

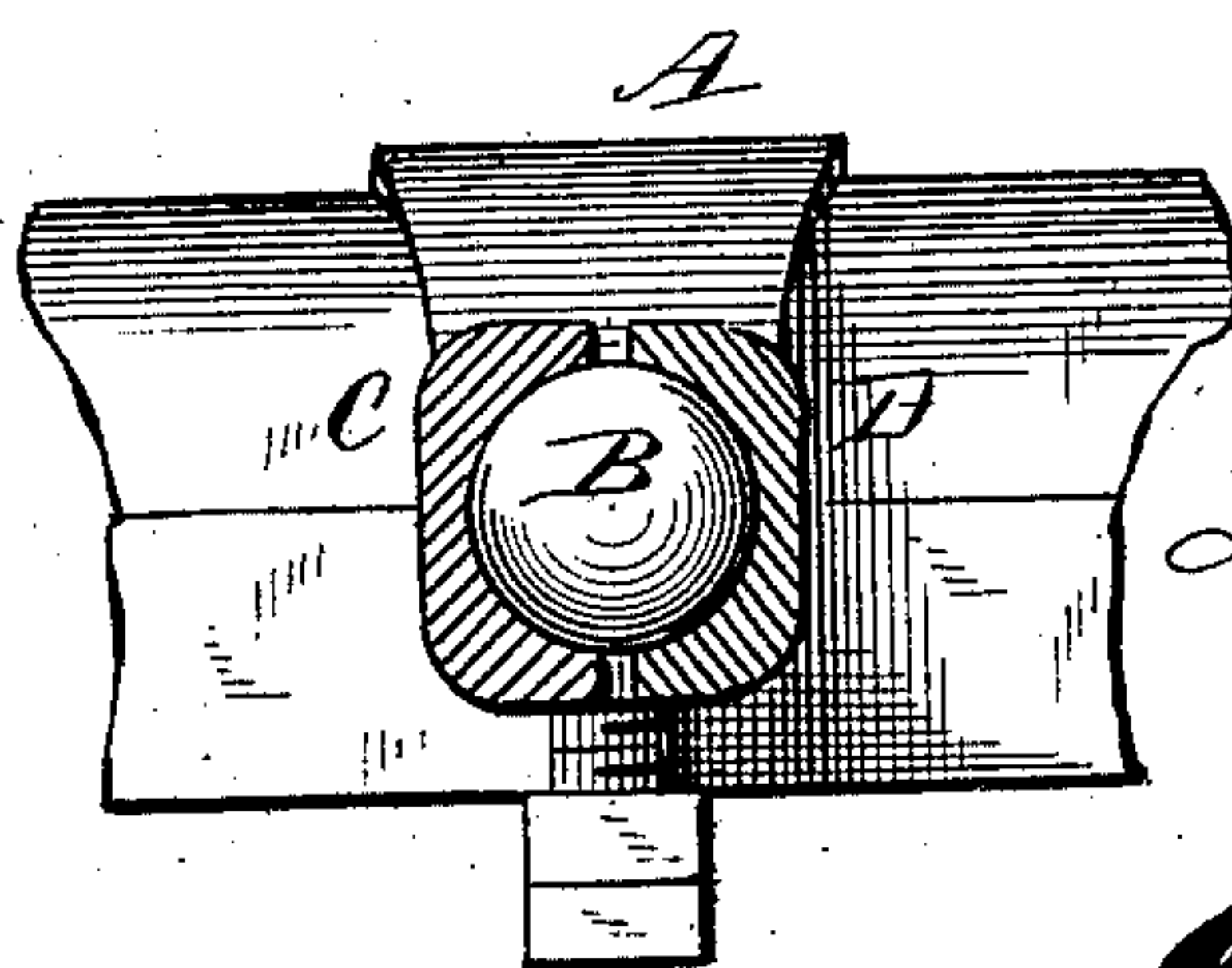
