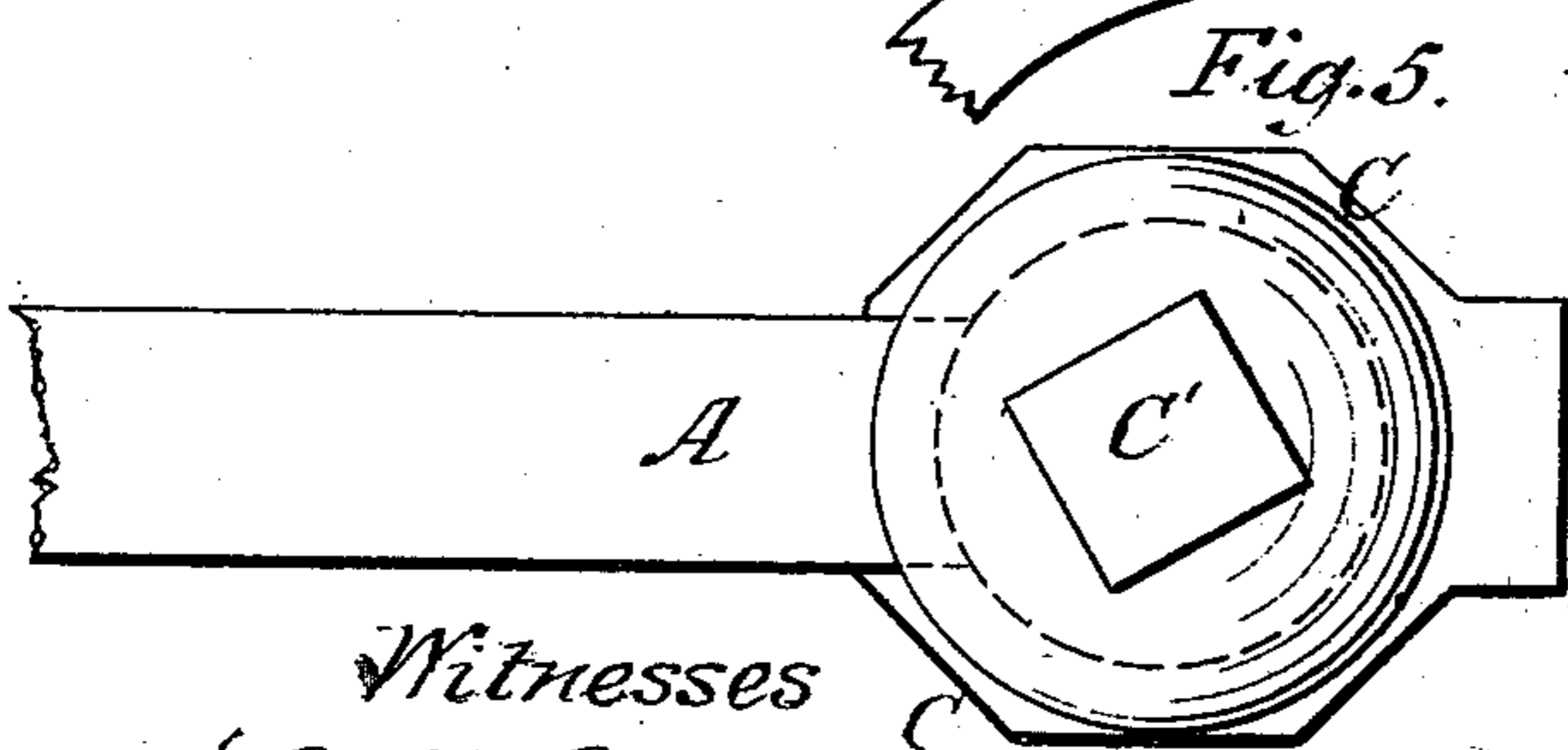
