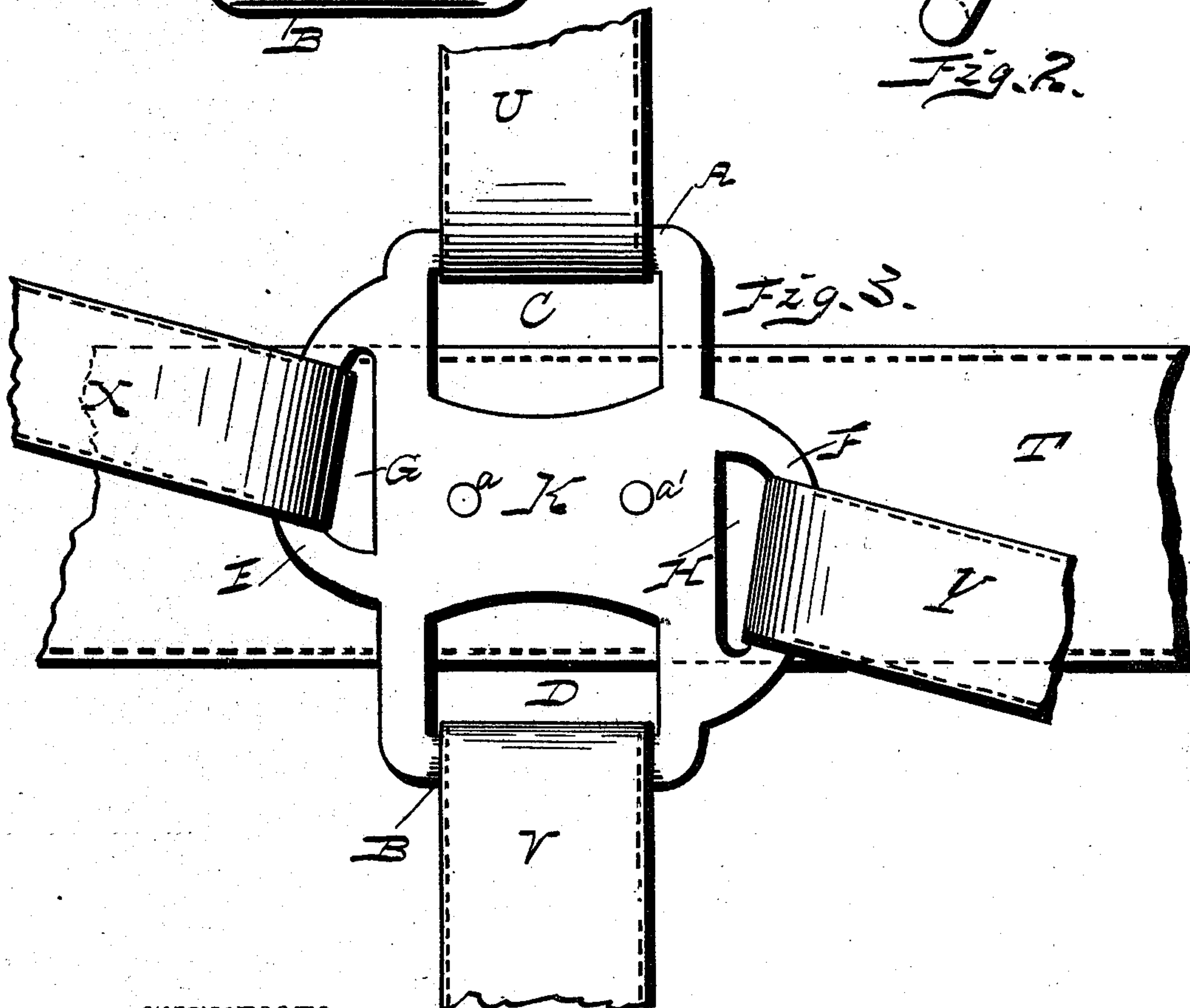
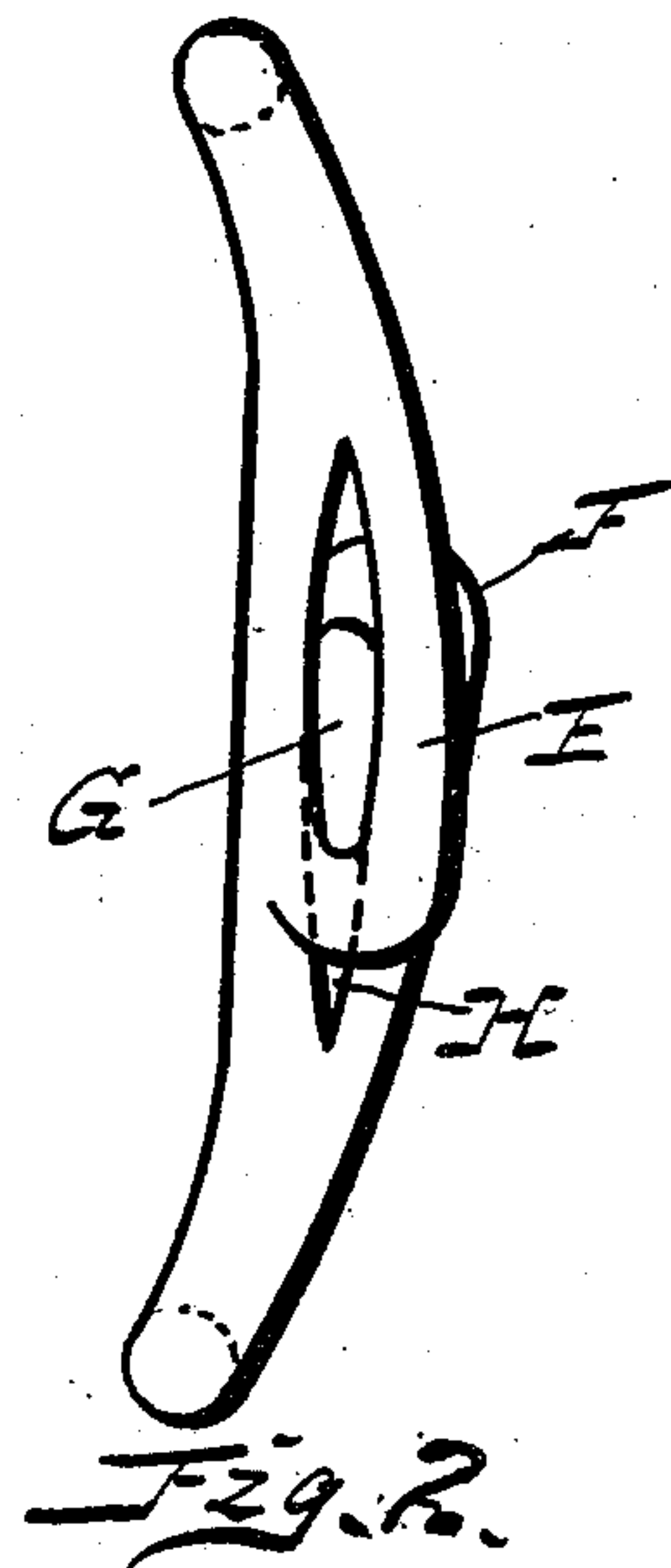
