A. C. SCHEELE.

THILL COUPLING.

APPLICATION FILED JUNE 5, 1909.

957,002.

Patented May 3, 1910.

2 SHEETS—SHEET 1.

FIG. 1.

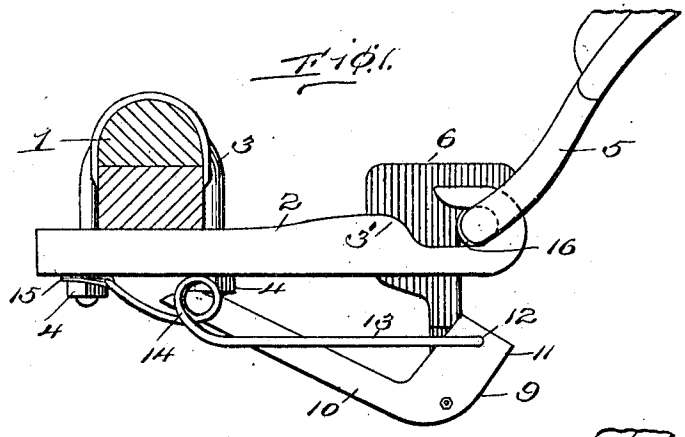



FIG. 2.

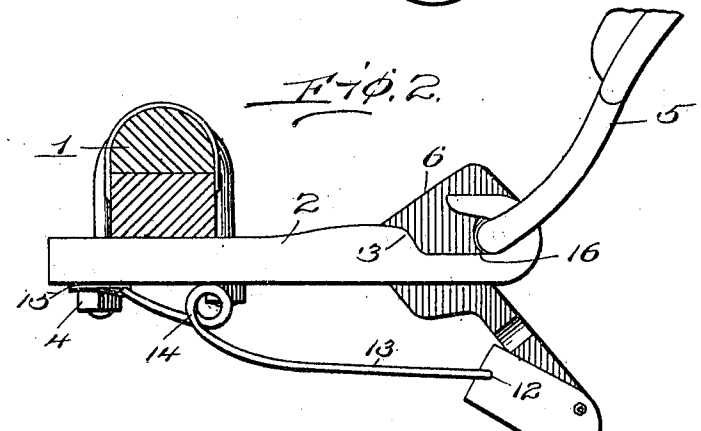
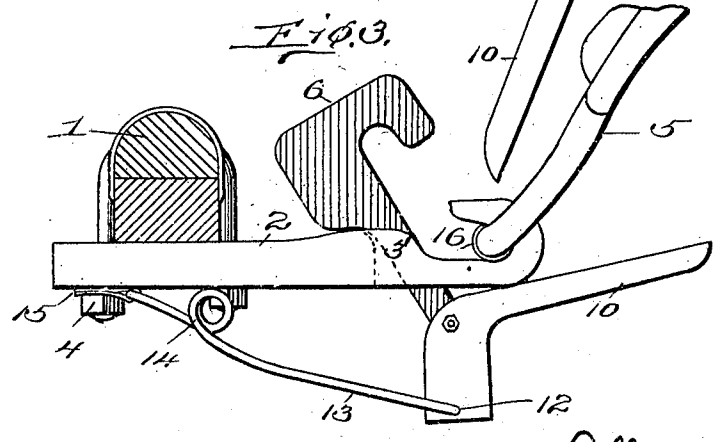



FIG. 3.




Witnesses

F. W. Fowler Jr.

O. L. Richmond

Inventor

Albert C. Scheele

By Mason Fenwick & Lawrence

Attorneys

A. C. SCHEELE.

THILL COUPLING.

APPLICATION FILED JUNE 5, 1909.

957,002.

Patented May 3, 1910.

2 SHEETS—SHEET 2.

Fig. 4.

