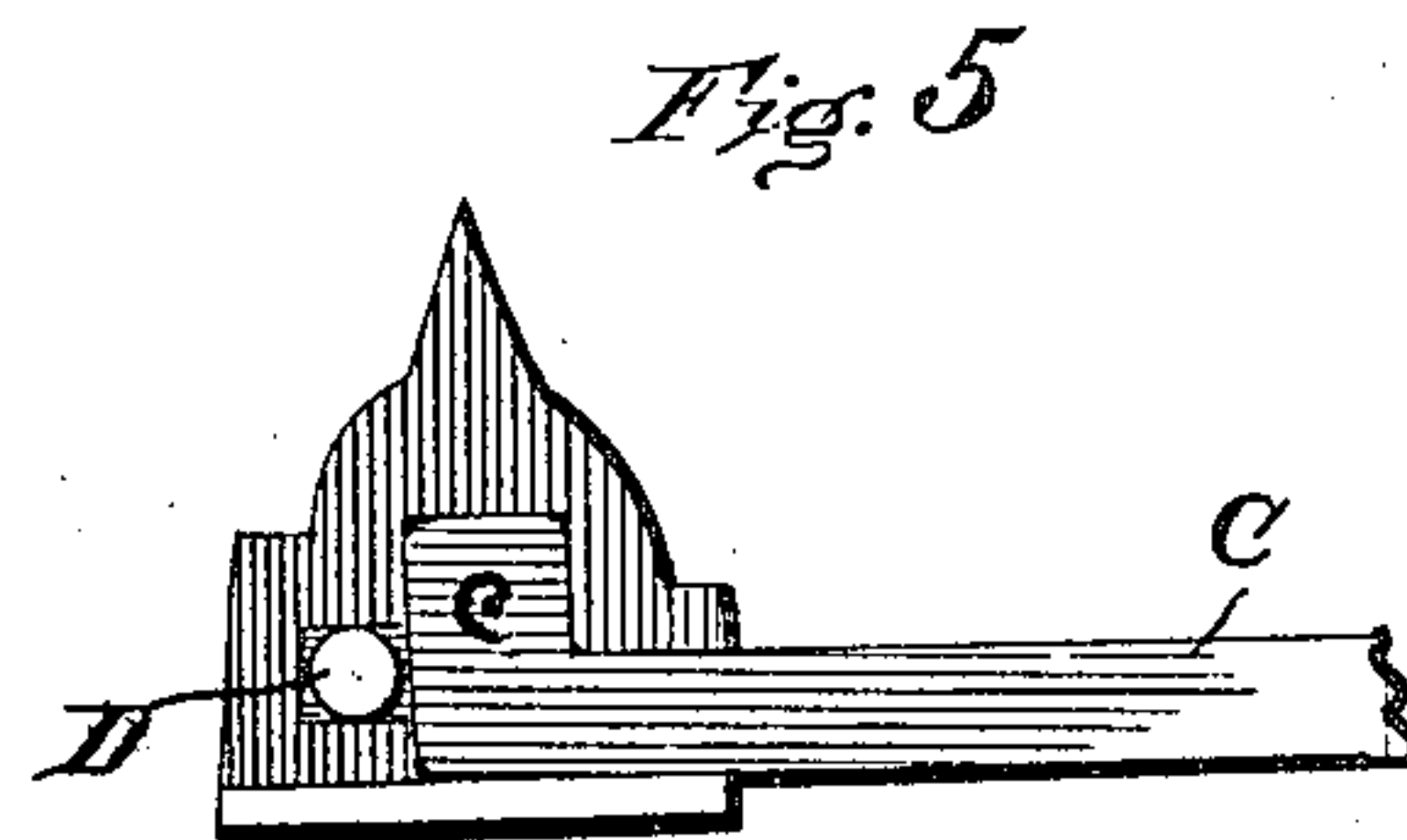
