(No Model.)

B. P. MALONEY

THILL COUPLING.

No. 543,534. Patented July 30, 1895.

Fig. 1.

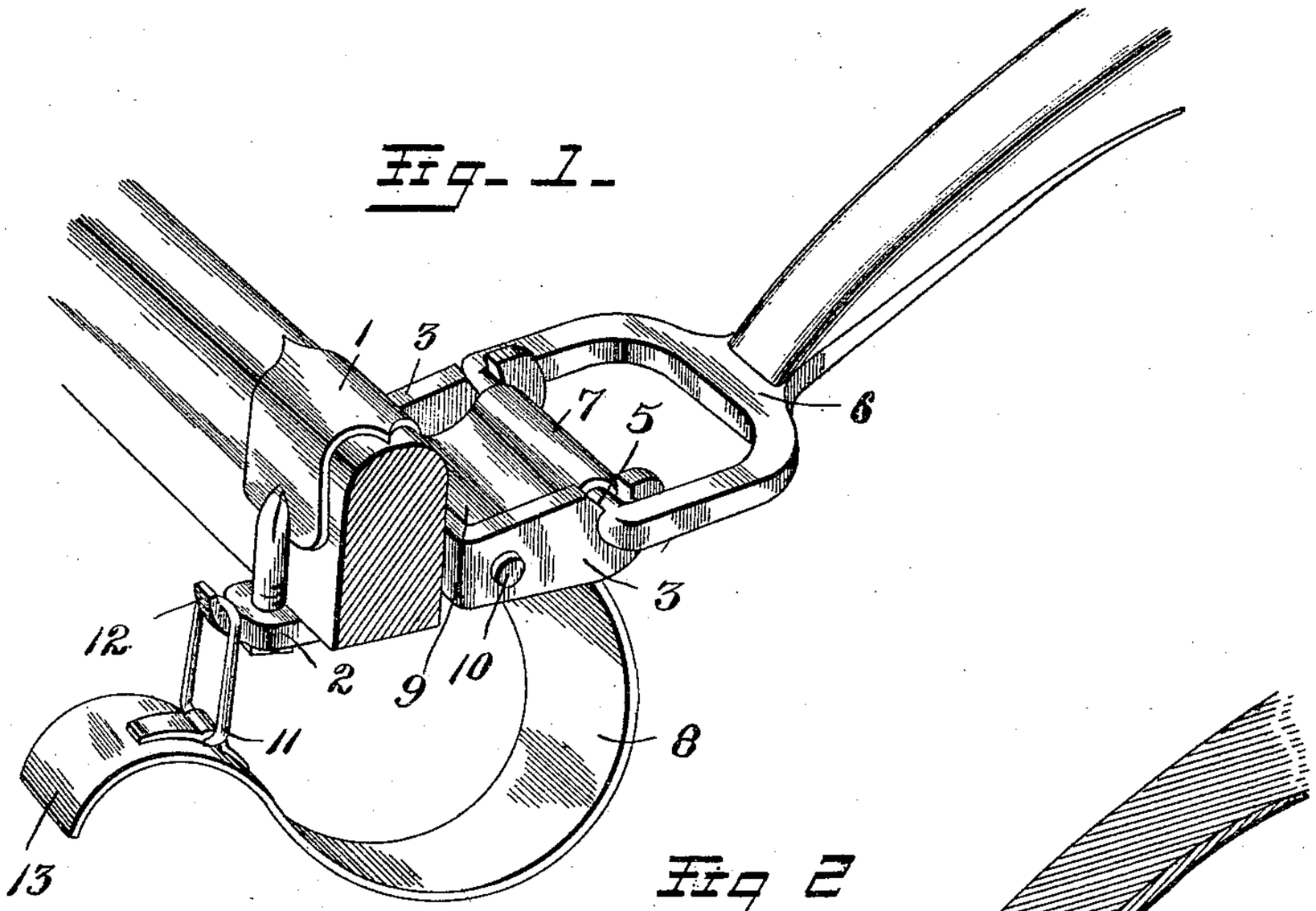


Fig 2

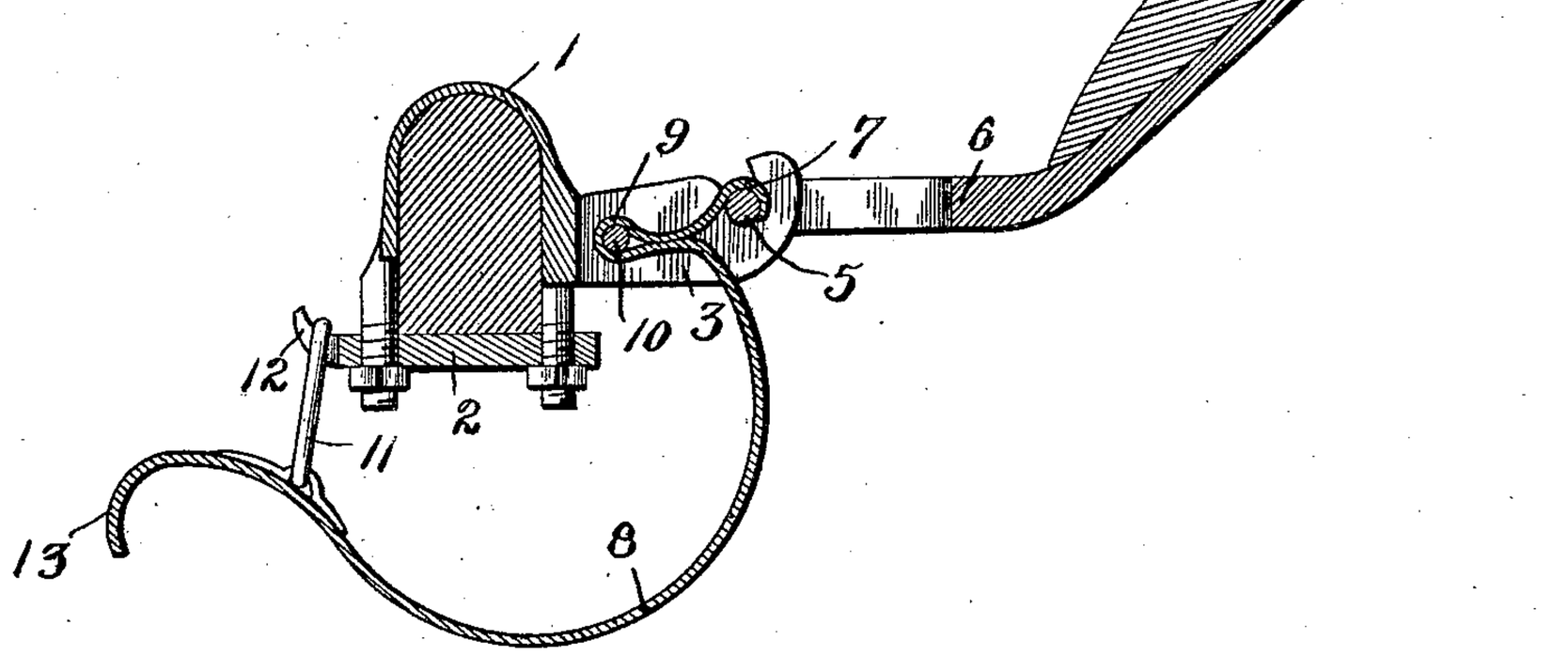
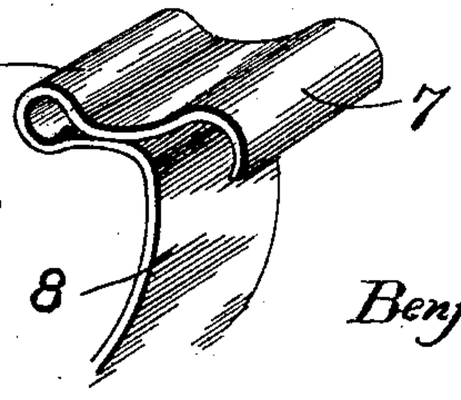


Fig. 3.



Witnesses
H. J. Koerth.
F. G. Riley

Inventor
Benjamin P. Maloney.

By his Attorneys.
Cachow & Co.

UNITED STATES PATENT OFFICE.

BENJAMIN P. MALONEY, OF NEW MARKET, VIRGINIA, ASSIGNOR OF ONE-HALF TO CHARLES L. BURKE, OF SAME PLACE.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 543,534, dated July 30, 1895.

