

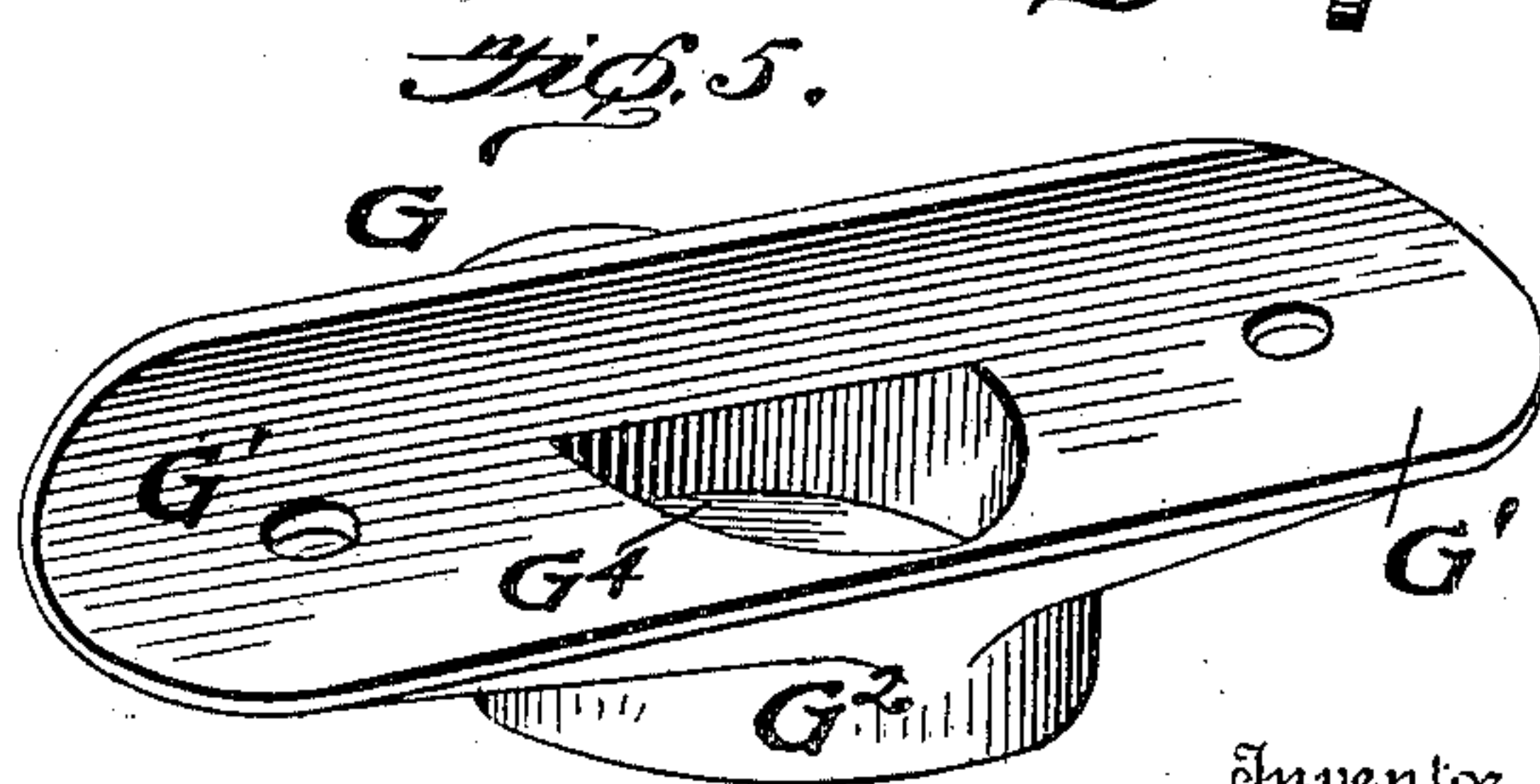
