

(No Model.)

3 Sheets—Sheet 1.

E. W. ANTHONY.

STOVE DAMPER.

No. 246,994.

Patented Sept. 13, 1881.

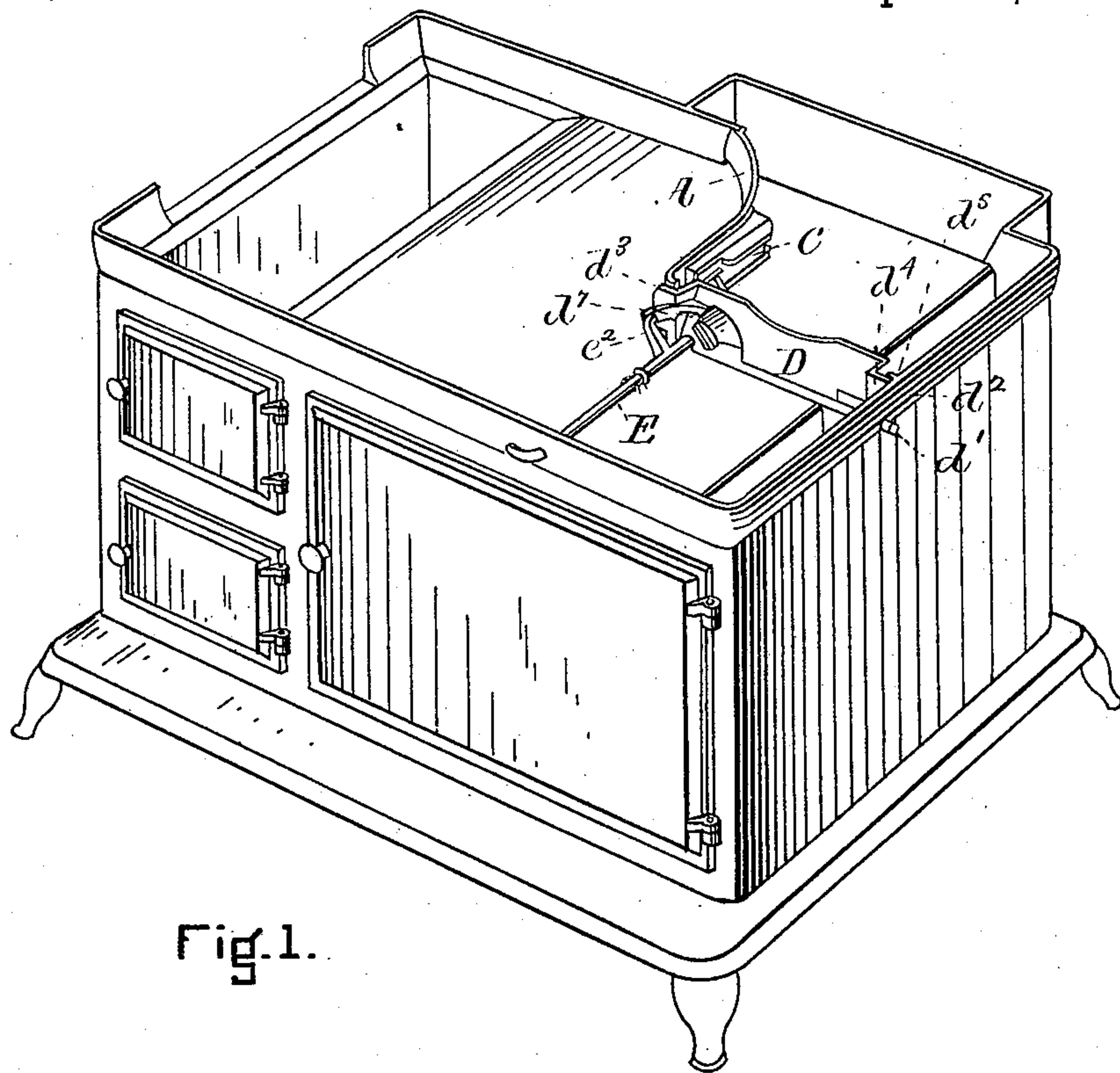


Fig. 1.

