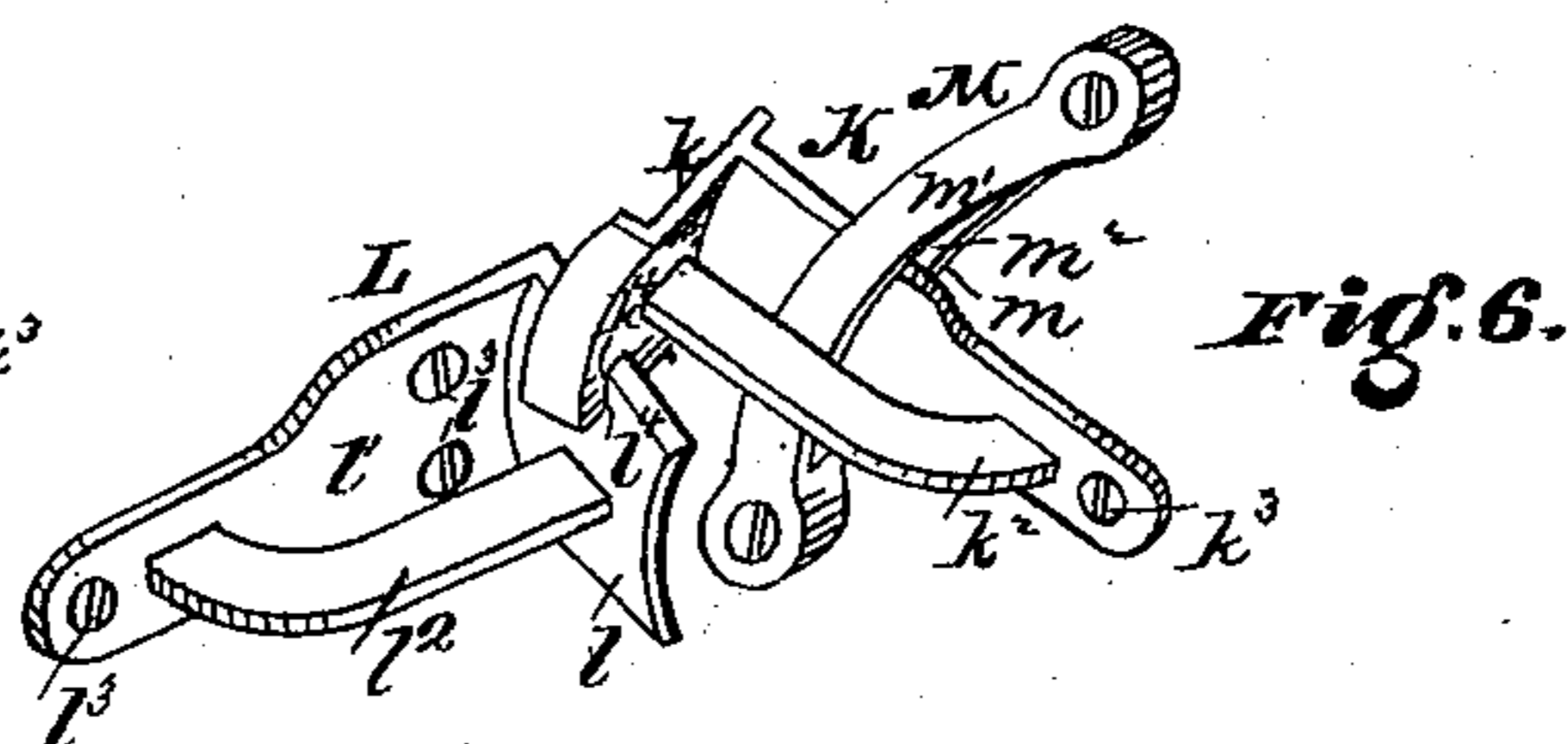
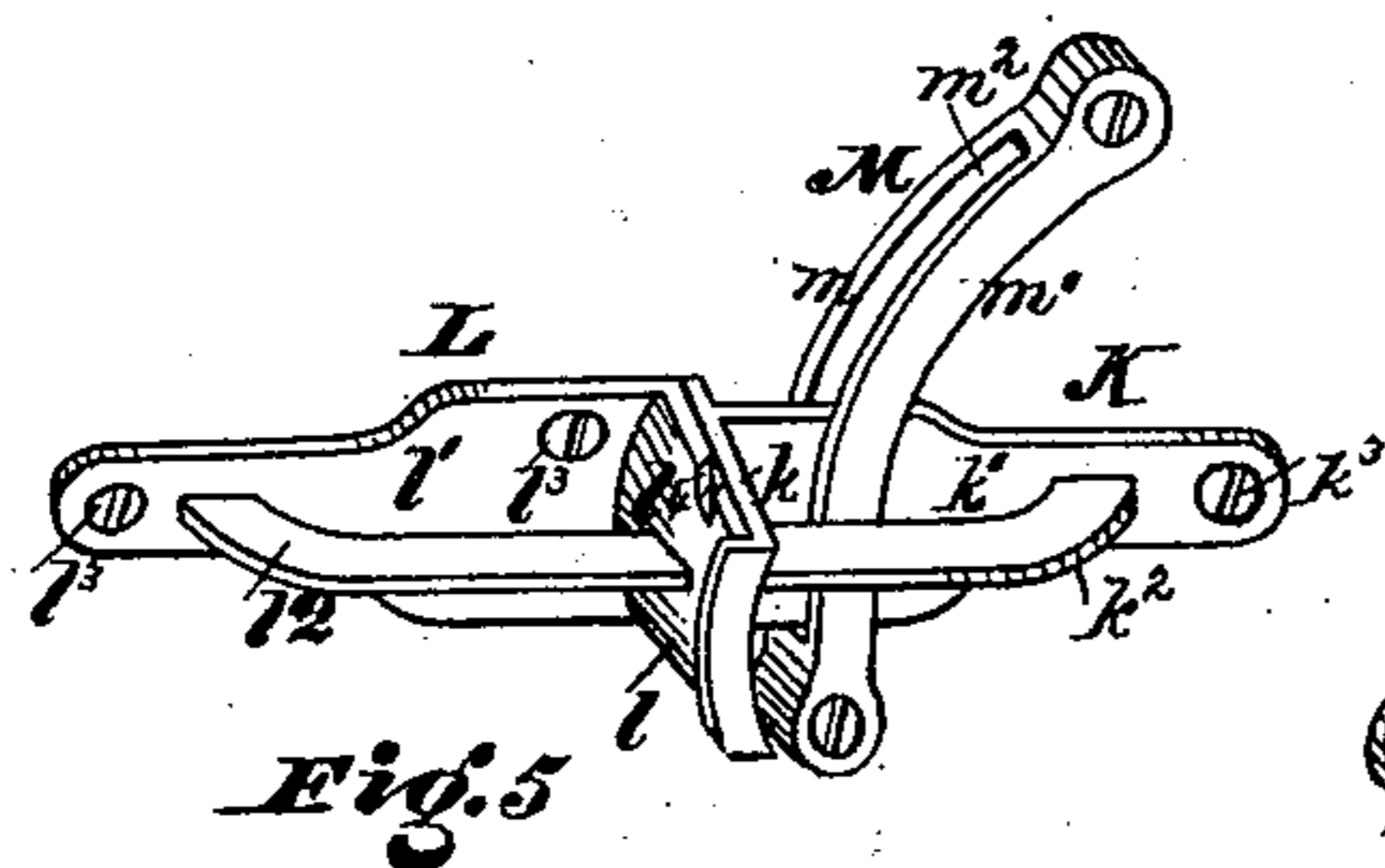