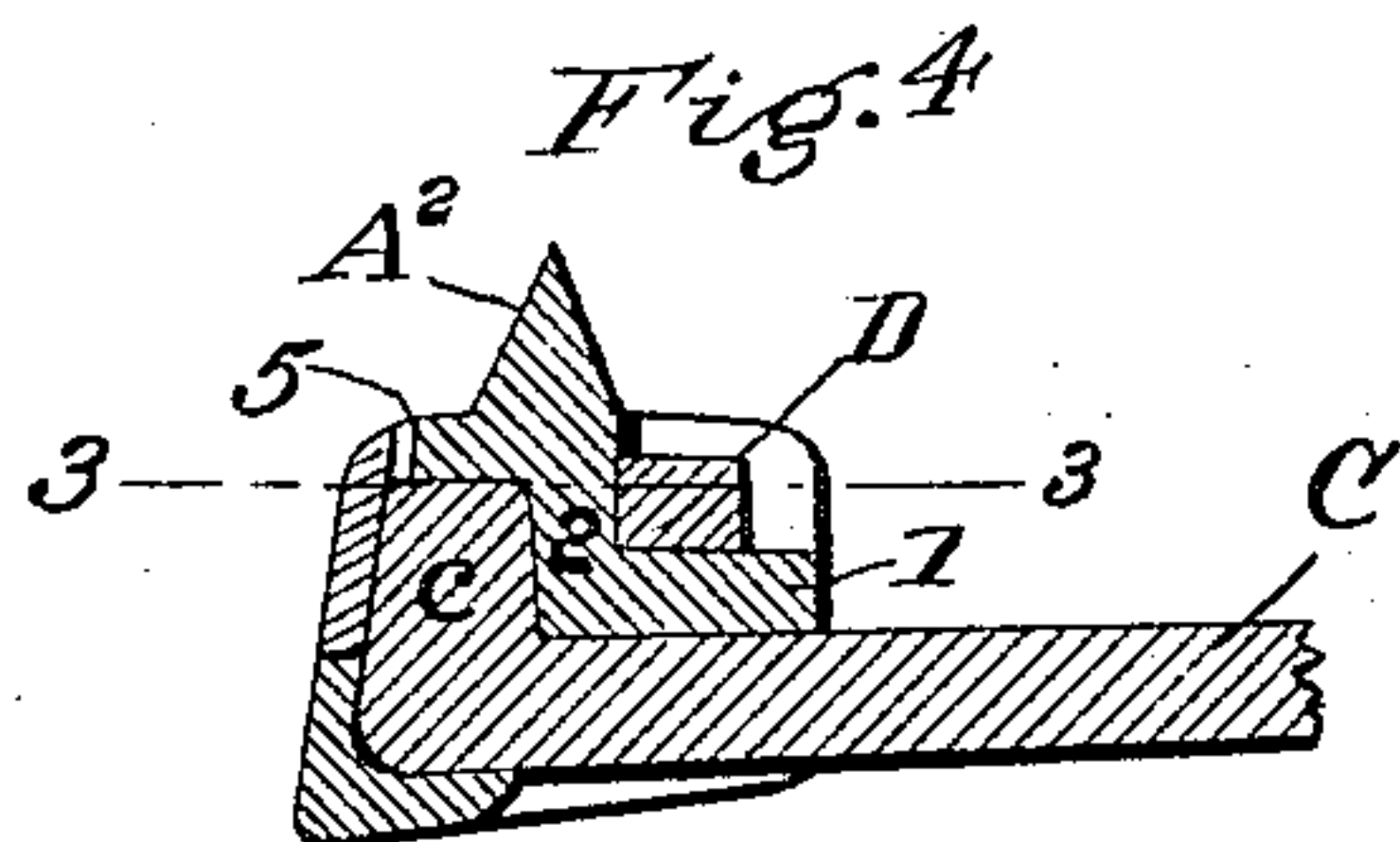
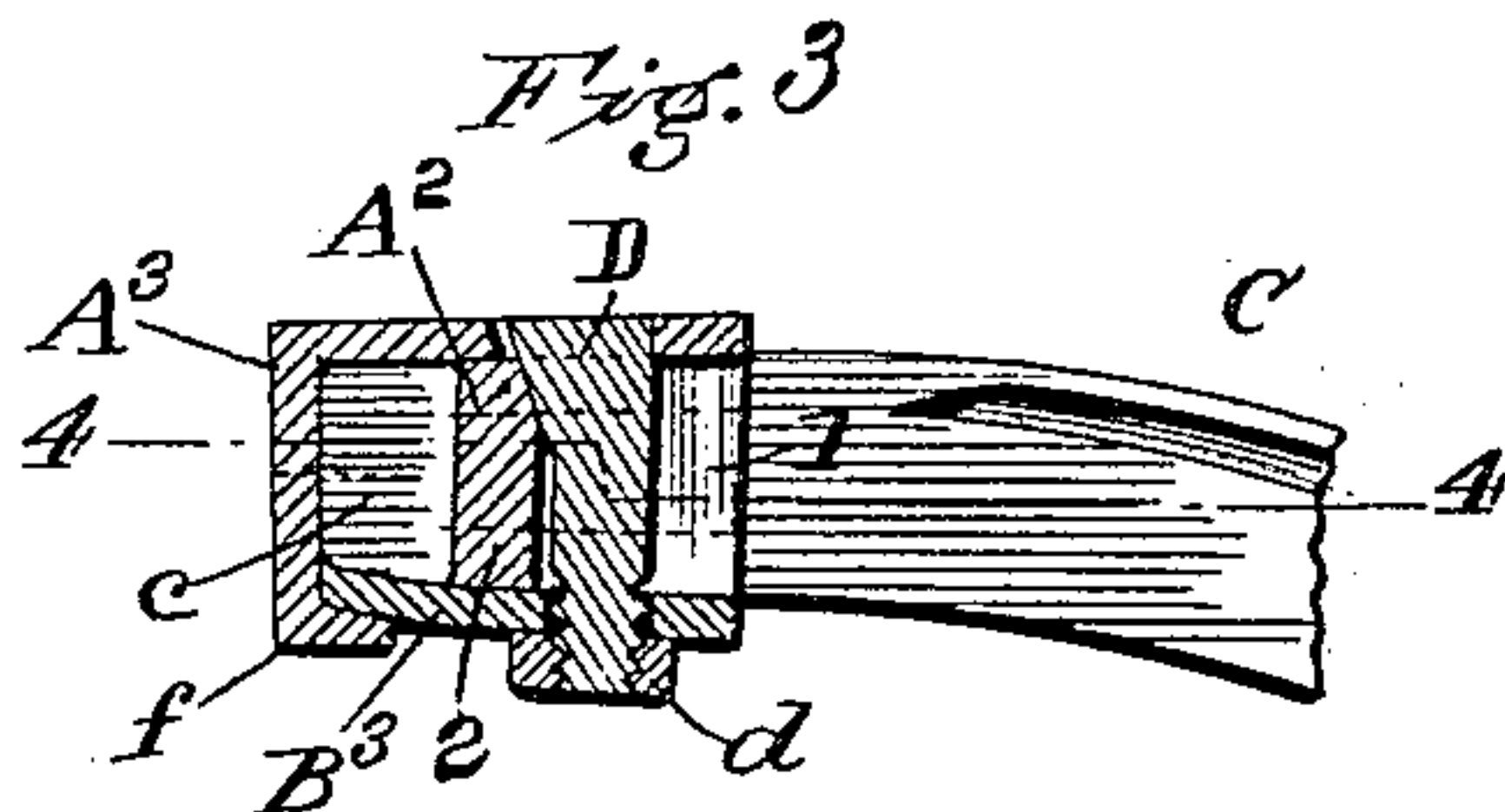
