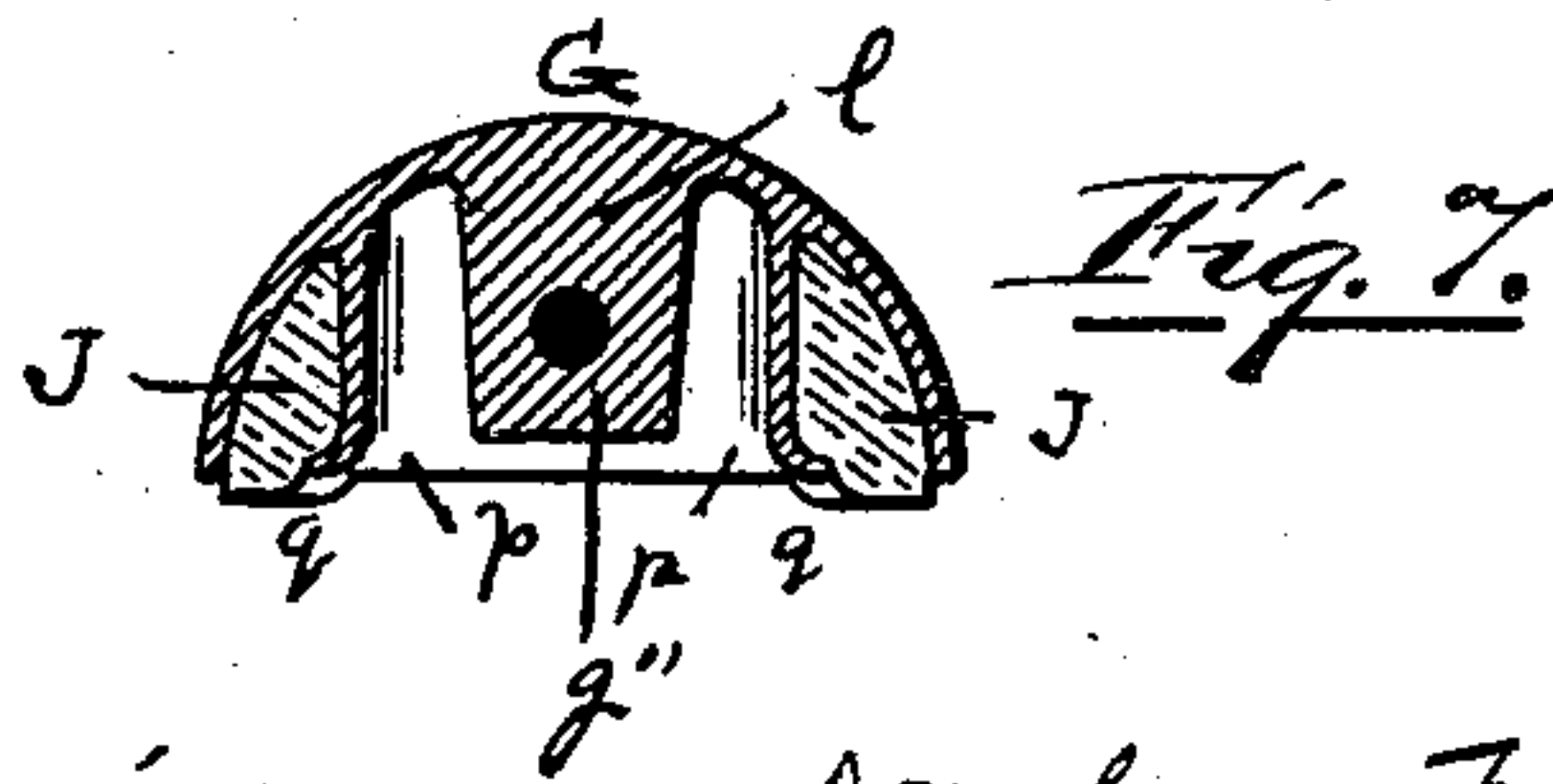
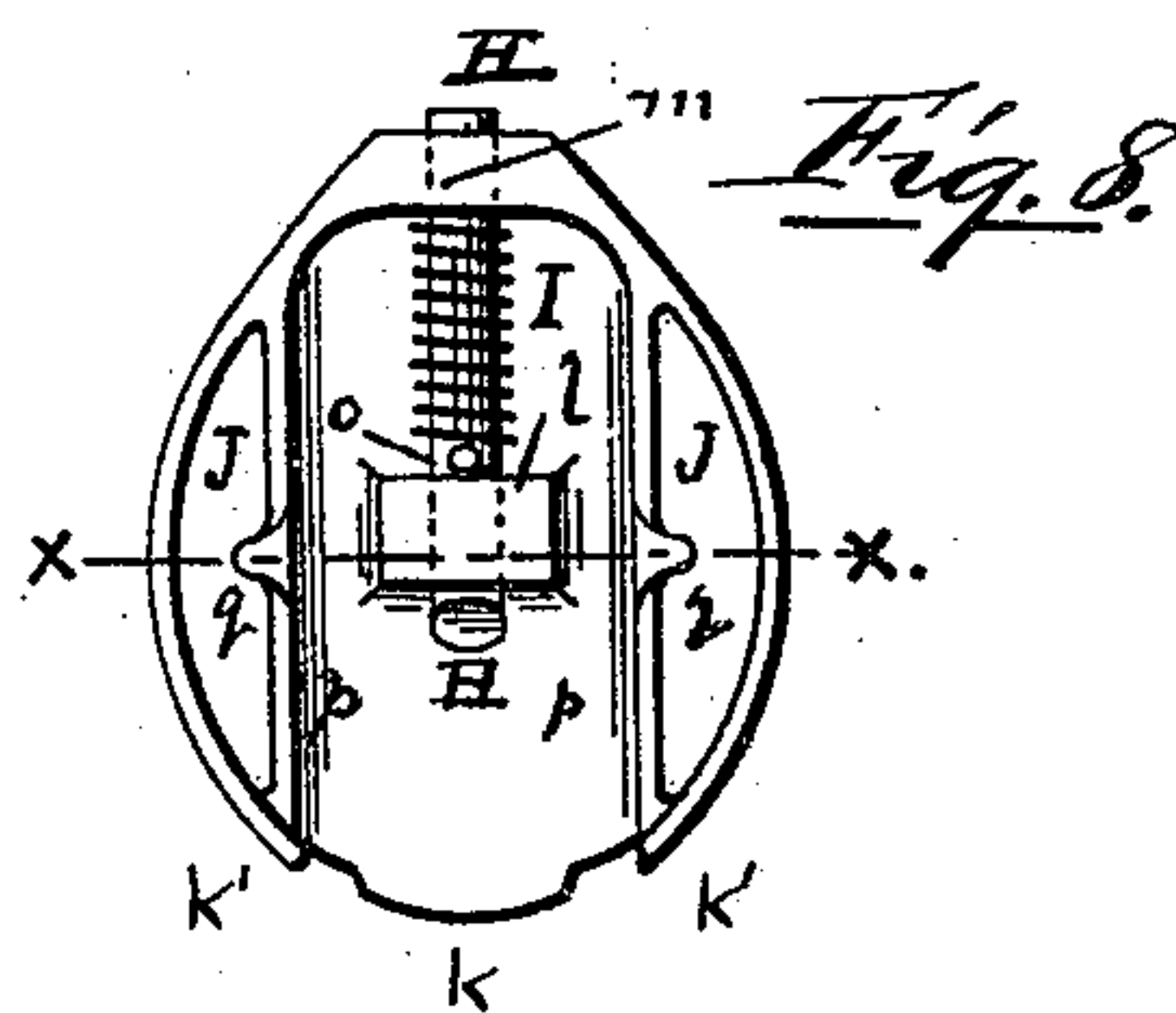
