

No. 632,926.

Patented Sept. 12, 1899.

A. G. REIGELMAN.

THILL COUPLING.

(Application filed July 19, 1899.)

(No Model.)

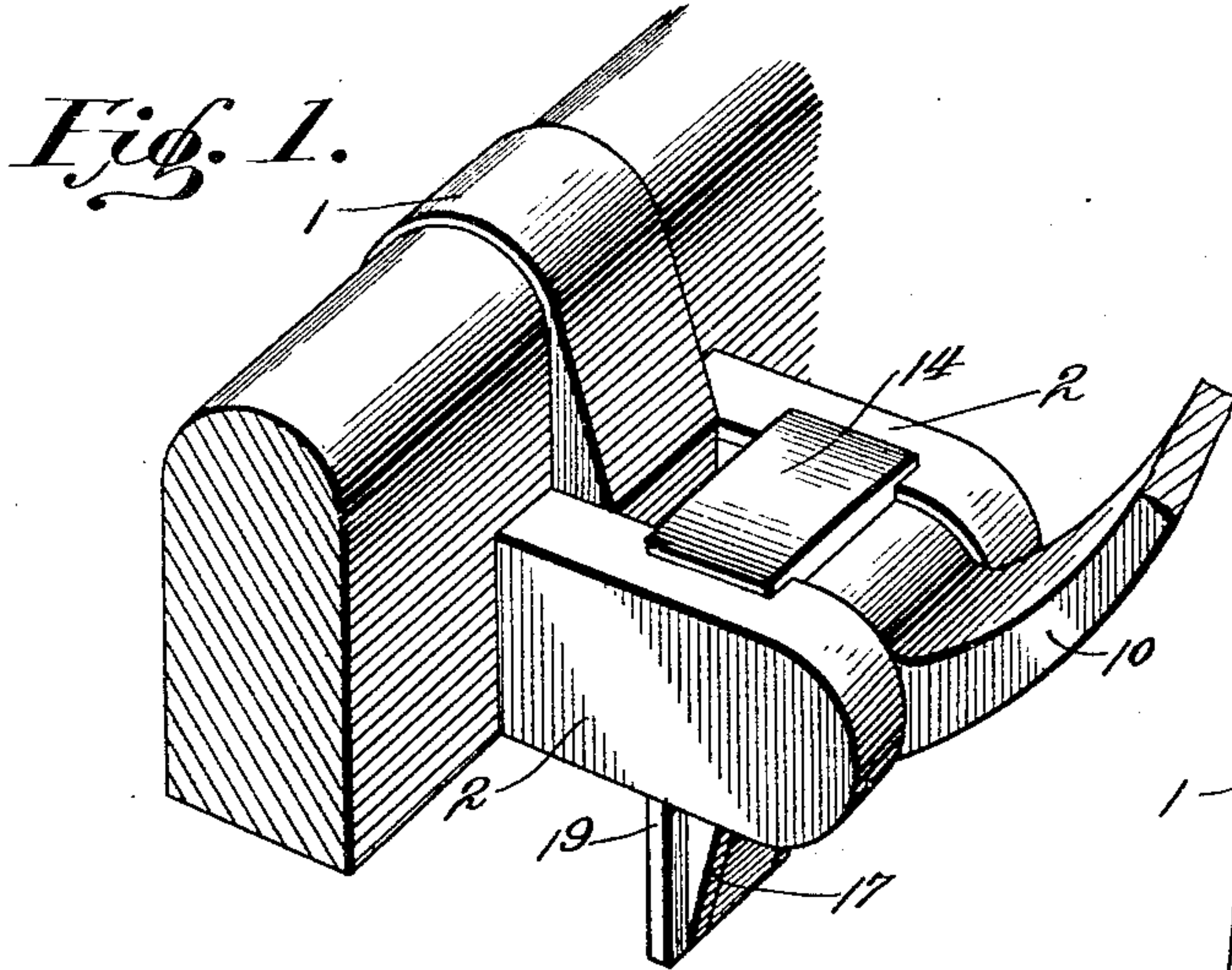


Fig. 2.

