

No. 612,147.

Patented Oct. 11, 1898.

E. L. THOMPSON.

AXLE FOR ARTILLERY OR GUN CARRIAGES.

(Application filed Mar. 22, 1898.)

(No Model.)

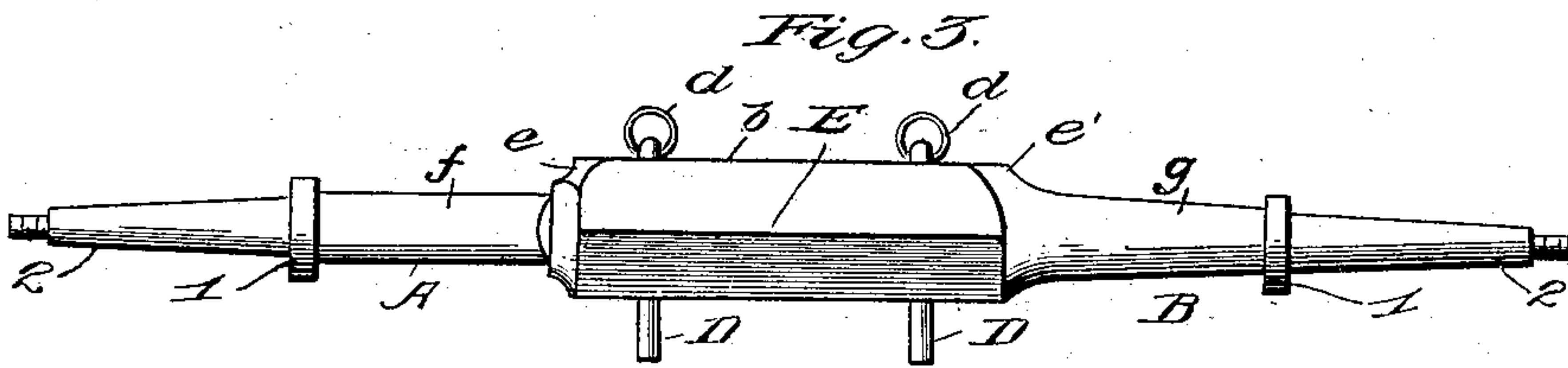
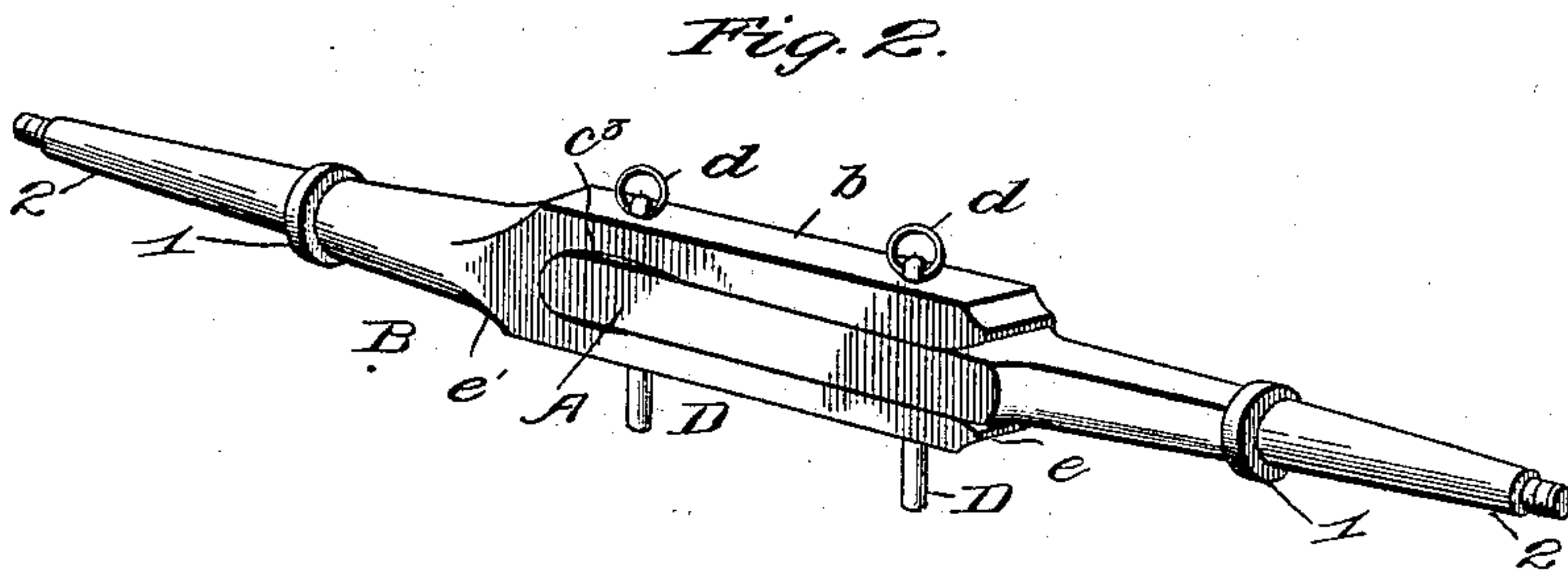
