

(No Model.)

T. BIGELOW.
TYPE WRITING MACHINE.

No. 471,090.

Patented Mar. 22, 1892.

Fig. 1.

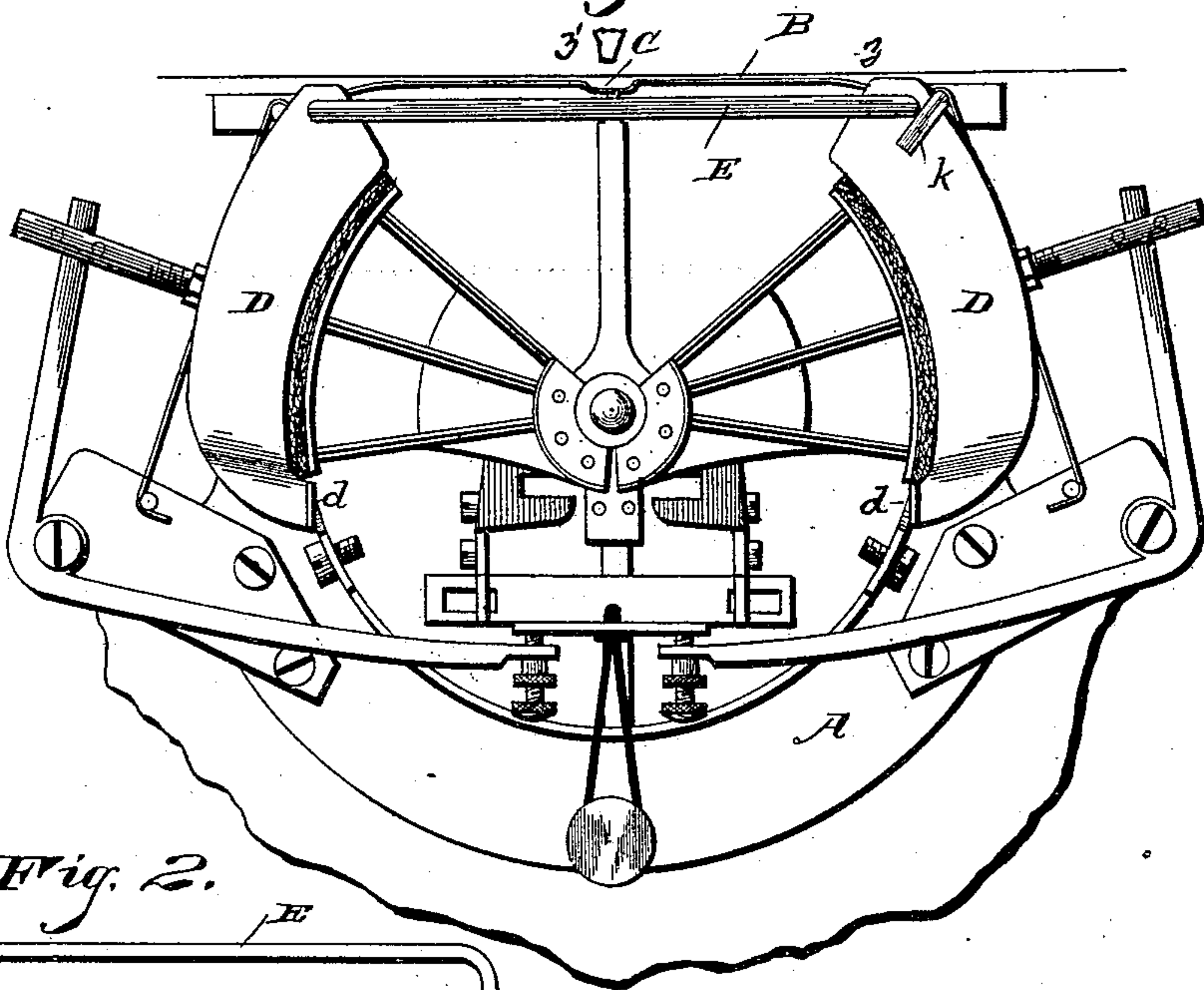


Fig. 2.

