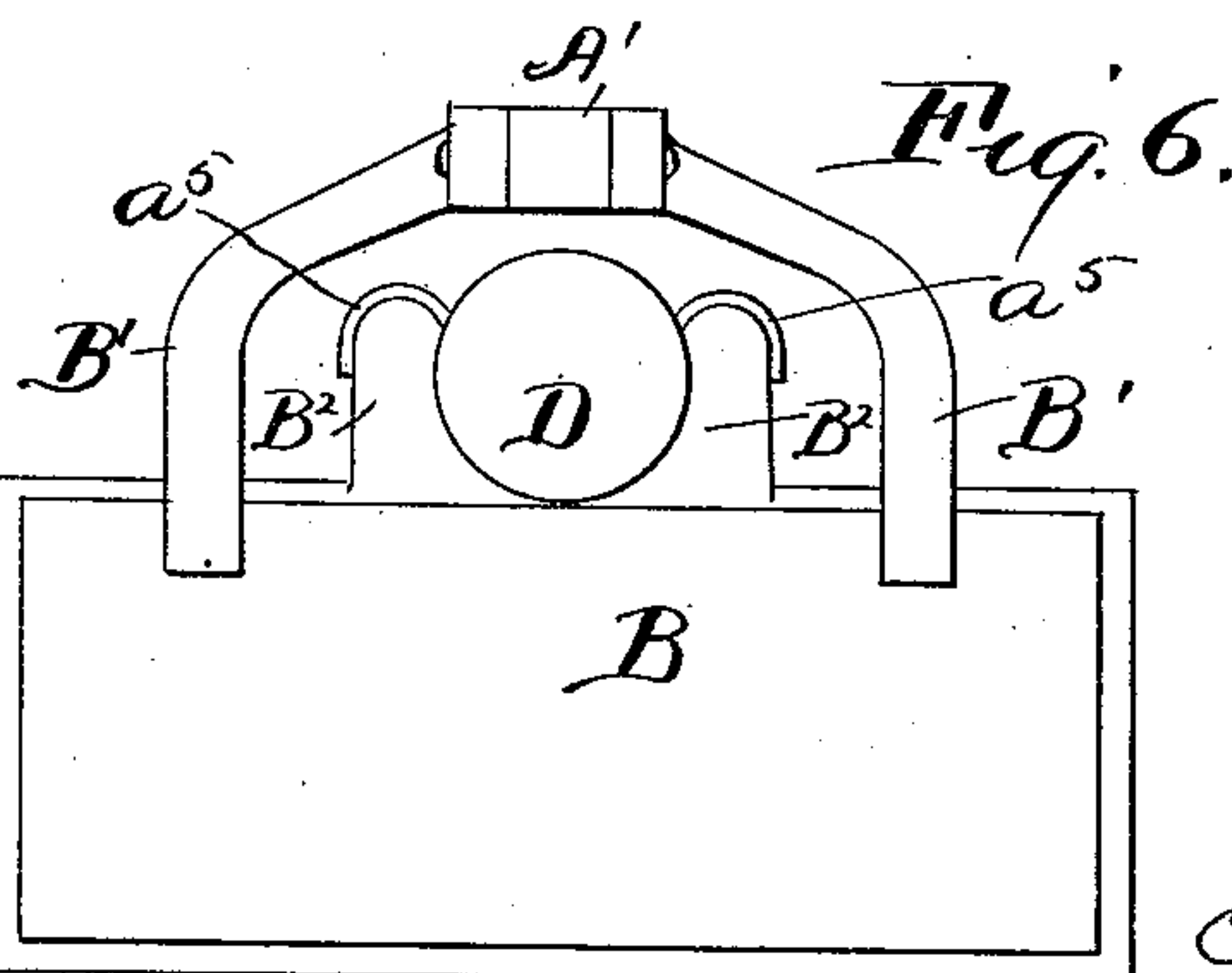