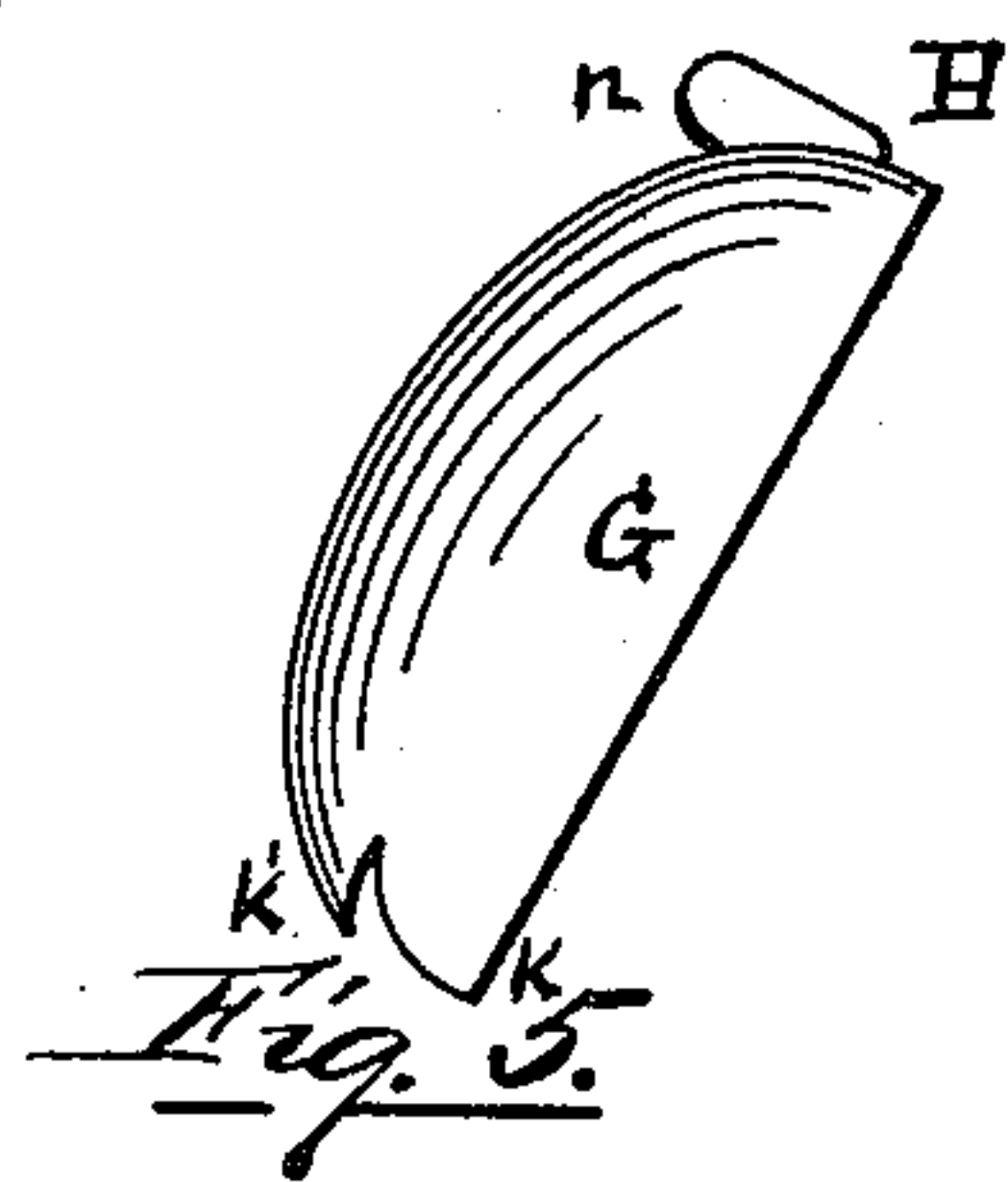
