

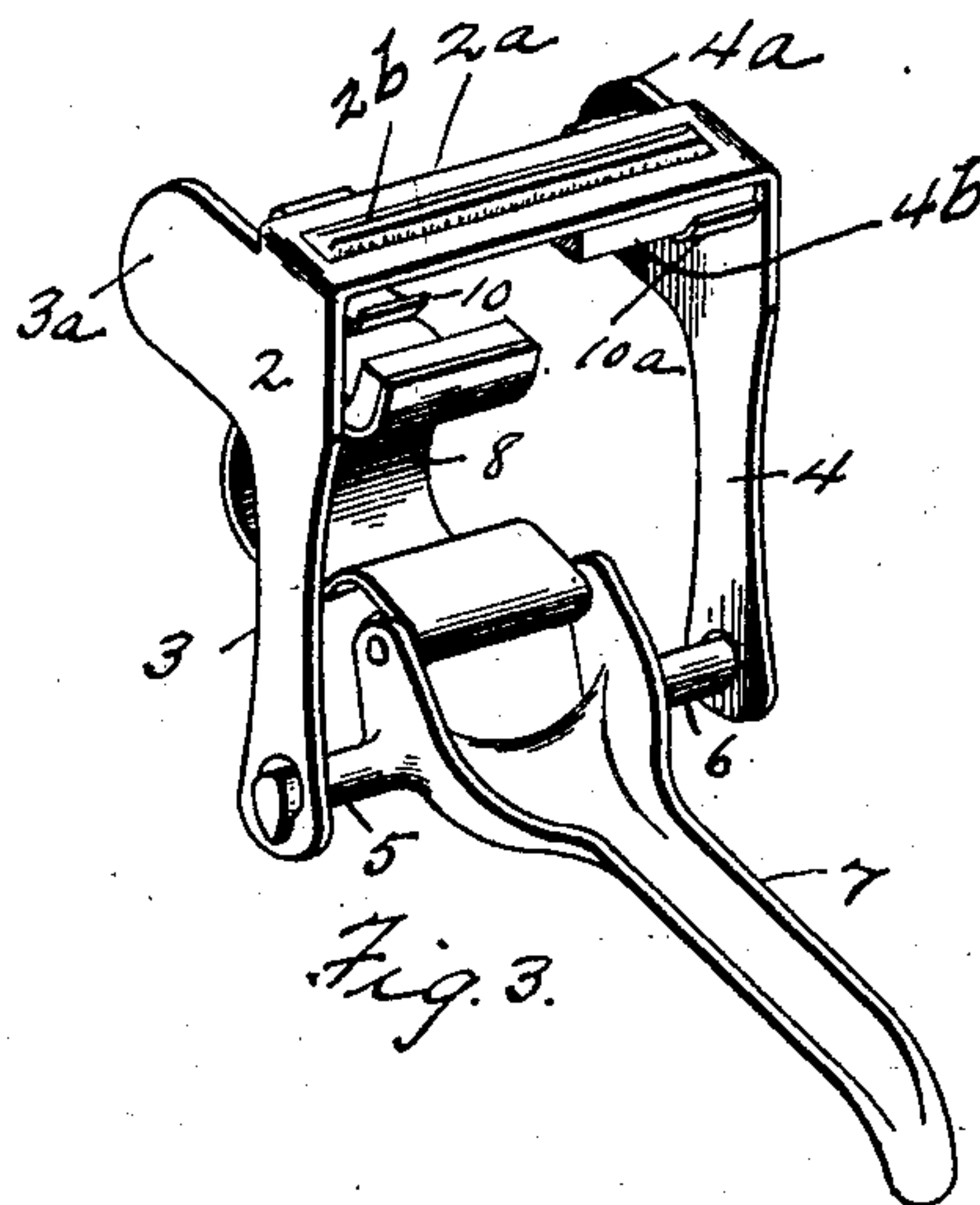
