

(No Model.)

C. W. HOBBS.
PAPER FILE.

No. 453,396.

Patented June 2, 1891.

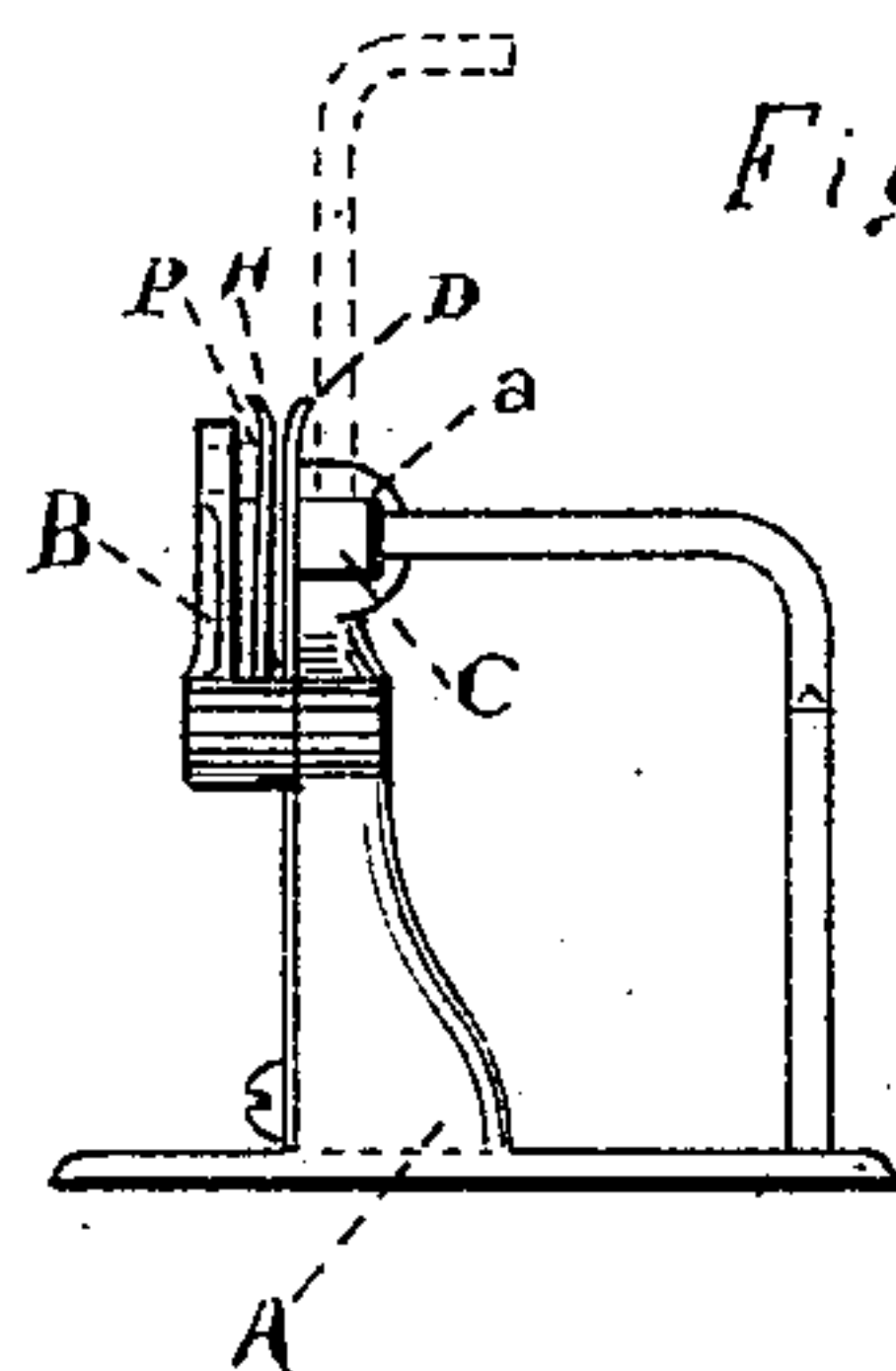


Fig. 1.

