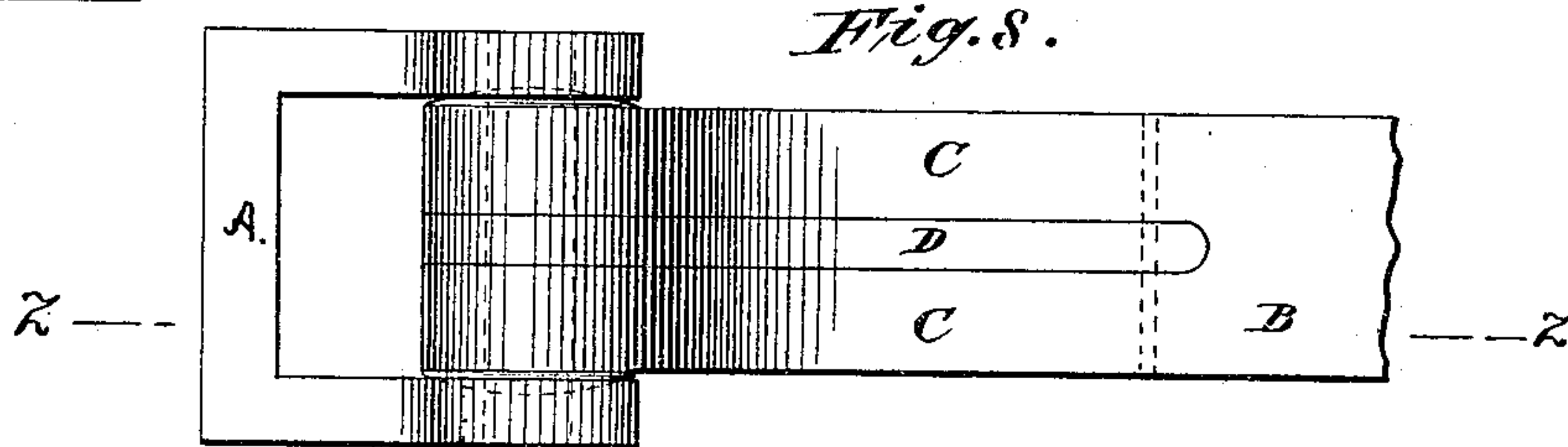
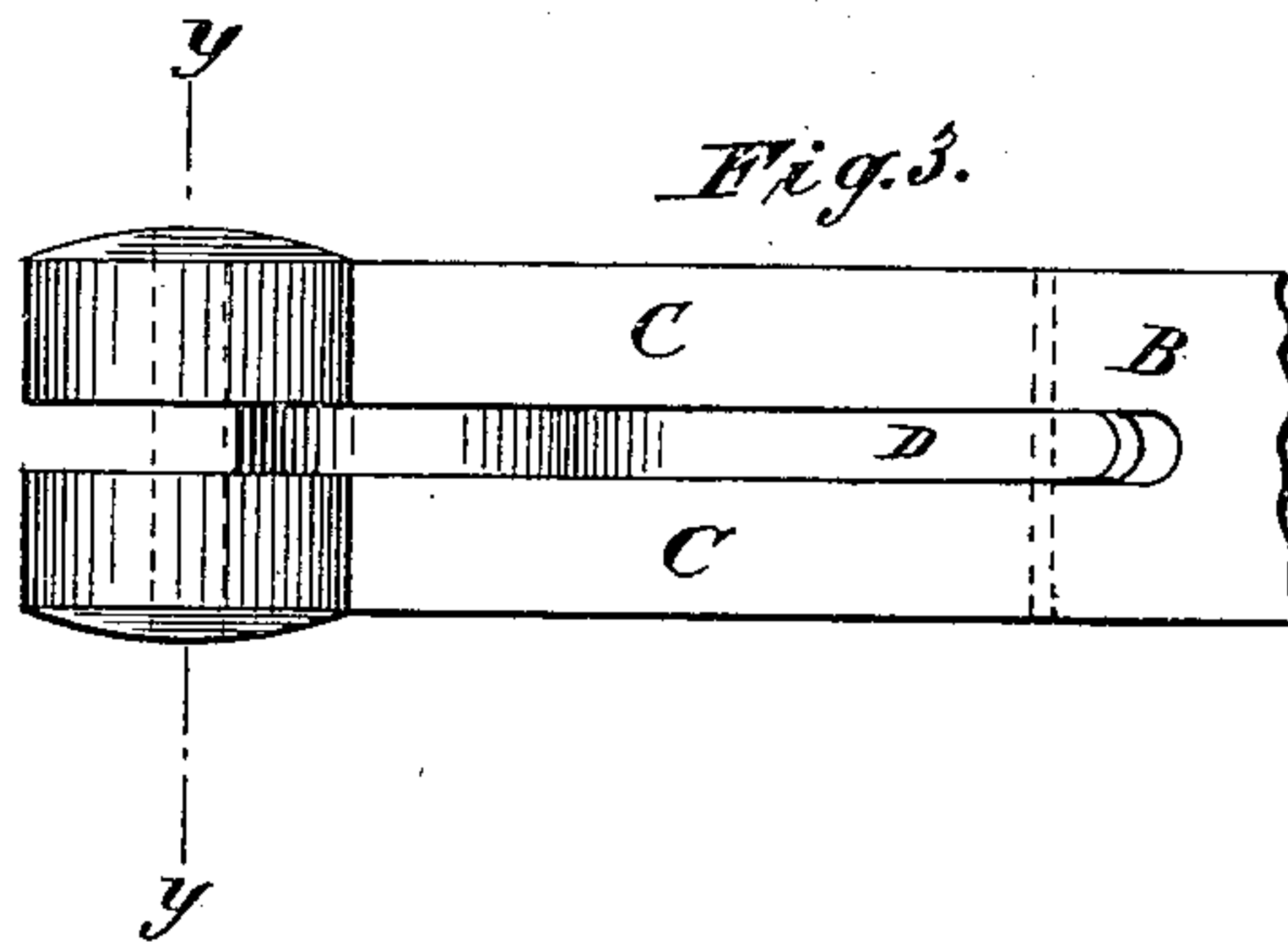