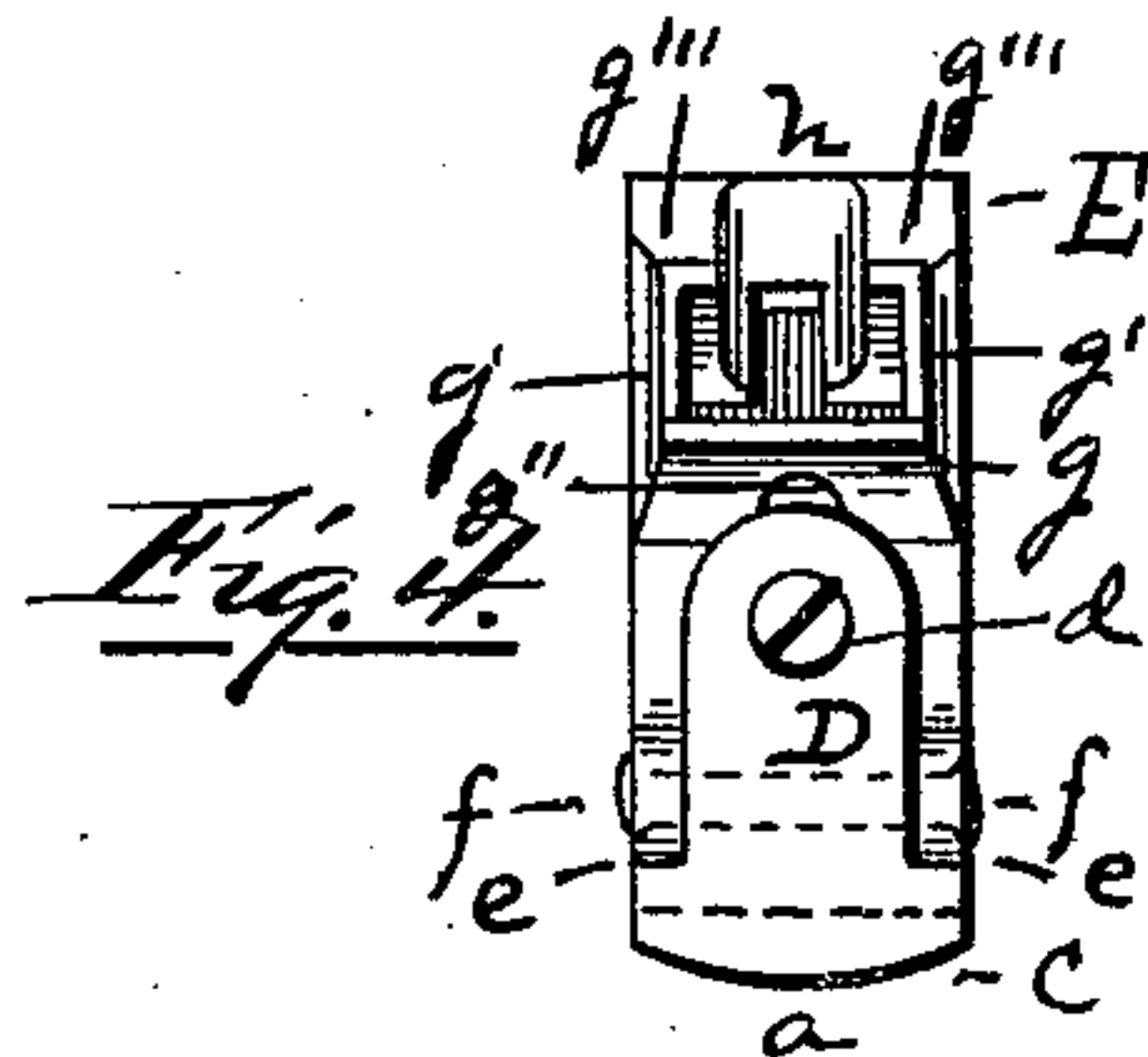
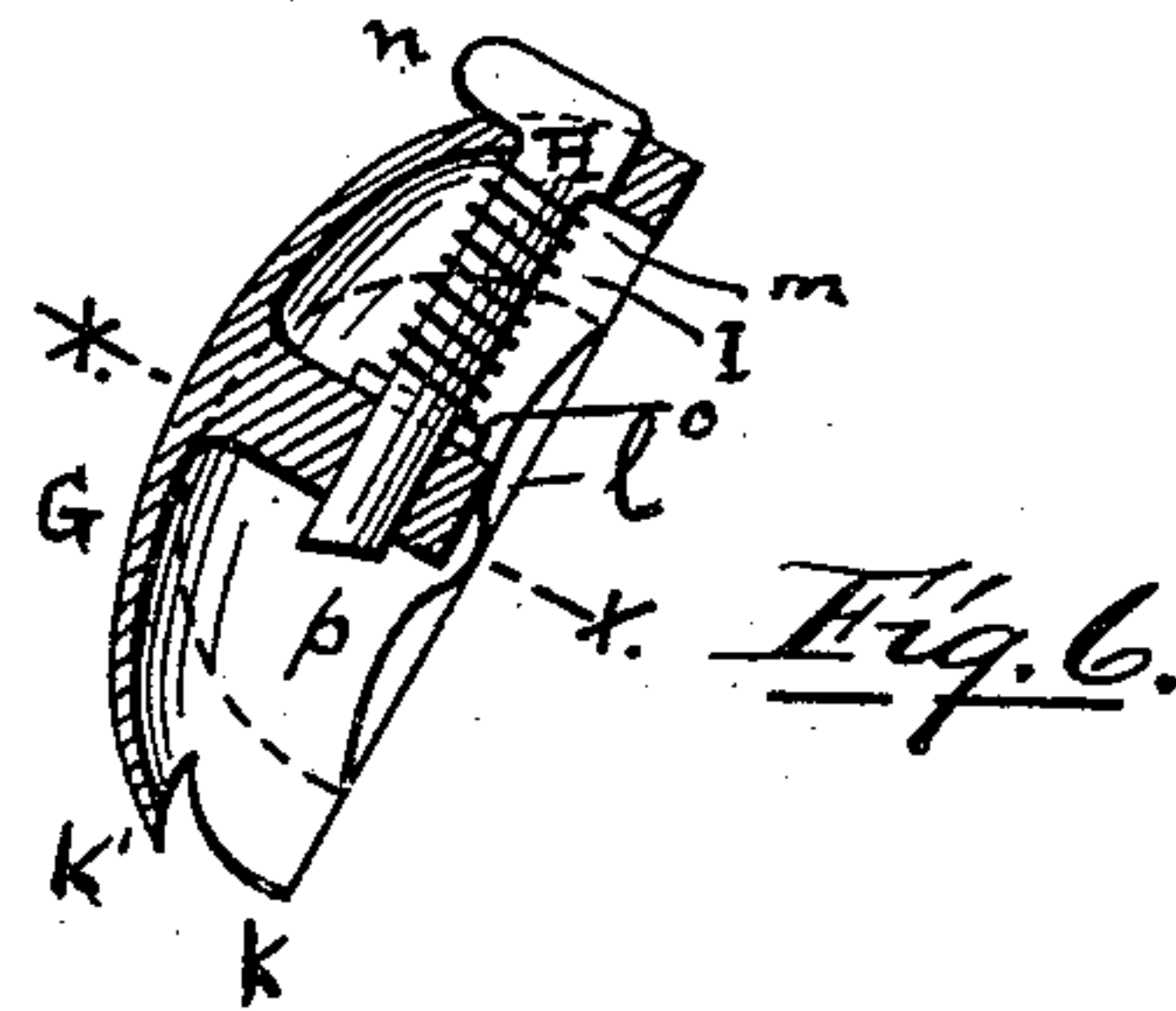