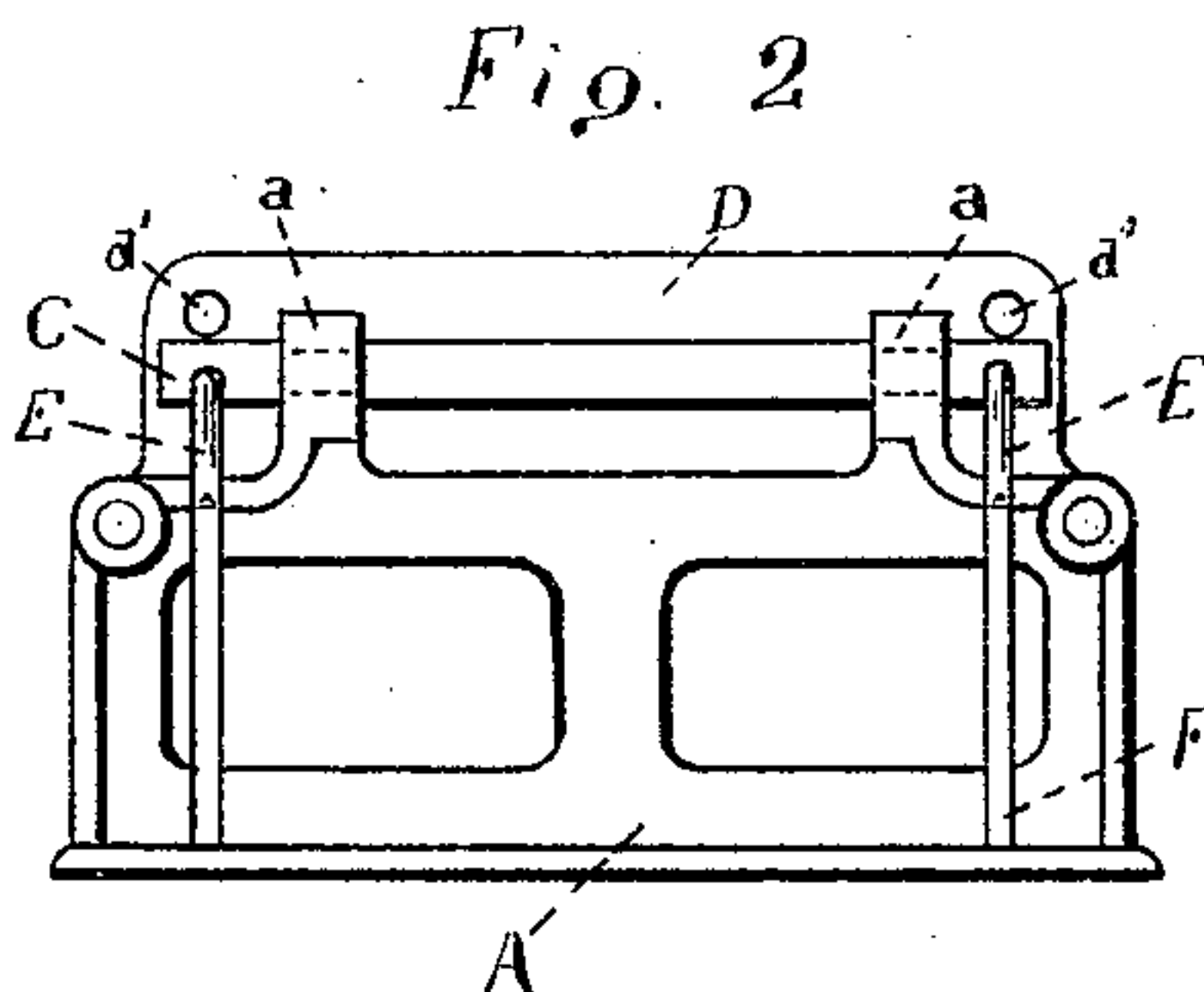


Fig. 2.

