

No. 646,666.

Patented Apr. 3, 1900.

A. MCAVOY.
THILL COUPLING.

(Application filed Mar. 11, 1899.)

(No Model.)

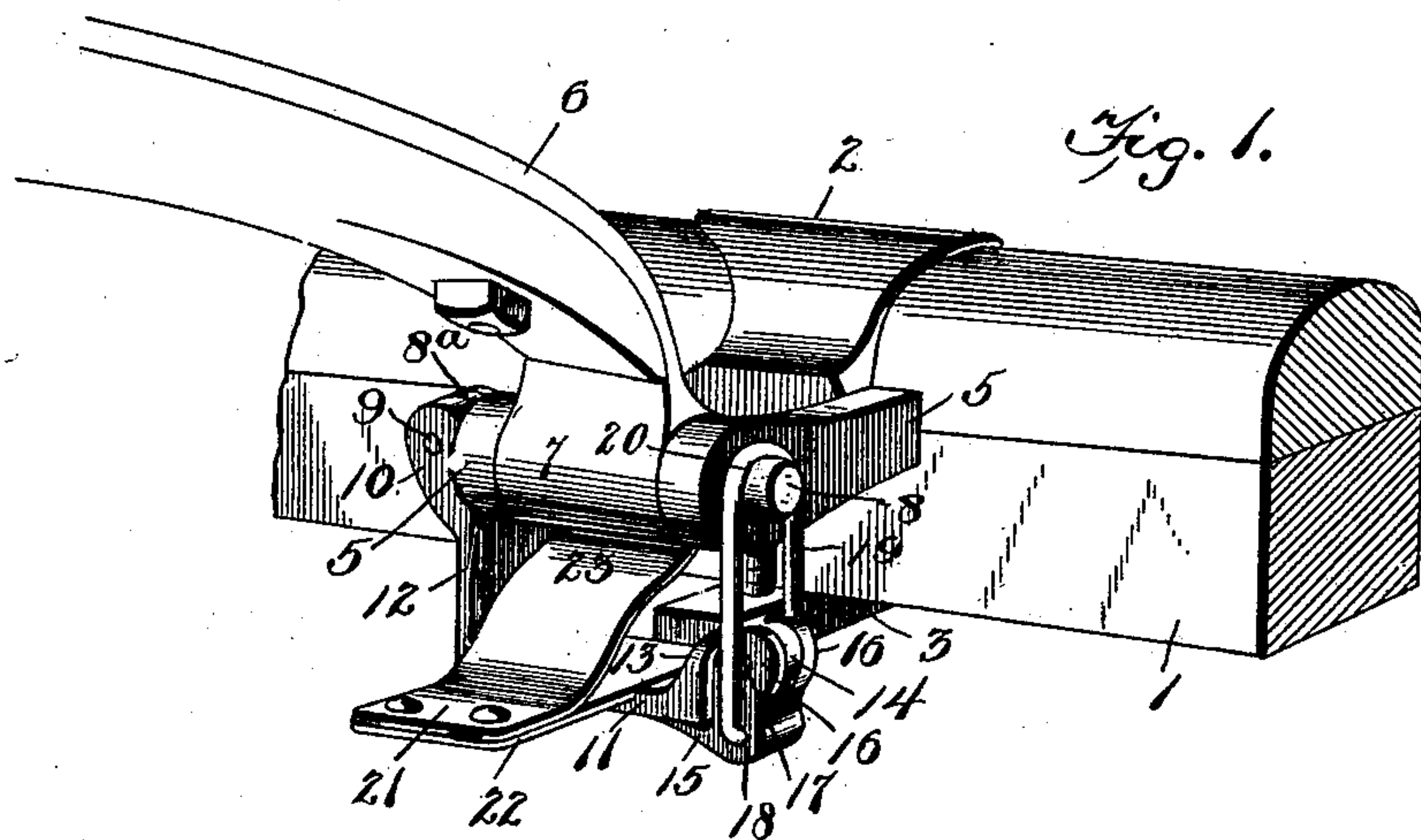


Fig. 1.