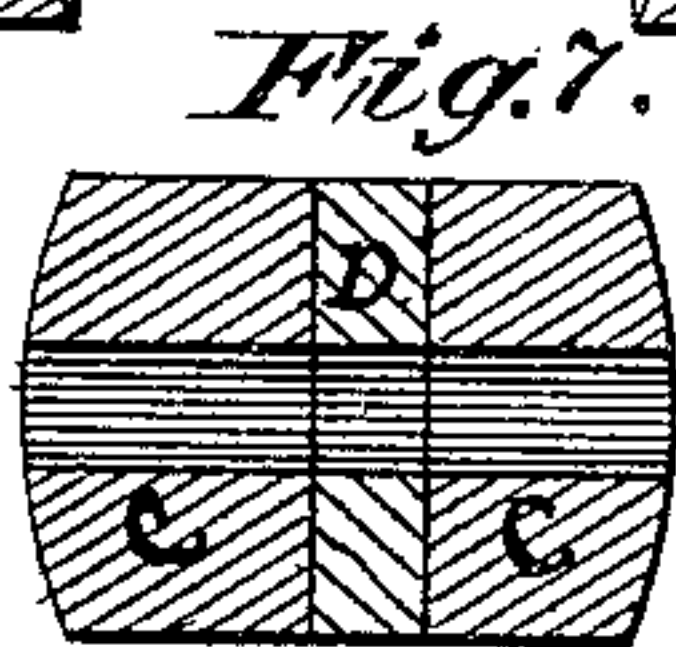
