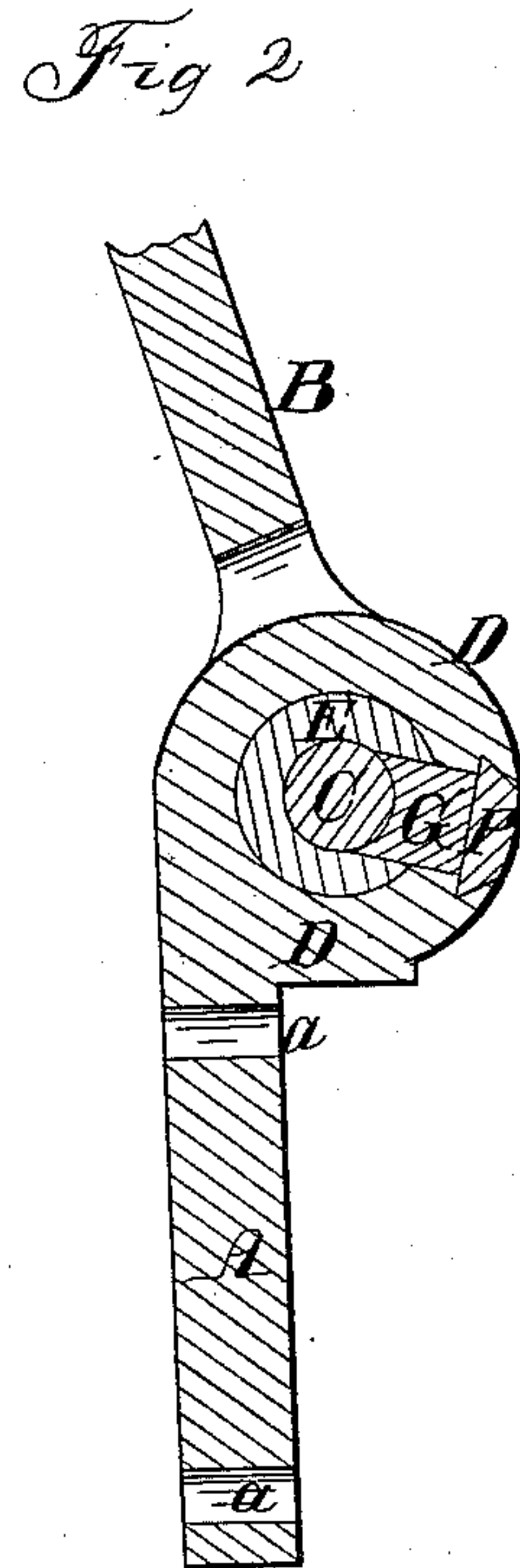
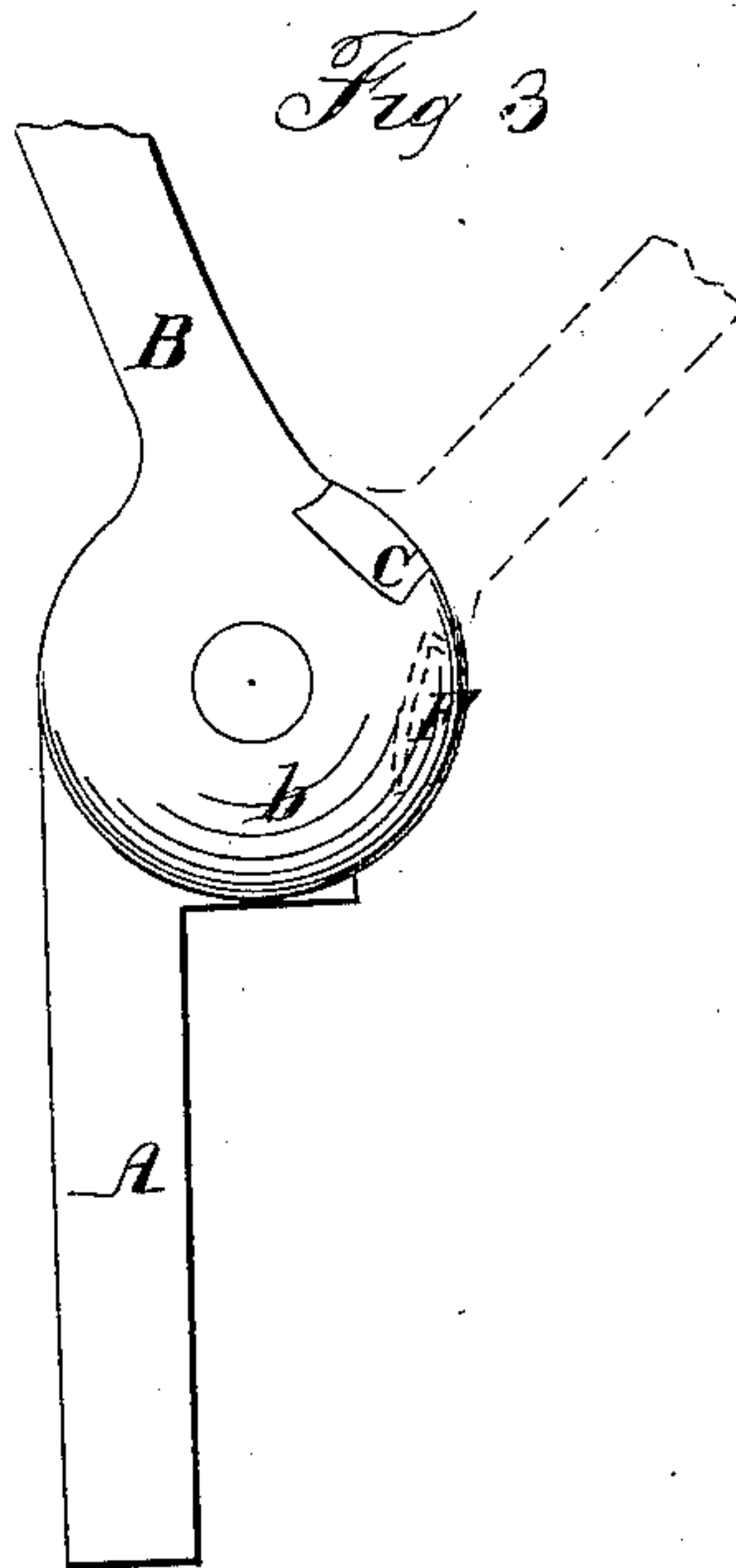