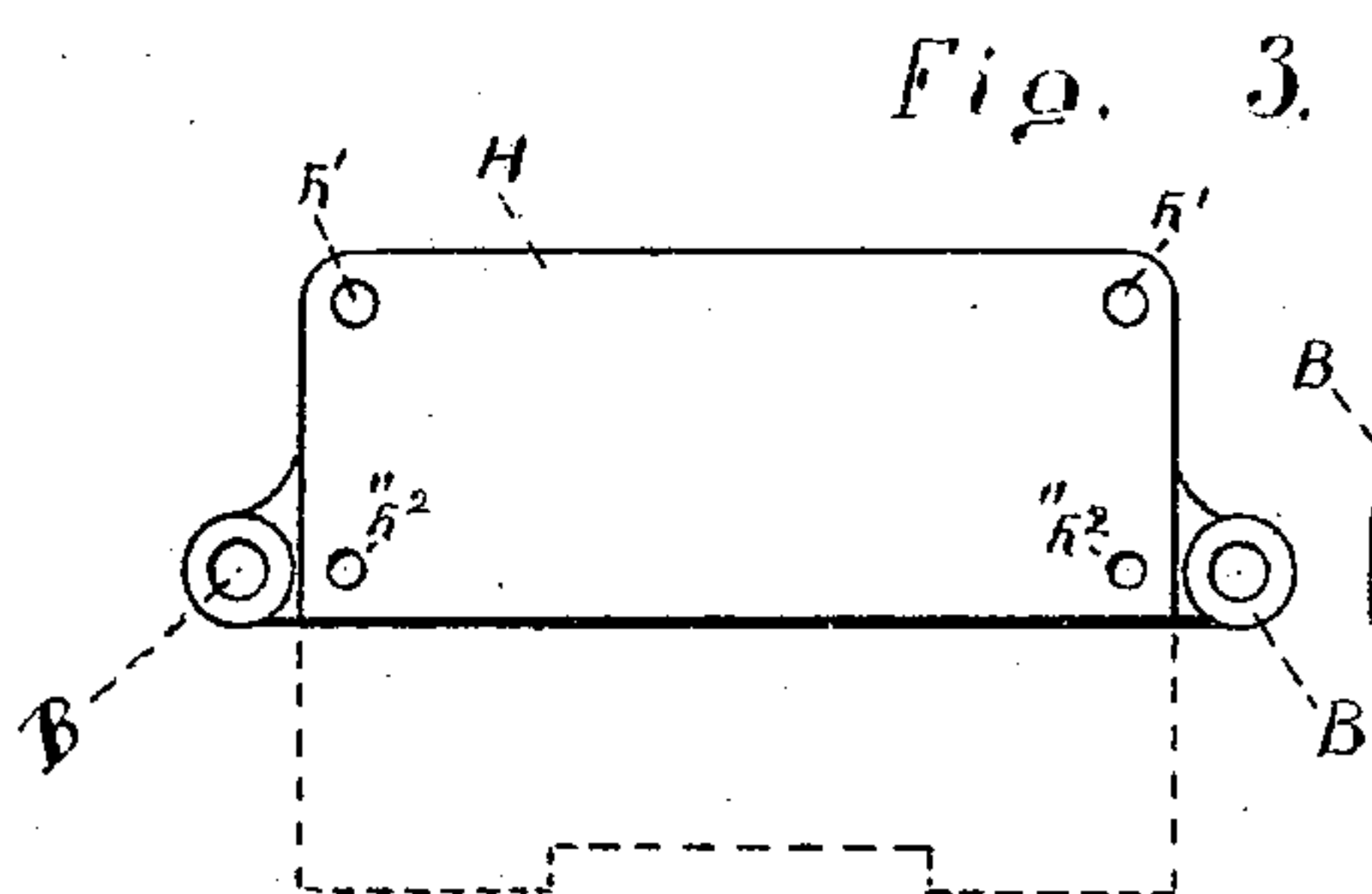


Fig. 3.

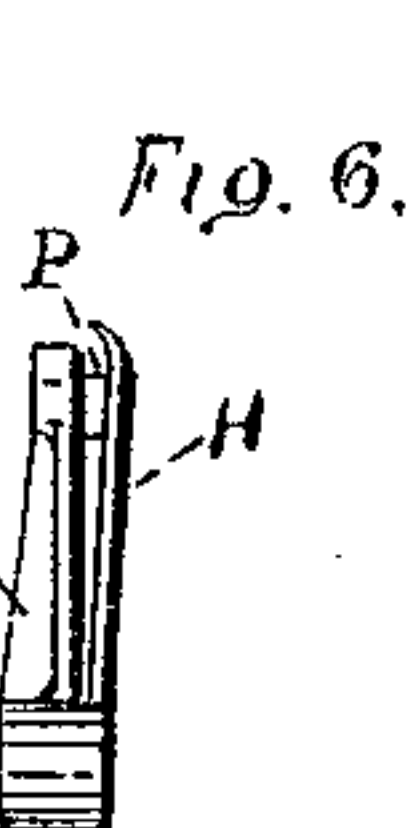


Fig. 6.