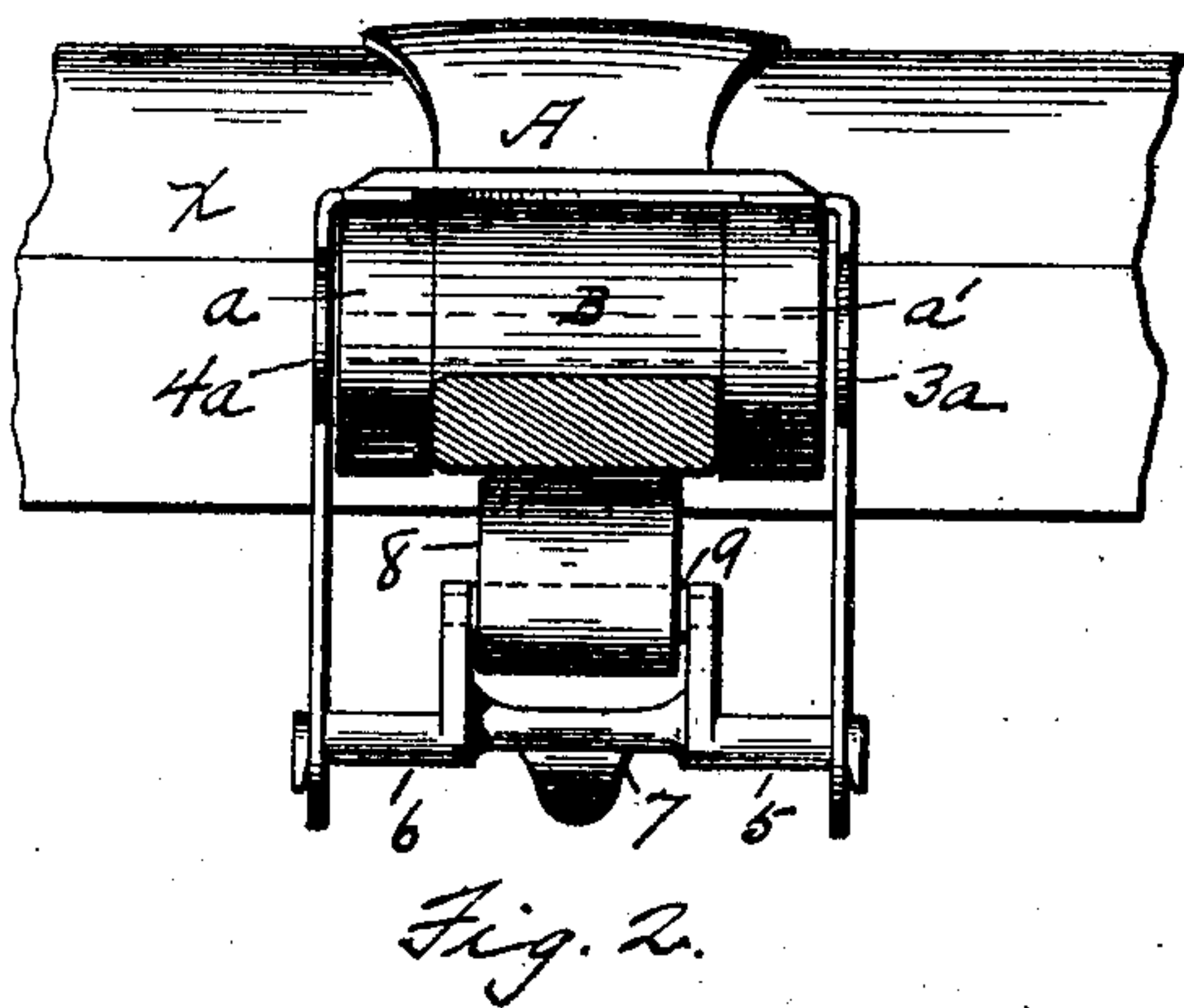