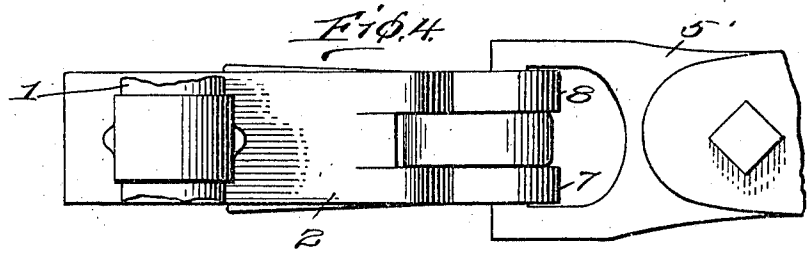



Fig. 5.

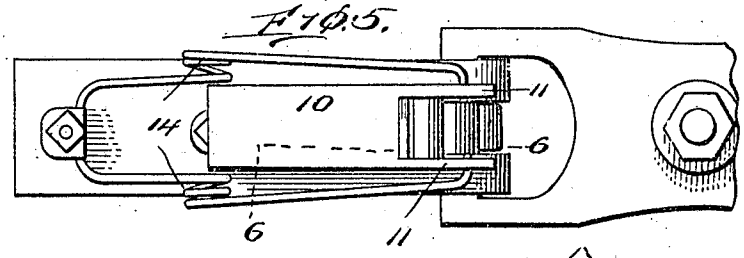



Fig. 6.

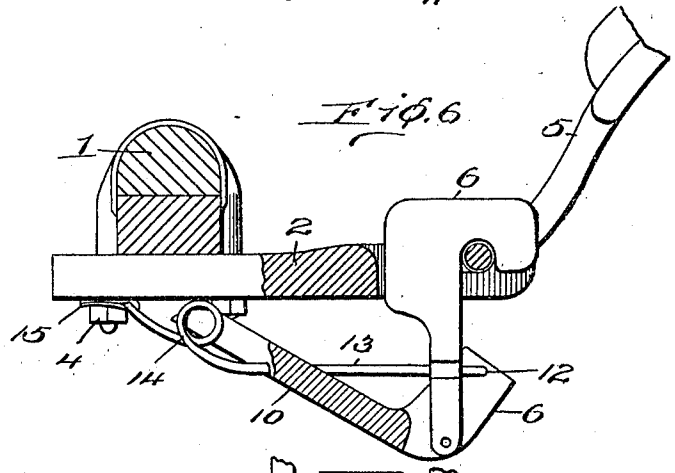
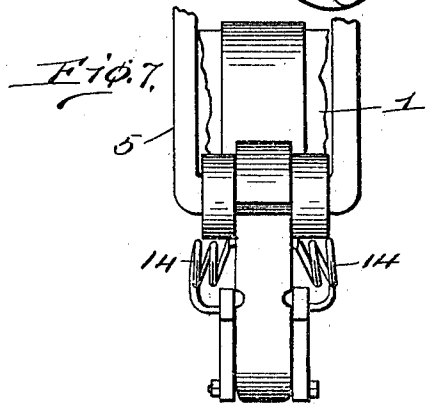



Fig. 7.




Inventor

Albert C. Scheele

By Mason Fenwick & Lawrence

Attorneys

Witnesses

J. M. Fowler Jr.

O. L. Richmond

# UNITED STATES PATENT OFFICE.

ALBERT CHRISTJOHN SCHEELE, OF BUTTE, MONTANA.

## THILL-COUPLING.

957,002. Specification of Letters Patent. Patented May 3, 1910.

Application filed June 5, 1909. Serial No. 500,244.

*To all whom it may concern:*

Be it known that I, ALBERT CHRISTJOHN SCHEELE, a citizen of the United States, residing at Butte, in the county of Silverbow and State of Montana, have invented certain new and useful Improvements in Thill-Couplings; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to thill couplings and the object of the invention is to provide a device by means of which the iron connected with the pole or thill may be securely held in position but may be readily detached when desired.

The invention consists in the novel arrangements of the several parts hereinafter more fully specified.

In the accompanying drawings forming part of this application Figure 1 is a side view of the device with the locking lever closed. Fig. 2 is a similar view with the lever in its open position. Fig. 3 is a side view with the locking lever opened and the locking hook free from the thill iron. Fig. 4 is a top plan view of the device. Fig. 5 is a bottom view thereof. Fig. 6 is a view partly in section showing the locking lever closed, and Fig. 7 is an end view of the device.