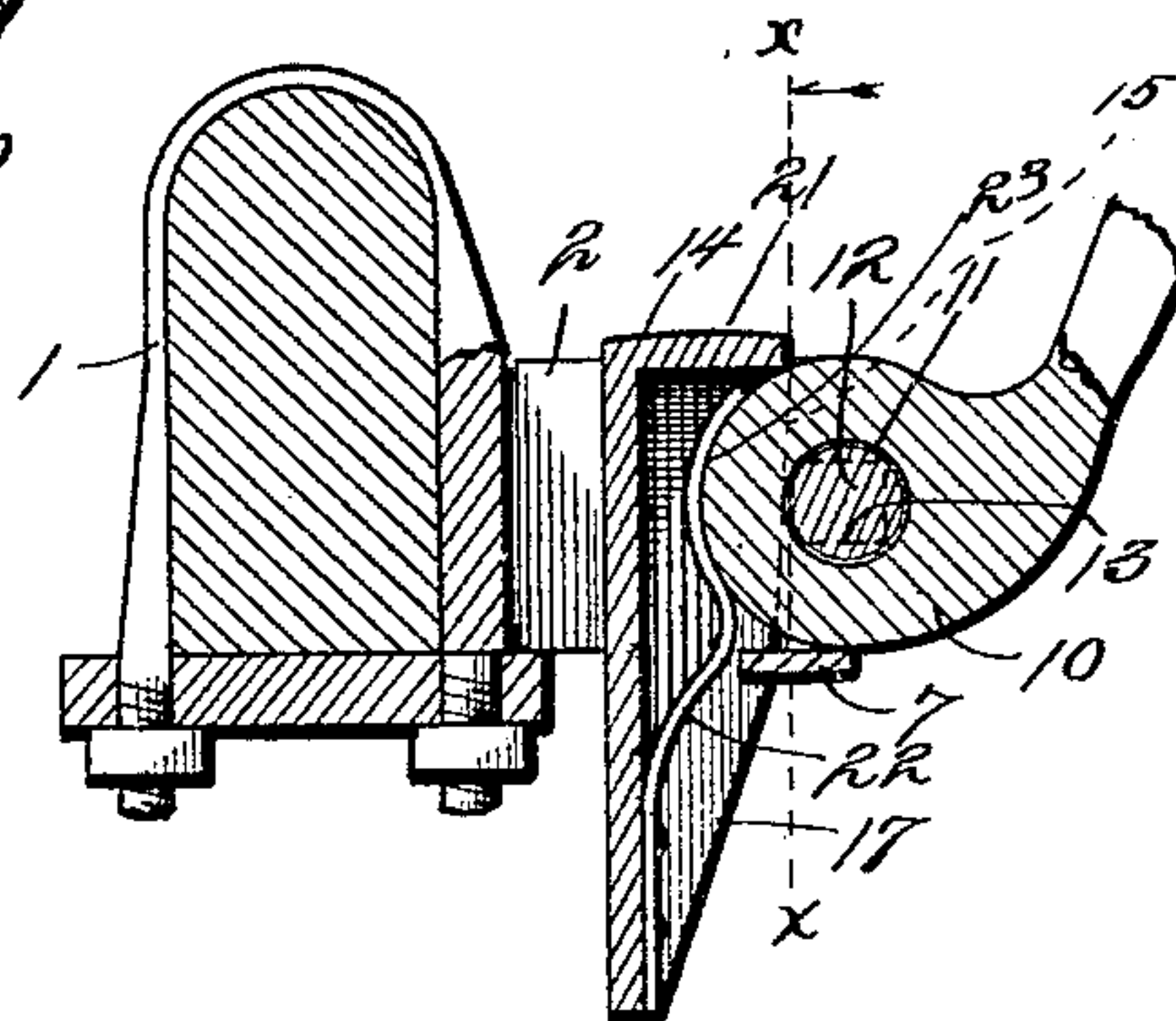


Fig. 3.

