

No. 702,313.

Patented June 10, 1902.

W. G. MONTGOMERY.  
STOVE DAMPER.

(Application filed Mar. 20, 1902.)

(No Model.)

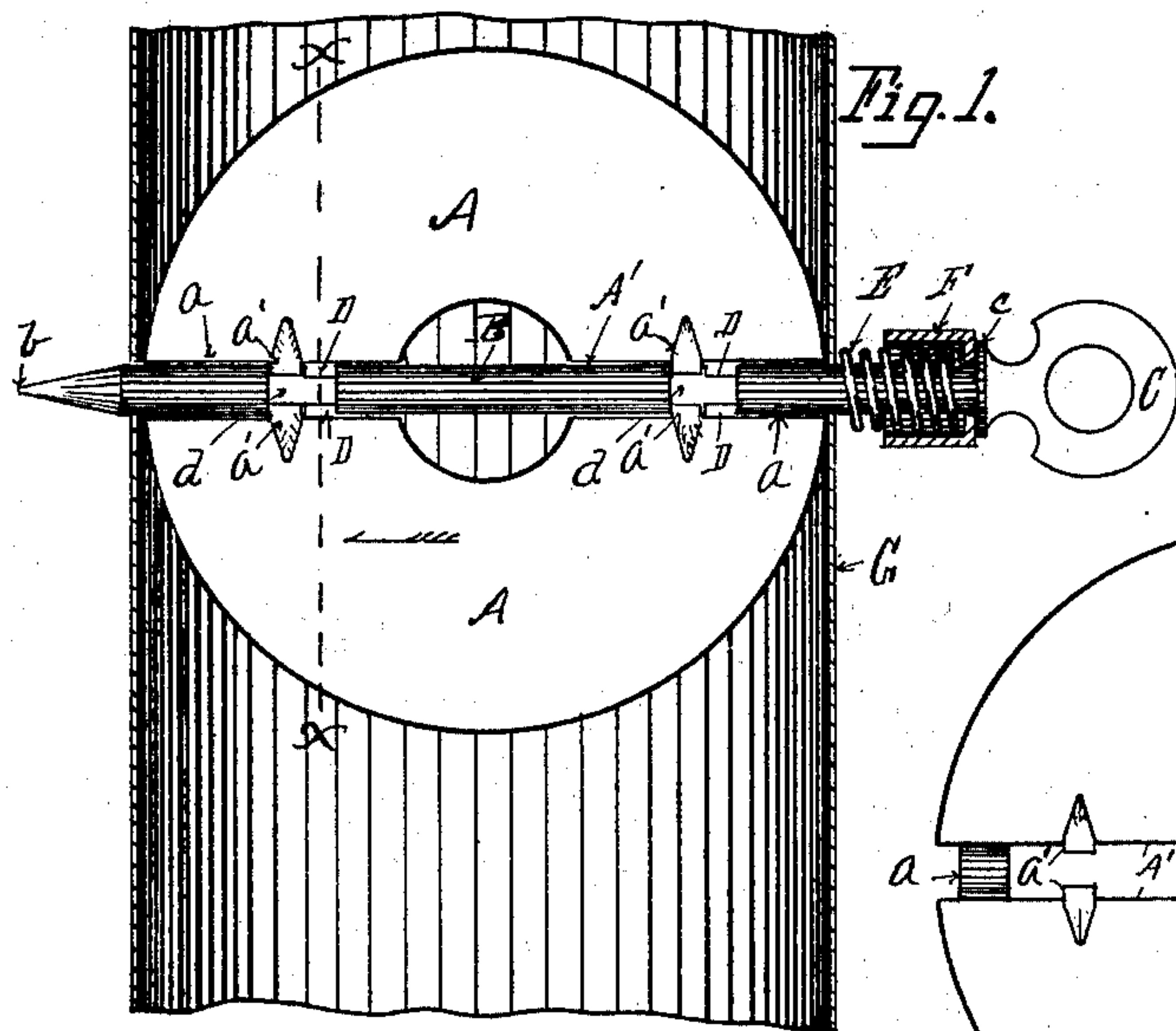


Fig. 1.