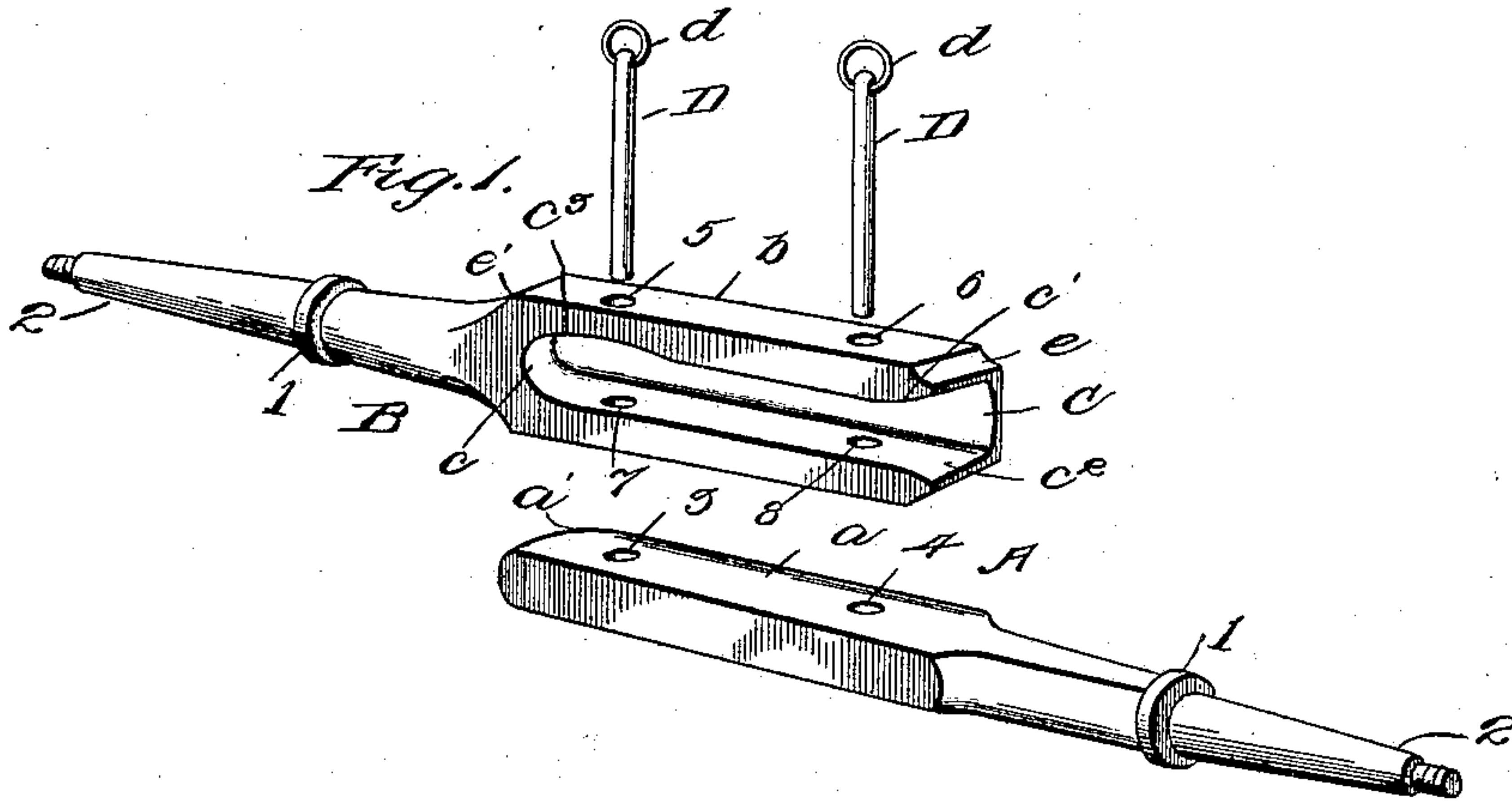
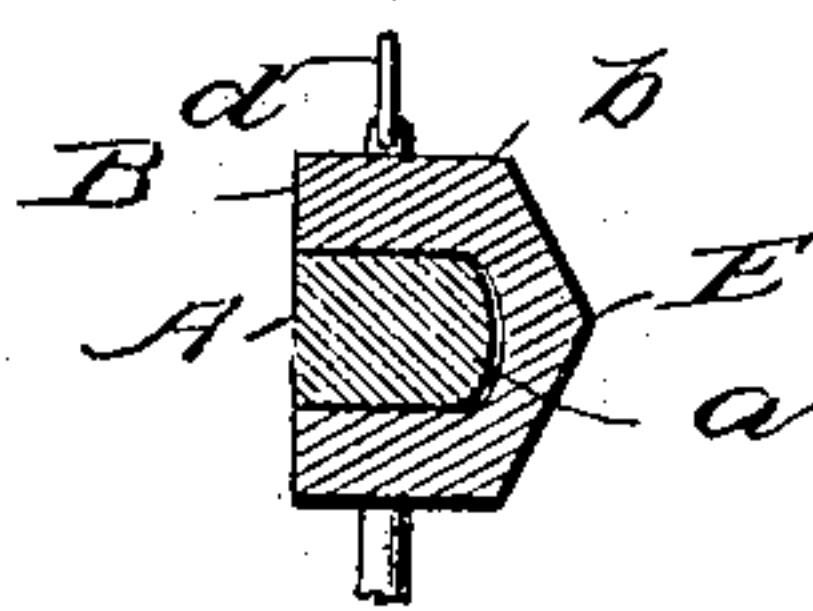