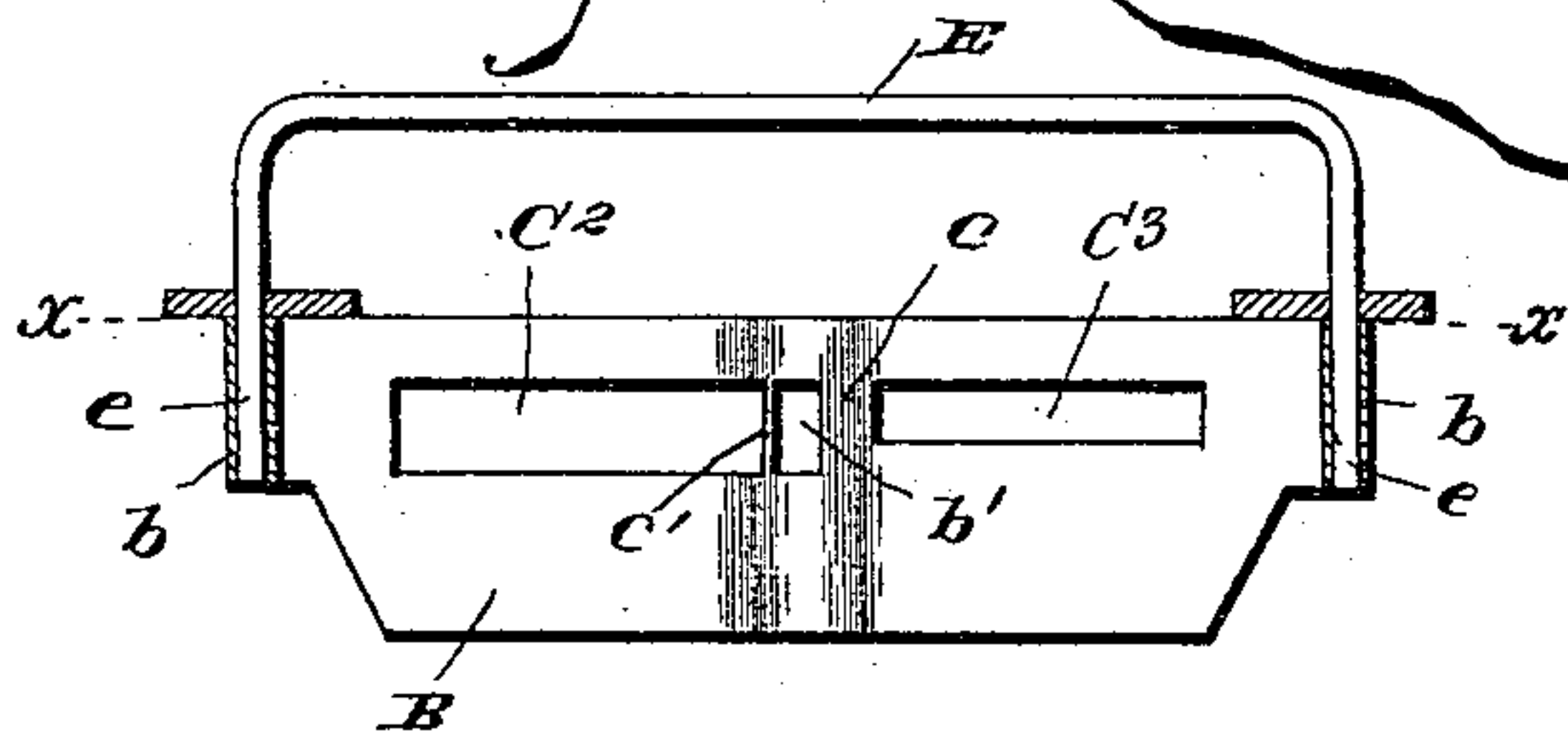


Fig. 3.

