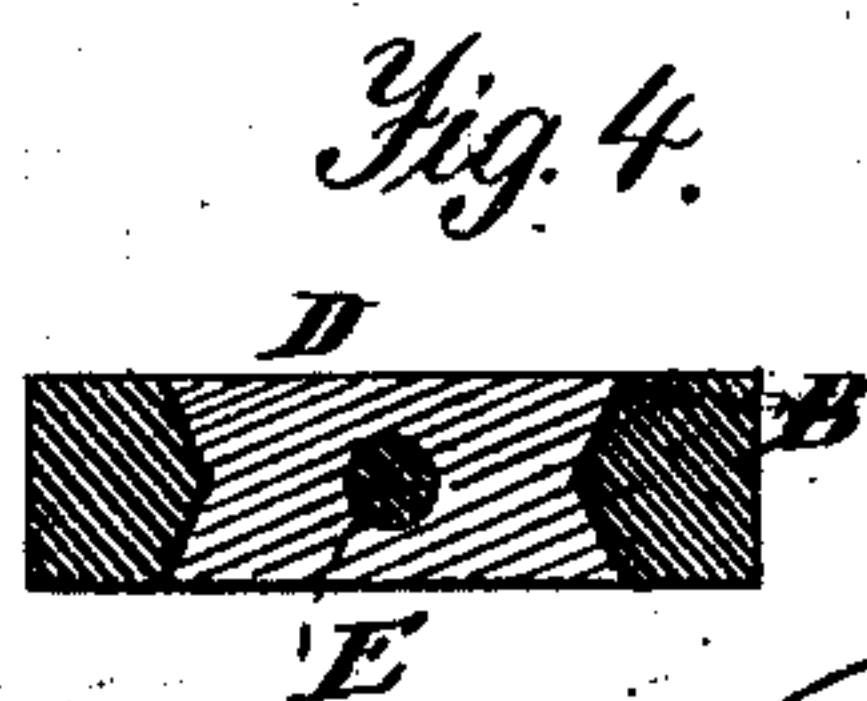
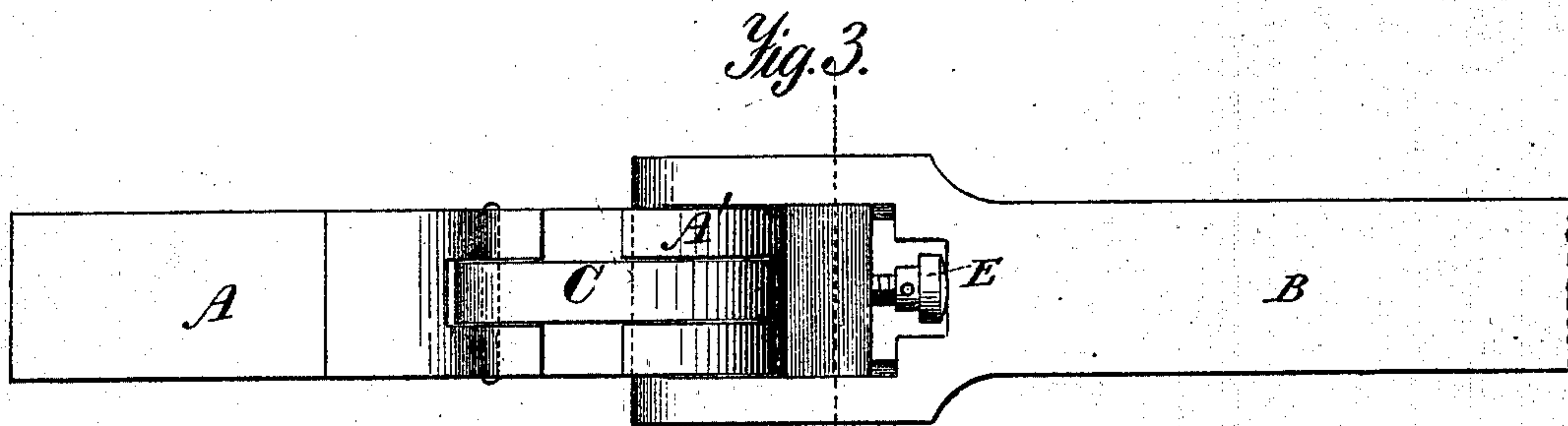