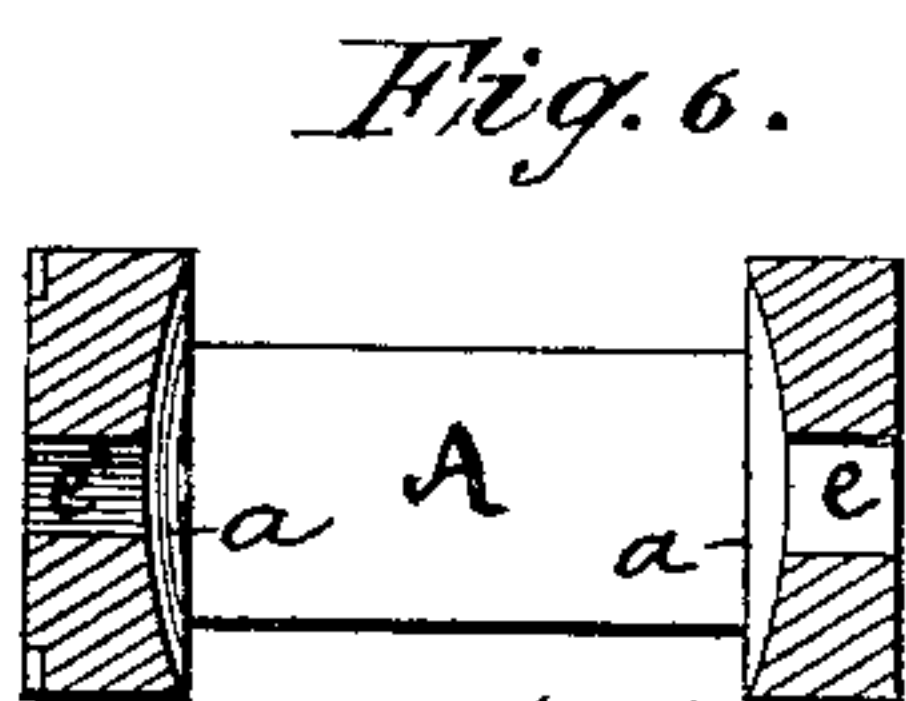
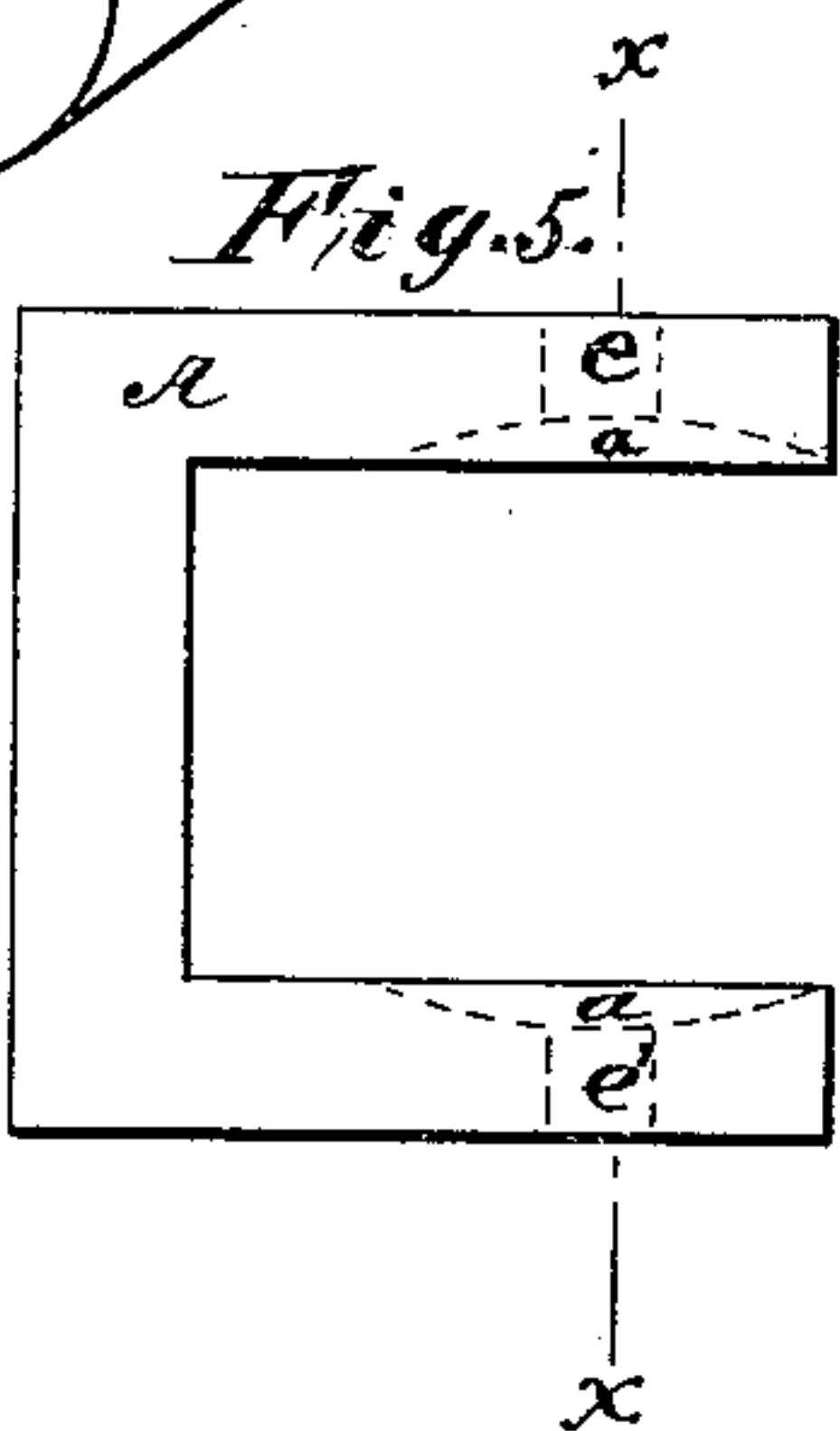
