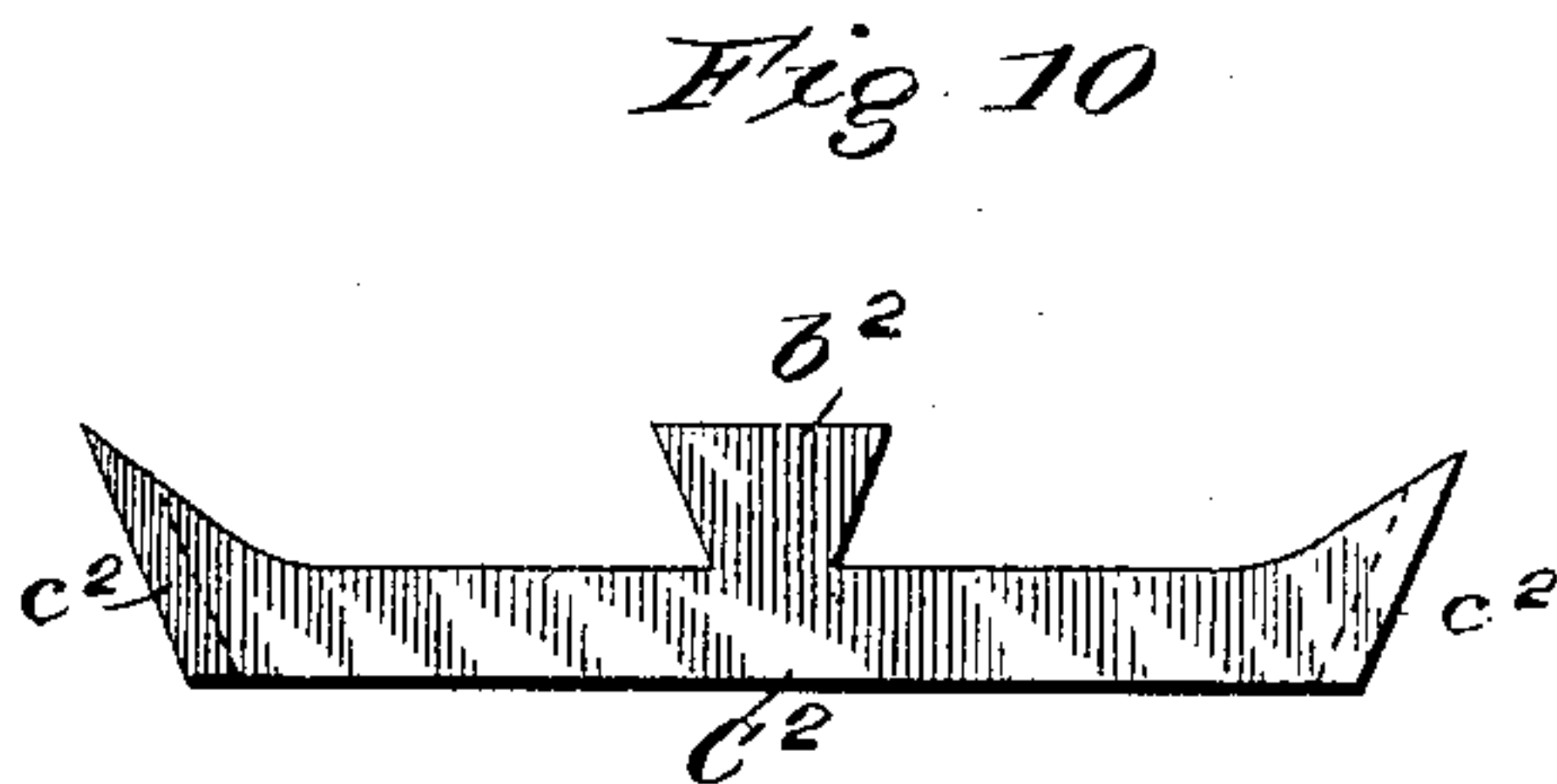
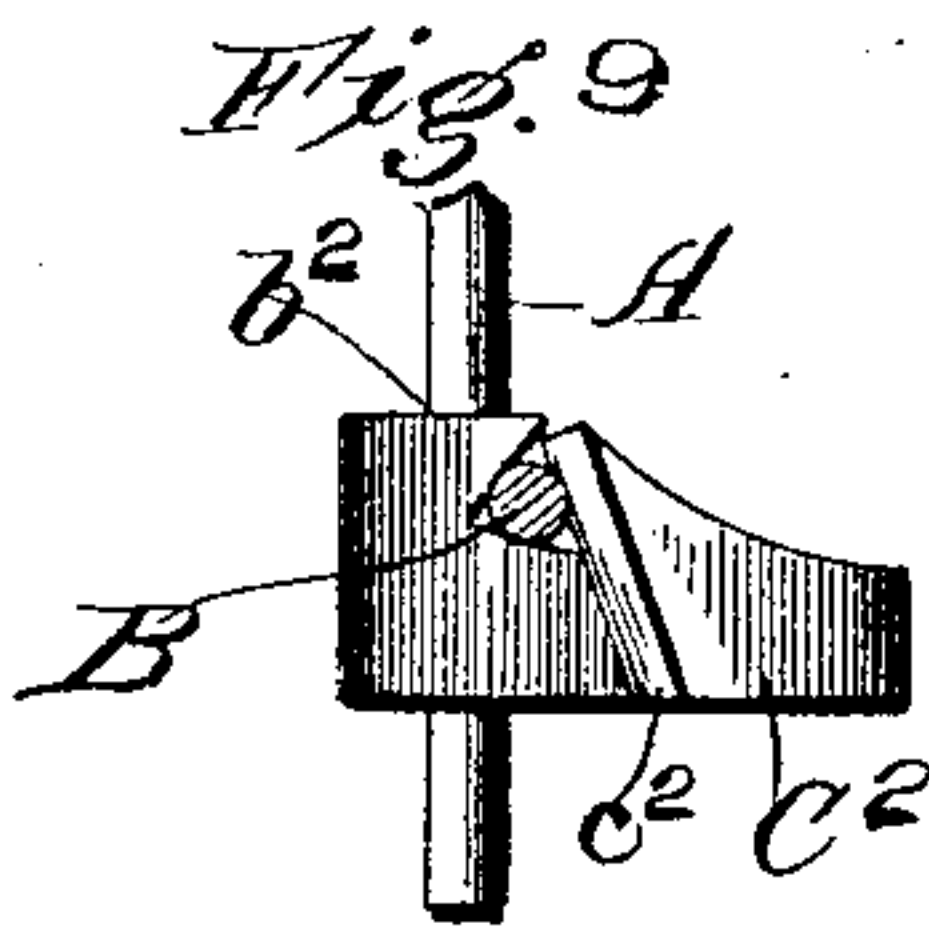