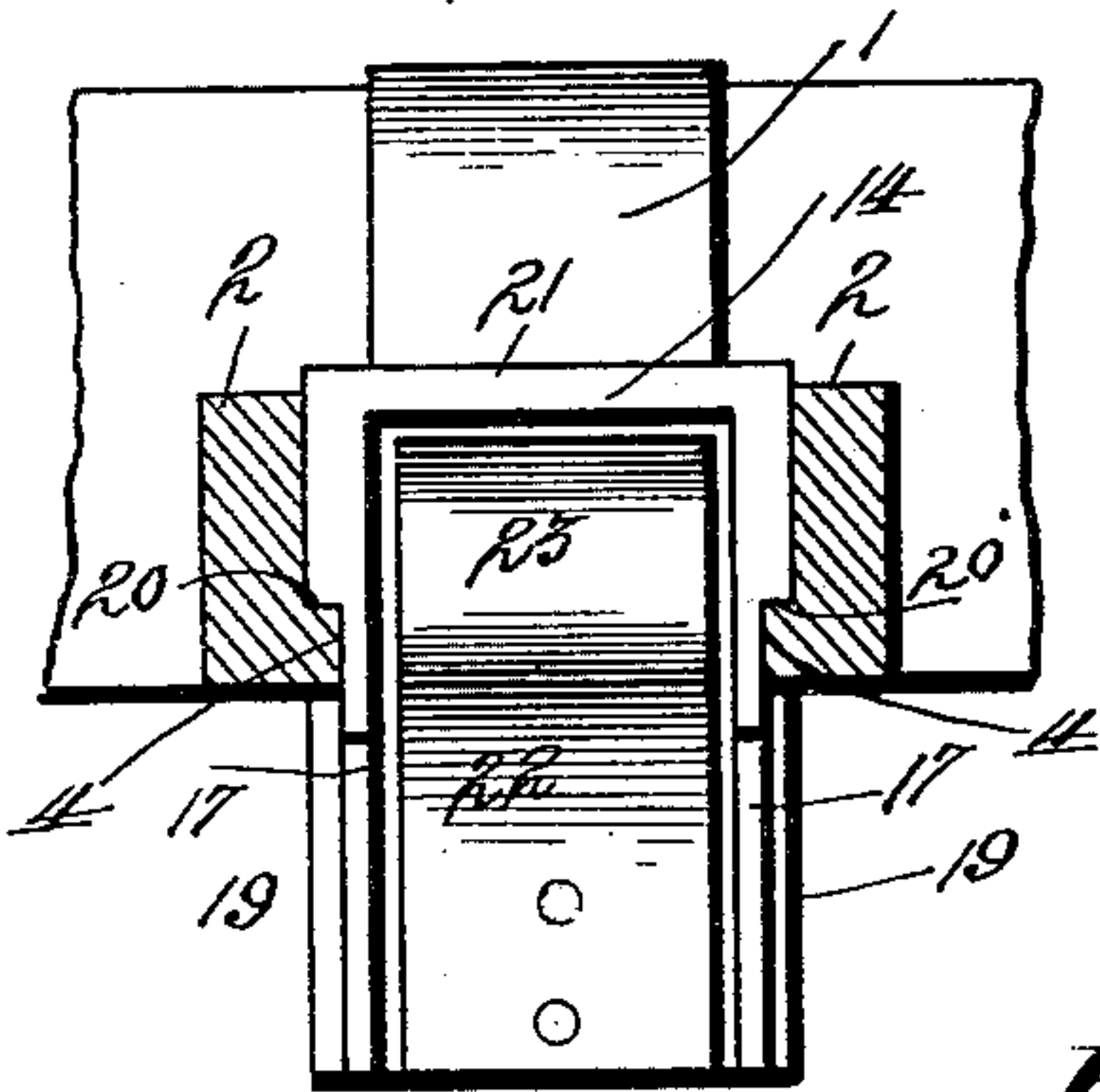


Fig. 4.

