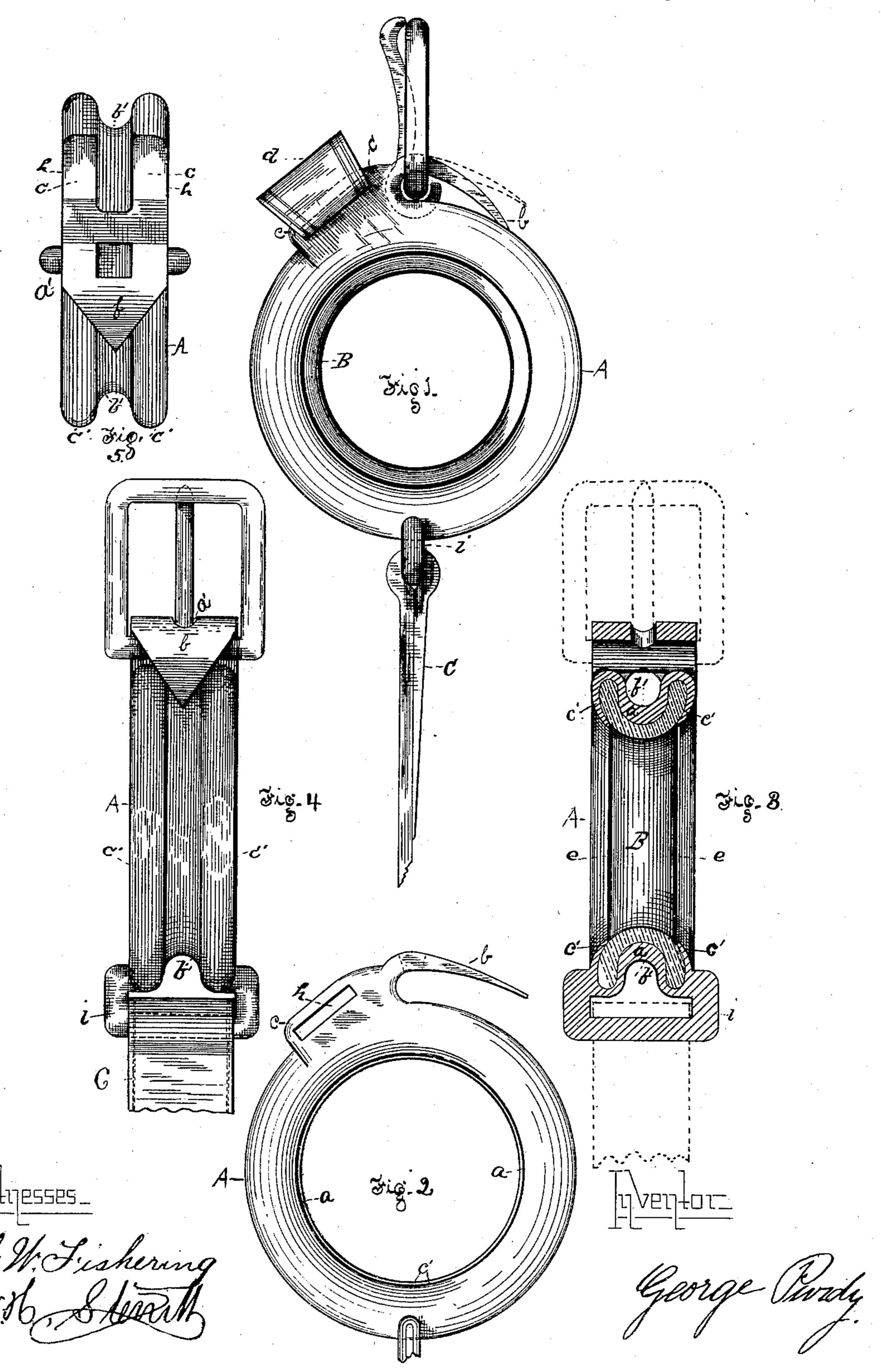
## G. PURDY.

SHAFT TUG.

No. 277,782.

Patented May 15, 1883.



## United States Patent Office.

GEORGE PURDY, OF ALLEGHENY, PENNSYLVANIA.

## SHAFT-TUG.

SPECIFICATION forming part of Letters Patent No. 277,782, dated May 15, 1883.

Application filed October 6, 1882. (No model.)

To all whom it may concern:

zen of Ireland, residing at Allegheny, county of Allegheny, and State of Pennsylvania, have 5 invented a new and useful Shaft-Tug, of which the following is a specification.

The object of my invention is to produce a metal shaft-tug constructed so as to receive an adjustable leather lining without any stitching 10 required, that the lining when worn out may be replaced with little expense, the whole being adjustable to any harness, so making an inexpensive and most serviceable article.

In the accompanying drawings, Figure 1 is 15 a side elevation, showing the shaft-tug with all its attachments. Fig. 2 is a side elevation after the removal of the attachments. Fig. 3 is a view of a half section showing the inner periphery with its channels and ridges. Fig. 4 20 is a view of a half-section showing the outer periphery. Fig. 5 is a view looking at the top.

Similar letters refer to similar parts through-

out the several views.

The grooved ring A, with its projecting lip 35 b, ears cc, and lug i, cast from malleable iron, forms the body of the tug.

e e are parallel circumferential grooves or channels, made deep and wide enough to receive the edges of the leather lining B.

a is the ridge formed by the channels e e. The object of this ridge, as shown in Fig. 3, is that when covered with the leather lining B the shaft will bear entirely on the leather.

The lip b has a slot, a', for the protrusion of [

the tongue of the buckle. (Shown in Fig. 5.) 35 Be it known that I, George Purdy, a citi- | The space between the lip b and the body of the tug, as shown in Fig. 2, is to receive the bar of the buckle. After the buckle is inserted the lip b, which is malleable, is hammered down, as shown in Fig. 1.

> The ears c c have elongated slots h h, (shown in Fig. 2,) so as to receive and secure the leather keeper d.

The lug or loop i is situated directly under or opposite the buckle. To this loop is secured 45 the leather strap C.

The two parallel annular flanges c' c', as shown in Fig. 3, incline toward each other, so as to form a rounded inner surface and to keep the leather lining in its position.

b' is an annular groove on the outer periphery.

I do not confine myself to the exact shape of the tug as shown. The same may be oval or oblong.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, 15---

A metallic shaft-tug containing two parallel circumferential grooves, c c, ridge a, lip b, ears 60 ee, loop d, and flanges e'e', all combined in one piece, substantially as described, and for the purpose specified.

GEORGE PURDY.

Witnesses: GEORGE EMERSON, ALEX. HOOD.