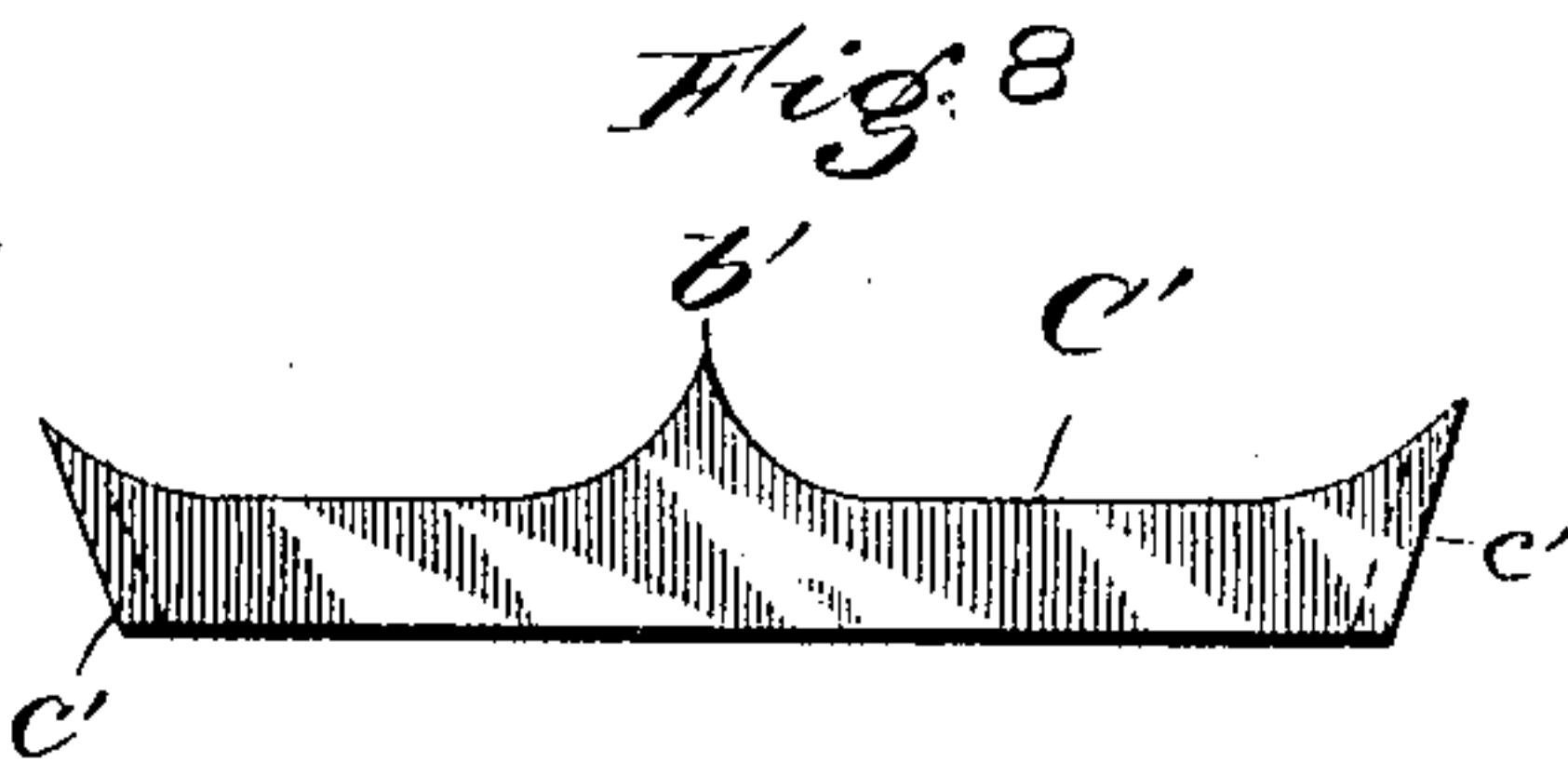