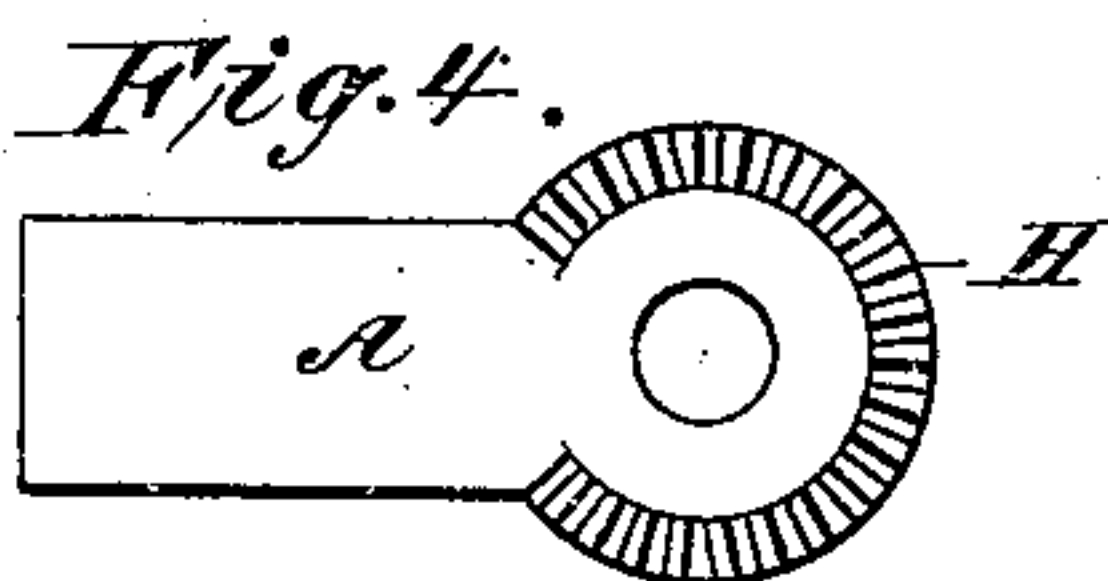
