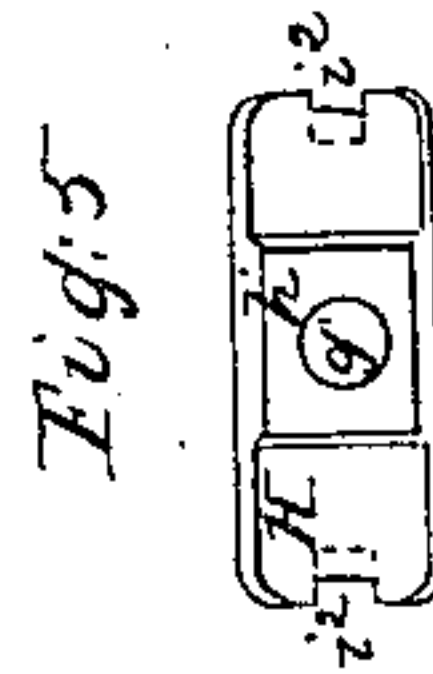
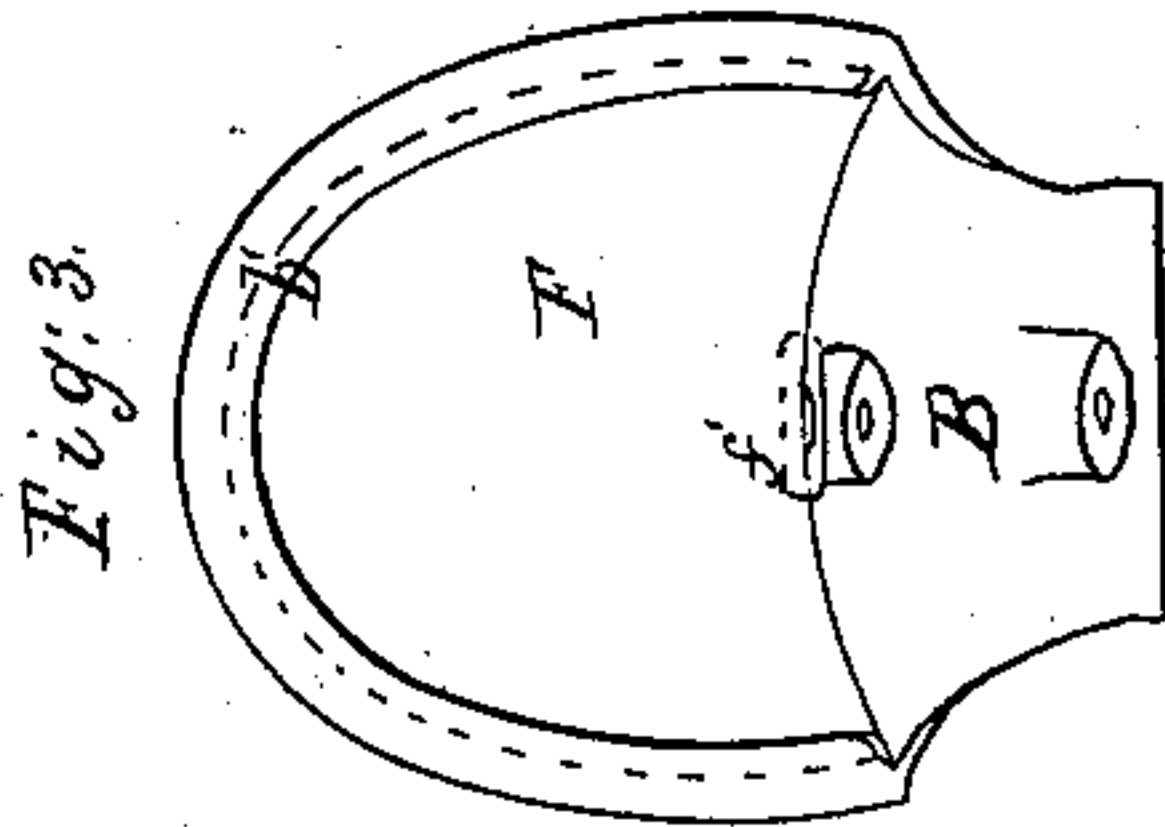