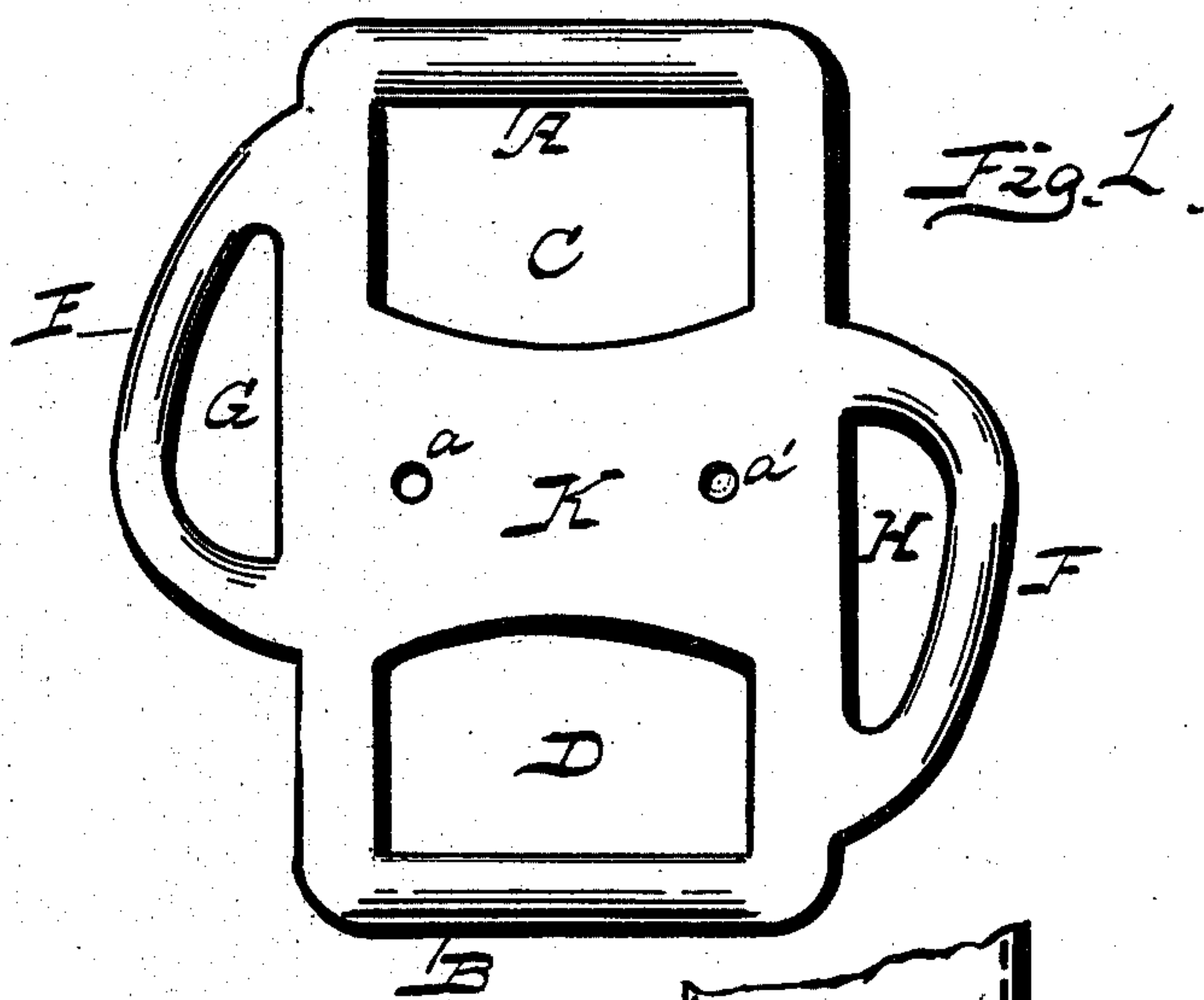


