No. 672,775. Patented Apr. 23, 1901.

E. JARRELL.

COMBINED ANTIRATTLER AND THILL COUPLING.

(Application filed Feb. 11, 1901.)

(No Model.)

Fig. 1.

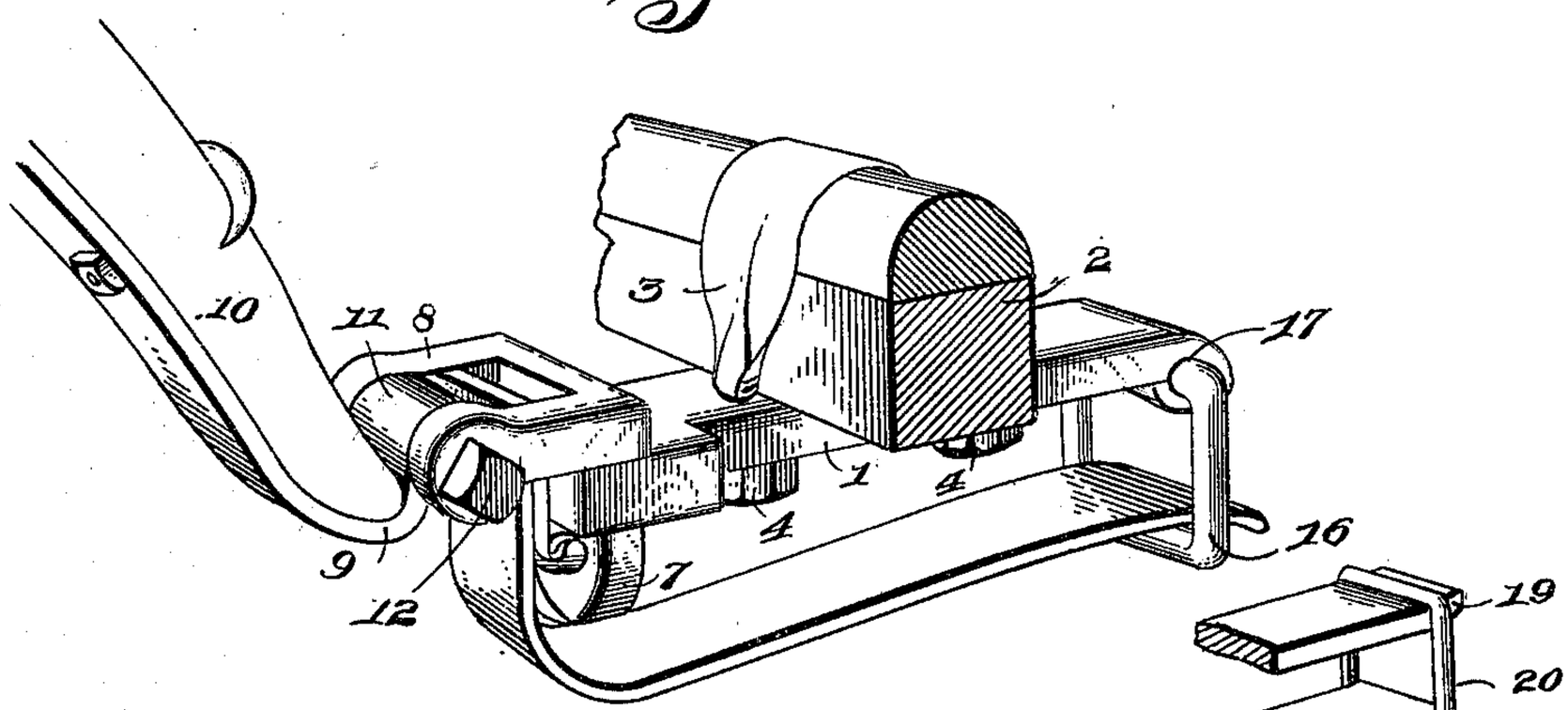


Fig. 2.