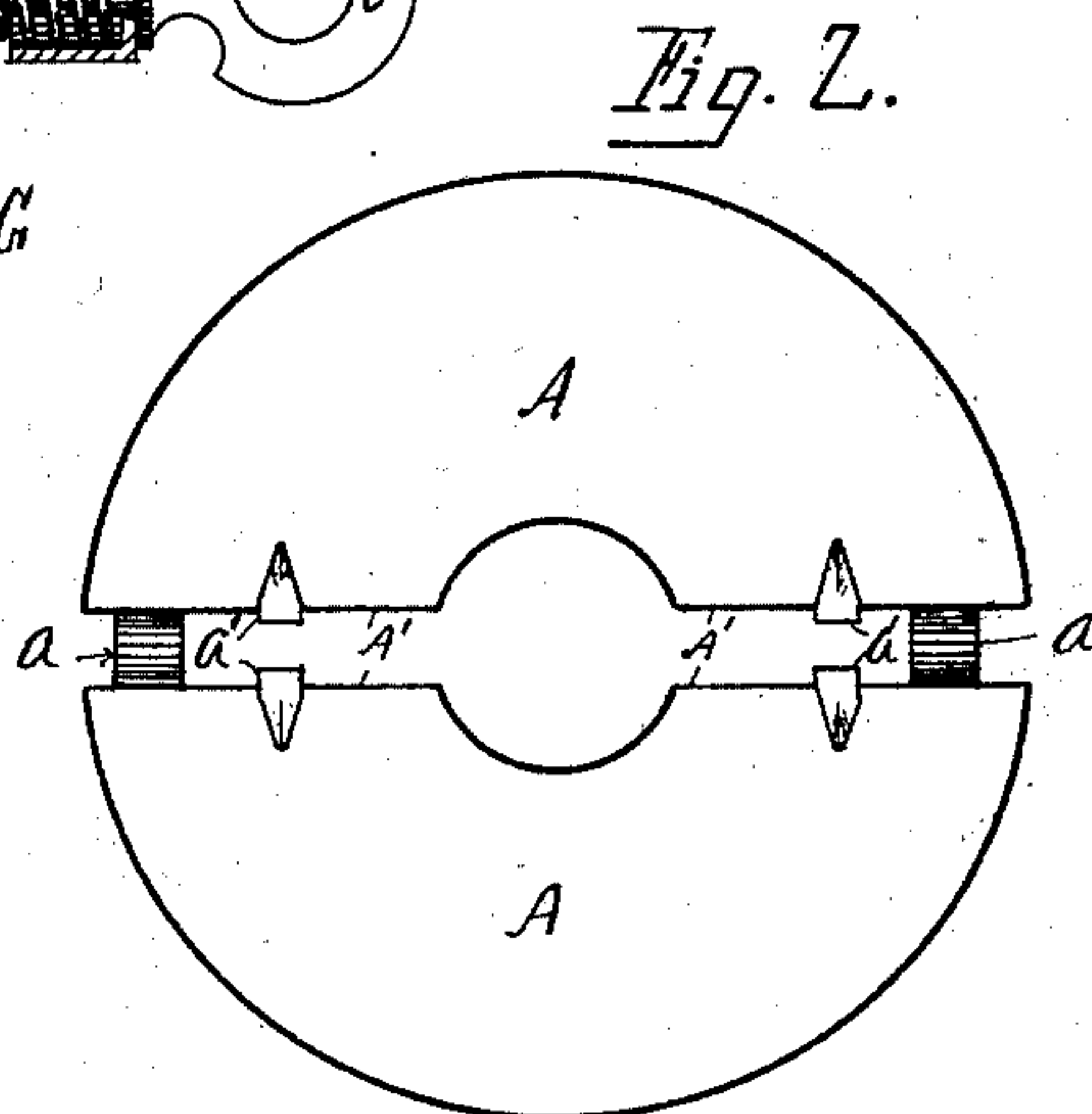


Fig. 2.

