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J. O'CONNELL.
SHAFT TUG OR SUPPORT.
APPLICATION FILED MAY 4, 1905.

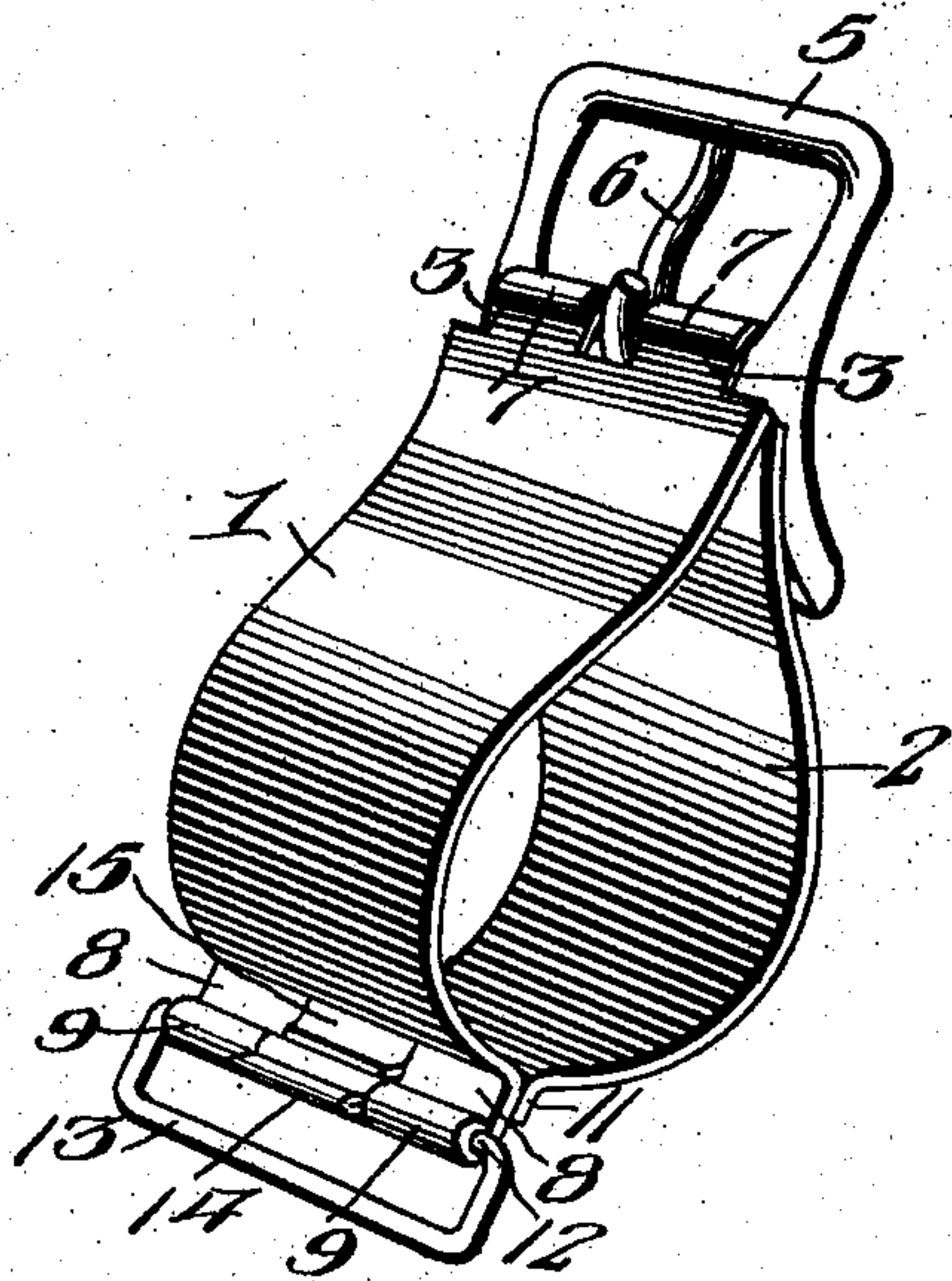


Fig. 1.

Fig. 2.

