

(No Model.)

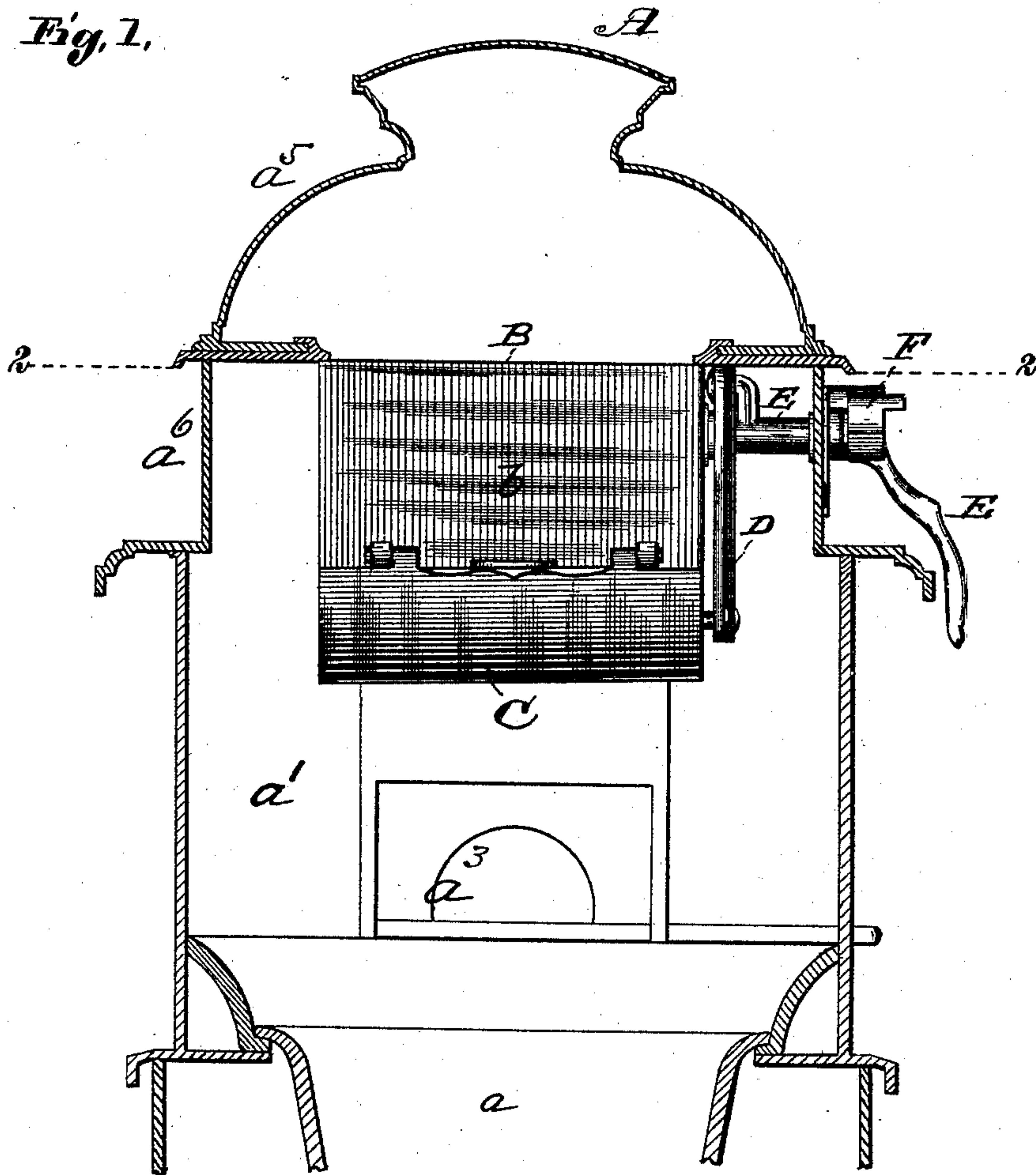
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G. F. FILLEY.
HEATING STOVE.

No. 397,710.

Patented Feb. 12, 1889.

Fig. 1.



Attest
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(No Model.)