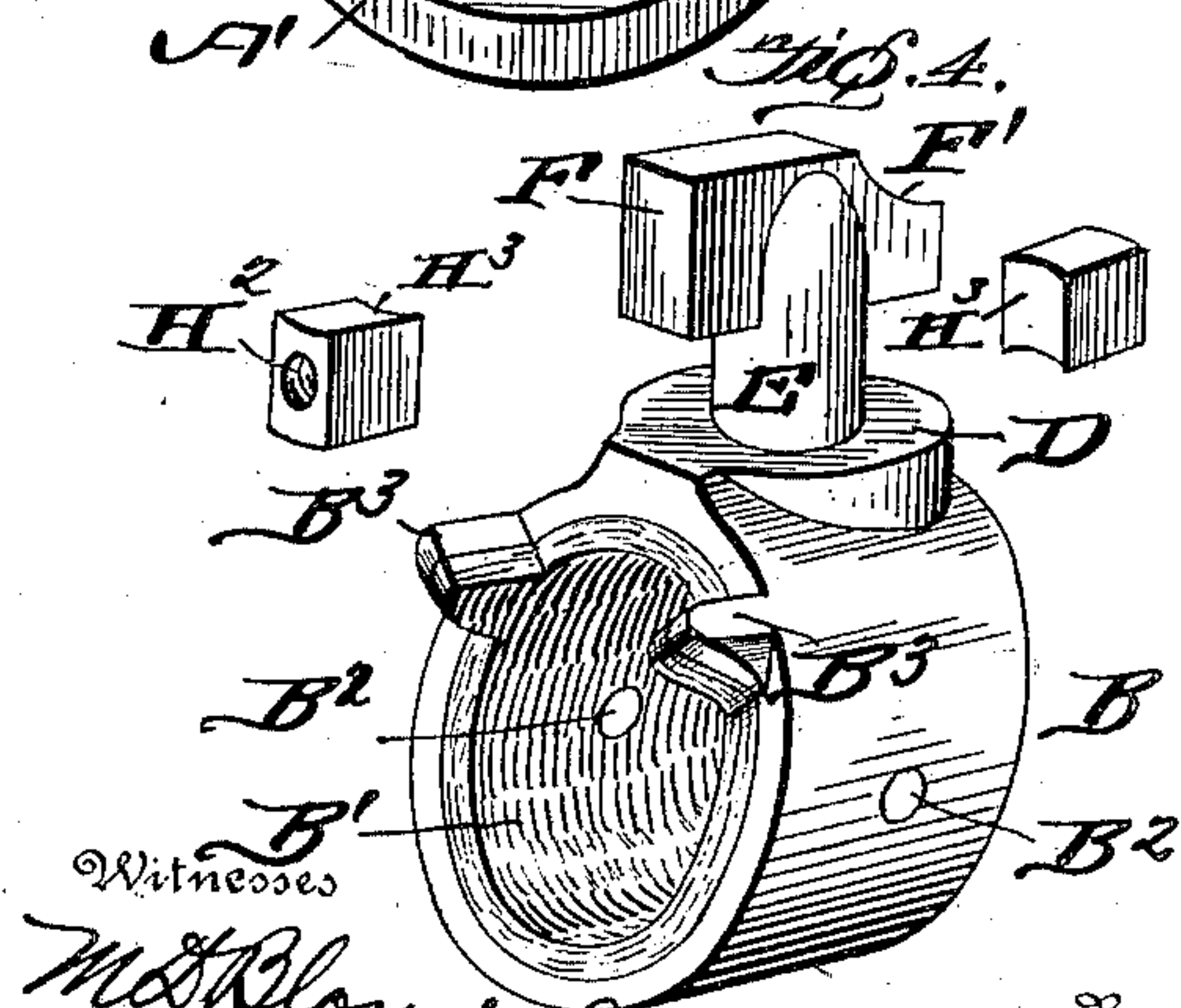
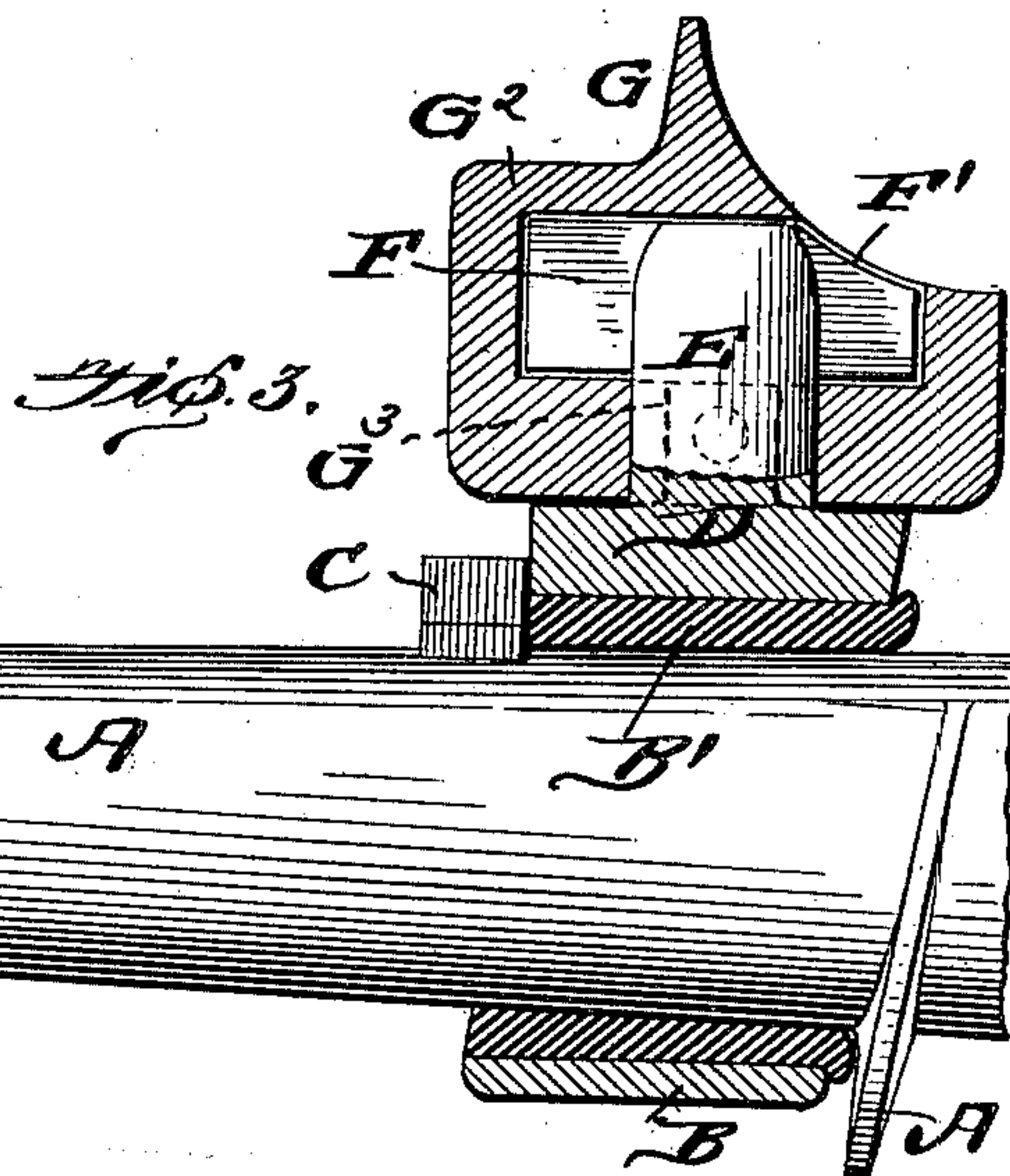
