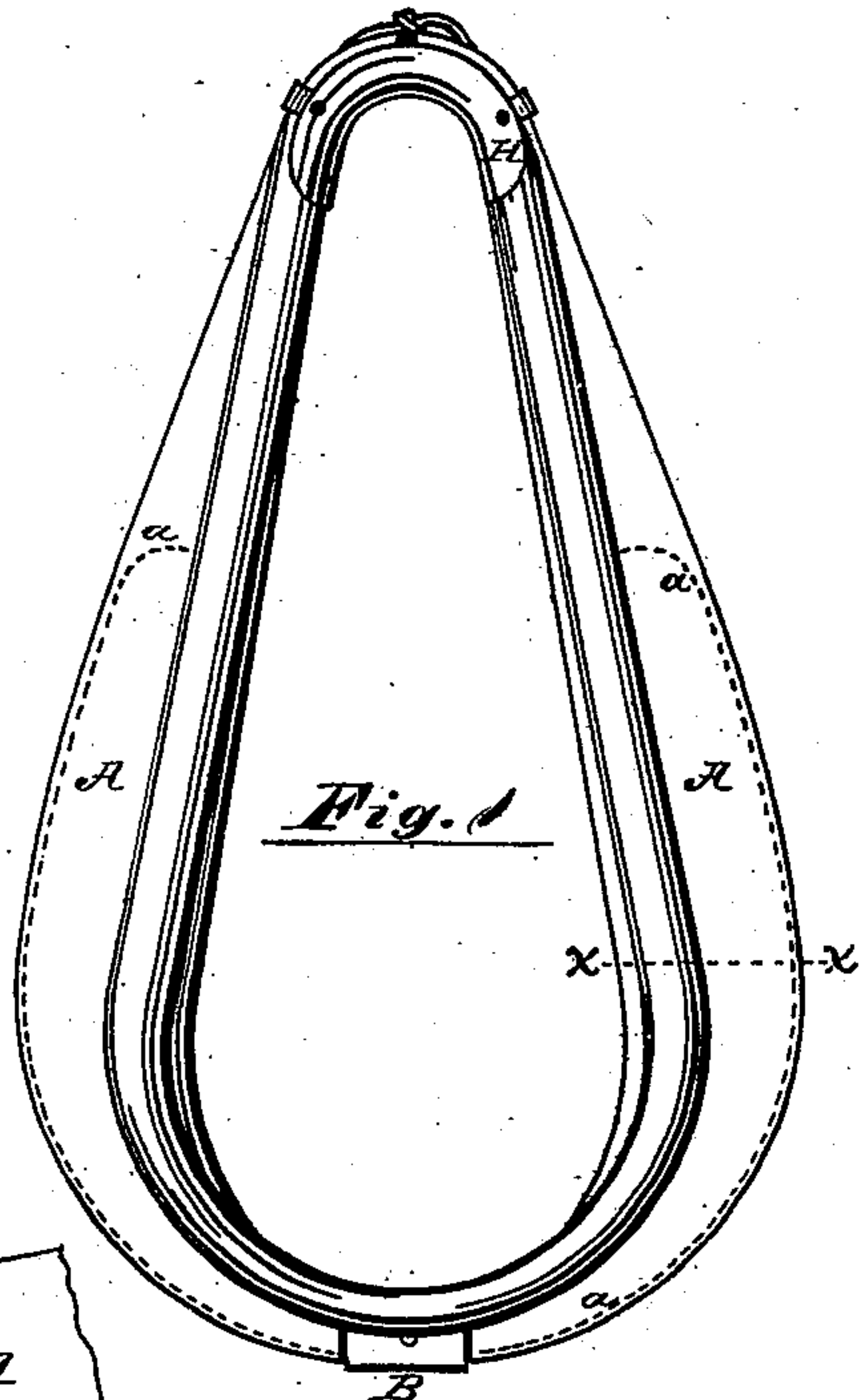


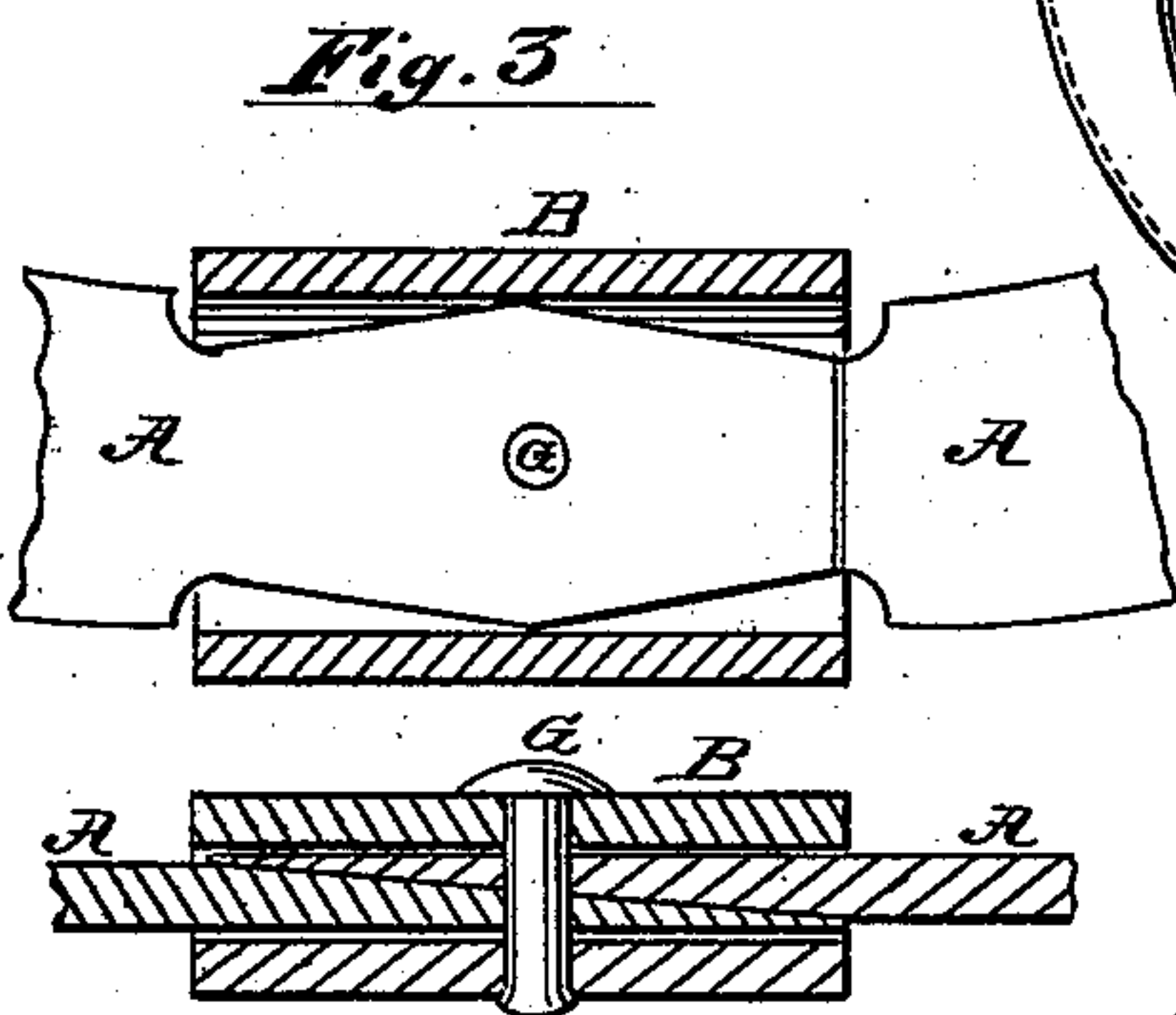
C. H. STEVENS  
Horse-Collar.

No. 210,219.

