

(No Model.)

H. N. ROSE.  
THILL COUPLING.

No. 497,217.

Patented May 9, 1893.

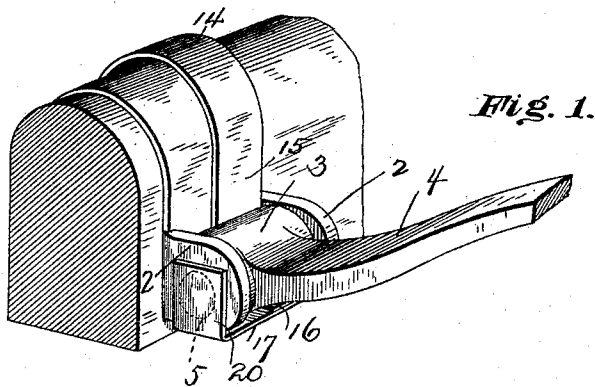


Fig. 1.

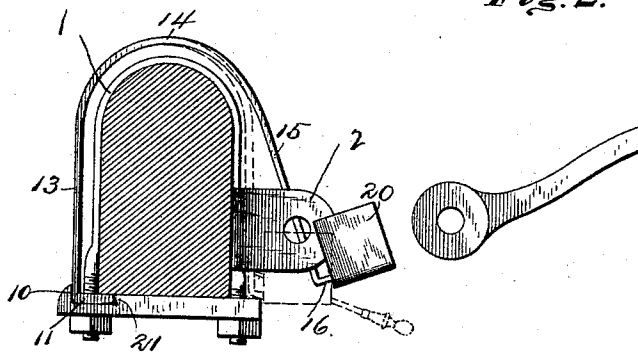


Fig. 2.

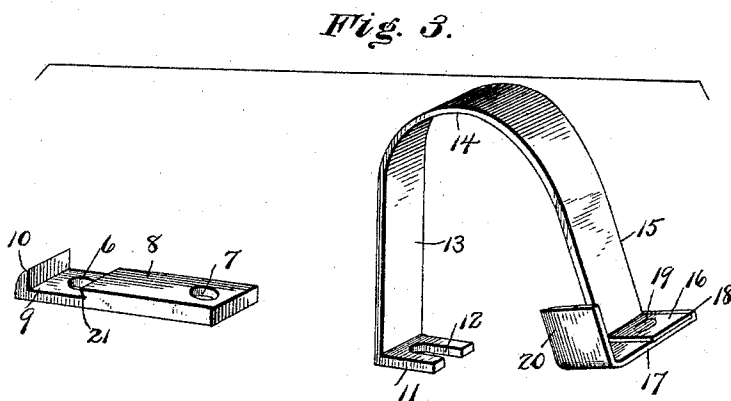


Fig. 3.

Witnesses

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By his Attorneys,

Chas. S. Hoyer.

Inventor  
Henry N. Rose.

# UNITED STATES PATENT OFFICE.

HENRY NEWEL ROSE, OF ODELL, NEBRASKA.

## THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 497,217, dated May 9, 1893.

Application filed January 10, 1893. Serial No. 457,938. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY NEWEL ROSE, a citizen of the United States, residing at Odell, in the county of Gage and State of Nebraska, have invented a new and useful Thill-Coupling, of which the following is a specification.

This invention relates to thill and pole couplings and has for its object to provide a device of the character set forth that will act in the capacity of both an anti-rattler and a lock to prevent the displacement of the bolt, and which can be conveniently manipulated in connecting or disconnecting the thills, or to change from the thills to a pole, or vice versa, and that may be readily and quickly applied to clips or common forms of coupling without changing the structure thereof; and with this object in view, the invention consists in the construction and arrangement of the parts as will be more fully hereinafter described and claimed.

In the drawings: Figure 1 is a perspective view of a portion of an axle-beam, showing a clip applied thereto and the improved attachment in connection therewith and in operative position relatively to the thill iron. Fig. 2 is a sectional end elevation illustrating an axle-beam with the clip applied thereto and the improved attachment in connection therewith in open position, showing a portion of the thill iron detached and the manner of operating the attachment to apply the thill iron in position in the coupling. Fig. 3 is a detail perspective view of the parts of the attachment disconnected.

Similar numerals of reference indicate corresponding parts in the several figures.