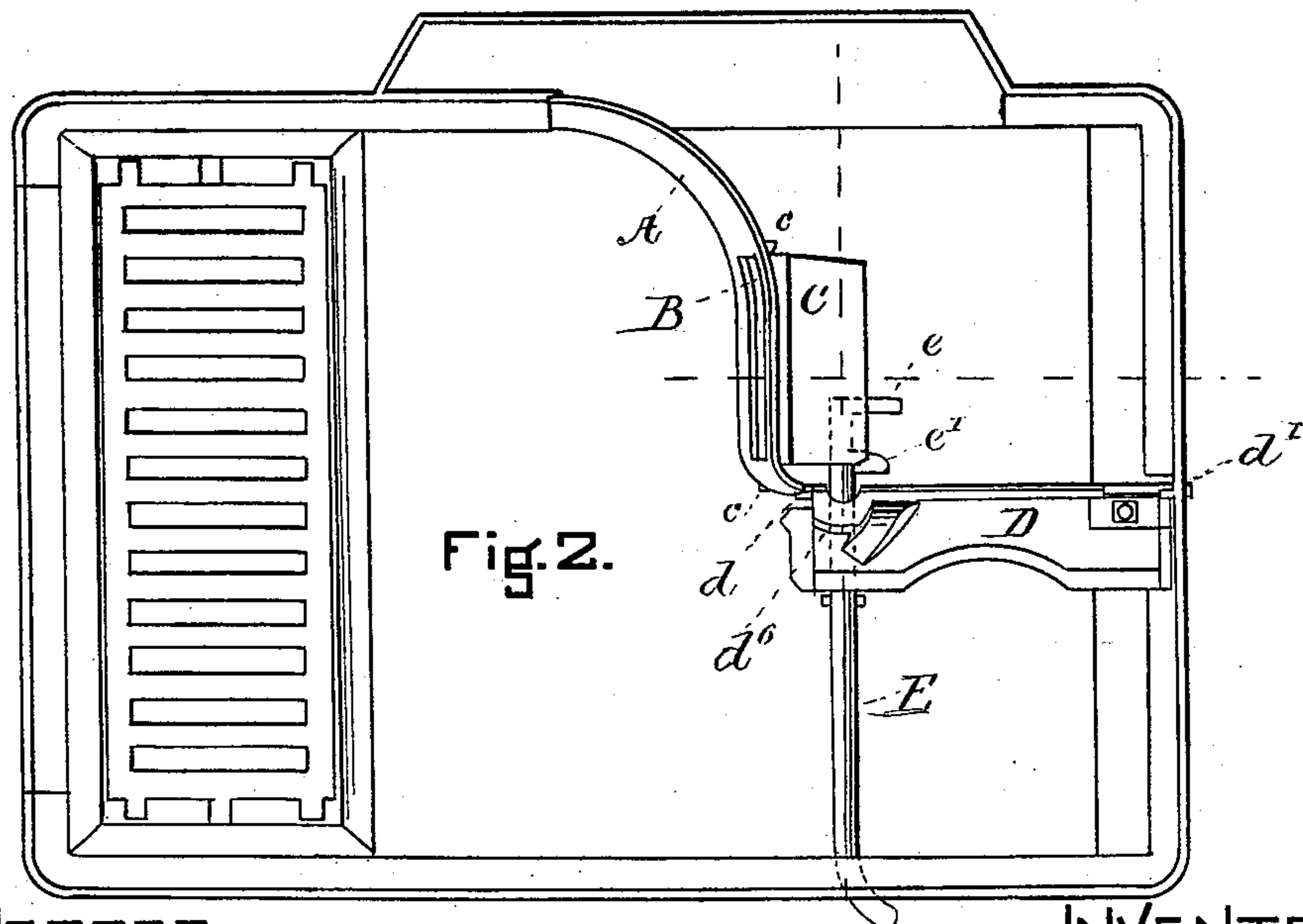


Fig. 2.

