

(No Model.)

N. R. SHULTZ.
THILL COUPLING.

No. 583,773.

Patented June 1, 1897.

Fig. 1.

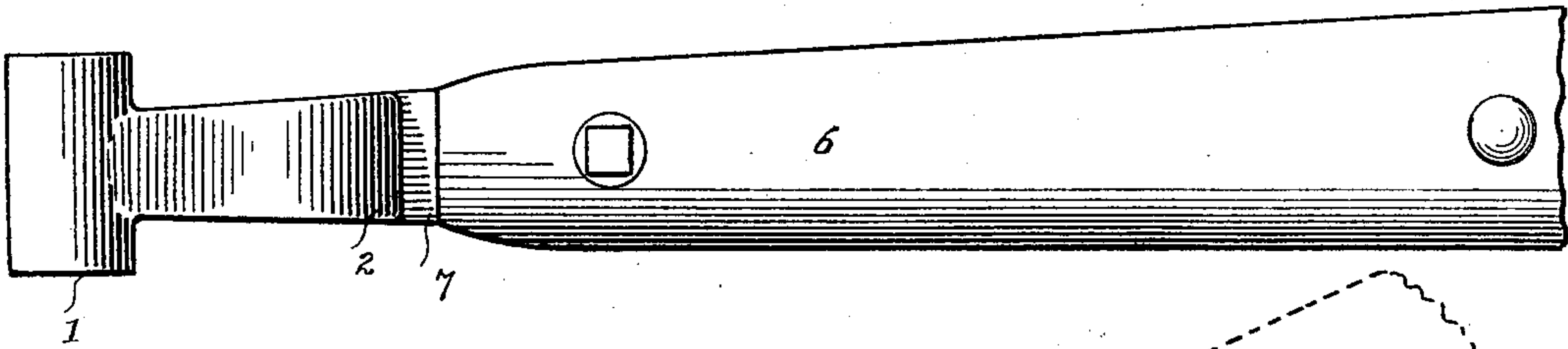


Fig. 2.

