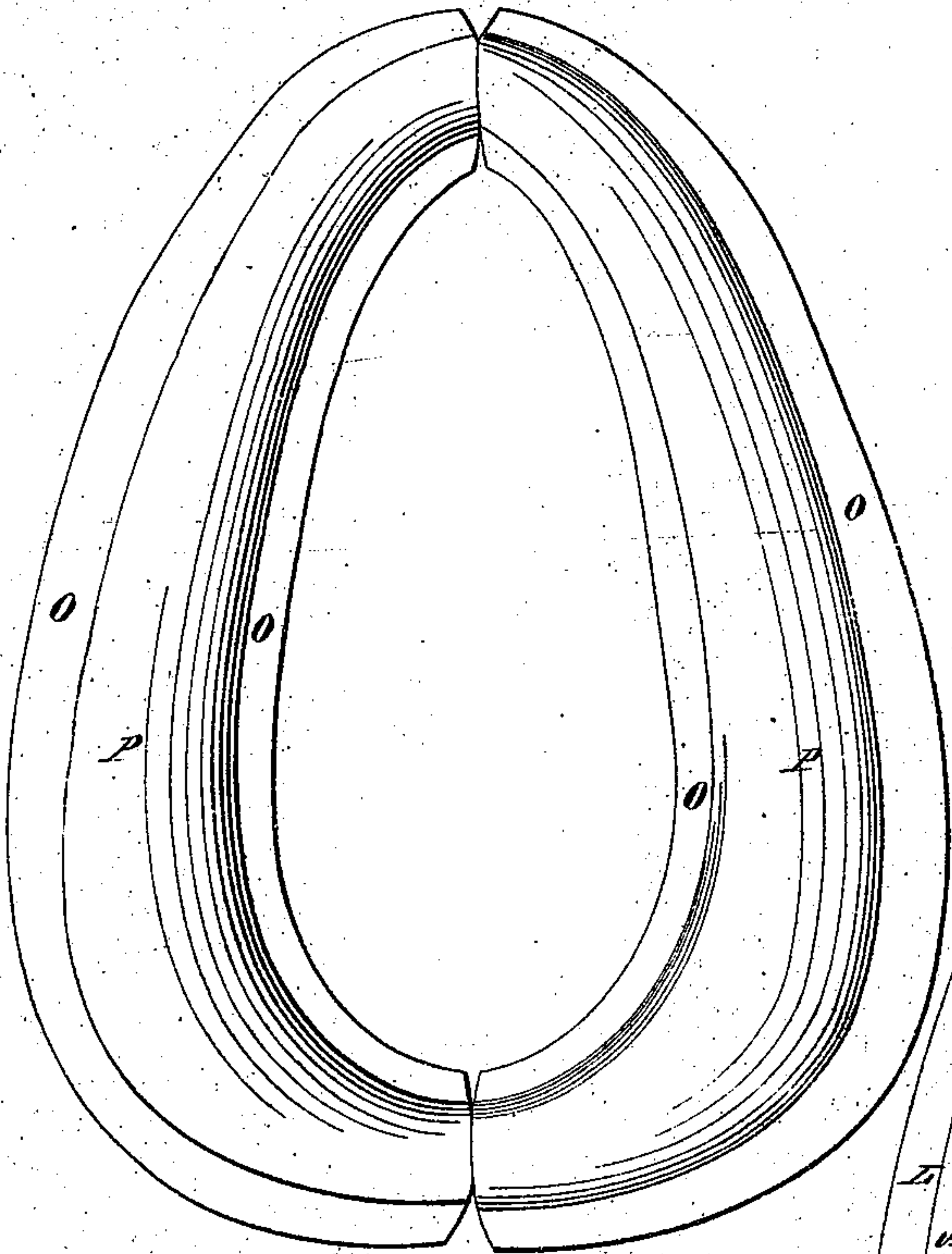


*J. Ende,*  
*Horse Collar,*

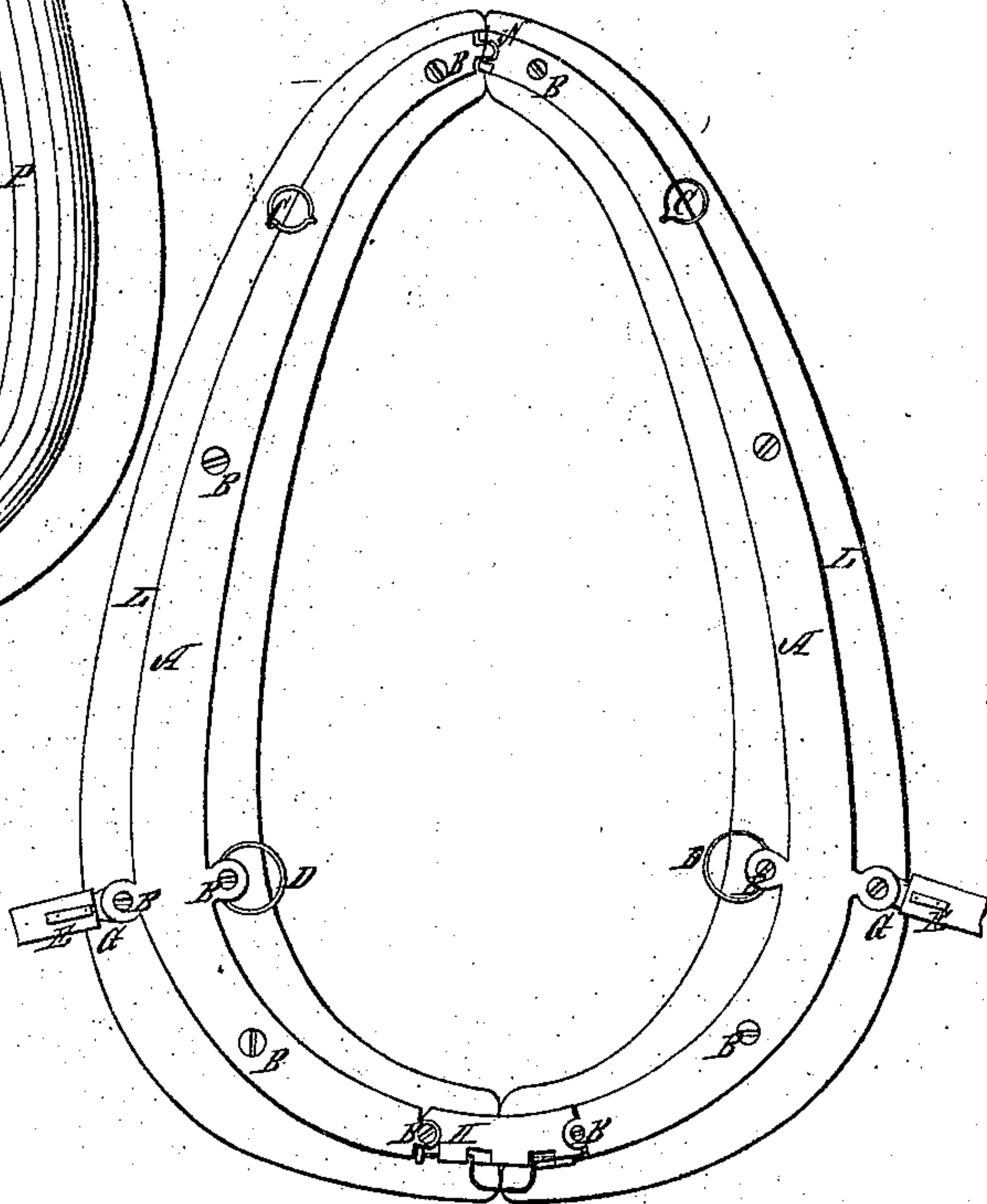
*Nº 30,912.*

*Patented Dec. 18, 1860.*