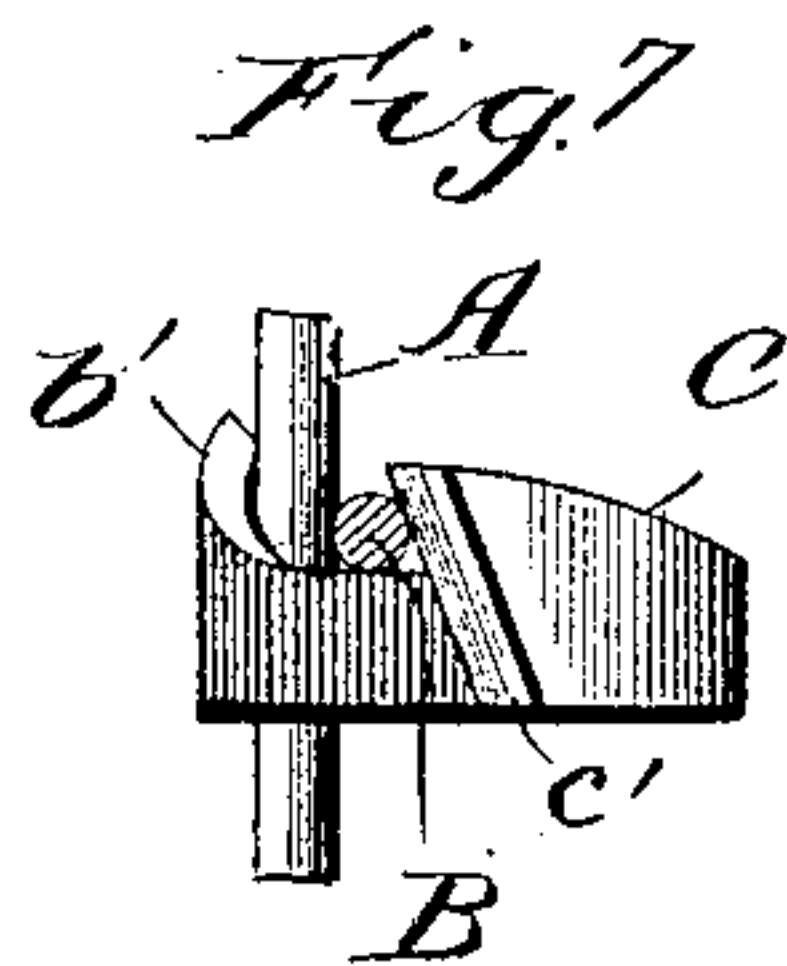
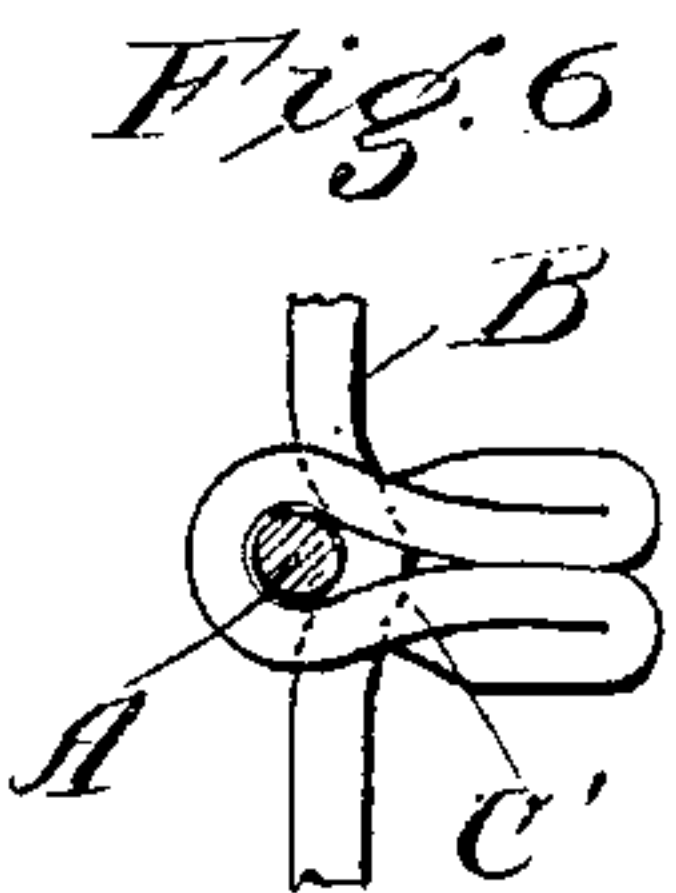