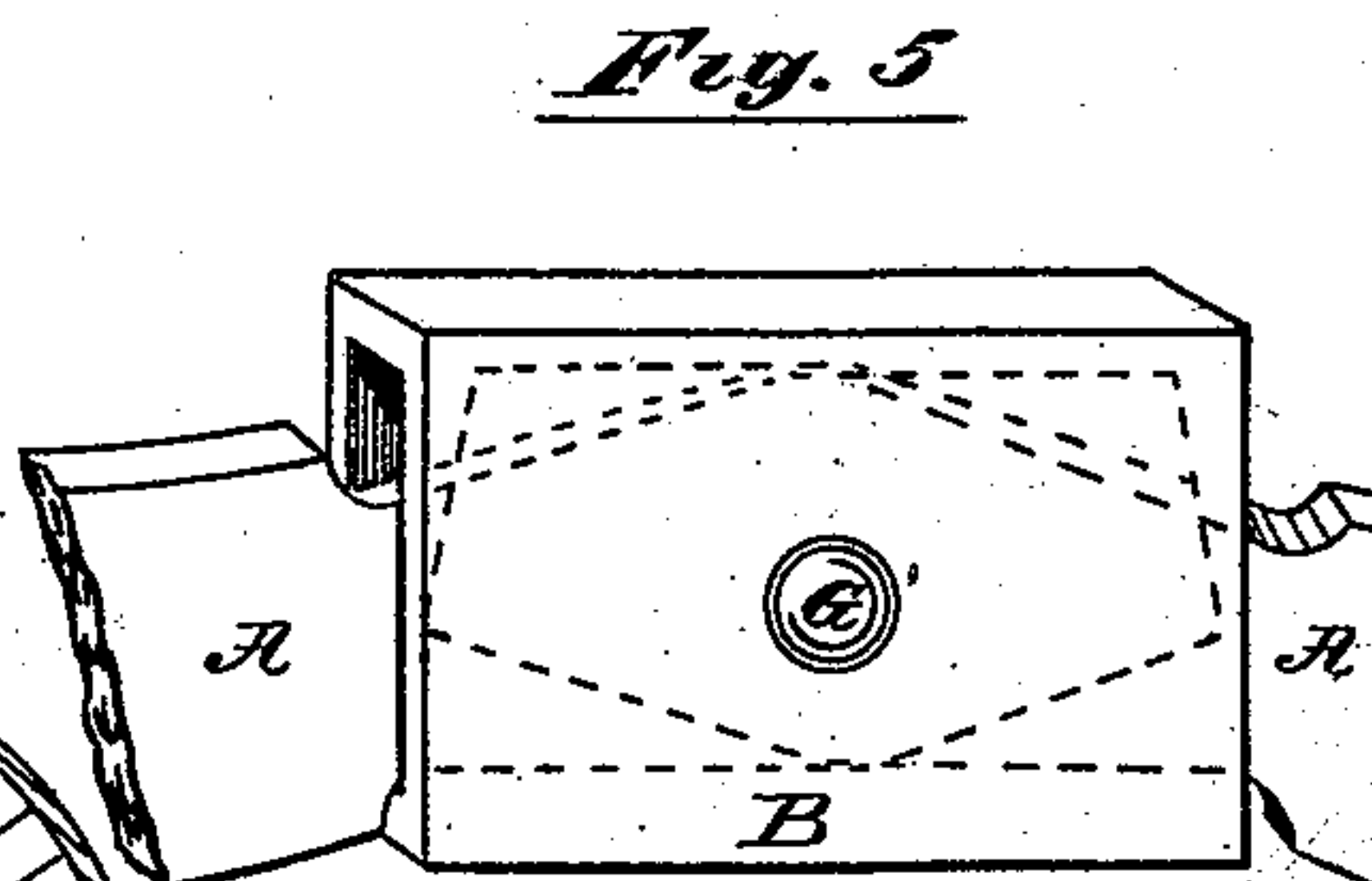
Patented Nov. 26, 1878.