Application filed May 21, 1895. Serial No. 550,124. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN P. MALONEY, a citizen of the United States, residing at New Market, in the county of Shenandoah and State of Virginia, have invented a new and useful Thill-Coupling, of which the following is a specification.

The invention relates to improvements in thill-couplings.

The object of the present invention is to improve the construction of thill-couplings and to provide a simple and inexpensive combined thill-coupling and antirattler, which will dispense with the ordinary pivot bolt and nut, and which will enable a thill to be readily connected to and detached from an axle.

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 a thill-coupling constructed in accordance with this invention. Fig. 2 is a longitudinal sectional view. Fig. 3 is a detail perspective view of the front end of the antirattler-spring.

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

1 designates an axle-clip having its terminals connected by a clip-plate 2 in the usual manner, and provided at its front side with a pair of integral forwardly-projecting ears 3, having recesses which form bearings for an eye 5 of a thill-iron 6. The recesses or bearings 4 of the parallel forwardly-projecting ears 3 of the axle-clip receive a rounded transverse portion of the eye 5, and the latter is retained in the open recesses or bearings 4 by a forwardly-projecting hook 7 of an antirattler-spring 8.

The antirattler-spring 8 has its main portion substantially semicircular; it is preferably constructed of a single piece of metal, and is provided at its front end, which fits snugly between the ears 3, with a transverse eye 9, receiving a permanently-mounted pivot 10, and the latter passes through perforations of the ears. The hook 7 projects forward from the eye 9 and engages over and firmly holds the transverse portion of the eye of the thill-iron in the open bearings or recesses 4, and effectually prevents any rattling.

The hook 7 is detachably held in engagement with the transverse portion of the eye of the thill-iron by a link, which is mounted on the rear portion of the spring 8. This link 11 is arranged on the inner or front face of the rear portion of the spring 8, and the clip-plate 2 is provided at its rear end with an upward-extending projection 12 forming a hook, and adapted to receive and be engaged by the link 11.

The rear portion of the spring 8 is curved to form a handle 13, to enable the spring to be readily compressed sufficiently to disengage the link or to connect the same with the hook-shaped projection of the clip-plate 2. When the link is in engagement with the hook-shaped projection of the clip-plate there is no liability of it becoming accidentally disengaged by any movement of the horse or vehicle, and the forwardly-projecting hook, which engages the eye of the thill-iron, is adapted to readily compensate for any wear of the parts, and is capable of always holding the thill-iron securely in the bearings or recesses, and of preventing the parts from rattling.

It will be seen that the thill-coupling is exceedingly simple and inexpensive in construction; that it is capable of enabling thills to be readily connected with and quickly detached from an axle, and that it is capable of preventing all noise and rattling of the parts, and automatically compensates for any wear of the same.

Changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

What I claim is—

1. In a thill coupling, the combination of an axle clip, provided with forwardly projecting ears having open bearings or recesses, a thill iron having a transverse portion detachably arranged in the bearings or recesses of the ears, and an anti-rattler spring fulcrumed on the axle clip between the ears thereof and provided with a forwardly projecting hook engaging the thill iron and retaining the same in

the bearings or recesses, and preventing the parts from rattling, substantially as described.

2. In a thill coupling, the combination of an axle clip, provided with forwardly projecting ears having open bearings or recesses, a thill iron detachably arranged in the bearings or recesses, and an anti-rattler spring curved throughout its length and extending beneath the axle clip and having its rear portion detachably connected with the same and having its front portion fulcrumed between the ears and provided with a forwardly projecting hook engaging the thill iron and retaining the same in the bearings or recesses, substantially as described.

3. In a thill coupling, the combination of an axle clip, having forwardly projecting ears, provided with bearing recesses, a clip plate provided at its rear end with a projection, a thill iron having an eye provided with a transverse portion arranged in the bearing recesses, a pivot connecting the ears, a curved spring extending beneath the axle clip and provided at its front end with an eye to receive the pivot, and having a forwardly projecting hook engaging the eye of the thill iron, and a link mounted on the rear portion of the spring and detachably engaging the projection of the clip-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.

BENJAMIN P. MALONEY.

Witnesses:

CHARLES W. BENNICK.

LEWIS P. HENKEL.