Referring to the drawing in detail, 1 indicates the axle and 2 the tie bar of the coupling, secured to the axle by means of the usual clip 3 carrying nuts 4 at its lower end. The tie bar 2 has a thickened portion 3′ and is formed in hook-shape at its free end, as shown in the several figures. The thill iron 5 is arranged to connect with the hook portion in the usual manner and is held in its proper position by means of the hook 6 which operates between the members 7 and 8 of the tie bar 2. This hook 6 is pivoted at its lower end to the lever 9, such lever being formed with an arm 10 and with forked arms 11, the latter having apertures 12 at their outer ends within which the end of spring 13 is secured. This spring 13 is coiled at 14 and extends to one of the arms of the clip 3, being held in position by means of one of the nuts 4 and the small clip 15. It will be noted that upon referring to Fig. 1 the aperture 12 is considerably to the right of a line passing vertically through the pivotal point of lever 9. When the lever is in its closed position the hook 6 is therefore securely locked, holding the thill iron within the hook portion of tie bar 2. In this position the end of the longer arm 10 of the lever bears against one of the ends of the clip 3.

It will be observed upon referring to the several figures that when the hook 6 is thrown into its open position by the operation of lever 9 it is entirely free and allows the thill iron to be introduced or removed, as the case may be. The hook 6 and the tie bar 2 are thickened at the points where they come into contact with each other. The relative arrangement of these thickened portions is shown clearly in Fig. 3.

Leather may be placed around the thill iron as shown at 16 in order to relieve friction and prevent undue wear.

In throwing the lever to its open position, it is first brought to the point shown in Fig. 2. During this portion of the movement, the lever acts on its pivotal point as a fulcrum, and during the further movement of the lever, which serves to throw the hook 6 into the position shown in Fig. 3, the spring 13 acts as the fulcrum.

In carrying out my invention, I do not wish to be limited to the exact construction specified, but may make such changes or alterations as fall within the scope of the appended claims.

What I claim is:

1. In a thill coupling, a tie bar provided with a hook and with a thickened portion opposite the end of the hook, a locking hook having a thickened head and a relatively narrow portion adjoining the head, such locking hook coöperating with the hook first mentioned, said hooks arranged to assume a position at right angles with each other and to engage and positively lock a thill iron, independently of other means, when the contacting portion of such thill iron is in substantially the same horizontal plane with the longitudinal axis of the tie bar and with the thickened portion of the locking hook, and means for preventing the displacement of the parts.

2. In a thill coupling, a tie bar provided with a hook and with a thickened portion opposite the end of the hook, a locking hook having a thickened head coöperating with the hook first mentioned, said hooks arranged to engage and to positively lock a thill iron, independently of other means, when the contacting portion of such thill

iron is in substantially the same horizontal plane with the longitudinal axis of the tie bar and with the thickened portion of the locking hook, the opening between the point and shank of each of the hooks being elongated and extending substantially parallel with the shank, the hooks when in operative position being arranged at right angles to each other, means for preventing the displacement of the parts comprising a lever pivoted to the locking hook and a spring connected with one end of the lever.

3. In a thill coupling, a tie bar provided with a hook, a locking hook having a thickened head coöperating with the hook first mentioned, said hooks arranged to engage and to positively lock the thill iron, independently of other means, when the contacting portion of such thill iron is in substantially the same horizontal plane with the longitudinal axis of the tie bar and with the thickened portion of the locking hook, the opening between the point and shank of each of the hooks being elongated and extending substantially parallel with the shank, the hooks when in operative position being arranged at right angles to each other, means for preventing displacement of the parts, comprising a lever pivoted to the locking hook and a spring connected with one end of the lever.

In testimony whereof I affix my signature in presence of two witnesses.

ALBERT CHRISTJOHN SCHEELE.

Witnesses:
D. D. Shea,
Thos. Kenny.