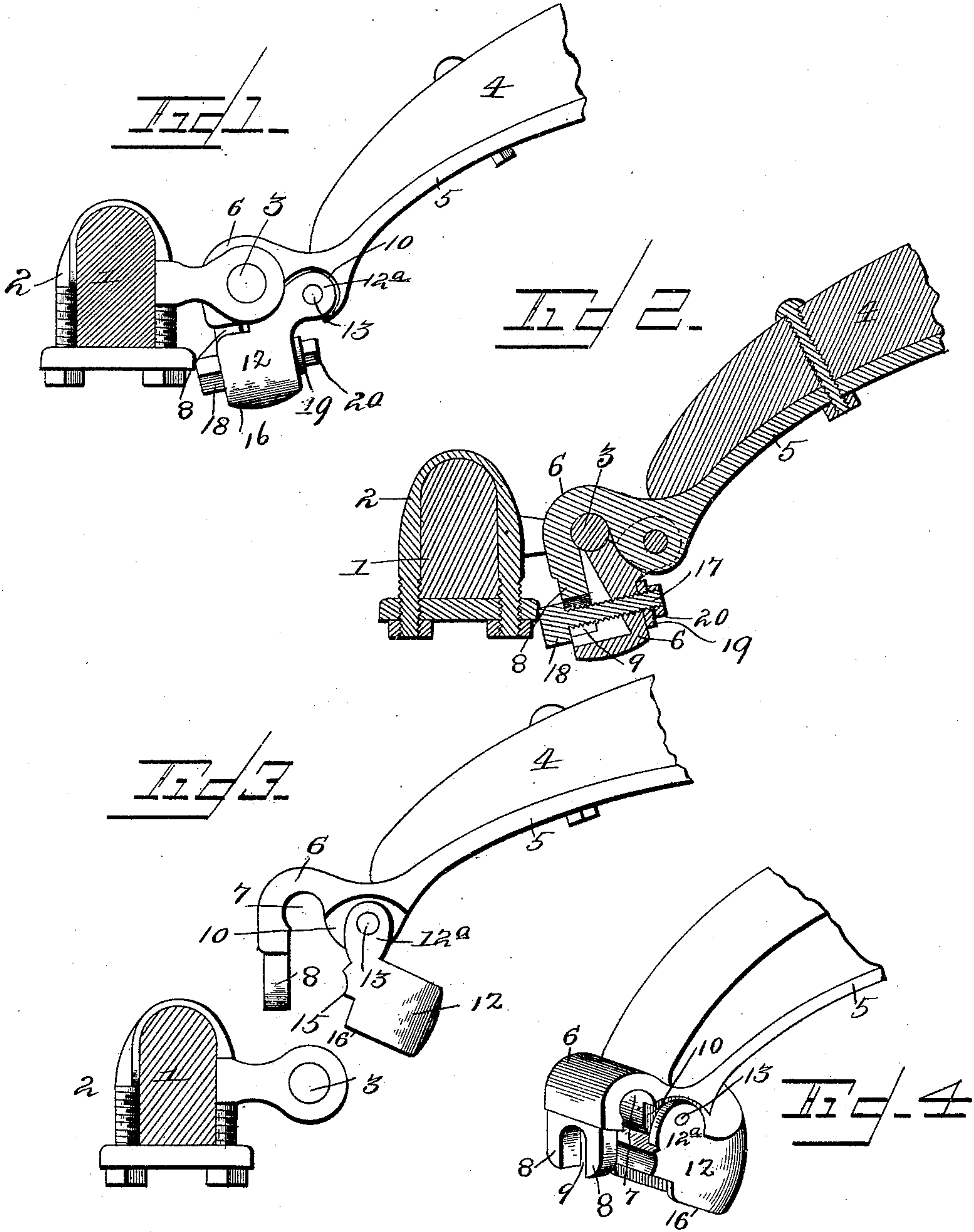


(No Model.)

T. H. PRUNER.  
THILL COUPLING.

No. 486,410.

Patented Nov. 15, 1892.



WITNESSES:

*F. L. Curand*  
*H. L. Coombs*

INVENTOR:

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*By Louis C. Capper, Jr.,*  
ATTORNEYS.



# UNITED STATES PATENT OFFICE.

THOMAS H. PRUNER, OF SIOUX FALLS, SOUTH DAKOTA, ASSIGNOR OF ONE-HALF TO MELVIN GRIGSBY AND FRANK FORDE, OF SAME PLACE.

## THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 486,410, dated November 15, 1892.

Application filed January 30, 1892. Serial No. 419,807. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS H. PRUNER, a citizen of the United States, and a resident of Sioux Falls, in the county of Minnehaha and State of South 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, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to improvements in thill-couplings, the object being to provide a cheap and economical construction of the same, whereby the shafts of a buggy or other vehicle can be readily connected with the axle without liability of their becoming accidentally disengaged, but which may be easily removed when desired, and also preventing rattling of the coupling.

The invention consists in the novel construction and combination of parts herein-  
after fully described and claimed.

In the accompanying drawings, Figure 1 is a side elevation of a thill-coupling constructed in accordance with my invention. Fig. 2 is a central longitudinal section of the same. Fig. 3 is an elevation of a thill-coupling, showing the same open ready to be connected with the axle-clip. Fig. 4 is a detail perspective view.

In the said drawings, the reference-numeral 1 designates the axle of a buggy or other vehicle, and 2 the clip, which may be of any ordinary construction, provided with the usual pivot-bolt or pin 3.

The numeral 4 denotes the shafts, and 5 the thill-iron connected therewith. This thill-iron is formed with a curved jaw 6, having a semicircular recess 7, and is provided at its end with a downwardly-projecting inclined extension 8, having a slot 9. The jaw is also provided with a lug 10, which is embraced by the lugs 12<sup>a</sup> of the lower jaw 12, which lugs are pivoted to the lug 10 by means of pivot-pins 13. This lower pivoted jaw is provided with an upward projection 15, which when

the coupling is closed bears against the pivot-bolt of the clip and holds the latter in the recess in the upper jaw 6. The outer end of the lower jaw is recessed, as seen in Fig. 4, having a projecting flange 16, which fits over the extension 8 when the coupling is closed. Passing through a screw-threaded aperture in the jaw 6 is a threaded bolt 17, having a head 18, a washer 19, and a nut 20.

The operation is as follows: To open the jaws, the bolt 17 is unscrewed, so that the head thereof will be out of contact with the extension 8, when the pivoted jaw 12 can be turned upon its pivot, so as to open the same, as seen in Fig. 3. The jaw 6 is then engaged with the pivot-pin of the clip and the jaw 12 closed, the said pivot-pin being clamped between jaw 6 and the projection 15 of the jaw 12 and the bolt 17 resting in the slot in the extension 8. This bolt is then screwed up until the head thereof comes into close contact with said extension, which will securely hold the jaws 6 and 12 in their closed position. There is also no possibility of any rattling of the coupling.

From the above it will be seen that the thills can be readily connected with the clip and securely held thereto, and which can be disengaged therefrom when desired with ease and facility.

Having thus described my invention, what I claim is—

In a thill-coupling, the combination, with the axle and the clip having a pivot-bolt, of the thill-iron having a jaw with a semicircular recess, an inclined extension provided with a slot, a jaw pivoted to said thill-iron, having an outwardly-projecting flange, an upwardly-extending projection, a screw-threaded aperture, and a headed bolt having a washer and a nut, substantially as described.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

THOMAS H. PRUNER.

Witnesses:

HENRY W. PALM,  
CHARLES J. SKINNER.