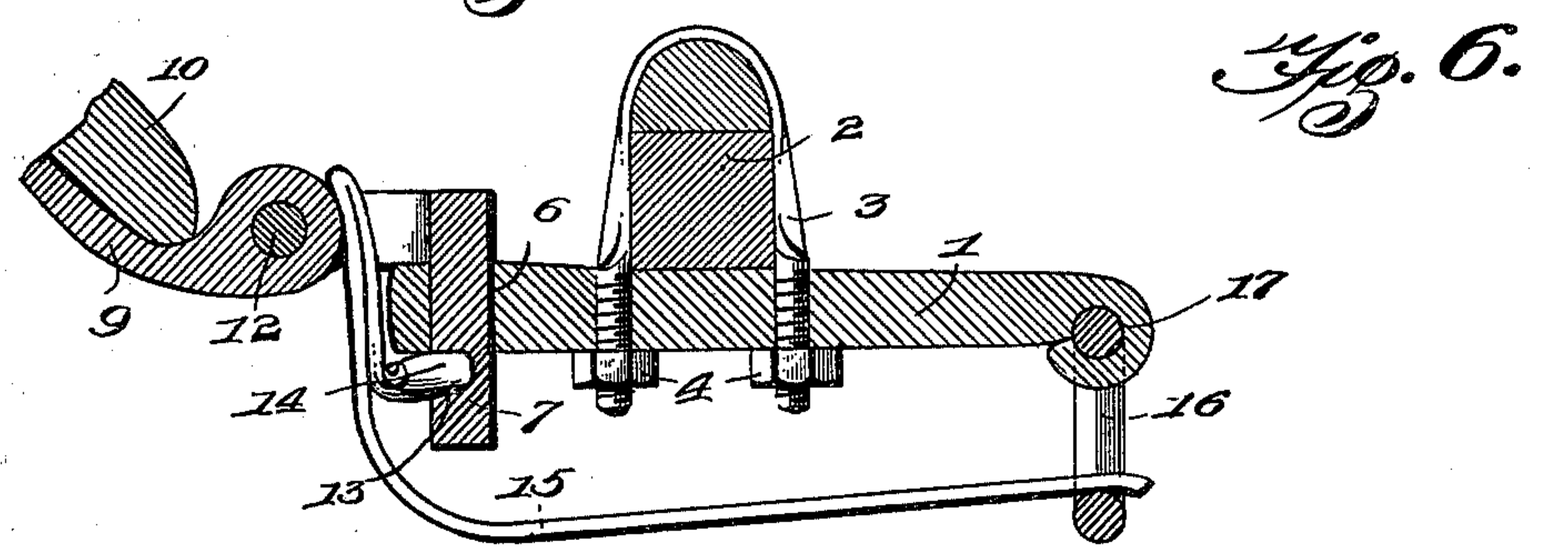


Fig. 6.

Fig. 3.

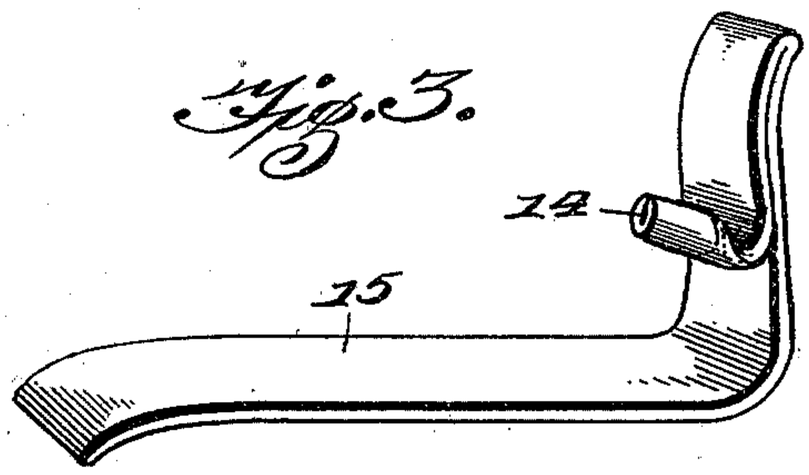


Fig. 4.

