

(No Model.)

D. B. McCAPES.  
THILL COUPLING.

No. 534,121.

Patented Feb. 12, 1895.

Fig. 1.

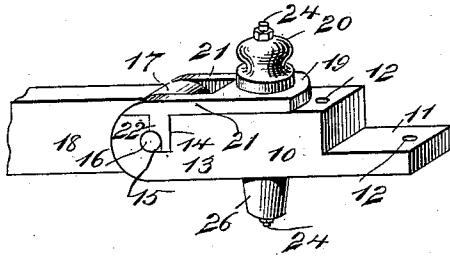


Fig. 2.

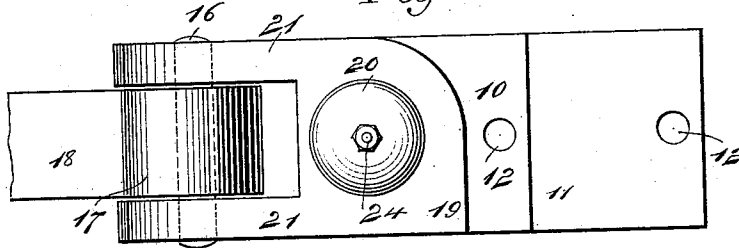


Fig. 3.

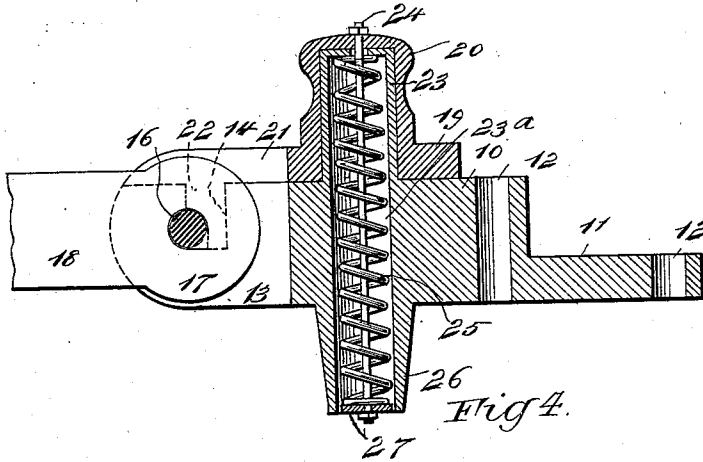
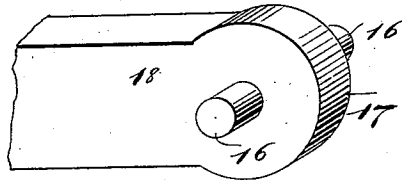


Fig. 4.

WITNESSES:  
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# UNITED STATES PATENT OFFICE

DELBERT B. McCAPES, OF VERMILLION, SOUTH DAKOTA.

## THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 534,121, dated February 12, 1895.

Application filed April 25, 1894. Serial No. 508,982. (No model.)

*To all whom it may concern:*

Be it known that I, DELBERT B. McCAPES, of Vermillion, in the county of Clay and State of South Dakota, have invented a new and Improved Thill-Coupling, of which the following is a full, clear, and exact description.

My invention relates to improvements in thill couplings such as are used for fastening carriage thills or poles to the axle of a vehicle; and the object of my invention is to produce a cheap and simple fastening of this character, which may be easily applied to the axle of a vehicle and to the thill or pole, which holds the thill or pole in such a way that it cannot accidentally become displaced, which also prevents rattling, and which can be easily released when desired.

To these ends my invention consists of certain features of construction and combinations of parts, which will be hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a perspective view of the thill coupling embodying my invention. Fig. 2 is a plan view of the same. Fig. 3 is a longitudinal section thereof; and Fig. 4 is a broken perspective view of the coupling end of the thill iron.

The coupling is provided with a body 10 which is adapted to be fastened by means of the usual clip to a carriage axle and which, for this reason, is reduced at its rear end, as shown at 11, to enable it to be shouldered against the axle and it is also pierced by holes 12 to receive the clip. At its front end it has parallel forwardly-projecting arms 13 which hold the thill iron between them, these arms being recessed at the top, as shown at 14, and having, opening from the front lower portion of these recesses, bolt holes 15 which are adapted to receive the bolts or trunnions 16 formed integral with the knuckle 17 of the thill iron 18, which is of the usual kind. The object of having the trunnions formed integral with the knuckle is to guard against the loss of the coupling bolt.

The top of the body is partially covered by a cap 19 which has on its top a hollow thumb piece 20 and which has also forwardly pro-

jecting arms 21 adapted to lie on the arms 13, these arms 21 having on their under sides lugs 22 which enter the recesses 14 in the arms 13 and are concave at their lower front corners so as to fit snugly on the trunnions 16 and hold the latter in place. The cap 19 and thumb piece 20 fit on a hollow guide 23 which projects upward from a vertical bore 23<sup>a</sup> to the cap 19, and extending downward through the thumb piece, the guide and the bore is a guide rod 24 having nuts at the ends, this rod being encircled by a spiral spring 25 which projects downward through the cap and into a socket 26 on the under side of the body. The upper end of the spring presses against the top of the guide 23 and the lower end against a plunger 27 which moves in the socket 26 and is held in place by a nut on the rod.

The tension of the spring 25 holds the cap 19 in place, so as to prevent the displacement of the lugs 22, but if it is desired to remove the knuckle 17 from between the arms 13 the thumb piece 20 is raised against the tension of the spring 25, the plunger 27 moving meanwhile upward into the bore of the cap 19, and when the lugs 22 are removed from the recesses 14 the cap 19 may be turned to one side so as to completely uncover the said recesses and permit the easy removal of the trunnions 16 and the knuckle 17.

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

1. A thill coupling comprising a body provided with parallel arms recessed in their upper edges to receive the trunnions on the thill iron, the said body being provided with a vertical bore, a vertically and horizontally movable cap on the top of the said body, and provided on its upper side with a thumb piece by which it may be raised and turned a rod extending downwardly from the cap and provided at the lower end with a head or plunger, and a spiral spring encircling the rod within the said vertical bore and bearing at its lower end on the said head to hold the cap down on the body, substantially as described.

2. A thill coupling comprising the body provided with parallel arms recessed in their upper edges to receive the trunnions on the thill iron, the body being provided with a vertical

bore and an integral tubular extension on its upper side having an aperture in its top, a cap closing said recesses in the body and having a tubular thumb piece on its upper side  
5 sliding and turning on the said tubular extension, a rod extending from the thumb piece down through the aperture into said bore and there provided with a head or plunger, and a spiral spring encircling the rod within said

bore and bearing at its upper end against the top of the tubular extension and at its lower end bearing on the said head or plunger, substantially as described.

DELBERT B. McCAPES.

Witnesses:

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HANS J. SMITH.