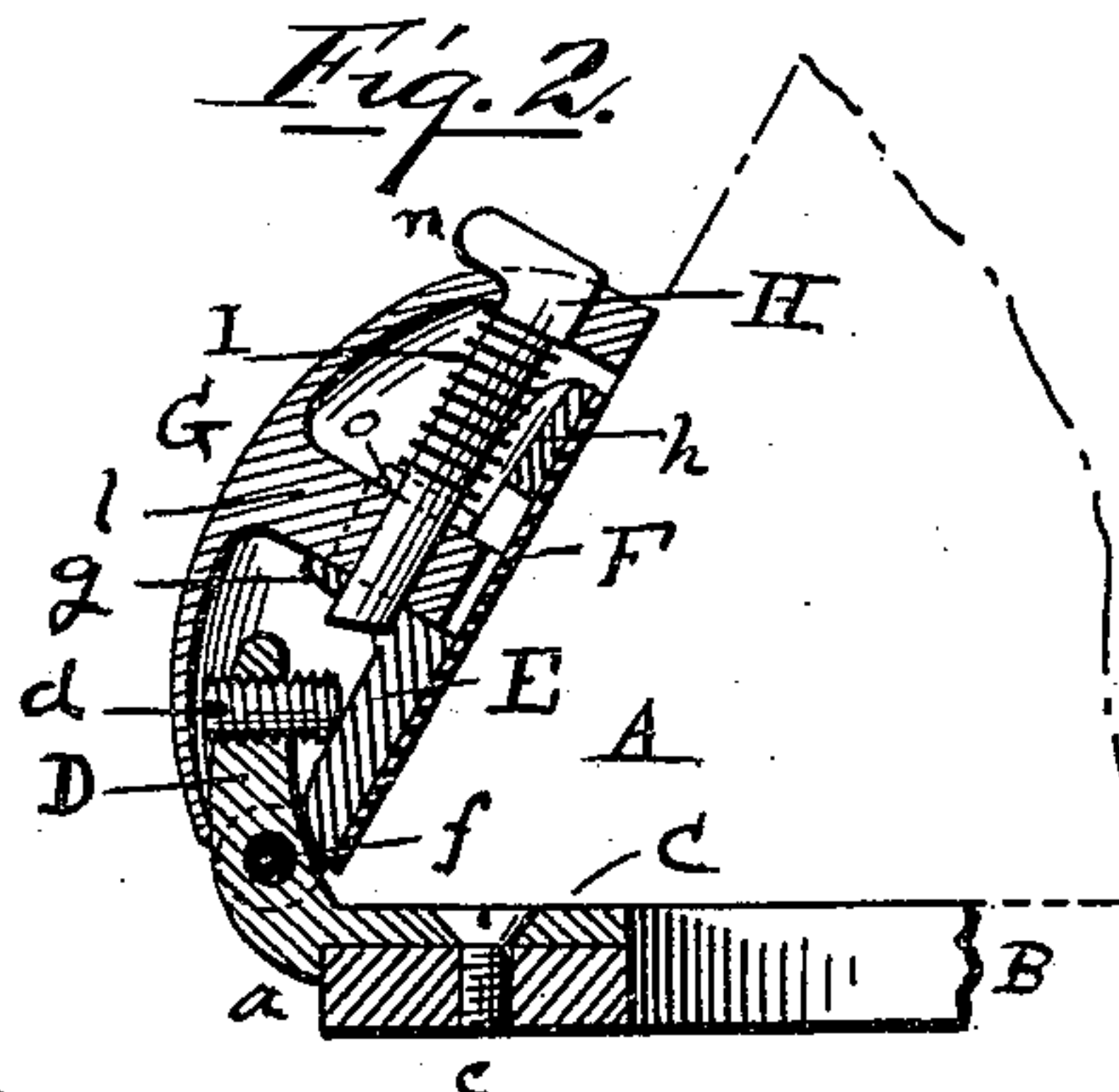
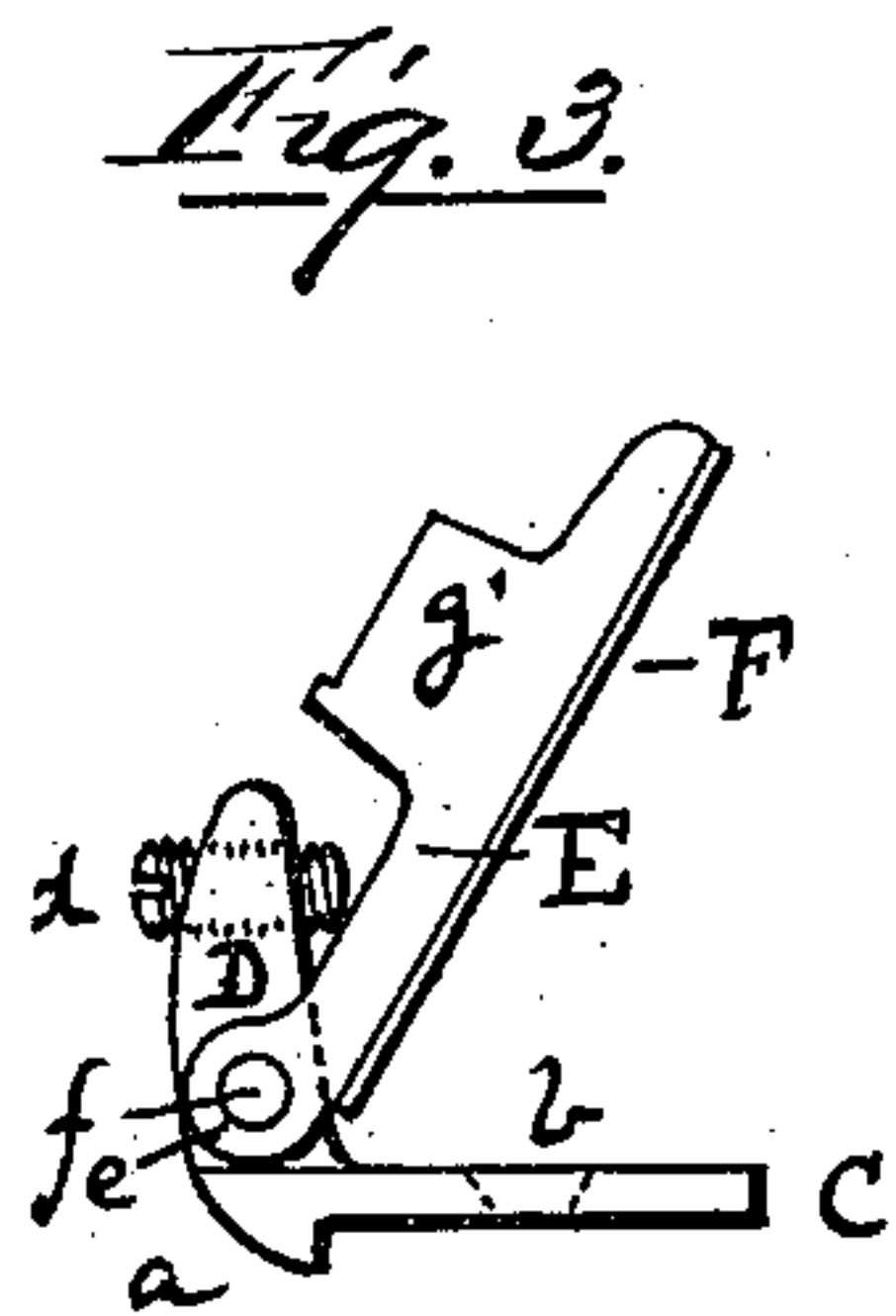