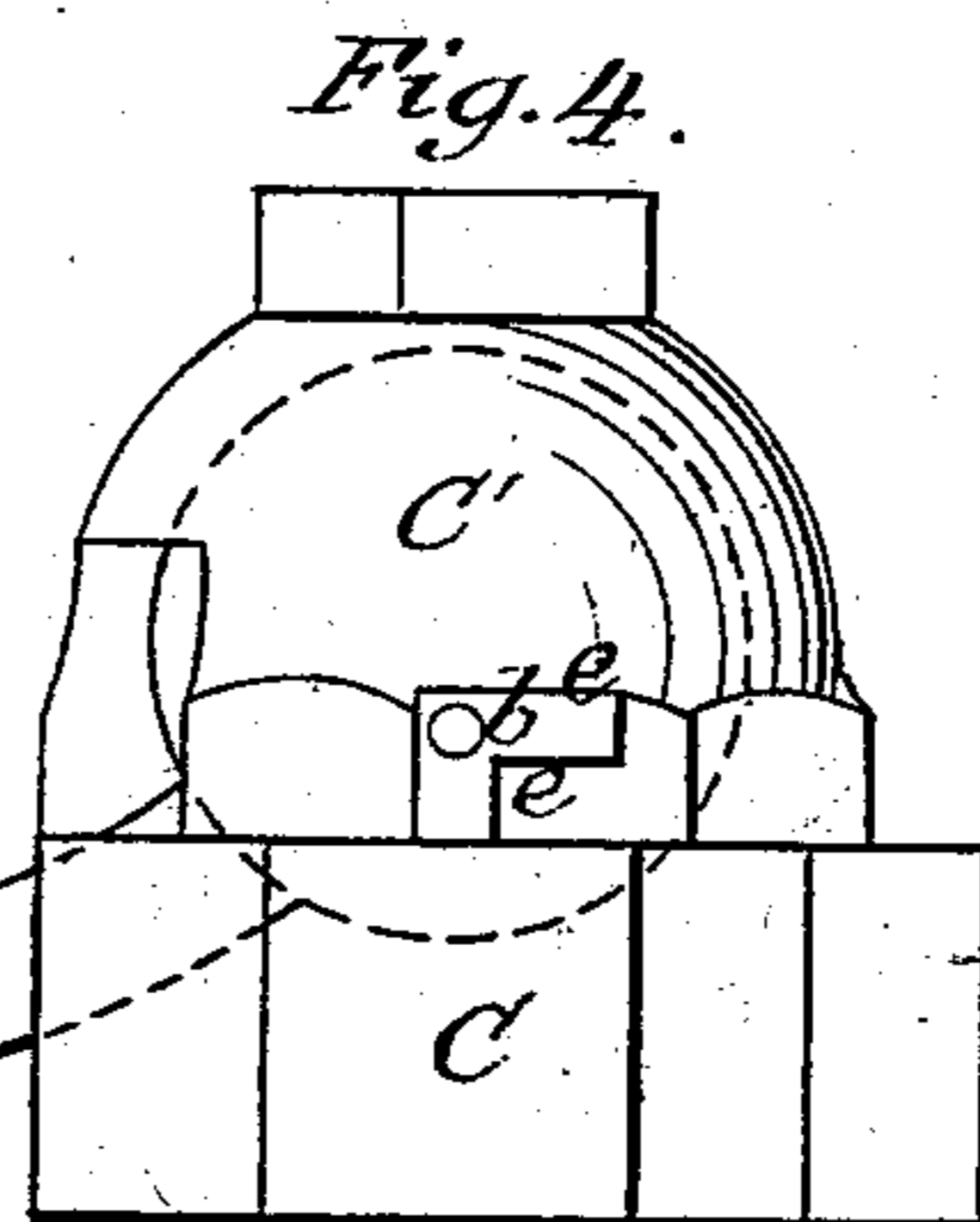
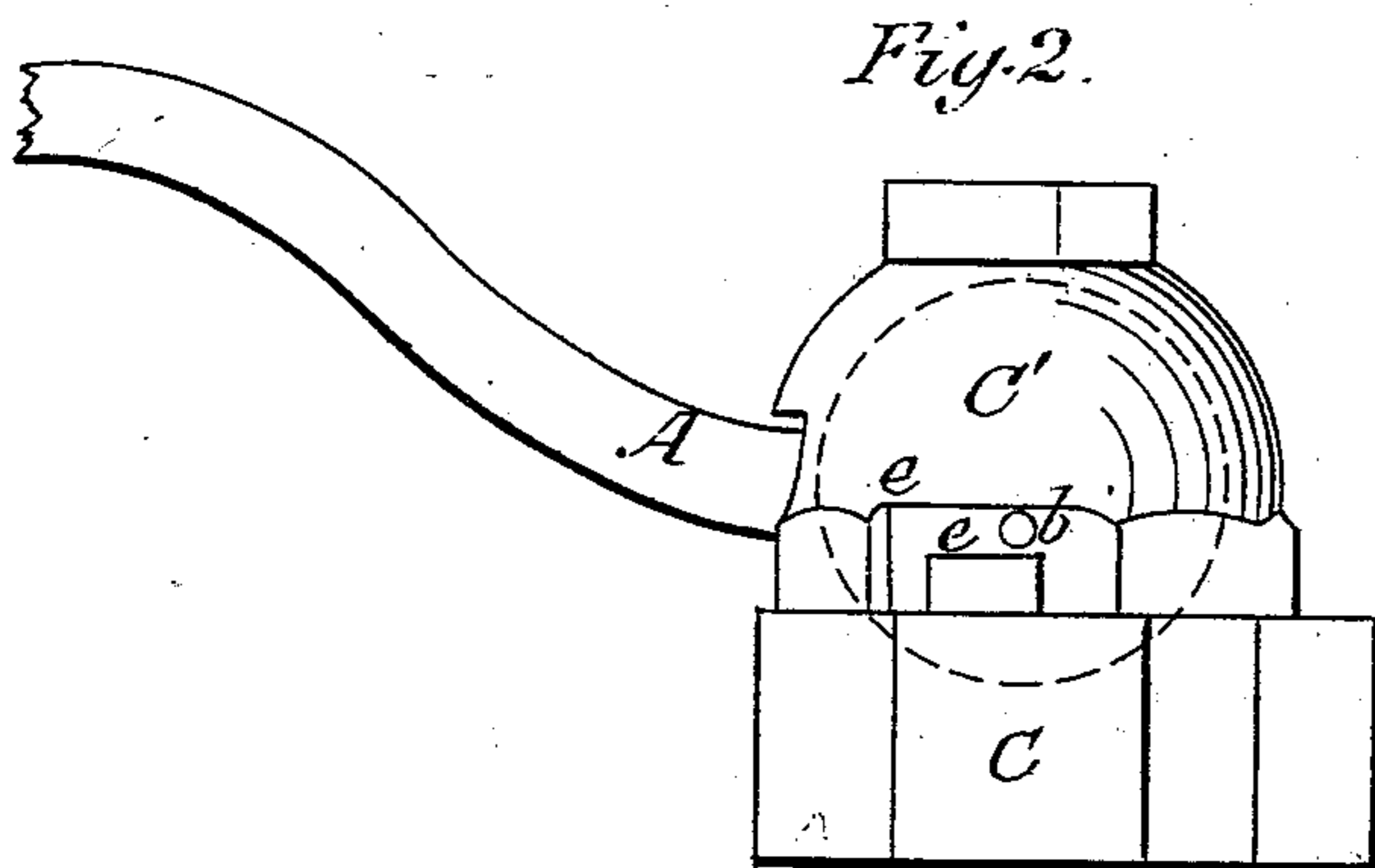
