

No. 712,364.

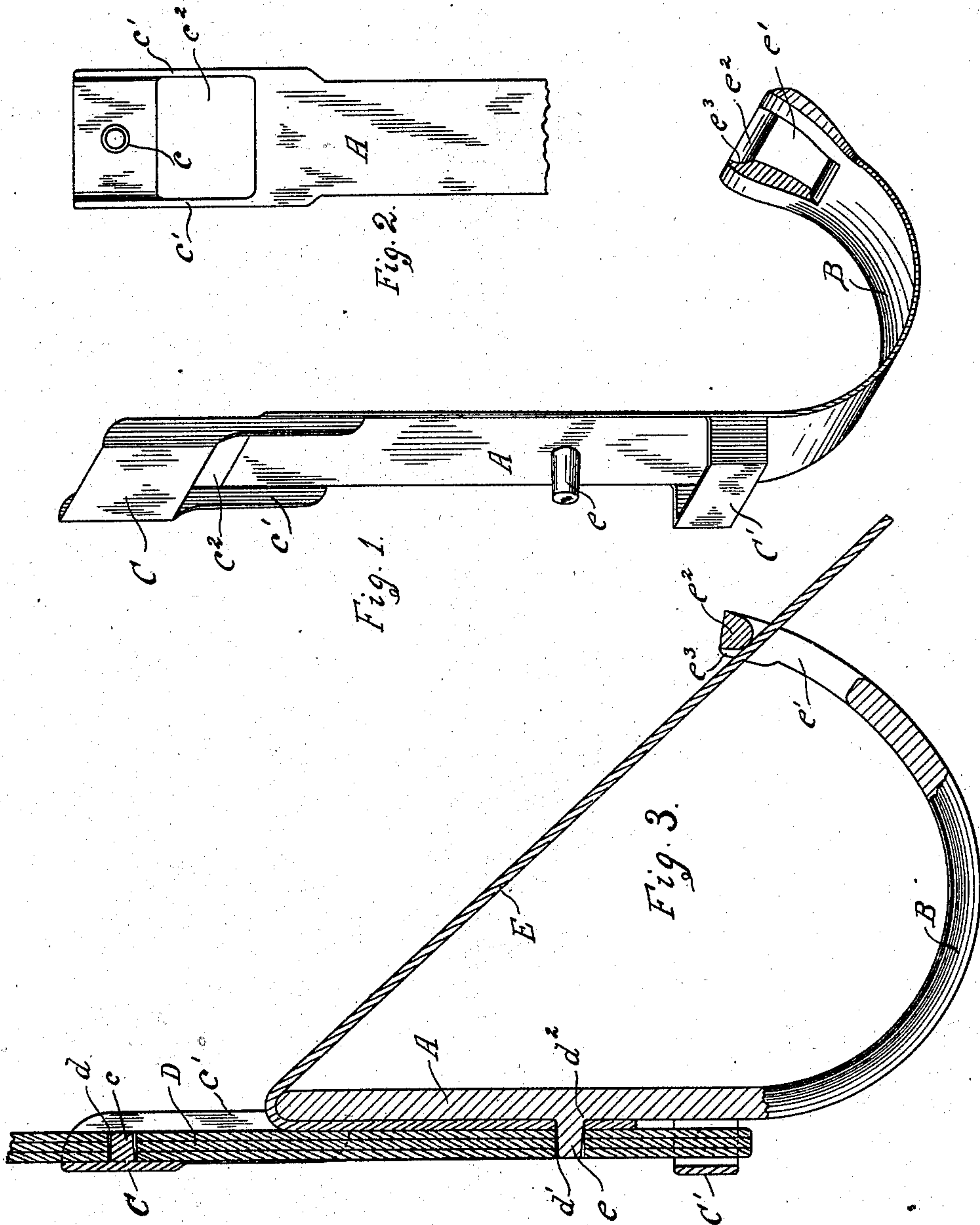
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SHAFT TUG.

(Application filed Sept. 20, 1901.)

(No Model.)



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# UNITED STATES PATENT OFFICE.

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## SHAFT-TUG.

SPECIFICATION forming part of Letters Patent No. 712,364, dated October 28, 1902.

Application filed September 20, 1901. Serial No. 75,893. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS W. DAVIES, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Shaft-Tugs, of which the following is a specification.

