

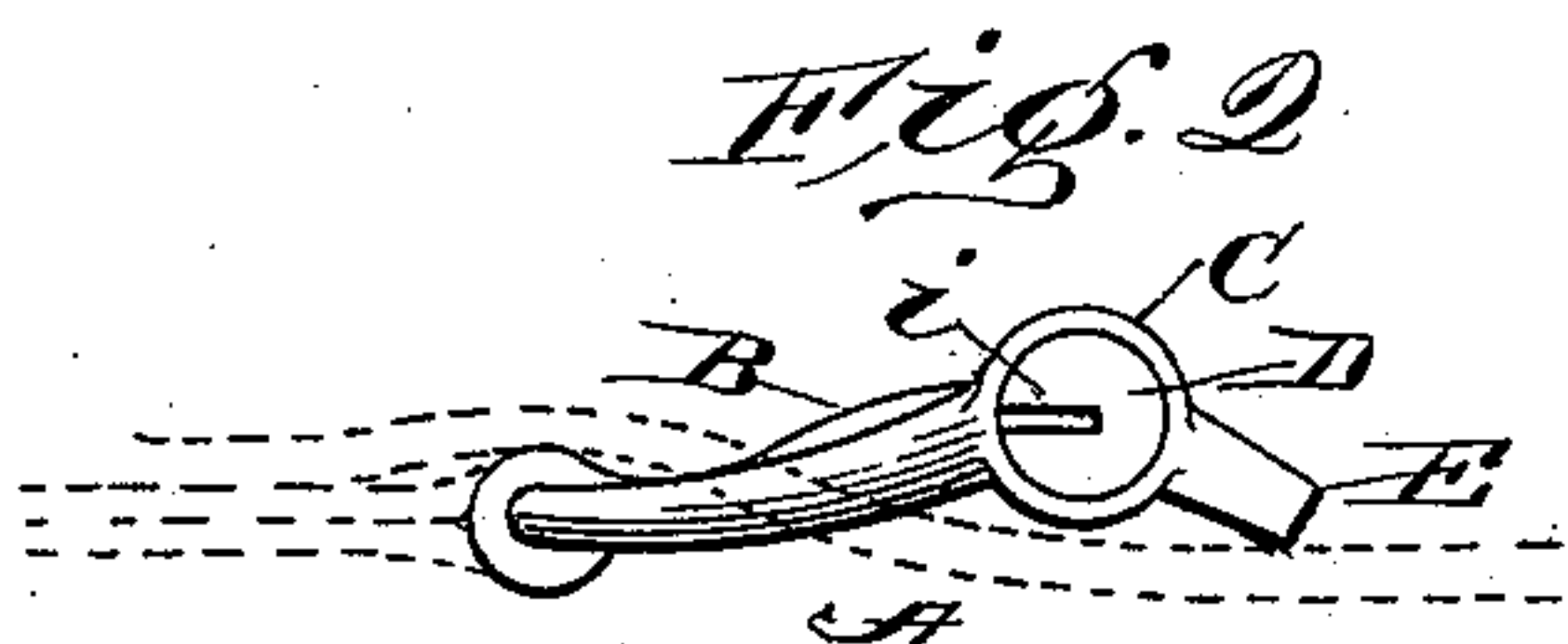