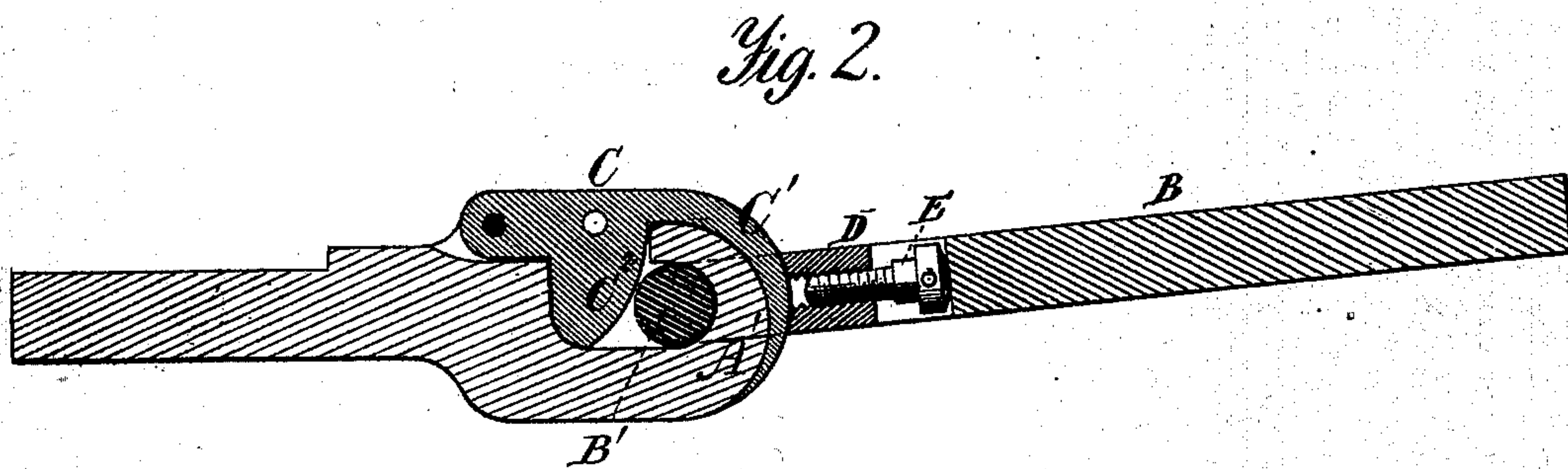
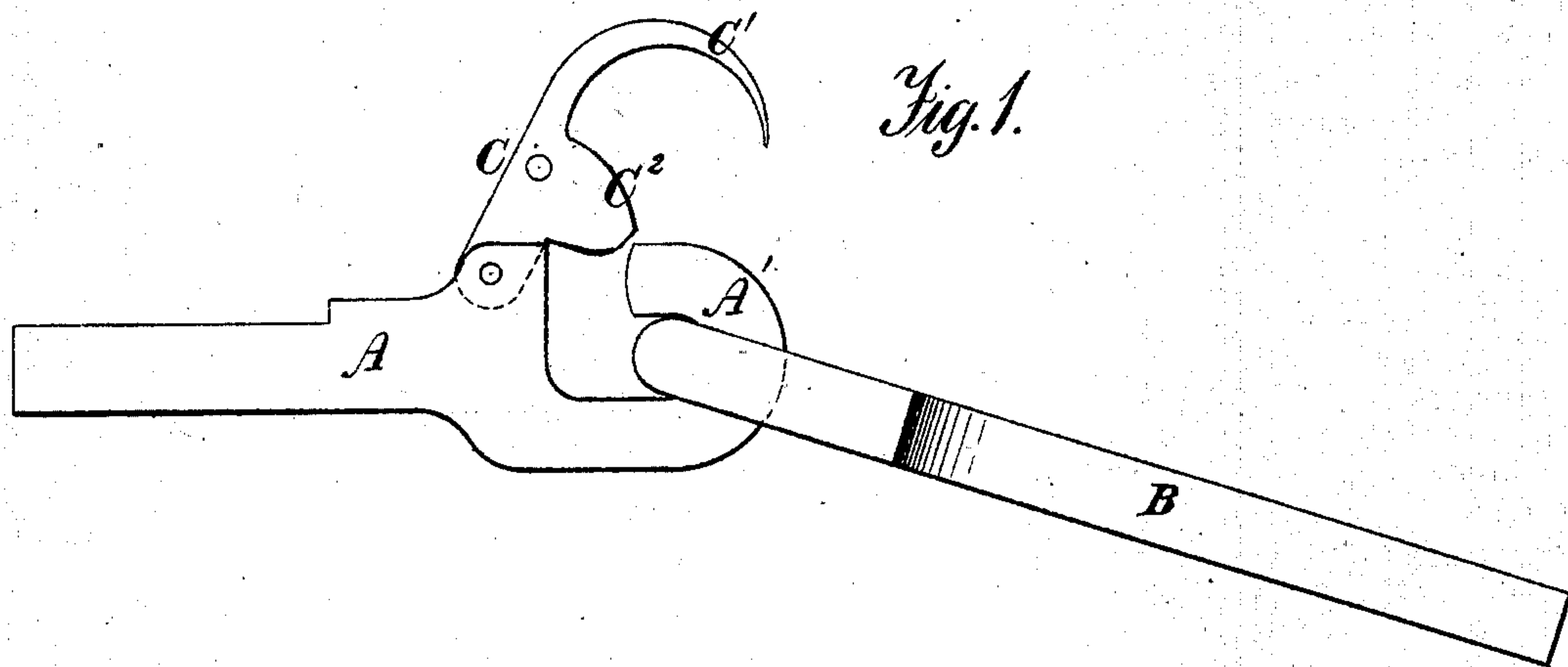


