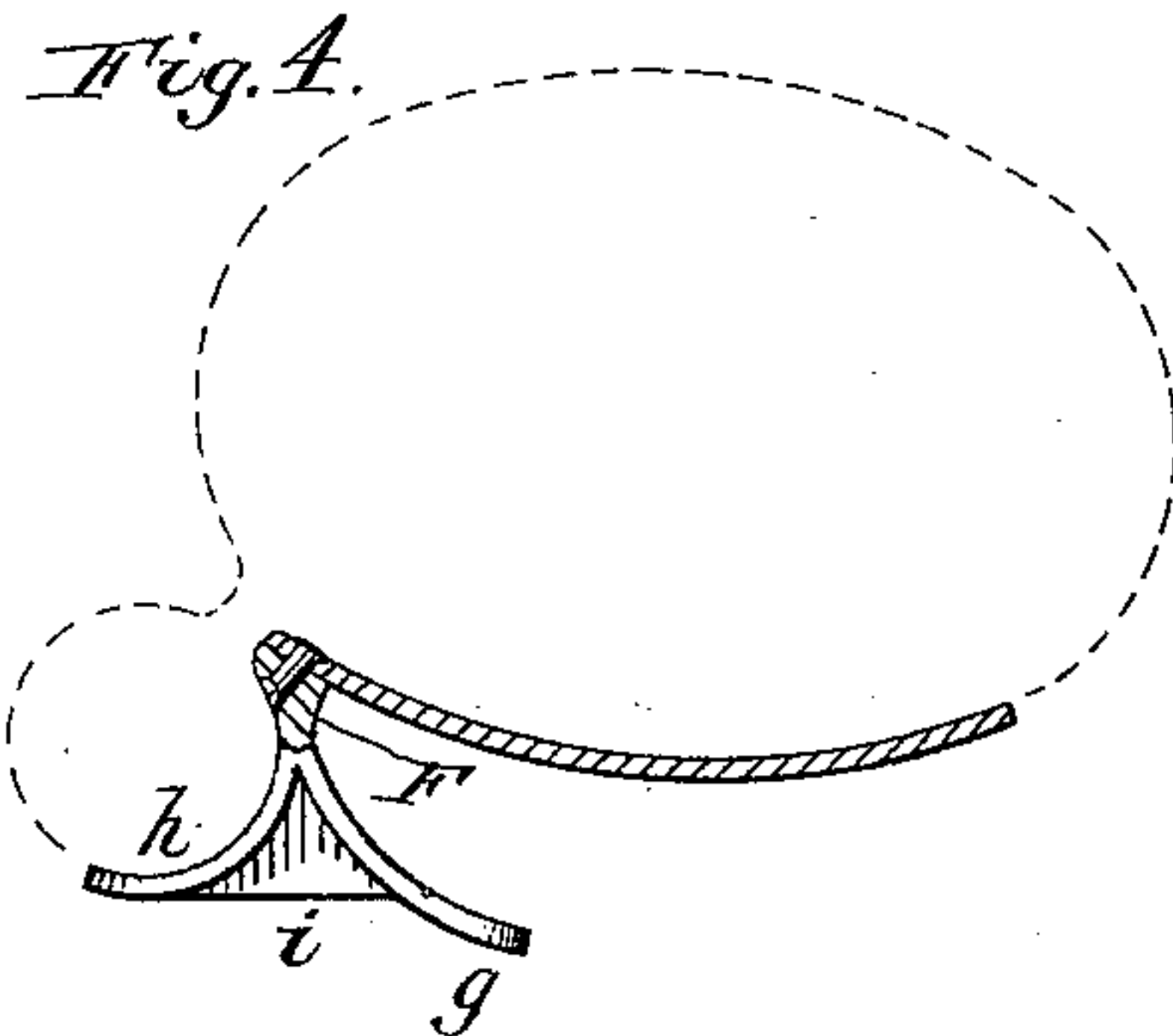