Fig. 4.



Witnesses.  
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# UNITED STATES PATENT OFFICE.

EDWARD LEON THOMPSON, OF WASHINGTON, DISTRICT OF COLUMBIA.

## AXLE FOR ARTILLERY OR GUN CARRIAGES.

SPECIFICATION forming part of Letters Patent No. 612,147, dated October 11, 1898.

Application filed March 22, 1898. Serial No. 674,807. (No model.)

*To all whom it may concern:*

Be it known that I, EDWARD LEON THOMPSON, a citizen of the United States, residing at the city of Washington, in the District of Columbia, have invented certain new and useful Improvements in Axles for Artillery or Gun Carriages, of which the following is a specification, reference being had therein to the accompanying drawings, in which—

Figure 1 is a view in perspective of the different parts thereof separate. Fig. 2 is a similar view, from the rear, with the parts assembled. Fig. 3 is a front view, and Fig. 4 is a vertical transverse section through the center of Fig. 3.

The object of my invention is to prevent the immediate use of artillery or gun carriages by the captors thereof, and also to prevent injury to the axles of such carriages from solid shot, &c., in front; and the improvements consist in an axle having a deflecting front surface and composed of sections removably secured to each other.

In the accompanying drawings two sections A and B are shown, each being provided at its outer end with a hub-flange 1 and screw-ended spindle 2 for the reception of a wheel. The inner end *a* of section A is solid and of the form shown in cross-section in Fig. 4, its top, bottom, and rear being each a plane surface, and its front and inner end are rounded or convex. The front corner *a'*, at the inner end, is both vertically and horizontally rounded and provided with holes 3 and 4 vertically therethrough. Section B has an enlarged inner end *b*, with a recess C in its rear, the wall of which at top is provided with holes 5 and 6 vertically therethrough, which register with corresponding holes 7 and 8, respectively, through the bottom. The wall of this recess at front, on the inside, curves vertically outward, as shown in Fig. 4, and is also similarly curved at its inner end *c*. At *c'* and *c''* at the outer end of the recess the wall is chamfered off slightly inside, thus widening the recess somewhat at this end. At *c'''* the upper portion of the wall is cut away arch-like, thus widening the recess at its inner end. Within this recess the part *a* of section A is placed so that the holes 3 and 4 register with the holes 5 and 6 and 7 and 8,

respectively, and into these holes coupling-pins D, having rings *d* or other suitable handles, are dropped, and the sections thus removably coupled or secured together horizontally in alinement or substantially in horizontal alinement with each other, with their longitudinal centers substantially in a horizontal straight line, so that when uncoupled they are rendered capable of being separated or parted from each other either endwise or sidewise, or both endwise and sidewise, horizontally.

Any form of coupling mechanism other than loosely-fitting bolts, as herein shown, which may be readily and instantly removed, might be employed, and therefore I do not limit myself to the coupling mechanism shown.

By widening the recess at its outer and inner ends, as hereinbefore shown, and by rounding the inner end and inner front corner of *a* the two sections may not only be more readily put together, but may the more readily be separated when uncoupled.

The enlarged portion *b* is beveled upwardly and downwardly, in front, from its center *E* toward the rear and is cut away at *e* and *e'* in a curved form, so that the curvature thereof will glide into the curvature of the two rounded parts *f* and *g* of the axle adjacent thereto, thus making the front of the axle from end to end a deflecting-surface, so that a solid shot from front striking it anywhere above or below its longitudinal center will be deflected and the axle remain uninjured, and as this axle is unserviceable when the coupling mechanism is removed an army upon retreat may save itself from being annihilated by its own guns by simply removing the coupling mechanism and carrying it away.

The sections may readily be placed upon mules or other animals and transported over mountains and through narrow passes.

Although specially designed for artillery or gun carriages, my invention is applicable to other wheeled vehicles, either as a front or rear axle, and as a rear axle would be used in a position horizontally the reverse of a front axle with the deflecting-surface to the rear the description above will apply thereto by a transposition of the terms "front" and "rear." The construction being the same in



each and the difference being only in position, I do not, therefore, limit myself to a deflecting front surface.

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

1. An axle for artillery or gun carriages composed of two sections fitted together horizontally in alinement with the inner end of one section in a recess in one side of the inner end of the other and removably secured thereto, substantially as described.

2. An axle for artillery or gun carriages, one side of which is a deflecting-surface, composed of two sections fitted together horizontally in alinement with the inner end of one section in a recess in one side of the inner

end of the other and removably secured thereto, substantially as described.

3. An axle for artillery or gun carriages, one side of which is a deflecting-surface, composed of two sections fitted together horizontally in alinement with the inner end of one section in a recess, widened at the ends, in one side of the inner end of the other and removably secured thereto, substantially as described.

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

EDWARD LEON THOMPSON.

Witnesses:

JNO. A. BARTHEL,  
LEE THOMAS.