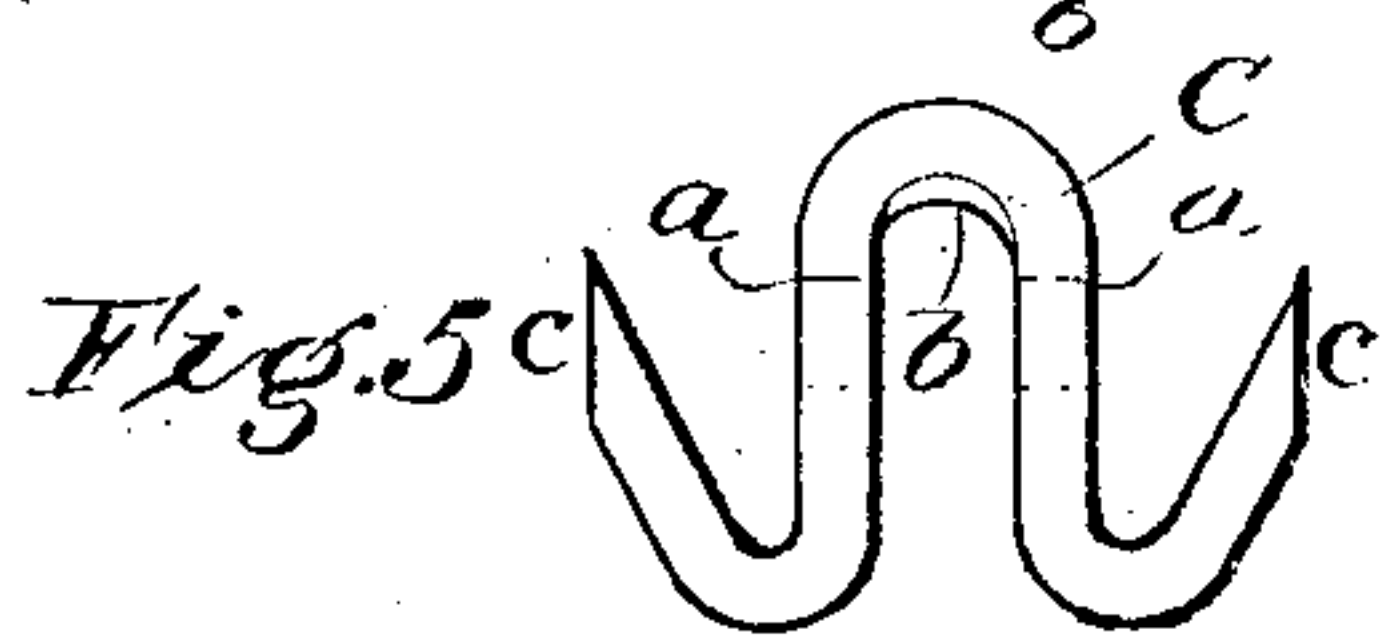
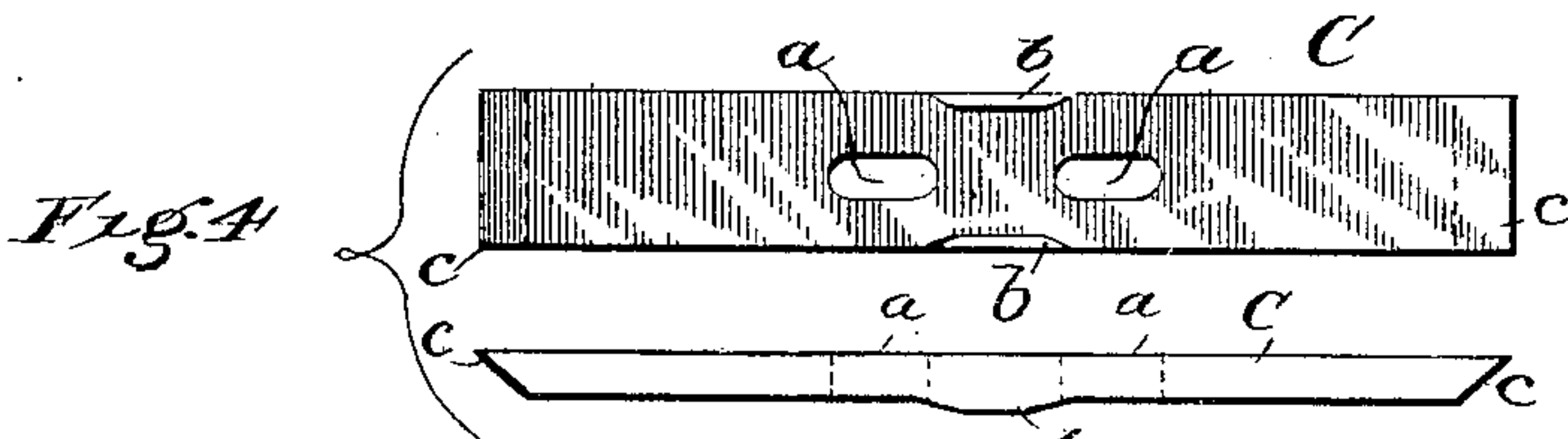
