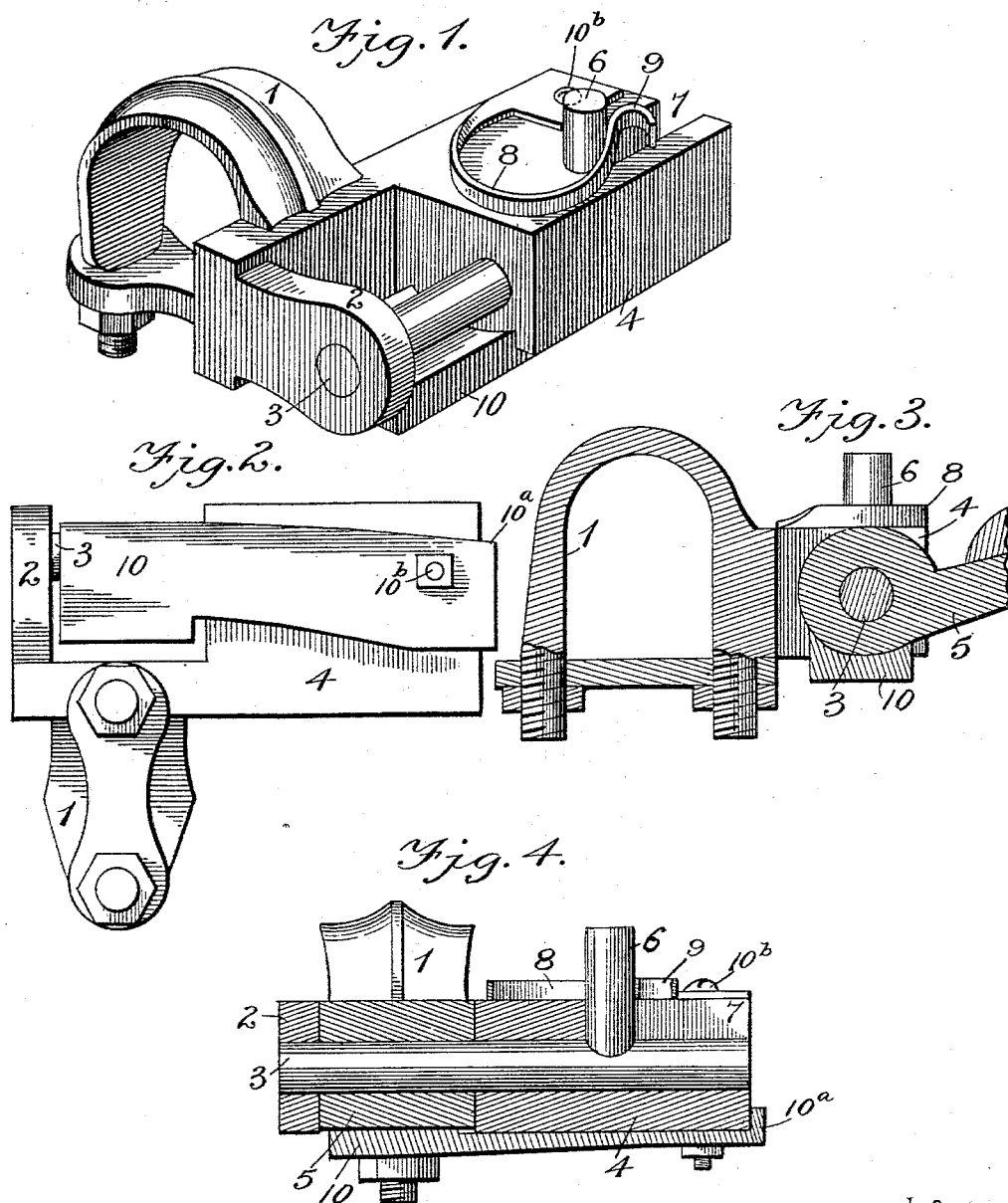


(No. Model.)

C. BARR.
THILL COUPLING.

No. 583,971.

Patented June 8, 1897.



Inventor

Charles Barr

Witnesses

Edwin G. McKee

By his Attorneys,

J. F. Riley

C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

CHARLES BARR, OF ASHLAND, OHIO, ASSIGNOR OF ONE-HALF TO A. M. KOHLER, OF SAME PLACE.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 583,971, dated June 8, 1897.

Application filed March 19, 1897. Serial No. 628,307. (No model.)