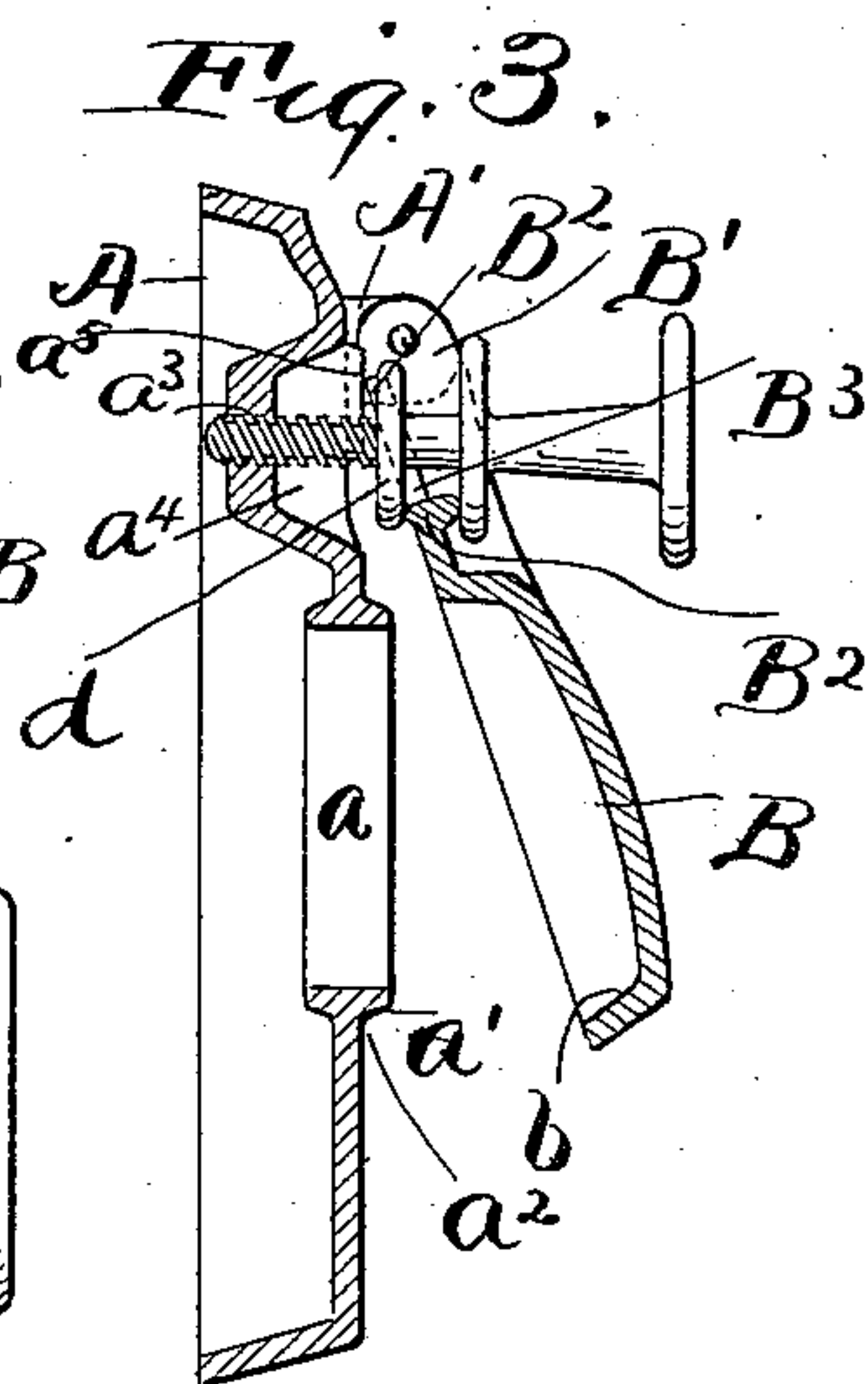
