

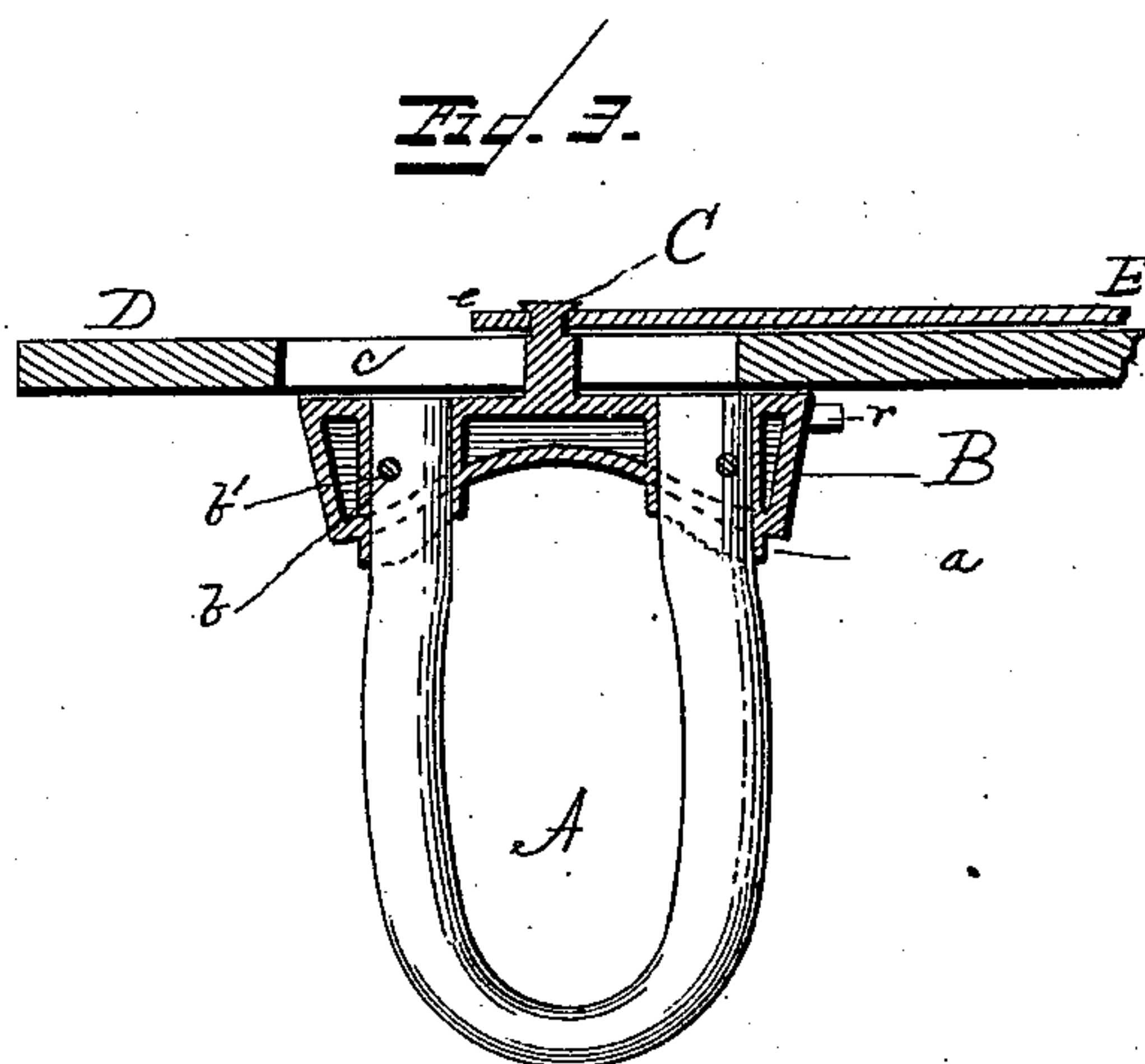
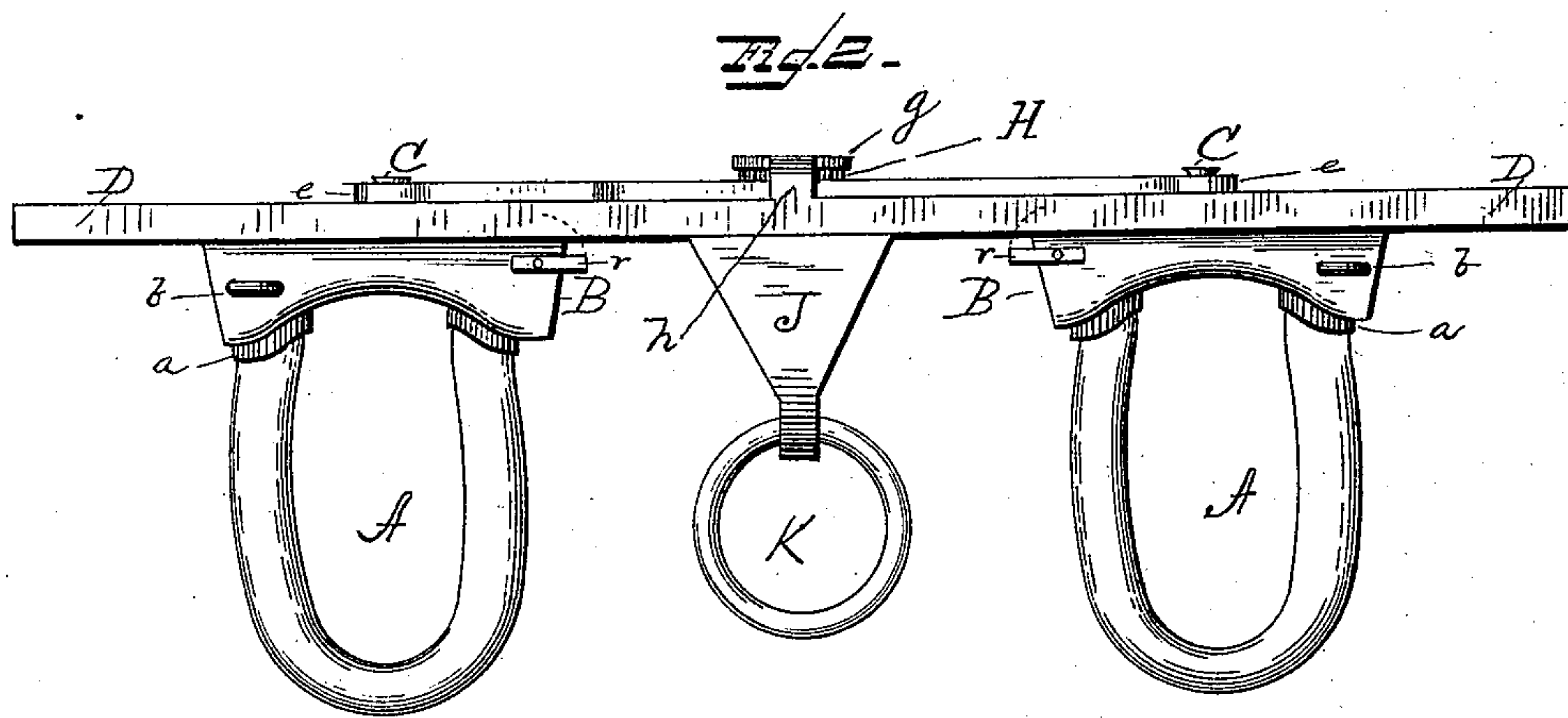
