

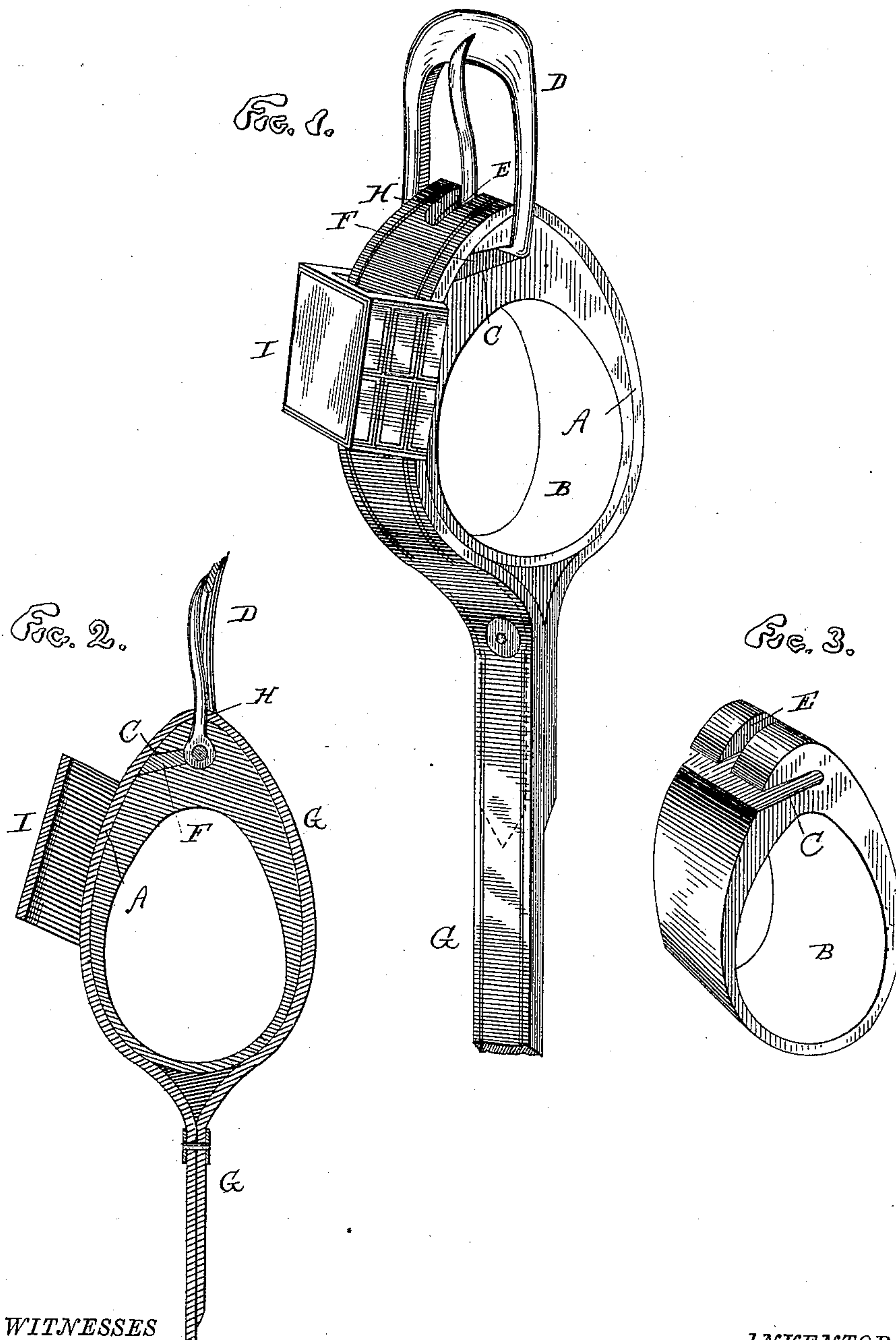
(No Model.)

C. W. HAAS.

SHAFT TUG.

No. 300,865.

Patented June 24, 1884.



WITNESSES

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UNITED STATES PATENT OFFICE.

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SHAFT-TUG.

SPECIFICATION forming part of Letters Patent No. 300,865, dated June 24, 1884.

Application filed April 2, 1884. (No model.)