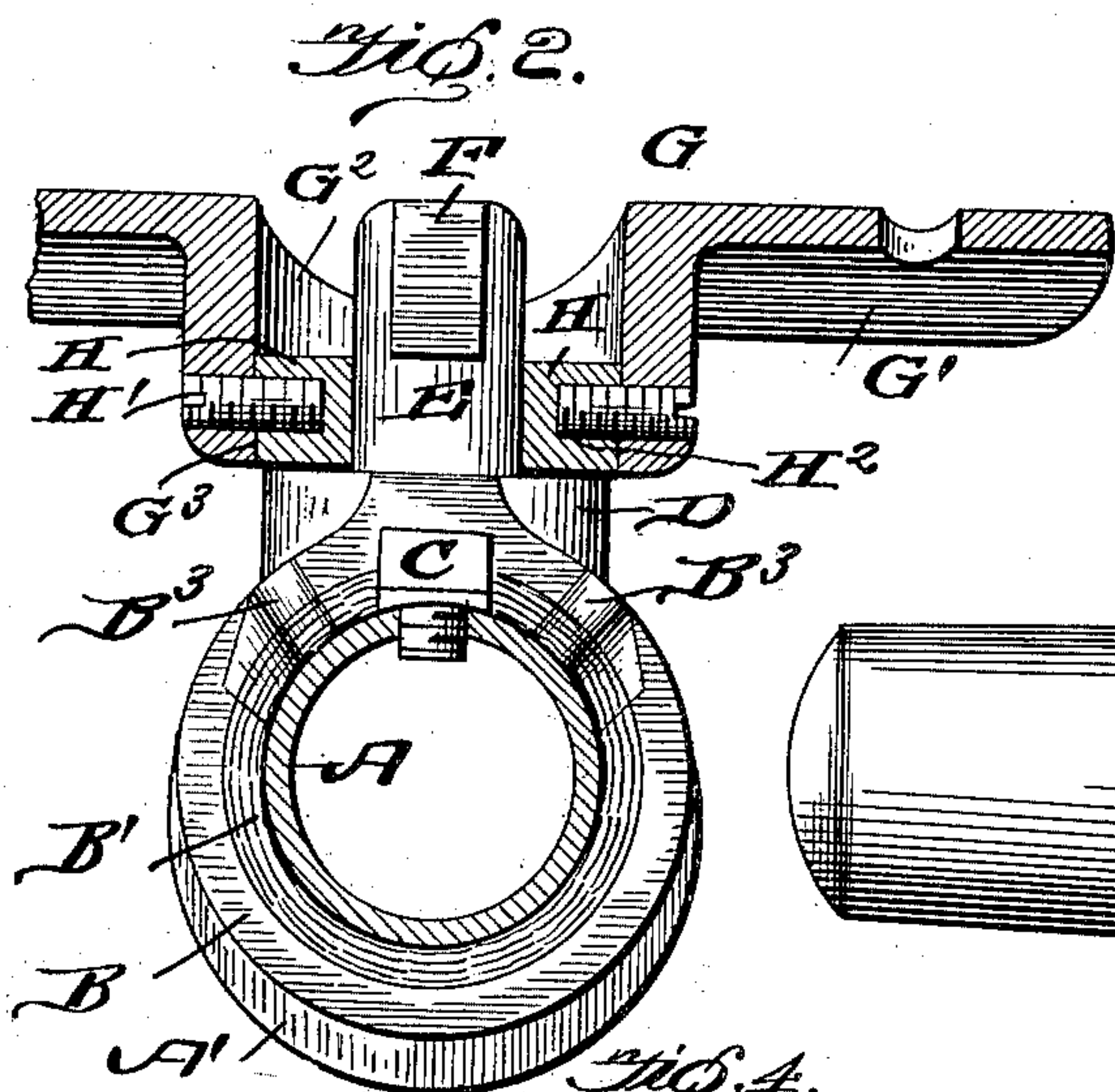