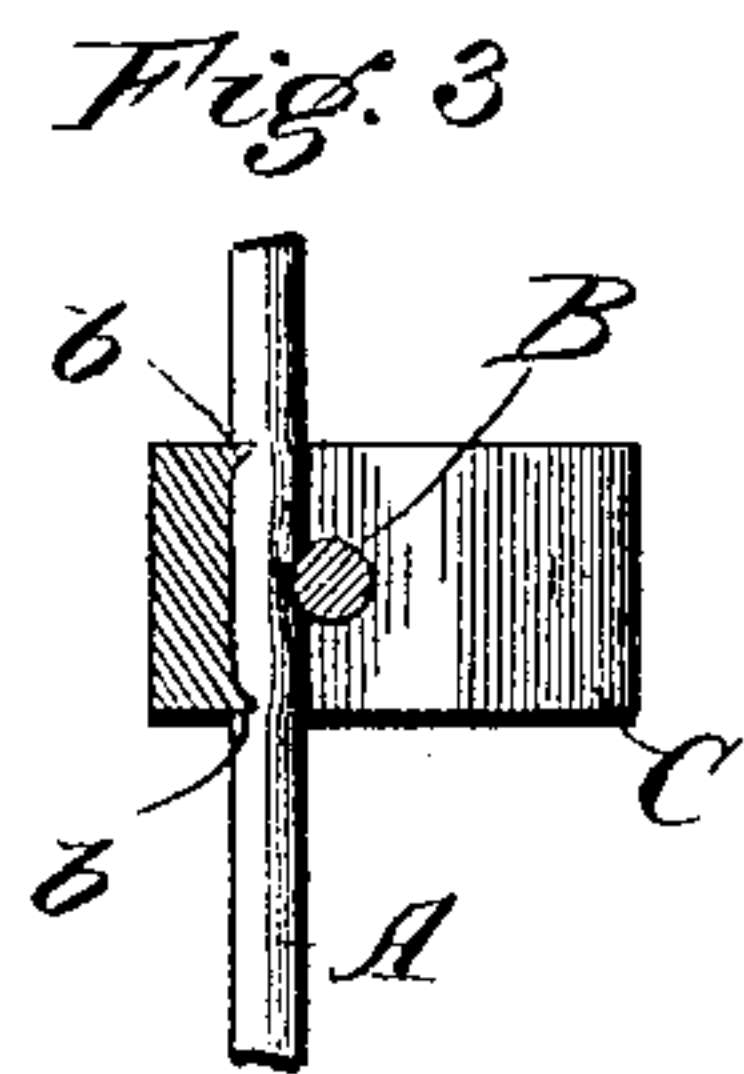