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Fig. 2

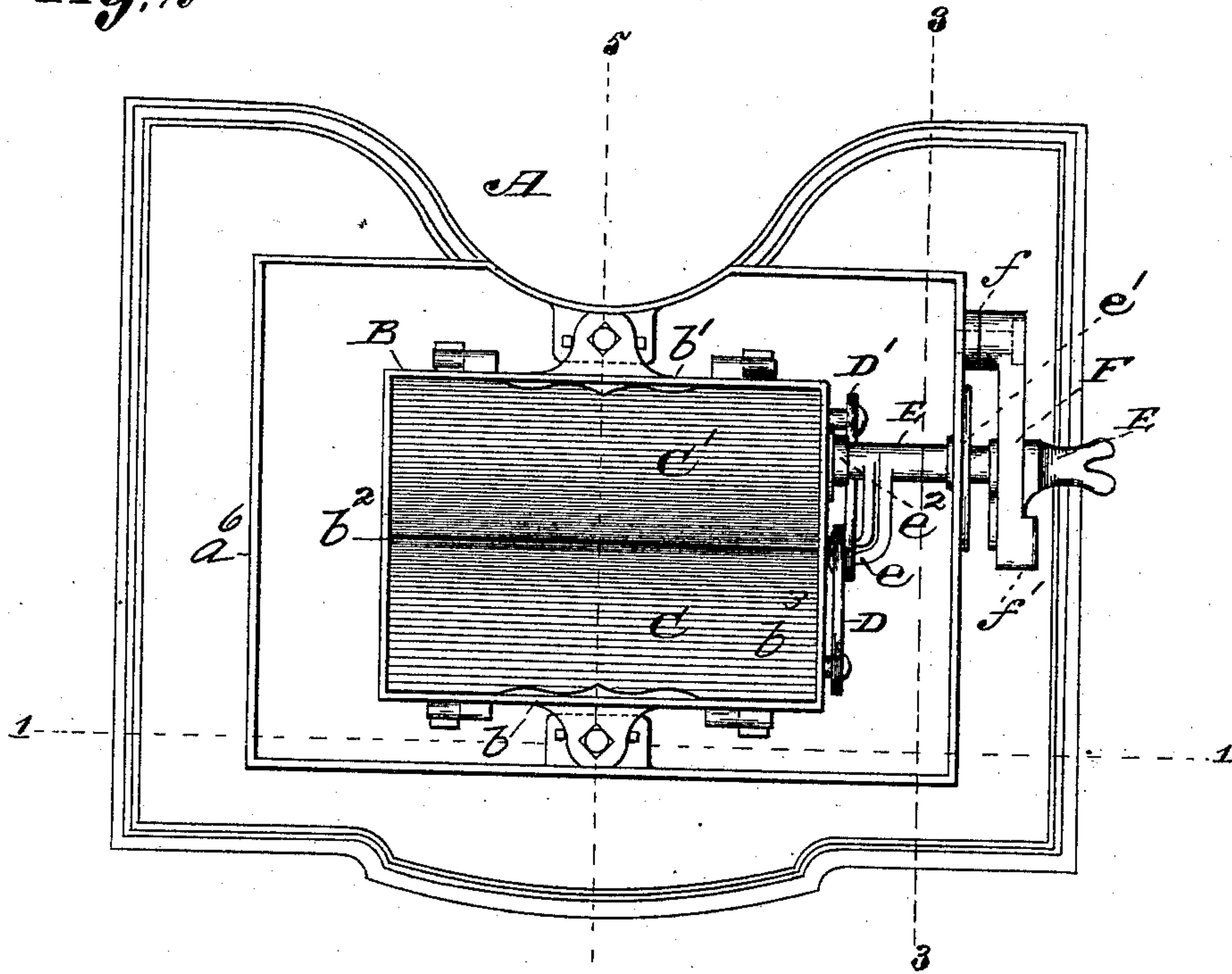


Fig. 3