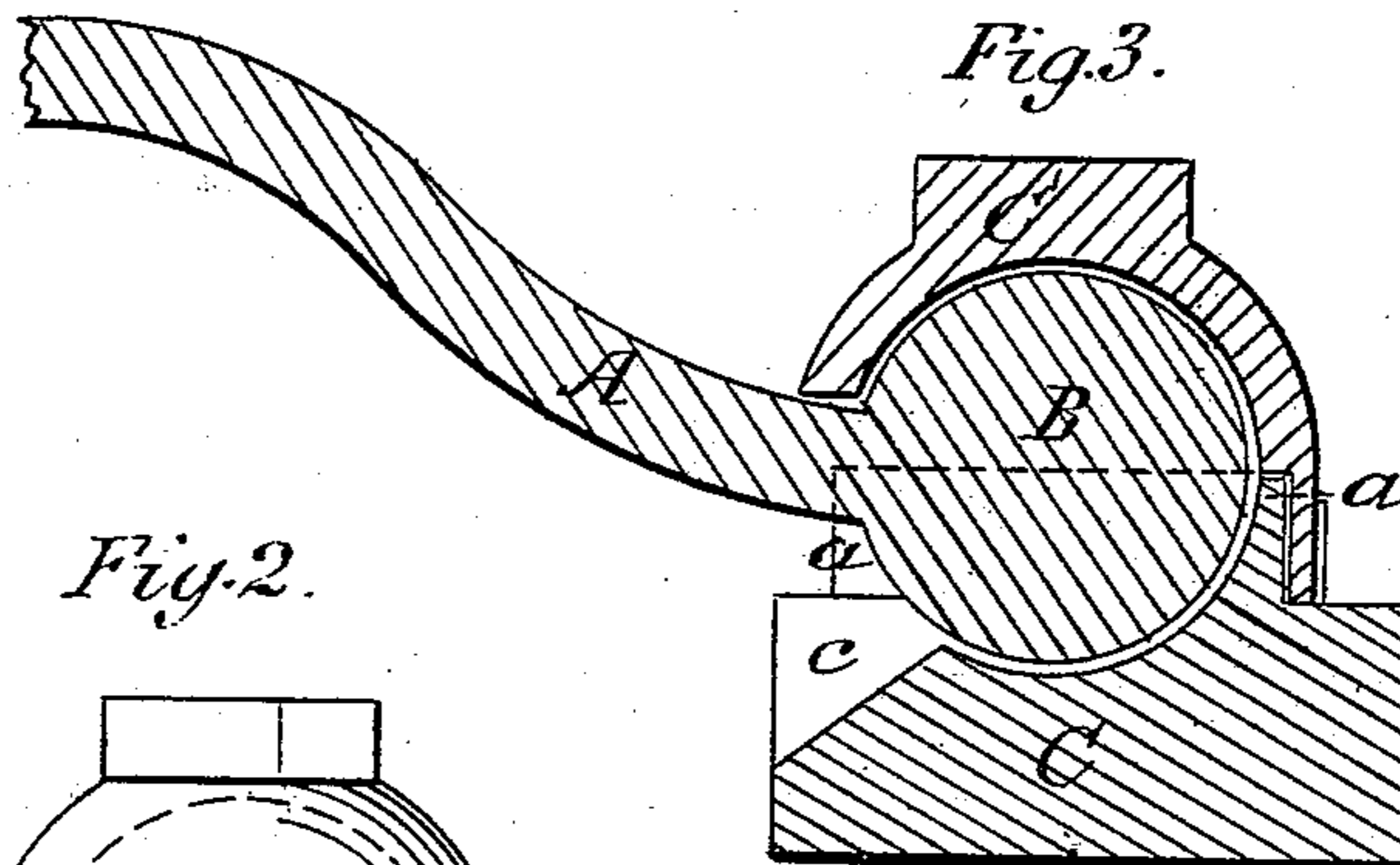