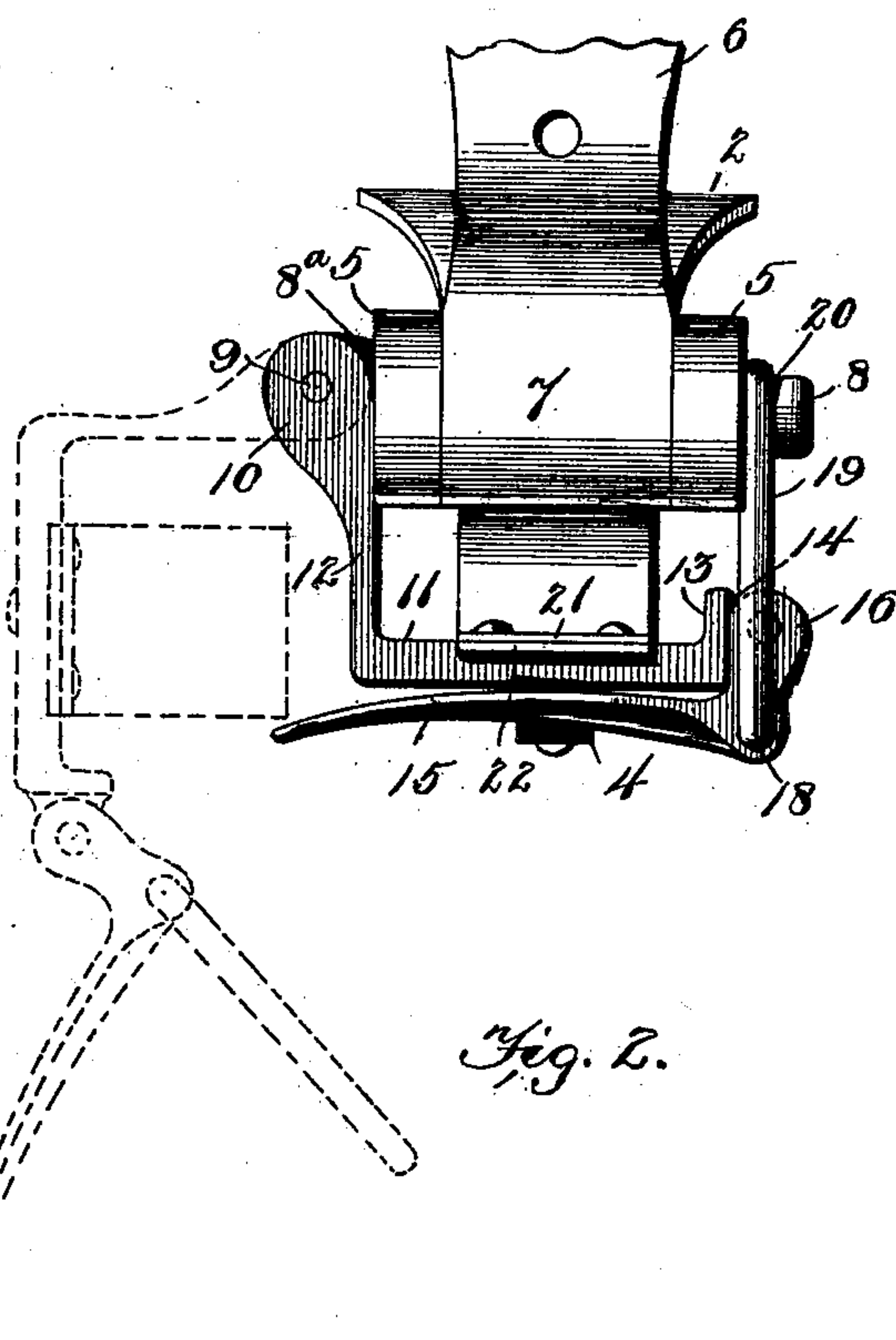


Fig. 2.

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UNITED STATES PATENT OFFICE.

ANTHONY McAVOY, OF RACINE, WISCONSIN.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 646,666, dated April 3, 1900.