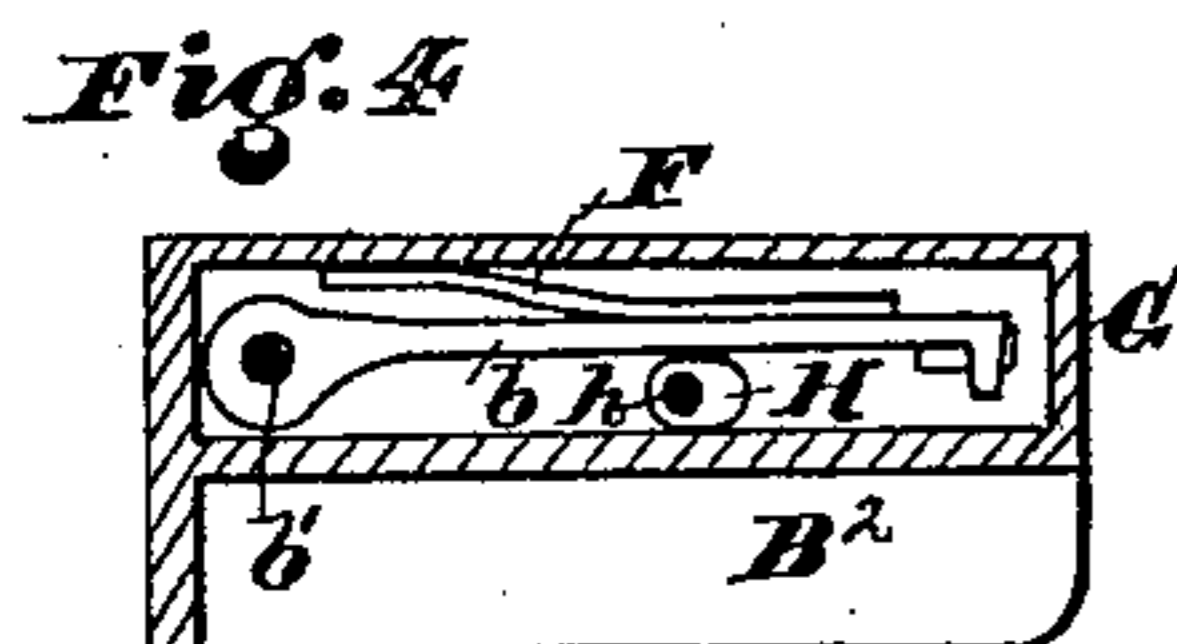