WITNESSES

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*by his attys*  
*Clark & Raymond*



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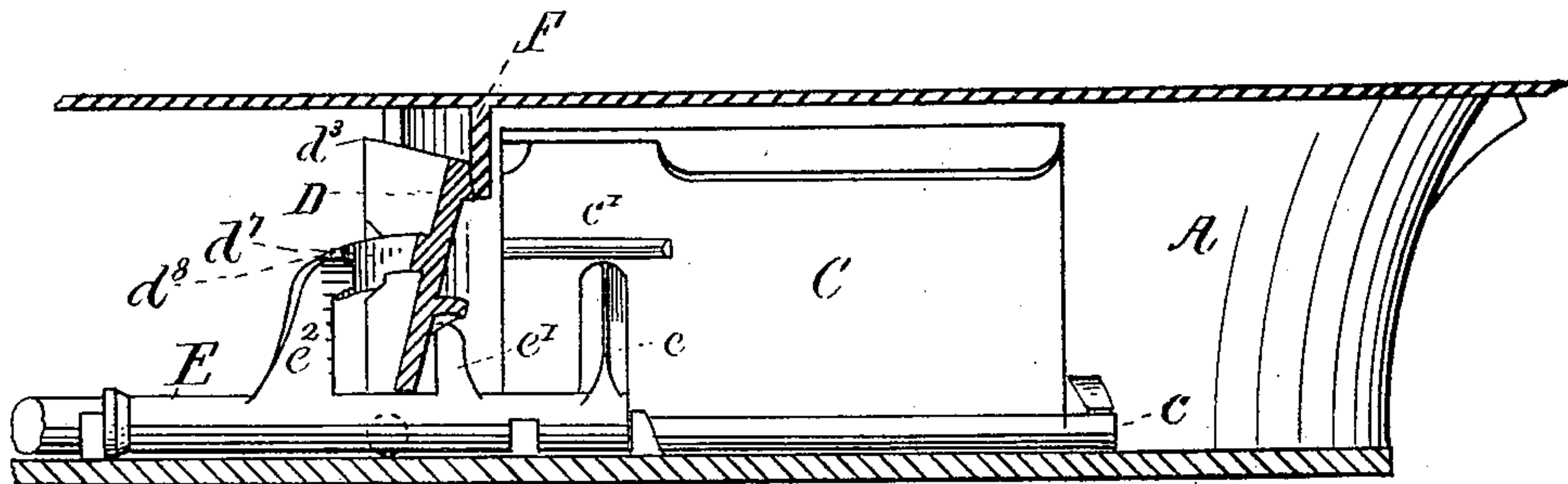


Fig. 3.

