

(No Model.)

2 Sheets—Sheet 1.

A. J. ROBINSON.
THILL COUPLING.

No. 465,144.

Patented Dec. 15, 1891.

Fig 1.

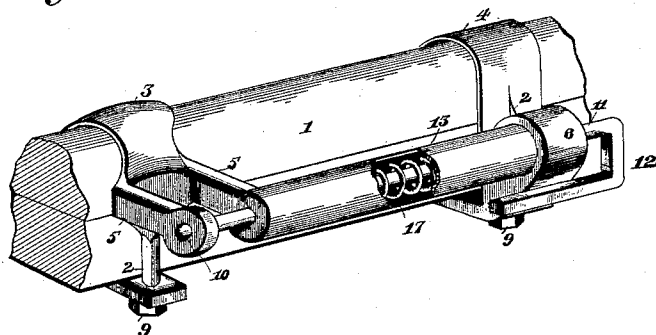
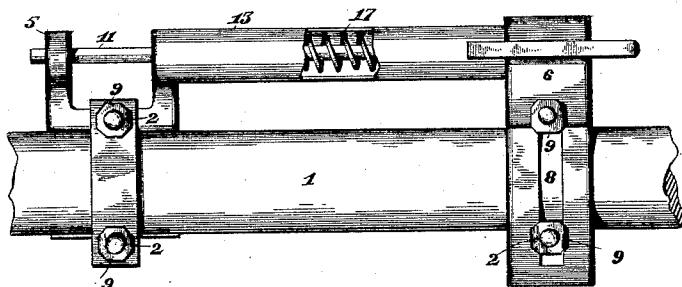


Fig 2.



Witnesses

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Fig 3.

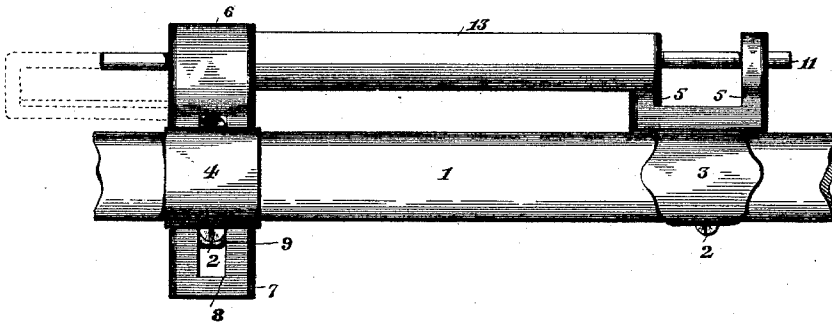
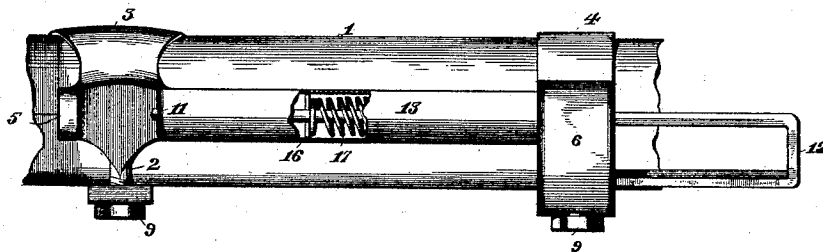


Fig 4.



Witnesses

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UNITED STATES PATENT OFFICE.

ANDREW JAMES ROBINSON, OF GLASSTON, NORTH DAKOTA.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 465,144, dated December 15, 1891.

Application filed August 29, 1891. Serial No. 404,156. (No model.)

To all whom it may concern:

Be it known that I, ANDREW JAMES ROBINSON, a citizen of the United States, residing at Glasston, in the county of Pembina and State of North Dakota, have invented certain new and useful Improvements in Thill-Couplings; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to certain new and useful improvements in thill-couplings; and it consists in the novel construction and arrangement of parts hereinafter fully described, and afterward definitely pointed out in the claim, due reference being had to the accompanying drawings, forming a part of this specification, wherein—

Figure 1 is a perspective view of my improved thill-coupling, a portion of the axle being shown. Fig. 2 is a bottom plan view thereof. Fig. 3 is a top plan view, and Fig. 4 is a front elevation showing the coupling in an open condition.

Referring to the drawings, the number 1 indicates the forward axle constructed in the usual manner, and about which are secured, by means of bolts 2, the clips 3 and 4, each of which are furnished with ears 5 and 6, the ears 5 of the clip 3 being sufficiently far apart to receive the end of a thill, as will more fully hereinafter appear. The bottom member 7 of the clip 4 extends in front and rear of the axle 1, and is provided with an elongated slot 8, through which the threaded ends of the clip 4 extend, and are secured therein by means of nuts 9. The ears 5 and 6 are perforated, as at 10, within which perforations slides a bolt 11, having its inner end 12 bent upwardly and then outwardly again, parallel with the main portion of the bolt 11, for the purpose hereinafter described.

13 indicates a tube disposed between the ears 5 and 6, and preferably formed integral with the draw-clip.

At a suitable point within the bolt 11 is inserted a key 16, and between said key and the ear 6 of the clip 4 and encircling the bolt 11 is arranged a spiral spring 17, which con-

stantly exerts a force to move said bolt outward. This spring is entirely inclosed within the tube 13, the latter serving to protect the spring against breakage, and also prevents any portion of the harness or the tail of the draft-animal from becoming entangled therein.

The operation of my improved thill coupling is as follows: In applying the couplings to the axle the clip 3 is first bolted to the axle, and next the clip 4 and the other parts are fitted thereto, and the bottom member 7 of the clip 4 adjusted to the proper position to bring the perforated ears 5 and 6 into alignment, in order that the bolt 11 may slide truly and easily therein. When it is desired to attach the thills, the bolt 11 is withdrawn until its outer extremity clears the space between the ears 5, and said bolt is then turned until the tail 12 thereof is in a position to bear against the perforated ear 6 of the clip 4, when it will be held in its withdrawn or open position. The thills having been inserted within the ears 5 of the couplings, the bolts are turned sufficiently to permit the springs to force them through the ears 5 and the thills, said springs serving to lock the thills in position until removed by hand.

The coupling constructed as above described is adapted to be applied to any ordinary axle, and does not require to be specially fitted to the axle.

Having described my invention, what I claim is—

In a thill-coupling, the combination, with clips provided with perforated ears, of a spring-actuated bolt sliding within said ears and provided with a tail bent outwardly and then inwardly parallel with the bolt, the end of said tail being adapted to bear against the opposing face of the adjacent ear when the bolt is withdrawn, substantially as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

ANDREW JAMES ROBINSON.

Witnesses:

ARCHIBALD GLASS,
I. V. LEIFUR.