No. 873,299. PATENTED DEC. 10, 1907.

R. F. CORNEIL.

THILL COUPLING.

APPLICATION FILED JULY 9, 1907.

2 SHEETS—SHEET 1.

Fig. 1.

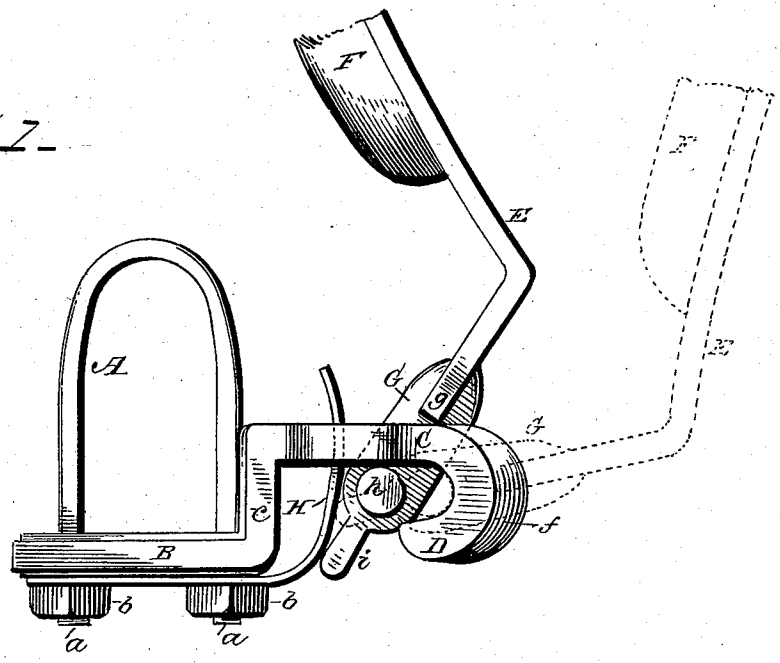
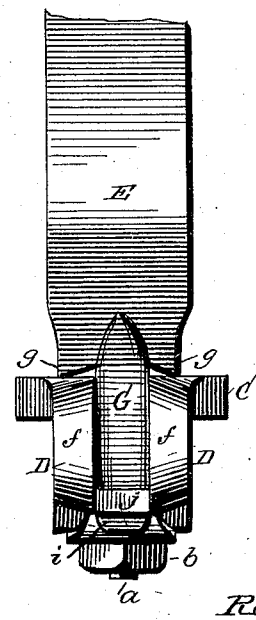


Fig. 2.



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2 SHEETS—SHEET 2

Fig. 3.

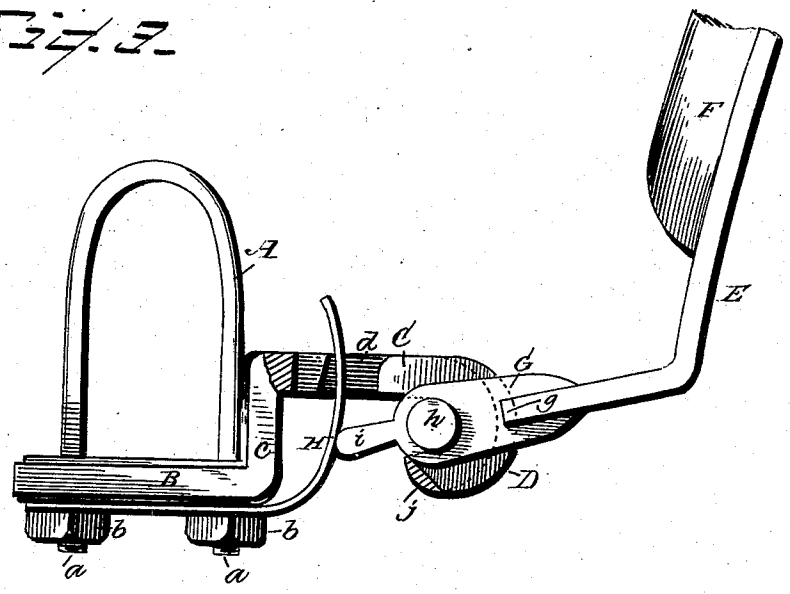


Fig. 4.

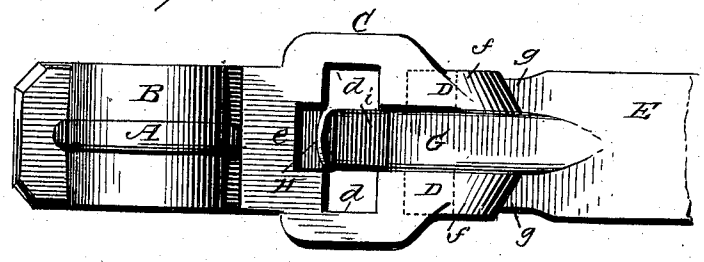


Fig. 5.

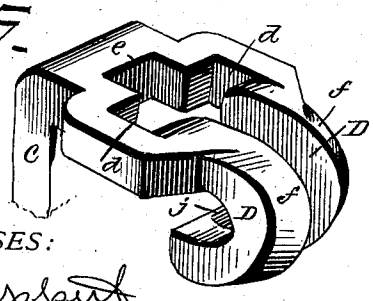
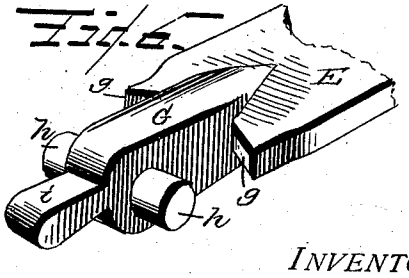


Fig. 6.



