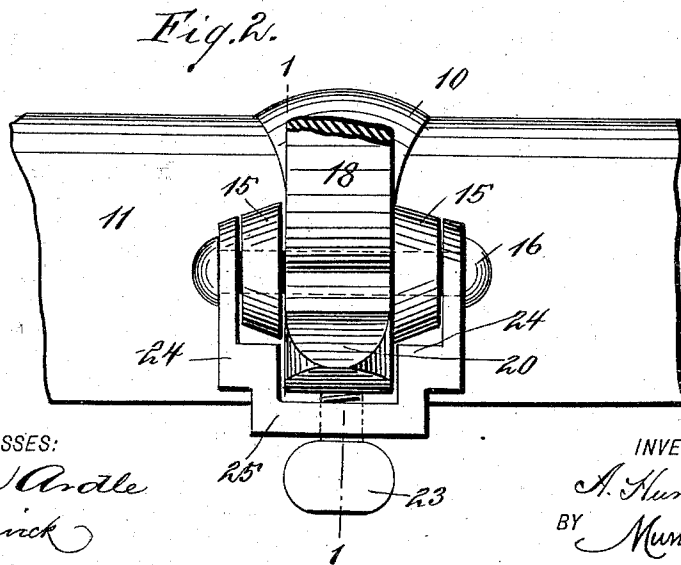
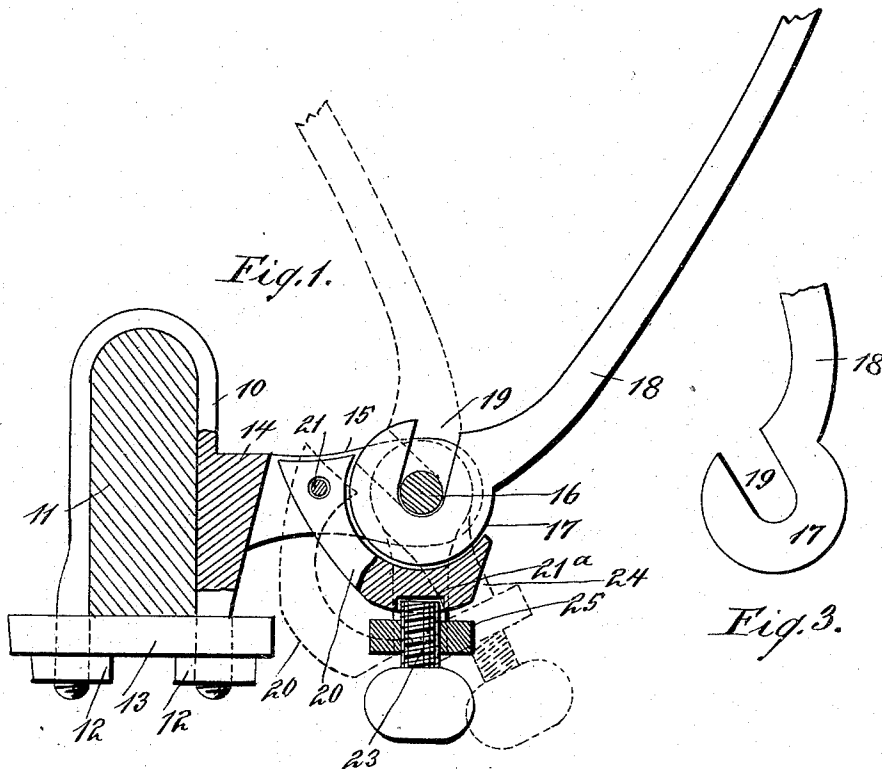


(No Model.)

A. HUMMER.
THILL COUPLING.

No. 492,293.

Patented Feb. 21, 1893.



WITNESSES:

F. McArdle
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ATTORNEYS.

UNITED STATES PATENT OFFICE.

ANDREW HUMMER, OF MARIA STEIN, OHIO.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 492,293, dated February 21, 1893.

Application filed November 4, 1892. Serial No. 450,932. (No model.)

To all whom it may concern:

Be it known that I, ANDREW HUMMER, of Maria Stein, in the county of Mercer and State of Ohio, have invented a new and Improved Thill-Coupling, of which the following is a full, clear, and exact description.

My invention relates to improvements in thill couplings such as are adapted to couple a pair of thills or a pole to the axle of a vehicle; and the object of my invention is to produce an extremely cheap and simple coupling which may be applied to any vehicle, which is constructed in such a way that the thills or pole may be quickly and securely attached to the axle or as easily detached without the use of any tools, which, however, prevents the accidental detachment of the thills or pole, and which is constructed in such a way that the thills or pole may be easily turned up out of the way and securely fastened in place, which is adapted to prevent all rattling and even without the use of either springs or rubber, and which may be adjusted so as to take up the wear as fast as it occurs, and which is very strong and durable.