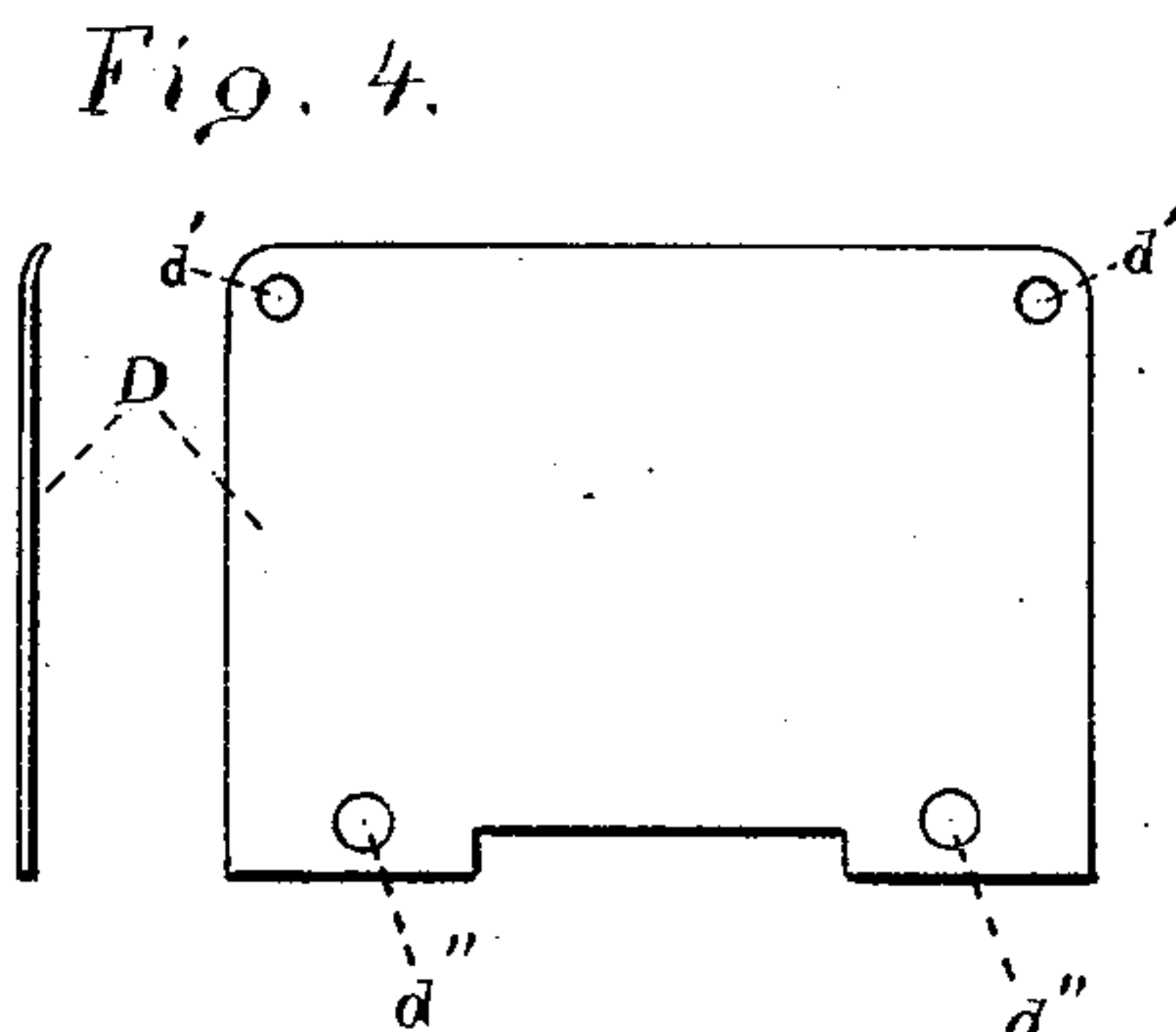


Fig. 4.

