

(No Model.)

A. E. HART.
SHAFT TUG.

No. 531,529.

Patented Dec. 25, 1894.

Fig. 1

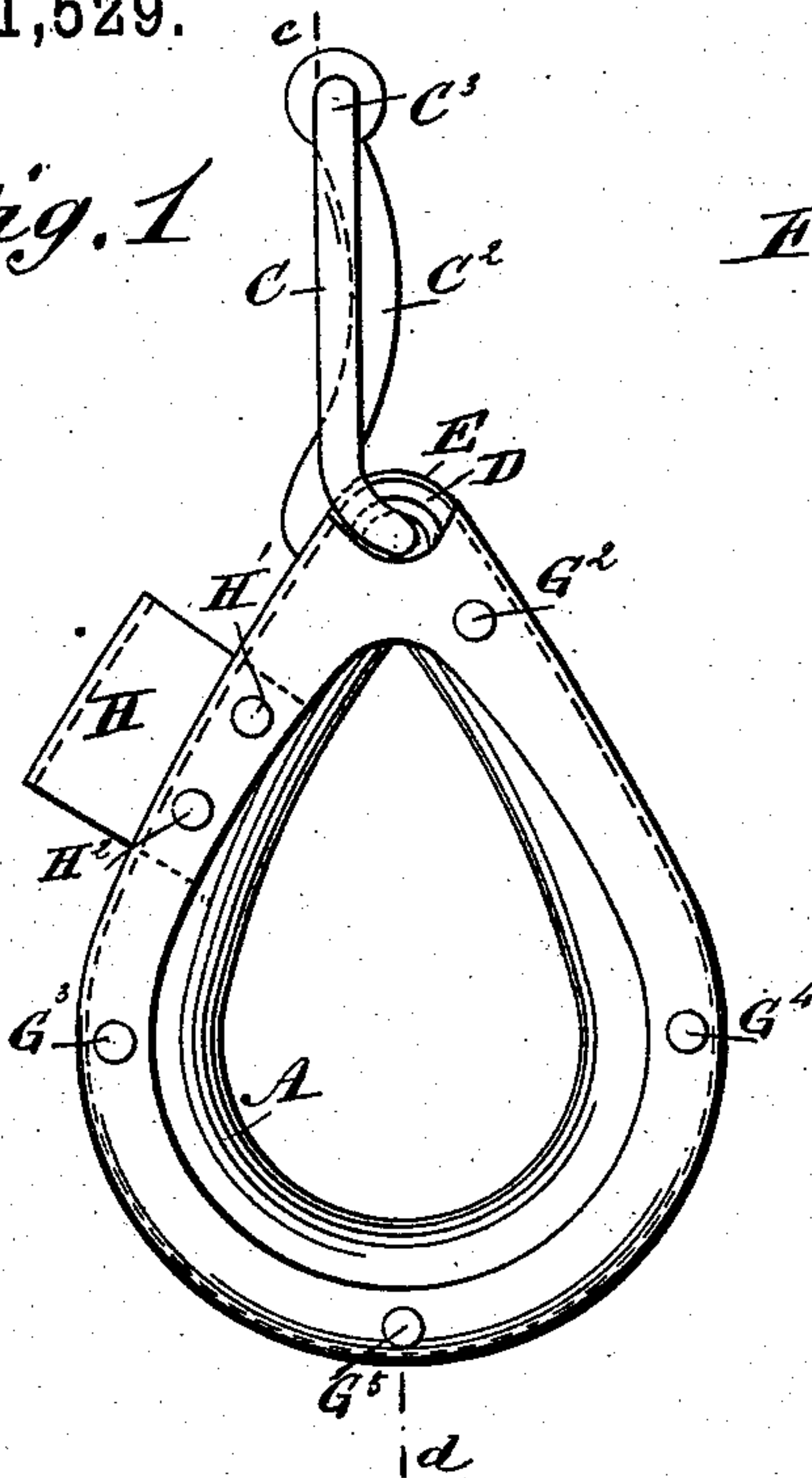


Fig. 2