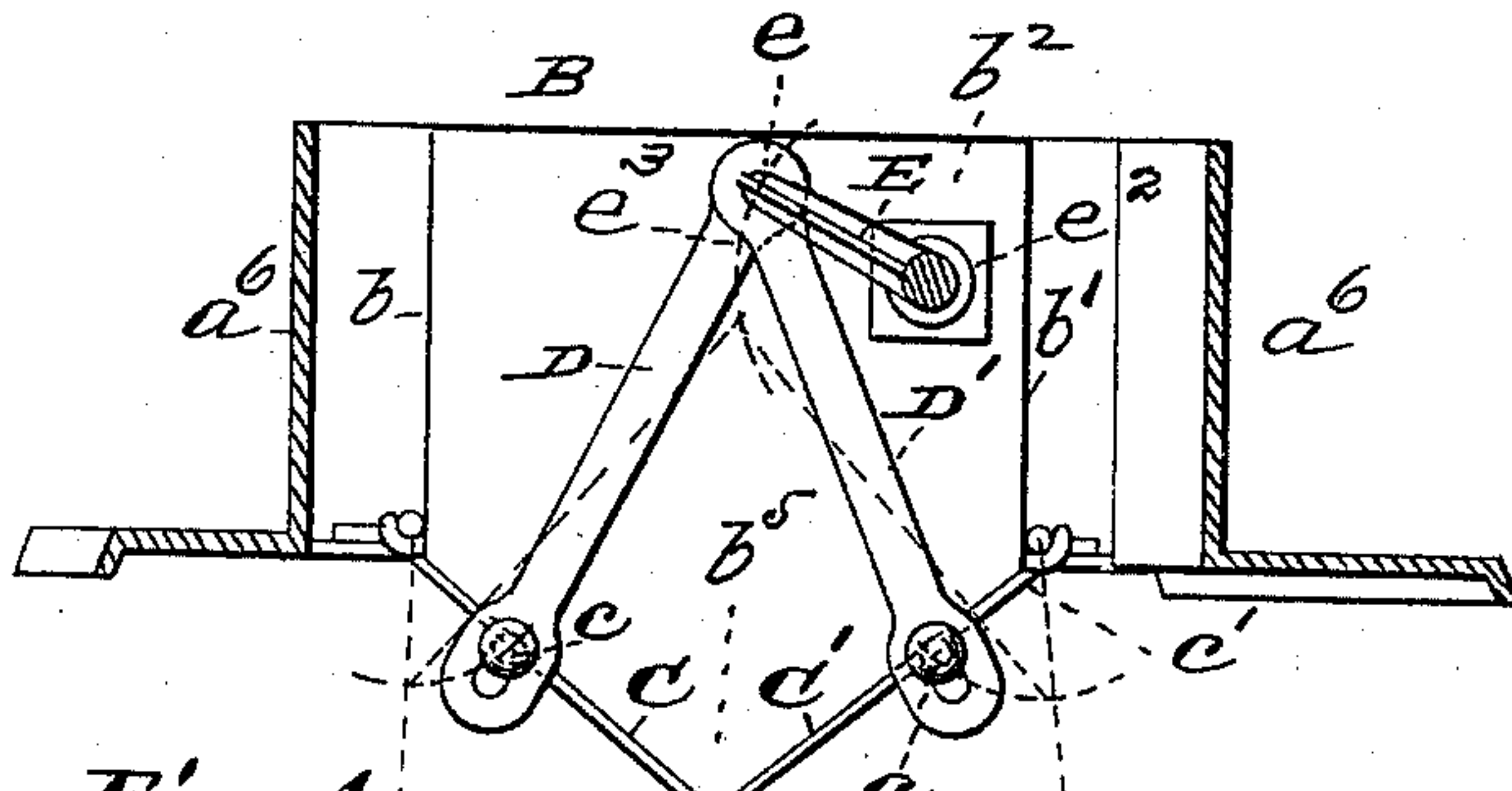
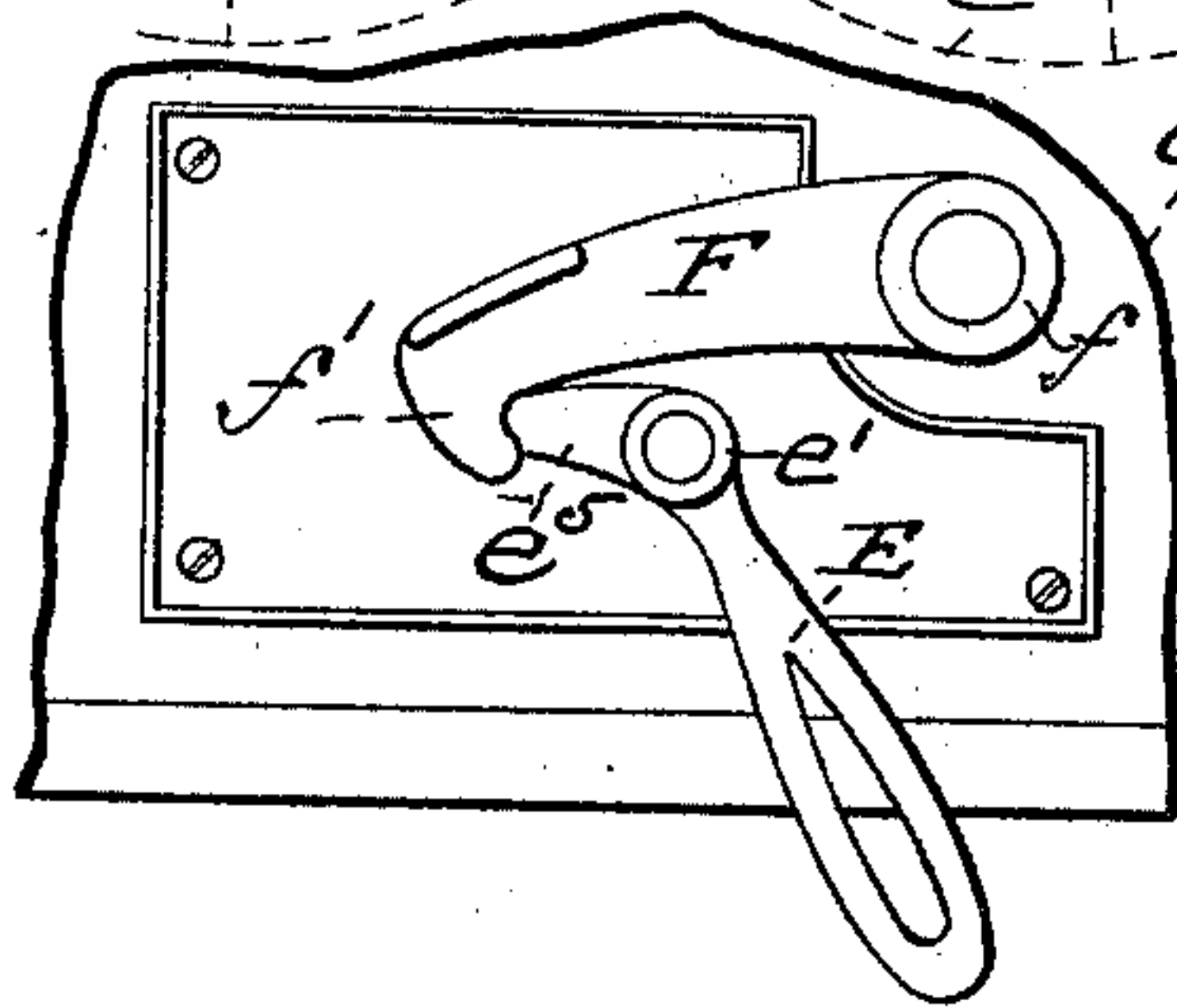