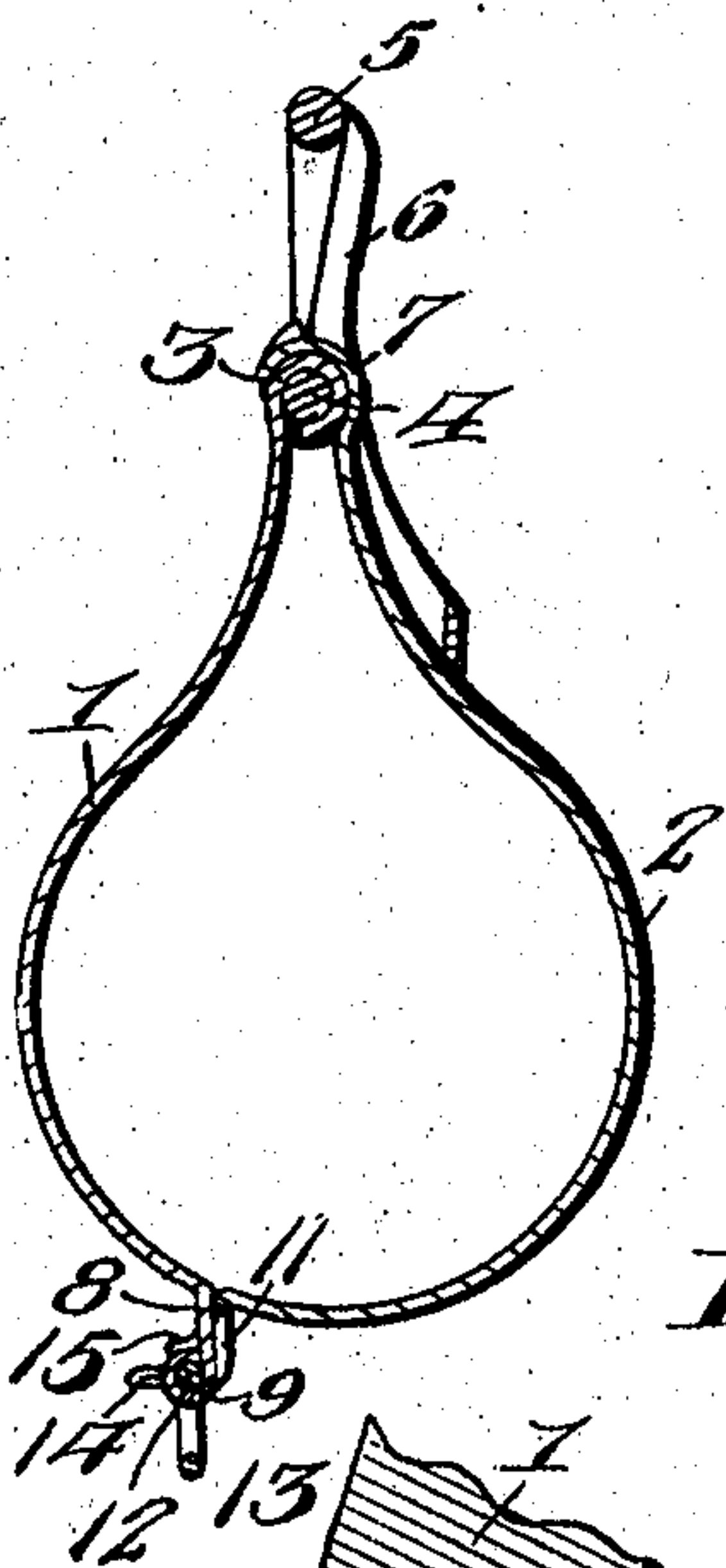


Fig. 3.