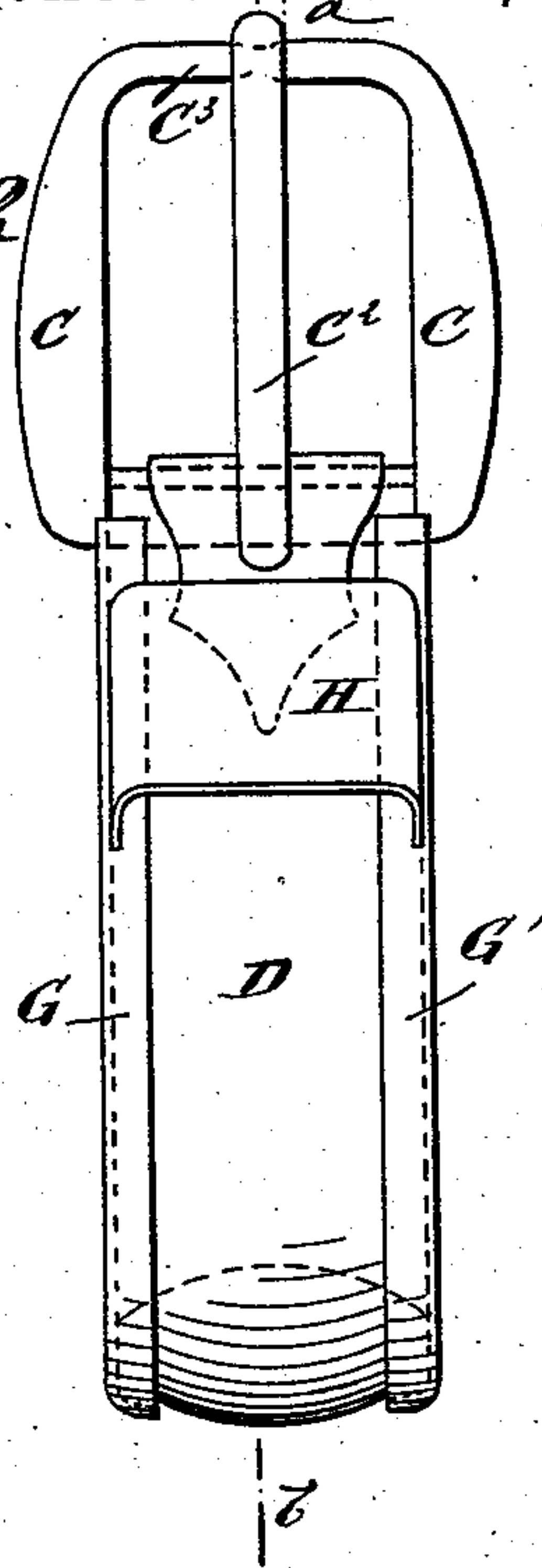


Fig. 3