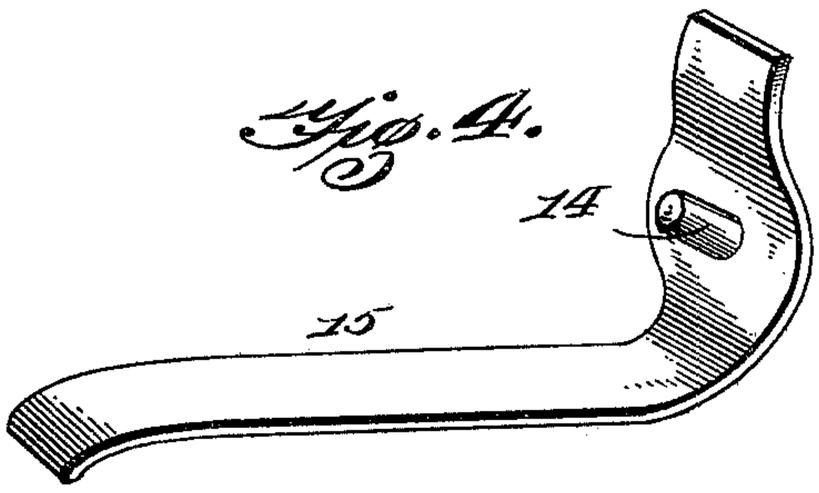
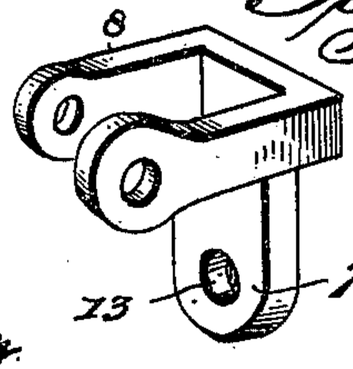


Fig. 5.



Witnesses
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UNITED STATES PATENT OFFICE.

EDWIN JARRELL, OF RIVERDALE, KANSAS, ASSIGNOR OF ONE-HALF TO JOHN McARDLE, OF SAME PLACE.

COMBINED ANTIRATTLER AND THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 672,775, dated April 23, 1901.

Application filed February 11, 1901. Serial No. 46,931. (No model.)

To all whom it may concern.

Be it known that I, EDWIN JARRELL, a citizen of the United States, residing at Riverdale, in the county of Sumner and State of Kansas, have invented a new and useful Antirattler Thill-Coupling, of which the following is a specification.

The invention relates to an antirattler thill-coupling.

One object of the present invention is to improve the construction of couplings for poles and thills and to provide a simple, inexpensive, and efficient one capable of forming a perfect antirattler and adapted to permit poles and thills to be readily coupled to and removed from a vehicle.

A further object of the invention is to improve the construction of thill-couplings of this character and to provide a simple and efficient device for automatically taking up the wear and for preventing any of the parts from rattling.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a perspective view of an antirattler thill-coupling constructed in accordance with this invention. Fig. 2 is a longitudinal sectional view of the same. Figs. 3 and 4 are detail views illustrating two forms of the resilient lever. Fig. 5 is a detail perspective view of the lug or bracket. Fig. 6 is a detail view illustrating a slight modification of the invention.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates a clip-plate designed to be secured to an axle 2 by an axle-clip 3 and provided with perforations for the reception of the threaded ends of the clip and engaged by nuts 4, as clearly shown in Fig. 2. The clip-plate extends in advance and in rear of the axle 2, and its front end is enlarged and provided with an opening 6, in which is arranged a shank or lug 7 of a bracket, which is provided at its top with downwardly-extending arms 8, terminating in preforated ears and receiving a coupling or thill iron 9 between them. The thill-iron 9 is secured to the thill 10 in the usual manner, and it is provided with the usual eye 11 for the reception of the coupling or pivot bolt 12, which is permanently secured to the bracket; but it will be readily apparent that the coupling-iron may be connected with a tongue or pole. When it is desired to uncouple a pole or a pair of thills, the bracket is removed from the opening of the clip-plate, as hereinafter explained.