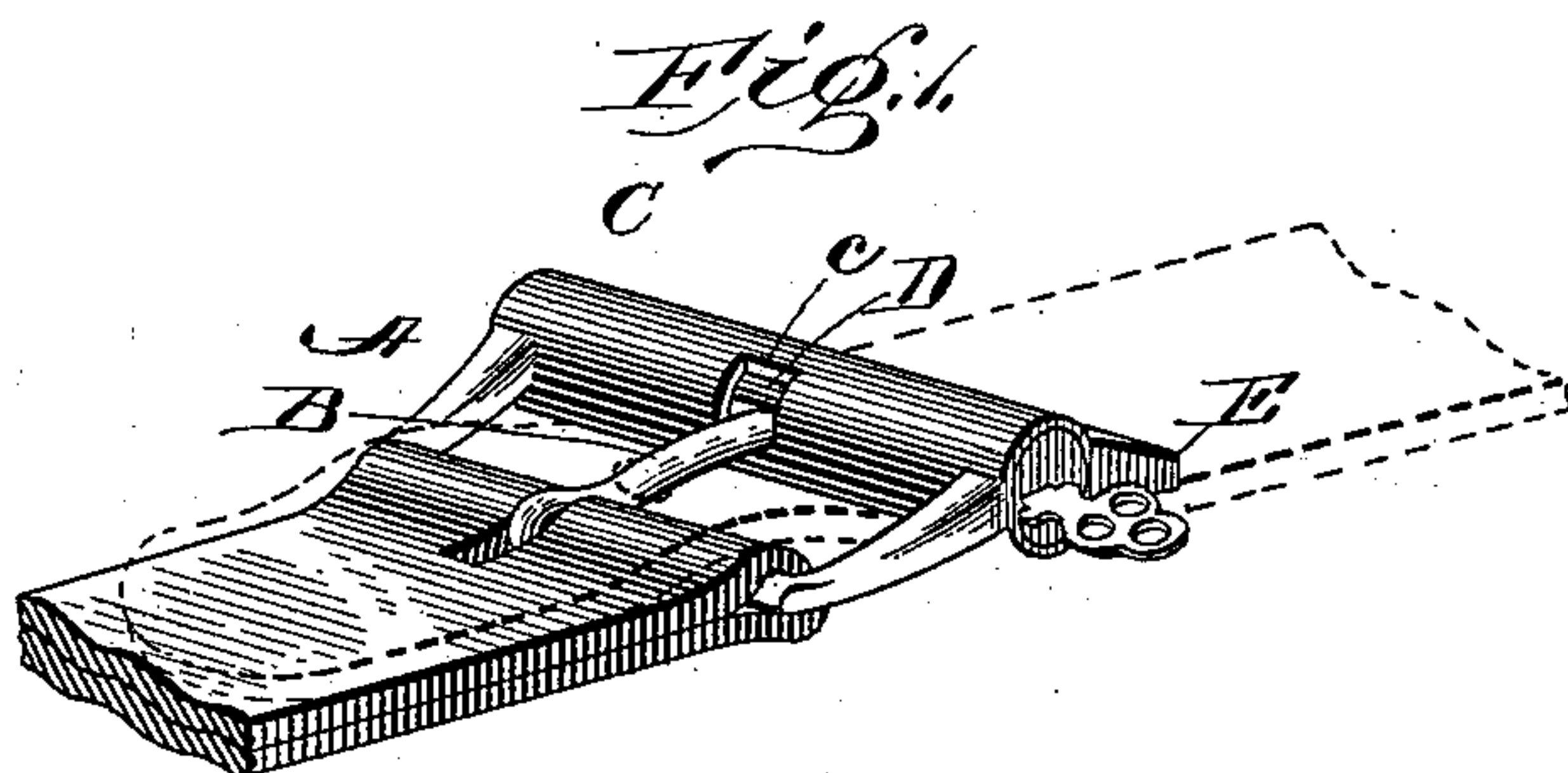
No. 613,884.