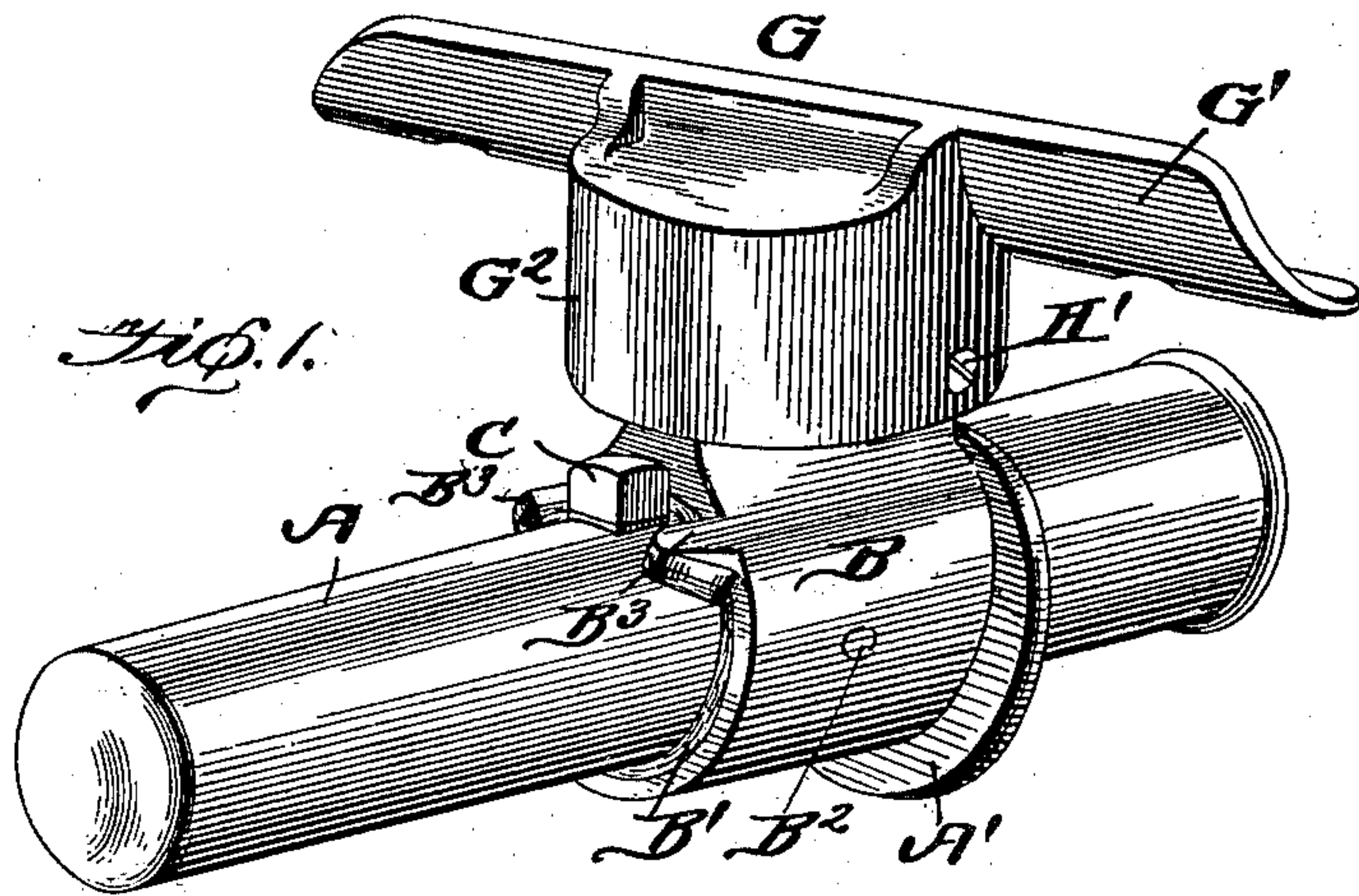
No. 741,263.