To all whom it may concern:

Be it known that I, CHARLES W. HAAS, a citizen of the United States of America, residing at Allentown, in the county of Lehigh and State of Pennsylvania, have invented certain new and useful Improvements in Shaft-Tugs, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to that class of shaft-tugs having a metallic lining or wearing-surface; and it consists, essentially, in forming the metallic lining at its upper portion with a slot or hole within which the buckle and tongue are received and held, such slot or hole being formed within the thickness of the metal, so as to afford a metallic bearing to receive the strain of the buckle, whereby all strain by the buckle upon the leather cover of the tug is avoided, and also in forming the leather covering for the metallic lining and the strap for securing said tug out of a single piece, as hereinafter described and claimed.

In the accompanying drawings, Figure 1 represents a perspective view of a shaft-tug constructed according to my invention. Fig. 2 represents a vertical section thereof. Fig. 3 represents a perspective view of the tug-lining.

A represents the shaft-tug proper, which is shown in the drawings as of ovoid shape; but it may be made of any other shape desired. The inner portion or lining, B, of this tug, and upon which the wear and friction of the thills comes in use, is formed of any suitable metal or material having a smooth surface capable of resisting wear. The upper end of this lining is formed of greater thickness than its remaining portion, and has formed therein at one side a transverse slot, C, through which the buckle D is passed to a slot or hole, E, in the center of the thickened portion of the metallic or other lining. When the buckle is placed in position within the hole E, the slot C, through which it was passed, is closed by a plug, F, of leather or other suitable material, which is of corresponding size to the slot C, and is inserted within and snugly fits said slot, and is secured therein by cement or other suitable means, its inner end resting against one face of the inner end of the buckle and serving as a bearing or stop there-

for. By forming the upper end of the lining B of metal or other hard wear-resisting material with a central slot or hole, in contradistinction to the forming therein of a groove at its outer upper end, the entire strain of the buckle while in use will be taken up by the metallic lining, instead of such strain being upon a portion of the leather strap enveloping said lining. Therefore there will in my construction be no danger of the enveloping strap becoming torn or frayed in use by the working thereagainst of the buckle; but, on the contrary, a shaft-tug constructed according to my improvements will be capable of long-continued use without the necessity of the frequent repairs or replacement of parts necessary where the buckle works against a leather surface.

G represents the strap by means of which the tug is attached in position while in use. This strap at its upper end passes around and is attached to the tug-lining B by cement or similar means, its extreme end, after passing around the lining, being secured to the depending portion of the strap by stitches, rivets, or other suitable means, a slot, H, being formed in that portion covering the apex of the tug, through which the tongue of the buckle, where a tongue-buckle is used, passes and works.

I represents the box-loop, which is secured in any suitable manner to the leather enveloping the metallic portion.

I am aware that a thill-tug has been constructed entirely of metal with a buckle bearing in the upper end thereof, and a transverse slot through which said buckle is passed to its bearing, said slot being closed by a removable metallic plate, which is held in position by a screw passing through said plate and entering a threaded hole in the thill-tug; and I am also aware that a shaft-tug has been constructed with a metallic lining and two leather straps exterior thereof, and an external metallic band, the several layers of metal and leather being secured together by pins and spurs, and a set-screw and the buckles resting within a groove in the top of the lining and in recesses in the leather straps surrounding the same; but I am not aware of any device similar to mine where the thill or shaft-tug con-

sists simply of a metallic lining having an enlarged or thickened upper end provided with a circular bearing for the buckle, a transverse slot to admit the buckle to said bearing, a plug fitting and secured snugly within said slot by cement or equivalent means, so as to form a partial bearing for the buckle, and an attaching leather strap, which also forms the external cover to the metallic lining and snugly embraces the same, and is secured in position by cementing the same to the lining and stitching or riveting its upper end to the depending portion of the strap.

Having thus described my invention, what I claim is—

A shaft having an inner metallic portion, B, having in its upper portion a central slot or hole to receive the buckle, and a transverse

slot extending from said central hole outward, a buckle, D, and a plug or stop of a size corresponding with the size of the transverse slot and snugly fitting within the same for holding the buckle within the central hole and serving as a partial bearing for said buckle, and an attaching-strap forming at one end a cover for the metallic portion B, and having a slot at its apex through which the buckle-tongue passes, and being secured substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES W. HAAS.

Witnesses:

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JOHN D. UHRICH.