Patented Nov. 8, 1898.

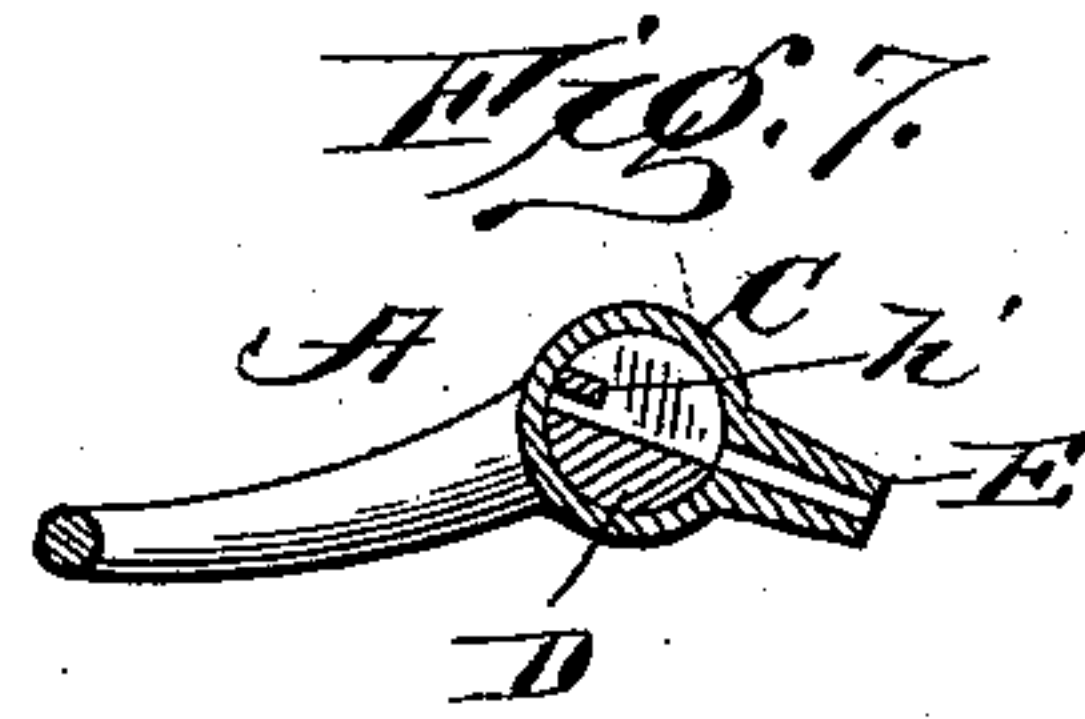
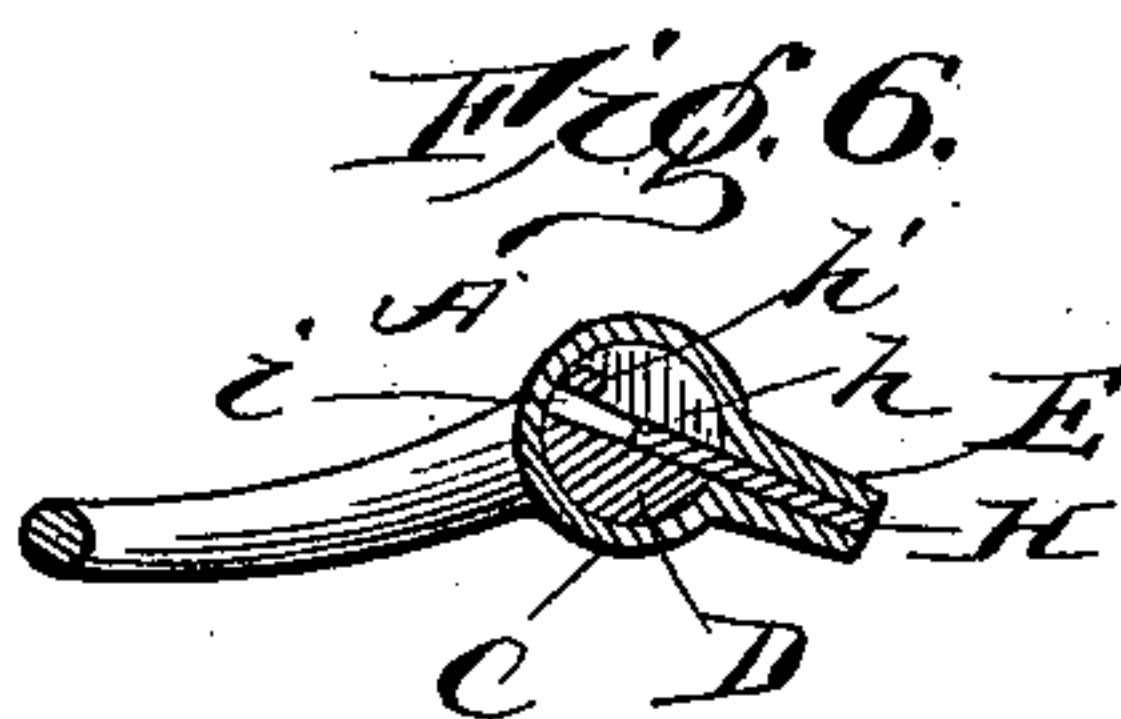