This invention relates to improvements in devices to be attached to harness for supporting the shafts of buggies or wagons; and it consists in certain peculiarities of the construction, novel arrangement, and operation of the parts thereof, as will be hereinafter more fully set forth and specifically claimed.

15 The objects of my invention are to provide a shaft-tug which shall be simple and inexpensive in construction, strong, durable, and effective in operation, and shall be so made that the straps which support it and are attached to it may be easily placed in position and securely held in place.

20 Another object of the invention is to so construct the tug or device that when placed in position on the harness the metal portion thereof will be away from the horse and the billet-strap adjacent to its sides.

25 Still another object is to provide a shaft-tug in which the shaft may be placed laterally instead of being inserted endwise, as has heretofore been done in shaft-tugs of the ordinary construction.

30 A further object is to construct the lower end of the tug in such a manner that the billet-strap will be protected, thus preventing the shaft wearing the same.

35 Other objects and advantages will be disclosed in the subjoined description and explanation.

40 In order to enable others skilled in the art to which my invention pertains to make and use the same, I will now proceed to describe it, referring to the accompanying drawings, in which—

45 Figure 1 is a perspective view of a shaft-tug embodying my invention. Fig. 2 is a view in elevation of the inner surface of the upper portion of the tug; and Fig. 3 is a view, partly in section and partly in elevation, of the tug, showing portions of the saddle-strap and billet-strap in position to support and re-  
50 tain the shaft in place.

Similar letters refer to like parts throughout the different views of the drawings.

A represents the tug, which is made of metal and preferably formed as shown in the drawings—that is, its lower portion is bent inwardly and upwardly to form a hook or substantially a semicircular portion B, on which the shaft will rest. The upper end of the piece A is formed or provided with a box-buckle C, which has extending inwardly a lug or pin *c* to engage a suitable opening *d* in the saddle-strap D, which may be of the ordinary or any preferred construction. As shown in the drawings, the box or hollow portion of the buckle C does not extend to the upper end of the piece A, but is connected to the sides of said piece by means of arms or portions *c'*, thus leaving an opening *c<sup>2</sup>* for the reception of the saddle-strap D and billet-strap E, the outer end of which engages a pin or lug *e* on the outer surface of the piece A and which pin is located some distance above the box-strap or buckle C', which is located on the outer surface of the piece A near its lower portion.

The free end of the curved part B of the tug is provided with an opening or slot *e'* for the reception and operation of the billet-strap E, and the upper end of said slot or opening *e'* is closed by a transverse portion *e<sup>2</sup>*, which has its lower surface rounded or beveled, as shown in Figs. 1 and 2 of the drawings, in order to prevent it cutting or wearing the billet-strap. The inner upper portion of the curved part B of the tug is provided with shoulders *e<sup>3</sup>*, so as to allow the billet-strap to rest between the portion *e<sup>2</sup>* and the shaft without coming in contact with the latter, thus protecting the said strap against wear. The lower end of the saddle-strap D is provided with an opening *d'* to engage the pin or lug *e* on the outer surface of the tug, and the billet-strap E is likewise provided with an opening *d<sup>2</sup>* for said purpose and is secured by means of a buckle, as usual, to the belly-band of the harness.

In using the tug it is apparent that the saddle-strap D and billet-strap E can be readily placed and secured in position by placing them at right angles to the upper portion of the piece A, when they may be readily passed

through the opening  $c^2$  and then bent downwardly so as to engage the pin  $e$  on the outer surface of the tug and also the box-buckle or strap  $C'$ , as is clearly shown in Fig. 3 of the  
5 drawings. The saddle-strap is then straightened, when the upper pin or lug  $c$  will engage the opening  $d$  therein, and thus firmly hold it in place. The shaft may then be placed in  
10 position on the curved part B by lifting it over the free end of said curved portion or by inserting the shaft endwise therein, after which the billet-strap may be passed through the opening  $e'$  and suitably connected to the  
15 harness, when the shaft will be held in position.

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

As an improved article of manufacture, a shaft-tug comprising a piece having at its upper end an open box-buckle provided between  
20 its sides with a projection or stud to engage the saddle-strap, and below said buckle and communicating therewith with an opening to receive the saddle and billet straps, and on  
25 its outer portion a lug or pin and a box-buckle to engage the lower portions of said straps, said piece having its lower portion bent inwardly and provided in the free end of the said bent portion with a slot or opening  
30 to receive the billet-strap, substantially as described.

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