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UNITED STATES PATENT OFFICE.

ROBERT F. CORNEIL, OF PHILIPSBURG, MONTANA.

THILL-COUPLING.

No. 873,299. Specification of Letters Patent. Patented Dec. 10, 1907.

Application filed July 9, 1907. Serial No. 382,822.

To all whom it may concern:

Be it known that I, ROBERT F. CORNEIL, citizen of the United States, residing at Philipsburg, in the county of Granite and State of Montana, having invented certain new and useful Improvements in Thill-Couplings, and do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

The present invention has reference to anti-rattling thill couplings and the object thereof is to improve such device in the several details of construction whereby strength and durability are obtained as well as rendering the same simple and effective in its several operating parts; the draft-pin acting as a fulcrum by bearing against the under side of the bracket of the coupling when the thill-iron is raised in an upright position and the shoulders of the thill-iron bearing down upon the upper side of the bracket, the thill will be held in a rigid upright position when not in use and also enabling the shaft or thill-iron to be readily and quickly detached from or replaced in the coupling as desired.

The invention consists in a thill-coupling constructed substantially as shown in the drawings and hereinafter described and claimed.

Figure 1 of the drawings is a side elevation of a thill-coupling constructed in accordance with my invention, the thill-iron being shown in an upright position when not required for use and in dotted lines the iron is shown in position for use. Fig. 2 is an end view of Fig. 1. Fig. 3 a side elevation partly in section showing the thill iron lowered in position for use. Fig. 4 a top plan view of Fig. 3. Fig. 5 a detail perspective view of the hooked and slotted portion of the bracket. Fig. 6 a detail perspective view of the coupling end of the thill-iron.

In the accompanying drawings A represents the usual yoke which surrounds the axle of the vehicle and has screw-threaded bolts *a* with which engage the clamping nuts *b*, said bolts extending through holes in a clamping plate B and between the under side of this clamping plate and the nuts is a flat spring H, the nuts securely holding the spring in position.

The means herein described by which my improved thill-coupling is connected to the axle of the vehicle may be variously modified or changed without departing from the essential features of the invention.

The clamping plate B has an upright extension *c* and thence extends outwardly horizontally to form a bracket C, said bracket terminating in coupling hooks D which are connected at their ends by a transverse web *j*, as shown in Figs. 2, 3 and 5.

The horizontal bracket C has transverse openings *d* which extend laterally beyond the side wall of the opening between the hooks D, as shown in Fig. 5 of the drawings, and a rear opening *e* on a line with the opening between the hooks forms together with the transverse openings a T-shaped opening through which the upper end of the spring H extends and is allowed to have free play. The T-shaped opening above described communicates with the opening between the hooks D and the outer sides of the hooks are beveled as indicated at *f* for the purpose hereinafter described.

The thill-iron E to which the shaft or thill F is connected in the usual manner, is provided with an extension G having the laterally extending draft or coupling-pins *h*, said extension terminating in a presser-lug *i* of any suitable form and construction that will serve to press against the spring H to prevent the rattling of the thill-iron.

The thill-iron E has inwardly bevel shoulders *g* which operate in connection with the bevel sides *f* of the hooks D are considered of material importance, as in backing up the team the back pressure will come against the bevel shoulders which will minimize the pressure of the rear end of the thill-iron against the spring. The bevel shoulders *g* fitting over the bevel sides *f* of the hooks D, will prevent the bracket C from spreading in case of a side pull or strain, thereby providing a perfect, practical, and safety thill-coupling in which it will be impossible for the thill to become detached or disconnected from its coupling while in use and when not required for use the thills can be thrown up out of the way as shown in full lines of Fig. 1 of the drawings and securely held in such position without the aid of props or other like means.

One of the most valuable and essential features of the invention resides in so constructing the coupling that the thills may be readily held up out of the way without the necessity of resorting to auxiliary means such as props or tying the shafts or thills to

retain them in an upright position, the details of construction whereby such results are obtained having been hereinbefore fully described.

When the thill is brought to an upright position as shown in full lines of Fig. 1 of the drawings, the draft-pin *h* will bear against the under side of the bracket C which will act as a fulcrum thereto while the bevel shoulders *g* will bear down upon the upper side of said bracket thereby securely and rigidly holding the thill in such position without the requirement of any additional means.

When the space is limited for storing the vehicle, the thills or shafts can be instantly detached and pushed back under the vehicle and can be as readily coupled when required for use, providing a thill-coupling possessing many advantages over those in ordinary use.

Having now fully described my invention, what I claim as new and desire to secure by Letters Patents, is:—

A thill-coupling provided with suitable means for attaching it to the axle of a vehicle, said coupling comprising a slotted bracket having hooks with beveled sides and connected at their ends by a transverse web, a thill-iron having an extension with inwardly beveled shoulders to correspond with the bevel on the hooks, coupling-pins upon the extension, a presser-lug thereon, and a spring with which the lug acts, substantially as and for the purpose set forth.

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

ROBERT F. CORNELL.

Witnesses:
J. C. McLEOD,
SUMNER HAUCK.