Fig. 4



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(No Model.)

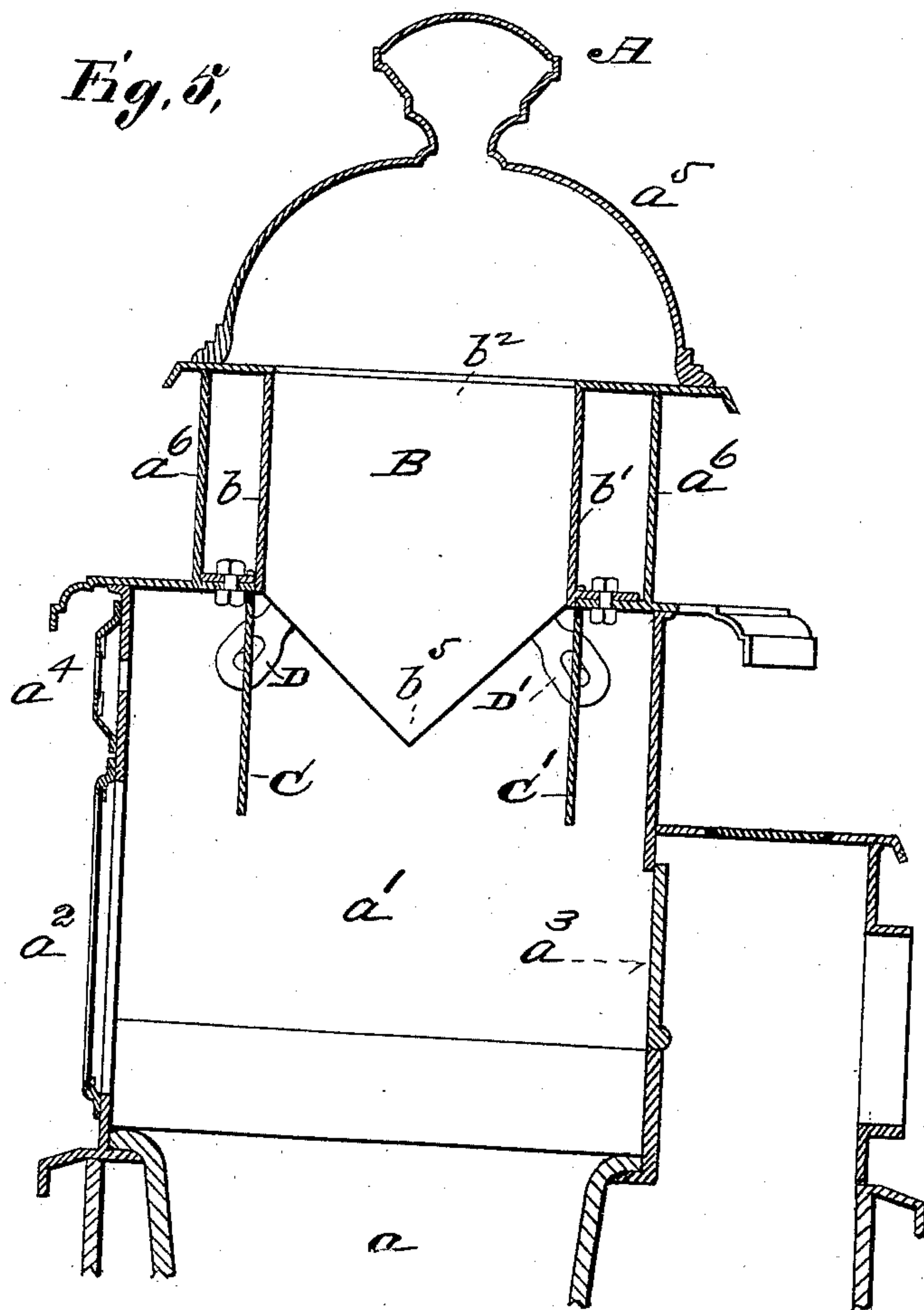
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Fig. 5.



Attest:
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UNITED STATES PATENT OFFICE.

GILES F. FILLEY, OF ST. LOUIS, MISSOURI.

HEATING-STOVE.

SPECIFICATION forming part of Letters Patent No. 397,710, dated February 12, 1889.

Application filed October 20, 1888. Serial No. 288,672. (No model.)

To all whom it may concern:

Be it known that I, GILES F. FILLEY, of St. Louis, Missouri, have made a new and useful Improvement in Heating-Stoves, of which the following is a full, clear, and exact description.

The improvement relates to that class of heating-stoves in which a fuel-hopper is employed in the upper part of the stove, and in which the fuel is placed, and from which it is dropped into the combustion-chamber beneath. In the previously-constructed stoves the fuel is upheld in the hopper by means of a bottom which extends entirely across the hopper, and is hinged thereto at one side thereof, and when the fuel is to be dropped the bottom is loosened and turned down on its hinge.

It has been demonstrated that the construction described is objectionable in this: as the bottom is let down it forms an inclined chute which causes the descending body of fuel to be delivered more to the side of the combustion-chamber and not centrally therein, and the difficulty is increased when, as in most stoves, it is so arranged that the hopper-bottom is adapted to open toward the front of the combustion-chamber, for the door of the combustion-chamber is usually arranged at its front, and any fuel heaped immediately within the door is liable when the door is opened to fall outward through the doorway, and, further, if there are windows in the wall of the combustion-chamber, they are liable to be injured or obscured by the fuel being too near them.