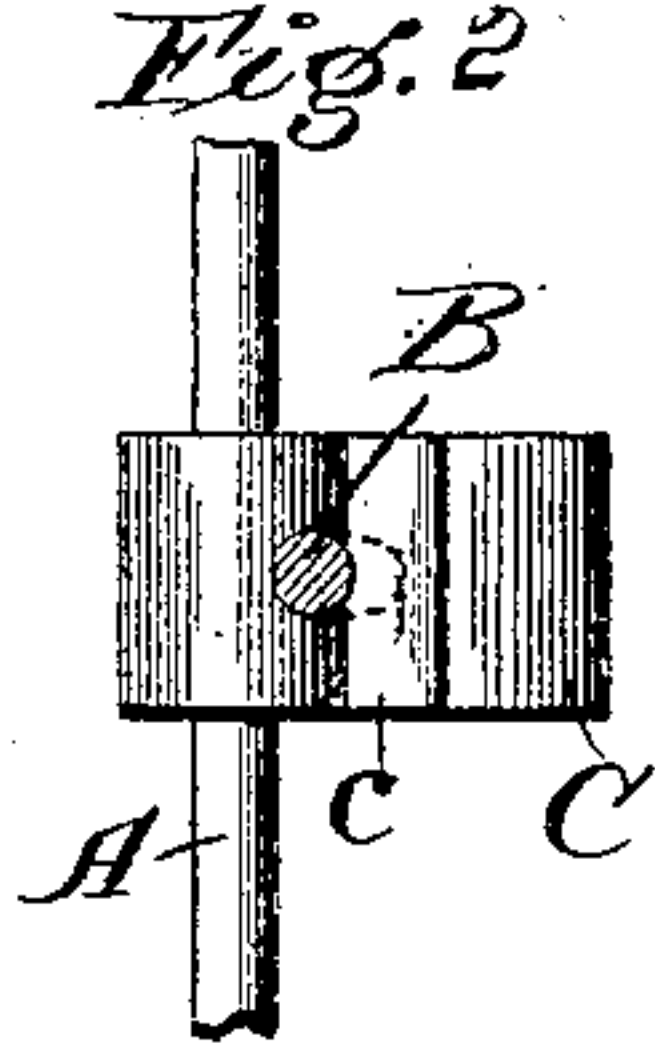
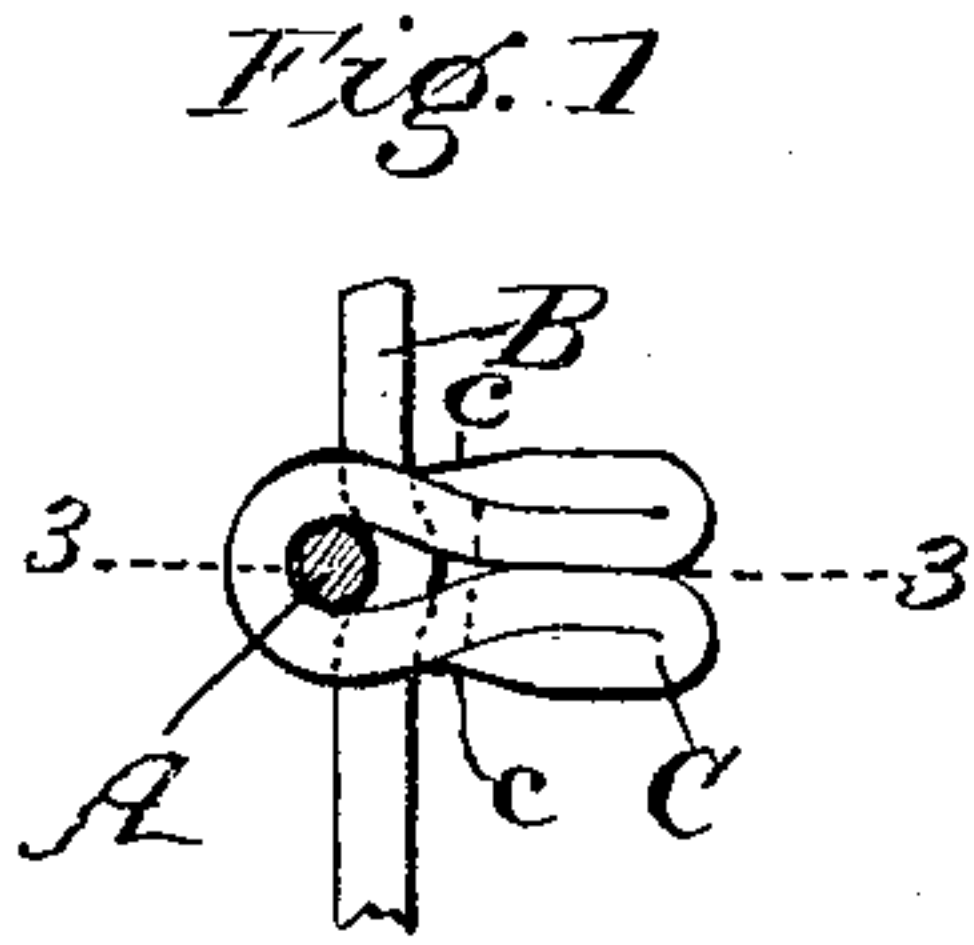