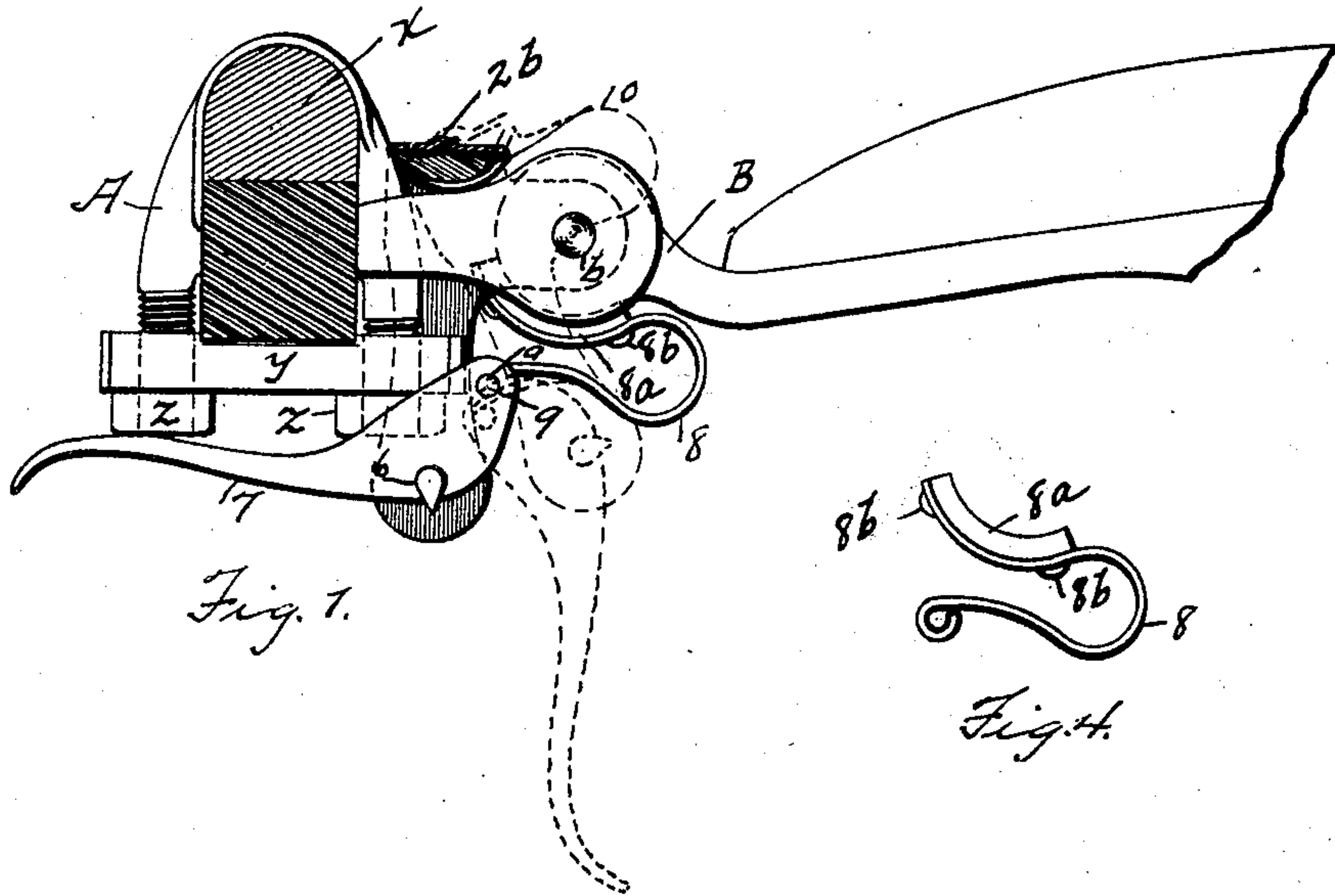
No. 682,655.