To these ends my invention consists in a thill coupling, the construction of which will be hereinafter described and claimed.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a sectional elevation of the coupling on the line 1—1 in Fig. 2; Fig. 2 is an end view of the coupling; and Fig. 3 is a broken detail side elevation of the thill iron.

The coupling has the usual clip 10 which is adapted to be fastened to the axle 11 by the nuts 12 and cross bar 13, and the front side of the clip is thickened, as shown at 14, and extending forward from the opposite sides of this thickened portion are parallel arms 15 which support near their forward ends a transverse coupling pin or bolt 16 which is adapted to secure the knuckle 17 of the thill iron 18 between the arms. If desired the arms 15 may be bent upward to give the locking plate 20 a better chance to swing back. The thill iron 18 is like the usual iron, with the exception of its knuckle 17 which is of cylindrical shape, is adapted to fit reasonably close between the forward ends of the arms

15, and has on its upper side and opening from a little below its center a longitudinal slot 19, which forms the knuckle into a kind of hook adapted to engage the coupling pin or hook. It will be seen that the thill iron and consequently the thills or pole attached to it must be raised in order to bring the knuckle into engagement with the coupling pin, but when the thill iron is dropped into its normal position for use, the slot 19 is caused to swing forward so that the drawing strain comes on the solid portion of the knuckle. The knuckle 17 is held in place and prevented from rattling on the coupling pin by a curved locking plate 20, which is pivoted between the arms 15 immediately behind the knuckle, and the upper surface of the locking plate is shaped to fit nicely upon the knuckle, as shown clearly in Fig. 1. The locking plate has a recess 21^a in its under side which receives the upper end of a thumb screw 23, and the thumb screw is held to turn in a swinging bail 24 which is pivoted on the pin or bolt 16, the arms of the bail being made to embrace the arms 15, as shown in Fig. 2, and the lower central portion 25 of the bail is reduced slightly so as to fit beneath the locking plate 20. When the locking plate is in position beneath the knuckle, the screw 23 may be turned up so as to hold the plate close to the knuckle and thus all rattling is prevented, but the knuckle may still have the necessary freedom of movement. By tightening the screw a little more, however, the locking plate may be bound so tightly upon the knuckle as to prevent the latter from being turned and consequently the thill or pole attached to the thill iron will be held in whatever position it may happen to be. The screw is never tightened sufficiently to bind the knuckle and prevent it from turning, except when the thills or pole is to be held up out of the way.

When the vehicle is in use, the locking plate is tightened just enough to make a firm bearing and prevent all rattling. When a thill or pole is to be attached the screw 23 is loosened so as to release the locking plate 20 and the bail 24 and the locking plate swings downward and backward, as shown by dotted lines in Fig. 1, while the bail 24 may be swung forward, as shown by dotted lines in

the same figure. It is only necessary then in attaching the thill or pole to loosen the parts as mentioned, and then hook the knuckle 17 upon the coupling pin 16, after which the locking plate 20 is tipped up beneath the knuckle, the bail 24 swung beneath the locking plate and the screw 23 turned up so as to hold the parts in position.

To remove the thills or pole the above operation is reversed. The screw is loosened, the locking plate tipped back, and the thills or pole raised and pushed downward from off the coupling pin. It will be seen that if the screw 23 should by any possibility be lost out while the vehicle was in use, the thills or pole could not be detached, as the knuckle would drop down upon the bail 24 without being entirely detached from the coupling pin.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A thill coupling, comprising an axle clip having forwardly extending arms, a transverse pin extending between the arms, a thill iron having a slotted knuckle to fit upon the pin, a swinging locking plate pivoted at its

rear end behind the coupling pin and extending downwardly and forwardly beneath the knuckle, a bail supported upon the said transverse pin and adapted to swing beneath the locking plate, and a fastening device to secure the bail to the locking plate and the locking plate to the knuckle, substantially as described.

2. A thill coupling, comprising an axle clip having forwardly extending arms, a coupling pin held in the forward ends of the arms, a thill iron having a terminal knuckle to fit the coupling pin, and slotted across its upper side a swinging locking plate pivoted at its rear end between the arms behind the coupling pin and extending downwardly and forwardly beneath and against the thill iron knuckle, a bail suspended from the said coupling pin and adapted to swing beneath the locking plate, and a fastening screw extending upward through the bail and impinging on the locking plate, substantially as described.

ANDREW HUMMER.

Witnesses:

FRANK WESTGERDES,
BARNEY WESTGERDES.