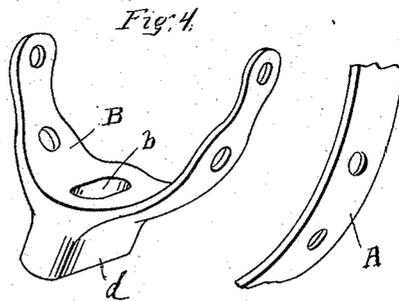
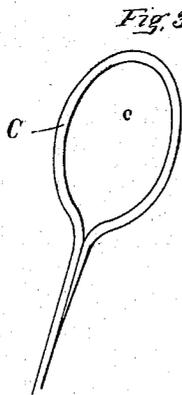
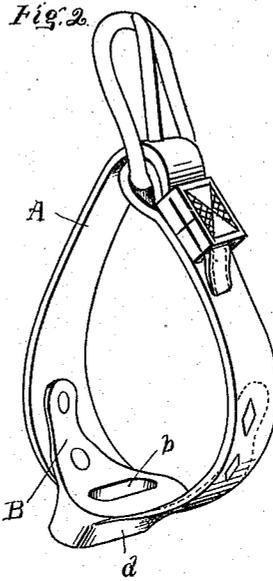
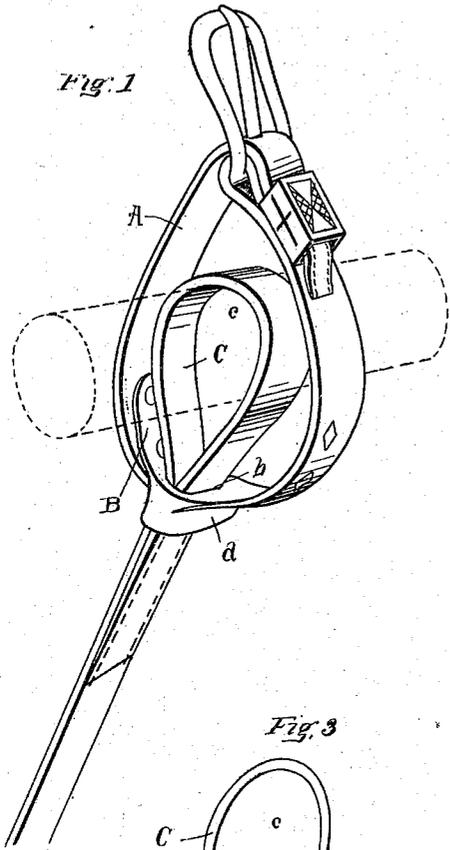


(No Model.)

LE ROY B. ALLEN.
SHAFT TUG.

No. 568,080.

Patented Sept. 22, 1896.



WITNESSES
Bertha Finch
J. H. Jeffers

INVENTOR
Le Roy B. Allen
By *Fred W Bond*
Attorney

UNITED STATES PATENT OFFICE.

LE ROY B. ALLEN, OF NORWALK, OHIO.

SHAFT-TUG.

SPECIFICATION forming part of Letters Patent No. 568,080, dated September 22, 1896.

Application filed February 10, 1896. Serial No. 578,791. (No model.)

To all whom it may concern:

Be it known that I, LE ROY B. ALLEN, a citizen of the United States, residing at Norwalk, in the county of Huron and State of Ohio, have invented certain new and useful Improvements in Shaft-Tugs; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters of reference marked thereon, in which—

Figure 1 is a view of my improved shaft-tug, showing the different parts belonging thereto properly assembled. Fig. 2 is a detached view of the loop, showing the slotted retaining-plate attached thereto. Fig. 3 is a detached view of the billet. Fig. 4 is a detached view of the slotted retaining-plate.

The present invention has relation to shaft-tugs; and it consists in the novel construction hereinafter described, and particularly pointed out in the claims.

Similar letters of reference indicate corresponding parts in all the figures of the drawings.

In the accompanying drawings, A represents the loop, which is preferably formed of leather and the top or upper ends connected together, substantially as illustrated in Figs. 1 and 2. The bottom or lower portion of the loop A is provided with the retaining-plate B, which plate is bent or curved so as to give the loop at its bottom or lower end the desired curvature and at the same time hold the loop open, so that the shaft can be easily entered through the loop.

For the purpose of providing a loop that will be durable and at the same time one that can be easily constructed and simple in its structure the retaining-plate B forms the lower part of the loop and is located with reference to the loop, so that the billet C, when connected to the belly-band, will be drawn or pulled at an angle of about forty-five degrees, the object and purpose of this being to remove the wear from the billet. The billet C is passed through the slot *b*, which slot is so located and arranged with reference to the loop A that when the shaft is passed through the

eye *c*, formed in the billet, said billet will be free to be drawn downward, thereby bringing the shaft into the lower portion or bottom of the loop A.

For the purpose of preventing the billet from wearing the flange *d* is provided, which flange is so located or formed upon the plate B that it will hang or be suspended at an angle inclined toward the inner side of the loop A.

It will be understood that by providing the loop A with the retaining-plate B and forming said plate of metal that a durable loop will be provided. By providing the billet C and passing the shaft through the eye of said billet said shaft will be held away from the sides of the loop and at the same time prevent the shaft from moving laterally back and forth in the loop, and also from moving up and down, by which arrangement the wear will be removed from the loop A.

It will be understood that by attaching the plate B so as to bring the flange *d* and its slot at an angle the loop will be free to remain in substantially a perpendicular position, by reason of the billet C being drawn in a straight line from the shaft downward through the slot *b*.

It will be understood that there are to be two billets, such as C, one located upon each side, and the two billets connected by a suitable belly-band, and when a billet has become worn from use a new one can be substituted for the one worn at a trifling expense.

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

1. As an improved article of manufacture, a shaft-tug consisting of the combination of the loop A, provided with the metal plate B, located at the bottom or under portion of the loop, and bent or curved to conform with the curvature of the lower portion of the loop said plate provided with a slot and the flange *d*, and the detachable billet extended through the slot and provided with the eye *c*, substantially as and for the purpose specified.

2. As an improved article of manufacture, the combination of the loop A, having secured

thereto the curved plate B, said plate provided with a slot and a flange, said flange and slot inclined at an angle to the loop A, and a detachable billet located through the slot and
5 provided with an eye, substantially as and for the purpose specified.

In testimony that I claim the above I have

hereunto subscribed my name in the presence of two witnesses.

LE ROY B. ALLEN.

Witnesses:

HENRY S. MITCHELL,
ASHER F. ROWLAND.