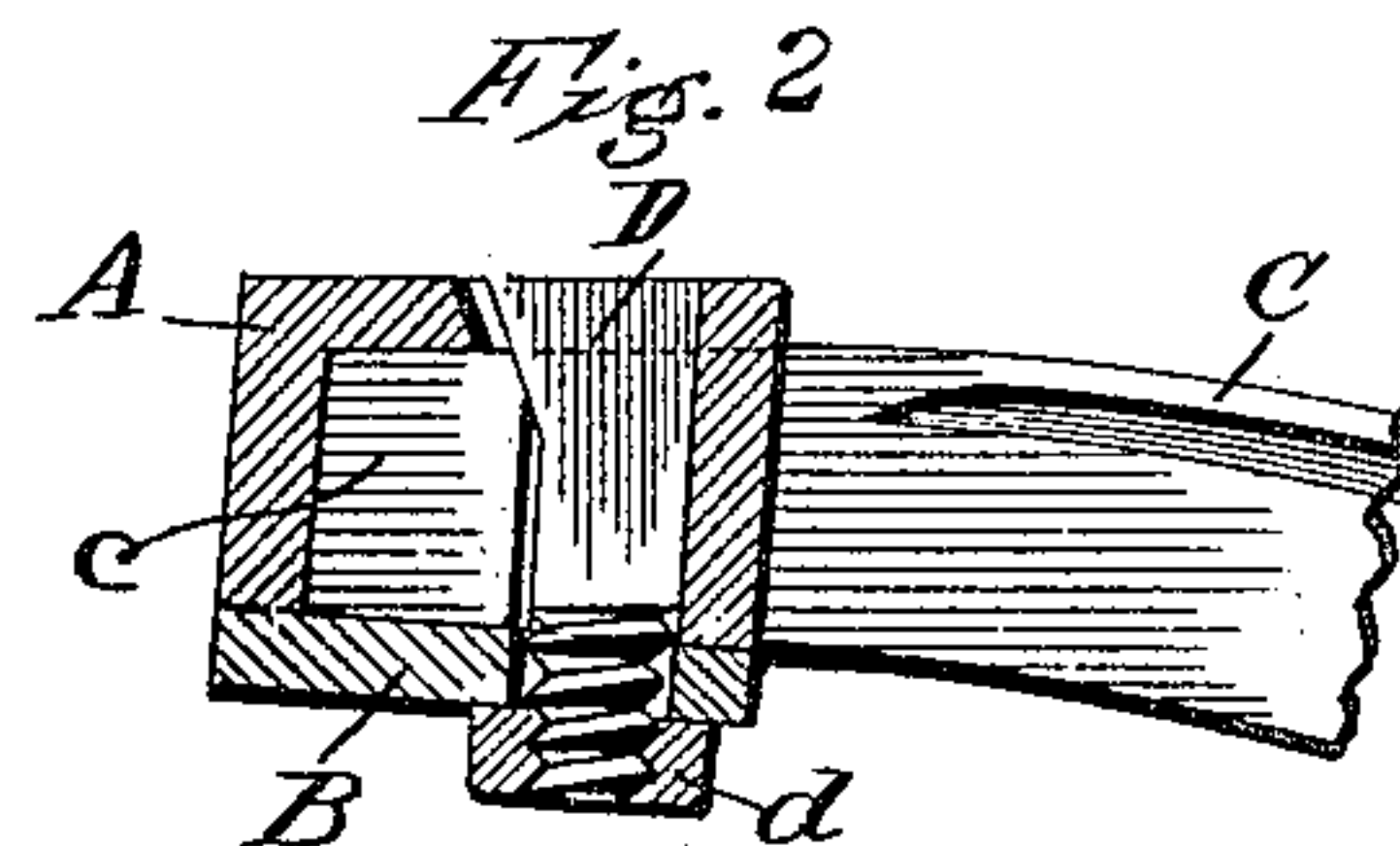