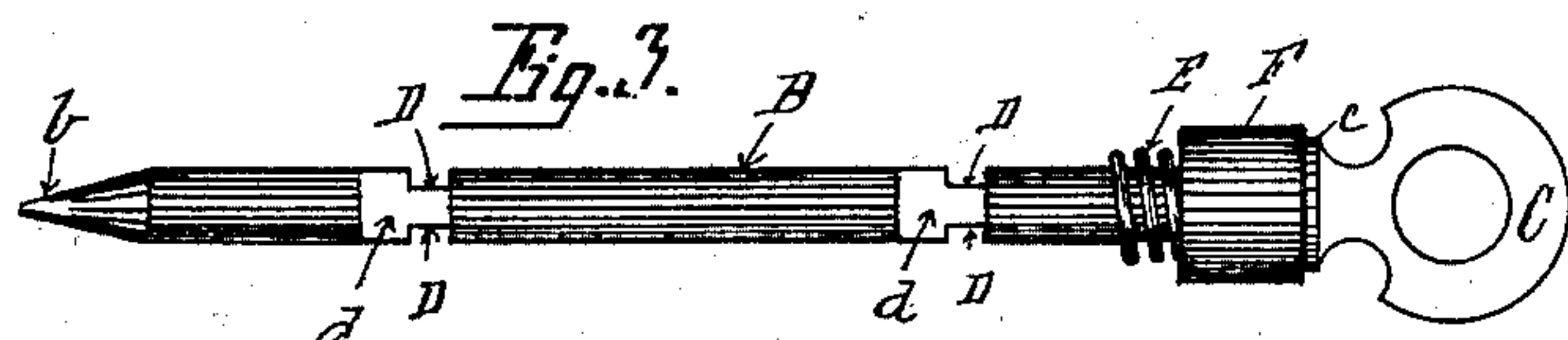


Fig. 3.

Fig. 5.