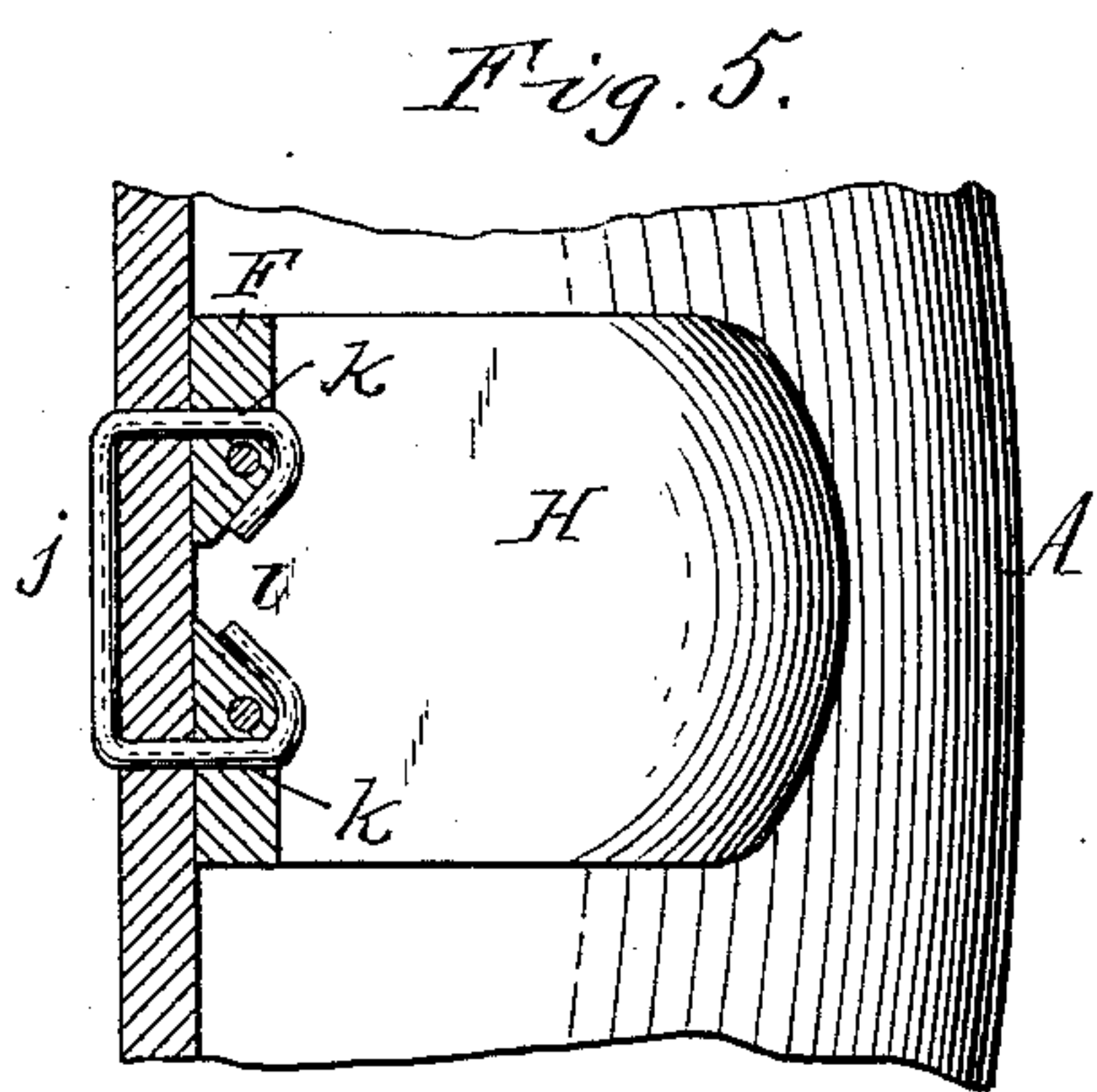