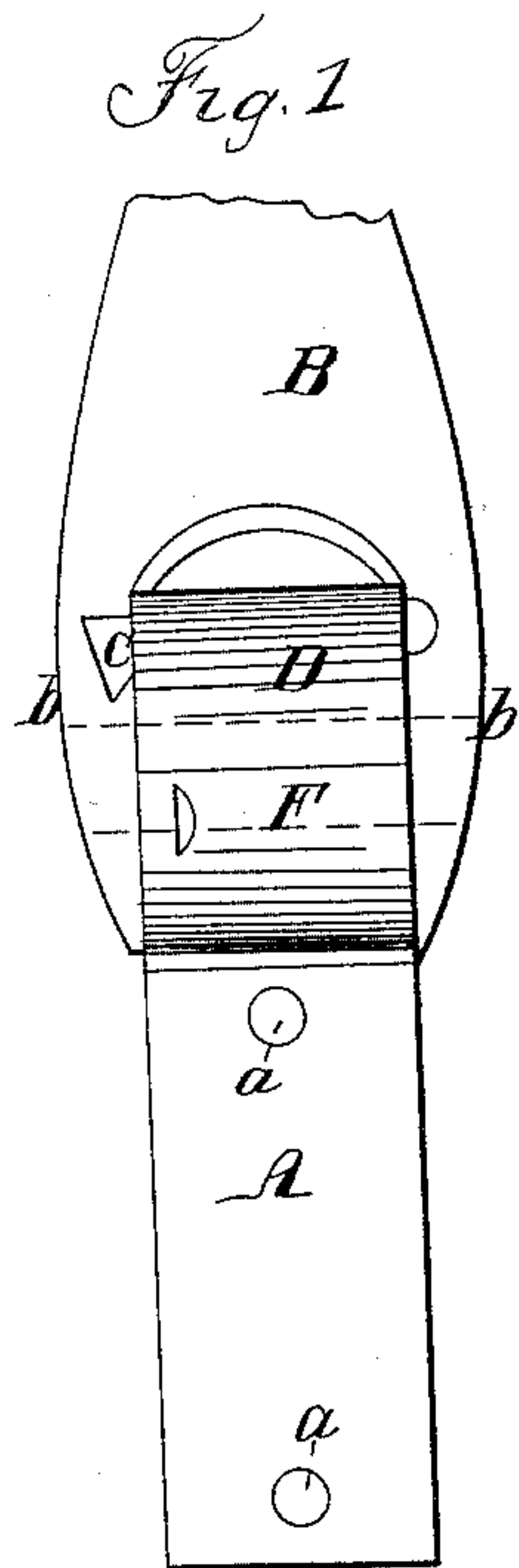