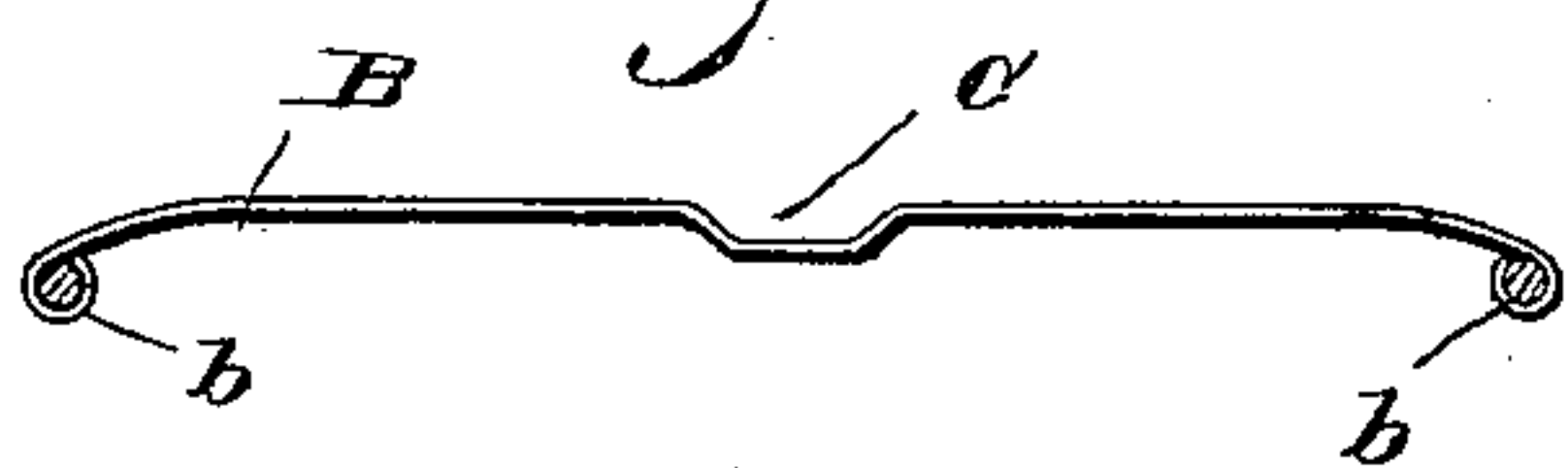
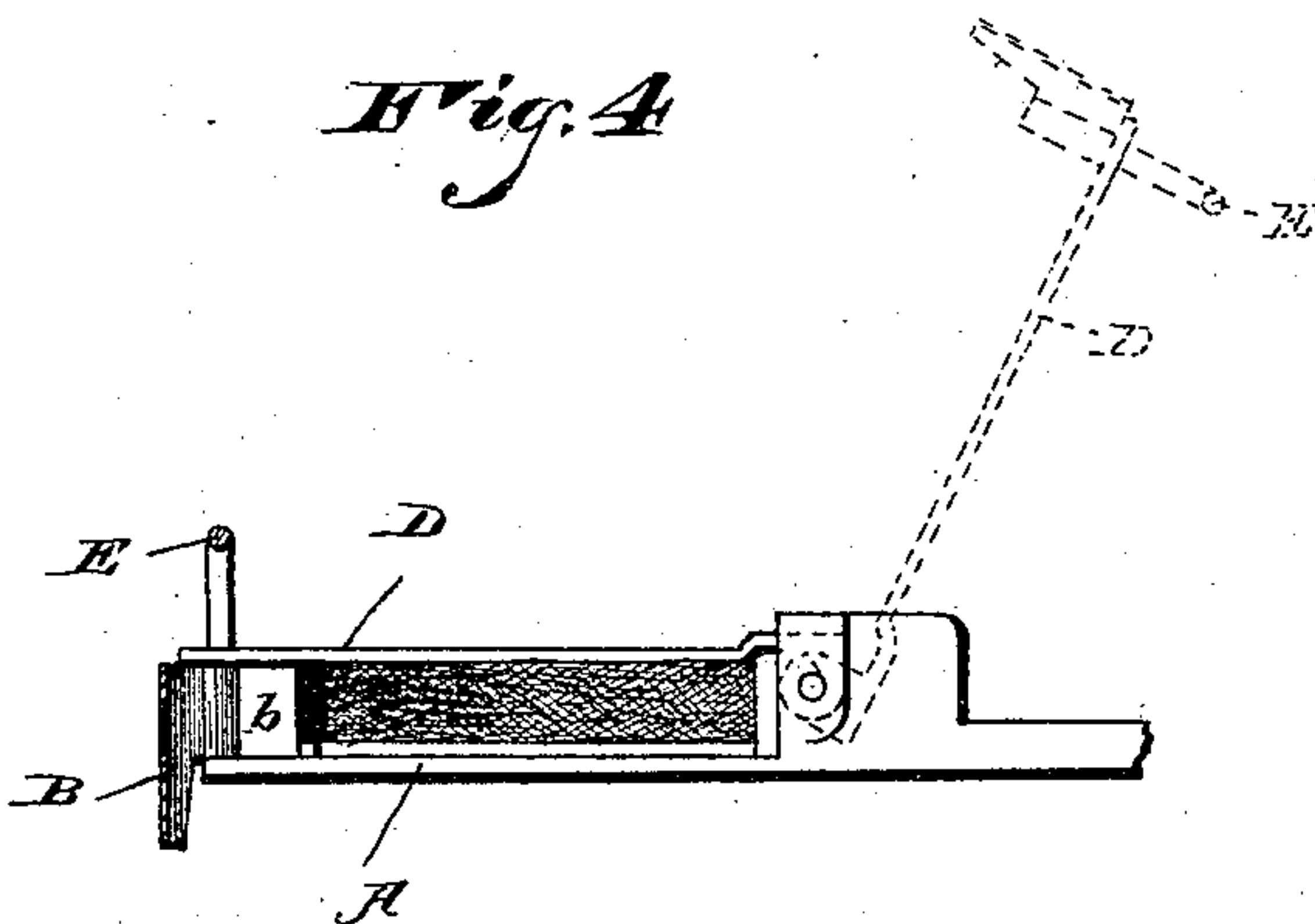