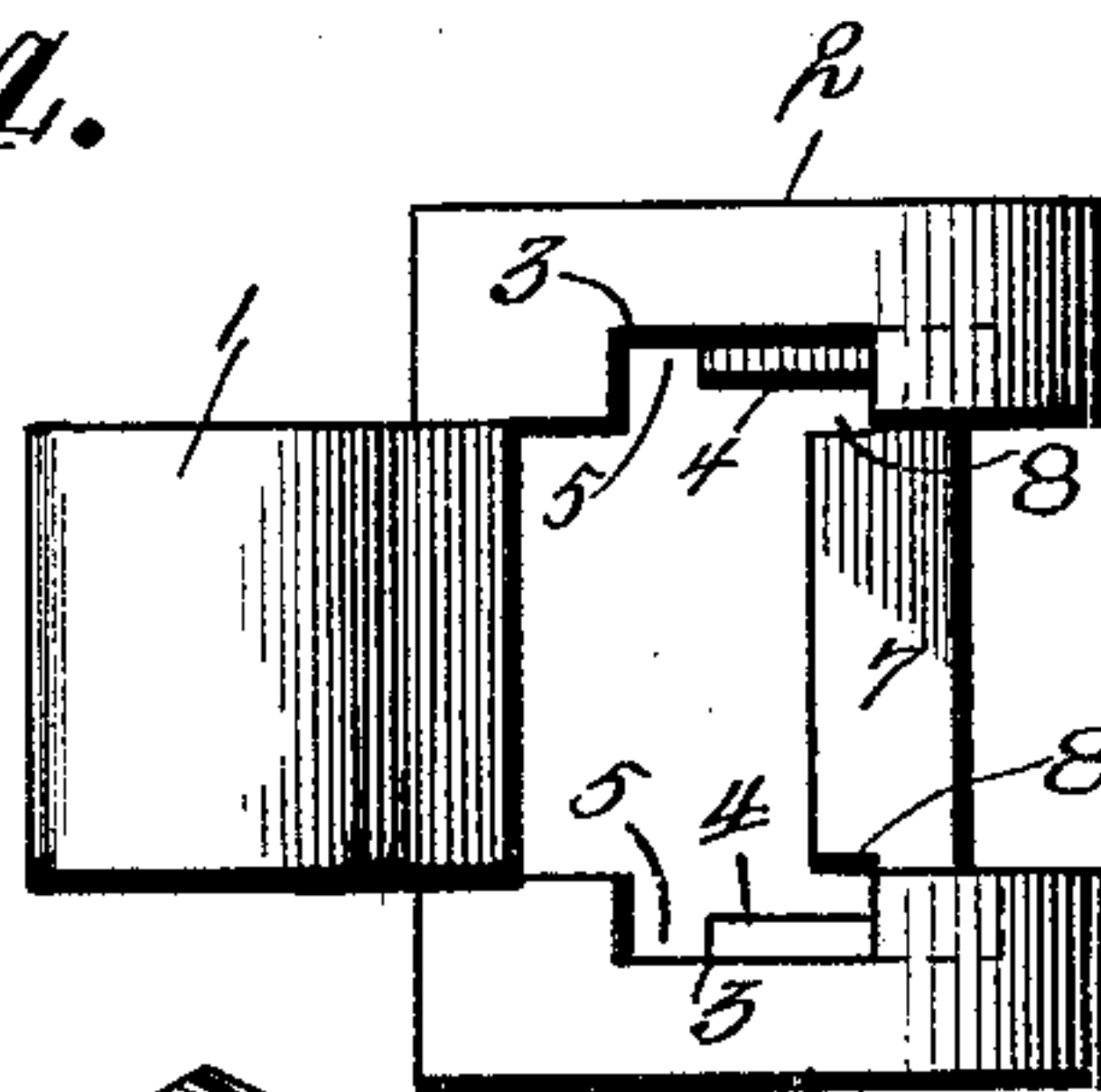


Fig. 7.