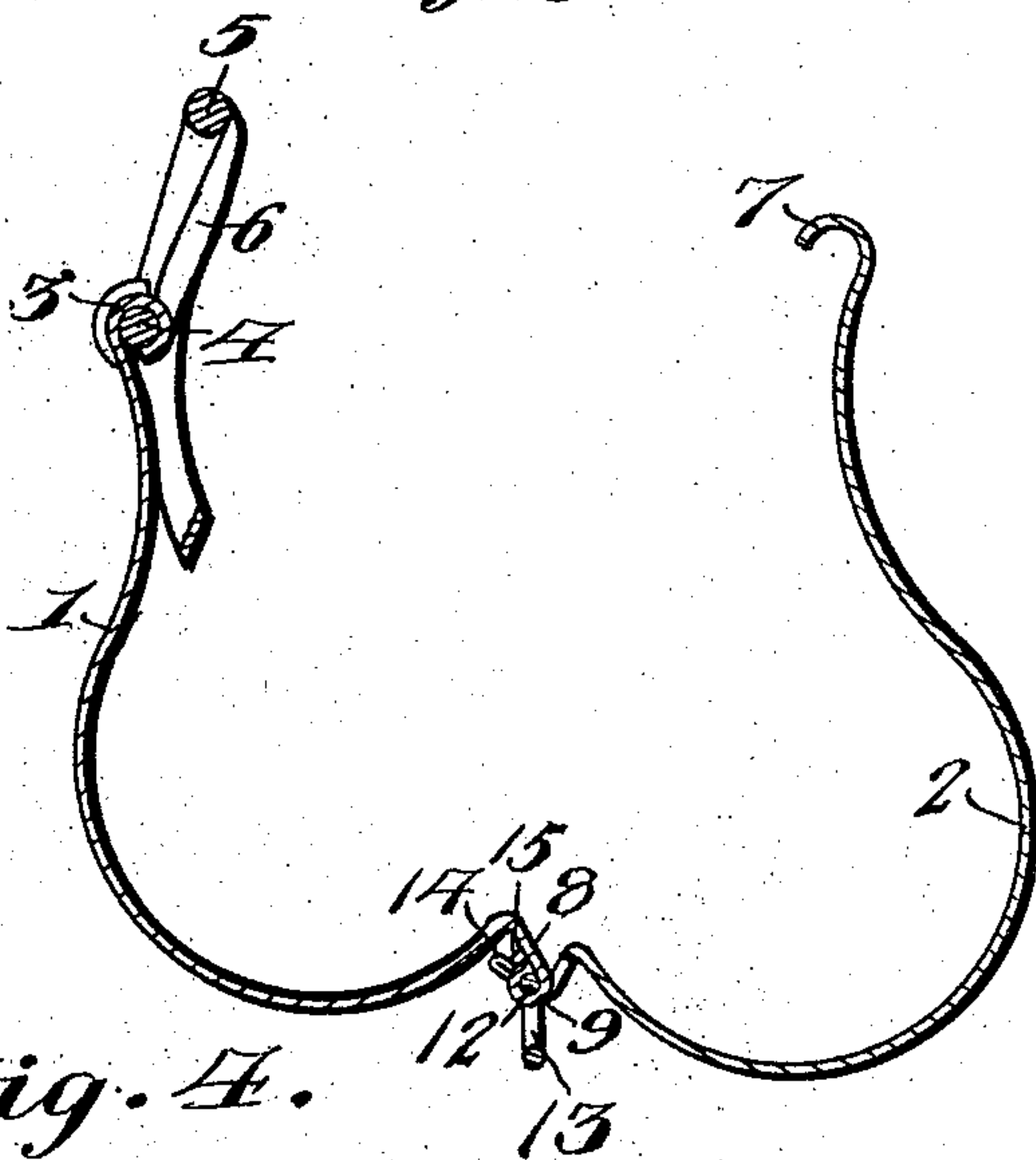
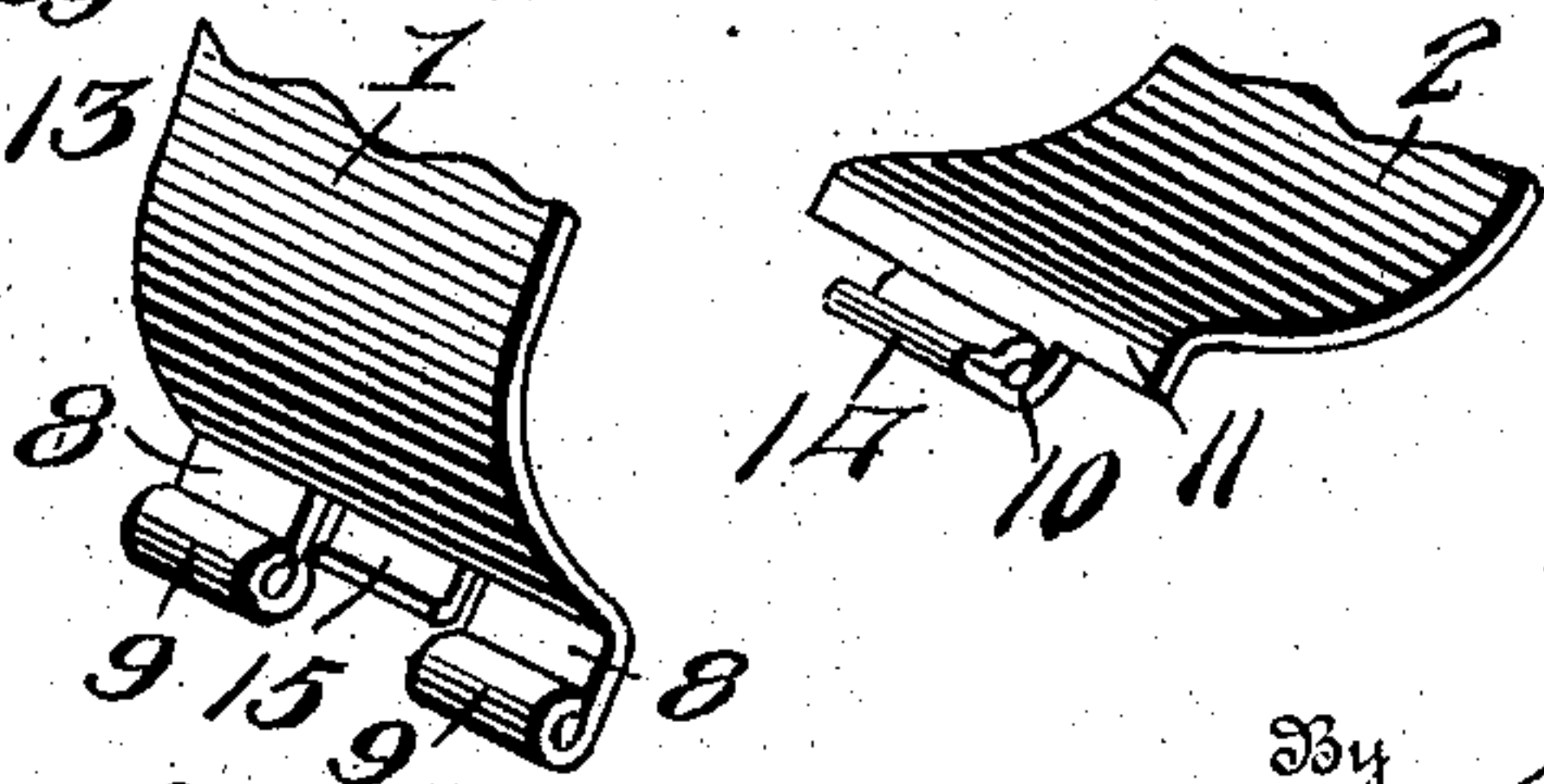