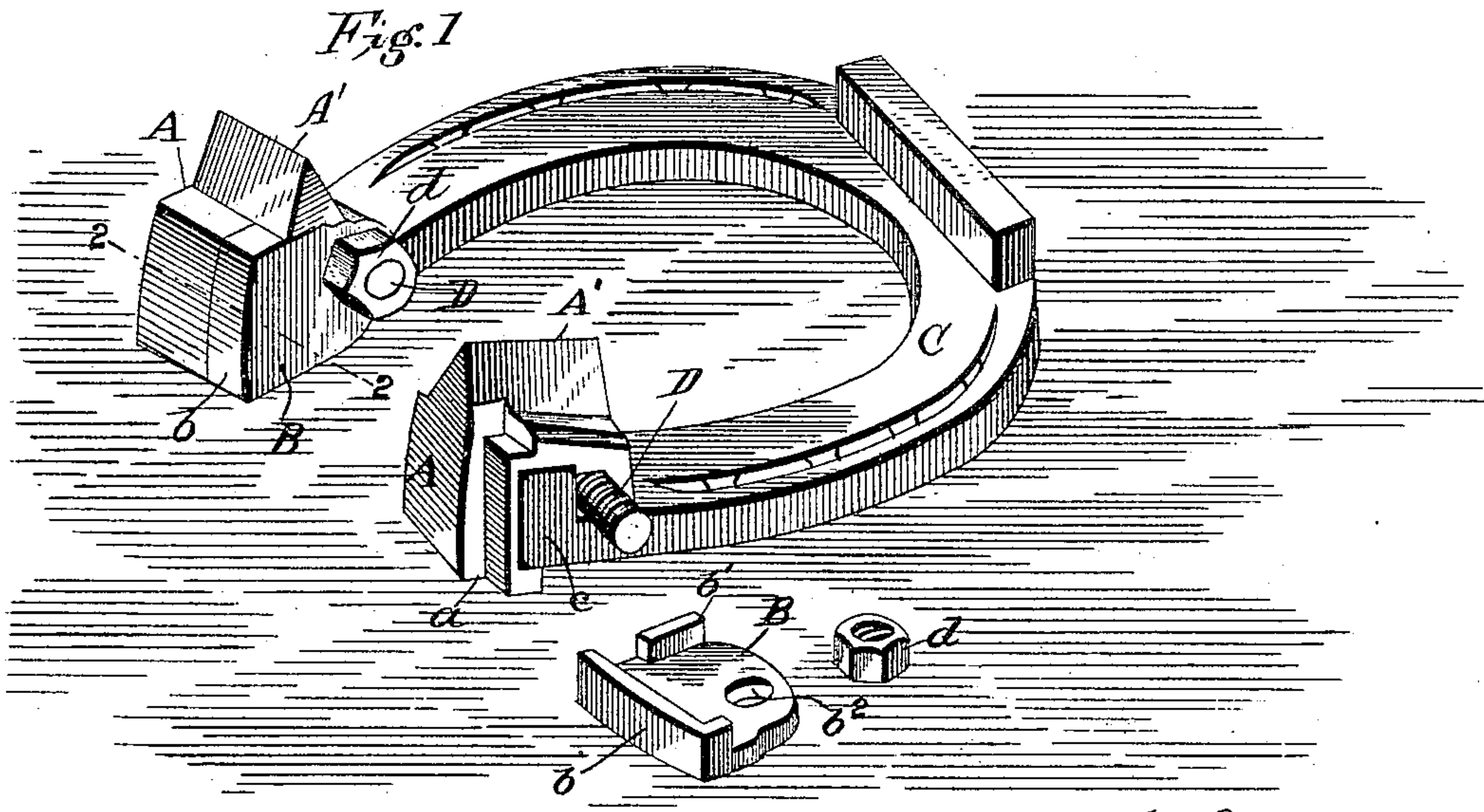


