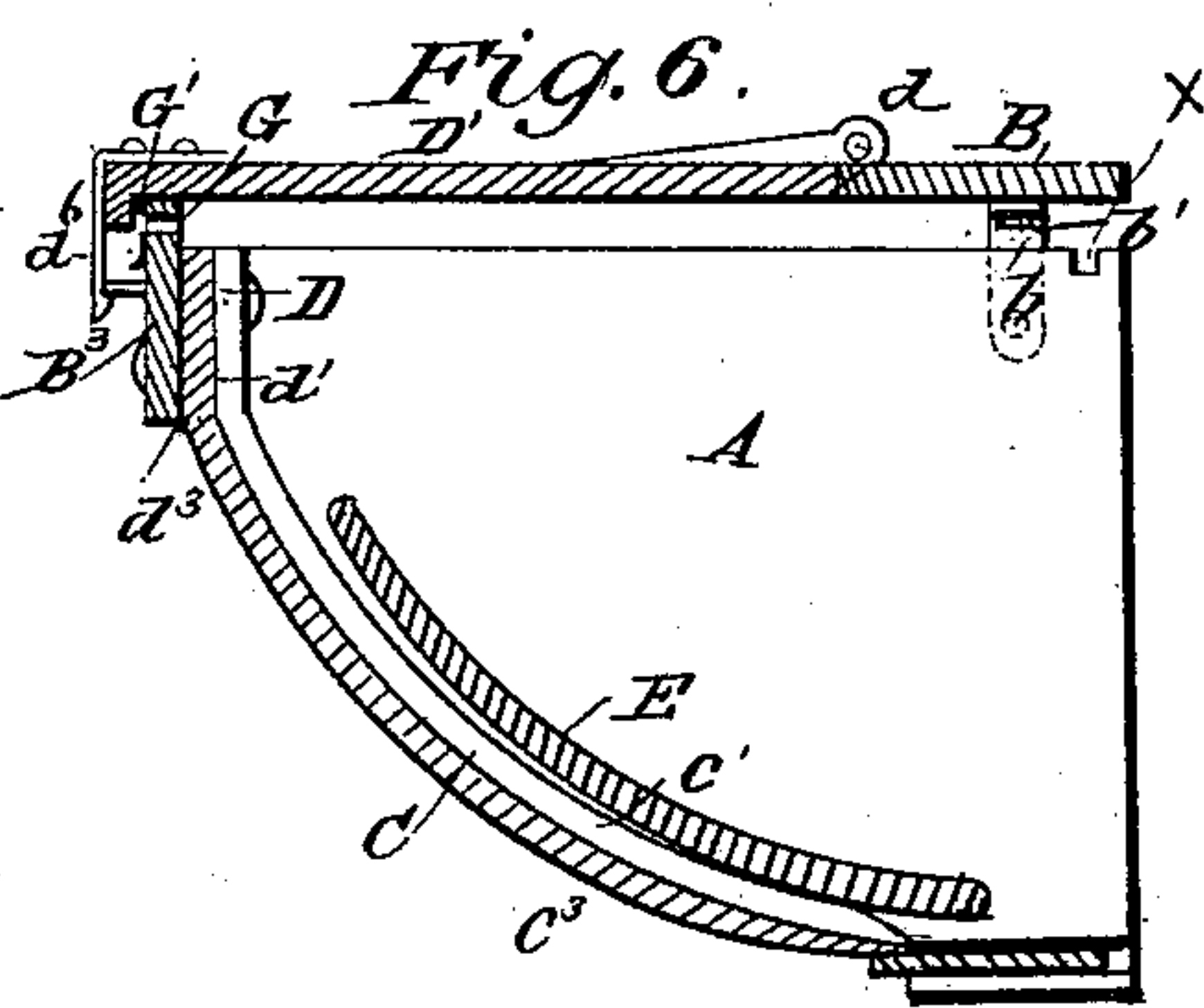


Fig. 6.



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STRAW-BURNING ATTACHMENT FOR STOVES.

SPECIFICATION forming part of Letters Patent No. 389,351, dated September 11, 1888.

Application filed July 22, 1887. Serial No. 245,029. (No model.)

To all whom it may concern:

Be it known that I, MYRON T. ANDREWS, of Iroquois, in the county of Kingsbury, Dakota Territory, have invented a new and useful Improvement in Straw-Burning Attachments for Stoves, of which the following is a specification.

My invention relates to an improved straw-burning attachment for cook-stoves; and it consists in certain constructions and combinations of parts, whereby the attachment may be adjusted to fit stoves of various sizes, in a novel construction of grate and means for adjusting the same, and in certain other details of construction hereinafter described, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a side elevation showing my attachments applied to a stove. Fig. 2 is a front view of the attachment. Fig. 3 is a vertical cross-section on line *x x*, Fig. 2. Fig. 4 is a horizontal section taken on the line *y y* of the same figure. Fig. 5 is a detail view disclosing the adjustability of the side suspending-lugs, and Fig. 6 is a sectional elevation of a modification of my invention.

The attachment is composed of triangular side pieces, A, a horizontal top piece, B, an upwardly-inclined bottom, C, and a front plate, D. The back of the attachment or pouch is open and the vertical sides of the side pieces, A, have grooves *a*, which fit or interlock with flanges upon the front edges of the side plates of a stove, and the pouch is thus fitted upon the front of the stove after first removing the front ordinarily used, and a notch, *x*, in the upper and inner corner of side pieces, A, interlocks with the top plate of the stove. The extreme lower edges of the side pieces, A, are turned inward or formed with inward-projecting flanges or ledges *a'* to support, and upon which is adapted to slide, a bottom plate, *a''*, permitting of the regulation of the draft. The pouch forms a front extension to the stove to give increased capacity for holding straw or stalks used for fuel. A door, D', is hinged to the top piece, B, at *d*, and has a catch, *d''*, to hold it closed.