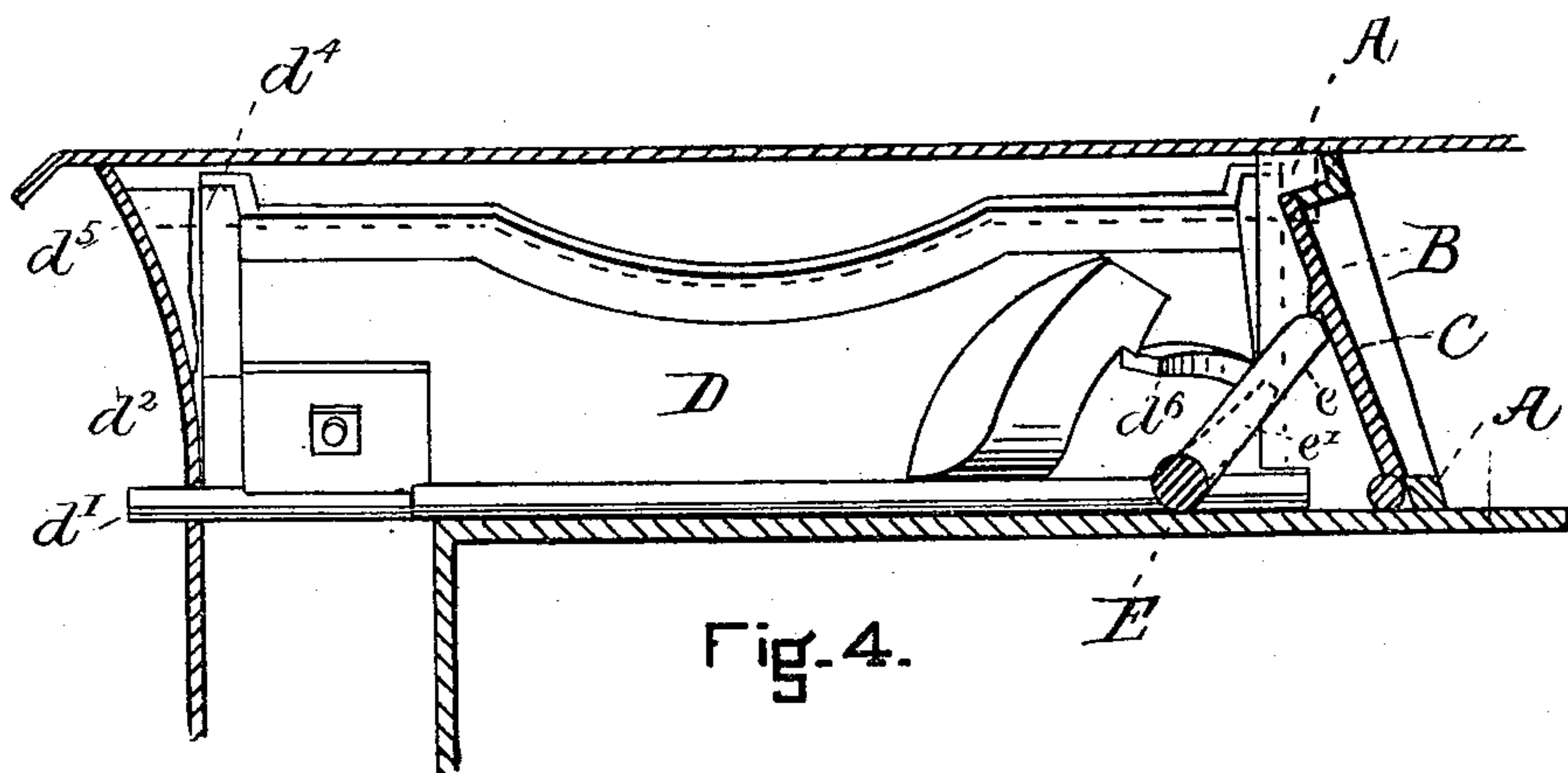


Fig. 4.

WITNESSES

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(No Model.)

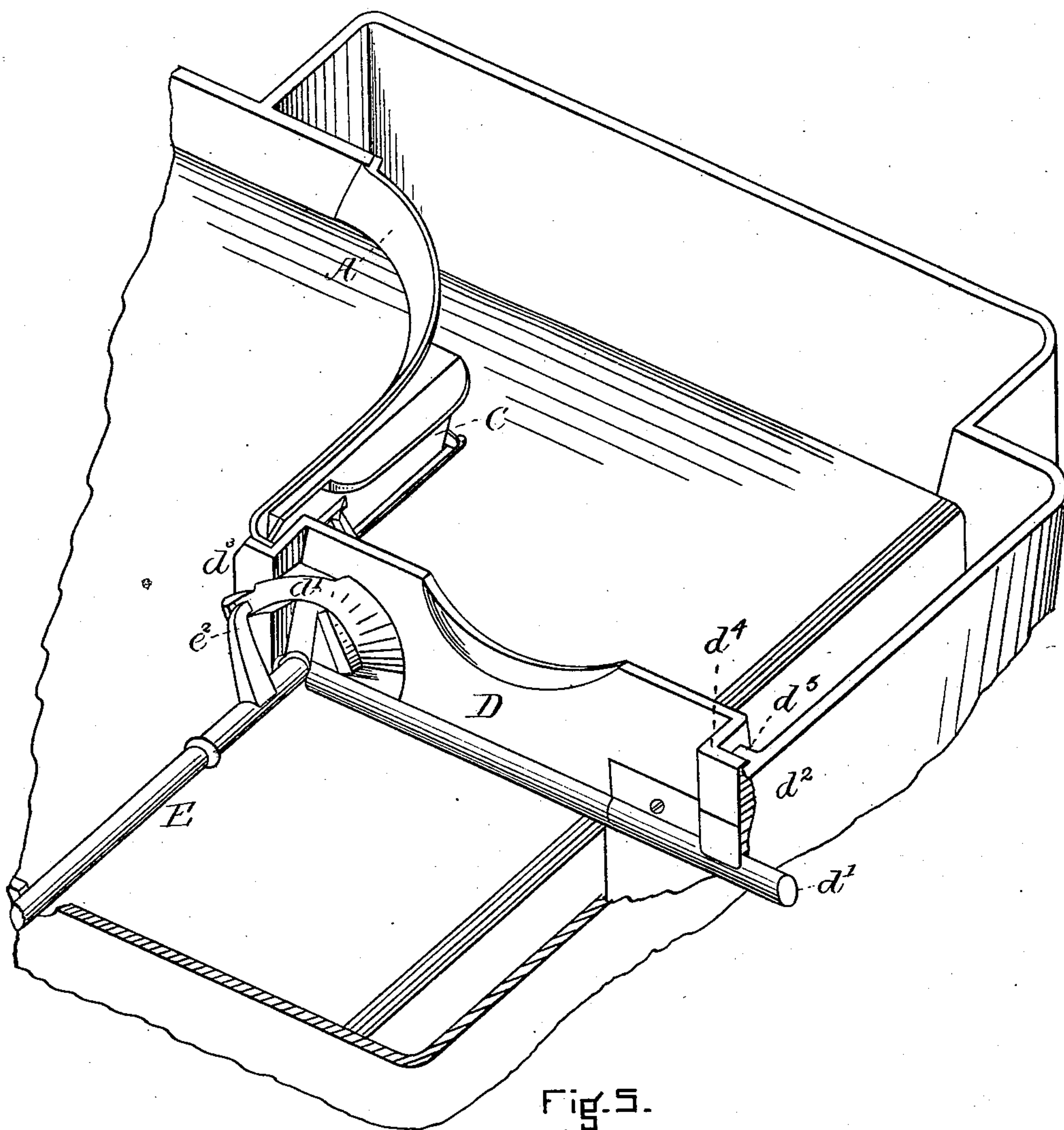
3 Sheets—Sheet 3.