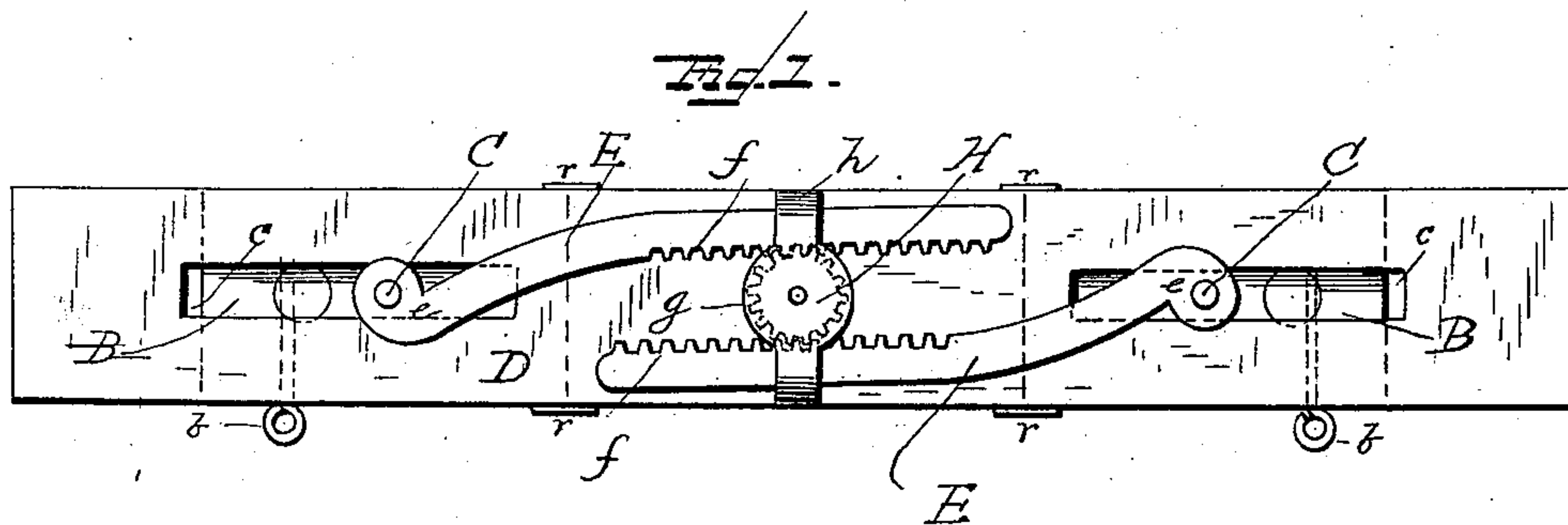
(No Model.)