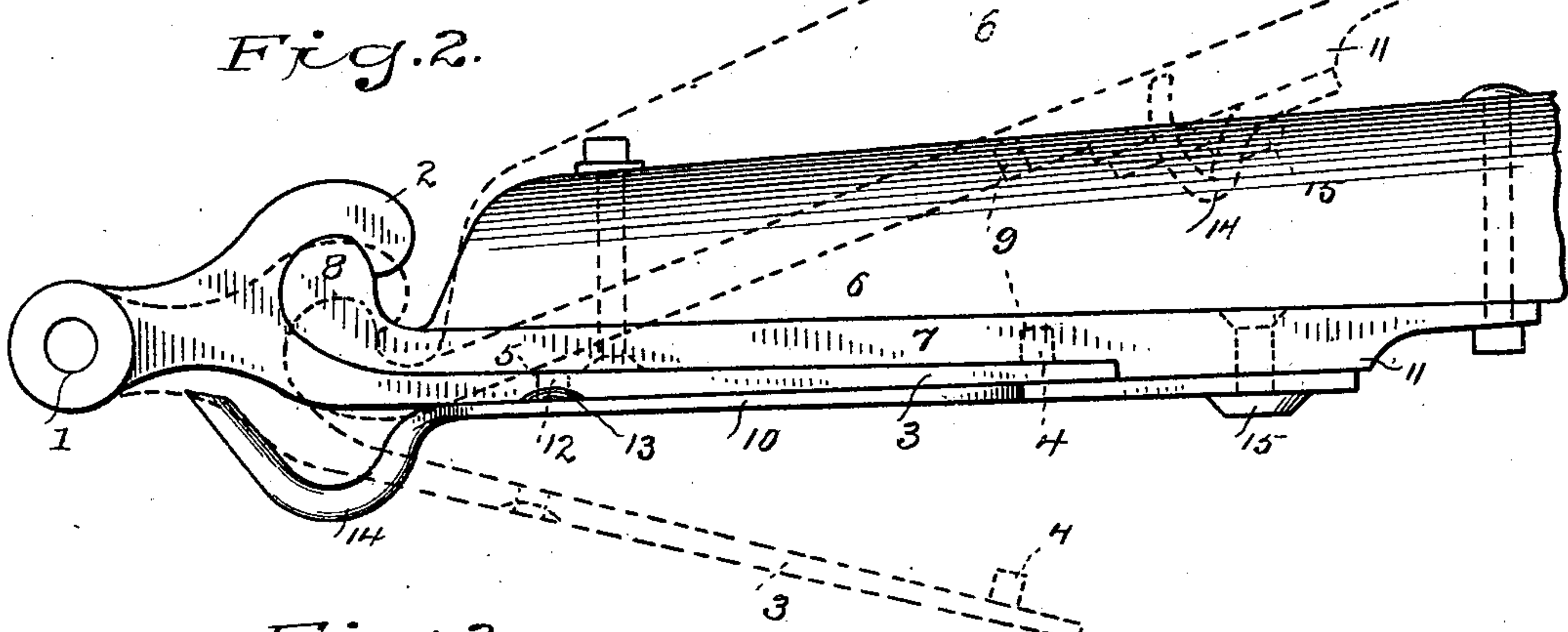


Fig. 3.

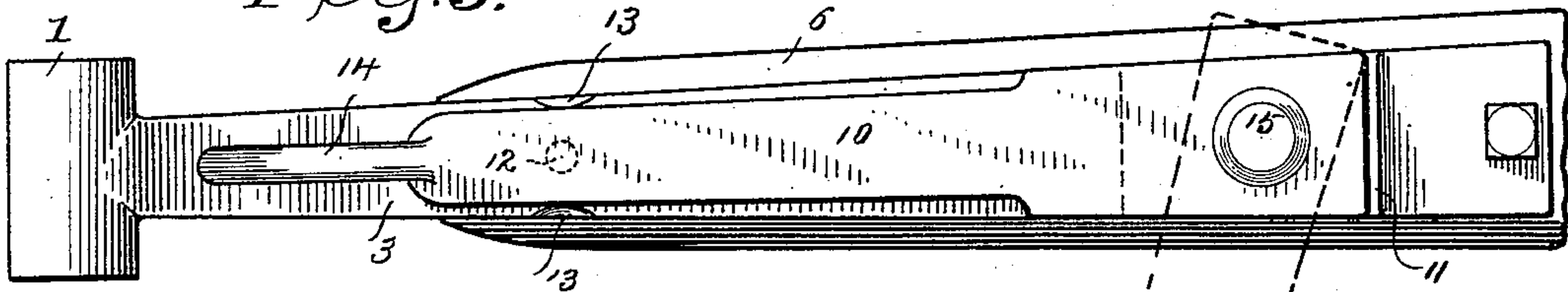
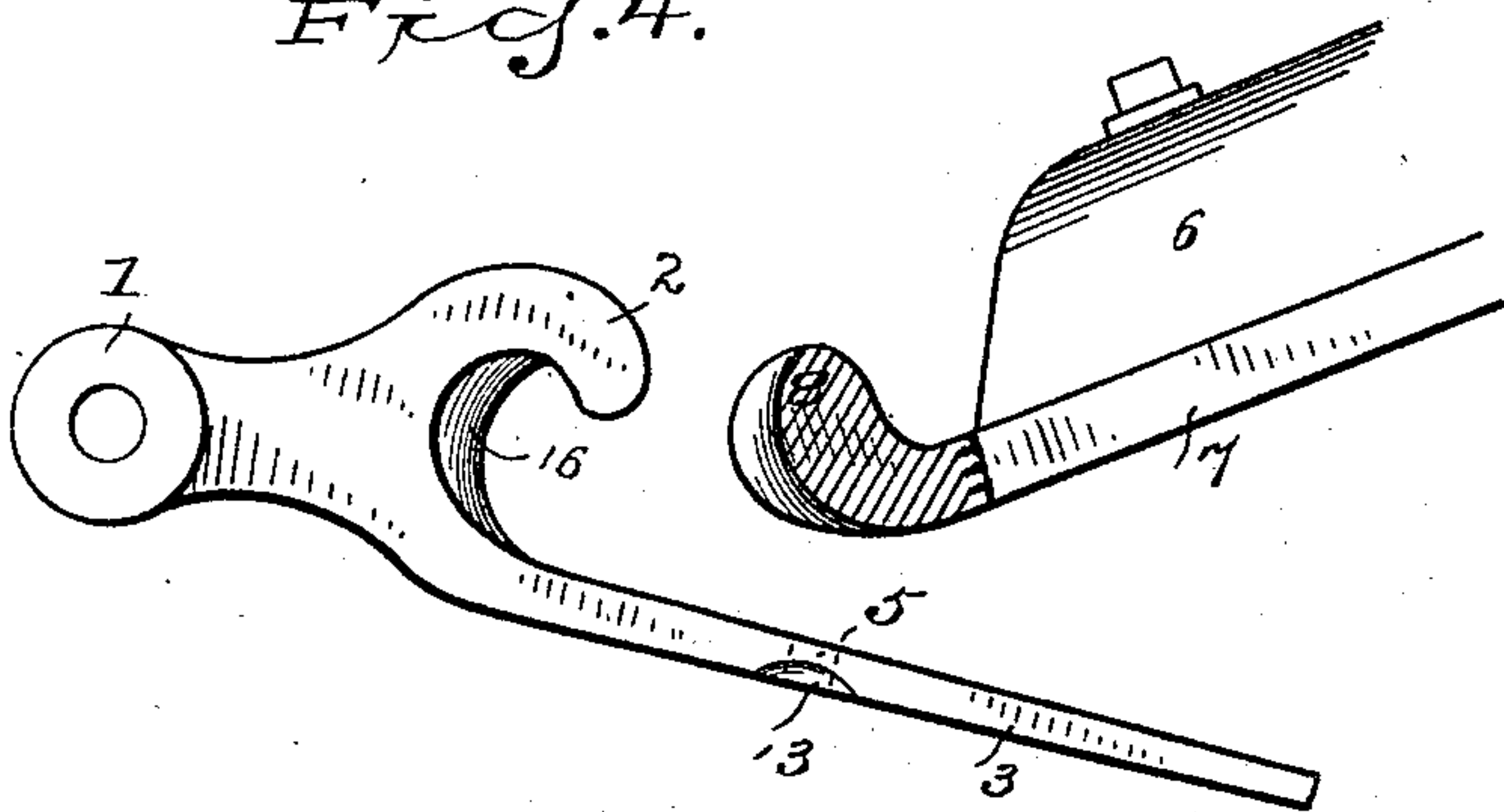