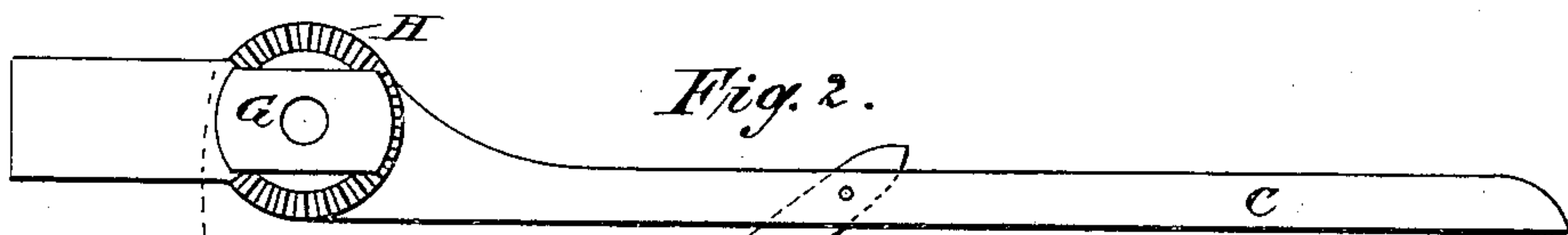
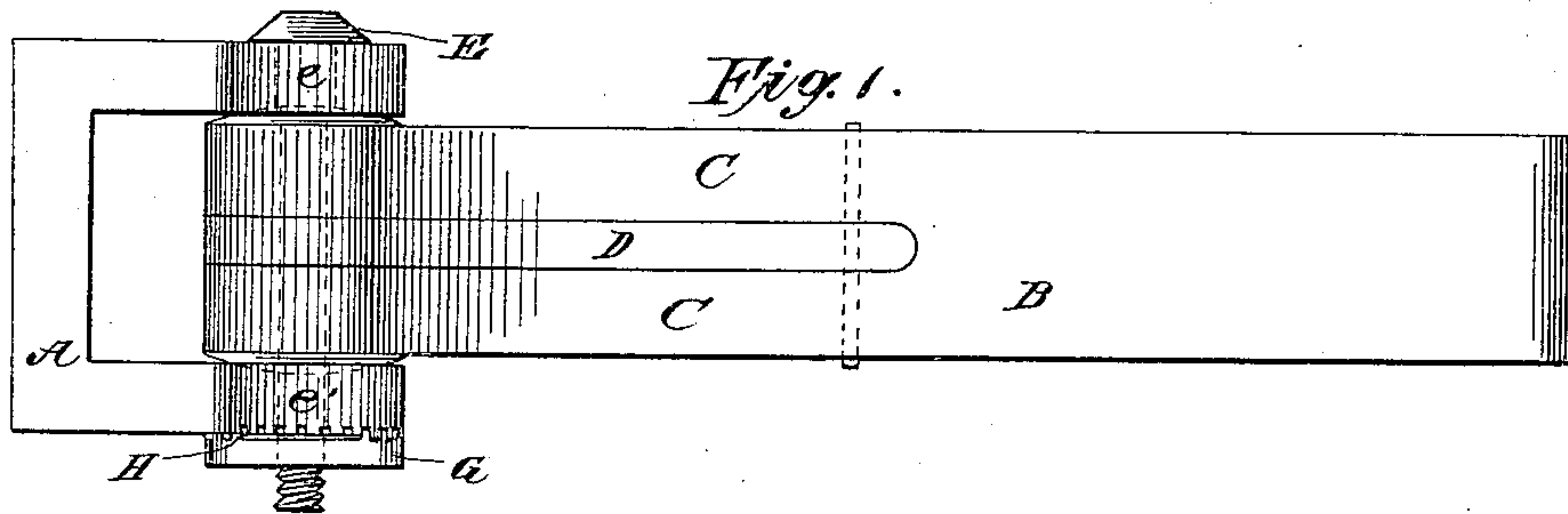