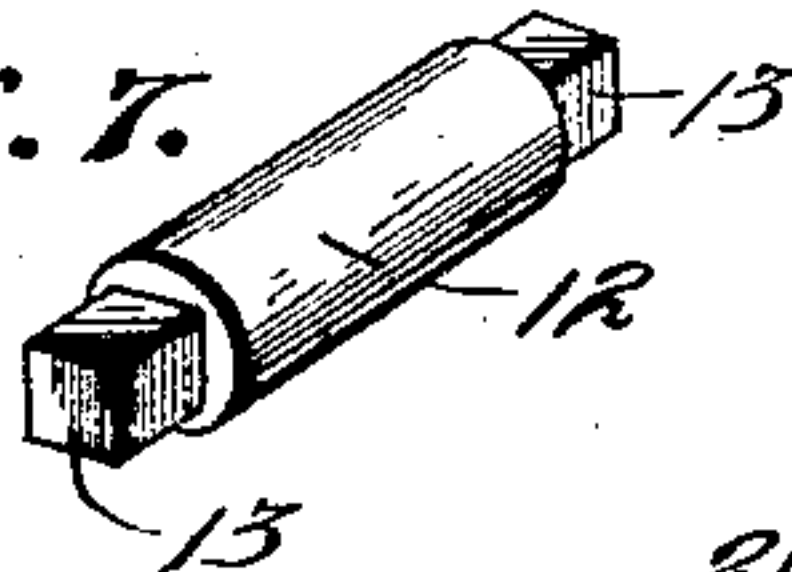


Fig. 5.