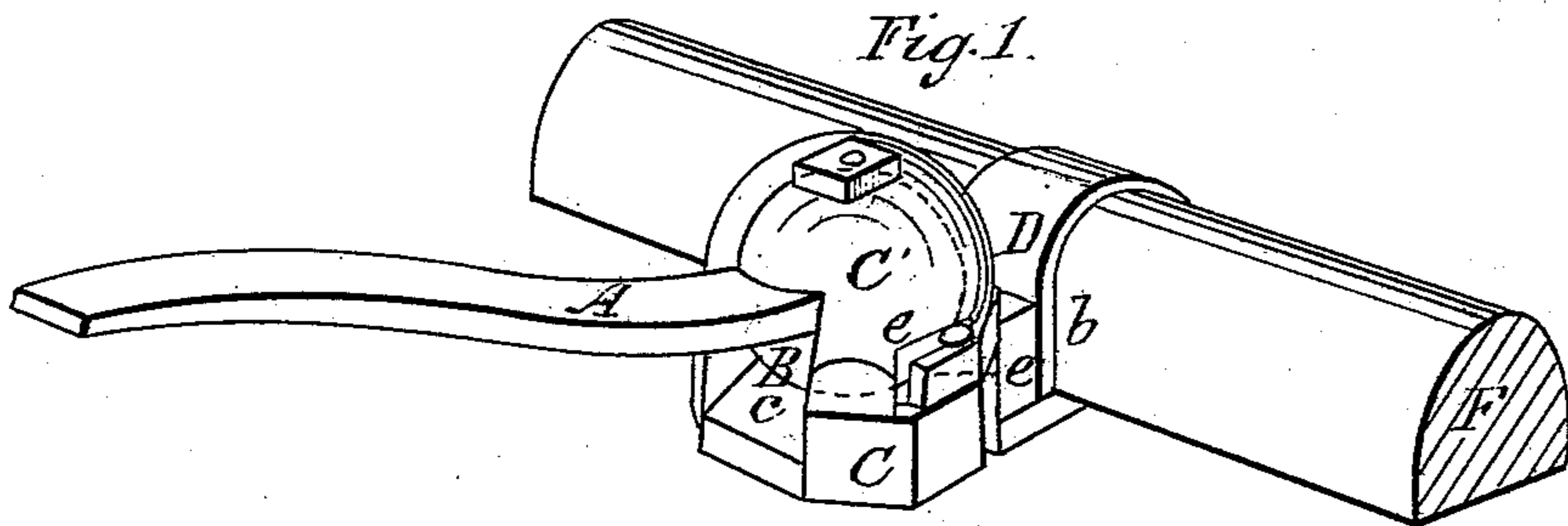