B' B' are side plates, and B² B² B³ are front plates, the sections B² B² being secured to the outer ends of the side plates, B' B', while the latter plates are bolted or secured near their

inner ends to the vertical portions of angular lugs or bars *b*. The horizontal portions of these lugs or bars *b* are applied to the under side of the top plate, B, at their ends, and are held adjustably thereon by screws *b'*, passing through longitudinal slots *b¹* in said horizontal portions and entering said top plate, whereby said parts are adapted in view of the adjustability of the sections of the front plates, as presently described, to accommodate stoves of different sizes. The front plate B³ overlies the inner ends of the plates B² B², and is adjustably secured thereto by slots *b²* and set-screws *b³*.

The inclined bottom C is formed of three sections, *c' c² c³*, the section *c³* being adapted to overlie the sections *c'* and *c²* and be adjustably secured thereto by set-screws *c⁴*, which pass through slots *c⁵*, formed in the overlapping plates.

The front D is formed of sections *d' d² d³*, which are slotted at *d¹* and adjustably secured together by set-screws *d⁵*.

All the parts composing the pouch may be adjusted, except the top, which needs no adjustment, to fit stoves of various sizes.

The grate E is pivotally secured at its lower end to the side pieces near the lower edge of the bottom C, and is made to fit the interior of the hood and fold against the said bottom C when the hood is charged with a fresh supply of fuel. The pivot-bolt *e* upon one end of the grate extends through the side piece, A, and has a ratchet-wheel, *e'*, and hand-lever *e²* secured thereto, and a pawl, *e³*, to engage with the ratchet-wheel *e'*, by which means the grate is adjusted within the hood as the fuel is consumed to follow behind and hold the straw or fuel in a compact mass and be thus presented to the combustion-chamber of the stove and will deposit the coals in said combustion-chamber, so that the smoke will not escape into the room while the pouch is being refilled. The fire is thus always held in the stove and in the front of the pouch nearest the stove.

A hole, F, covered by a hinged plate, F', upon the side A, and holes G in the front covered with a slide, G', provide openings through which a poker may be thrust to prevent the straw from clogging the grate and to admit air into the pouch, if needed, to support combustion.

The pouch may be made, as shown in Figs. 1 and 2, as hereinbefore described, with adjustable front, bottom, and side pieces, or it may be made of non-adjustable plates solidly put together to fit a stove of a given size. The pouch may be made, as shown in Fig. 6, with a bottom curved outwardly from the lower part of the stove-front to the level of the top of the stove, and the grate E is correspondingly curved to fit the curved bottom of the pouch.

A stove provided with my invention will burn straw, cornstalks, flax-straw, hay, or any coarse fuel; and, owing to the novel manner in which my invention feeds the fuel to the fire-place, a greater amount of heat is obtained from the same amount of fuel to warm the room or for cooking purposes than by the use of other stoves. The unburned fuel being in the pouch, instead of on and over the burning fuel, as in the ordinary stove, does not choke or otherwise hinder the flame and draft of the burning fuel, which is a most important feature and advantage. The ashes pass down from the grate E to the ash-pan H in the hearth of the stove and may be removed therefrom in the usual way.

I claim as my invention and desire to secure by Letters Patent—

1. The straw-burning attachment for stoves, which comprises the expansible and contractible front D and bottom C, the side pieces, A, applied to said front and bottom, the side plates, B', connected to said side pieces, A, and the top plate, B, connected to said side plates, B', substantially as set forth.

2. The straw-burning attachment for stoves, which comprises the expansible and contractible front D and bottom C, the side pieces, A, applied to said front and bottom, the side plates, B', connected to said side pieces, A, the expansible and contractible front plates, B² B³, connected to said side plates, B', and to said front D, and the top plate, B, connected to said side plates, B', substantially as set forth.

3. The straw-burning attachment for stoves, comprising the expansible and contractible front D and bottom C, the side pieces, A, ap-

plied to said front and bottom, the side plates, B', connected to said side pieces, A, the top B, and the angle plates or bars having their vertical arms connected to said side plates, B', and their horizontal arms adjustably connected to said top plate, B, substantially as set forth.

4. The straw-burning attachment for stoves, comprising the expansible and contractible front D, the inclined expansible and contractible bottom C, the side pieces, A, applied to said front and bottom, the side plates, B', connected to said side pieces, A, the top plate, B, connected to said side plates, and the feeding-grate pivoted near the lower end of said bottom and conforming to the disposition of said bottom, substantially as set forth.

5. The straw-burning attachment for stoves, comprising the expansible and contractible front D, the inclined expansible and contractible bottom C, the side pieces, A, applied to said front and bottom, the side plates, B', connected to said side pieces, A, the top plate, B, connected to said side plates, the angle plates or bars having their vertical arms connected to said side plates and their horizontal arms adjustably connected to said top plate, and the door hinged to said top plate, substantially as set forth.

6. The straw-burning attachment for stoves, comprising the front D, consisting of a number of parts provided with adjusting screws and slots, the bottom C, also consisting of a number of parts having adjusting screws and slots, the side pieces, A, applied to said front and bottom, the front plates, B² B³, connected together by adjusting screws and slots, the side plates, B', applied to said front plates, the top plate, B, and the angle plates or bars having their vertical arms connected to said side plates, B', and their horizontal arms provided with adjusting screws and slots connecting them with said top plate, substantially as set forth.

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