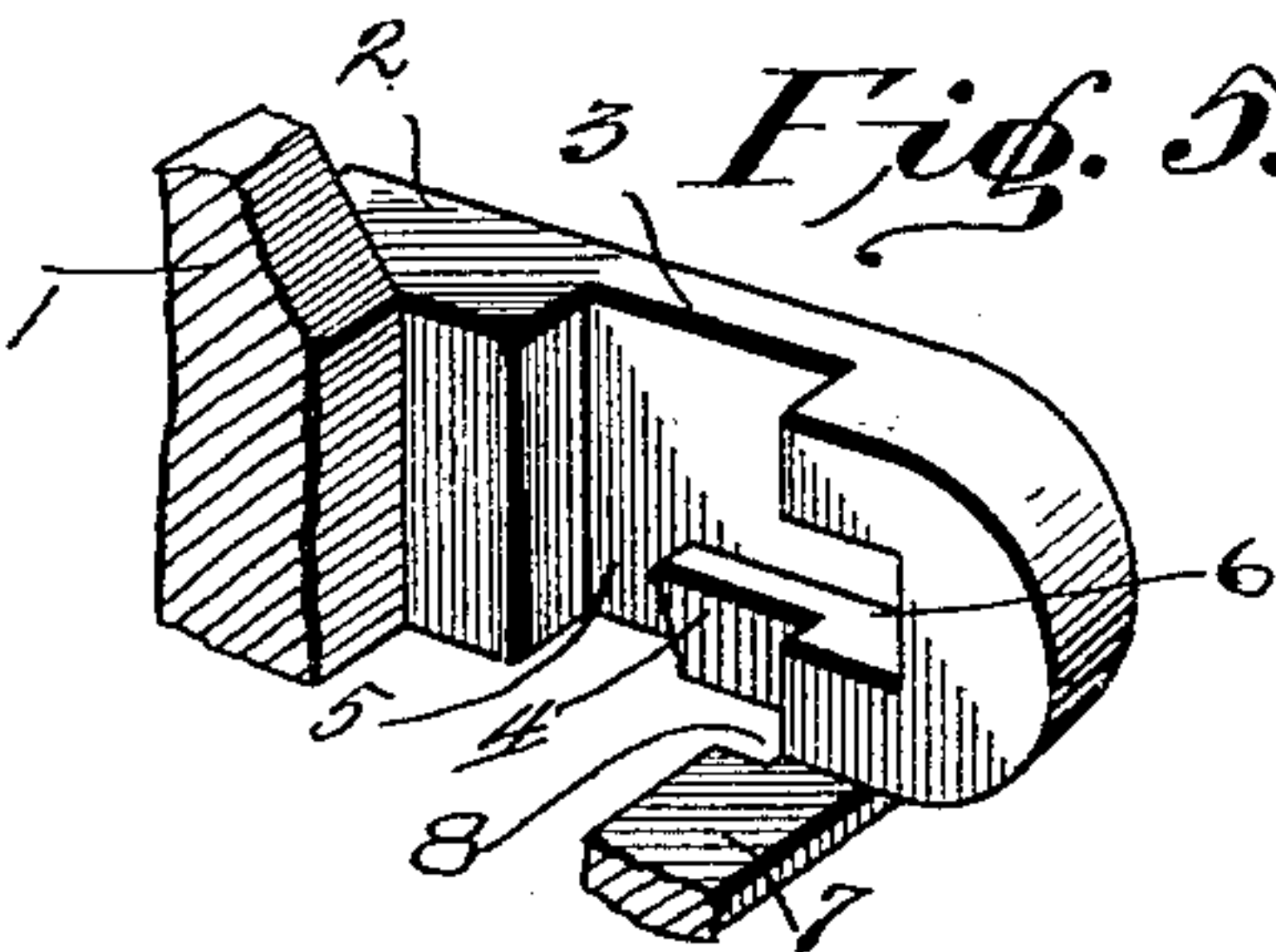
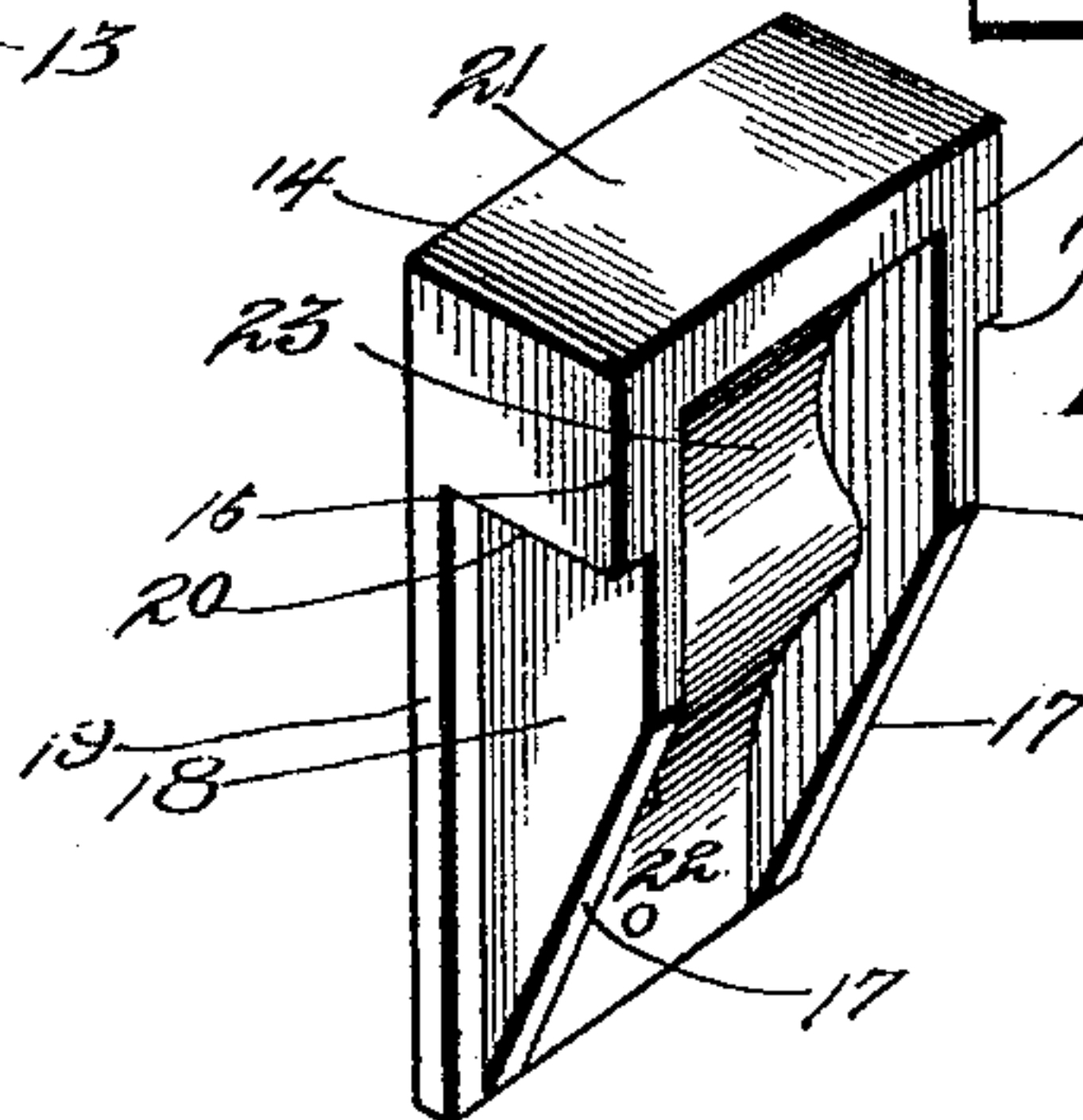