Fig. 4.



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TIMOTHY BIGELOW, OF BROOKLYN, NEW YORK.

TYPE-WRITING MACHINE.

SPECIFICATION forming part of Letters Patent No. 471,090, dated March 22, 1892.

Application filed February 16, 1891. Serial No. 381,578. (No model.)

To all whom it may concern:

Be it known that I, TIMOTHY BIGELOW, of the city of Brooklyn, county of Kings, and State of New York, have invented a new and useful Improvement in Type-Writing Machines; and I do hereby declare that the following specification, taken in connection with the drawings annexed to and forming part of the same, furnishes a full and clear description thereof, sufficient to enable those skilled in the art to which it pertains to make and operate the same.

My invention relates to improvements in type-writing machines of the kind known as the "Hammond," an instance of which may be seen in Patent No. 290,419, dated December 18, 1883, and has particular reference to improvements in the construction and manner of mounting the paper-shield.

The object of the present invention is to provide a shield for preventing the type from soiling the paper of such construction as to enable the operator to see the work as it is being done, and which is so mounted as to be capable of being thrown away from the sheet when desired and replaced with rapidity and ease, and also capable of readily interchanging one shield for another. The manner of mounting the shield is especially designed for use with inking-pads such as are shown in an application for patent filed on even date herewith, Serial No. 381,579; but neither the construction of the shield nor the manner of mounting it is confined to use on such a form of machine, as it will be readily seen that it can be applied to the ordinary ribbon-machine.

The following detailed description fully explains the nature and purpose of my said invention.

The accompanying drawings illustrate my said invention.

Figure 1 is a plan view of portions of the top of a type-writer with my invention applied. Fig. 2 is a front elevation of the shield. Fig. 3 is a plan view of same. Fig. 4 is a side elevation of the inking-pad with the swinging shield-arms attached.

Similar letters of reference indicate corresponding parts in all the figures where they occur.