S. G. RICE.
Thill-Coupling.

No. 61,761.

Patented Feb. 5, 1867.



Witnesses
R. J. Campbell.
Edw. Schaefer

Inventor
S. G. Rice
by attys.
Mason Jewell & Lawrence.

United States Patent Office.

SAMUEL G. RICE, OF ALBANY, NEW YORK.

Letters Patent No. 61,761, dated February 5, 1867.

IMPROVEMENT IN THILL-COUPLING.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, S. G. RICE, of the city and county of Albany, State of New York, have invented a new and improved Thill-Coupling; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a perspective view, showing the improved coupling applied to a portion of a shaft.

Figure 2 is a side view of the coupling.

Figure 3 is a vertical central section through the coupling.

Figure 4 is a side view of the coupling, with the thill iron depressed in a position to allow of the removal of the cap.

Figure 5 is a top view of the coupling.

Similar letters of reference indicate corresponding parts in the several figures.

The object of this invention is to connect the thills of a vehicle to the front axle thereof by means of a ball and socket coupling, which is so constructed that, while the thills can be readily attached and detached without the use of nut and screw fastenings, they cannot become casually disconnected while the animal is hitched to them.

To enable others skilled in the art to understand my invention, I will describe its construction and operation.

On the rear end of the thill iron A a ball, B, of suitable diameter is rigidly secured, which is fitted into a socket so as to move freely. The socket for receiving said ball is formed in two pieces, C C', the lower one C being secured to the strap D, which embraces the axle E; and the upper one C' being made so that it can be attached to, and detached from, the base-piece C, at pleasure, when the thill iron is depressed, as shown in figure. The base-piece C is constructed with a flange, a, having pins, b b, projecting from it, and located diametrically opposite each other. A vertical slot, c, is made through the front part of the flange a, and also through the lower portion C of the base-piece, for the purpose of allowing the thill iron A free vertical play; and also for allowing this iron to be depressed, as shown in fig. 4, when it is desired to remove or attach the upper section or cap C'. A corresponding slot is made through the front part of the cap C' for allowing the thill iron A to assume the position shown in figs. 2 and 3, when the cap is fastened in place. The cap C' is adapted to fit over the flange a on the base-piece C, and to receive, in the right-angular slots e e, the pins b, which form bayonet fastenings. When the thill iron A is inclined as shown in fig. 4 it drops below the shoulder at the base of the flange a, and allows the cap to be seated upon this shoulder, with the pins b in the vertical portions of the slots e. The cap is then turned slightly so as to bring pins b in the horizontal portions of the slots e, and the vertical slot which is in front of the cap C' in line with the slot c. The thill iron A is now elevated to the proper position for attaching the thills to the horse, when it will prevent the cap C' from turning either to the right or to the left.

It will be seen from this description that I effect the coupling of the thill iron without the use of nuts and bolts, and cause this thill iron to hold the cap C' in place, so that a disconnection of the thill iron cannot be made until it is depressed below the base of the cap C', which position it cannot assume while the thills are attached to the horse. While I have described the most preferable mode of carrying out my invention, I do not confine myself to the precise contrivance herein set forth for attaching the cap or upper socket section to the lower section, as other fastenings may be adopted.

I do not claim a ball and socket, but, having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A ball and socket thill-coupling, which is so constructed that the thill iron will serve, when in an elevated position, as a means for preventing a casual disconnection of this iron, substantially as explained.

2. The combination of the parts A B with the sections C C', slots e, and a bayonet fastening b, substantially as described.

SAMUEL G. RICE.

Witnesses:

FRANCIS SHIELDS,
ROBT. STEWART.