

(No Model.)

S. H. ROOT.
THILL COUPLING.

No. 465,538.

Patented Dec. 22, 1891.

Fig. 1.

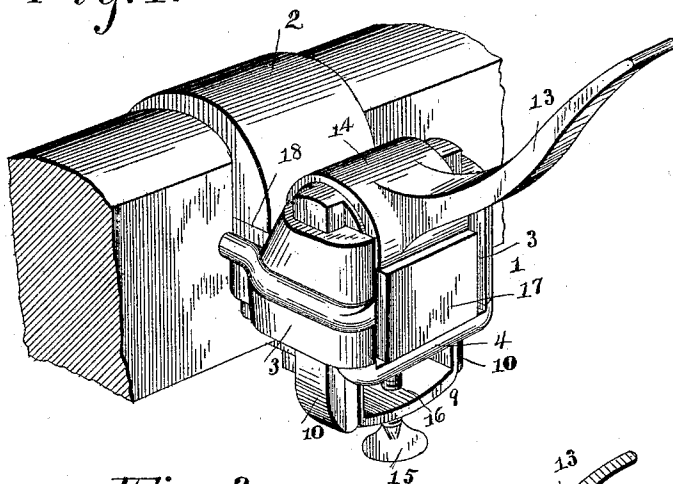


Fig. 5. Fig. 2.

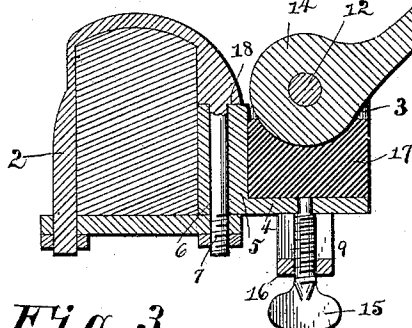
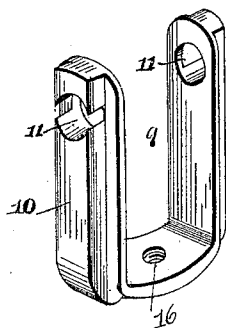


Fig. 6.

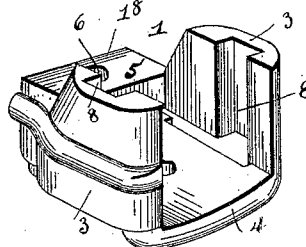
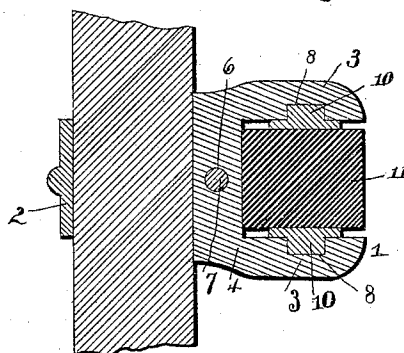
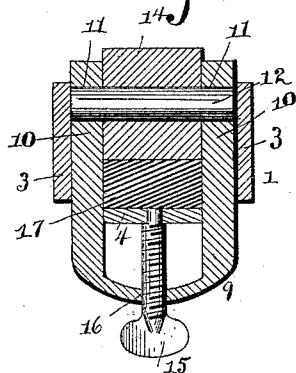


Fig. 4.

Fig. 3.



Witnesses

Chas. W. Ford
N. P. Riley

Inventor

Sebra H. Root.

By his Attorneys,

C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

SEBRA H. ROOT, OF LONGMONT, COLORADO.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 465,538, dated December 22, 1891.

Application filed August 22, 1891. Serial No. 403,400. (No model.)

To all whom it may concern:

Be it known that I, SEBRA H. ROOT, a citizen of the United States, residing at Longmont, in the county of Boulder and State of Colorado, have invented a new and useful Thill-Coupling, of which the following is a specification.

The invention relates to improvements in thill-couplings.