PATENTED OCT. 13, 1903.

H. C. F. LOPTIEN.
NECK YOKE.

APPLICATION FILED FEB. 7, 1903.

NO MODEL.



Inventor

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UNITED STATES PATENT OFFICE.

HANS C. F. LOPTIEN, OF SYCAMORE, ILLINOIS.

NECK-YOKE.

SPECIFICATION forming part of Letters Patent No. 741,263, dated October 13, 1903.

Application filed February 17, 1903. Serial No. 142,320. (No model.)

To all whom it may concern:

Be it known that I, HANS C. F. LOPTIEN, a citizen of the United States, residing at Sycamore, in the county of Dekalb and State of Illinois, have invented a new and useful Neck-Yoke, of which the following is a specification.

This invention relates generally to neck-yokes, and more particularly to the improved construction of coupling device by means of which the yoke is pivotally connected to the end of the pole, the object of the invention being to provide a safe and durable construction of coupling which will permit the neck-yoke to have a limited movement thereon, both horizontal and vertical.

Another object of the invention is to provide a coupling which when once properly arranged will not become disconnected; and with these objects in view the invention consists, essentially, in the employment of a pole tip or thimble having a stop-flange, against which a collar fitting upon the pole-tip abuts, said collar carrying a T-shaped stud which is adapted to engage a casting secured to the neck-yoke, said collar being secured upon the top by means of a set-screw and adapted to turn upon said top, the movements of said collar being limited by stop-lugs carried by said collar, which abut against the head of the set-screw.

The invention consists also in the novel manner of connecting the T-shaped stud to the casting and also in certain details of construction and novelties of combination, all of which will be fully described hereinafter and pointed out in the claims.