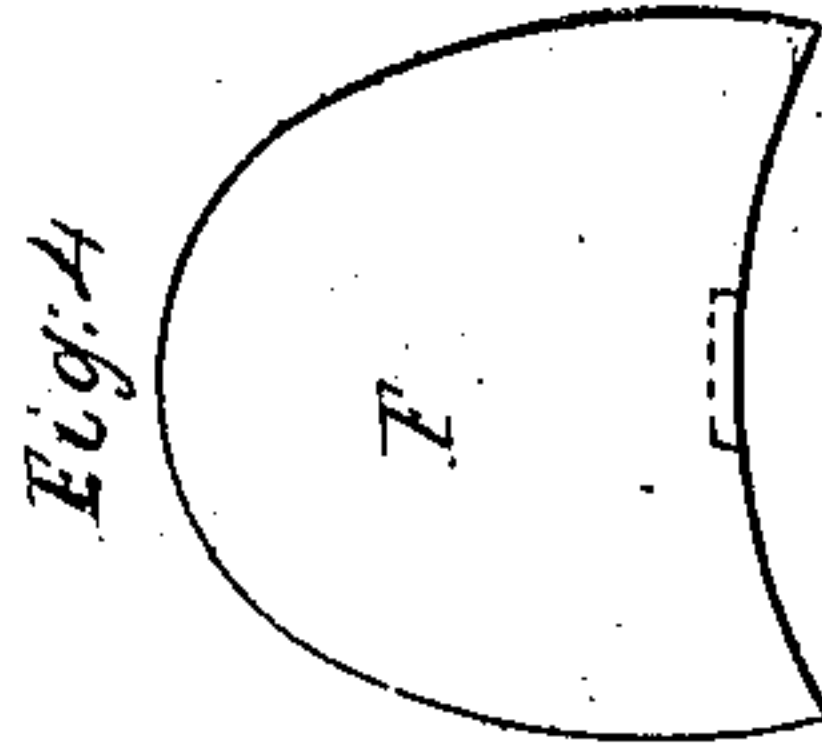
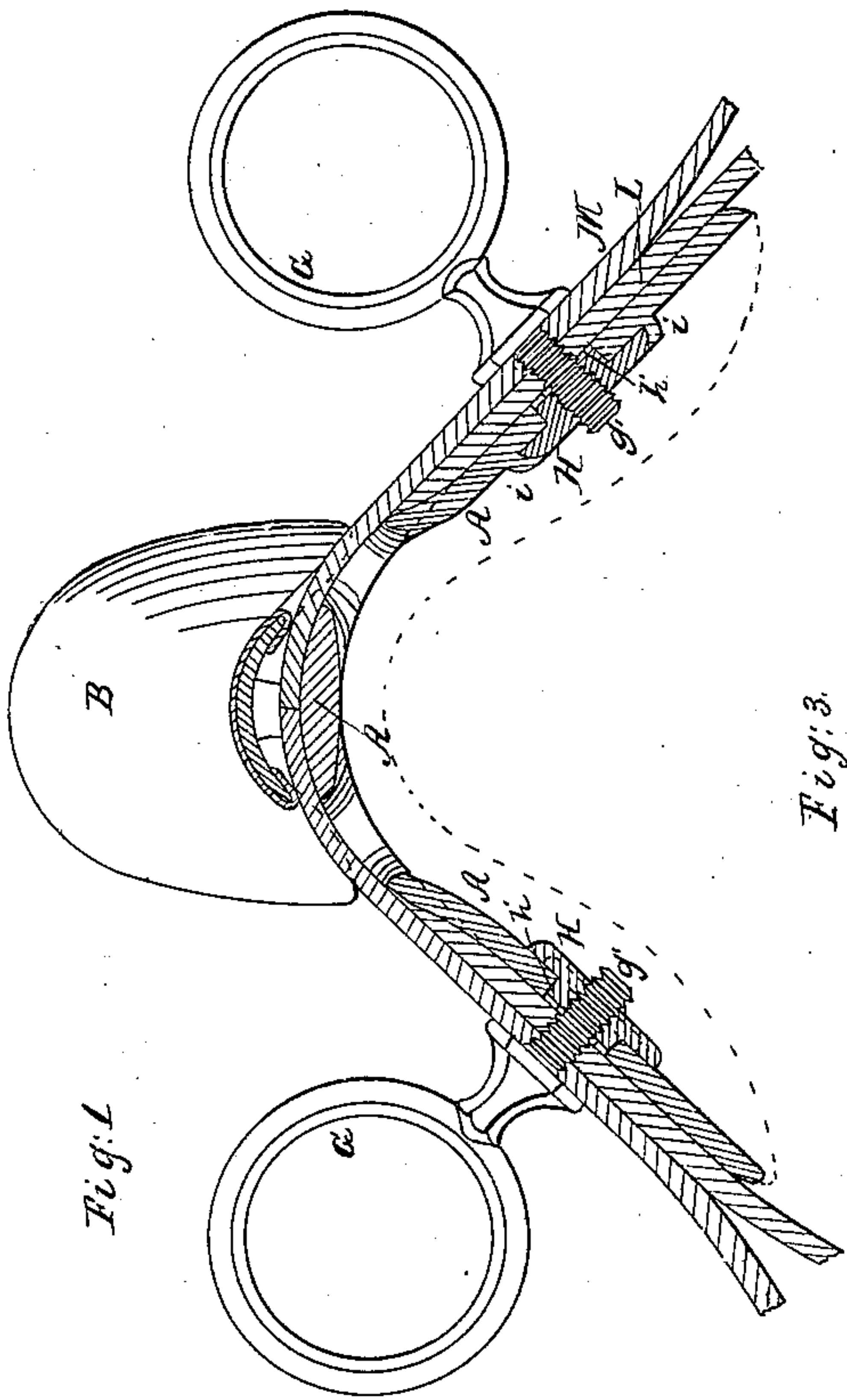
