J. CARR.

THILL-COUPLING.

No. 194,219. Patented Aug. 14, 1877.

Fig. 1.

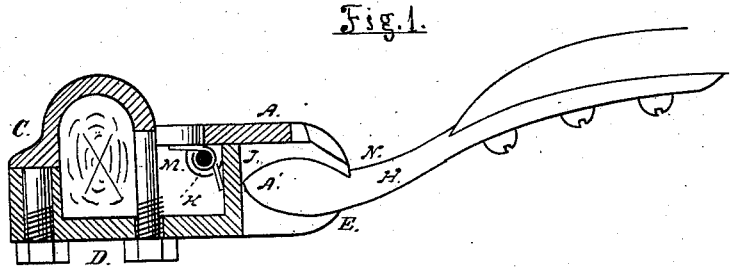


Fig. 2.

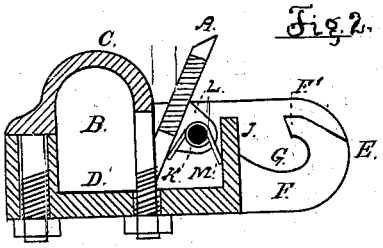
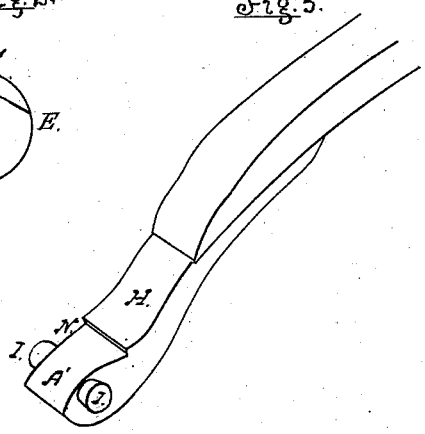


Fig. 3.



WITNESSES:

J. L. Taball

F. L. Thornton

INVENTOR:

John Carr

By Jas. B. Enos

Attorney.

UNITED STATES PATENT OFFICE.

JOHN CARR, OF MILWAUKEE, WISCONSIN.

IMPROVEMENT IN THILL-COUPLINGS.

Specification forming part of Letters Patent No. **194,219**, dated August 14, 1877; application filed March 20, 1877.

To all whom it may concern:

Be it known that I, JOHN CARR, of the city of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Carriage-Thill Couplings; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

The object of my invention is to furnish a device for coupling a pole or thills to carriages, by means of which they are more readily attached and detached than by any device now in use, no wrenches, bolts, or nuts being required in their adjustment, which is completely protected from sand, dust, or mud by a self-adjusting cap or cover.

Figure 1 of the accompanying drawings represents a sectional view of my coupling, with thill attached. Fig. 2 represents a sectional view, with the cover A thrown back and the thills withdrawn. Fig. 3 represents a perspective view of a thill-bar detached.

The space B accommodates the carriage-axle, to which the clip C is attached in the ordinary manner. D is the clip-bar, which is made of malleable iron. E are lugs cast with and forming one piece with the clip-bar. H is the thill-bar, having journals I I, which rest upon the shoulders F in the socket G, thus forming the coupling-joint.

The lugs E are connected together by the cross-piece J, which strengthens their sides and serves as a back-rest to the thill-bar H.

The cover A is attached to the lugs E with the cross-pin K, which passes through the eyes L of the cover, thus forming a hinge to the cover, upon which it turns when being opened and closed.

There is a spiral wire spring, M, surrounding the cross-pin K, one end of which rests against the back part of the cover K and the other end of the spring against the cross-piece J, by means of which the cover is kept securely closed, thus preventing all dust, sand, and mud from coming in contact with the bearings of the coupling.

The cover also serves another important end by preventing the thills from being raised high enough to be detached as the shoulder N comes in contact with the end of the cover, which thus arrests their further upward movement.

When it is desired to remove the thills or pole the cover is first thrown back, and the thills are then raised to a vertical position, when they are readily withdrawn.

The thills are attached by placing the point A′ of the thill-bar beneath the end of the cover A, when the thills are pressed backward against the cover, which flies open. The thills are then raised to a vertical position, that the point A′ of the thill-bar ceases to bear against the cross-piece J, when the journals I I are allowed to pass the point of the shoulder F′ and into the sockets G, when the thills are lowered again to a horizontal position, by which movement the point A′ is again brought to bear against the cross-piece J, which crowds the journals I I forward into their sockets, where they are thus firmly secured, when the cover A springs forward to its former position, and the coupling is completed.

It is obvious that the security of my coupling is perfect, as it can in no way become detached when the carriage is being drawn, as the horizontal position of the thill will not admit of their being removed, and, while the security of the coupling is not dependent upon the spring, the spring holds the cover in a position which prevents the thills being raised to the required position for detaching, while the cover at the same time protects all the bearings from injury by sand, mud, &c.

It is also obvious that the coupling thus formed is noiseless in its movement, as there are no bolts to rattle, and the journals are held securely in their sockets by the bearing of the thill-bar H against the cross-piece J, as described.

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

The herein-described thill-coupling, consisting of the thill-bar H, having shoulder N, cover A, pointed end A′, and journals I I, operating in combination with a clip-bar, D, having lugs E, and cross-bar J, substantially as and for the purpose specified.

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

JOHN CARR.

Witnesses:
K. SHAWVAN,
WM. DAVELOAR.