No. 803,408.

PATENTED OCT. 31, 1905.

J. W. DRUMMOND.  
WIRE FENCE LOCK.

APPLICATION FILED AUG. 24, 1905.



WITNESSES:  
*C. E. Huffer*  
*Edw. W. Byrnes*

INVENTOR  
JOSEPH W. DRUMMOND  
BY *Munn & Co.*  
ATTORNEYS

# UNITED STATES PATENT OFFICE

JOSEPH WALTER DRUMMOND, OF CHILLICOTHE, OHIO.

## WIRE-FENCE LOCK.

No. 803,408.

Specification of Letters Patent.

Patented Oct. 31, 1905.

Application filed August 24, 1905. Serial No. 275,552.

*To all whom it may concern:*

Be it known that I, JOSEPH WALTER DRUMMOND, a citizen of the United States, residing at Chillicothe, in the county of Ross and State of Ohio, have invented a new and useful Improvement in Wire-Fence Locks, of which the following is a specification.

The object of my invention is to provide a simple, cheap, and easily-applied lock for connecting the horizontal strands of a wire fence to the vertical cross members or stays in such a manner that the lock will be a strong and rigid connection of the two members and will not slip on either of them.

My invention consists in the novel construction of the lock hereinafter described with reference to the drawings, in which—

Figure 1 is a side view of the lock applied to and connecting the horizontal strand with a vertical cross-wire. Fig. 2 is a top plan view. Fig. 3 is a horizontal section taken on the line 3 3 of Fig. 1. Fig. 4 shows a top plan and edge view of the lock-blank before being bent into shape. Fig. 5 is a side view of the same after being bent into the shape in which it is placed on the market ready for application. Figs. 6 and 7 are side and top views of a modification of my invention. Fig. 8 is a plan view of the blank from which the lock shown in Figs. 6 and 7 is bent. Fig. 9 is a plan view of a further modification, and Fig. 10 is a plan view of the blank from which it is bent.

Referring to Figs. 1 to 5, A is a horizontal strand of fence-wire, B is the vertical cross-wire, and C is my improved lock.

The lock is formed of a single piece of metal about one-sixteenth of an inch thick, which is forged or cut out of a flat sheet in the shape shown in Fig. 4 and is then bent into the shape shown in Fig. 5, which is ready to be applied to the fence and is so shown applied in Figs. 1, 2, 3.

The blank from which the lock is bent is formed with two oblong holes *a a* near the middle and with two sharp flanges or fins *b b* on opposite edges and at a point between the holes *a a* and the ends of the blank are formed as sharp chisel-shaped edges *c c*. In bending this blank to shape it is first bent in the middle with the sharp fins *b b* on the inside of the bend, and then its ends are bent outwardly with an equal return or reverse bend, as seen in Fig. 5.