10 The object of the present invention is to provide a thill-coupling which will be simple, inexpensive, strong, and durable, adapted to receive readily the eye of an ordinary shaft-iron, and capable of enabling the same to be readily removed when it is desired to change thills for a pole, or vice versa.

A further object of the invention is to provide an efficient anti-rattler which will enable wear to be readily taken up to prevent the parts rattling.

20 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.

25 In the drawings, Figure 1 is a perspective view. Fig. 2 is a vertical longitudinal sectional view. Fig. 3 is a transverse sectional view. Fig. 4 is a horizontal sectional view. Fig. 5 is a detail perspective view of the adjustable yoke. Fig. 6 is a detail perspective view of the box or casing.

30 Referring to the accompanying drawings, 1 designates a box or casing constructed of metal and secured to a clip 2 and consisting of sides 3, a bottom 4, and a back 5, provided with a central vertical opening 6 to receive one arm 7 of the clip 2. The inner opposed faces of the sides 3 are provided with vertical grooves 8, which terminate in openings at the sides of the bottom and which form ways to receive a vertically-adjustable yoke 9. The latter is provided on the outer faces of its sides with ribs 10, which fit in the grooves 8 of the sides 3, and the upper ends of the yoke are provided with bearing-openings 11, adapted to receive a coupling-bolt 12, which secures a thill-iron 13 to the yoke and passes through the eye 14 of said thill-iron. The yoke 9 is vertically adjustable and is lowered in the casing or box 1 to bring the coupling-bolt within the same, and is raised to carry

the coupling-bolt out of the casing when it is desired to remove the bolt for detaching the thill-iron. The movement of the yoke is regulated by a thumb-screw 15, which is arranged in a threaded opening 16 in the bottom of the yoke, and is swiveled to the bottom 4 of the box or casing, and by turning the thumb-screw the yoke is raised and lowered.

60 A block 17, of rubber or similar material, is arranged within the casing or box and is interposed between the thill-iron and the bottom of the box or casing to prevent rattling, and as the rubber becomes worn or compressed any wear may be readily taken up by the adjusting-screw 15.

The arm 7 of the axle-clip 2 is lengthened and the clip is provided with a shoulder 18, against which the upper edge of the back of the casing or box bears.

It will be seen that the thill-coupling is simple, inexpensive, strong, and durable, adapted to receive readily the ordinary construction of thill-iron, capable of enabling a thill-iron to be readily removed in its place, and that the parts are prevented from rattling. An efficient anti-rattler is provided, as all wear may be readily taken up from time to time.

What I claim is—

1. In a thill-coupling, the combination of an axle-clip provided with a casing having vertical ways and a V-shaped yoke arranged in the ways and capable of vertical adjustment and provided at its upper end with bearing-openings to receive a coupling-bolt and adapted to be lowered within the casing to secure the coupling-bolt, substantially as described.

2. In a thill-coupling, the combination of an axle-clip provided with a casing having vertical ways, a yoke arranged in the ways and provided with bearings and having a threaded opening in its bottom, a coupling-bolt arranged in the bearings, and an adjusting-screw located in the threaded openings of the yoke, substantially as described.

3. In a thill-coupling, the combination of an axle-clip provided with a casing, a vertically-adjustable yoke mounted in the casing, a coupling-bolt journaled in the yoke, a thill-iron having the bolt passing through its eye, and a block of rubber interposed between the

thill-iron and the bottom of the casing, substantially as described.

4. In a thill-coupling, the combination of
5 the casing comprising the oppositely-disposed
sides provided with grooves, a bottom and a
back having a central opening, a yoke provided on its sides with ribs arranged in said
grooves and having openings at its upper end
and provided with a threaded opening in its
10 bottom, a coupling-bolt arranged in said openings, a thill-iron having the bolt received
within its eye, a block of rubber interposed

between the thill-iron and the bottom of the casing, and an adjusting-screw swiveled to the casing and engaging the threaded opening of the yoke, substantially as described. 15

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

SEBRA H. ROOT.

Witnesses:

E. J. BAER,

F. M. DOWNER.