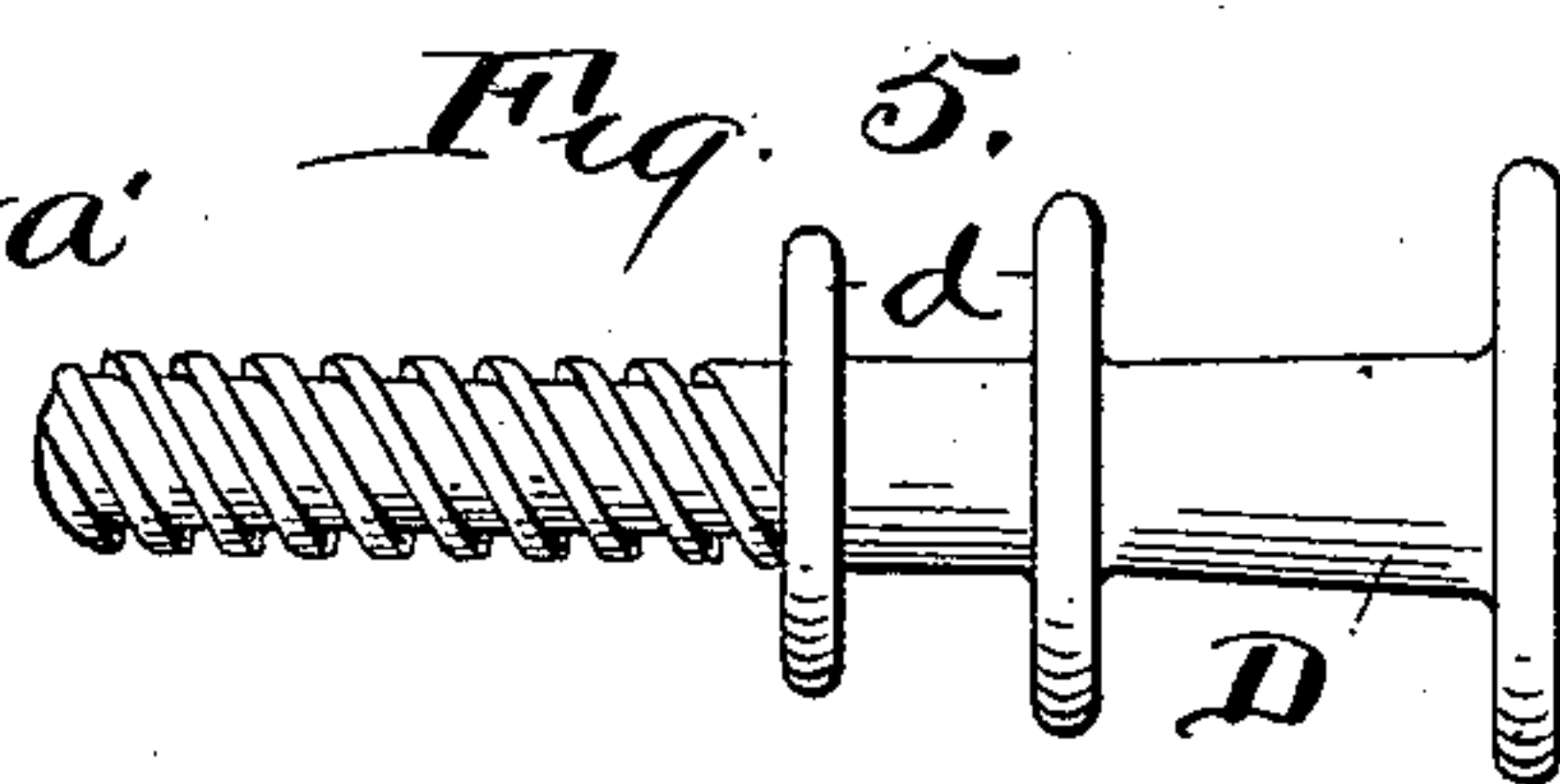
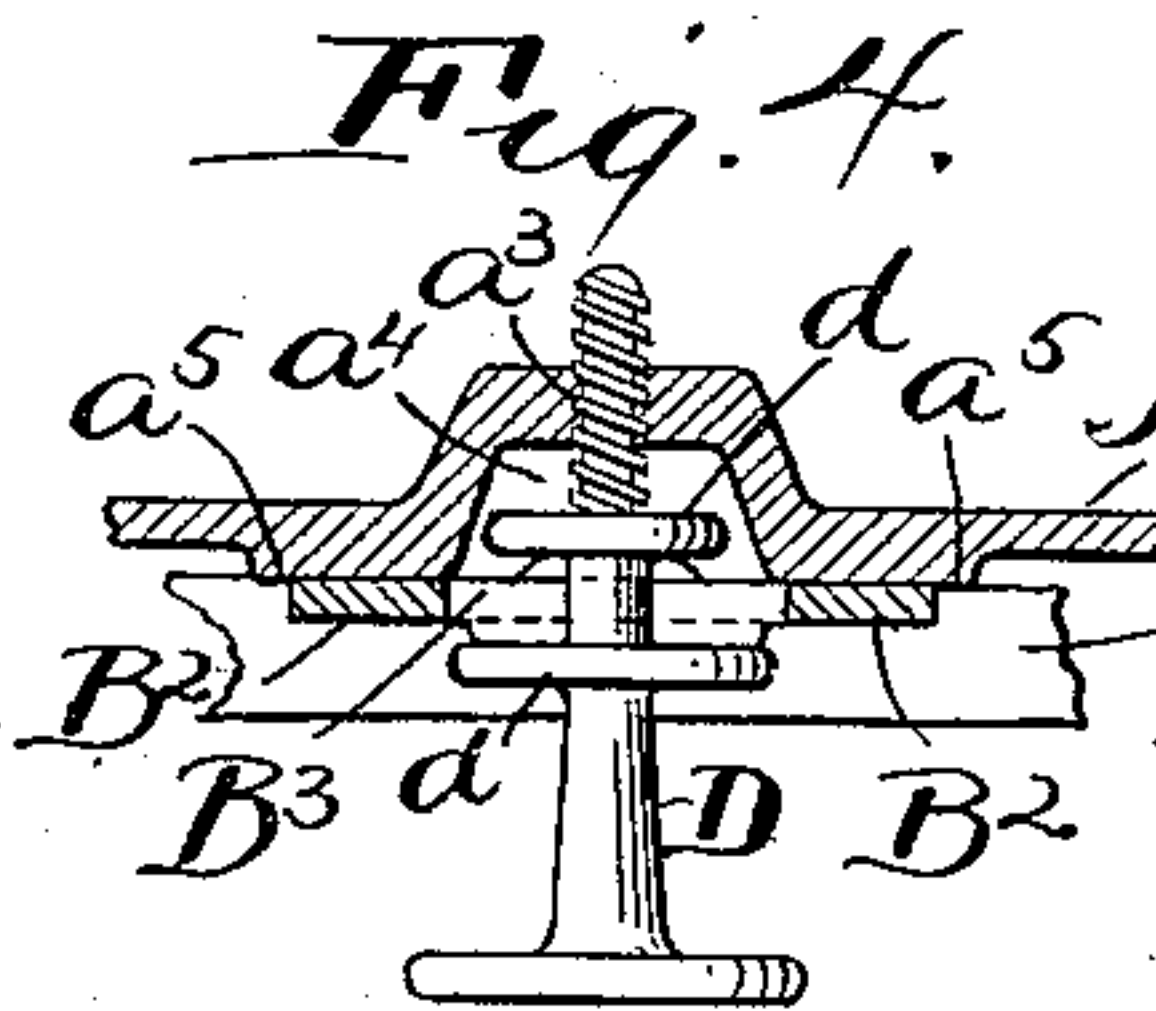