*Fig. 1*

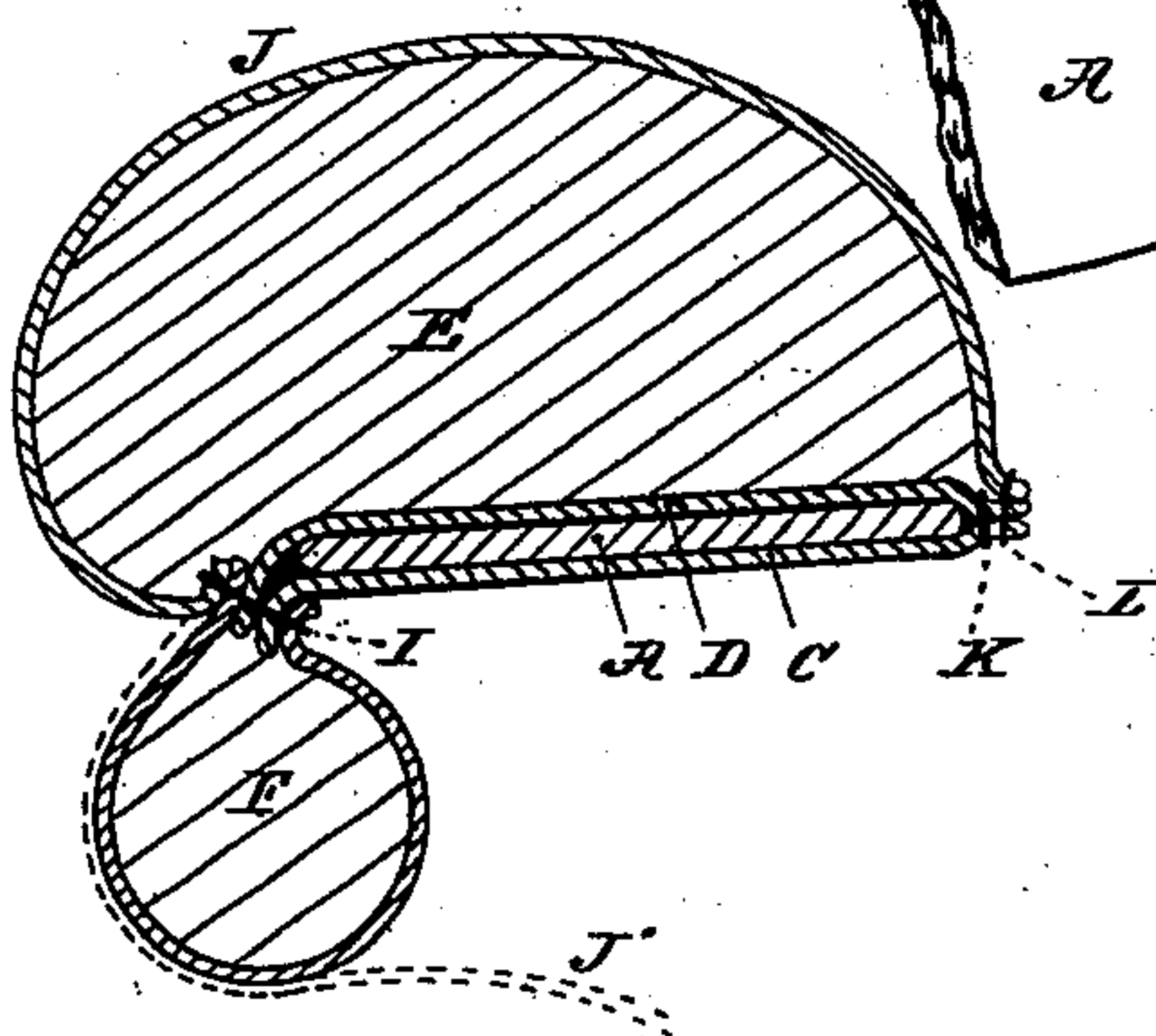


*Fig. 3*



*Fig. 5*

*Fig. 2*



*Fig. 4*

*Witnesses.*

*H. B. Martin*

*Jesse Coy Jr.*

*Inventor.*

*Charles H. Stevens.*

*Per W. E. Dwyer*

*Atty.*



# UNITED STATES PATENT OFFICE.

CHARLES H. STEVENS, OF CHICAGO, ILLINOIS.

## IMPROVEMENT IN HORSE-COLLARS.

Specification forming part of Letters Patent No. **210,219**, dated November 26, 1878; application filed April 25, 1878.

*To all whom it may concern:*

Be it known that I, CHARLES H. STEVENS, of Chicago, Cook county, State of Illinois, have invented certain new and useful Improvements in Horse-Collars, of which the following is a specification, the accompanying drawings being a part thereof.