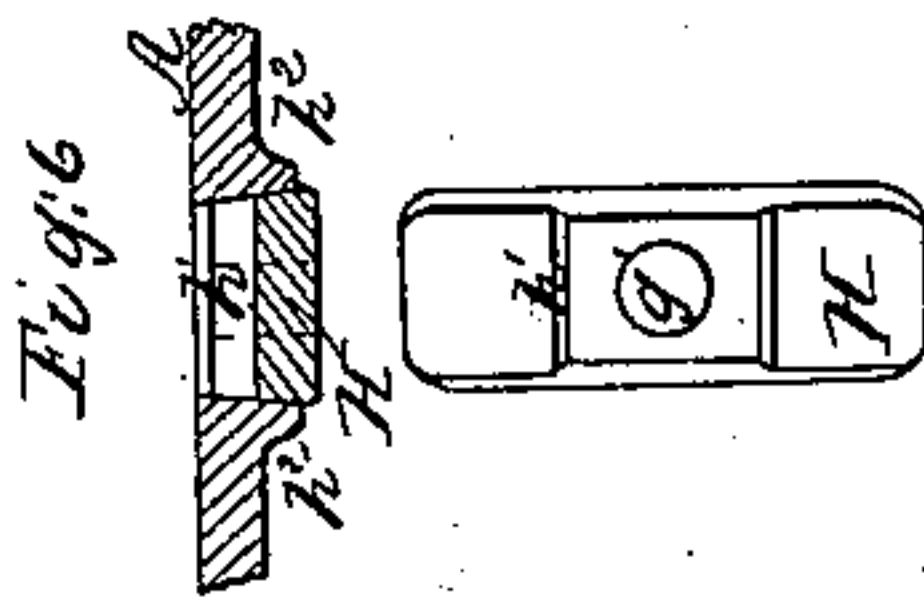