Fig. 4.



WITNESSES

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NICHOLAS R. SHULTZ, OF LAKE CITY, MICHIGAN, ASSIGNOR TO THE AMERICAN BRASS NOVELTY COMPANY, OF GRAND HAVEN, MICHIGAN.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 583,773, dated June 1, 1897.

Application filed September 9, 1896. Serial No. 605,235. (No model.)

To all whom it may concern:

Be it known that I, NICHOLAS R. SHULTZ, a citizen of the United States, residing at Lake City, in the county of Missaukee and State of Michigan, 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.

My invention has for its object to provide a thill or pole coupling which shall be simple and inexpensive, durable, and which will permit the thill or pole to be detached from a wagon without detaching the eyes, and consequently without disturbing the antirattler.

With these ends in view I have devised the simple and novel construction of which the following description, in connection with the accompanying drawings, is a specification, numbers being used to designate the several parts.

Figure 1 is a plan view of one end of a thill or pole arm, showing the eye; Fig. 2, a side elevation corresponding with Fig. 1, showing my novel coupling complete, the position of the parts in the locked or coupled position appearing in full lines and the position at the instant the thills are detached from the wagon being shown in dotted lines; Fig. 3, an inverted plan view corresponding with Fig. 1, the open position of the latch being indicated by dotted lines; and Fig. 4 is a view showing the two parts of the coupling detached.

1 denotes an eye by which one of the thills or one side of a pole is attached to a wagon. Formed integral with this eye are a hook 2 and an attaching-plate 3, the latter having on its upper side near its inner end a lug 4 and in its under side a recess 5.

6 denotes a thill or pole arm, to the under side of which is bolted a plate 7, having at its outer end a head 8 and in its under side a recess 9, which may or may not extend through the plate and which is adapted to receive lug 4 on attaching-plate 3.

10 denotes a latch pivoted to the under side of plate 7, as at 15. I have shown this latch as pivoted upon a raised portion 11 of the

plate, so as to permit it to swing over attaching-plate 3.