(No Model.)

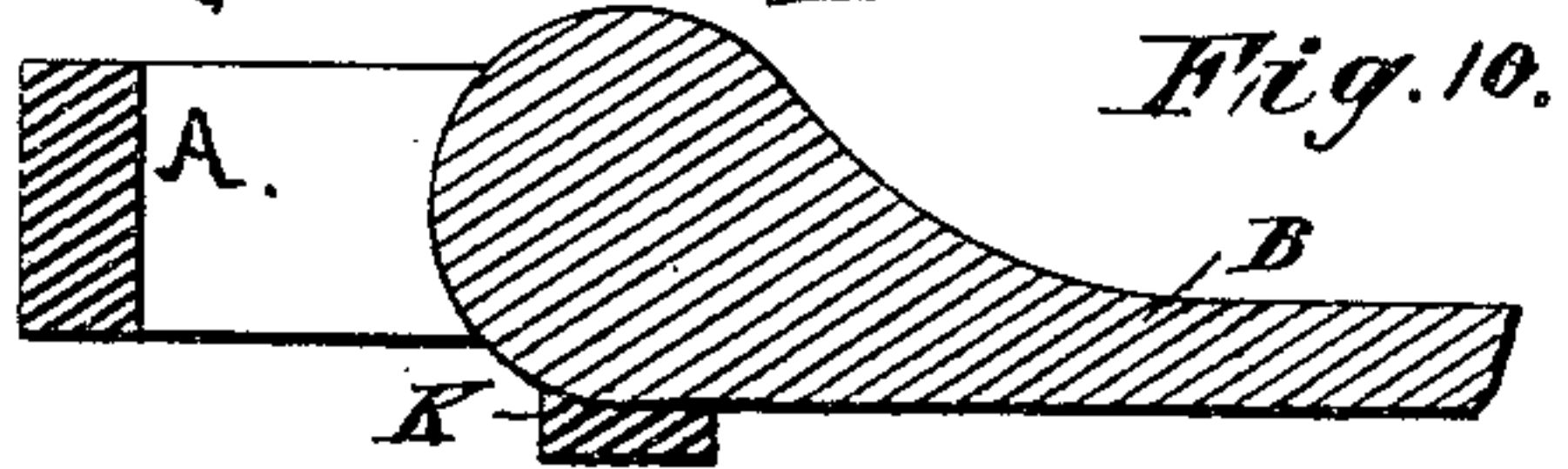
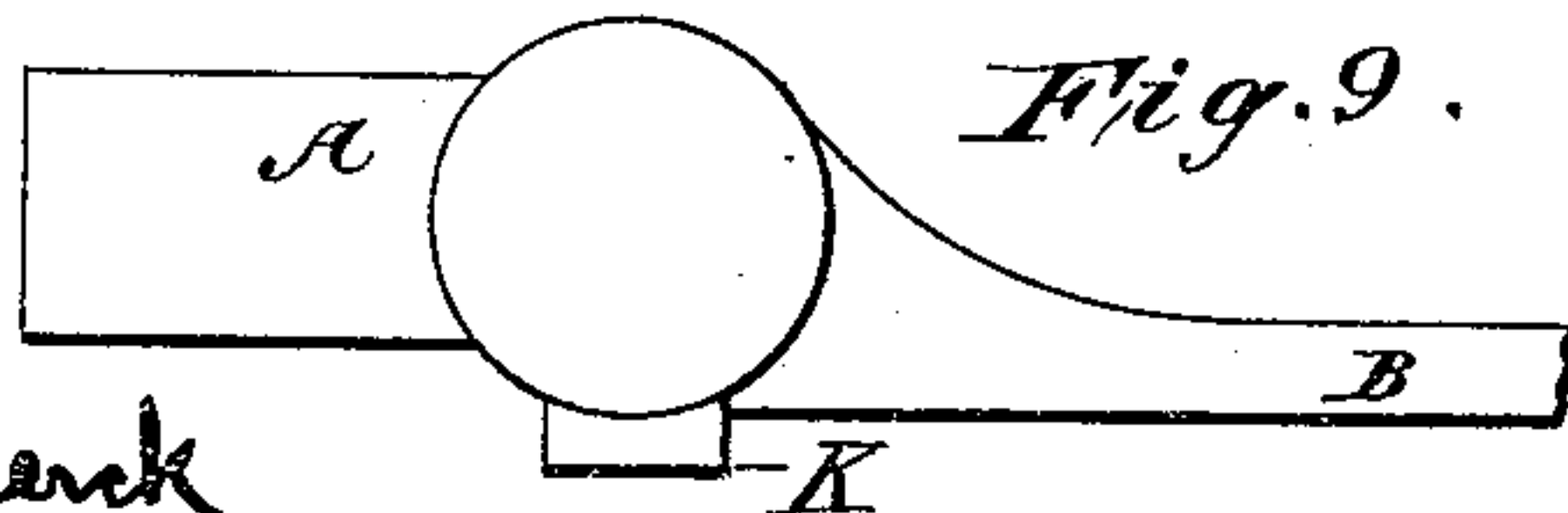
G. E. HAMLIN.  
THILL COUPLING.