In the drawings forming part of this specification, Figure 1 is a perspective view of a neck-yoke coupling attachment constructed in accordance with my invention. Fig. 2 is a transverse sectional view of the same. Fig. 3 is a vertical sectional view of the same, the pole-tip being shown in elevation. Fig. 4 is a detail perspective view of the collar. Fig. 5 is a detail perspective view of the casting.

In carrying out my invention I employ a pole tip or thimble A, which may be made any suitable size and is preferably constructed of malleable iron, said pole-tip being preferably closed at the forward end and open at the rear end to receive the end of the

pole. This tip or thimble is constructed with a stop-flange A', which extends nearly around said tip or thimble, said flange being broadest at the bottom and gradually merging into the curved surface of the top at the top. A collar B, also constructed of malleable iron, fits upon the tip A, said collar having an interior facing or lining B', of leather or other suitable material, secured by rivets B². This collar is made with oblique or slanting edges, as most clearly shown, so that when the said collar is placed upon the top it will abut against the stop-flange A'. The collar is held in place upon the tip by means of a set-screw C, said set-screw being screwed into the top just in advance of the collar, and said collar is constructed with forwardly-projecting lugs B³, which serve to limit the lateral movements of the collar upon the tip, said lugs striking against the head of the set-screw, thereby preventing said collar moving too far to one side or the other. The collar is formed with a boss D upon the upper side thereof, from which projects a stud E, having the head F, said head extending in a line parallel with the longitudinal axis of the tip and collar, the head and stud practically constituting a T-shaped stud. The head F is cut away at the rear upper corner, as shown at F', the purpose of which will appear hereinafter.

G indicates a casting comprising the curved plate G' and the longitudinal box-like portion G², said box-like portion having an opening G³ produced in the bottom thereof, through which the T-shaped stud passes, said opening being of a size and shape to accommodate the said stud and head; but it will be noted that the said opening is arranged transverse to the head of the stud, and when the said head is inserted the casting is turned so as to bring the major axis of the opening into alignment with the major axis of the tip, and after the head has been inserted the casting is turned around until it assumes a position at right angles to the tip, as most clearly shown in the drawings, and the axis and ring are then secured against disconnection by means of blocks H, which are inserted in the ends of the opening G³ and secured by means of screws H', which pass through the sides of the box-like portion G² and into the threaded

apertures H^2 of the said blocks, the inner faces of said blocks being curved or grooved, as shown at H^3 , in order to fit snugly against the stud E, as most clearly shown in Fig. 2.

5 The neck-yoke is securely fastened to the curved plate G' , and it will be noted that the said plate is formed with an opening G^4 , and, as before stated, the upper rear end of the head F is cut away, as shown at F' , so that
10 the neck-yoke and casting connected thereto can turn freely upon the ring to a limited extent.

By means of a coupling constructed as herein shown and described the yoke can have
15 free movement, both horizontal and vertical, upon the pole, but it will be impossible for the yoke to become disconnected from the pole either while in use or when the pole is not in use.

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

1. A device of the kind described comprising a tip having an oblique flange, a collar
25 loosely secured on the tip, means carried by the tip for limiting the movement of the collar an upwardly-projecting T-shaped stud carried by the collar, and a casting comprising a box adapted to fit over the stud, and an
30 elongated curved plate carried by the box.

2. A device of the kind described comprising a tip having a stop-flange, a collar fitting upon the said tip and provided with forwardly-projecting stop-lugs, a set-screw adapted to hold the collar in place and limit
35 the lateral movements thereof, the T-shaped stud carried by the collar, the casting comprising a plate, and a box-like portion, said box-like portion having an opening in the lower end thereof, adapted to receive the
40 T-shaped stud, and blocks secured in the ends of said opening, as set forth.

3. A device of the kind described, comprising a tip having a stop-flange, a collar provided with stop-lugs and having a boss upon
45 the upper side thereof, a stud extending upwardly from said bosses, the longitudinally-arranged head, the rear end of said head being cut away, the casting comprising the curved plate and the box-like portion, said
50 box-like portion having openings at its upper and lower ends, and the blocks adapted to fit into the ends of the bottom opening, means for securing said blocks and the set-screw for holding the ring upon the tip, substantially
55 as set forth.

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