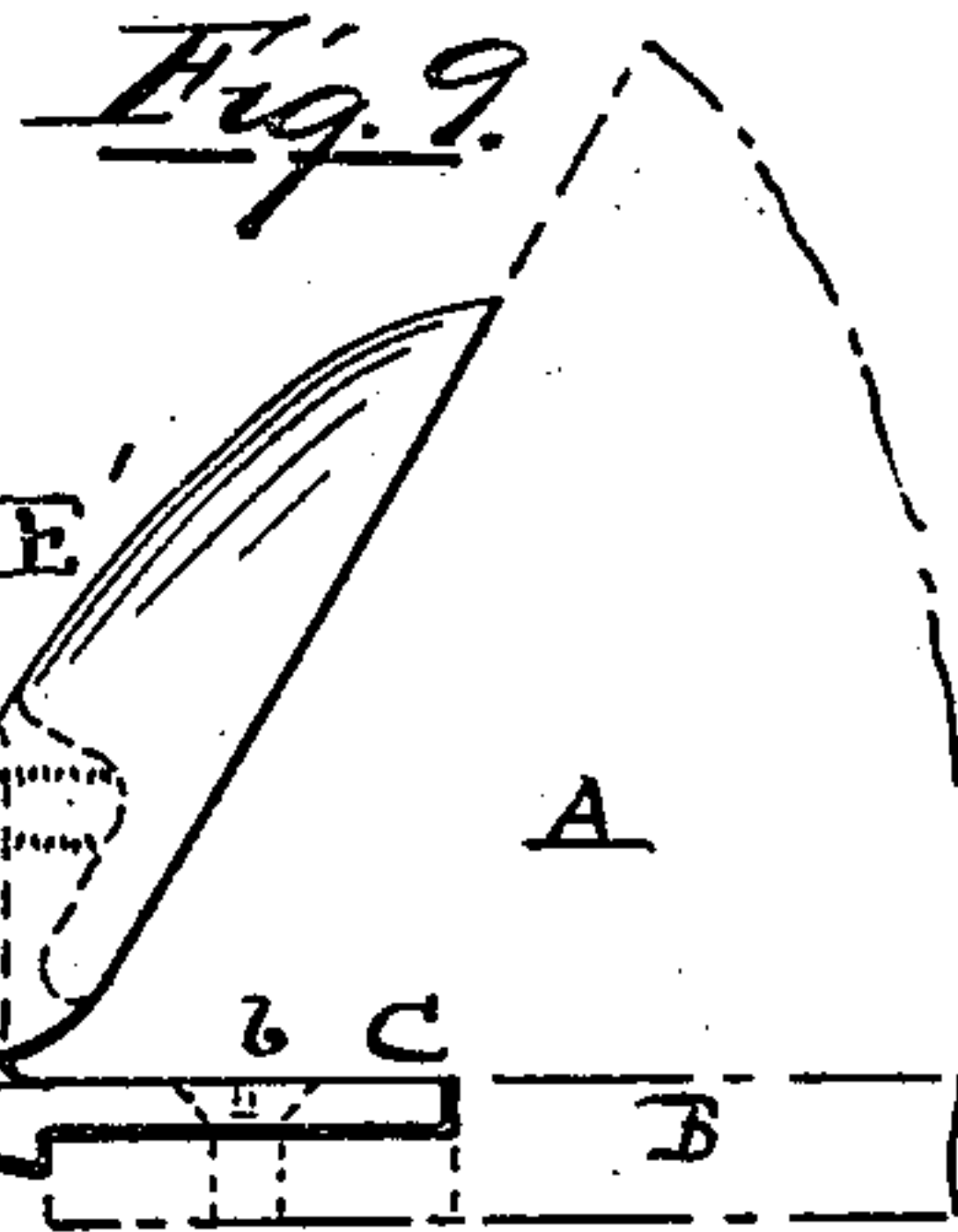