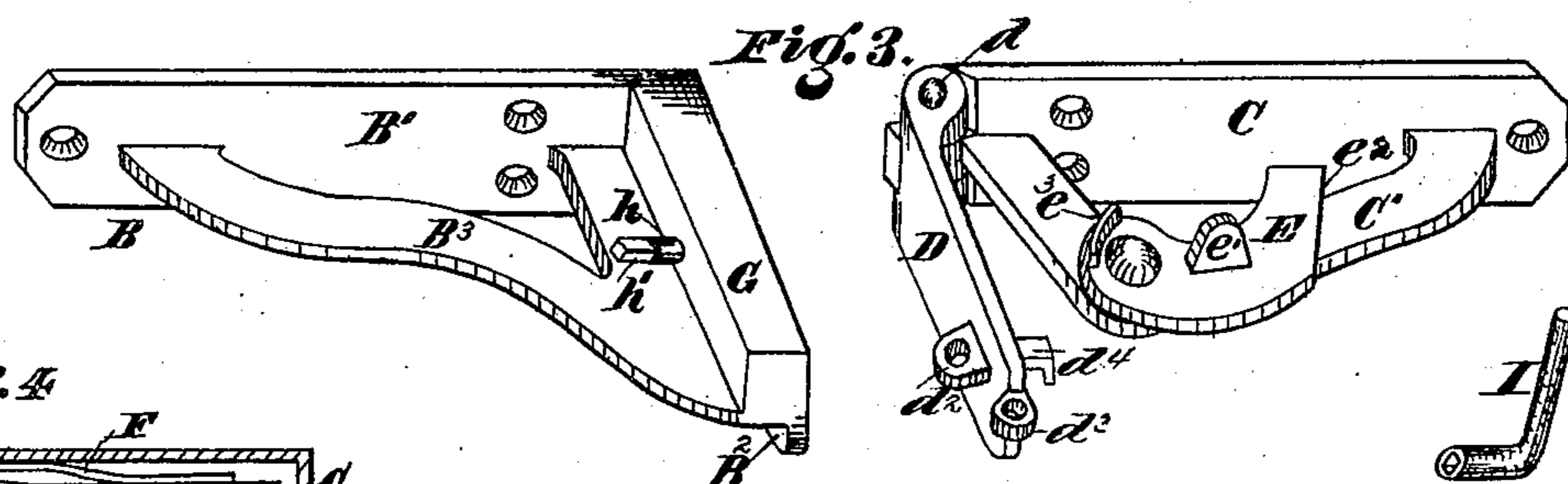
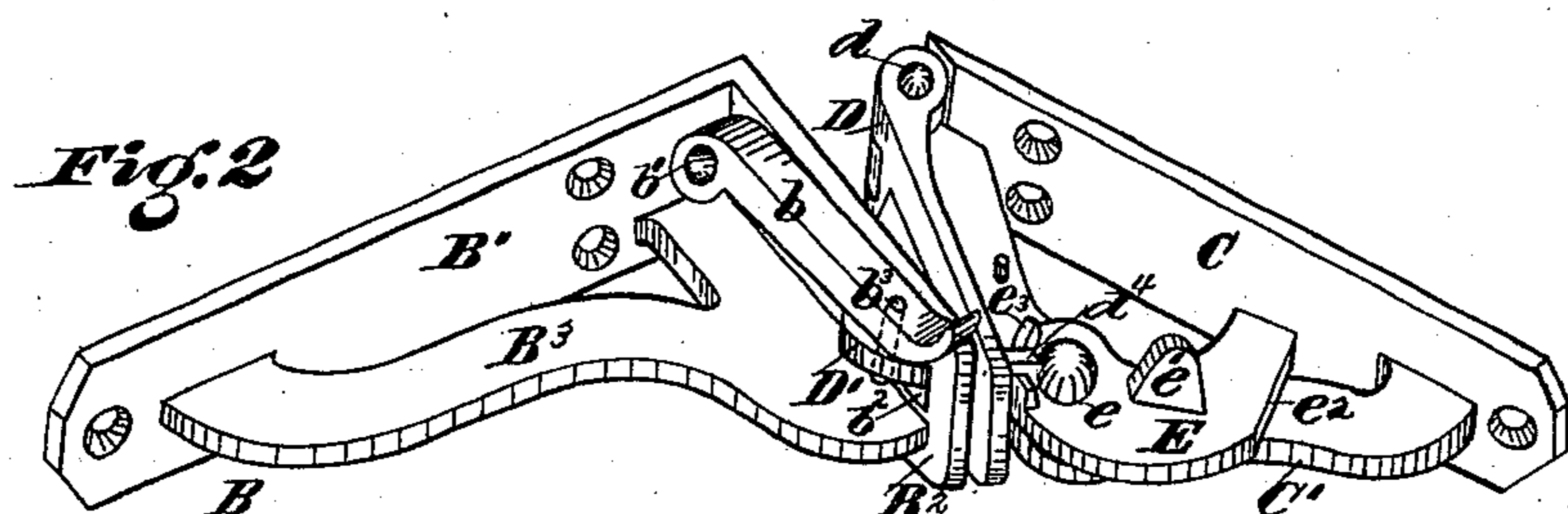