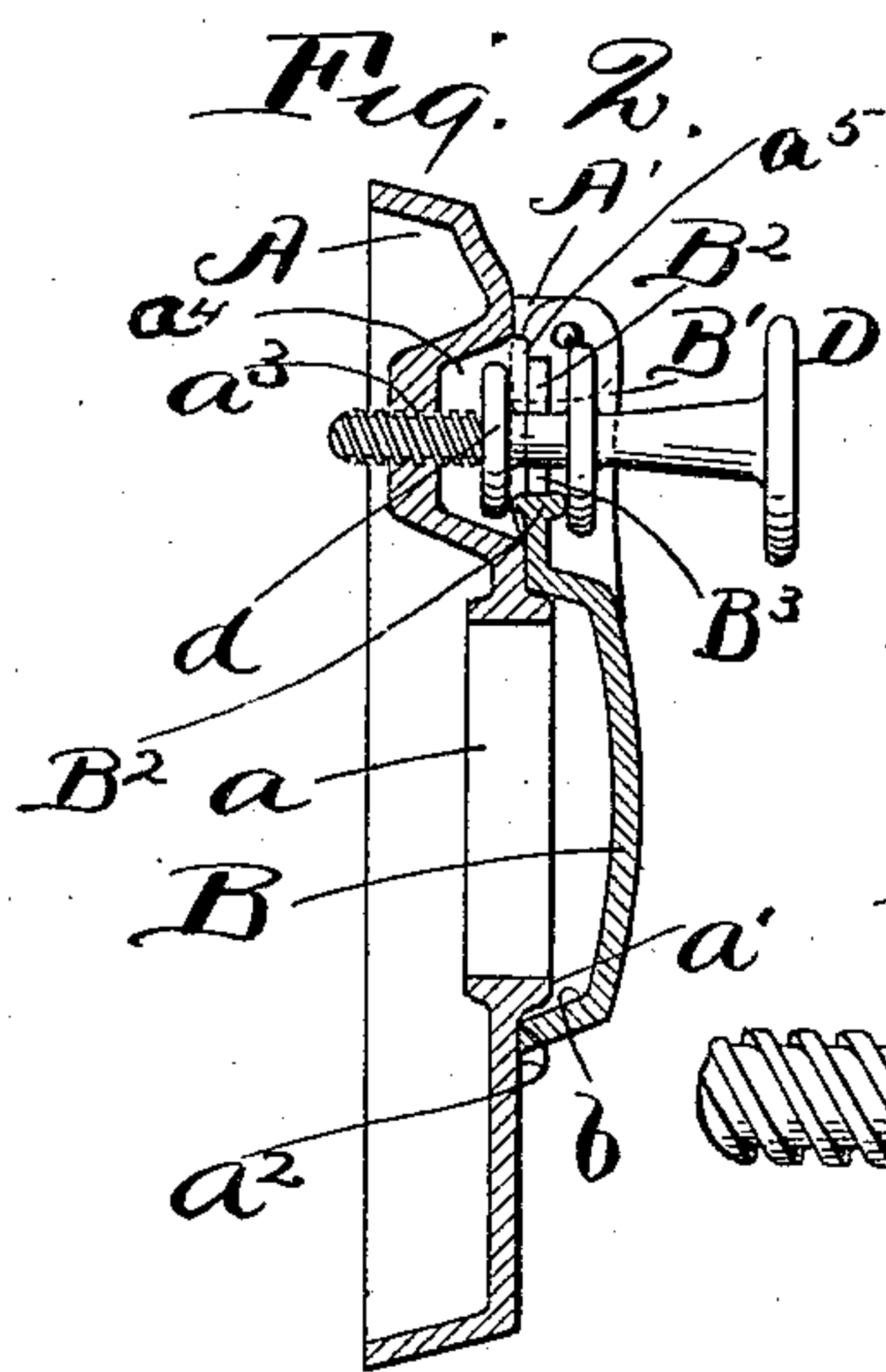