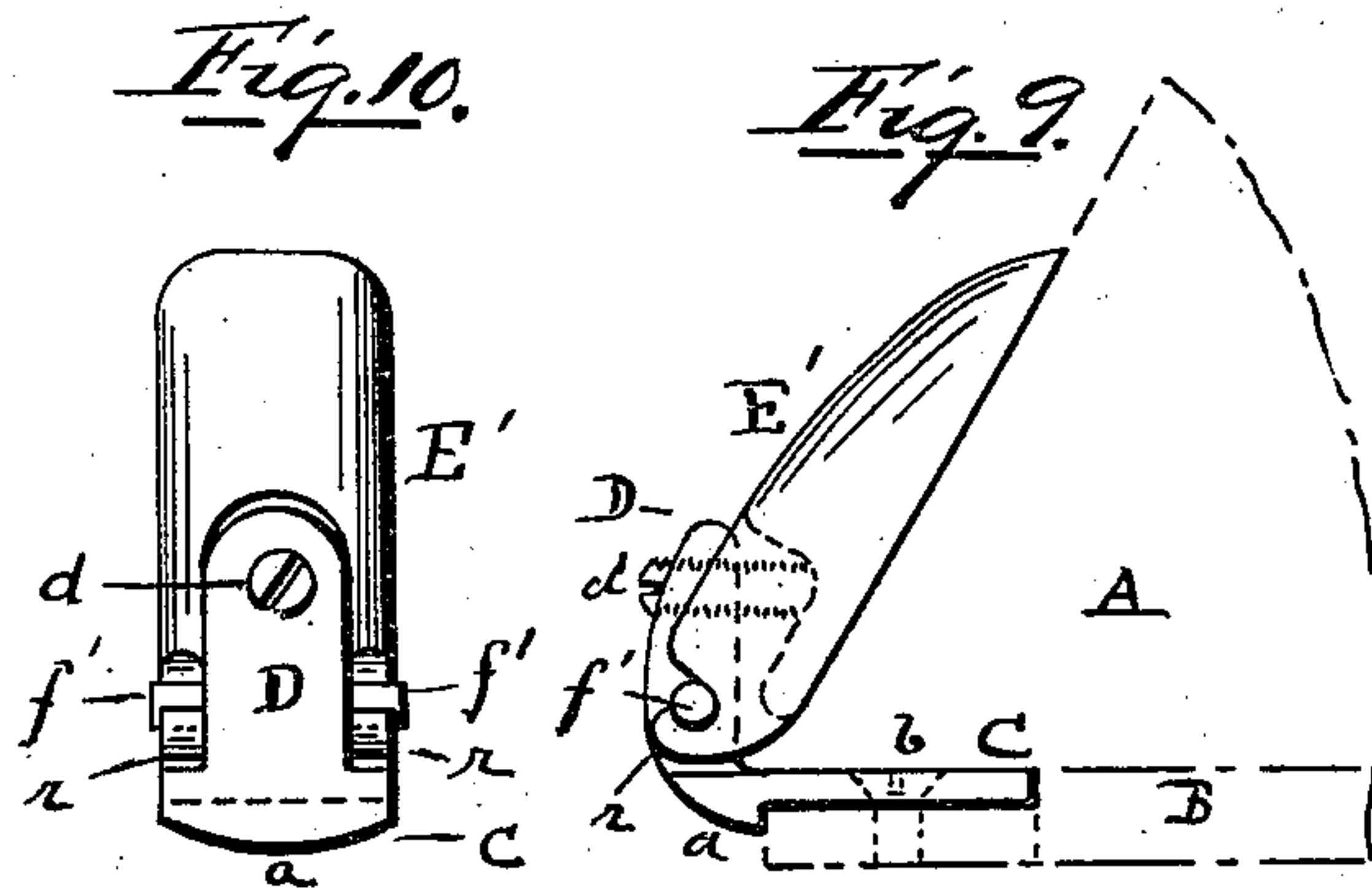
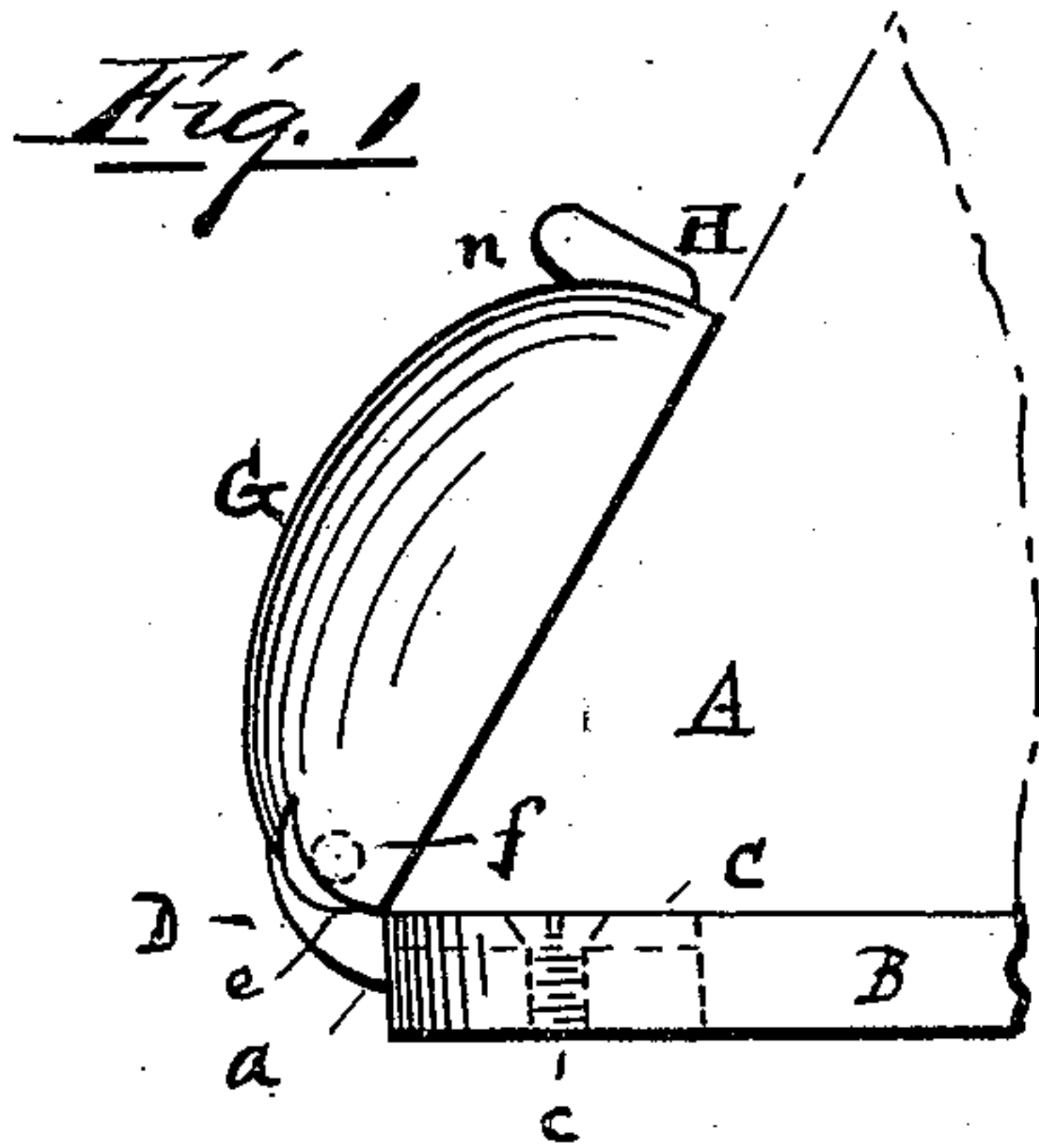