The arms of the bracket extend beyond the end of the clip-plate, and the lug or body portion of the bracket projects below the clip-plate and is provided in its depending portion with a socket or recess 13, arranged to receive a fulcruming stud or projection 14 of a resilient lever 15. The resilient lever 15, which is approximately L-shaped, as clearly illustrated in Fig. 2 of the accompanying drawings, has an upright front portion and an approximately horizontally disposed rear portion, which extends longitudinally of the coupling to a point beneath the rear end of the clip-plate. The stud or projection 14 extends rearward from the upright arm of the lever at a point between the ends of the same, and the said upright arm frictionally engages the eye of the coupling or thill iron and prevents the same from rattling. The lever also holds the shank or body portion of the bracket firmly in engagement with the walls of the opening of the clip-plate and effectually prevents the said bracket from rattling. The necessary pressure on the thill or coupling iron and the bracket is obtained by swinging the lower rearwardly-extending arm of the lever upward toward the clip-plate, and it is secured in such position by a link 16. The link 16 may be hinged to the clip-plate by having its upper portion arranged in an eye 17 thereof, and the rear end of the lever may be curved to prevent it from becoming accidentally disengaged from the link. The parts, however, may be reversed, as shown in Fig. 6, wherein the clip-plate is provided at its rear end with a hook 19, and the link 20, which engages the hook, is hinged to the rear end of the spring.

The stud or projection which engages the socket of the bracket and which locks the lug or body portion of the same in the opening of

the clip-plate may be formed in a variety of ways. The metal of which the lever 15 is constructed may be folded back on itself at the top of the front arm and extended and rolled to form the lug, or the latter may be mounted as shown in Fig. 4 or in any other desired manner. The link is readily swung rearward to release the resilient lever, and the latter may be readily disengaged from the bracket to permit the latter to be removed. The parts may be quickly assembled when it is desired to connect a pole or a pair of thills to a wagon or other vehicle, and this operation may be effected without the use of a wrench or other tool. It will also be apparent that the coupling forms an efficient anti-rattler and that it is adapted to take up the wear and prevent the parts from rattling when worn.

What I claim is—

1. A device of the class described comprising a plate designed to be secured to an axle, a bracket removably mounted on the plate, a coupling-iron pivoted to the bracket, and a lever fulcrumed on the bracket and securing the same to the plate, the front end of the lever engaging the coupling-iron, and the rear end of the lever being detachably connected with the plate, substantially as described.

2. A device of the class described comprising a plate designed to be secured to an axle and provided with an opening, a bracket extending through the opening and provided with arms located above the plate, a coupling-iron pivotally connected with the arms of the bracket, and a lever fulcrumed on the lower portion of the bracket and engaging the coupling-iron and connected with the plate, substantially as described.

3. A device of the class described comprising a plate having an opening, a bracket extending through the opening, a coupling-iron pivoted to the bracket, and a lever fulcrumed on and interlocked with the bracket at a point below the plate, and having its front end engaging the coupling-iron and connected at its rear end with the plate, substantially as described.

4. A device of the class described comprising a plate having an opening, a bracket extending through the opening and provided above the plate with arms and having a socket below the plate, and a lever provided with a stud arranged in the said socket, said lever being connected at its rear end with the plate and having its front end engaged with the coupling-iron, substantially as described.

5. A device of the class described comprising a plate having an opening, a bracket extending through the opening and having upper arms, a coupling-iron pivotally connected with the arms, a lever fulcrumed on the bracket and engaging the coupling-iron, and a link detachably connecting the rear end of the lever with the plate, substantially as described.

6. A device of the class described comprising a plate having an opening, a bracket extending through the opening, a coupling-iron connected with the upper portion of the bracket, a lever engaging the coupling-iron and folded backward at its upper end and having the terminal of the metal extended and rolled to form a stud for engaging the bracket, and means for connecting the lever with the plate, substantially as described.

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

EDWIN JARRELL.

Witnesses:
H. W. W. REYNOLDS,
GEO. T. STUNKEL.