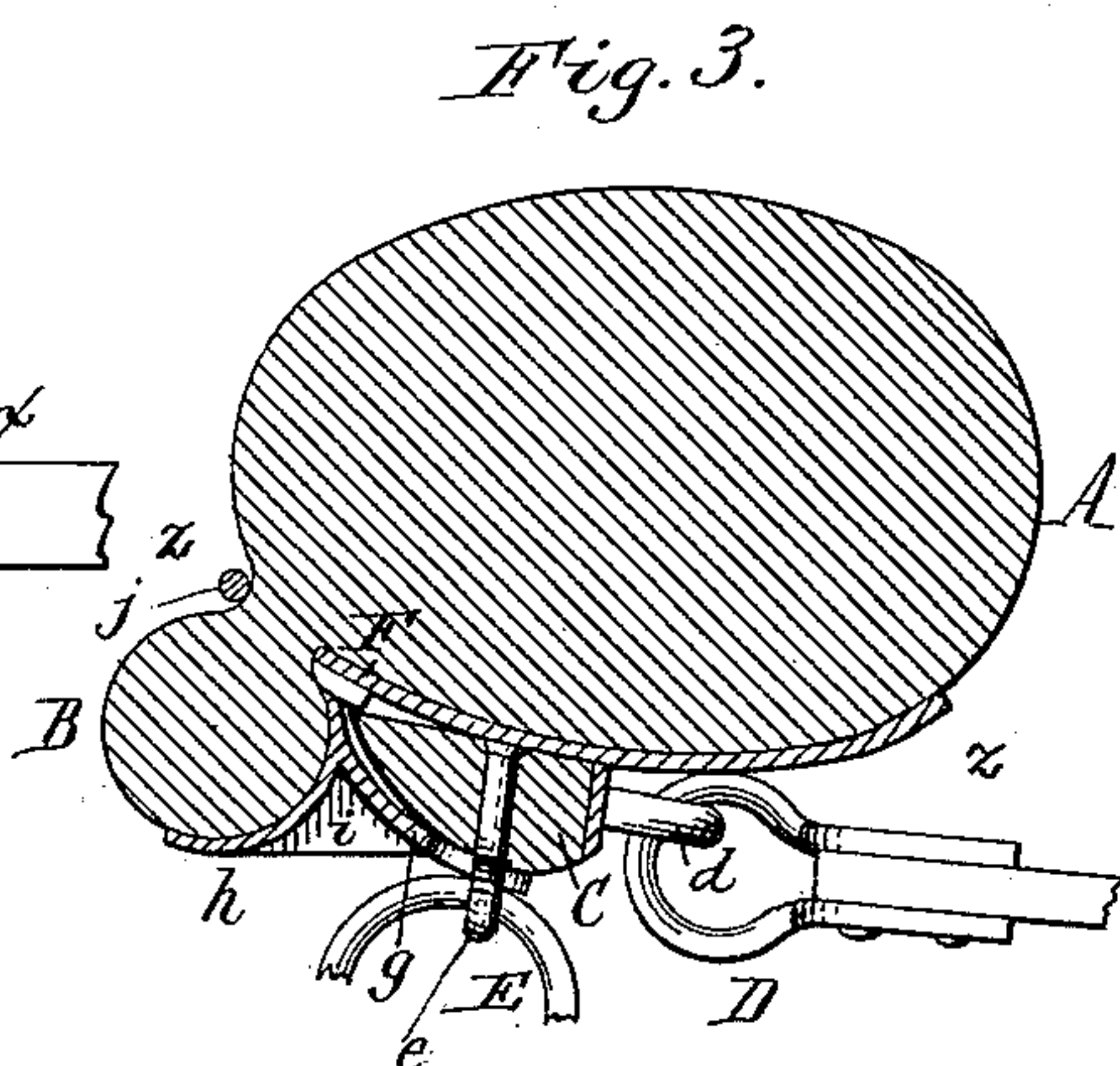