(No Model.)

N. F. MATHEWSON.
TOE WEIGHT FOR HORSES.

No. 538,214.

Patented Apr. 23, 1895.



Witnesses.

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UNITED STATES PATENT OFFICE.

NATHAN F. MATHEWSON, OF PROVIDENCE, RHODE ISLAND.

TOE-WEIGHT FOR HORSES.

SPECIFICATION forming part of Letters Patent No. 538,214, dated April 23, 1895.

Application filed September 5, 1894. Serial No. 522,175. (No model.)

To all whom it may concern:

Be it known that I, NATHAN F. MATHEWSON, of the city and county of Providence, in the State of Rhode Island, have invented a certain new and useful Improvement in Toe-Weights for Horses; and I declare the following to be a specification thereof, reference being had to the accompanying drawings.

Like letters indicate like parts.

Figure 1 is a side elevation of my invention as applied to a horse shoe. Fig. 2 is a view of the same in a central, vertical section. Fig. 3 is a side elevation of my invention with the cap piece removed. Fig. 4 is a front elevation of the parts shown in Fig. 3. Fig. 5 is a side elevation of the cap piece. Fig. 6 is a central, vertical section of the cap piece. Fig. 7 is a view of the cap piece in cross section on line $x-x$ of Figs. 6 and 8. Fig. 8 is a rear elevation of the cap piece. Figs. 9 and 10 illustrate a modified form of my invention.

