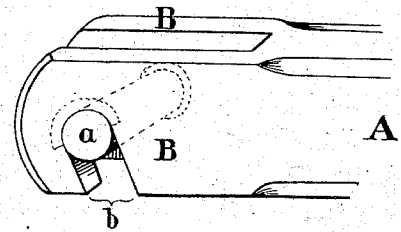
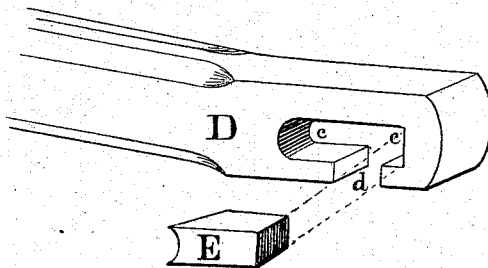
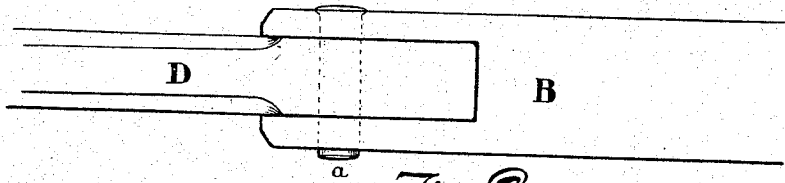
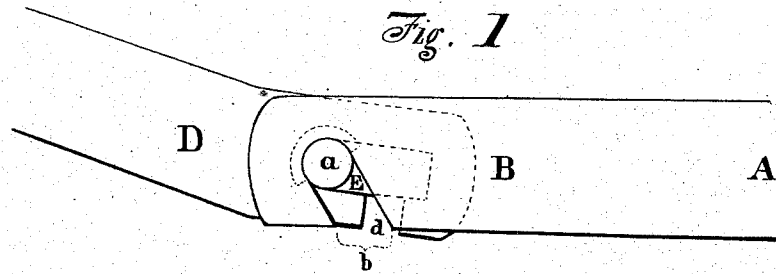


O. J. SHANNON.
Thill-Couplings.

No. 158,320.

Patented Dec. 29, 1874.



Witnesses
Samuel Thurlow
Clarence Thurlow

Inventor
Oscar J. Shannon
by O. Thurlow
his Attorney

UNITED STATES PATENT OFFICE.

OSCAR J. SHANNON, OF CHENOA, ILLINOIS.

IMPROVEMENT IN THILL-COUPPLINGS.

Specification forming part of Letters Patent No. **158,320**, dated December 29, 1874; application filed May 13, 1874.

To all whom it may concern:

Be it known that I, OSCAR J. SHANNON, of Chenoa, in the county of McLean and in the State of Illinois, have invented an Improvement in the Coupling of Thills to the Axles of Vehicles; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the annexed drawings making a part of this specification, in which like letters of reference refer to like parts, and in which—

Figure 1 represents a longitudinal elevation of the coupling; Fig. 2, a plan view of same; Fig. 3, perspective view of "heel" of thill and key; Fig. 4, a perspective view of clip-arms and bolt.

This invention is designed to provide a thill or pole coupling for vehicles which may, first, be rapidly uncoupled; second, be more durable; third, more secure from derangement and rattling; fourth, more compact and neat than couplings heretofore in use.

To accomplish these objects I make the iron heel of the thill with a horizontal slot passing through it, and shaped at the forward end to fit the coupling-bolt. This slot is filled by a movable key, having a horizontal recess in front fitted to the coupling-bolt. The slot already described is entered from beneath, through an open slot suitably placed and shaped to admit said coupling-bolt.

I make the eye which is to receive the above-described heel much in the ordinary form—that is to say, fastened to the axle in some reliable way, and provided with two parallel arms, with a space between them sufficient to receive the iron heel of the thill or pole. The coupling-bolt passing through this eye is made solid with it by riveting or otherwise, and is not to be removed except for repairs. One of the arms of the eye has a slot opening up to the coupling-bolt from below.

One of the simplest forms in which I construct this coupling, I will now describe.

In the drawings, A represents the clip (or a portion of it) or axle attachment to receive the heel of the thill of a common form; B B, the arms of the same, and *a* the coupling-bolt connecting the arms, and made solid to each; *b*, a slot opening upward to the said bolt *a*. D is the square heel of the thill or

pole, pierced with horizontal slot *c*, rounded at the front, and slightly tapered at the back end, and entered through an open slot, *d*, below. E is a key, which fits the slot *c*, provided with a half-round recess along its front end, which, together with the rounded front end of the slot *c*, forms a passage for the bolt *a*.

The operation of this coupling is as follows: To attach the thills or pole to the vehicle, place the iron D within the eye B B, so that the bolt *a* will enter the slot *c* through the lower slot, *d*, and rest in the rounded or front end of same; then raise the shafts or pole to their greatest vertical height; the slot *c* will then be nearly upright, and will coincide with the slot *b* of the arm B of the eye. The key E can now be passed through slot *b* into its place in the slot *c*, and will then lie wholly within the heel D, behind the bolt *a*.

The thills may now be brought down, fully coupled. As the key cannot escape except through the slot *b* when the thills are at their greatest elevation, accidental uncoupling is impossible.

The bolt and key *a* E being the only parts liable to serious wear, any abrasions thus resulting are easily remedied by the renewal of said bolt or key, and when either are reduced by wear, so that rattling ensues, a thin piece of leather, metal, or other filling may be introduced behind the key, so as to block it forward and remedy the defect.

What I claim as my invention is—

The thill-heel D, having a longitudinal slot, *c* *c*, and an entrance-slot, *d*, at right angles to the former slot, filled by a key, E, the stationary coupling-bolt *a* in the jaws of the clip A, the clip A provided with a diagonal slot, *b*, of the same width as said key E, opening up to said bolt from the lower side of the outer jaw of said clip, all combined substantially as and for the purposes described.

In testimony that I claim the foregoing thill or pole coupling, I have hereunto set my hand this 10th day of April, 1874.

OSCAR J. SHANNON.

Witnesses:

ELIAS SHIPMAN,
C. CRANDALL.