No. 371,683.

Patented Oct. 18, 1887.



WITNESSES:  
Ch. Benjamin  
R. J. Van Buren



INVENTOR  
George E. Hamlin  
BY  
S. M. + Coe  
ATTORNEYS

# UNITED STATES PATENT OFFICE.

GEORGE E. HAMLIN, OF SOUTH ORANGE, NEW JERSEY.

## THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 371,683, dated October 18, 1887.

Application filed February 24, 1887. Serial No. 228,690. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE E. HAMLIN, a citizen of the United States, residing in the village of South Orange, county of Essex, and State of New Jersey, have invented a new and useful Improvement in Thill Attachments, of which the following, taken in connection with the accompanying drawings, is a full, clear, and accurate description.

The object of my invention is to prevent the shafts and thills of wagons, buggies, carriages, and other like vehicles from rattling, and also to prevent the nuts by which the thills or shafts are secured in place from loosening.

In the drawings, Figure 1 represents a plan view of my improvement. Fig. 2 is a side view of the same, showing the wedge lowered at one end. Fig. 3 is a plan view of the thill. Fig. 4 is a side view of the yoke. Fig. 5 is a plan view of the yoke. Fig. 6 is a section of the yoke on line *x x*, Fig. 5. Fig. 7 is a section of the thill on the line *y y*, Fig. 3. Fig. 8 is a plan view of a modification. Fig. 9 is a side view thereof; and Fig. 10, a longitudinal section on the line *z z*, Fig. 8.

A represents the yoke or support to which the thill is secured. This yoke is provided with sockets *a a*, in which the thill is to be placed, which sockets are made concave, as shown by dotted lines in Fig. 5. The thill B is to be fitted in these sockets *a a*, and is split or divided into two parts, C C, in such a manner that these two parts shall be elastic under pressure. These two parts C C are made with their ends convex, so as to correspond and fit into the sockets *a a* of the yoke or support A. The two parts C C of the thill B are shown clearly in Fig. 3. The thill B is further provided with a wedge or tongue, D, cut in or secured to the thill by a pivotal connection, the object of such tongue being, when the thill is sprung into place in the yoke A, to keep the convex ends of the thill firmly in place in their sockets *a*. This tongue, when down and before being placed between the two parts C C of the thill to keep them firmly in position, is shown in Figs. 2 and 3 of the drawings.