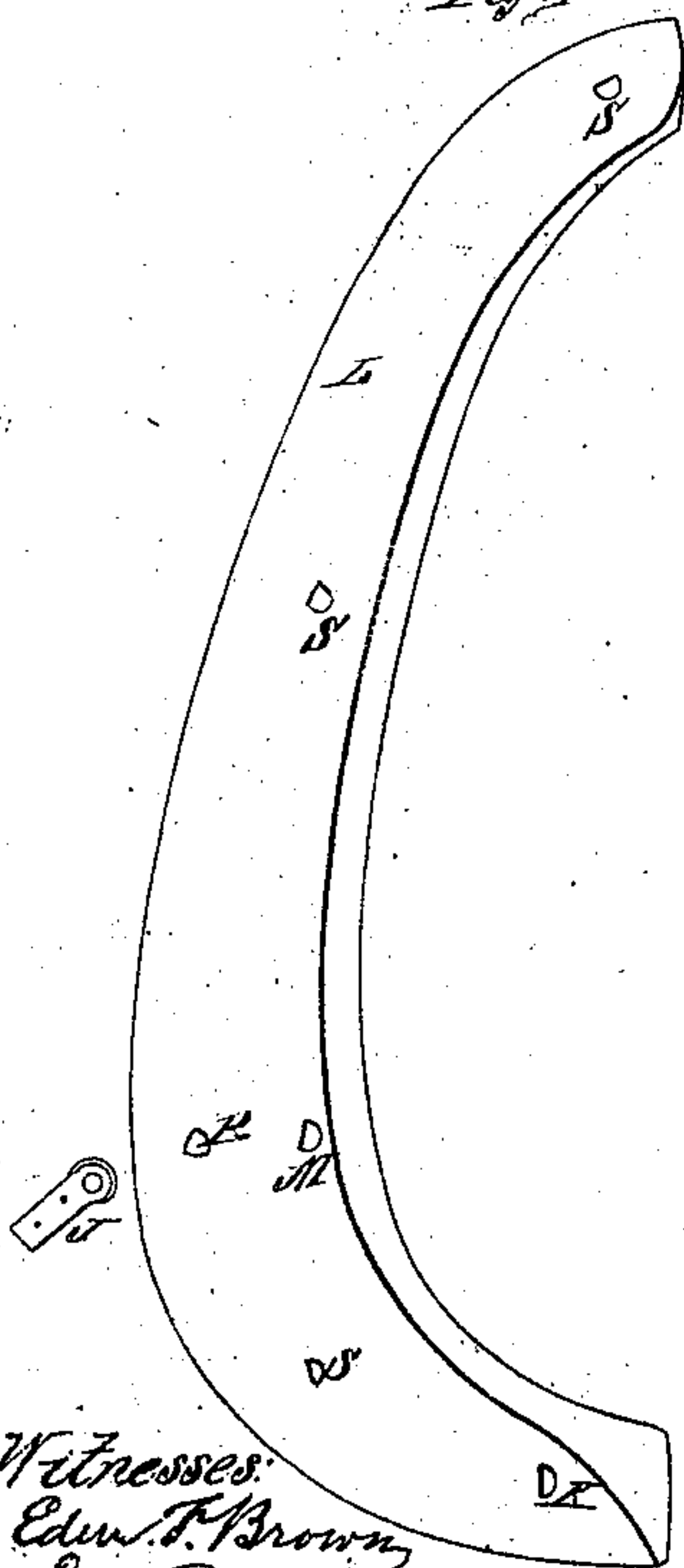
*Fig. 3.*



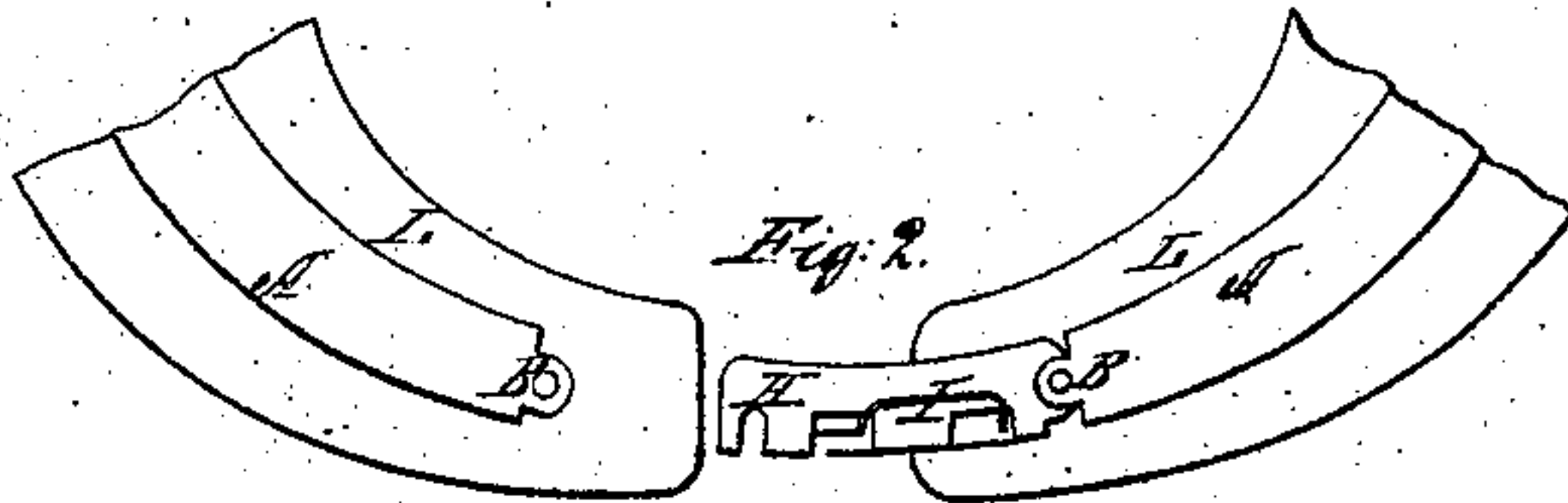
*Fig. 1.*



*Fig. 4.*



*Fig. 2.*



*Witnesses:*  
*Edw. F. Brown*  
*Sam'l Burton*

*Inventor:*  
*John Ende*



# UNITED STATES PATENT OFFICE.

JOHN ENDE, OF BUFFALO, NEW YORK.