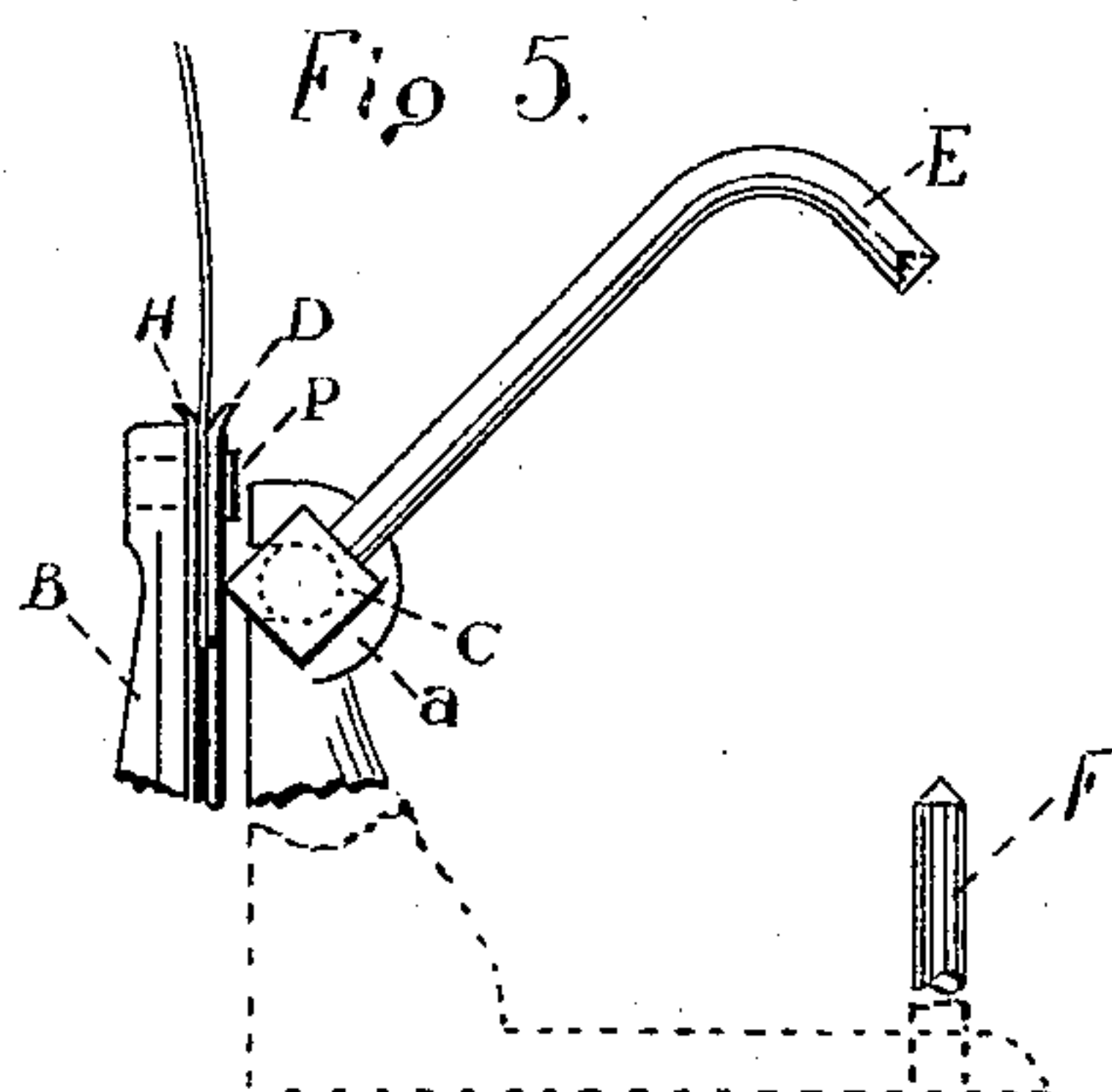


Fig. 5.

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PAPER-FILE.

SPECIFICATION forming part of Letters Patent No. 453,396, dated June 2, 1891.

Application filed April 9, 1890. Serial No. 347,278. (No model.)