My invention relates specially to an improvement in the collar described in Letters Patent No. 188,550, granted to me, and dated March 20, 1877; and consists in making the U-shaped plate therein described flexible at its lower or middle portion, with the object of securing adjustment of the collar to horses' necks of different thickness, and also of facilitating the operation of putting it on.

It also consists in a new arrangement of the several edges of leather in the seams connecting the parts of the collar, fully set forth below.

Figure 1 shows my improved collar viewed in front, the outline of the inclosed metal plate being indicated by dotted lines *a a*. Fig. 2 is a section of one side of the collar through the line *x x*, Fig. 1, and shows the relations of the several parts and illustrates the mode of construction. Figs. 3 and 4 are, respectively, vertical and horizontal sections of the box B, showing a joint in the plate at its lower or middle portion. Fig. 5 is a perspective view of the box and ends of metal plate embraced therein, showing expansibility of the collar.

The parts composing my improved collar are the metal U-shaped plate A, made flexible at B, Fig. 1; the casing of the plate formed by the leather strips C and D, Fig. 2; the shoulder-pad E, and the hame guard or rim F, with any approved form of neck-pad, H, over which the ends of the collar are buckled or otherwise joined.

The plate A does not differ in general form from the description given in said prior Letters Patent, being thin and curved out of a plane to conform to the neck sufficiently, and terminating on both sides at a point, to allow the apex of the shoulder-blade to freely play above it. It does differ, however, in being made flexible at B. This may be done in various ways. Thus, if the plate is of steel, as suggested in said prior Letters Patent, the lower portion may be made square or round,

and of a size to allow sufficient flexure; or it may be flat at this point, and the flat part bent out horizontally to lie up next to the rim. So it may be positively jointed in various ways. I prefer a positive joint, as it may thus be made more cheaply of malleable iron. Such a joint is herein shown, and made as follows: B is a solid cast-metal box, having a rectangular longitudinal aperture of uniform size throughout its length. The plate A is made in two equal parts, extended and beveled at their lower ends to overlies each other within B, as shown clearly in Fig. 4, making a lap of uniform thickness and little thinner than the aperture in which they lie. The portions of A forming the lap are also cut away on their edges both ways from the middle of the lap, giving them the form shown in Fig. 3.

Through the middle of the box B and of the lapping ends of A passes the rivet G. By means of the joint thus formed the upper portion of the collar may be spread to pass easily over the neck, and the bearing portion of the collar may also be adjusted to necks of varying thickness. By reason of the lap being thinner than the aperture a slight backward and forward movement of one side of the collar relative to the other is also permitted, which is in some cases desirable. The box and joint may be covered with leather, or not, as may be preferred.

Fig. 3 illustrates the best mode of putting my improved collar together, when a fixed pad is required. The seam I, first sewed, embraces both edges of the rim-leather and one edge of each of the strips C and D, which form the plate-casing, and of J, which forms the shoulder-pad cover. When this seam is sewed J is turned back into the position indicated by the dotted lines J', though it may be included with edges of C and D between the edges of the rim-leather. After sewing the seam I, C and D are drawn tightly over the plate A and are stitched at K, close to and fully around the outer margin of the plate. Finally the pad-cover J is drawn in and stitched to C, D, or to one of them in the seam L. In giving these relations to the several leather portions of the body of the collar the plate is independently and securely held, a

broad base of attachment is given to the rim F, and the pad-leather J may be repaired easily without disturbing either the plate or the rim.

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

1. The combination, in a horse-hame collar, of the jointed or flexible plate A, the casing-leathers C and D, the shoulder-pad E, and the rim F, substantially as described, and for the purposes set forth.

2. The plate A, made in two parts flexibly joined at their lower ends, incased and combined in a horse-collar, substantially as and for the purposes specified.

3. The plate A, made in two parts, having their lower extremities tapered, embraced, and held in the box B, substantially as shown, and for the purposes set forth.

4. A hame-collar provided with a U-shaped plate, A, and having the leather portions that incase the plate and those that further form the body of the collar and rim secured to each other in the relation substantially as shown and described, and for the purposes specified.

CHARLES H. STEVENS.

Witnesses:

JESSE COX, Jr.,  
M. E. DAYTON.