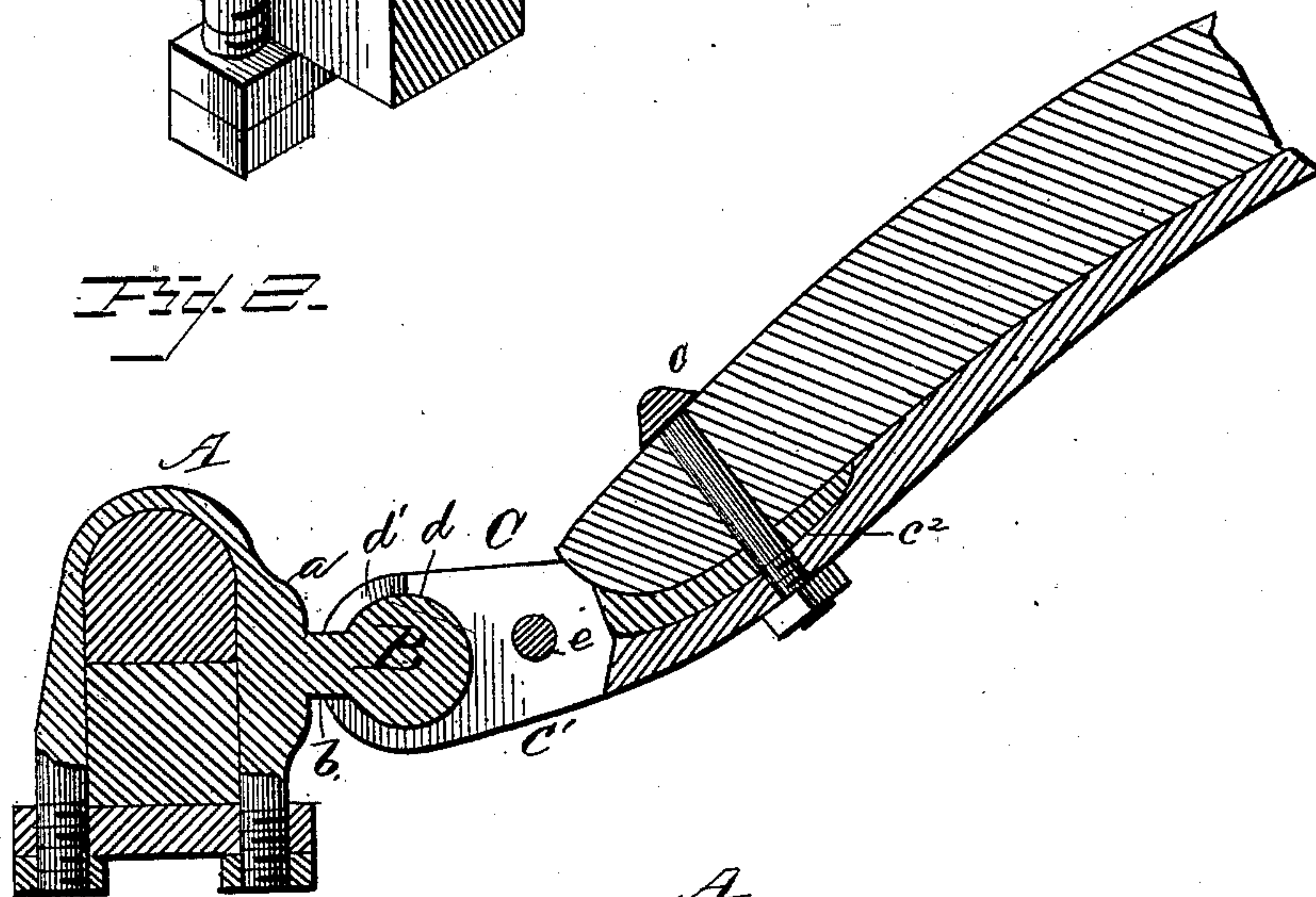