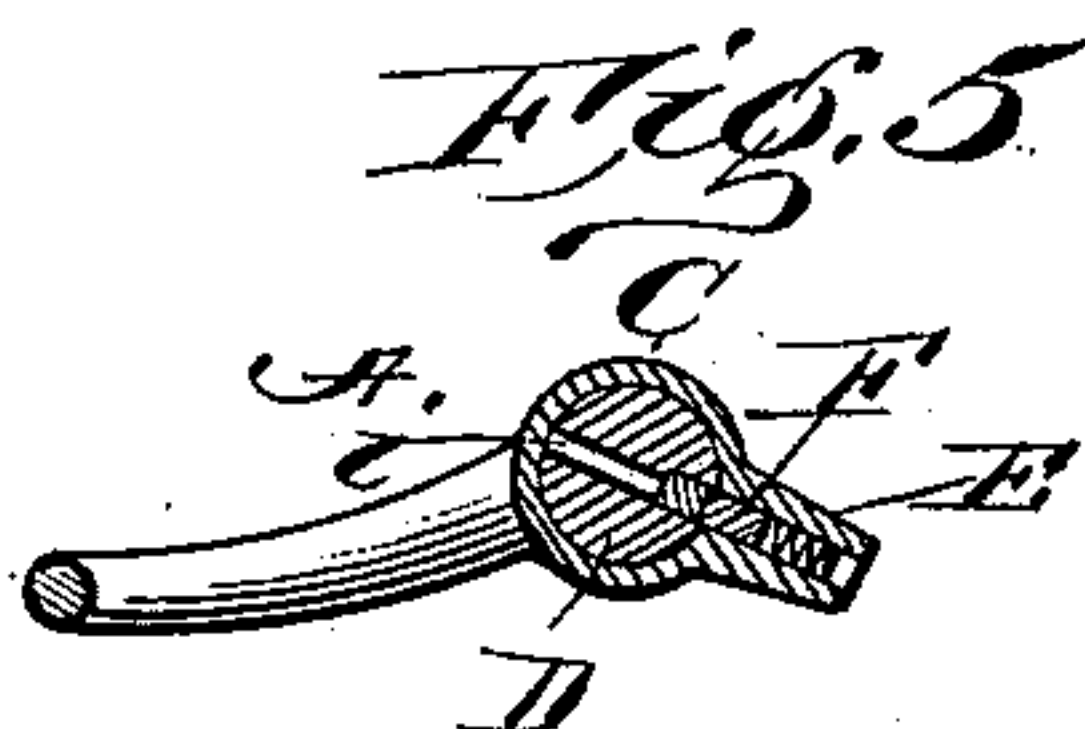
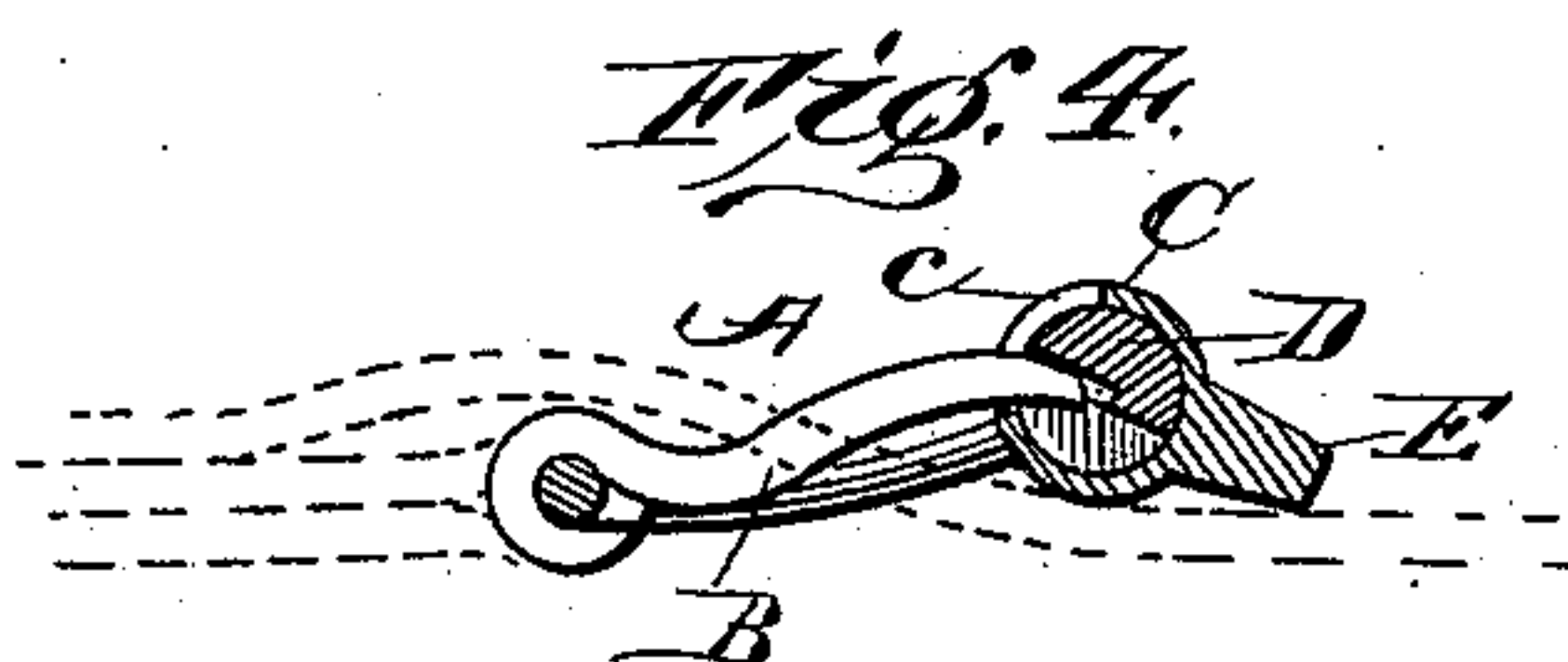