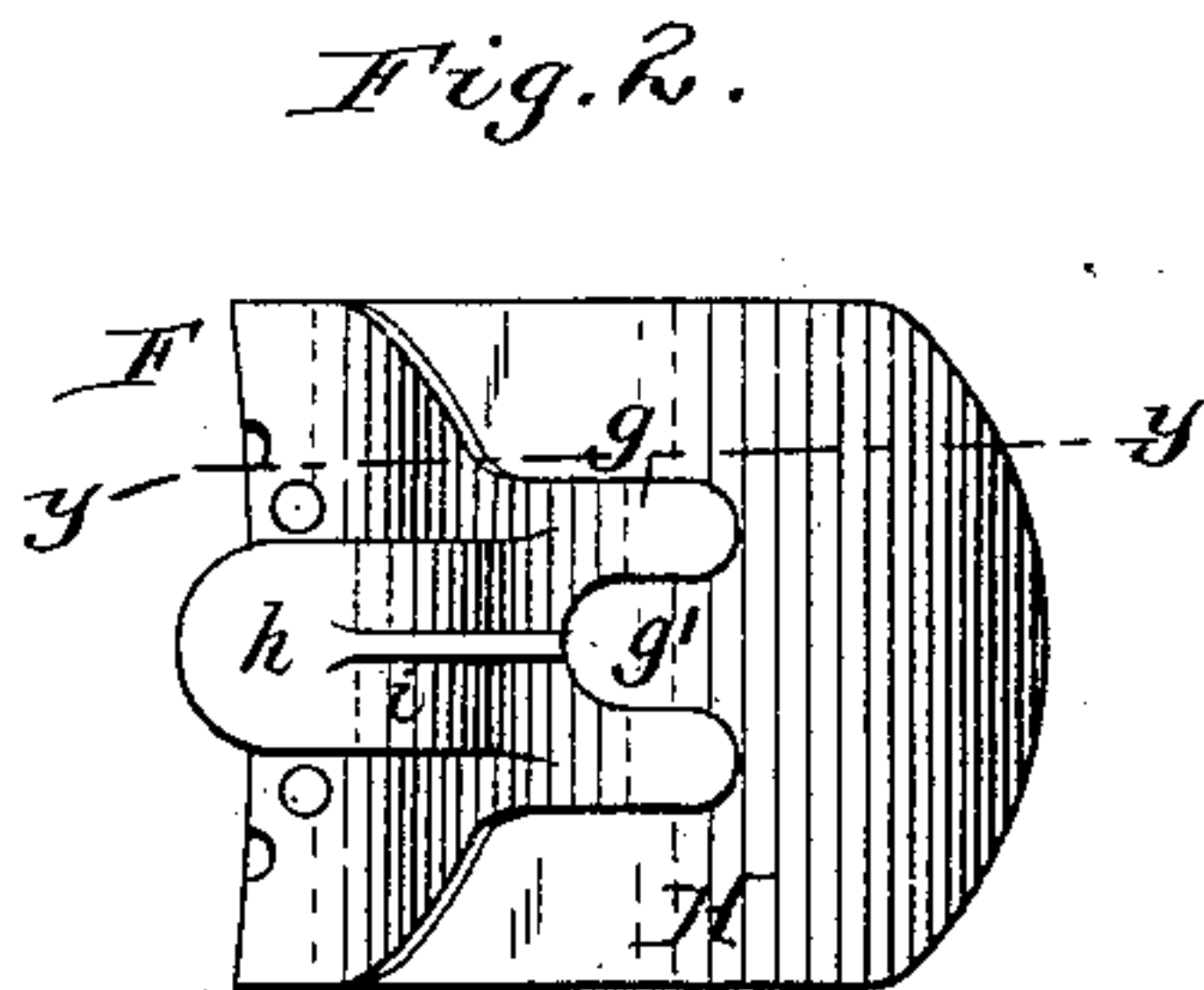