Referring to the drawings, the numeral 1 designates a clip of common form that straddles the axle-beam and is formed with apertured ears 2, at the front portion thereof that are adapted to embrace the eye 3, of the thill or pole iron 4, to form a pivotal connection by means of a bolt 5, passed therethrough. The lower ends of the legs of the clip 1 are screw-threaded and project through openings 6 and 7, formed in a tie-plate 8, that is applied to the bottom portion of the axle-beam. The rear portion of the upper surface of the tie-plate 8 is formed with a recess 9, through which the said opening 6 extends, and also with a vertical shoulder 10, that pro-

jects slightly above the top level of the tie-plate 8 and forms the rear wall for the said recess 9. This tie-plate is one of the parts of the attachment constructed as set forth, and the remaining portion of the device consists of a spring band formed in substantial U-shaped contour, having a lower rear foot 11, positioned in a horizontal plane and of a size equal to the length of the recess 9 and the width of the tie-plate 8. The said foot 11 is formed with an open slot 12, whose rear wall is circular and adapted to align with the rear portion of the opening 6, and from the said foot 11, at the rear portion thereof, a nearly vertical leg 13 extends upward and merges into a bow 14, and from the latter an oblique leg 15 extends downward and normally stands away from a perpendicular line in order to bring the spring resistance or resiliency of the band to bear against the eye 3 of the thill or pole iron when the latter is in connected position between the ears 2 of the clip 1, and thereby form an anti-rattling attachment. The lower end of the leg 15 is turned up at a right angle to form a foot 16, and to the under side of the said foot 16 is secured a transverse arm 17, whose end 18 is bent upward against the adjacent end of the foot 16 to hold the latter in position and necessitating the employment of a single rivet 19 only for securing the parts together. The opposite end of the arm 17 is extended horizontally from the foot 16 and then bent upward a considerable distance to form a holding ear 20, that bears against and covers the head of the bolt and holds the latter in position.

In applying the attachment the tie-plate 8 is slightly loosened and the foot 11 is slipped over the rear leg of the clip 1 and seated in the recess 9 of the said tie-plate, and the latter is then tightened up against the under side of the axle-beam, as shown in Fig. 2, and the attachment extends over the said clip and is firmly held in position. This ready attachment of the device is made practicable by the provision of the open slot 12 in the foot 11, and the leg 13, at its lower end, as well as the foot 11, is braced against movement by bearing respectively against the rear shoulder 10 and the front wall of the recess 9, which is slightly oblique in a rearward direction, as shown at 21, and also the front por-

tion of the foot 12 being under the rear portion of the axle-beam, as shown in Fig. 2, is prevented from moving and will resist the pressure brought to bear on the front part of the attachment in positioning and connecting the eye 3 of the pole or thill iron. In connecting the eye 3 of the pole or thill iron it may be found convenient to rest the said eye on the horizontal portion of the arm 17, and also on the foot 16, which can be readily done and thereby avoid holding the thills or pole up by hand or otherwise while the connection of the several parts is being made. To position the eye 3 between the ears 2, the oblique leg 15, together with the arm 17, may be pressed backward by inserting a screw-driver or analogous tool between the ears of the clip 1 and pressing downward on the top portion of the arm 17, and then insert the eye of the thill or pole iron and position the pivotal bolt 5 for said part and allow the arm and leg 15 to free themselves by withdrawing the tool, and to assume the position shown in Fig. 1. It will be understood that the ear 20 of the arm 17 is so positioned, and that the front leg 15 is of such length, that when the eye of the thill or pole iron is in proper position, and the attachment is properly arranged, the said ear will cover the head of the coupling-bolt and prevent the latter from slipping out of position, while the spring-pressure or resiliency inherent in the leg 15 will bear against the eye 3 in such manner, and with such force, as to prevent rattling of the same.

Having thus described the invention, what is claimed as new is—

1. In a device of the character set forth, the combination with a clip having ears, of a spring attachment having a foot at the lower end of the rear leg thereof with an open slot therein, an arm secured to the lower end of

the front leg having an upturned end to form an ear that fits over the bolt-head connecting the thill or pole iron with the said clip, and a tie-plate having a recess in the upper side of the rear portion thereof to receive the said foot at the lower end of the rear leg, the said front leg of the attachment being normally at an oblique angle and acting as an anti-rattler by pressing against the eye of the thill or pole iron, substantially as described.

2. In a device of the character set forth, the combination with a clip having ears, of a spring attachment adapted to be fitted over the said clip and having a foot at the lower end of the rear leg thereof with an open slot therein, an arm secured to the lower end of the front leg and extending transversely from one side thereof and extended upward at its free end to form an ear that is adapted to cover and bear against the head of the connecting-bolt, the front leg of the attachment being normally extended at an outward obliquity and having a foot at its lower end at right angles thereto, to which the aforesaid arm is attached, the adjacent end of the said arm being turned up and bearing against the latter foot, and a tie-plate having a recess in the upper side of the rear portion thereof to receive the foot formed at the lower end of the rear leg of the attachment, the said open slot in the foot of the said rear leg allowing the device to be applied without loosening the said tie-plate entirely from the clip, 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.

HENRY NEWEL ROSE.

Witnesses:

JAMES SMETHEVET,  
E. B. HINDS.