My invention relates to metallic toe weights, adapted to be secured to the shoes or hoofs of horses to increase their speed; and it consists of the combination of a cap piece, having a spring-actuated latch, with a plate adapted to be inserted between the horse shoe and hoof in a slot in the former and hinged to a bar, which is provided with means of engaging said latch, as hereinafter particularly described.

In the drawings A represents the horse's hoof and B the horse shoe thereon. The shoe B at its front or toe is transversely slotted, as indicated in Figs. 1, 2 and 9.

C is the shoe plate of my device, having a lip a and a screw-hole b . The shoe-plate C is inserted through the slot in the horse shoe and lies between the hoof and the shoe, being secured in position by a screw c , which passes through said screw hole b into the shoe B. An upward projection D, preferably integral with the shoe-plate C, extends from the shoe-plate C and through the upper portion of said projection a set screw d passes.

E is the hoof-plate of my device. It has downwardly projecting ear-pieces e , between which the projection D passes and a bolt or pin f , passing through the hoof-plate E and the projection D, constitutes a hinge joint. On the front of the hoof-plate E is a socket or

chamber, formed by the walls g, g', g'' , the first of which has the hole g'' and the latter two of which have the shoulders g''' . The plate E also has its inner surface grooved, as shown at h . On the rear surface of the hoof-plate E is a rubber lining or pad F.

The cap piece of the device is seen at G and consists of a shell-like or concavo-convex piece, having a curved exterior surface, a central projecting lip k and ear-pieces k' at its lower sides. It also has a central inwardly extending post l and at its top a hole m .

The latch or bolt H has a thumb-piece n at its upper or outer end and its inner or lower end is beveled. Said bolt H is of a diameter to enter the hole g'' of the hoof-plate E. A spiral spring I surrounds the bolt H and has its upper bearing against the inner upper surface of the cap piece G and its lower bearing against the pin o , which passes through said bolt. The cap piece G may also have walls p (Figs. 6, 7 and 8), between which and the interior surface of the cap piece, rubber cushions J are placed, said cushions being held in place by the lips q . (Fig. 8.)

Instead of a permanent hinge-connection of the plates D E by the bolt f , I may use a detachable hinge-connection, illustrated in Figs. 9 and 10, in which it is seen that the pin f' of the projection D is received into the hook-shaped ear-pieces r of a hoof-plate E'. This hoof-plate E' may also be a solid piece, with convex surfaces, and constitute itself the toe weight, without the additional cap piece shown in Figs. 1 and 2.

The shoe-plate C is placed in the slot of the shoe B and is secured thereto by the screw c , before the shoe is fastened to the hoof, the lip a abutting against the front edge of the shoe. By means of the set screw d the hinged hoof-plate E is brought to such an angle that it will lie in snug contact with the hoof, the rubber lining or pad F serving to prevent any concussion between the hoof-plate and hoof. The cap piece G is placed in position with the post l inserted into the chamber or socket, formed on the hoof-plate E by the walls g, g' , and then is crowded inwardly, which movement causes the beveled end of the latch or bolt H to slip into the hole g'' , so locking the cap piece G in position upon the plate E by

the force of the spiral spring I. The post *l* is prevented from upward displacement by the shoulders *g'''* of the socket or chamber on the hoof-plate E and the bolt H and its
5 spring lie within the groove *h* of the hoof-plate.

The rubber cushions J within the cap piece G, coming into contact with the surface of the hoof, protect it from concussion.

To disengage the cap piece G it is but necessary to withdraw the bolt H slightly, by
10 means of its thumb piece *n*, from engagement in the hole *g''* of the hoof-plate E, whereupon the cap piece is readily removed.

If the hoof-plate is furnished with hooks *r*,
15 instead of being hinged by ear-pieces *e*, it can readily be disengaged from the shoe-plate C and the projection D thereof.

I claim as a novel and useful invention and desire to secure by Letters Patent—

20 1. In a toe weight for horses, the combination of a shoe-plate adapted to be inserted and fastened between the shoe and hoof, an upward projection extending from said shoe-plate and provided with a cross pin or bolt,
25 a hoof-plate mounted by ear-pieces upon said pin or bolt, and a set screw passing through said projection and bearing against said hoof-plate, substantially as shown.

30 2. The combination of a shoe-plate having an upward projection, a hoof-plate mounted by a hinge joint upon the shoe-plate and pro-

vided with a socket, a set screw passing through said projection and bearing against said hoof-plate, and a cap piece having a spring bolt mounted therein which is engage- 35 able with said socket, substantially as described.

3. The improved toe weight for horses herein described, consisting of the shoe-plate C having the lip *a* and screw hole *b*, the projec- 40 tion D extending upward from said shoe-plate, the hoof-plate E hinged by ear-pieces and by the bolt or pin *f* to the shoe-plate C and provided with the shouldered chamber or socket piece *g g' g'* having the hole *g''*, the 45 rubber pad F on the inner side of the hoof-plate, the set screw *d* passing through the shoe-plate and bearing against the hoof-plate, and the cap piece G having the central post *l* adapted to enter said chamber or socket, the 50 bolt H mounted in said cap piece and post and furnished with a spiral spring I and with a beveled end engageable with the hole *g''* of said chamber or socket and provided with a thumb-piece *n*, and the rubber cushions J 55 within said cap-piece, all arranged and operating substantially as and for the purpose specified.

NATHAN F. MATHEWSON.

Witnesses:

WARREN R. PERCE,
DANIEL W. FINK.