To all whom it may concern:

Be it known that I, CLARENCE W. HOBBS, a citizen of the United States, residing at Lynn, in the State of Massachusetts, have invented a new and useful Improvement in Paper-Files, of which the following is a specification.

My invention relates to that class of paper-files in which papers are held by two or more rods which pass through holes punched to receive them; and the objects of my improvement are, first, to secure a paper-file which shall hold the papers securely and yet allow them to be readily examined; secondly, to have it simple, cheap, small, and light; third, to so construct it that the act of punching the holes and filing the papers shall be done in as few motions and in as short a time as possible. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a side view of the mechanism with the locking-arms closed. Fig. 2 is a front view. Fig. 3 shows the spring-shedder H. Fig. 4 shows a rear view and a sectional view of the spring die-plate D. Fig. 5 is a side view of a portion of the mechanism as shown when a sheet of paper is being punched for filing, the locking-arms being half-open and operating the punches. Fig. 6 is a sectional view of the frame holding the punch P and the shedder H.

Similar letters refer to like parts in all the drawings.

The main frame A consists of a single metal casting, in the lower extension of which the filing-rods F F are fixed, and on the upper part of which are bosses for securing in place the punch-holder B and on the other side bearings A A for the shaft C, carrying the locking-arms E E. I prefer to make the shaft square with round journals at proper places to fit the bearings *a a'*. It is held in position by the spring die-plate D, which is fastened to the frame at a point to give it sufficient swing, as *d''*. I do not wish to be limited to making the shaft square, as it might act nearly as well if made triangular or with five or even more faces. I make it square, as being the easiest and cheapest to secure the desired result—namely, to operate as a lever to move the

spring and allow it to return to place. A round shaft with projections would do, perhaps, as well. There are as many punches as there are filing-rods. The punch-holder is secured to the frame, so as to bring the punches into proper relation to the dies *d' d'* in the die-plate and *h' h'* in the shedder. The spring-shedder H, which is placed between the spring die-plate D and the punch-holder B and to which it is attached by rivets *h'' h''*, operates to throw the papers from the punch. The whole mechanism may be secured to any suitable support.

The operation of the paper-files is as follows: The end of the sheet which it is desired to place in the paper-file is inserted into the space between the die-plate D and shedder H, the boss B forming a gage, so that the binding-holes in successive sheets shall be the same distance from the edge and the weight of the sheets has the tendency to carry each one down to the gage. The locking-arms E E are then raised, as is necessary to enable the sheet to be placed upon the filing-rods F F. The raising of the arms causes the shaft C to partially revolve in its bearings, and the square corner acts as a lever upon the spring die-plate D, which forces it back upon the punches and causes them to punch holes in the paper at the points of contact. When the locking-arms are raised to a vertical position, the shape of the shaft allows the spring die-plate to return to its normal position. The spring-shedder H throws the sheet from the punches, so that it may be readily removed and placed upon the filing-rods, and the locking-arms are snapped back into position. Each of the two moving parts of the paper-file performs a double service. The flat-sided shaft C, designed primarily to hold the locking-arms, also acts as a lever to operate the punching mechanism, and the spring die-plate D, which is used to hold in position the shaft and the locking-arms also operates as the female portion of the punching mechanism. The one necessary motion of opening the locking-arms punches the holes in the paper to receive the filing-rods and releases the paper from the punches by the return action of the shedder.

I know that paper-files have been made

with filing-rods and with punches to make the holes for the rods, and I do not claim, broadly, such devices; but

What I do claim, and desire to secure by
5 Letters Patent, is—

1. In a paper-file, the combination of the locking-arms, the connecting-shaft C, constructed as described, and the punching mechanism whereby the papers to be filed are
10 punched by the opening of the locking-arms, substantially as shown and described.

2. In a paper-file, the combination of the die-plate D, the dies *d d*, the shaft C, the locking-arms E E, and the filing-rods F F, sub-
15 stantially as shown and described.

3. In a paper-file, the combination of the filing-rods F F, the locking-arms E E, and the shaft C, constructed as described, substantially as shown and described.

4. In a paper-file, the combination of the 20 arm-bearing shaft C, the spring die-plate D, and the dies *d d*, arranged and constructed so that the turning of the shaft C shall operate the die-plate and cause it to punch the papers in the punching mechanism herein de- 25 scribed.

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Witnesses:

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