Fig. 6.



Witnesses

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UNITED STATES PATENT OFFICE.

ALVIN G. REIGELMAN, OF FREDONIA, PENNSYLVANIA.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 632,926, dated September 12, 1899.

Application filed July 19, 1899. Serial No. 724,384. (No model.)

To all whom it may concern:

Be it known that I, ALVIN G. REIGELMAN, a citizen of the United States, residing at Fredonia, in the county of Mercer and State of Pennsylvania, have invented a new and useful Thill-Coupling, of which the following is a specification.

This invention relates to thill-couplings, and has for its object to provide a relatively-fixed thill-bolt upon which the thill is adapted to turn and means for removably holding the thill-bolt in its fixed position, whereby a durable device is provided.

To this end the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims.

In the drawings, Figure 1 is a perspective view of the coupling. Fig. 2 is a vertical longitudinal sectional view thereof. Fig. 3 is a vertical transverse sectional view taken on the line $x x$, Fig. 2. Fig. 4 is a plan view of the axle-clip and the ears thereof. Fig. 5 is a detail perspective view of one of the ears of the axle-clip. Fig. 6 is a detail perspective view of the locking-wedge. Fig. 7 is a detail perspective view of the pivot-pin.

The same numerals of reference are used to designate like and corresponding parts in each of the several figures of the drawings.

Referring to the accompanying drawings, 1 designates an ordinary axle-clip having the spaced ears 2 extending forwardly therefrom. Each of the ears, upon its inner face and intermediate its length, is provided with a wide vertical groove 3, extending the entire breadth of the ear. Near the lower end of the groove is a transverse shoulder 4, extending across the back and from the front edge thereof and terminating short of the rear edge, forming a comparatively narrow groove 5, located at the rear and lower corner of the wider groove 3 and communicating therewith. In advance of the groove 3 and communicating therewith is a socket or recess 6, having its lower edge flush with the shoulder 4. The ears 2 are connected together near their outer ends by a bowed strap 7, extending transversely across the under edges of the ears, alined directly beneath the opposite

sockets 6. It will be noted that the shoulder 4 does not extend the entire depth of the groove 3, and that the strap 7 is provided at opposite ends and in the rear edge thereof with notches 8, flush with the outer face of the shoulders 4.