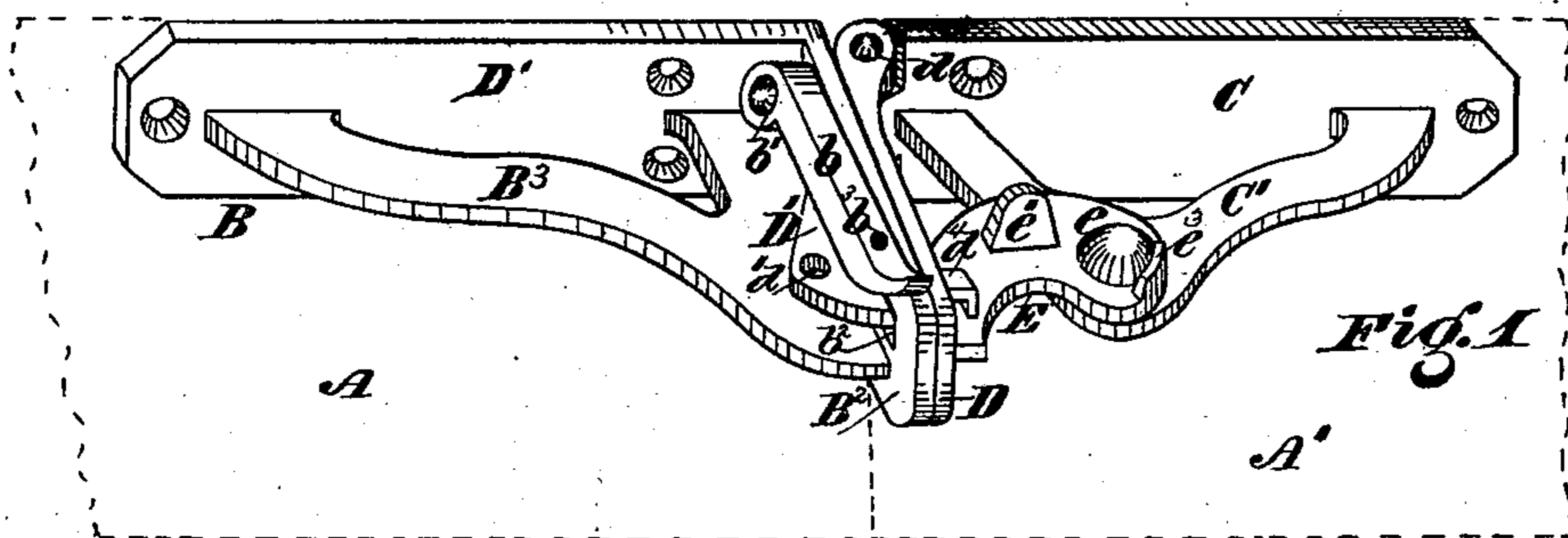