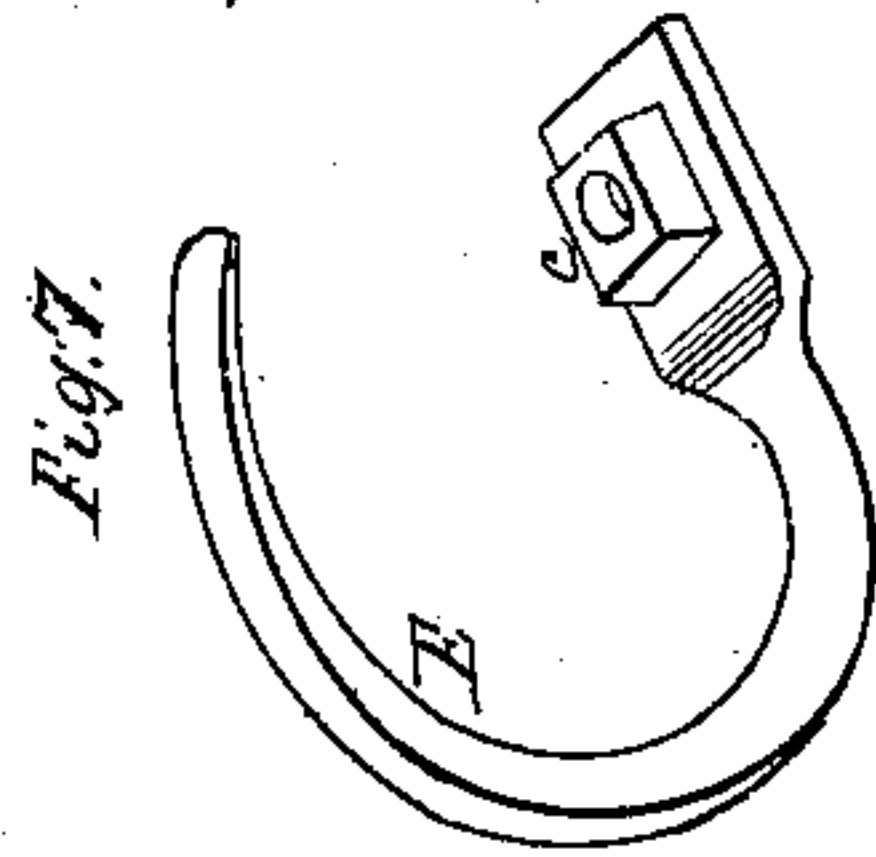
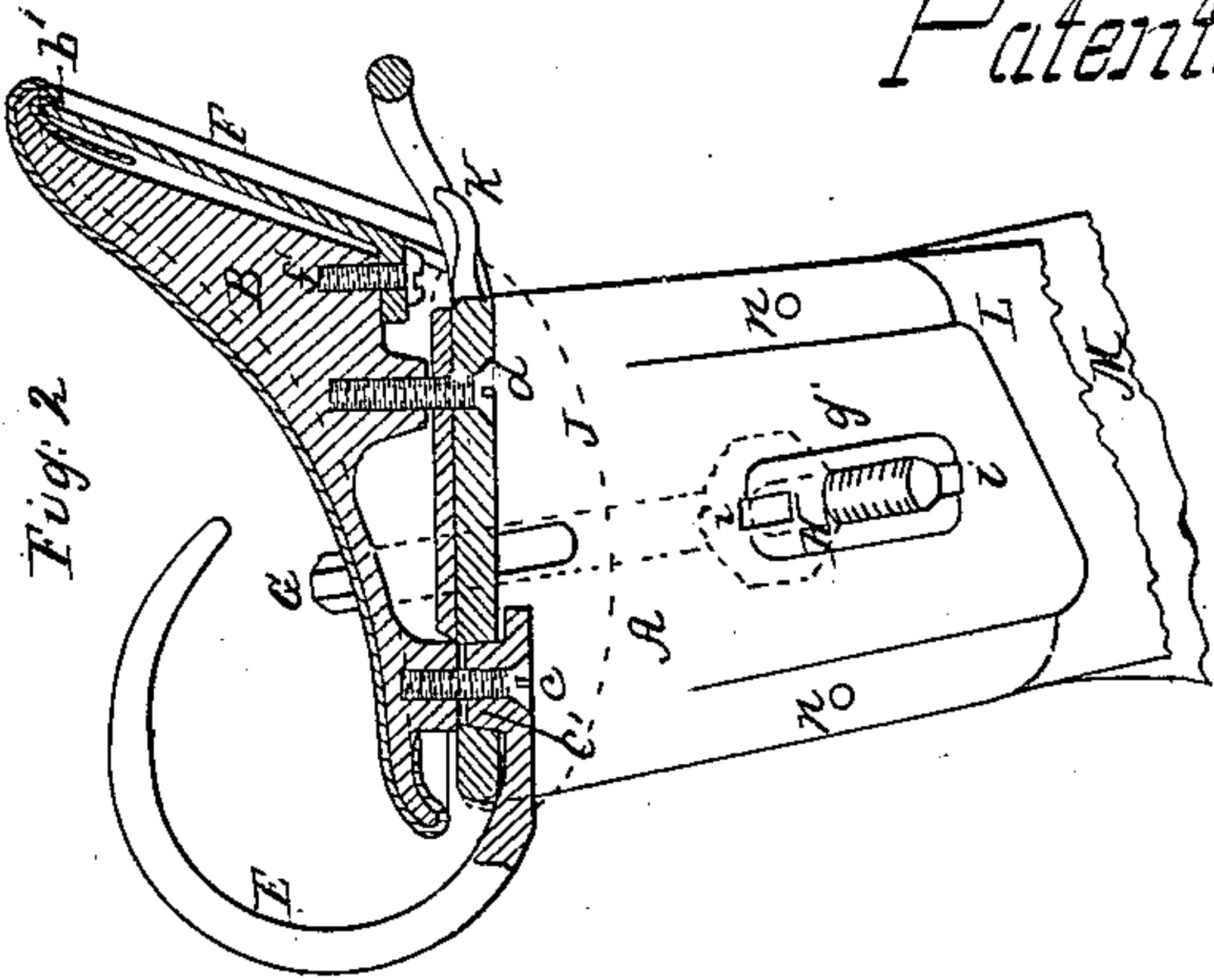