Fig. 4.



Witnesses

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SHAFT TUG OR SUPPORT.

No. 815,730.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JAMES O'CONNELL, a citizen of the United States, residing at Mount Sterling, in the county of Montgomery and State of Kentucky, have invented new and useful Improvements in Shaft Tugs or Supports, of which the following is a specification.

This invention relates to shaft tugs or supports; and the object of the present invention is to provide a simple, novel, reliable, and handy device of the character referred to adapted for use in connection with single harness for the effective support of shafts, which will facilitate the hitching of an animal, and by means of which the shafts will be effectively supported and held in place irrespective of the jar, jolting, and jerking to which devices of this kind are ordinarily subjected, the construction of the tug or support being such that the hinged members thereof are held locked in their coupled position, the weight of the shafts assisting in the operation.

With the above and other objects in view, the nature of which will more fully appear as the description proceeds, the invention consists in the novel construction, combination, and arrangement of parts, as hereinafter fully described, illustrated, and claimed.

In the accompanying drawings, Figure 1 is a perspective view of a shaft tug or support embodying the present invention. Fig. 2 is a vertical sectional view of the same, showing the two members of the tug coupled together as they appear when in use. Fig. 3 is a similar view showing the tug members disconnected at their upper ends to facilitate the introduction and removal of one of the shafts, and Fig. 4 is a detail perspective view of the lower ends of the tug members separated to illustrate the means for limiting their relative pivotal movement.

Like reference-numerals designate corresponding parts in all the figures of the drawings.

Referring to the drawings, the shaft tug or support is seen to comprise the two main members 1 and 2, which somewhat resemble each other, said members being preferably composed of sheet-steel or other metal of suitable gage or thickness and said members being reversely curved in opposite directions to embrace and form a receptacle for one of the shafts of a vehicle.

The member 1 is provided at its upper end

with tabs or extensions 3, which are bent into the form of small sleeves or knuckles to embrace and receive the cross-bar 4 of a buckle 5 and also to embrace the strap-tongue 6, which lies between the extensions 3 and is thereby left free to work in the usual manner in engaging the strap held by the buckle, said buckle being adapted to receive a strap which connects with a part of the harness, the shaft-tug being in this way supported by the harness at the proper point to receive one of the shafts.