(No Model.)

J. K. HAMILTON.
HARNESS LOOP.

No. 413,717.

Patented Oct. 29, 1889.



WITNESSES
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JAMES K. HAMILTON, OF BROOKVILLE, PENNSYLVANIA.

HARNESS-LOOP.

SPECIFICATION forming part of Letters Patent No. 413,717, dated October 29, 1889.

Application filed March 19, 1889. Serial No. 303,928. (No model.)

To all whom it may concern:

Be it known that I, JAMES K. HAMILTON, a citizen of the United States, residing at Brookville, in the county of Jefferson and State of Pennsylvania, have invented certain new and useful Improvements in Attachments for Double Harness; and I do declare the following to be a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to an improvement in the manufacture of double harness. Its objects are, first, to provide a flexible connection of the back-band, the belly-band, and the trace without unnecessary enlargement or weakening of the trace; second, to prevent wearing out of the trace by friction upon it of the back-band and the belly-band; third, to provide a flexible connection of the breeching-strap and the little neck-yoke strap, by which the draft is in a direct line when resistance is applied, without the use of an extra belly-band and a carrying-strap. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a front view of the attachment. Fig. 2 is a side view of the attachment. Fig. 3 is a view of the attachment in use.

Similar letters refer to similar parts throughout the several views.

The attachment is of metal and is secured to the trace by rivets at *aa'*. The back-band is secured in the loop C and around the bar A by a billet. The belly-band is secured in the loop D and around the bar B by a billet. The back-band turning upon the bar A and the belly-band turning upon the bar B, form a flexible connection of the back-band, the belly-band, and the trace. The entire attachment being of metal, the center plate K is thin and does not unnecessarily enlarge, and being attached to the trace, as above set forth, by small rivets does not unnecessarily weaken the trace. Wearing out of the trace by friction upon it of the back-band and the belly-band is prevented by their being secured in the loops; as above set forth, and not passed around the trace.

The breeching-strap is secured in the loop

G and around the bar E by a billet. The little neck-yoke strap is secured in the loop H and around the bar F by a billet. The breeching-strap turning upon the bar E and the little neck-yoke strap turning upon the bar F, form a flexible connection of the breeching-strap and the little neck-yoke strap. The bar E and the bar F being placed at an angle to the sides of the attachment and parallel to each other, the draft is in a direct line when resistance is applied.

The loops C and D are curved inward to conform to the contour of the horse, and also to bring the bearing in the center of the trace. The loops G and H are curved outward to more readily admit the breeching and little neck-yoke straps.

T T' is the trace. U is the back-band. V is the belly-band. X is the breeching-strap, and Y is the little neck-yoke strap.

It will be observed by reference to Fig. 2 of the annexed drawings that the inside face of the plate K is straight or in a vertical line, presenting a flat surface, to which the flat trace T is secured by the rivets aforesaid while the upper and lower ends thereof are curved inwardly, as shown. This construction permits the trace, back-band, and belly-band to be in a straight vertical line with one another, and the side loops G and H extend outwardly at an angle to the plate K, thus separating the straps X and Y from the trace, and the loops being so arranged on each side of the device, the bars on an incline, give the desired slant to the breeching-strap and yoke-strap, thus permitting them to pull or receive the strain in a direct line when the animal is backing.

I claim as my invention and desire to secure by Letters Patent—

The within-described improved article of manufacture, consisting of the plate K, constructed with the upper and lower loops C D and side loops formed integral and having the perforations, said plate having a flat back and inwardly-curved ends, and the side loops extending outwardly, the bars E F of which incline in opposite directions and adapted to receive, respectively, the breeching-strap and yoke-strap, all as and for the purpose set forth.

JAMES K. HAMILTON.

Witnesses:

CYRUS H. BLOOD,
JOHN M. VAN VLIET.