## *Harness, Saddle,*

*N<sup>o</sup> 53,578,*

*Patented Apr. 3, 1866.*



Witnesses.

G. H. Forbush  
F. A. Sanguinetti

Inventor

Edward A. Cooper



# UNITED STATES PATENT OFFICE.

EDWARD A. COOPER, OF LANCASTER, NEW YORK.

## IMPROVED GIG-TREE.

Specification forming part of Letters Patent No. 53,578, dated April 3, 1866.

*To all whom it may concern:*

Be it known that I, EDWARD A. COOPER, of Lancaster, Erie county, and State of New York, have invented certain new and useful Improvements in Gig-Trees for Harness; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification.

This invention consists, first, in securing the check-rein hook to the tree-plate, in addition to the binding-screw or bolt, by means of a square-raised shank fitting a mortise in the tree-plate, so that the strain on the screw is greatly relieved and the hook held securely against lateral movement; second, in securing the seat or saddle and check-hook to the tree-plate, by a single screw with its head on the under side of the tree-plate and its nut cut directly in the metal of the seat; third, forming a groove around the cantle of the seat to receive a sliding back plate which secures and holds the leather covering of the seat; fourth, making the terret-nuts with end lips in connection with side lips cast on the tree-plate, the one to resist the draw of the terret-screw, and the other to hold the nut against lateral movement or twist; fifth, as a modification of the preceding, making the terret-nuts with end lips having notches cut therein, in connection with teats cast on the tree-plate and bent over into the notches in the lips after the nuts are inserted in the tree-plate; sixth, securing the flaps of the tree-plate by means of rivets inserted on each side of the back-strap; seventh, fastening the back side of the tree-pad to the tree-plate by a tongue or hook cast on the tree-plate.