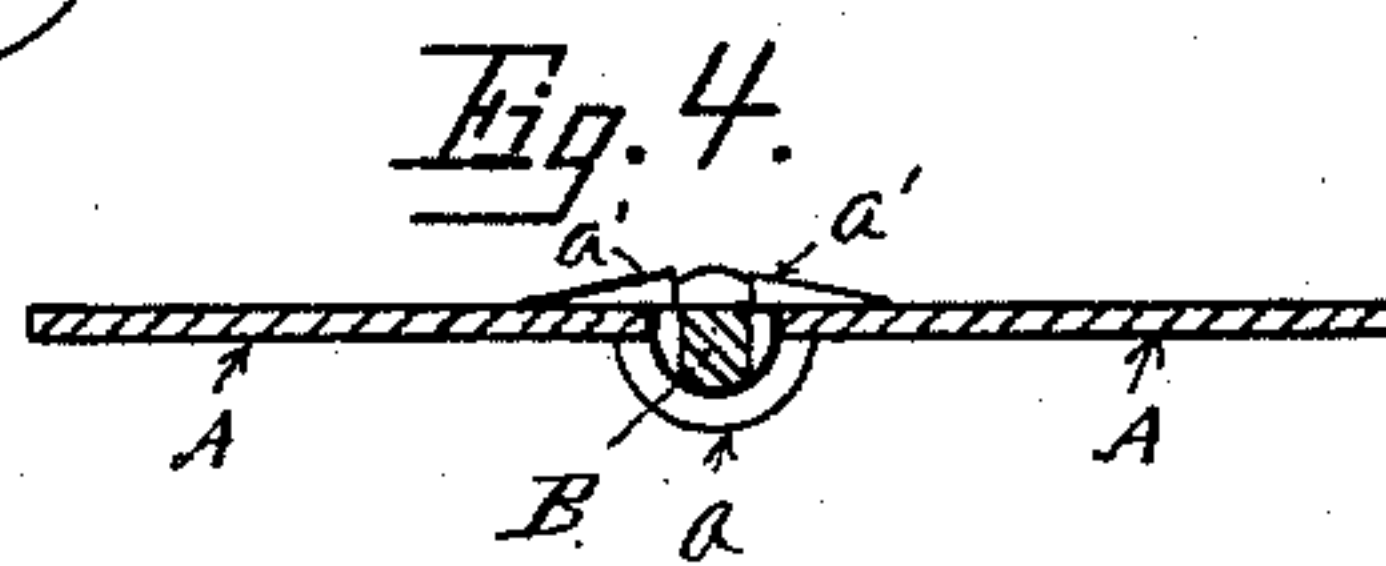
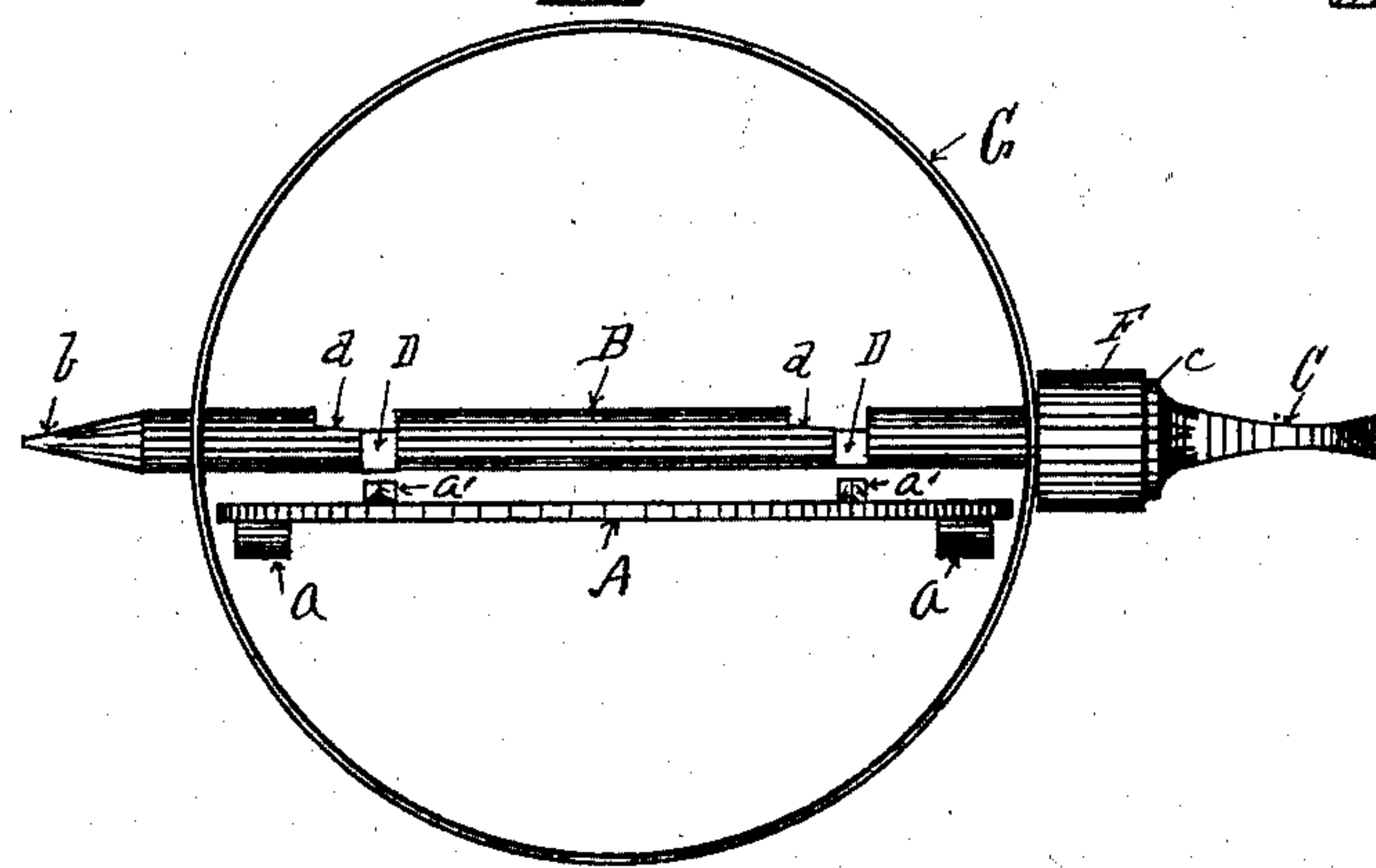


Fig. 4.

WITNESSES.  
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# UNITED STATES PATENT OFFICE.

WILLIAM G. MONTGOMERY, OF ERIE, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO MICHAEL F. PEER, OF ERIE, PENNSYLVANIA.

## STOVE-DAMPER.

SPECIFICATION forming part of Letters Patent No. 702,313, dated June 10, 1902.

Application filed March 20, 1902. Serial No. 99,118. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM G. MONTGOMERY, a citizen of the United States, residing at Erie, in the county of Erie and State of Pennsylvania, have invented certain new and useful Improvements in Stove-Dampers; 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 appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, forming part of this specification.

My invention relates to improvements in stove-dampers; and it consists, substantially, in the construction of a damper having a detachable spindle adapted to be attached or detached from the plate by moving the plate directly toward or away from the spindle and without removing the spindle from the pipe.