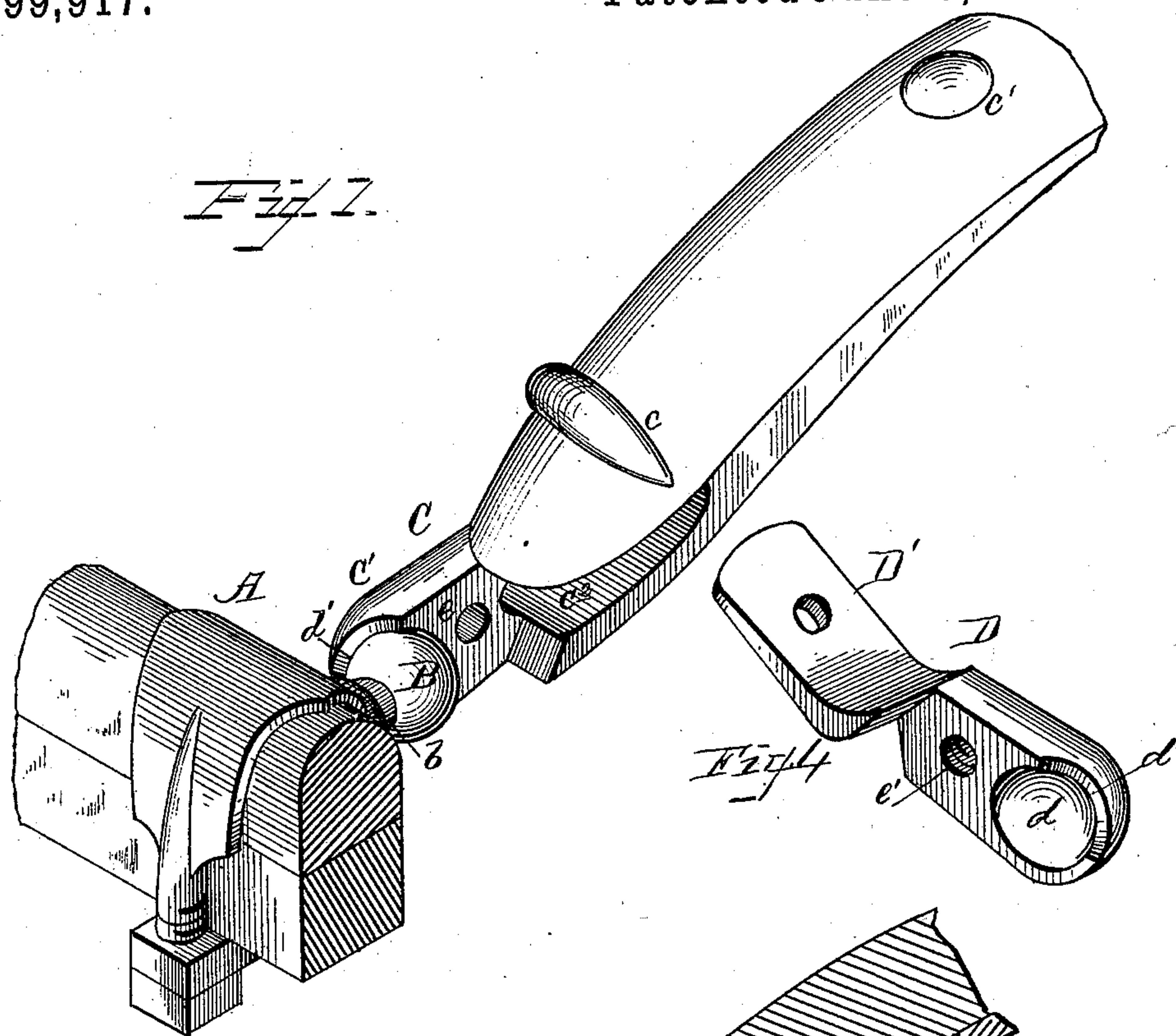
(No Model.)

