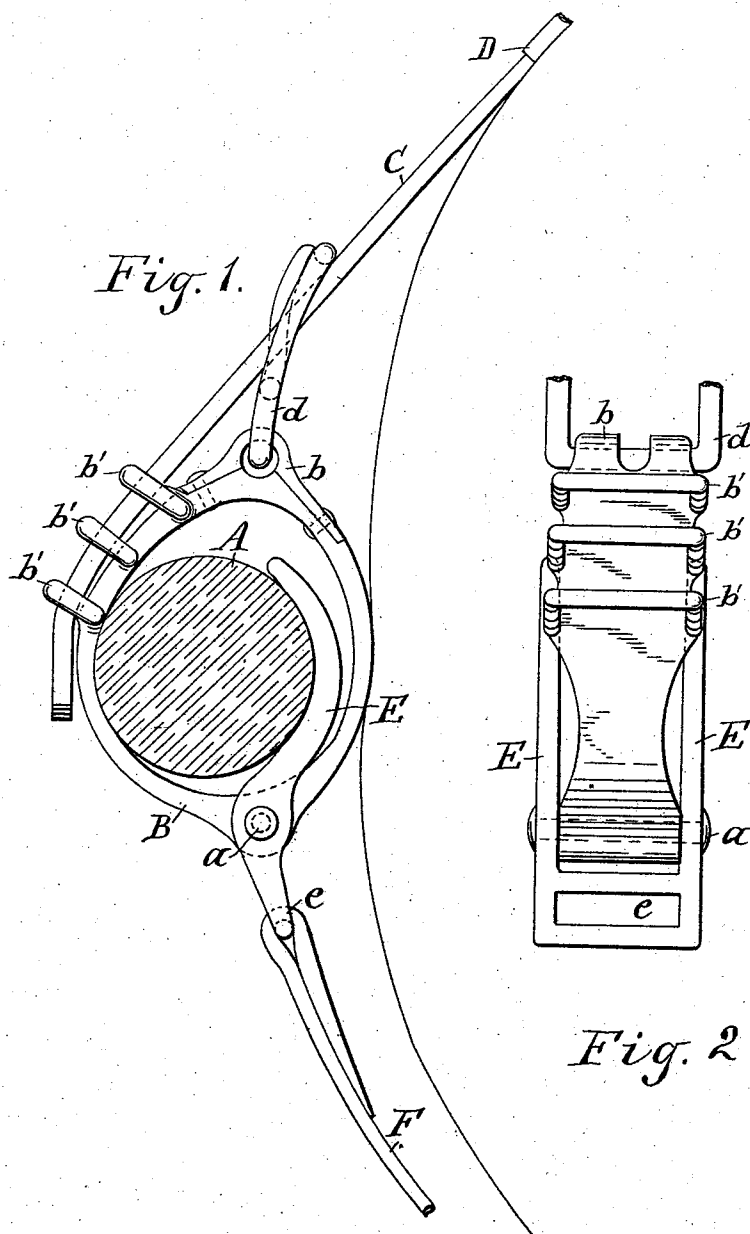


(No Model.)

J. D. HARRIGAN.
SHAFT TUG.

No. 527,173.

Patented Oct. 9, 1894.



Witnesses:

Mark W. Dewey
R. S. Dewey

Inventor.

Jay D. Harrigan
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UNITED STATES PATENT OFFICE.

JAY D. HARRIGAN, OF GOUVERNEUR, NEW YORK.

SHAFT-TUG.

SPECIFICATION forming part of Letters Patent No. 527,173, dated October 9, 1894.

Application filed July 10, 1894. Serial No. 517,105. (No model.)

To all whom it may concern:

Be it known that I, JAY D. HARRIGAN, of Gouverneur, in the county of St. Lawrence, in the State of New York, have invented new and useful Improvements in Shaft-Tugs, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

My invention relates to shaft tugs and the object is to hold or clamp the thills securely and firmly in place so as to prevent chafing and rattling and consequently also preventing wear upon the thills.

To this end my invention consists in the combination with a shaft-tug, of a lever pivoted intermediate of its length to the lower side of the tug and having its upper end curved to lie and bear against the thill or shaft, and a strap connected with the lower end of said lever to press the upper end against the thill.

In the drawings Figure 1 is a front view of the tug and the clamp connected thereto with the shaft in the tug shown in cross-section, and Fig. 2 is a side view of the tug with the shaft and straps removed therefrom.

Referring specifically to the drawings, A is the thill or shaft, and B is the tug with the shaft held therein. The tug is preferably made of metal and consists of an irregular shaped ring or loop secured to the strap, C, connected to the gig-saddle D. Said tug is connected to the strap by a buckle, d, held in an eye in the upper part of the tug, and, in order to admit the buckle into the eye easily I have made the upper wall, b, of the eye removable from the tug, or in other words, after the wall or cap is put through the buckle it is placed in position on the tug and screwed or riveted thereto by rivets passing through the said parts on each side of the eye. The strap, C, also passes through a series of eyes, b', b', b', on the outside of the tug to hold it firmly in place.

E is the lever or clamp for the thill, A, pivoted intermediate of its length to the lower part of the tug, at a. Said lever is curved between the pivot and its upper end to fit more closely around the thill, and bears with its concave side against the inner side of the thill, as shown clearly in the drawings. The said

lever or clamp, E, has its upper end bifurcated to lie upon each side of the part of the tug where the pivot passes through. In the lower end of said lever is a loop or eye, e, to which the strap, F, which passes below the body of the horse to the opposite side thereof, is connected.

It will be apparent that the tighter the strap, F, is drawn the more the lever or clamp, E, will press against the thill, and also, that at the same time the clamp on the tug on the opposite side of the horse will likewise press against the other thill, entirely preventing all pounding and undue wear. It will be noticeable also that should the breeching break by accident, the shafts could not slip through the tugs as the hooks on the shafts would come in contact with the tugs and prevent further slipping.

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

1. The combination with the shaft tug, formed of a closed ring, of a lever pivoted intermediate of its length to the lower side of the tug, a loop in the lower end of said lever, and a strap connected with said loop, as and for the purpose set forth.

2. The combination with the shaft tug, formed of an irregular shaped ring, of a lever pivoted intermediate of its length to the lower side of the tug and having its upper end curved to lie with its concave side against the shaft, a loop in the lower end of said lever, and a strap connected with said loop, as and for the purpose described.

3. The combination with the gig-saddle and the shaft-tug, formed of an irregular metallic closed ring, of a lever pivoted intermediate of its length to the lower side of the tug and having its upper end curved and bifurcated to lie on opposite sides of the said tug, means to secure the tug to the gig-saddle, and a loop in the lower end of the lever to receive a connection, as set forth.

In testimony whereof I have hereunto signed my name.

JAY D. HARRIGAN. [L. S.]

Witnesses:

MARK W. DEWEY,
R. S. DEWEY.