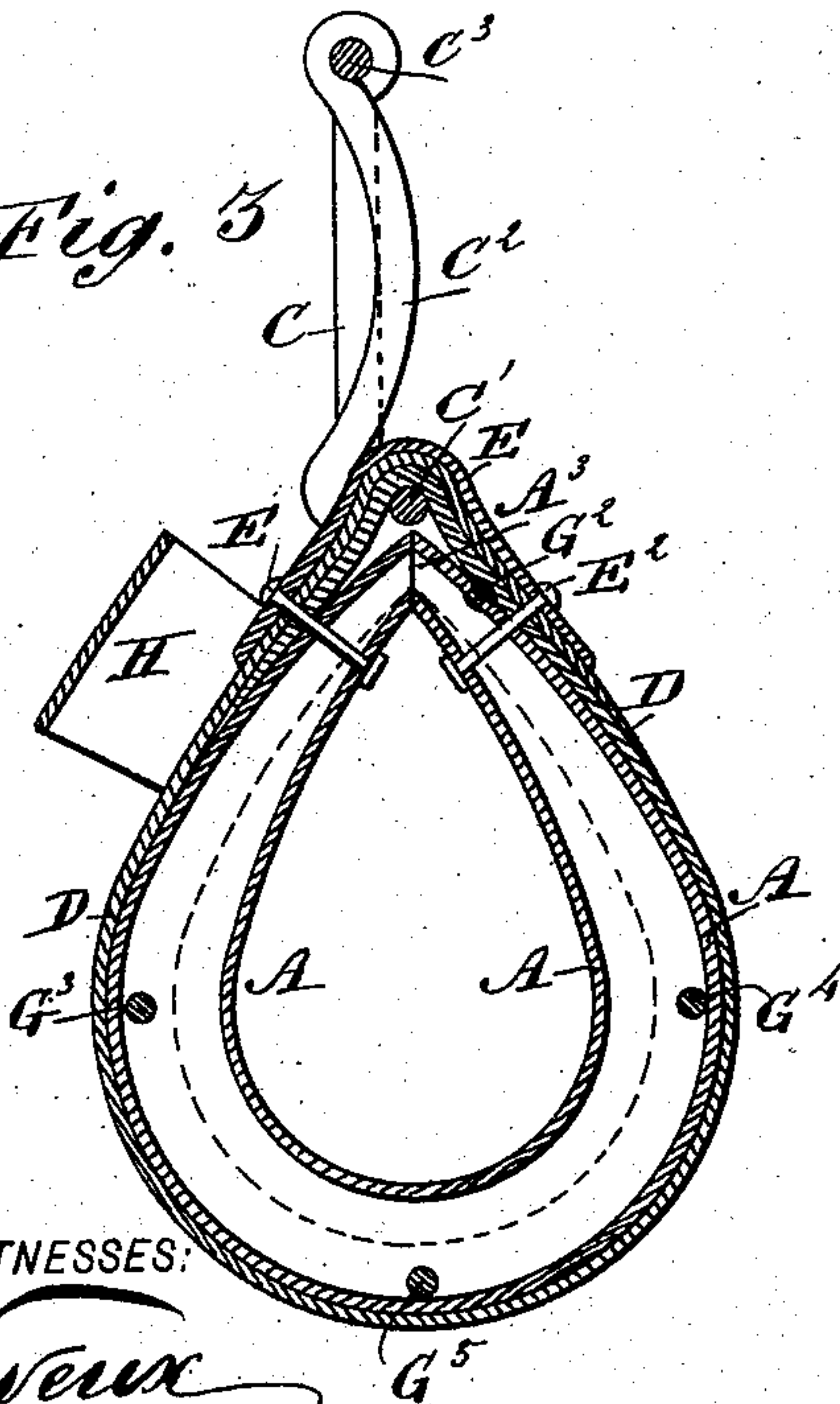
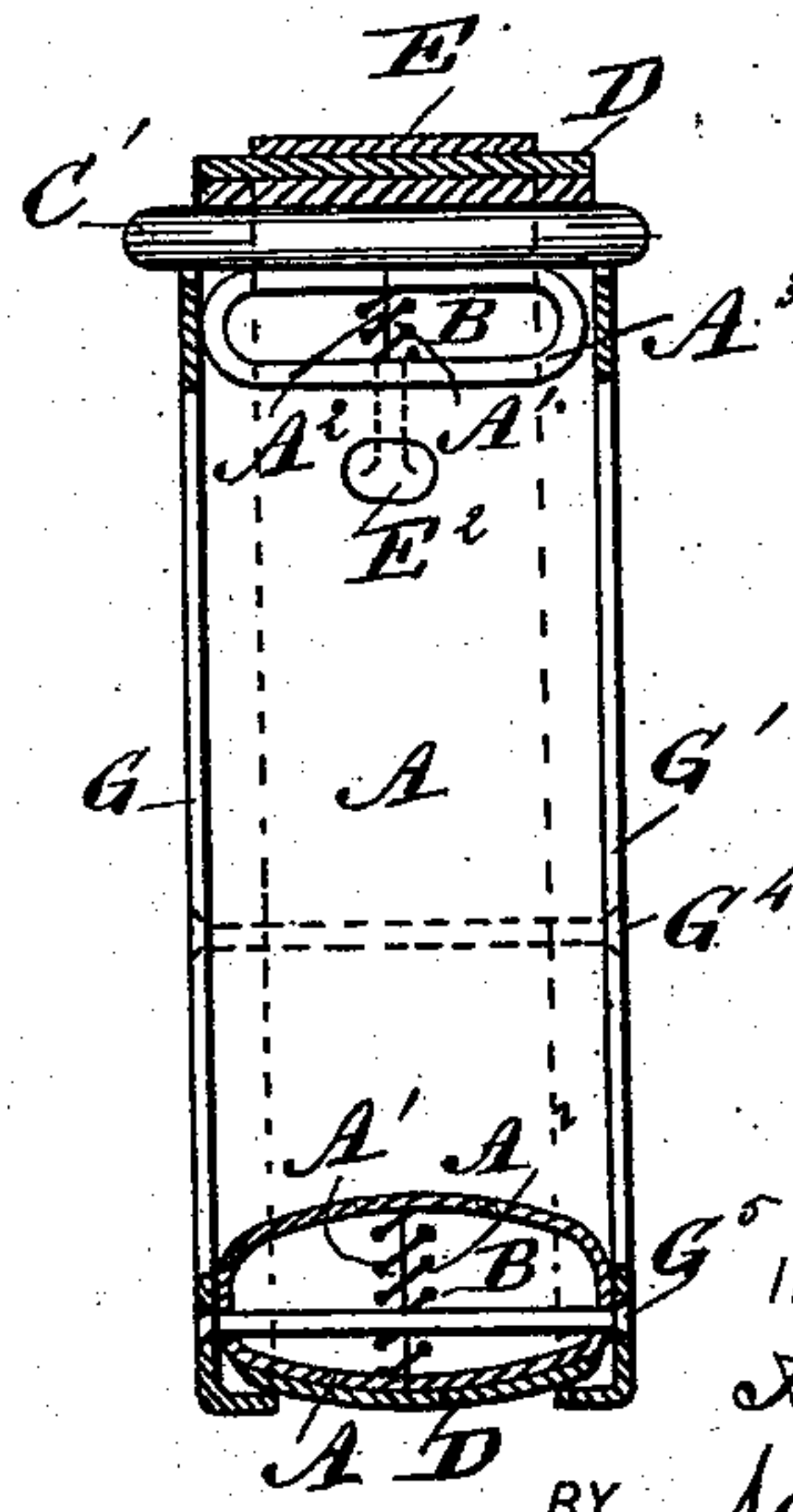