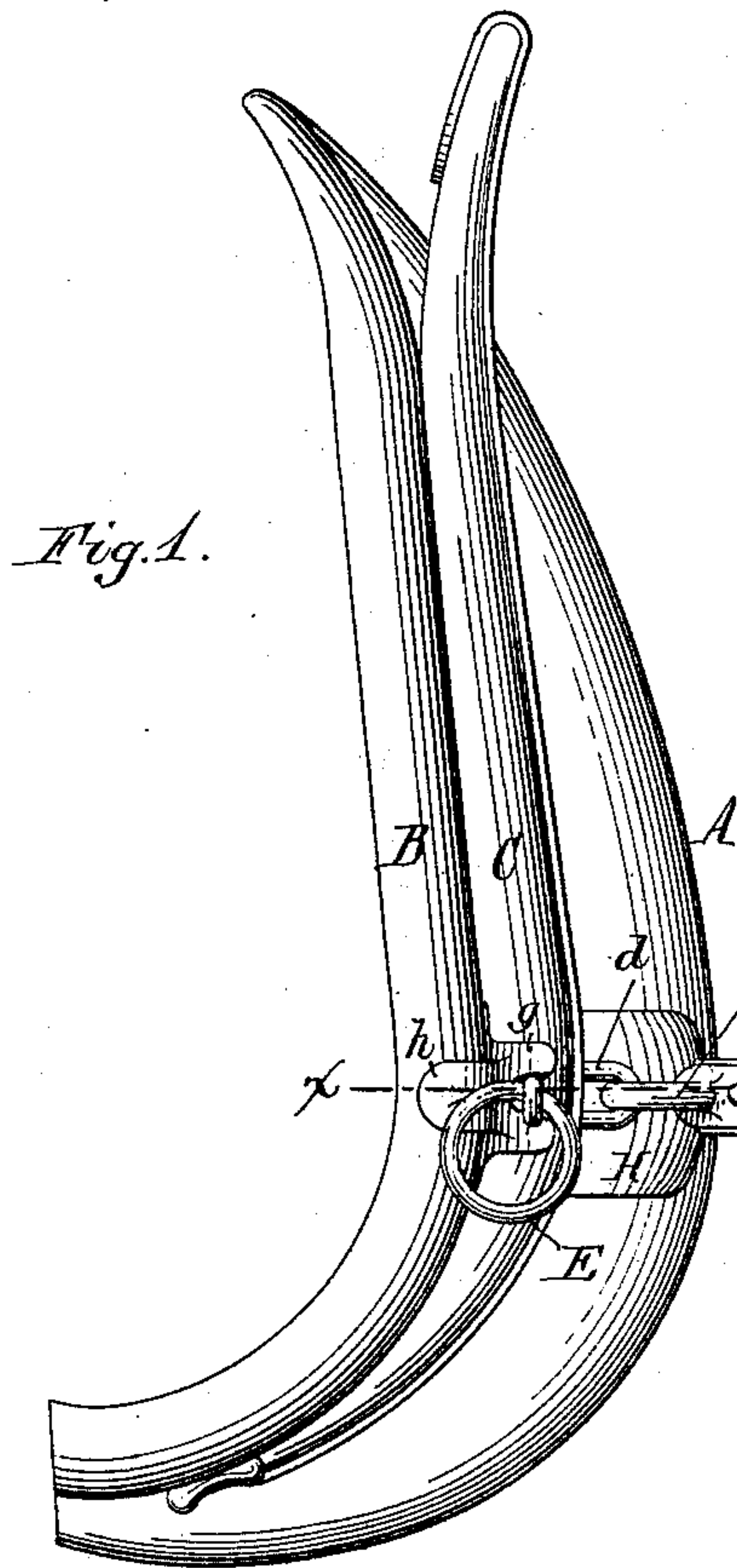