12 denotes a lug on the upper side of the latch, which is adapted to engage recess 5 in the attaching-plate and hold the parts in the locked position. The latch swings closely over the surface of the attaching-plate and when operated is sprung outward by hand sufficiently to allow lug 12 to pass over the surface of the attaching-plate.

13 denotes notches in the sides of the attaching-plate contiguous to recess 5. These notches are simply provided for convenience to receive lug 12 as the latch is swung around, the lug passing up the incline of the notch and upon the top of the plate until it reaches recess 5, when the resiliency of the latch itself will cause the lug to drop into the recess. At the outer end of the latch is a handpiece 14 for convenience in manipulating it.

The hook 2 is formed to project outward and downward from the upper portion of the casting or otherwise constructed metallic piece, which includes the eye 1, and the plate 3 projects from the lower portion of the same piece or casting, thus providing a space between the hook and the plate to receive the head 8 of the plate 7.

It will be noticed (see Fig. 4) that the face of the metallic piece or casting is rounded below the hooks 2, forming a convex curve, as at 16, and that the outer face of head 8 is rounded, forming a concave curve corresponding therewith. The parts are thereby enabled to match readily and are held firmly against lateral movement when in the locked position.

The operation will be readily understood from the drawings. Suppose the thills or pole upon which the couplings are used are attached to a wagon. To detach the thills or pole, the operator swings the latches (one on each side) from the position shown in full lines in Fig. 3 to the position shown in dotted lines in said figure, so that the latch will clear the rear end of the attaching-plate. The operator then swings one end of the attaching-plate downward, as indicated in dotted lines in Fig. 2, or swings the thills or pole upward until head 8 is disengaged from hook

2, when the thills or pole may be wholly removed, the eyes and the attaching-plates remaining upon the wagon.

Owing to the head 8, which is carried by the pole or thills, being received in the space or socket formed between the hook 2 and the plate 3 there is no possibility of there being any vertical play of the head relatively to the hook when in use. I am therefore enabled to dispense with screws or equivalent constructions, since the arrangement described permits the simple latch device shown to secure the parts from being disorganized or even loosened.

Having thus described my invention, I claim—

1. A thill-coupling consisting of an eye having formed integral therewith a hook and an attaching-plate, a space or socket being provided between said hook and plate and a plate 7 adapted for attachment to a thill and provided with a head adapted to engage the said space or socket and a spring-latch adapted to swing over the attaching-plate whereby the head is held in engagement with the hook as and for the purpose set forth.

2. A thill-coupling consisting of an eye having formed integral therewith a hook and an attaching-plate, a space or socket being provided between said hook and plate and a plate 7 adapted for attachment to a thill and provided with a head adapted to engage the said space or socket, the socket and head being provided respectively with convex and concave portions, for the purpose set forth and a spring-latch pivoted to plate 7 and adapted to swing over the attaching-plate whereby the head is held in engagement with the hook as and for the purpose set forth.

3. A thill-coupling consisting of an eye having formed integral therewith a hook and an attaching-plate having a lug 4 on its upper side, a space or socket being provided between said hook and plate and a plate 7 adapted for attachment to a thill and provided with a head to engage the said socket and a recess 9 adapted to be engaged by lug 4 and means for locking said parts in the engaged position as and for the purpose set forth.

4. A thill-coupling consisting of an eye having formed integral therewith a hook and an attaching-plate having a recess 5, a space or socket being provided between said hook and plate and a plate 7 adapted for attachment to a thill and provided with a head to engage the said socket and a spring-latch pivoted to plate 7 and adapted to swing over the attaching-plate and provided with a lug 12 to engage recess 5 in the attaching-plate whereby the parts are locked in position.

5. A thill-coupling consisting of an eye having formed integral therewith a hook and an attaching-plate, the latter being provided with a lug 4 on its upper side and a recess 5 in its under side, and a plate 7 adapted for attachment to a thill and provided with a recess 9 adapted to receive lug 4 and a spring-latch pivoted to plate 7 and adapted to swing over the attaching-plate and provided with a lug 12 which engages recess 9 to lock the parts in the engaged position.

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

NICHOLAS R. SHULTZ.

Witnesses:

JAMES CAVANAGH,
E. G. BALKWELL.