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WITNESSES  
A. J. Ottinger  
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# UNITED STATES PATENT OFFICE.

EDGAR W. ANTHONY, OF BOSTON, MASSACHUSETTS.

## STOVE-DAMPER.

SPECIFICATION forming part of Letters Patent No. 246,994, dated September 13, 1881.

Application filed May 31, 1881. (No model.)

*To all whom it may concern:*

Be it known that I, EDGAR W. ANTHONY, of Boston, in the county of Suffolk and Commonwealth of Massachusetts, a citizen of the United

5 States, have invented an Improvement in Dampers for Stoves, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification, in which—  
10 Figure 1 is a perspective of a stove containing my invention, having the upper or top plate removed to more clearly show the same. Fig. 2 is a plan thereof. Fig. 3 is a view in perspective of the damper enlarged. Fig. 4 is  
15 an enlarged view, in elevation, from the end of the stove; and Fig. 5 is a front elevation enlarged.

This invention is an improvement upon that described in Letters Patent No. 222,600, granted  
20 Josiah M. Reed, and dated December 16, 1879; and it consists in a construction whereby one damper may fall forward instead of back in opening the same, and in means whereby  
25 both dampers are operated by partially revolving the damper-rod instead of moving it horizontally.

As many stoves are so organized that the main damper falls outwardly instead of inwardly, as in the Reed construction, the advantage of this portion of my invention is  
30 manifest, and the advantage in operating the dampers by a damper-rod which does not require to be drawn from the stove, but simply to be turned, is also obvious.

35 In the drawings, A represents the curved flue-plate commonly used in stoves of this construction, and which prior to the Reed invention was unprovided with any opening or damper.

40 B is an opening in the flue-plate.

C is a damper, pivoted at its lower ends,  $c$ , to the flue-plate or oven-top, and adapted to control the opening in said plate.

45 D is a damper which takes the place of the ordinary damper employed in this class of stoves, and which is pivoted at  $d$  to the flue-plate and at  $d'$  to the end plate,  $d^2$ . It is provided at one end with the projection  $d^3$ , which in one capacity acts as a stop in connection  
50 with the curved end of the flue-plate A, and at the other end with the projection  $d^4$ , which,

in connection with the projection  $d^5$ , also serves as a stop. The said dampers D and C are opened and closed by means of the damper-rod E, which is provided with the three fingers 55  $e$   $e'$   $e^2$ . The finger  $e$  is at the inner end of the rod, and bears against the inner side of the damper C. The finger  $e'$  is adapted, upon the turning of the damper-rod, to come in contact with the cam-projection  $d^6$  upon the back of 60 the damper D, and serves to throw the damper from a position which is slightly inclined inwardly or from a vertical position over upon the finger  $e^2$ . The finger  $e^2$  is adapted to hold the damper during its falling movement and 65 by means of the cam-surface  $d^7$  on the outer side of the damper to lift it to its original position. The end of the cam is provided with a stop,  $d^8$ , against which the finger comes in contact when the dampers are closed. The 70 damper D may be shaped upon its upper surface so that the draft is not entirely cut off when both dampers are closed, if desired.