The yoke A and thill B are held together by the bolt E, (see Fig. 1,) one end of which is square, so as to correspond with and fit tightly in the square socket-hole *e* at one end

of the yoke. The bolt is then mounted so as to pass loosely through the round socket-hole *e'* at the other end of yoke A, said socket-hole *e'* being somewhat larger in diameter than the bolt E. The square socket *e* and round socket *e'* are shown clearly by the dotted lines in Fig. 1. The end of the bolt E is provided with a screw-thread, as shown in Fig. 1, adapted to receive a screw-threaded nut, G. The inner side of the nut G is provided with tooth projections which correspond with and are adapted to fit into corresponding depressions, H, cut in the outer surface of one side of the yoke A. This outer surface of the yoke A, provided with such depressions, is shown clearly in Fig. 4, while the nut G, fitting into such outer surface of yoke, is shown in Figs. 1 and 2 of the drawings.

The operation of my improved thill attachment is as follows: The tongue or wedge D being removed from between the two parts C C of the thill, as shown in Figs. 2 and 3, the parts are sprung together and into place in the sockets *a a* of the yoke A. The tongue or wedge D is then forced into position between the parts C C, as shown in Fig. 1. The bolt E is then inserted through the holes in the yoke A, thill B, and tongue D, and the nut G, being screwed tightly on the bolt E and against the side of the yoke A, holds all the parts of the thill attachment firmly together, so as to prevent rattling. The square end of the bolt E and the engagement of the toothed surface of the nut G with the depressions H of the yoke A hold the rounded surface of the bolt E from contact with the round socket *e'*, and thus prevent the bolt E from rattling, while the engagement of the toothed surfaces of the yoke and nut prevent the bolt E from loosening and thus rattling. The convex surfaces of the parts C C of the thill, tightly pressed, as they are, in the sockets *a a* of the yoke by the tongue or wedge D, prevent any rattling of the thill in the yoke.

In the modification of my improvement shown in Figs. 8, 9, and 10 the bolt E is dispensed with, and the bar K, placed at the outermost end of the yoke A, prevents the ends of the yoke from springing apart.

I prefer using a tongue or wedge D, as shown in the drawings, because, being secured to or



a part of the thill itself, it is always in place ready for use; but a detachable tongue, wedge, or washer, or other equivalent device, may be used to insert between the parts C C of thill B, and press them into place.

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

1. In thill attachments, the combination of a yoke or support for the thill, provided with concave sockets, and a thill partially divided into two parts, provided with convex ends and pressed and held in position in the sockets of the yoke by a tongue, wedge, or washer placed between such parts, substantially as described, and for the purposes set forth.

2. In thill attachments, the combination of a yoke or support for the thill, provided with concave sockets, and a thill partially divided into two parts, provided with convex ends and pressed and held in position in the sockets of the yoke by a tongue, wedge, or washer placed between such parts and having pivotal

connection with the thill, and a bolt or bar rigidly attached to the outer end of the yoke, substantially as described, and for the purposes set forth.

3. In thill attachments, the combination of a yoke or support for the thill, provided with concave sockets, one of such sockets having a square hole and the other a round hole for the reception of a corresponding bolt which passes through such sockets, a thill partially cut into two parts, provided with convex ends pressed and held in position in the sockets of the yoke by a tongue, wedge, or washer placed between such parts, and a nut adapted to lock the bolt, all substantially as described, and for the purposes set forth.

In witness whereof I have hereunto set my hand this 21st day of February, 1887.

GEORGE E. HAMLIN.

In presence of—

R. F. VAN BOSKERCK,  
CHARLES G. COE.