J. M. CRAWFORD.  
 Combined Shutter Fastener and Bower.  
 No. 197,611. Patented Nov. 27, 1877.



WITNESSES:

J. B. Connolly  
 John L. Condon

INVENTOR

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# UNITED STATES PATENT OFFICE.

JOHN M. CRAWFORD, OF PHILADELPHIA, PENNSYLVANIA.

## IMPROVEMENT IN COMBINED SHUTTER FASTENER AND BOWER.

Specification forming part of Letters Patent No. **197,611**, dated November 27, 1877; application filed September 8, 1877.

*To all whom it may concern:*

Be it known that I, JOHN M. CRAWFORD, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a certain new and useful Shutter Fastener and Bower; 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 to make and use it, reference being had to the accompanying drawings, which form part of this specification, in which—

Figure 1 is a perspective view of my invention as shown in a position where the shutter is fastened. Fig. 2 is a perspective view of the same shown in position when the shutter is bowed. Fig. 3 is a perspective detail. Fig. 4 is a detail transverse vertical section; and Figs. 5 and 6 are perspective views of a modification of my invention, being shown in positions of, respectively, fastened and bowed shutters.

My invention has for its object to provide a shutter fastener and bower so constructed that shutters to which it is applied may be securely locked either in a wholly closed or in a bowed position.

My invention consists in the peculiar construction and combination of parts constituting my improved shutter bower and fastener, as hereinafter set forth and claimed.

Referring to the accompanying drawings, A and A' represent two shutters, constituting a pair, to which my improved device is applied. B represents an L-shaped metallic bracket, consisting of two sides, B<sup>1</sup> and B<sup>2</sup>, united by a web or brace, B<sup>3</sup>. b is a latch or dog pivoted at b<sup>1</sup> to the side or arm B<sup>2</sup>, in which arm is formed a slotted opening, b<sup>2</sup>.

C is a plate, cast with an elbow brace or projection, C', and having hinged to it at d another plate, these two plates corresponding to the two sides B<sup>1</sup> B<sup>2</sup> of the bracket B. The plate D is formed with a lug, D', having one or more openings, d<sup>1</sup>, for the reception of the tooth b<sup>3</sup> on the dog b. E is a swinging bar pivoted at e on the brace C', and provided with a thumb and finger piece, e<sup>1</sup>.

The operation is substantially as follows: The bracket B and plate C being screwed on the shutters A and A', respectively, and the

plate D and bar E being thrown back on the brace C', the shutters may be freely opened and closed.

