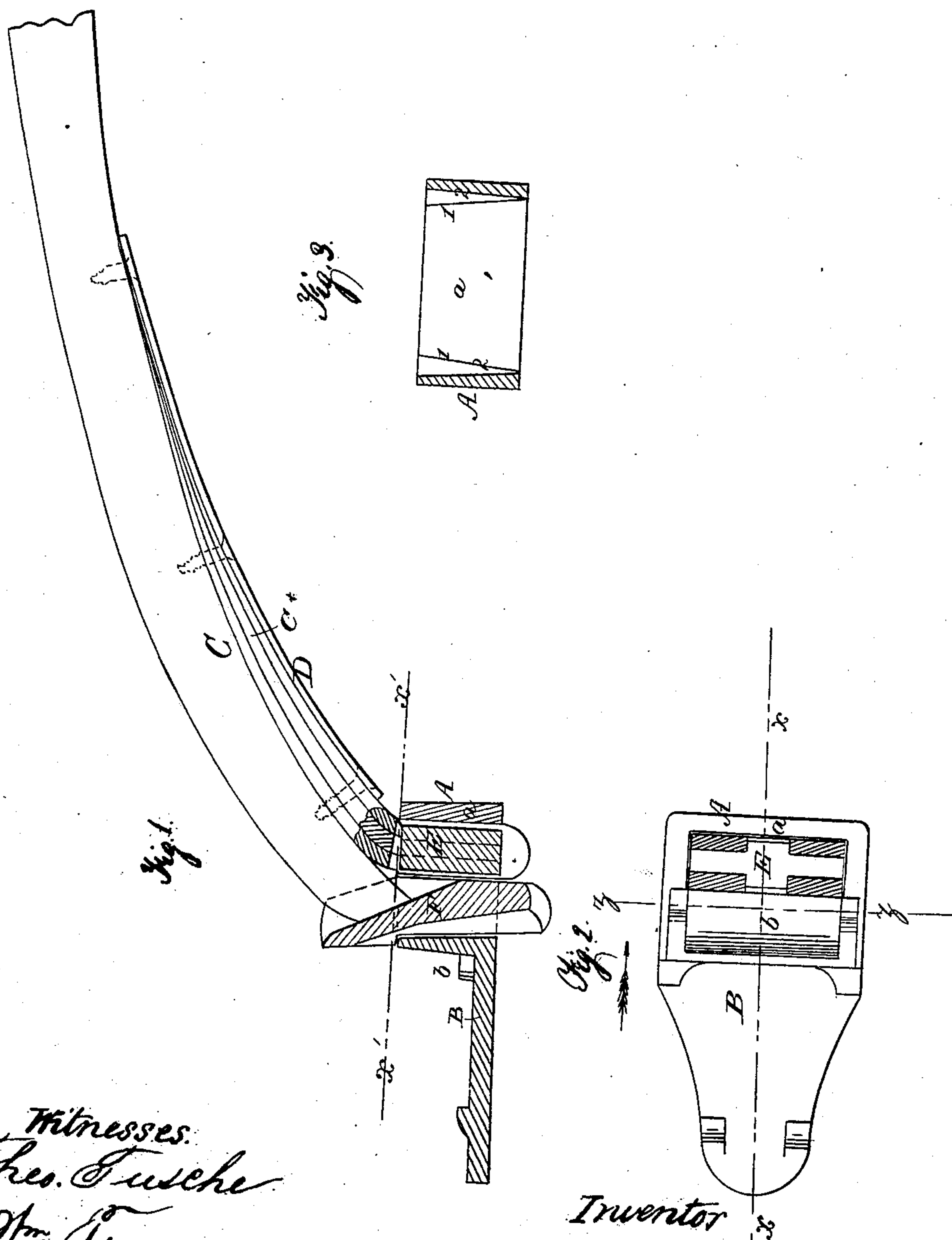


J. P. COLLINS.  
Thill Coupling.

No. 71,705.

Patented Dec. 3, 1867.



Witnesses:  
Thos. Fische  
Wm. Brown

Inventor  
J. P. Collins  
Per [Signature]  
Attorneys

# United States Patent Office.

JAMES P. COLLINS, OF TROY, NEW YORK.

*Letters Patent No. 71,705, dated December 3, 1867.*

## IMPROVEMENT IN 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, JAMES P. COLLINS, of Troy, in the county of Rensselaer, and State of New York, have invented a new and improved Thill-Coupling; 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 make and use the same, reference being had to the accompanying drawings and to the letters of reference marked thereon.

This invention relates to a new and improved mode of securing thills to axles, whereby a very strong and durable connection is obtained, and one which will admit of the thills being very readily attached to and detached from the axle, all play and rattle avoided, and casual detachment of the thills avoided. In the accompanying sheet of drawings—

Figure 1 is a side sectional view of my invention, taken in the line *x x*, fig. 2.

Figure 2, a horizontal section of the same, taken in the line *x' x'*, fig. 1.

Figure 3, a section of a socket pertaining to the same, taken in the line *z z*, fig. 2.

Similar letters of reference indicate like parts.

A represents a metallic socket, which is formed at one end of a plate, B, through which the ends of a clip pass, which secures the plate to the axle. This socket A has its interior composed of two different parts or compartments *a b*. The part *a* has inclined or dove-tail sides designated by 1 1, but the part or compartment *b* has vertical sides designated by 2 2, (see fig. 3.) C represents the rear end of a thill, which is curved as usual, and has a strip of leather or other suitable flexible material, C<sup>x</sup>, double, and secured to its under side; a metal plate, D, being nailed or screwed to its under side, the nails or screws passing into the thill, and the looped end projecting beyond the end of the thill to receive a metal plate, E. This looped end, with its metal plate, is fitted in the part or compartment *a*, the ends of the plate being inclined to correspond to the inclination of the sides 1 1. This looped end is secured in the part or compartment *a* of the socket A by means of a metal key or wedge F, which is fitted in the part or compartment *b* of the socket, and this key or wedge is retained in the socket by the end of the thill, which, when the horse is harnessed, is elevated sufficiently to prevent the key or wedge rising out from the socket. This will be fully understood by referring to fig. 1. When, however, the thills are down, their outer ends resting on the ground, the inner end of the thill will be sufficiently far in front of the key or wedge to admit of the latter being raised out from the socket and the loop removed therefrom.

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

1. The connecting of the thills of a vehicle to the axle thereof by means of any suitable flexible material, substantially as and for the purpose specified.

2. The socket A, provided with the two internal parts or compartments *a b*, in connection with the key or wedge F and the looped end of the flexible material C<sup>x</sup>, provided with the metal plate E, and secured to the under side of the thill C, all arranged substantially as and for the purpose set forth.

JAMES P. COLLINS.

Witnesses:

WM. F. McNAMARA,  
ALEX. F. ROBERTS.