A further feature of my improved damper is that the plate and spindle are so made that the spindle can be attached thereto with either end of the slot therein toward the point of the spindle, a spring on the shank of the spindle operating against the exterior of the pipe, retaining the spindle in engagement with the damper in the usual manner.

The object of this invention is cheapness of construction and immunity from accidental detachment or displacement of the parts of the damper, while at the same time increasing the convenience of placing the damper in the pipe and removing it therefrom.

These features are hereinafter fully set forth and described, and illustrated in the accompanying drawings, in which—

Figure 1 shows a vertical section of a pipe with the damper therein. Fig. 2 shows a plan view of the damper-plate. Fig. 3 shows a plan view of the spindle. Fig. 4 shows a section of the damper-plate and spindle on the line  $x x$  in Fig. 1 looking in the direction of the arrow. Fig. 5 is a view of the end of a pipe with the spindle inserted therein and an edgewise view of the damper-plate being attached thereto.

In the drawings, A is the damper-plate, having a transverse central slot A' therein with the two halves of the plate connected on one

side thereof near its edges by semicircular bridges or connections  $a a$  and provided on the opposite side with two sets of overhanging lugs  $a' a'$ , as and for the purpose herein-after set forth.

B is the spindle, which is cylindrical and provided on one end with a thumb-piece C and a shoulder  $c$  and at the other with a point  $b$ . This spindle B is provided with two sets of parallel slots D D in the opposite sides thereof, adapted to permit the spindle to pass down between the two sets of lugs  $a' a'$  on the plate, as illustrated in Fig. 5, until it rests upon the semicircular bridges  $a$  on the opposite side of the damper-plate A, and in one side of the spindle B there are flattened surfaces  $d d$ , extending a short distance from the slots D D, so that when the spindle B has been passed down between the lugs  $a' a'$  on the plate it can be moved longitudinally until the lugs  $a' a'$  engage the flattened surfaces  $d d$ , so as to effectually prevent the spindle B from rotating in the slot in the plate A. In the drawings I show the surfaces  $d d$  inclined. The object of this is so that they will wedge slightly under the lugs  $a' a'$ . I can, however, make the surfaces  $d d$  without any inclination with good results.

For retaining the spindle B in engagement with the plate A, above described, I place on the shank of the spindle a spring E and preferably a hollow sliding collar F. One end of the spring E engages with the exterior of the pipe G and the other with the sliding collar F and the shoulder  $c$  on the spindle and operates to retain the flattened surfaces  $d d$  on the spindle B in constant engagement with the lugs  $a' a'$  on the plate A. In connecting the plate with the spindle the spindle B is placed in a pipe G and pressure is applied to the shank thereof, which operates to compress the spring E, so as to bring the slots D D therein opposite the lugs  $a' a'$  on the plate A, as illustrated in Fig. 5. If the plate A is then moved toward the spindle B the lugs  $a' a'$  thereon pass up through the slots D D in the spindle. The pressure then being removed from the shank of the spindle, the spring E automatically forces the spindle back until the lugs  $a' a'$  on the plate pass over and upon the flattened surfaces  $d d$  on



the spindle and operates to retain the plate and spindle in this position relative to each other, with the lugs  $a' a'$  on the plate A engaging the flattened surfaces  $d d$  on the spindle, so as to effectually prevent the rotation of the spindle in the plate, and so long as the tension of the spring E is exerted on the shank of the spindle B the parts cannot become displaced or detached from each other without there is sufficient pressure exerted on the handle to compress the spring E.

Having thus shown and described my invention, so as to enable others to construct and use the same, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. The combination in a damper, of a slotted plate, bridges on one side of the plate connecting the two halves thereof together, lugs on the opposite side of the plate overhanging the slot therein, a spindle having slots in opposite sides thereof through which the lugs on the plate will pass, flattened surfaces on one side of the spindle adapted to

pass under the lugs on the plate, and a spring on the shank of the spindle, substantially as and for the purpose set forth.

2. The combination in a damper, of a damper-plate having a central transverse slot therein, semicircular bridges or connections on one side of the plate connecting the two halves thereof together, two sets of lugs on the opposite sides of the plate overhanging the slot therein, a round spindle having two sets of transverse slots in the sides thereof through which the lugs on the plate will pass when the spindle and plate are brought together, flattened surfaces on said spindle adapted to pass under and engage the lugs on the plate, and a spring on the shank of the spindle, substantially as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM G. MONTGOMERY.

Witnesses:

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M. F. PEER.