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PATENTED APR. 10, 1906.

T. W. J. MCGANN.
DETACHABLE HEEL CALK FOR HORSESHOES.

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WITNESSES:

E. Chaffey
Edw. W. Byrnes

INVENTOR

THOMAS W. J. MCGANN

BY *Munn & Co.*

ATTORNEYS

UNITED STATES PATENT OFFICE

THOMAS W. J. MCGANN, OF WASHINGTON, DISTRICT OF COLUMBIA,
ASSIGNOR OF ONE-HALF TO AENEAS COLLINS, OF WASHINGTON,
DISTRICT OF COLUMBIA.

DETACHABLE HEEL-CALK FOR HORSESHOES.

No. 817,580.

Specification of Letters Patent.

Patented April 10, 1906.

Application filed December 12, 1905. Serial No. 291,455.

To all whom it may concern:

Be it known that I, THOMAS W. J. MCGANN, a citizen of the United States, residing at Washington city, in the District of Columbia, have invented a new and useful Improvement in Detachable Heel-Calks for Horseshoes, of which the following is a specification.

My invention relates to heel-calks for roughshod horseshoes; and it is designed to supply a detachable calk which may be easily and quickly applied to or removed from the shoe while on the horse's hoof without any drilling or machine-work and without requiring the animal to be sent to the shop.

Detachable heel-calks have heretofore been provided in which the calk was formed in separable sections connected by screws, bolts, rivets, or keys and requiring more or less drilling, filing, or machine-work and which did not form a firm and reliable attachment. My invention obviates this trouble and expense and provides a firm and reliable connection.

It consists in a detachable heel-calk constructed in separable sections, which form a complete housing not only for the heel of the shoe, but also for its downturned lug used in roughshod work, this complete inclosure of such lug in connection with a clamping-bolt of peculiar construction forming a very strong and rigid connection which cannot be rocked loose by stamping or contact with stones or car-track rails and which requires no drilling, filing, or fitting by the person applying the same and obviates the necessity for sending the animal to the shop.

Figure 1 is a perspective view of a horseshoe turned down side up and showing my calks applied to the heel, the detachable housing-section of one of the calks being separated. Fig. 2 is a horizontal section taken through the line 2 2 of Fig. 1. Fig. 3 is a horizontal section taken through line 3 3 of Fig. 4; and Fig. 4, a vertical section through line 4 4 of Fig. 3, showing a modification; and Fig. 5 shows in side view a further modification.

In the drawing Fig. 1, A B represent the two separable sections of the housing forming the detachable heel-calk.

C is the horseshoe, having at each heel the usual terminal lug *c* as formed integrally with the shoe when roughshod.