It will be observed that when both the dampers are closed the damper C is somewhat inclined inwardly and rests upon the end of the finger  $e$ , and that the damper D also is somewhat 75 inclined inwardly and is held in that position by its stops; and that upon the revolution or turning of the damper-rod the finger  $e$  moves 80 away from the flue-plate, allowing the damper C to fall downwardly therewith, and the finger  $e'$ , coming in contact with the cam-projection  $d^6$ , throws the damper D over upon the finger  $e^2$ , which, riding upon the cam-surface  $d^7$ , allows 85 the main damper D also to fall outwardly; and that in closing the dampers, upon turning the damper-rod, the finger  $e^2$  in contact with the outer cam-surface rides thereon and lifts the damper D while the finger  $e$  is lifting the 90 damper C until the finger  $e^2$  finally comes in contact with the stop  $d^7$ , when the dampers are entirely closed.

The damper C is provided with a stop,  $c'$ , which rests upon the end of the finger  $e$  when 95 closed, and that, in connection with the inclination of the fingers, prevents the damper-rod from being turned by jar or accident sufficiently to open the dampers.

The cam-surfaces upon the damper D are 100 easily formed with the remainder of the plate by casting.



Of course I may use the damper D and means for operating it herein described in stoves unprovided with the damper C, if I so desire, without departing from the spirit of this invention.

It is not necessary, in practicing this invention, that the damper D be so hinged as to swing inwardly when closed, as it may be arranged to incline outwardly somewhat when closed, in which case it would rest on the finger  $e^2$ , and the finger  $e'$  and cam-surface  $d^6$  would then be unnecessary.

The damper D is curved along its upper portion, as represented, so that its upper edge may not come in contact with the bottom of a pot or kettle in the pot-hole under which it falls; and the top plate of the stove has cast there-with a downwardly-projecting extension or plate, F, of a shape corresponding to the inner upper edge of the damper D, and against which the damper D comes in contact when shut.

I am aware that the Reed patent above referred to describes a stove provided with an extra damper in the flue-plate which is adapted to be operated with the main damper and which opens inwardly with the main damper, which latter is operated by the reciprocation of a damper-rod; but I do not claim these features broadly, but only the construction whereby the auxiliary damper opens inwardly while the main damper opens outwardly, and whereby also the turning of the damper-rod opens and closes the damper.

Having thus fully described my invention, I claim and desire to secure by Letters Patent of the United States—

1. The dampers D and C, with means for operating them, substantially as described, whereby one damper opens inwardly and the other damper outwardly simultaneously, substantially as set forth.

2. The combination of the dampers C D, the damper-rod, and connecting mechanism, whereby upon the turning of the rod the dampers are opened or closed simultaneously, substantially as set forth.

3. The combination of the damper-rod, provided with the fingers  $e$   $e'$   $e^2$ , with the damper C and the damper D, provided with the cam-surfaces  $d^6$   $d^7$ , all substantially as set forth.

4. The combination of the damper D, provided with the cam-surfaces  $d^6$   $d^7$ , with the damper-rod having the fingers  $e'$   $e^2$ , all substantially as described.

5. The combination of the damper D, provided with the cam-surface  $d^6$ , with the damper-rod and finger  $e'$ , whereby the damper is moved from an inclined or vertical position, substantially as specified.

6. The combination of the damper D, provided with the cam-surface  $d^7$ , with the damper-rod E, provided with the finger  $e^2$ , adjusted to be rotated or turned in lowering and raising the damper, all substantially as described.

7. The combination of the damper D, having a cam-surface,  $d^7$ , and a stop,  $d^8$ , with the finger  $e^2$ , adapted to be turned or rotated substantially as and for the purposes set forth.

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Witnesses:

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