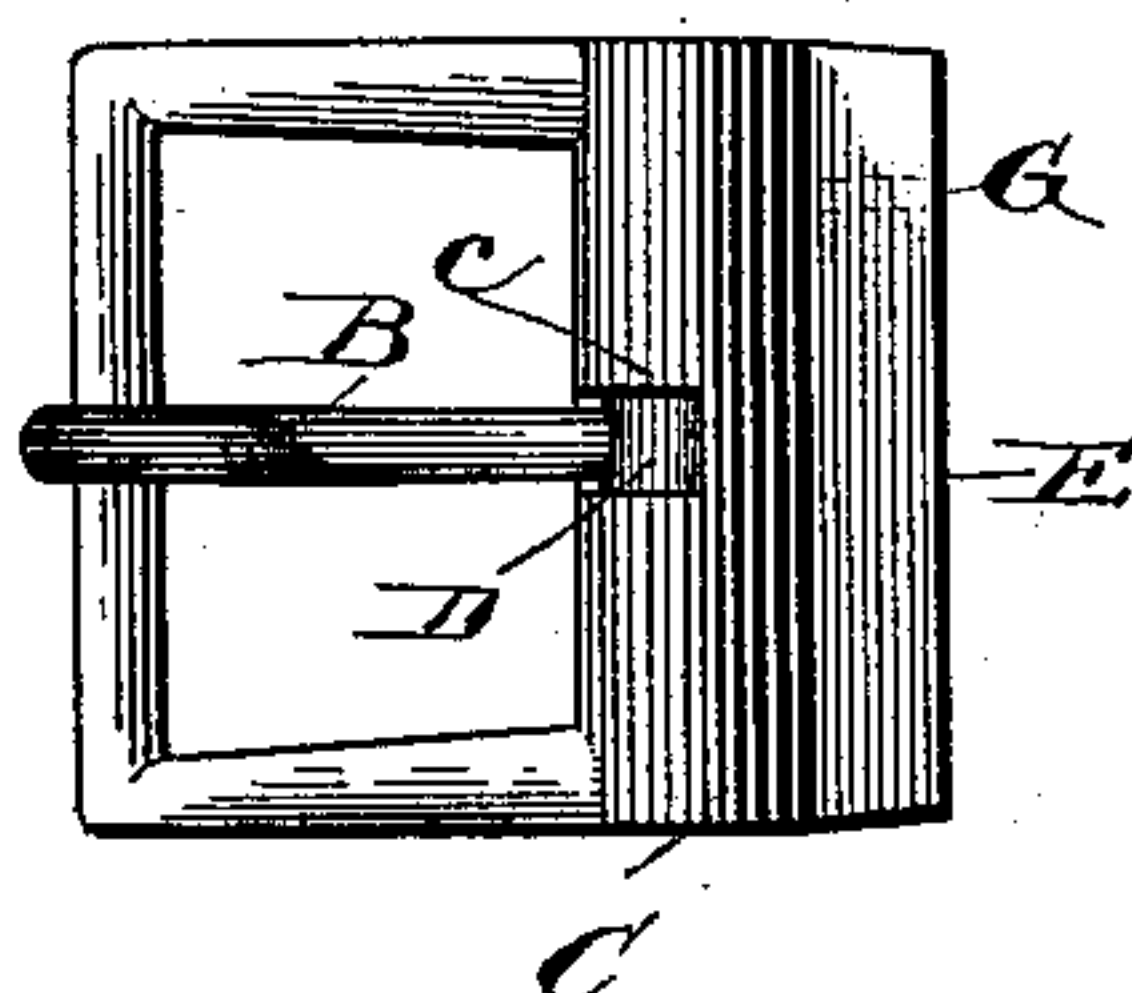
M. W. LYNCH.  
LOCK BUCKLE.