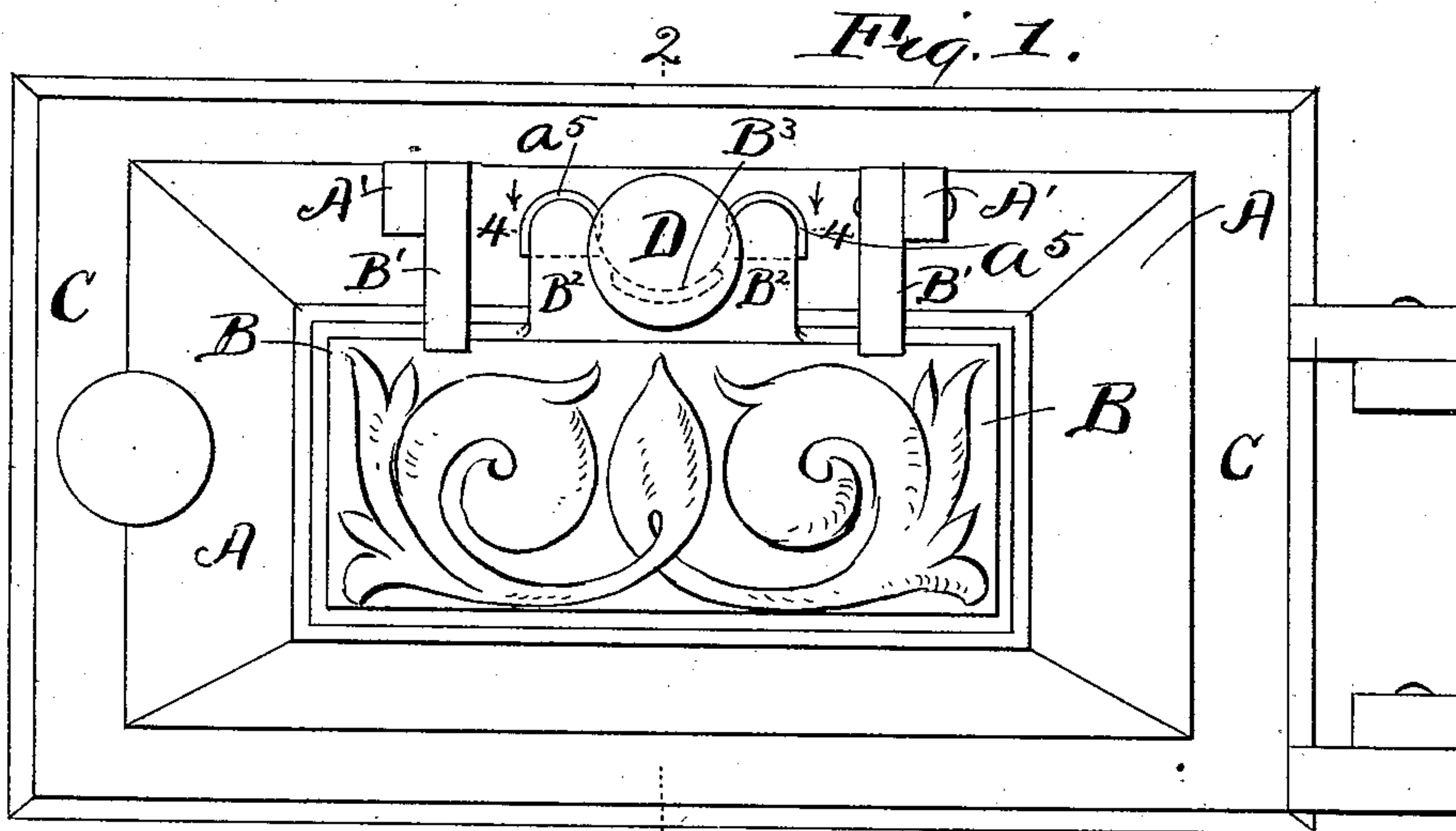