Patented Sept. 17, 1901.

F. A. WEGNER.  
THILL COUPLING.

(Application filed Dec. 22, 1900.)

(No Model.)



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# UNITED STATES PATENT OFFICE.

FREDERICK A. WEGNER, OF DETROIT, MICHIGAN.

## THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 682,655, dated September 17, 1901.

Application filed December 22, 1900. Serial No. 40,726. (No model.)

*To all whom it may concern:*

Be it known that I, FREDERICK A. WEGNER, a citizen of the United States, residing at Detroit, county of Wayne, State of Michigan, have invented a certain new and useful Improvement in Thill-Couplings; and I declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

This invention relates to antirattling thill-couplings, and has for its object a thill-coupling adapted to securely hold the thill to the axle to prevent the escape of a headless pin which is used to secure the thill to the shackle-iron and to prevent noise or rattling of the coupling, for which purpose it employs a spring with means for actuating the same to bring it into tension to hold the thill from rattling on the pin or in the shackle.

In the drawings, Figure 1 is a side elevation. Parts of the device are shown in full lines in one position and in dotted lines in another position. Fig. 2 is a front view of the device. Fig. 3 is a perspective of the saddle, the spring, and the lever which actuates the spring. Fig. 4 shows the spring cushioned.

A indicates the shackle, which is of ordinary construction. B indicates the thill-eye, arranged to engage between the cheeks *a* and *a'* of the shackle and be held thereto by a headless pin *b*. The shackle itself is held to the axle *X* by an ordinary yoke-strap *y* and by burs *z z*, run onto the threaded ends of the clevis part of the shackle. The antirattling attachment is entirely separate and distinct from the parts heretofore mentioned and may be removed, and when removed presents the appearance seen in Fig. 3.

2 is a saddle having a cross-bar *2<sup>a</sup>*, the sides 3 and 4, in the bottom end of which are holes to receive the trunnion-pins 5 and 6 of a lever. Each of the sides 3 and 4 is provided with an ear *3<sup>a</sup> 4<sup>a</sup>*, that is arranged to engage over the ends of the pin *b*. In the holes 5 and 6, at the bottom of the sides 3 and 4, is fulcrumed a bent lever, to which is secured a spring 8, that is arranged to engage under the thill-eye.

The fulcrum-pin 6 of the lever is arranged with respect to the pin 9, that holds the spring, and with reference to the free end of the lever to bring the fulcrum and the pin which holds the spurs and the free end of the lever to a shape corresponding to a bent lever or cam. The lever 7 is hollowed out or concaved between the fulcrum-pins, and the cavity extends along the lever toward its free end. The bent spring 8 is in the form of a double cyma curve, one branch of which engages under and behind the thill-eye.

In use the attachment shown in Fig. 3 is placed on the shackle with the cross-bar *2<sup>a</sup>* resting across the top of the shackle. The eye of the thill is placed between the ears of the shackle, the pin inserted, and the spring now takes the position shown in full lines in Fig. 1, the saddle and the lever having the position shown in dotted lines. The lever-handle is now forced backward to the position shown in full lines in Fig. 1. The spring does not change its position to any considerable extent, although during the movement of the lever-handle from the position shown in dotted lines to the position shown in full lines the ends of the spring are forced toward one another and spread again, when the lever comes to rest in full-line position. In making this movement the entire device has been forcibly held by the joint action of the shackle bearing against the top of the saddle and the pinned end of the spring 8 bearing against the front end of the cross-bar *y*. The spring is not under its greatest tension, although it is under sufficient tension to hold the lever with considerable force to its place and to press the thill-eye upward and forward. The sides of the cavity in the lever engage against the sides of the bur *z* and act as a nut-lock to prevent the bur from turning on its screw.

In order that the device may be made to fit different sizes of shackles, there is provided on the cross-bar a pair of prongs 10 10<sup>a</sup>, under which may be inserted a wedge or fillet of any suitable material, such as wood or rubber, in cases where the shackle is too small to be held properly by a device adapted for the ordinary size of shackle. Such a fillet is shown at 4<sup>b</sup> in Fig. 3.

The saddle *2<sup>a</sup>* is provided with a stiffening-



rib 2<sup>b</sup>, and the spring is provided with a cushion 8<sup>a</sup>, held to the spring by nuts 8<sup>b</sup> or in any suitable way.

The pin *b* can be removed after the saddle  
5 has been drawn forward beyond the shackle-ear.

What I claim is—

1. A fixture for antirattling thill-couplings comprising a saddle adapted to engage over  
10 the shackle and provided with lever-supporting sides, a lever fulcrumed to the sides, a bent spring held by a pin to the lever, substantially as described.

2. A fixture for antirattling thill-couplers,  
15 comprising in combination a saddle having a cross-bar and depending sides provided with ears 3<sup>a</sup>, 4<sup>a</sup>, a bent lever fulcrumed to the sides depending from the cross-bar of the saddle, a bent spring secured by a pin to the lever,  
20 substantially as described.

3. A fixture for antirattling thill-couplers comprising a saddle provided with a cross-bar and depending sides, a concave lever ful-

crumed to the sides, a bent spring secured by a pin to the end of the lever, substantially as  
25 described.

4. A fixture for antirattling thill-couplings comprising a saddle provided with a stiffening-rib 2<sup>b</sup>, and arranged to engage over the shackle, provided also with lever-supporting  
30 sides, a lever fulcrumed to the sides, a spring held by a pin to the lever, and adapted to bear against the rear of the thill-eye, substantially as described.

5. A fixture for antirattling thill-couplings, 35 comprising a saddle adapted to engage over the shoe and provided with lever-supporting sides, a lever fulcrumed to the sides, a spring held by a pin to the lever and a cushion secured to the spring, substantially as described. 40

In testimony whereof I sign this specification in the presence of two witnesses.

FREDERICK A. WEGNER.

Witnesses:

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