(Application filed Oct. 29, 1897.)

(No Model.)



*Fig. 3.*



Witnesses:

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Thomas Durant

Inventor:  
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by *Charles H. Lynch*  
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# UNITED STATES PATENT OFFICE.

MATTHEW W. LYNCH, OF MADISON, WISCONSIN.

## LOCK-BUCKLE.

SPECIFICATION forming part of Letters Patent No. 613,884, dated November 8, 1898.

Application filed October 29, 1897. Serial No. 656,769. (No model.)

*To all whom it may concern:*

Be it known that I, MATTHEW W. LYNCH, a citizen of the United States, residing at Madison, in the county of Dane and State of Wisconsin, have invented certain new and useful Improvements in Lock-Buckles; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to the letters of reference marked thereon.

This invention relates to improvements in buckles such as are designed to have the tongue locked in its closed position to retain the strap or other flexible connector against being accidentally or intentionally undone without the tongue having been previously released; and the invention consists in certain novel details of construction and combinations and arrangements of parts, all as will be now described, and pointed out particularly in the appended claims.

Referring to the accompanying drawings, Figure 1 is a perspective view of a buckle embodying my present improvements, the strap being shown partly in dotted lines and partly in full lines. Fig. 2 is a side elevation, and Fig. 3 a plan view, of the buckle alone. Fig. 4 is a central section taken longitudinally through the tongue. Fig. 5 is a transverse section taken through the cylinder and one of the locking-pins. Fig. 6 is a similar section taken through the retaining-pin. Fig. 7 is a view similar to Fig. 6, showing the manner of holding the bolt while the locking-pin holes are being drilled in the cylinder and bolt.

Like letters of reference in the several figures indicate the same parts.

The buckle-frame, cylinder for the bolt, and projection or enlargement for the locking-pins are preferably formed in one integral piece or casting, and the part which I have called the "buckle-frame" and lettered A in the accompanying drawings may be of any preferred or suitable configuration adapted for the passage and connection of the ends of the strap or other flexible connector which the buckle is designed to unite and also to serve as the pivot for the tongue B, which is mounted thereon in the usual manner and adapted to turn down in a slot or opening c in the cylin-

der C. This cylinder C forms the top of the buckle-frame, and in addition it has mounted within it a rotary bolt D, provided at its central portion with a transverse slot or cut-away portion, as shown in Fig. 4, for the reception of the end of the tongue and whereby when the bolt is turned to the position indicated in said Fig. 4 it will overlies the end of the tongue and if held in this position will lock the tongue against outward movement, as will be readily understood. The bolt is adapted to be held against turning by a series of pins, which are normally held so as to bridge the joint between the bolt and cylinder and to be retracted by the key entering a longitudinal slot in the bolt after the manner of the well-known pin tumbler-locks.