To provide an improved means for delivering the fuel from a hopper such as described is the aim of the present improvement, which consists, substantially, in contriving the bottom of the hopper so that when it is opened to discharge the fuel it shall constitute a prolongation vertically downward of opposite walls of the hopper, and especially of the front and back walls of the hopper, so that thereby not only shall the fuel be dropped vertically into the combustion-chamber, but also so that the front and the back walls of the combustion-chamber shall be guarded by the parts of the bottom as the fuel is dropped, all substantially as is hereinafter set forth and claimed, aided by the annexed drawings, making part of this specification, in which—

Figure 1 is a vertical section of the improved stove, the section being on the line 1 1 of Fig. 2, which in turn is a horizontal section on the line 2 2 of Fig. 1; Fig. 3, a vertical section on the line 3 3 of Fig. 2; Fig. 4, a side elevation of the lever and catch used in operating the hopper-bottom, and Fig. 5 a vertical central section on the line 5 5 of Fig. 2.

The same letters of reference denote the same parts.

The stove A, saving as it may be modified or supplemented by the improvement under consideration, is of the usual construction.

Only that portion of the stove needed for an understanding of the improvement is exhibited in the drawings.

a represents the fire-pot; a' , the combustion-chamber above the fire-pot; a^2 , the door to the combustion-chamber; a^3 , the escape-flue from the combustion-chamber; a^4 , a window in the wall of the combustion-chamber, and a^5 the removable top of the stove, which is taken off or moved aside when it is desired to introduce the fuel into the hopper B, which is contained in or made to constitute that part, a^6 , of the stove which is above the combustion-chamber. The front, back, and side walls of the hopper are shown, respectively, at b b' b^2 b^3 . They are arranged substantially in the customary manner and place and as shown.

C C' represent the parts which jointly constitute the bottom of the hopper. They are respectively hinged to the front and back of the hopper, or at points respectively at the front and back of the hopper, so that they can be turned up to close the hopper, as in Figs. 1, 2, and 3, or turned down to open the hopper, as shown in Fig. 5 and indicated by the broken lines in Fig. 3. When turned down, they in effect form, as shown in Fig. 5, a means for guiding the fuel in a directly vertical direction as it is delivered from the hopper into the combustion-chamber, and to prevent the fuel from accumulating near the wall of the combustion-chamber, and especially from accumulating near the door a^2 and the window a^4 and the flue a^3 .

The means for operating the parts C C' are as follows: D D' represent links, which at the lower end thereof are jointed to the parts C C', respectively, and at a point, c , thereon be-

tween the outer, c' , and the inner, c^2 , edge of the part. At the upper end thereof the links are both jointed to the wrist-pin e of a crank-lever, E, which is journaled in a bearing, e' , 5 in the wall of the part a^6 of the stove, and also in a bearing, e^2 , upon the wall of the hopper B. By rotating the crank-lever, as indicated by the broken line e^3 , Fig. 3, the parts C C' can be moved as indicated by the broken 10 lines e^4 e^4 , respectively, Fig. 3. When the parts C C' are raised, they can be fastened by means of the catch F, Figs. 1, 2, and 4. The catch is pivoted upon a bearing, f , and its end f'' is made hook-shaped to engage with the projec- 15 tion e^5 upon the crank-lever when that part is turned to close the hopper-bottom. When it is desired to discharge the contents of the hopper, the catch F is disengaged from the crank-lever, whereupon the crank-lever is free 20 to turn upon its bearings and permit the parts C C' to drop.

The side walls, b^2 b^3 , of the hopper are extended downward below the front and back walls of the hopper in a pointed form, as shown substantially at b^5 , Figs. 3 and 5, and the parts 25 C C', when closed, are fitted to the pointed walls b^2 b^3 .

I claim—

The combination of the stove, the fuel-hopper, the bottom parts, C C', the links, and the 30 crank-lever, said links at the lower end thereof being jointed to said parts C C', respectively, and at the upper end thereof being both jointed to said crank-lever, and said crank-lever being journaled as described, as and for 35 the purpose set forth.

Witness my hand this 15th day of October, 1888.

GILES F. FILLEY.

Witnesses:

C. D. MOODY,
D. W. C. SANFORD.