S. WOODWARD.

OX YOKE.

No. 363,876.

Patented May 31, 1887.



Witnesses  
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# UNITED STATES PATENT OFFICE.

STEPHEN WOODWARD, OF SUNAPEE, NEW HAMPSHIRE.

## OX-YOKE.

SPECIFICATION forming part of Letters Patent No. 363,876, dated May 31, 1887.

Application filed March 18, 1887. Serial No. 231,396. (No model.)

*To all whom it may concern:*

Be it known that I, STEPHEN WOODWARD, a citizen of the United States, residing at Sunapee, in the county of Sullivan and State of New Hampshire, have invented certain new and useful Improvements in Ox-Yokes; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it ap-  
10 pertains 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 that class of ox-  
15 yokes in which the bows have a lateral play as regards the top beam; and the chief object is to swivel the neck-piece carrying the bows, the swivel-bolt passing from the neck-piece through a slot in said beam and terminating  
20 in the washer end of a sliding toothed rack on the upper side of the top beam, each neck-piece turning on said bolt as a center, no matter what the varying lateral position of the bows may be.

25 In the drawings, Figure 1 is a plan view. Fig. 2 is a side elevation. Fig. 3 is a broken vertical section.

Like letters refer to like parts.

A represents the bows. These are inserted  
30 in the depending sockets *a* of the neck-piece B, but do not extend above it, and are fastened by pins *b*, corresponding holes, *b'*, one or more, being made in the limb of the bow; hence said bows may be readily attached or  
35 removed from the neck-piece. The chief purpose of the depending sockets, which extend through the neck-piece, is to give a greater depth of bearing for the bows than is usually done. The body of the neck-piece when cast  
40 from metal is substantially hollow and adds little weight to the yoke. From the top of said piece B extends each swivel-bolt C. These pass through long slots *c* in the top beam, D, and are riveted in the washer end *e* of the slid-  
45 ing rack E. However, it would answer as well to thread the upper end of bolt C and fasten it by a nut. The racks E are toothed at *f* for more than half their length, and the teeth en-  
50 gage with a gear-wheel, H, pivoted on the top of beam D and underneath a circular guard, *g*, made integral with the bridge *h*, the sides

of which prevent the racks from getting out of place.

J is a staple carrying the pole-ring K. It will now be seen how the bows can both have  
55 lateral play, and also turn on the swivel-bolt as the necks of the oxen vary; but, if desired, a latch or latches, *r*, may be placed on the outer sides of the neck-piece, which by striking the top beam would regulate or shut off  
60 the rotation of the neck-piece.

I propose to make the full-sized yokes of malleable iron or suitable material, and in such case the swivel-bolt and bow-sockets would be  
65 cast integral with the neck-piece; but when the yoke is made of wood the said sockets would be tightly driven into the wooden neck-piece, and other variations coming within ordinary judgment could be made, which need not be speci-  
70 fied.

Some of the benefits of my improvement are as follows: Whatever the position of the oxen is, the pressure of the bow on the nigh and off shoulder will be always natural and equal, whether the cattle crowd or haul, or  
75 when one pushes ahead of the other, whereas in the old devices, if one ox hung back or pushed ahead, there was unnatural pressure on one shoulder of each, which led to galling, &c. Again, in my device the teamster can  
80 turn the cattle entirely around or "head on" without taking them from the tongue of the cart, which is a great advantage when steep entrances are to be ascended, also for saving the team and obviating the lifting of the tongue  
85 when heavily loaded.

From the manner in which the swivel bolts are attached to the rack-bars the ordinary movement of the necks of the oxen need not necessarily give lateral motion to said bars;  
90 but when the cattle materially change their position the bolts will cause said bar to move and the parts will adjust themselves.

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

1. The combination, with the slotted top beam, of the gear-wheel, the rack-bars toothed on opposite sides of said wheel and provided with a washer end, the neck-pieces having a  
100 bow, and a swivel-bolt, the latter adapted to turn in the washer end of its respective rack-

bar, whereby the said bolts may turn without moving the rack-bars laterally or may move them when the oxen crowd or push away, as set forth.

- 5 2. In an ox-yoke, the combination, with the slotted top beam, the rack-bars, and gear-wheel, of the swiveled neck-pieces, each provided with a bow, depending bow-sockets, and locking-latches, the latter engaging with the top

beam to prevent or adjust the rotation of said neck-pieces, as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

STEPHEN WOODWARD.

Witnesses:

W. C. STUROC,

SARAH C. STUROC.