## HORSE-COLLAR.

Specification of Letters Patent No. 30,912, dated December 18, 1860.

*To all whom it may concern:*

Be it known that I, JOHN ENDE, of Buffalo, in the county of Erie and State of New York, have invented certain Improvements  
5 in Horse-Collars; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon, in which—

10 Figure 1, is a front view of the collar and hames ready for use.

A, A, are metal plates, or hames, which fit upon and are permanently fastened to the inner frame L, Fig. 4, by means of  
15 screws.

B, B, B, B, B, B, B, B, B, B, are screws which serve to fasten the hames to the collar.

20 C, C, are rings, riveted to the hames A, Fig. 1, and serve to guide the reins.

N, is a hinge which connect the hames at the top.

E, E, are the parts of traces, fastened to the clips by means of rivets.

25 G, G, are clips which serve to connect the traces to the collar. They are placed between the hames A, and inner frame L, Fig. 4, and work upon the elevation R, Fig. 4, which elevation serves as its pivot.

30 D, D, are rings which serve to receive the hold back strap, and secured between the hames A, Fig. 1, and the frame L, Fig. 4. They work up on the elevation M, Fig. 4.

35 H, is a lock which connects the collar at the bottom. One end of the said lock is fastened between the hames A, Fig. 1, and the frame L, Fig. 4, the elevation K, Fig. 4, serving for its pivot to work upon. The other end of the lock is recessed to fit upon  
40 the elevation K, Fig. 4, of the corresponding end of the collar and permits the same to pass between the hame and inner frame.

I, is a movable bolt, attached to the lock H. It is drawn across to close the recess  
45 in the lock H, when the same is shut down, the bolt is then turned into a recess, which prevents its shifting from its proper place. The martingale can be fastened to the bolt, which will also tend to prevent its moving  
50 accidentally.

Fig. 2, is an end view of the collar and hames, partly open, showing the bolt I, turned up drawn back into its socket.

Fig. 3, presents a view of the pad. It is made of leather or cloth and stuffed with  
55 hair or its equivalent.

O, O, is a welt, seamed in with the pad P, and serves to fasten the latter to the collar in the following manner: The frame L, Fig. 4, is laid upon the said pad. The welt O, O, 60 is then drawn around and its two edges sewn together. The plate or hame A, Fig. 1, is then screwed on top, to cover the seam of the welt O, O.

Fig. 4, presents a view of the inner frame. 65 The spots marked S, S, S, R, M, and K, are elevations forming sockets for the screws from the hames A, Fig. 1. The elevation R, also forms the pivot for the clip G, to work upon. The rings D, D, Fig. 1, are 70 placed against the elevation N, which is in an opposite direction to elevation R, thereby preventing the collar or hames from being drawn out of their proper shape. The elevation K, besides serving as a socket for 75 the screw B, will also prevent the lock from wearing on the same. The inner frame L, as well as the hames, may be made of any desirable metal.

By this invention the collar can be made 80 much lighter than any metal collar of corresponding strength and durability. The manner of fastening the pad permits the same or any part thereof to be replaced with great facility and neatness. The ap- 85 plication of the lock is not only strong and secure, but also very simple.

The construction of this collar dispenses with the hame straps or other mode of connecting the hames other than the hinge, 90 which serves for both collar and hames.

I do not claim the application of metal to horse collars. Nor do I claim the combination of collar and hames. Nor do I claim the fastening of the collar on top and 95 bottom broadly considered.

I make the following claims for my invention:

1. The manner in which the clips, G, G, Fig. 4, and hold back rings D, D, Fig. 1, 100

are attached as described and for the purpose set forth.

2. The peculiar construction of the lock H, I, Fig. 1, and Fig. 2, in the manner and  
5 for the purpose specified.

3. The arrangement of the welt seamed in with the pad and the seam covered by

the hames as described and for the purpose set forth.

JOHN ENDE.

Witnesses:

THOMAS NIEDZIELSKI,  
LOUIS DASER.