A is the top of the type-wheel guard, and B is the shield. This shield is constructed of sheet-steel or other suitable material as thin as will serve the purpose, and is made with sleeves *b b* on the ends to set over and pinched upon or otherwise secured to posts *e e* on a suitable support. At the center of the shield a hammer-opening *b'* is provided, as usual; but in my improvement the portion of the shield containing it is formed into a vertical groove or recess *C*, the concavity of which, containing the bars *c c'*, forming the sides of said hammer-opening *b'*, keeps said vertical bars away from the paper when the hammer is retracted, the bars *c c'* lying at an angle to the plane of the opening itself as well as to the plane of the shield. A slight convexity toward the paper given to the rest of the shield between the sleeves prevents the printed line from coming in contact with any part of the shield and from being smeared as it is moved longitudinally past the shield, the opening *C²* being wide enough to prevent the printed line from touching the shield at bottom or top, and at the point where the opening *C²* terminates the curve of the shield occurs, whereby it is carried inward away from the paper, so that no rubbing of the newly-printed line occurs. This can be seen in Fig. 1, where *Z* represents the paper and *z'* the point of the hammer.

On each side of the hammer-opening, extending from the bars *c c'* outward to or nearly to the ends of the shield, are sight-openings *C² C³* of sufficient width to plainly show the line of print with the capitals and extended letters. The opening *C²* is for the purpose of permitting inspection of the work immediately after the printing is done, and the opening *C³* permits the approaching paper to be seen and properly spaced to justify the lines, &c. The bar or wall *c'* on the left hand (or printed side) is as narrow as is consistent with necessary strength, and, as already stated, is held away from the paper by the recess *C*, so that the last impression made can be at once seen as soon as the key is released. Thus it will be seen that the line of print can be seen at all times through the view-opening and hammer-hole right up to and including the last impression made, and mistakes may be at once detected.

By mounting the shield upon the studs or posts by means of the sleeves, as already described, the shield is made readily removable, and when desired one shield can be readily and quickly exchanged for another. This facility is further increased, as well as the complete removal of the shield from the front of the paper insured, when required, by having the studs or posts supported on a swinging holder or arms which are hinged in such position as to enable the shield to be drawn upward and backward over the type-segments. For this purpose the arms D D are employed for supporting the posts in a depending position when the shield is in use, and are hinged at *d d* at some suitable point on the type-wheel guard to lie horizontally over the said guard. The arms may be of any suitable construction. I have shown them as plates D D to cover the inking-pad, as set out in my application hereinbefore referred to, and they are preferably so made; but for the purposes of this present invention they may be simple narrow bars. At the free ends the arms are connected by a bridge or arched bar E, by means of which the shield and arms are raised, the ends of which bridge may extend downward and form the posts *e e*, or the posts *e e* may be made separate. A hook *k* may be employed to hold the arms D down when the shield is in use.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A paper-shield for type-writers of the kind described, having a hammer-opening lying in a vertical groove or recess and view-

opening extending out horizontally therefrom, as set forth.

2. A paper-shield for type-writers of the kind described, having a hammer-opening provided with side bars in a different plane from that of the shield and at an angle to the plane of the hammer-opening, as set forth.

3. A paper-shield for type-writers of the kind described provided with a vertical recess or groove, a hammer-opening formed in the groove, and a sight-opening extending outward from the boundary of the hammer-opening, as set forth.

4. A paper-shield for type-writers of the kind described, having a vertical central recess provided with a hammer-opening and a narrow raised bar at the side of the hammer-opening and a sight-opening extending outward therefrom, as set forth.

5. A paper-shield for type-writers of the kind described, having sleeves on the ends, in combination with studs or posts for receiving the sleeves of the shield, and hinged arms on which the studs or posts are supported, as set forth.

6. The combination of a paper-shield for type-writers and a hinged holder or pair of arms on which it is mounted, as set forth.

7. The combination of a paper-shield for type-writers, having sleeves on the ends, and a hinged holder or arms having studs or posts for receiving the sleeves, as set forth.

T. BIGELOW.

In presence of—

JOHN E. NORCROSS,
FRANK MANN.