Application filed March 11, 1899. Serial No. 708,654. (No model.)

To all whom it may concern:

Be it known that I, ANTHONY McAVOY, a citizen of the United States, residing at Racine, in the county of Racine and State of Wisconsin, have invented certain new and useful Improvements in Thill-Couplings, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to an improved thill-coupling, the object being to provide a coupling which may be quickly manipulated to permit of the ready substitution of a pole for shafts, or vice versa, and which will at the same time constitute an effective antirattler device for the vehicle to which it is applied.

The characteristic features of the invention will be fully described hereinafter and defined in the appended claim.

In the accompanying drawings, which form a part of this specification, Figure 1 is a perspective view of my coupling applied to a shaft and shaft clip or shackle; and Fig. 2 is a front elevation of the coupling detached from the shaft, the open and closed positions of the locking-lever being shown, respectively, by dotted and full lines.

The reference-numeral 1 designates a portion of the front axle of a vehicle, to which is secured a shaft clip or shackle 2, spanning the axle and secured by the usual block 3 and nuts 4. The clip is provided at its front side with forwardly-projecting parallel ears 5, having openings for the reception of the securing bolt or pin.

6 designates the shaft-iron, provided with an eye 7, which fits between the ears of the clip and is secured thereto by a coupling pin or bolt 8, which extends through the ears and eye. One end of the pin 8 is provided with a head or flattened extension 8^a, which is formed with an opening to receive a pivot-pin 9, which secures the pin 8 to perforated lugs 10, which project from a frame or yoke comprising a horizontal plate 11 and a right-angular arm 12, from which the lugs 10 project. The outer end 13 of the plate 11 is turned up and is provided with a laterally-projecting lug 14, to which is fulcrumed a cam-shaped lever 15, said lever being formed with parallel perforated ears 16, which embrace the lug 14, to which they are pivotally secured by a fulcrum-

pin 17. The cam-lever 15 is of bell-crank form, and it is provided at its angle with a transverse opening 18, within which is secured one end of a link 19, the free end of said link being adapted to engage the free end of the coupling-pin 8, which is formed with a transverse recess or depression 20 to receive the link.

21 designates a spring secured to the plate 11 of the yoke and adapted to be compressed against the under surface of the eye 7 of the shaft to serve as an antirattler. This spring is secured to a base-plate 22, secured at one end to the plate 11, at right angles thereto, and projecting forward beyond said plate 11, the spring comprising a curved strip 21 of spring metal, secured at its lower end to the forward end of the base-plate 22 and having its upper free end 23 in position to bear against the shaft-eye.

The operation of the device will be readily understood, but may be described as follows: After the coupling-pin 8 is passed through the ears 5 and the eye 7 the link 19 is slipped over the free end of the pin 8, and the lever 15 is forced into the position shown in Fig. 1, which compresses the spring 21 tightly against the shaft-eye 7 and at the same time throws the fulcrum-point of the lever laterally beyond its angle-point, thus locking the lever against the upturned end 13 of the plate 11. To detach the shaft, it is only necessary to throw the lever outward to the position shown by dotted lines in Fig. 2, when the link may be readily disengaged from the coupling-pin 8, so that the latter may be withdrawn.

It will be apparent that the spring 21 being compressed against the shaft-eye effectually prevents rattling and that the device as a whole may be quickly adjusted and applied to any ordinary clip or shackle.

I claim—

In an antirattling thill-coupler, the combination with a shackle and thill-iron, of a pin connecting said parts and apertured at one end, a frame comprising a horizontal arm having an upturned end and a vertical arm provided with ears straddling the apertured end of the bolt, a bell-crank lever pivoted to the upturned end of the horizontal arm, a link connected to the angle of the lever and adapted to engage a depression in the pin, a base-

plate secured to the horizontal arm of the
frame and projecting at right angles thereto
in the direction of the thill, and a spring se-
cured at one end to the outer end of the base-
5 plate and having its free end in contact with
the under rear side of the thill-iron, substan-
tially as specified.

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

ANTHONY McAVOY.

Witnesses:

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