(No Model.)

N. D. WHITE.  
STOVE DAMPER, &c.

No. 529,224.

Patented Nov. 13, 1894.



Witnesses:  
E. B. Gilchrist  
*[Signature]*

Inventor:  
Nathan D. White  
By Seggett & Seggett  
his attorneys.



# UNITED STATES PATENT OFFICE.

NATHAN D. WHITE, OF AKRON, OHIO, ASSIGNOR TO THE TAPLIN, RICE & COMPANY, OF SAME PLACE.

## STOVE-DAMPER, &c.

SPECIFICATION forming part of Letters Patent No. 529,224, dated November 13, 1894.

Application filed September 19, 1893. Serial No. 485,834. (No model.)

*To all whom it may concern:*

Be it known that I, NATHAN D. WHITE, of Akron, in the county of Summit and State of Ohio, have invented certain new and useful  
5 Improvements in Draft-Doors or Dampers for Stoves and Furnaces; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains  
10 to make and use the same.

My invention relates to improvements in draft-doors or dampers for stoves and furnaces, more especially designed for use on the ash-pit door; and it consists more especially  
15 in the means employed for opening and closing the door or damper, the object being to provide means for the purpose indicated that is exceedingly simple in construction, convenient and durable, and whereby there is no  
20 liability of the ingress of air at any point when the draft-door or damper is in its closed position.

My invention also consists in the peculiarities of construction and combinations of parts  
25 hereinafter described and pointed out in the claim.

In the accompanying drawings, Figure 1 is an outside elevation of an ash-pit-door provided with a draft-door or damper embodying  
30 my invention, the draft-door or damper being shown in its closed position. Fig. 2 is a section on line 2—2, Fig. 1, and Fig. 3 is a section on the same line excepting that the draft-door or damper is shown in an open position. Fig. 4 is a section on line 4—4, Fig. 1, looking in the direction of the arrow, and Fig. 5 is an enlarged side elevation of the operating-screw detached. Fig. 6 is an elevation, illustrating a slight modification.