In applying the lock to the wires the hori-

zontal wire A is received in the middle bend and the vertical wire B is received through the oblong holes *a a* in a position at right angles to the horizontal wire and resting against it. The horizontal wire finds a bearing against the sharp fins *b b*, as seen in Fig. 3, and when the lock is closed and the wire B forced up to position the horizontal wire is slightly crimped between the fins *b b*, and the edges of the latter are buried in the wire, so that the lock cannot slip lengthwise on the horizontal strand.

For tightening up the lock from the shape shown in Fig. 5 to that shown in Fig. 1 a tool in the form of a pair of powerful pincers is employed whose jaws find a bearing against the upper and lower beveled edges *c c* and by the power of which the ends of the lock are swaged together, causing the sharp edges *c* of the ends to bury into the vertical wire and also kink the same around the horizontal strand, so that the lock cannot slide on the vertical wire. When the ends of the lock are thus swaged together, the lock assumes a four-ply thickness of a W shape with the folds braced against and resting solidly against each other, as seen in Fig. 1, which gives great rigidity and strength and prevents any springing open of the lock.

In the form of the device thus described the vertical wire must be passed endwise through the holes *a a* of the lock. In Figs. 6 to 10 I show modifications in which the lock can be applied laterally to both the horizontal and vertical wires, as in repairing an old fence.

In Figs. 6, 7, and 8 the blank has no perforations corresponding to *a a* of Fig. 4; but instead it has on one side a laterally-projecting point *b'* in the middle, and its chisel-shaped ends are widened and extended obliquely on the same side with the middle projection *b'*. This blank is bent in the middle and has its ends reversely bent just as in the other case; but it is applied laterally to both the wires at once and is then swaged into a four-ply thickness the folds of which are braced against each other, as seen in Fig. 6, in the same manner and with the same effect as in Fig. 1. In this modification (see Fig. 7) the inclined shape of the chisel edge *c'* prevents the vertical wire from slipping out sidewise, while the inturned toe or middle projection *b'* prevents the lock from slipping on the horizontal wire.

In Figs. 9 and 10 a construction very simi-



lar to that shown in Figs. 6, 7, and 8 is employed. This is to be applied in like manner to both the horizontal and vertical wire by a lateral movement; but the central projection  
5  $b^2$  is made as a dovetail projection instead of a point, as shown in Fig. 8. When this form of lock is bent and applied, the dovetail projection  $b^2$  forms hooks that constitute receiving-seats for the vertical wire B, which more  
10 effectually imprison and retain it when the inclined chisel edges  $c^2$  are swaged against it.

I am aware that a loop-shaped clip having metal spring-tongues stamped out of its ends and bearing endwise against one of the wires  
15 has heretofore been devised, and I make no claim to this.

My invention is distinctive in the fact that my lock is formed by a four-ply bend with the bent ends braced against and mutually  
20 sustaining each other, and the bending is across the full width of the material, which preserves an unimpaired strength of material for the lock.

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

1. A wire-fence lock, consisting of a strip of metal having its entire body bent in the middle to form a loop for one wire and its  
30 ends bent outwardly and back with a reverse bend terminating in chisel-shaped ends, adapted to engage the other wire and forming a four-ply lock whose folds are adapted to be

swaged against and to mutually brace each other.

2. A wire-fence lock consisting of a strip of metal having its entire body portion bent into a W shape and terminating in chisel-shaped ends and having seats for two cross-wires.

3. A wire-fence lock consisting of a strip of metal having near its middle two oblong holes and having its entire body bent between the holes first into a loop-shaped seat and its ends then bent outwardly and back with a  
45 reversed bend terminating in chisel-shaped ends.

4. A wire-fence lock, consisting of a strip of metal bent in the middle to form a seat for one wire and having sharp fins on the inner  
50 surface of said bend to engage the wire and having also a seat for a cross-wire and inwardly-bent ends to pinch and hold the cross-wire.

5. A wire-fence lock, consisting of the combination of two cross-wires, and a metal strip having seats for the two cross-wires and having its entire body bent in the middle and its ends bent outwardly and back in reverse  
60 direction forming a four-ply lock with its folds in contact with each other and mutually bracing each other as described.

JOSEPH WALTER DRUMMOND.

Witnesses:

WM. BROWN,  
C. E. STEWART.