To lock the shutters when closed, the plate D is turned on its pivot until it meets the side B<sup>2</sup> of the bracket B, and the bar E swung until its face e<sup>2</sup> rests against said plate D, as shown in Fig. 1. The device now forms a truss, of which the web B<sup>3</sup> on one side, and projection C' and bar E on the other side, are the braces, and will prevent the opening of the shutters from the outside by any force less than that which would be sufficient to crush the device.

To bow the shutters, the bar E is thrown back, and the lug D' caused to enter the slotted opening b<sup>2</sup> until one of its adjusting-holes, d<sup>1</sup>, comes beneath the tooth b<sup>3</sup> of the dog b. The tooth is now caused to enter the opening d<sup>1</sup>, and the shutters, having been bowed, will be securely held in that position.

To lock the shutters when bowed, a spring, F, pressing upon the latch or dog b, may be employed, said spring and latch being concealed beneath a cover or casing, G. To raise the latch; an eccentric, H, turning on a shaft, h, having a projecting squared end, h', to fit the angular recess or socket of a key, I, may be employed; or any equivalent locking device may be substituted for the spring, eccentric, and key.

A slight modification of the construction just described is shown in Fig. 3, wherein the plate D is formed with two lugs, d<sup>2</sup> d<sup>3</sup>, for holding the shutters bowed in different positions. Said plate is also provided with a hook, d<sup>4</sup>, which engages with a flange, e<sup>3</sup>, on the bar E, when the latter is turned back, holding said bar securely, and preventing it from swinging around inconveniently when the shutter A' is moved.

A still further modification of the shutter-fastener is shown in Figs. 5 and 6, wherein K and L are two brackets composed, respectively, of sides k k<sup>1</sup> l l<sup>1</sup> and braces k<sup>2</sup> l<sup>2</sup>. The bracket L is rigidly secured to the shutter A by screws l<sup>3</sup>, while the bracket K is pivoted at k<sup>3</sup>, so as to be permitted to swing from a horizontal to an inclined position in a segmental keeper, M, composed of two plates or bars, m m<sup>1</sup>, having a slot, m<sup>2</sup>, for the passage of the side k. When

the shutters are closed and the bracket K turned down, the fastening is made, the device then forming a truss, as in the other figures.

To release the fastening, the bracket K is turned up in the keeper M.

When the device is constructed as shown in Figs. 1, 2, and 3, the shutters should be opened, after being fully closed, by throwing back the bar E and plate D, and then pushing out the shutter to which they are secured until the lug D' has fully cleared the side B<sup>1</sup> of the bracket B. The other shutter then may be fully swung open.

The modification shown in Figs. 5 and 6 may be used as a bower by notching the sides k and l, as shown at k<sup>1</sup> l<sup>1</sup>, and causing them to engage when the shutters are bowed in the manner shown in Fig. 6.

What I claim as my invention is—

1. A shutter - fastener consisting of two brackets which are brought together when the shutters to which they are applied are closed, and form a truss, one of said brackets being provided with a hinged or yielding side, substantially as shown and described.

2. The bracket B, having sides B<sup>1</sup> B<sup>2</sup>, and slot or opening b<sup>2</sup>, substantially as shown and described.

3. The L-shaped bracket B, having slotted side B<sup>2</sup>, and latch or dog b, substantially as shown and described.

4. The plate C, having brace or projection C', in combination with hinged plate D, substantially as shown described.

5. In combination with the plate C, having brace C' and hinged plate D, the pivoted bar E, substantially as shown and described.

6. In combination with slotted bracket B, having dog b, the plate D, hinged to the plate C, and having a lug, D', or lugs d<sup>2</sup> d<sup>3</sup>, substantially as shown and described.

7. The combination, with a shutter-bower provided with the dog b, of a lock, comprising a spring bolt or catch, with which said dog engages to lock the shutters in a bowed position, substantially as described and shown.

8. In combination with swinging bar E, having flange e, the plate D, having hook d<sup>4</sup>, for the purposes shown and described.

In testimony that I claim the foregoing I have hereunto set my hand this 25th day of August, 1877.

JOHN M. CRAWFORD.

Witnesses:

M. DANL. CONNOLLY,  
CHAS. F. VAN HORN.