S. MILLS.
Thill-Coupling

No. 61,230.

Patented Jan. 15, 1867.



Witnesses

Edward H. Knight
Chas. Q. Smith

Inventor

Simon Mills
per Munroe
Attorneys

United States Patent Office.

SIMEON MILLS, OF MADISON, WISCONSIN.

Letters Patent No. 61,230, dated January 15, 1867.

IMPROVEMENT IN CARRIAGE THILL-COUPLING.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, SIMEON MILLS, of Madison, in the county of Dane, and State of Wisconsin, have invented a new and improved Thill-Coupling; and I do hereby declare the following to be a full, clear, and exact description of the same, sufficient to enable one skilled in the art to which the invention appertains to make use of it, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a top of the coupling and draw-bar, the clip being removed.

Figure 2 is a longitudinal section through the thill-coupling.

Figure 3 is a side view of the coupling.

The socket to which the thill is attached is solid, with the exception of the slot which admits the pivot. The socket may be attached to the draw-bar or to the clip. The slide which closes the slot, through which the pivot enters, is fastened in position by the end flanges of the thill-iron.

In the drawings, A is the draw-bar of the socket, with holes *a a* for the insertion of the bolts at the ends of the clip. B is a thill-iron, whose flanges, *b b*, are united by a pivot, C, which occupies a central position in the socket D, (the leather or other packing, E, between the pivot and the interior of the socket, preventing rattling.) The flanges *b b*, which embrace the ends of the socket A, are of the same diameter therewith and make a neat finish. There is a notch, *e*, in one of the flanges of the thill-iron which permits the passage of the slide F, which occupies the opening or slide in the socket. There is only one position of the thill-iron in which the slide can be placed or displaced, and this is when the thills are elevated, a position which they will not accidentally assume. In this position, the pivot of the thill being placed in the socket, the pad G is placed in and the slide slipped through the notch in the flange *b* of the thill-iron. The thills are then lowered to their normal or usual position; and the edge of the flange *b* prevents the accidental removal of the slide.

This is intended as a substitute for the common bolt and nut, and also for some other substitutes which are not so simple or secure.

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

1. The socket D formed solid, with the exception of the slot for the pivot, substantially as described, whether fastened to the draw-bar or clip or an axle band.
2. The combination of the solid socket D, slide F, and flanges *b b* on the thill-iron.

SIMEON MILLS.

Witnesses:

SOLON C. KEMON,

R. C. WEIGHTMAN.