J. C. BARRETT.
Thill-Couplings.

No. 144,497.

Patented Nov. 11, 1873.



Witnesses.
A. Ruppert.
S. M. Pool

Inventor.
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Attorney.

UNITED STATES PATENT OFFICE.

JAMES C. BARRETT, OF NEW CANAAN, CONNECTICUT, ASSIGNOR OF ONE-HALF HIS RIGHT TO ALPHEUS E. COWL, OF PATTERSON, NEW YORK.

IMPROVEMENT IN THILL-COUPPLINGS.

Specification forming part of Letters Patent No. 144,497, dated November 11, 1873; application filed October 27, 1873.

To all whom it may concern:

Be it known that I, JAMES C. BARRETT, of New Canaan, in the county of Fairfield and State of Connecticut, 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

This invention relates to that class of thill-couplings in which the thill or pole iron is hooked to the clip on the axle, and kept interlocked therewith by means of some locking device or mechanism. My improvement consists, first, in the employment of a latch pivoted on the clip, so constructed and arranged that it can lock and unlock the thill-iron, while the outer end of the thill rests on the ground or nearly touches it, but becomes locked itself by raising the thill to its working position—that is, to about a horizontal position; secondly, in providing a certain hereinafter more particularly-described mechanism for taking up any lost motion in the joint between the clip and the thill-iron, to prevent rattling at these joints when the carriage or wagon is in motion.

In the annexed drawings, Figure 1 is a side elevation of my improved coupling, showing the thill-iron hanging down, in position to allow the raised latch to lock it to the clip. Fig. 2 is a longitudinal section of the parts locked together. Fig. 3 is a plan view of the same. Fig. 4 is a section on line *x x* of Fig. 3.

The same letters of reference are used in all the figures in the designation of identical parts.

The clip A, to be properly secured to the front axle of a carriage or wagon, terminates at its forward end in an upturned hook, A'. A loop is formed upon the outer end of the thill-iron B, the cylindrical cross-bar B' of which interlocks with the hook A' of the clip in connecting the parts together. The latch C is pivoted to ears on the clip, and terminates in a finger or tongue, C¹, curved to fit with its concave surface over the convex surface of the hook A' when dropped. The longitudinal sides of the opening of the loop in the thill-iron are parallel to each other, and are V shape, as best seen in Fig. 4, to receive

a follower, D, intended to so regulate the opening or space between it and the back of the hook A' that the curved finger of the latch will exactly fill it when the cross-bar B' draws on the hook, and prevent any play, and consequent rattling. The follower can be readily adjusted as to position by the set-screw E.

The curved finger of the latch is made tapering in thickness, and in such a manner pivoted to the clip that it will readily drop over the hook A' into the space between the same and the follower D when the thill is turned down, so as to throw the thill-iron into about the inclination shown in Fig. 1, and, on turning the thill-iron up into the position shown in Fig. 2, become itself locked between the hook and the follower. A cam, C², is formed on the under side of the latch C, which serves to force cross-bar B' up into close contact with hook A', and thus acts as an additional guard against rattling in the joint.

On raising the latch, the thill or tongue can be easily detached by raising it to a moderate angle.

A recess is formed in the back of the hook A', in the example illustrated, into which the curved finger of the latch drops, so that the exterior surface of the latter will be flush with the back of the hook when the parts are duly connected and locked together.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination of the hook A' and the loop of the thill-iron, with the latch C C¹, which becomes itself automatically locked, substantially as and for the purpose specified.

2. The combination of the latch C C¹ provided with a cam, C², the hook A', and the cross-bar B' of the loop of the thill-iron, substantially as specified.

3. The combination of the hook A', the loop of the thill-iron, latch C C¹, and the adjustable follower D, substantially as and for the purpose specified.

In testimony that I claim the foregoing I have hereunto set my hand this 26th day of September, 1873.

JAMES C. BARRETT.

Witnesses:

H. V. BROWN,
SETH COLE.