The thill-iron 10 has an eye 11, as usual, and is provided with a pivot-pin 12, loosely fitted in the eye and upon which the thill-iron is adapted to turn. The opposite ends 13 of the pin are squared or angular and are adapted to be seated in the respective sockets 6. It will be understood that the thill-iron and the pivot-pin thereof are introduced through the upper ends of the opposite grooves 3 until the angular ends of the pin strike the opposite shoulders 4, when the thill is moved forward until the ends of the pin are seated in the respective sockets 6. When the thill-iron has been positioned as hereinbefore described, a wedge 14 is driven down between the ears, the inner or eye end of the thill-iron, and the front side of the clip, whereby the pivot-pin is held stationary and the thill-iron is permitted to turn thereon. By reference particularly to Fig. 5 of the drawings the wedge comprises the flat body or back, having the opposite side flanges 15, extending the entire length of and projecting outward from the front face of the body. The outer upper edge of each flange 15 is slightly inclined downwardly and toward the body for a suitable distance, as at 16, and from the lower end of the incline the flange is beveled more abruptly to the lower edge of the wedge, as at 17. The outer face of each flange is cut away, as at 18, whereby a longitudinal rib 19 is provided flush with the back of the wedge and a transverse stop-shoulder 20 near the upper end of the wedge. A transverse cap-flange 21 connects the upper ends of the side flanges, and seated between the flanges and connected to the wedge is a plate-spring 22, having its upper free end bent into a dished head 23. The wedge formed as described is inserted into the opposite grooves 3, the ribs 19 being received within the smaller grooves 5, the flanges 15 within the notches 8 and against the ends of the pivot-pin, and the stop-shoulders 20 being seated upon the opposite shoulders 4. It will be seen by reference to Fig. 2 that the flanges 15 close the

sockets 6 and are wedged against the opposite angular ends 13 of the pivot-pin 12, whereby the latter is effectively held in place. The sockets 6 are also angular to snugly receive the ends of the pivot-pin, so that the latter is fixed against turning. The dished head 23 of the antirattler-spring fits snugly about the eye of the thill-iron, holding it in place and preventing rattling thereof.

10 The present invention provides an exceedingly useful and durable antirattler thill-coupling, as the locking-wedge effectually prevents accidental separation of the parts, and the thill-iron being separate from the pivot-pin and turning thereon either of them may be replaced when worn without replacing the entire device. As the pivot-pin is fixed and does not turn in the ears 2, the latter do not become worn.

20 Changes in the form, proportion, size, and the minor details of construction within the scope of the appended claims may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

25 What I claim is—

1. In a thill-coupling, the combination with an axle-clip having opposite spaced ears, each ear having a vertical groove formed in its inner face, a stop-shoulder located in the groove, and an angular socket in communication with the groove, of a thill-iron, a pivot-pin having opposite angular ends which are adapted to be snugly received within the sockets, and a lock-

ing-wedge adapted to be fitted in the vertical grooves, seated upon the shoulders therein, and closing the sockets, whereby the pivot-pin is held in place and fixed against turning, substantially as shown and described.

2. In a thill-coupling, the combination with an axle-clip having opposite spaced ears, each ear having a vertical groove formed in its inner face, a shoulder located in the groove, and an angular socket in communication with the groove, and a strap connecting the ears and provided with notches adjacent the same, of a thill-iron having an eye, a pivot-pin loosely received in the thill-eye and having opposite angular ends adapted to be seated in the angular recesses, and a locking-wedge having opposite side flanges, each flange having a longitudinal rib and a transverse stop-shoulder, the flanges being adapted to be received in the vertical grooves of the ears and the notches of the strap and closing the sockets, the transverse shoulders seated on the shoulders in the vertical grooves, and the ribs engaging against the ends of the latter shoulders, substantially as and for the purpose set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

ALVIN G. REIGELMAN.

Witnesses:

W. P. McDOUGALL,
JAMES MORRIS.