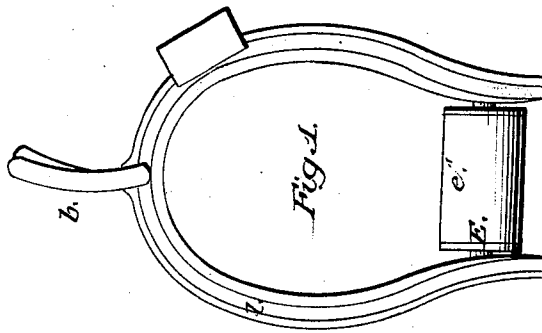
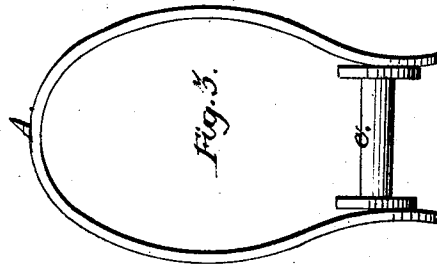
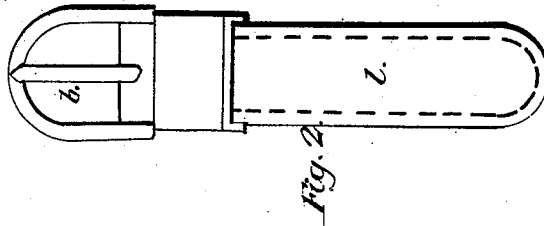


S. Taylor.

Shaft Tug.

N^o 95,748.

Patented Oct. 12, 1869.



WITNESSES:
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United States Patent Office.

SAMUEL TAYLOR, OF GEORGETOWN, NEW JERSEY.

Letters Patent No. 95,748, dated October 12, 1869.

IMPROVED SHAFT-TUG.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern :

Be it known that I, SAMUEL TAYLOR, of Georgetown, Burlington county, New Jersey, have invented a new and improved Self-Releasing and Self-Adjusting Anti-Friction Shaft-Tug; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figures 1 and 2 represent elevations of the same in two different positions, and

Figure 3 represents the metallic frame and spool before being covered.

The object of this invention is to provide, for public use, a cheap and strong shaft-tug for harness, which, by diminishing the friction, will neither wear out itself, nor wear out the shaft; in which the shaft will readily adjust itself in position; and from which the shaft can be readily withdrawn without its "binding," or requiring special attention to keep the tug in position during the operation.

In the drawings—

A is a curved wrought-iron strap, in the form of an arch, or of the segment of an ellipse, covered with leather, *l*, and provided with a buckle, *b*, by which it can be attached to the harness.

At its lower end, a round iron rod, *r*, extends across from one leg of the arch to the other; and upon this rod runs a roller, *E*, constructed in the form of a metallic spool, *e*, filled in between the end flanges with rubber, *e'*.

Any kind of suitable metal may be employed for the arched piece A, the rod *r*, or the roller *E*, and the

several parts may be covered with leather, rubber, or other suitable material, as shall be found best in practical operation.

The roller and rod *r* may be in one piece, rotating in bearings in the ends of the iron piece A, if preferred.

It is evident that the roller, if covered with rubber or other equally soft and yielding material, will not materially wear out the thill, nor become worn itself, while it will, by preventing friction, cause the thill to traverse back and forth with perfect ease, and to pass out of the tug, when the harness is removed, without binding, or otherwise catching and delaying the operation.

The device is cheap, strong, durable, and so constructed that it can readily be applied to any harness, whether new or old.

Having thus described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

1. The roller *E*, when applied to a shaft-tug, and adapted to operate substantially as and for the purpose described.

2. As an article of manufacture, the shaft-tug above described, consisting essentially of the curved rod A, leather cover *l*, buckle *b*, iron rod *r*, and roller *E*, covered with rubber or other soft material, *e'*, all constructed, arranged, and adapted to operate in the manner and for the purpose substantially as described.

SAMUEL TAYLOR.

Witnesses:

FRANCES A. COWARD,
CHILLION ROBBINS.