To all whom it may concern:

Be it known that I, CHARLES BARR, a citizen of the United States, residing at Ashland, in the county of Ashland and State of Ohio, 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 efficient one which will enable thills to be readily coupled to and uncoupled from a vehicle and which will obviate the necessity of employing nuts for holding the coupling-bolts in place.

A further object of the invention is to provide an effective antirattler which will be adapted, when uncoupling the thills, to support them after the coupling-bolts have been withdrawn and thereby prevent one side of the thills from dropping and twisting after one bolt has been removed.

The invention consists in the construction and novel combination and arrangement of parts, as 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 an inverted plan view of the same. Fig. 3 is a longitudinal sectional view. Fig. 4 is a transverse sectional view.

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

1 designates an axle-clip, from one side of which extends a perforated ear 2, which is adapted to receive one end of a spring-actuated bolt 3, and the latter is mounted in a casing 4, projecting from the other side of the axle-clip. The recess formed by the casing 4 and the perforated ear 2 receives the eye 5 of a thill-iron, and the transverse coupling-bolt is provided with an upwardly-extending arm 6, arranged in a recess 7 of the casing 4 and engaged by a spring 8.

The spring 8, which is secured to the upper face of the casing 4, consists of a loop provided at one end with a plate and having its other end 9 curved and presenting an inner

convex face for engaging the arm 6 of the bolt. The loop is substantially circular, and the curved terminal 9, which is arranged at the outer side of the arm 6 when the bolt is in engagement with the thill-iron, is adapted to be automatically engaged by the said arm when the bolt is forced inward and similarly disengaged when the bolt is drawn outward; but the spring is of sufficient strength to hold the bolt firmly in operative position, and as it is mounted on the casing which is rigid with the axle the movement of the thills does not affect it. The plate of the spring is perforated for the reception of a suitable fastening device which secures the spring to the casing.

The spring-actuated bolt is adapted to be readily operated, and it enables a thill to be quickly attached to and uncoupled from an axle.

In order to prevent noise and rattling, the thill-coupling is provided with an antirattler 10, located at the bottom of the casing and disposed transversely of the thill-coupling. The antirattler consists of a block and a resilient shank, which is secured to the lower face of the casing, as clearly illustrated in Figs. 2 and 4 of the accompanying drawings, and the block which is located at the bottom of the recess formed by the casing and the perforated ear engages the eye of the thill-iron at the bottom thereof, and has its upper face concave to conform to the configuration of the eye. The shank of the antirattler 10, which is provided at its outer terminal with a flange 10^a, is secured to the casing by a bolt 10^b, which also serves as the means for attaching the spring 8 to the upper face of the casing, the bolt passing entirely through the latter. The flange 10^a, which engages the outer side or end of the casing, prevents the antirattler from turning on the bolt 10^b.

The location of the antirattler at the bottom of the thill-coupling is especially advantageous in that it is adapted to support a thill after the coupling-bolt has been withdrawn to prevent the thill from dropping and straining the parts while the other coupling-bolt is being removed.

It will be seen that the thill-coupling is simple and comparatively inexpensive in

construction, that it will enable a pole or thills to be quickly attached to and detached from an axle, and that the antirattler is arranged to form a support for the thills after the coupling-bolts have been withdrawn and will prevent the thills from dropping from the thill-couplings.

What is claimed is—

1. In a thill-coupling, the combination of
10 an axle-clip, a perforated ear extending from one side thereof, a casing arranged opposite the perforated ear and extending from the other side, a transverse bolt mounted in the casing and engaging the perforated ear, said
15 bolt being provided with an upwardly-extending arm, and a spring mounted on the upper face of the casing and consisting of a substantially circular loop secured at one end to the casing and having its other end curved
20 and presenting an inner convex face arranged to engage the said arm to hold the bolt in its locked position, substantially as described.

2. In a thill-coupling, the combination of an axle-clip provided at one side with a perforated ear and having a casing located opposite the same, a coupling-bolt mounted in the casing and engaging the perforated ear, and a transversely-disposed antirattler consisting of a resilient shank secured to the lower face of the casing, and a block arranged
30 at the bottom of the space between the casing and the ear in position for engaging the bottom of the eye of a thill-iron, whereby it is adapted to support a thill after the coupling-bolt has been withdrawn, substantially
35 as described.

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

CHARLES BARR.

Witnesses:

A. M. KOHLER,
W. O. KOHLER.