L. J. DRESSER.

THILL COUPLING.

No. 299,917.

Patented June 3, 1884.



WITNESSES
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LAURISTON J. DRESSER, OF UXBRIDGE, MASSACHUSETTS, ASSIGNOR OF
ONE-HALF TO CHARLES S. WESTON, OF SAME PLACE.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 299,917, dated June 3, 1884.

Application filed October 6, 1883. (No model.)

To all whom it may concern:

Be it known that I, LAURISTON J. DRESSER, a citizen of the United States of America, residing at Uxbridge, in the county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Thill-Couplings; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

This invention relates to certain new and useful improvements in thill-couplings, its object being to provide a coupling by means of which the same may be securely attached to the axle of a vehicle, and which will dispense with the use of rubbers or other packing, and will at the same time prevent rattling; and to this end my invention consists in a thill-coupling which is constructed on the ball-and-socket order, the ball being formed on the clip, which is secured around the axle, and the thill-irons consisting of a socket for the reception of said ball, which socket is made in two parts, being secured to the end of the thill, as will be hereinafter described, and illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view. Fig. 2 is a sectional view, and Figs. 3 and 4 are detailed views.

In the accompanying drawings, A represents a clip, which is secured to the axle in the usual manner. The forward portion of this clip is made slightly thicker than the rear portion, as shown at *a*, from which portion projects horizontally a rounded connecting-bar, *b*, upon the end of which is formed a spherical portion, B.

The parts of my invention which are attached to the thill consist of two portions, C and D, which are secured to the end of the thill by means of bolts *c c'*. The end of the portion C of the thill-iron is enlarged, as shown at *C'*, and is provided with a semicircular recess, *d*, which is cut away at its outer edge, as shown at *d'*, so as to embrace the neck *b* of the clip. This enlarged portion *C'* is provided

with a transverse perforation, *e*, and at its end is a shoulder, as shown. The end of the thill-iron adjacent to the enlarged portion *C'* is beveled, and its upper surface is provided with a depressed portion, *c''*, which depressed portion is provided with a bolt-hole, which is located near the center of the same. The end of the iron D is constructed similarly to the side *C'*, and its rearwardly-extended portion will fit within the recess *c''* of the portion C, its rear end being curved as shown, so as to lie within the aforesaid recess. The transverse opening, which is on a line with the opening *e*, is screw-threaded.

When it is desired to attach my improved thill-coupling to a vehicle and the thills of the same, the clip A is attached to the axle in the usual manner, and the parts C and D are secured, by means of suitable bolts, *c c'*, to the end of the thill, these bolts passing through the perforations, the portion D having been first placed within the recess *c''*. The transverse bolt which passes through the opening *e*, located in front of the socket and rear of the shoulders formed on said socket, enters the screw-threaded portion of the passage *e'*. By means of this bolt the parts of the socket may be separated from each other or drawn together, as desired, as the portions of the thill-iron will open at their rear end by turning upon the bolt *c*, which passes through the perforations. When the parts have been separated sufficiently to allow the insertion of the ball B through the passage-way *d'*, the socket is placed over the ball, after which the screw is tightened, which will draw the jaws together upon the ball.

It will be seen that by means of the bolt and the separating-jaws, as wear takes place, the parts of the thill-iron may be tightened, so as to prevent all rattling. In order to more securely fasten the jaws to each other, the end of the bolt is provided with a nut, which, with the screw-threaded portion of the thill-irons, forms an effective nut-lock.

It will be readily seen from the foregoing that this thill-coupling can be readily and cheaply manufactured, and that connecting-bolts and rubbers are dispensed with, and that the parts upon which there is any liability of

wear can be readily adjusted, so as to take up said wear; also that the bolt employed in connecting the parts to each other is securely locked, so that it cannot become loosened.

5 I am aware that prior to my invention a ball and socket have been employed as a thill-coupling, and I do not claim such as my invention; but

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

15 In a thill-coupling constructed substantially as herein shown and described, and consisting of an axle-clip, A, having a vertically-enlarged front portion, *a*, from which projects a cylindrical neck, *b*, having formed integral therewith a ball, B, in combination with the members attached to the thills, consisting of a rig-

idly-attached member, C, with recessed or depressed portions *c*² and socket *d*, with segmental cut-away portion *d'* and perforation *e*, 20 and member D, with a projecting portion, D', adapted to lie within the recess *c*² under the end of the thill, the lower end of this member being of the same configuration as its opposite member, and provided with a screw-threaded 25 perforation, *e'*, of less diameter than the perforation *e*, and bolts for securing the parts to each other, for the purpose set forth.

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

LAURISTON J. DRESSER.

Witnesses:

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