The other member 2 is correspondingly provided at its upper edge with extensions 7, spaced apart the same distance as the extensions 3, above referred to, and bent to form hooks which slip over the extensions or sleeves 3 on opposite sides of the buckle-tongue, as shown in Fig. 2, said hooks being left open sufficiently to admit of their removal from the sleeves or knuckles 3, as shown in Fig. 3.

The members 1 and 2 are hinged together at their lower ends by providing each of said members with a depending flange, the flange 8 of the member 1 being provided with extensions 9, which are bent into the form of sleeves or knuckles, as shown, and spaced apart sufficiently to receive between them a corresponding sleeve or knuckle 10, forming an extension of the flange 11 of the member 2. The knuckle 10 fits between the extensions 8, and a hinge-pin 12 passes through all of the sleeves or knuckles, thus connecting the two members pivotally. The hinge-pin 12 is extended to form a loop, as shown at 13, to receive a girth-strap or belly-band or other suitable strap leading thereto, so as to hold the tugs or supports in proper relation to the harness.

In order to limit the outward swinging movement of the member 2, the latter is provided with an integral extension or lip 14, projecting outward from its sleeve or knuckle 10, which lip comes in contact with a stop 15, formed integral with and projecting from the flange 8 of the member 1. The said cooperating lip and stop limit the outward movement of the member 2 and sustain said member in proper position to receive or permit the removal of the shaft in a manner indicated in Fig. 3. After the shaft has been placed in position the member 2 is swung upward and inward until the hooks 7 engage over the sleeves or knuckles 3. The weight of the shaft then bears down on the tug or support, which is upheld by the harness-

strap, and this forces the lower portion of the buckle 5 against the outer side of the member 2, and the buckle is held in said position at all times, and thus serves to effectively maintain the engagement between the hooks and the knuckles or sleeves 3 and prevent the accidental uncoupling of the members of the tug or support even when subjected to extraordinary jerking, jarring, or jolting.

10 In the manufacture of the tugs or supports the edges of the members 1 and 2 are by preference rounded or beveled off to prevent the same from chafing or marring the shafts, and, if desired, the said members may be
15 lined inside or outside, either or both, with leather or other suitable material. The device forms a stirrup for receiving the shaft in hitching up the animal and may be easily attached to and detached from the harness.
20 The lining may be riveted to the members 1 and 2 or secured thereto in any other usual or preferred manner.

Changes in the form, proportion, and minor details of construction may be resorted
25 to without departing from the principle or sacrificing any of the advantages of the invention.

Having thus described the invention, what is claimed as new is—

30 1. A shaft tug or support comprising shaft-embracing members, a combined hinge-pin and strap-loop connecting said members pivotally at their lower ends, a supporting-buckle connected to the upper ends of one of
35 said members, and means for detachably connecting the upper ends of said members.

2. A shaft tug or support comprising oppositely-arranged shaft-embracing members, a combined hinge-pin and strap-loop connecting
40 the lower ends of said members, means on the hinged ends of said members for limiting the pivotal movement of the outer member, a supporting-buckle connected pivotally to the upper end of the inner member, and means
45 for detachably coupling the upper ends of said members together.

3. A shaft tug or support comprising shaft-embracing members pivotally connected at their lower ends, one of said members being provided at its upper end with sleeves or
50 knuckles, a buckle having the cross-bar thereof engaged by said knuckles, and hooks on the upper end of the other member adapted to engage over said knuckles, substantially as and for the purpose described. 55

4. A shaft tug or support comprising shaft-embracing members pivotally connected at their lower ends, a supporting-buckle having the tongue-bar pivotally connected to the
60 upper end of one of said members, and hooks on the upper end of the other member adapted to snap over the tongue-bar of the buckle on opposite sides of the tongue, substantially as described.

5. A shaft tug or support comprising shaft- 65 embracing members pivotally connected at their lower ends, sleeves or knuckles on the upper end of one of said members, a buckle having a tongue-bar located intermediate its ends and passing through said knuckles, and
70 hooks on the upper end of the other tug member adapted to embrace said knuckles on opposite sides of the buckle-tongue, the buckle acting as a lever for holding the hooked end of the outer member in coupled
75 engagement with the inner member, substantially as described.

6. A shaft tug or support comprising shaft-embracing members pivotally connected at their lower ends and having a hooked and
80 separable engagement at their upper ends, and a supporting-buckle connected pivotally to the upper end of one of said members and serving as a means for holding the said upper ends of the members in interlocked en- 85 gagement.

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

JAMES O'CONNELL.

Witnesses:

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