In order that any desired number of lock-pins may be employed, I provide the cylinder on the side approximately opposite the buckle-frame with a projection E, through which the locking-pins F may be inserted, as shown in Fig. 5, and this projection, it will be observed, is set at such an angle with relation to the buckle-frame that when the strap is passed through the buckle-frame the projection will lie down close to the surface of the strap, presenting a neat appearance, and, what is of greater importance, preventing all possibility of being caught by or striking against neighboring objects, as might be the case if the projection extended outwardly from the cylinder in any other direction.

The cylinder C is for the sake of convenience in manufacture made open from end to end, and in assembling the parts a blank-bolt is placed within the cylinder and an aperture drilled through the projection E down into the bolt at approximately the point indicated by the letter G in Fig. 3 and as clearly shown in Fig. 7, and into the aperture so formed a pin H, Fig. 6, is inserted to lock the bolt and cylinder firmly in their proper positions. This having been accomplished, the holes for the locking-pins, four (more or less) in number, are drilled, when the pin H is withdrawn, the blank-bolt is removed, and the slot for the reception of the key is formed. In addition to the slot for the reception of the key the transverse recess for the end of the tongue is formed centrally in the bolt, preferably so as to intersect the key-slot, and a second trans-



verse slot is formed in the plane of the aperture for the pin H, as shown at *h*, Fig. 6. This slot *h* will permit the bolt when inserted within the cylinder and held by the pin H to  
 5 rotate a quarter-turn, so as to release the tongue, but will hold the bolt against longitudinal movement. In the preferred construction the slot *h* does not extend entirely around the key-slot *i*, but a shoulder *h'* is  
 10 left to constitute an abutment for contacting with the pin H in arresting the rotation of the bolt when turned to release the tongue.

A lock-buckle such as herein described, it will be observed, is simple in its construction, easily and cheaply manufactured, and  
 15 its working parts are so protected as to prevent accidental injury or intentional opening without a proper key. The key itself may be made short and of convenient size to carry  
 20 in the pocket, and the number of combinations which can be made is almost unlimited. The buckle will lie flat with the strap when the strap is in place, as on a trunk or the like, and the parts are so protected as to re-  
 25 duce the danger of injury by rough handling or usage to the minimum. If desired, the buckle may be used as an ordinary buckle, the locking mechanism offering no obstruction.

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

1. In a lock-buckle, the combination with the buckle-frame, the cylinder connected  
 35 therewith, and the pin projection carried by the cylinder on the side opposite the buckle-

frame, of the tongue, the bolt slotted for the reception of the key, for securing the tongue in its closed position, and the locking-pins mounted in the pin projection and cooperating with the  
 40 bolt to hold it against rotation; substantially as described.

2. In a lock-buckle, the combination with the buckle-frame, the cylinder forming one side thereof and the pin projection carried  
 45 by the cylinder at an angle to the plane of the buckle-frame, of the tongue pivotally mounted on the buckle-frame and adapted to enter a slot in the cylinder, the slotted bolt in the cylinder cooperating with the tongue  
 50 to lock the same and the pins working in the pin projection and cooperating with the bolt to hold the same against rotation; substantially as described.

3. In a lock-buckle, the combination with  
 55 the buckle-frame, the cylinder forming one side of said frame, and the pin projection carried by said cylinder at an angle to the plane of the buckle-frame, of the tongue pivoted on the buckle-frame, the bolt having  
 60 longitudinal and transverse slots journaled in the cylinder, the fixed pin mounted in the pin projection and entering the transverse slot in the bolt to limit its rotation and prevent longitudinal movement and the lock-  
 65 ing-pins working in sockets in the pin projection and cooperating with the bolt to hold it against rotation; substantially as described.

MATTHEW W. LYNCH.

Witnesses:

WAYNE RAMSAY,  
 ARTHUR M. PARDEE.