Referring to the drawings, A represents the ash-pit-door or casing provided with a draft-opening,  $a$ , the draft through which is regulated or cut off by means of a door or damper, B, that is hinged at or near opposite ends, as  
45 at C, to the upper portion of the ash-pit-door, the draft-door or damper having, preferably, upwardly-projecting lugs or ears, B', that are pivoted at or near their outer ends to outwardly-projecting lugs or ears, A', of the ash-

pit-door. The draft-opening  $a$ , is preferably  
50 provided with a flange  $a'$  extending all around the outer end of the opening, and the draft-door or damper, on its inner side and extending all around the damper, is provided with an inwardly-projecting flange  $b$  that, when  
55 the draft-door or damper is in its closed position as shown in Fig. 2, is adapted to fit over external flange  $a'$  of the ash-pit-door, and bear upon the flat surface  $a^2$  formed upon the ash-pit-door, or casing having the draft-open-  
60 ing, next outside of flange  $a'$ .

As already indicated, my invention consists more particularly in the means employed for opening and closing the draft-door or damper, and the means employed for the purpose is  
65 preferably, as follows:—The draft-door or damper at the top, and centrally between the hinges, is provided with an upwardly-projecting flange, B<sup>2</sup>, that is cut away at the central portion, as at B<sup>3</sup>, to accommodate the location  
70 and operation of a thumb-screw, D, the shank whereof, at its inner end, is screw-threaded and engages a correspondingly-threaded hole,  $a^3$ , in the ash-pit-door or the casing or member provided with the draft-opening, the  
75 screw having a pair of annular shoulders or collars  $d$   $d$ , engaging opposite sides of flange B<sup>2</sup>, respectively, and the ash-pit-door or casing containing the draft-opening, having a depression  $a^4$  to accommodate the location of  
80 the inner shoulder or collar.

By the construction just described, it will be observed that the draft-door or damper is actuated to close or open according as screw D is turned in the one direction or the other.  
85 It will also be observed that an important feature of my invention consists in the location of the operating screw between the axial line of the point of hinging the draft-door or damper and the draft-opening or damper-  
90 proper. By this arrangement of parts, it is obvious that when the draft-door or damper is closed, a uniform bearing is had all around the edges of the damper, thereby effectually preventing any ingress of air in the closed  
95 position of the damper. I would also remark that the ash-pit-door or casing provided with the draft-opening is preferably provided with



raised portions  $a^5$  to afford bearing for flange  $B^2$  of the draft-door or damper, the surface of such raised portions being located in the same or approximately the same plane with the flat or plain surface  $a^2$  against which the damper proper bears in the closed position of the same. I would have it understood, however, that my invention is not limited to the details of construction hereinbefore described. For instance, instead of hinging the draft-door or damper at two points as shown in Fig. 1, the same might be hinged only at one point as shown in Fig. 6. This and other slight modifications may be made without departing from the spirit and purpose of my invention.

The raised portions  $a^5$  of the ash-pit-door or casing that afford bearing for flanges  $B^2$ , in the closed position of the draft-door or damper, also prevent any strain upon the axial pins of hinges C inclosing said door or damper, the arrangement of parts being such that in the closed position of the draft-door or damper, said raised portions on the ash-pit-

door or casing A shall afford bearing for flanges  $B^2$ .

What I claim is—

In a stove or furnace, the combination with the casing or member A having a draft-opening  $a$ ; draft-door or damper for regulating or controlling the ingress of air at said opening, said draft-door or damper being hinged to the supporting-casing or member, and suitable means for actuating the draft-door or damper to open or close, of raised portions  $a^5$  upon the supporting-casing or member and one or more flanges or projecting members  $B^2$  upon the draft-door or damper and having bearing upon the aforesaid raised portions  $a^5$  in the closed position of the draft-door or damper, substantially as set forth.

In testimony whereof I sign this specification, in the presence of two witnesses, this 3d day of July, 1893.

NATHAN D. WHITE.

Witnesses:

F. H. STUART,  
C. H. DORER.