Fig. 4



WITNESSES:

C. Noverux
C. Sedgewick

INVENTOR

A. E. Hart

BY

Munn & Co

ATTORNEYS.

UNITED STATES PATENT OFFICE.

ARTHUR EDWIN HART, OF BROKEN HILL, NEW SOUTH WALES.

SHAFT-TUG.

SPECIFICATION forming part of Letters Patent No. 531,529, dated December 25, 1894.

Application filed October 25, 1893. Serial No. 489,151. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR EDWIN HART, saddler, a subject of the Queen of Great Britain, and a resident of Broken Hill, in the Colony of New South Wales, have invented an Improved Shaft-Tug, of which the following is a specification.

This invention is designed to provide an improved shaft tug for spring drays and other vehicles. It is well known that the shaft tugs as heretofore manufactured and used are liable in wear to lose their original shape and grip the shaft, and so wear away both the tug and the shaft. In addition to this the stitches which hold the several parts together are in contact with the shaft, and are gradually worn through by the constant rubbing.

In the manufacture of tugs according to my invention these disadvantages are overcome. A tug body is formed of one outside piece of leather joined and stitched externally, and packed internally with scrap leather, the stitches and joints being so placed and formed that they are not exposed on the wearing surface. The tug body is connected to the buckle by a strap and it is stiffened by metal plates, the buckle being so hinged and secured that the tug retains its shape and the buckle is held securely. In fact a tug both more ornamental and more durable than those at present in use is supplied, without extra cost.

In order that my invention may be clearly understood I will now describe the same by reference to the accompanying drawings which are about half size and in which the same letters indicate like parts in all the figures.

Figure 1 is a view of my improved shaft tug as it would appear on the shaft looking from the shaft end, showing the buckle C and the strap loop H, but the back band is not shown. Fig. 2 is a view of the tug and buckle without the strap, as they would appear looking from the side of the dray. Fig. 3 is a sectional view of the tug and buckle on the line *a-b* of Fig. 2. Fig. 4 is a sectional view of the tug on the line *c-d* of Fig. 1.

The body A, of the tug is made of sole leather in one piece blocked to the required shape, which may be that shown more particularly in Figs. 3 and 4 or with any suitable

variations for different vehicles. It is so formed that the lace and joint A' and A², in Fig. 4, will be on the outside and the ends will meet at the top as shown at A³. The space B inside this body is tightly packed with scrap leather, and the joint A² is drawn well together by means of the leather lace A'. The scrap leather packing is inserted in layers in the space B within the body A before it is folded over and drawn together, but I have not shown the packing in the drawings as it might tend to confuse.

When the body has been formed as before described, the buckle C is placed on the top, and a black harness leather cover D is placed right round the body A, one end overlapping at the top, thus forming two plies of leather over the hinge bar C' of the buckle C. The leather cover D is skived at the ends and edges to give a symmetrical and finished appearance. This leather cover serves the double purpose, first of securing and holding the buckle C, and second, of hiding the joint of the tug body.

In order to still further secure the buckle, a metal strap E is provided which fits over the hinge bar C' of the buckle. This metal strap E together with the two ends of the leather cover D are secured and riveted to the body A by copper or other suitable metal rivets E' E².

Mountings G, G' of malleable iron, brass, nickle, silver plated or other metal are placed one on each side of the tug. They are connected and fastened by means of rivets G², G³, G⁴, G⁵ passing through the body of the tug from side to side, and a loop H is provided to carry the strap, such loop being fastened by the rivets H' H² to the mountings G, G'.

The tongue C² of the buckle is C hinged to the top bar C³ instead of to the bottom bar C'.

By the construction of the tug in this manner, it has the following advantages, besides those before mentioned: The tongue of the buckle being hinged at the top considerably facilitates the fastening and unfastening of the back band, which does not by this plan require to be bent in the operation. It also prevents the tongue from protruding and oscillating as it does in a tug constructed in the ordinary way, as it is held underneath

the back band and thus great saving in wear and tear is effected. The hinging the tongue of the buckle at the top also saves the necessity of weakening the leather holding the
5 bottom bar of the buckle, as the cutting of a slot therein for the purpose of fixing the tongue is obviated.

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

1. The improved flexible shaft tug having a body composed of a leather piece formed into a tube of oval shape, the edges of said piece being approximated on the outer side of the
15 tube, a flexible filling for the latter, and a cover strap applied over the edges of the leather pieces and extending around the tube and secured thereto on its upper side, as shown and described.

20 2. The improved shaft tug formed of a hol-

low or tubular body filled with scrap leather, flanged metal rings or mountings applied to the sides of said body and transverse rivets connecting and securing said parts together, as shown and described.

3. The improved shaft tug composed of a
25 hollow leather body, a filling therefor, a leather cover extending around the same, a metal strap riveted to such body and cover, and a buckle whose loop is secured beneath
30 said cover and strap, and provided with a tongue hinged to the upper or free end of the buckle loop, as shown and described.

In witness whereof I have hereunto set my hand in presence of two witnesses.

ARTHUR EDWIN HART.

Witnesses:

WILLIAM ROSIER CHILMAN,
ARTHUR FRANK ABBOTT.