(No Model.)

G. S. CROSBY.
HORSE COLLAR.

No. 452,564.

Patented May 19, 1891.



Witnesses:

Emil Neuhart.
Jacob Neuenblatt.

George S. Crosby Inventor.
By Wilhelm P. Pomeroy.
Attorneys.

UNITED STATES PATENT OFFICE.

GEORGE S. CROSBY, OF BUFFALO, NEW YORK, ASSIGNOR TO PRATT & LETCHWORTH, OF SAME PLACE.

HORSE-COLLAR.

SPECIFICATION forming part of Letters Patent No. 452,564, dated May 19, 1891.

Application filed June 9, 1890. Serial No. 354,792. (No model.)

To all whom it may concern:

Be it known that I, GEORGE S. CROSBY, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented new and useful Improvements in Horse-Collars, of which the following is a specification.

This invention relates to an improvement in horse-collars, and has for its object to provide the collar with an attachment whereby the hames are securely held in place upon the collar and prevented from being drawn over the roll of the collar by the forward pull or draft on the hames in backing a heavy load; also, to provide the collar with a guard or plate to receive the wear of the hame and the tug-clip and protect the face of the collar.

In the accompanying drawings, Figure 1 is a side elevation of one of the sections of a divided horse-collar provided with my improved attachment. Fig. 2 is a front view of the attachment removed from the collar. Fig. 3 is a horizontal section, on an enlarged scale, in line *xx*, Fig. 1. Fig. 4 is a longitudinal section in line *yy*, Fig. 2. Fig. 5 is a vertical section taken between the body and roll of the collar in line *zz*, Fig. 3, showing the manner of securing the attachment to the same.

Like letters of reference refer to like parts in the several figures.

A represents the padded body of the collar, B the roll thereof, and C one of the hames seated between the body and roll in the usual manner, the upper and lower ends of the hames being connected together by the customary hame-straps, which are not shown in the drawings.

d is the draft-staple to which the tug-clip D is attached, and E is the breast-strap ring.

My improved attachment consists of a plate F, secured in the cavity formed between the roll and body of the collar and having an outwardly-extending lip or hook *g*, which clasps or embraces the outer front face of the hame, and an inwardly-extending lip or tongue *h*, which rests against the outer side of the roll and is curved to conform to the shape of the latter. The outwardly-extending lip *g* resists the forward movement of the

hame under the forward pull applied to the same in backing the load, while the lip *h*, bearing against the roll of the collar, stiffens and braces the hame-clasping lip and enables the same to effectually withstand the strains to which it is subjected. The lips *g* and *h* are connected by a re-enforcing rib or web *i*. The lip *g* is preferably formed with a notch or recess *g'* for receiving the shank of the staple *e* of the breast-strap ring.

H represents a guard or protector plate secured to the plate F and resting against the outer face of the collar and extending preferably to the outer edge thereof. This guard receives the wear of the hame and also the wear of the tug-clip, which latter bears against the guard, and thereby protects the collar from wear by the chafing of the clip.

The two lips *hg* and the plate F are formed in one piece, and preferably constructed of malleable cast-iron, and the guard H is preferably constructed of sheet steel or brass and secured to the plate F by rivets, as shown in Figs. 2 and 4.

As represented in Fig. 5, the attachment is secured between the roll and body of the collar by a staple *j*, the legs of which pass from the inner side of the collar outwardly through openings in the leather and through openings or recesses *k*, formed in the plate F, the ends of the staple-legs being clinched or bent inwardly toward each other to securely fasten the staple in place. The plate F is preferably provided with a central opening or recess *l*, having inclined or beveled sides, and the ends of the staple *j* are bent inwardly and rest against the inclined sides of the recess, as shown in Fig. 5.

The attachment is permanently secured to the collar, and the hames are placed under the projecting lips *g* on opposite sides of the collar and then drawn into place by the hame-straps.

My improved horse-collar attachment is inexpensive and is readily applied to the collar, and effectually prevents the hames from being stripped or pulled over the roll of the collar by a forward draft or pull on the hames.

I claim as my invention—

1. The combination, with a horse-collar, of

- an attachment secured to the outer face of the collar and consisting of an outwardly-projecting lip adapted to overlap the outer face of the hame, an inwardly-bent tongue 5 bearing against the roll of the collar, and a protecting plate or shield resting against the outer face of the collar and which receives the wear of the tug-clip, substantially as set forth.
- 10 2. The combination, with a horse-collar, of an attachment secured to the outer face of the collar and provided with an outwardly-bent lip adapted to embrace the outer face of a hame, an inwardly-bent tongue bearing against the roll of the collar, and a brace or 15 re-enforcing strip arranged between the lip and tongue, substantially as set forth.

Witness my hand this 10th day of May, 1890.
GEO. S. CROSBY.

Witnesses:

EDWARD W. KERR,
W. C. HOUCK.