The section A of the housing incloses the

whole of the heel portion of the shoe and its lug *c*, the chamber in this section being recessed to receive and fit this lug. The section B of the housing is a plate formed with a flange *b*, fitting the rabbet *a* of the other section, and a lug *b'* to catch over the top (bottom as shown) of the shoe and a hole *b²* to receive a clamping-bolt.

The housing-section A is formed with a horizontal bolt-hole through it at a point just in advance of the lug *c* of the shoe, and this bolt-hole on the outside of the housing-section A takes the form of a horizontally-elongated slot to receive a bolt D, which has a wedge-shaped head, as seen in Fig. 2, and whose other end is screw-threaded and passes through the hole *b²* in the plate B and receives a nut *d*, by which the two parts of the housing are clamped together and made to inclose and grip the entire heel of the shoe with its lug *c*. The wedge-shaped head of bolt D when tightened up bears, by reason of the slot in the housing-section A, against the forward edge of the lug *c* of the horseshoe, and thus tightens it within the housing against all looseness.

The calks proper are formed as chisel-shaped lugs *A'* on the larger housing-section A, and the plane of the chisel edge is longitudinal to the shoe for the inside branch of the shoe and transverse to the shoe for the outside branch of the shoe, as seen in Fig. 1.

As so far described the calk *A'* is formed integrally with one of the housing-sections. It may, however, be made as a separate piece, as shown at *A²* in Figs. 3 and 4, so that the calk may be replaced when worn without casting away the housing. In this instance the separate calk *A²* consists of a flat base 1, that lies upon the outer surface of the shoe, an upright part 2, that abuts against the front face of the lug *c* of the shoe, and a lip 5, that lies on top of the lug *c* of the shoe. This separable calk is retained between the two parts of the housing, and the wedge-bolt D passes through openings in the two parts of the housing and bears against the middle part 2 of the separable calk to lock the calk in place. The plate *B³* of the housing is in this case also inclosed by a flange *f* of the other section *A³* of the housing. The calk in this case is locked in every direction by solid abutments, and the housing completely in-

closes the shoe-heel and lug, so that it may be applied by any person without any mechanical work on the shoe, and yet when the calk A² is worn another may be put in its place without sacrificing the housing.

In all the forms so far described the clamping-bolt D passes in front of the lug c of the horseshoe. In Fig. 5 I have shown a construction of housing in which the clamp-bolt passes in rear of the heel-lug of the horseshoe, the same principles and advantages of construction and application being found in this as in all the other forms.

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

1. A detachable heel-calk for horseshoes, comprising separable housing-sections recessed to receive and completely inclose the heel-lug of a roughshod horseshoe and means for clamping the housing-sections together.

2. A detachable heel-calk for horseshoes, comprising separable housing-sections recessed to receive and completely inclose the heel-lug of a roughshod horseshoe and a transverse bolt passing through the housing-sections.

3. A detachable heel-calk for horseshoes, comprising separable housing-sections recessed to receive the heel-lug of a roughshod horseshoe, and a transverse bolt extending through the housing-sections in front of the recess for the heel-lug.

4. A detachable heel-calk for horseshoes comprising separable housing-sections recessed to receive the heel-lug of a roughshod

horseshoe, and a transverse bolt having one side made wedge shape to tighten the heel-lug within the housing.

5. A detachable heel-calk for horseshoes, comprising separable housing-sections, one of which is recessed to receive and inclose three sides of the heel-lug of a roughshod horseshoe, and the other of which is made as a separate detachable part inclosing the fourth side of the heel-lug, and a clamp-bolt for connecting the two together.

6. A detachable heel-calk for horseshoes, consisting of separable housing-sections recessed to receive the heel-lug of a roughshod horseshoe, a separate calk-piece arranged between the housing-sections and in front of the heel-lug of the shoe, and a clamping-bolt extending through the housing-sections and in front of the separate calk-piece to lock the calk-piece in the housing and the housing-sections to the heel of the shoe.

7. A detachable heel-calk for horseshoes, comprising a housing recessed to receive and inclose the heel-lug of a roughshod shoe and a transverse bolt having a wedge bearing for binding the housing to the shoe.

8. A detachable heel-calk for horseshoes, comprising a housing recessed to receive and inclose the heel-lug of a roughshod shoe, a transverse bolt having a wedge bearing and a separate calk-piece secured between the bolt and the heel-lug.

THOMAS W. J. MCGANN.

Witnesses:

EDW. W. BYRN,
AENEAS COLLINS.