In the annexed drawings, Figure I is a front sectional elevation of my improved gig-tree, and Fig. II is a cross-sectional elevation of same. Fig. III is a rear elevation of the seat, showing the grooved cantle and sliding back plate, which back plate is also shown by itself in Fig. IV. Fig. V shows the terret-nut as made when used with end teats cast on the tree-plate. Fig. VI shows the same in connection with side lips on the tree-plate. Fig. VII is a perspective view of check-hook, showing the square raised shank.

Letters of like name and kind refer to like parts in each of the figures.

A represents the tree-plate, which is, in the main, of common form and construction.

B represents the seat or saddle surmounting the tree-plate and secured thereto by two screws, *c* and *d*, the screw *c* also holding the check-hook.

E represents the check-hook, having a square raised shank, *e'*, fitting a corresponding mortise in the tree-plate, and held therein by the binding-screw *c*, the nut of which is cut in the metal of the seat, as represented. This square shank receives the principal strain on the check-hooks and relieves the screw. It also holds the hook securely against lateral strain or twist. The binding-screw being passed through from the under side of the tree-plate and tapped directly into the metal of the seat, leaves the upper surface of the seat smooth and unbroken, which is not the case in other gig-trees where a bolt inserted from above with a separate nut below is used. My device is cheaper, as involving a less number of parts, and is more simple and efficient than the last-mentioned plan.

F represents the sliding back plate of the seat B, secured thereto by insertion in groove *b'* cut around the cantle of the seat, said plate being held in place by a screw, *f'*, drawing in the direction of its length, or nearly so. The object of this sliding plate is principally to secure the leather covering of the cantle by forcing the same into the groove *b'*, as represented.

G G represent the terrets, which are secured to the tree-plate by screw-shanks *g'* and nuts H. The tree-plate is countersunk or mortised to receive the nuts H, the nuts having end lips, *h'*, which prevent them from drawing through said mortises, and the tree-plate having side lips, *h<sup>2</sup>*, cast thereon, which prevent twisting or side movement of the nuts.

Instead of the side lips on the tree-plate to prevent the turning of the nut, end teats, *i*, may be cast thereon and notches *i<sup>2</sup>* cut in the nuts, (see Fig. V,) said teats being, after the insertion of the nuts in place, bent down into the notches, and thereby holding the nuts securely.

The pad represented by the dotted lines J is applied to the tree and secured to the hook at its forward side in a common manner. To secure the back side of the pad to the tree, for which purpose no special means have been

devised that I am aware of, I cast a tongue or hook, K, at the back center of the tree-plate, which may be passed through the pad and bent over to hold the pad securely in place.

L represents the back-straps, secured to the tree-plate by the terret screws in a common manner.

M represents the flaps, which are riveted to the tree-plate on each side of the back-strap, as shown at *n*.

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

1. The square raised shank *c'* on the check-hook E, and corresponding mortise in the tree-plate, in combination with a binding-screw or bolt, as described.

2. The grooved cantle *b'*, and sliding back plate F, combined and operating in the manner and for the purpose set forth.

3. The terret-nuts H, with end lips *h'* and notches *i*<sup>2</sup>, in combination with the end teats, *i*, cast on the tree-plate, as and for the purpose set forth.

4. Riveting the flaps M to the tree-plate on each side of the back-straps L, as set forth.

5. The tongue K, cast on the back side of the tree-plate to secure and hold the pad, in the manner described.

EDWARD A. COOPER.

Witnesses:

F. A. LANGWORTHY,

W. H. FORBUSH.