No. 608,524. Patented Aug. 2, 1898.

J. MORGAN.

ANTIRATTLING THILL COUPLING.

(Application filed Mar. 14, 1898.)

(No Model.)

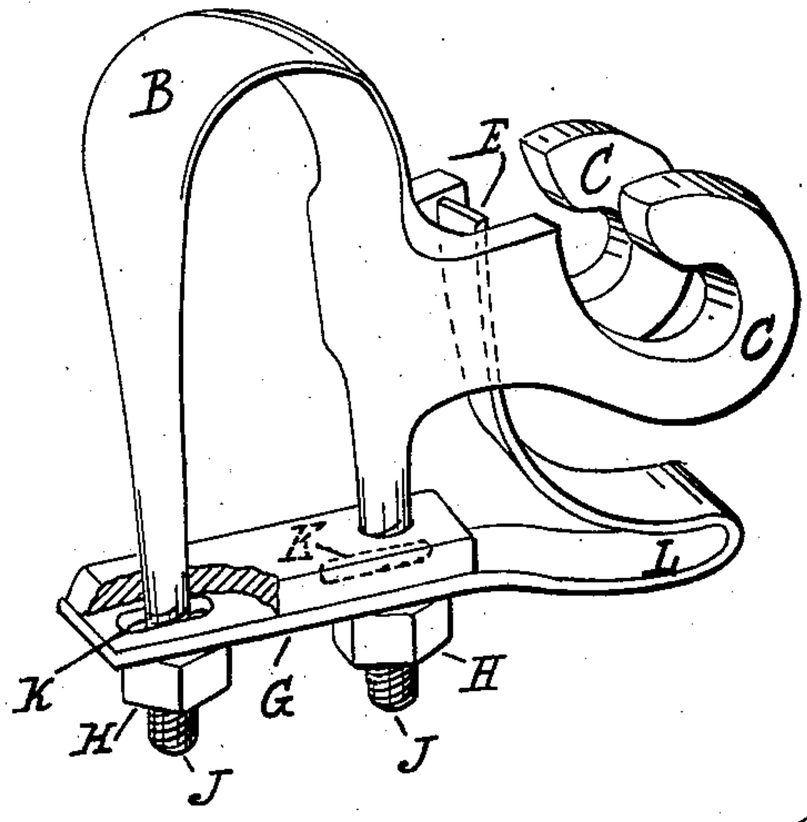

Fig 1

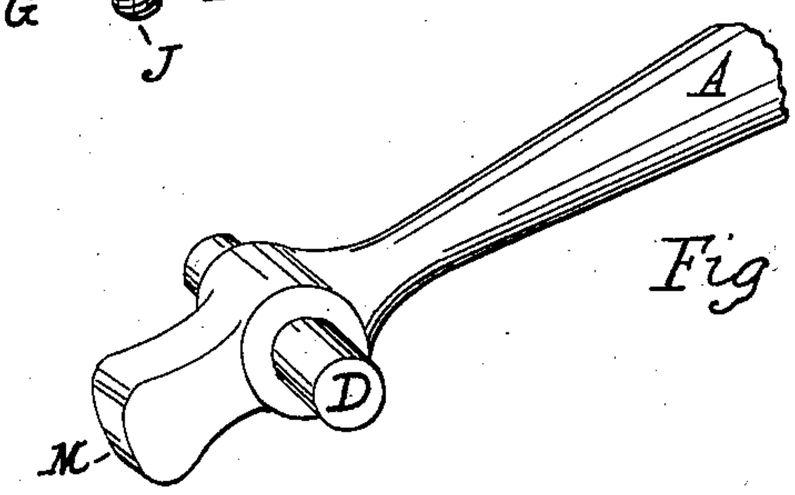

Fig 2

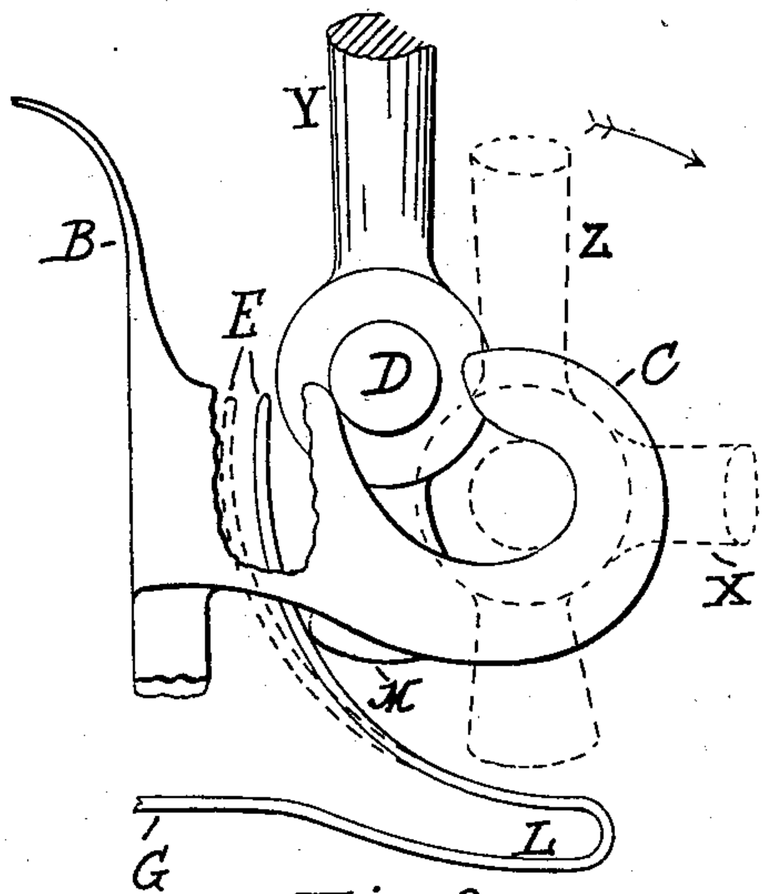

Fig 3

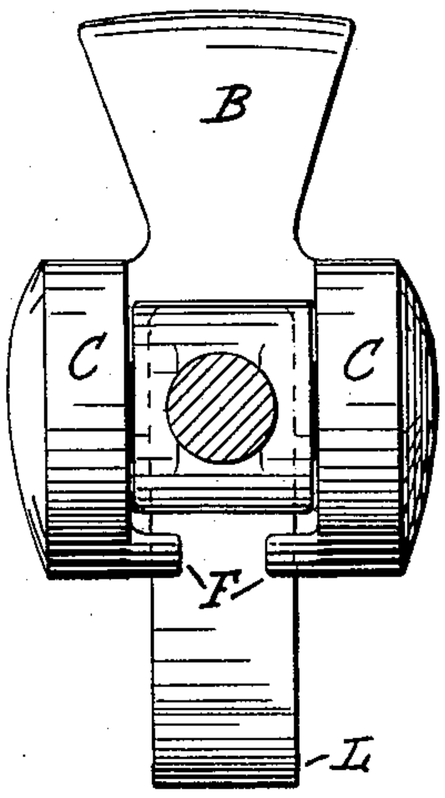

Fig 4

Witnesses
L. D. Barry
O. H. Blakelock

Inventor
James Morgan,
by Wilkinson & Fisher,
Attorneys.

UNITED STATES PATENT OFFICE.

JAMES MORGAN, OF TIMBOON, VICTORIA, ASSIGNOR OF FOUR-FIFTHS TO JULIUS SCHERBER, CARL SCHERBER, ALBERT ERNEST ALFRED SCHERBER, AND FREDERICK SCHERBER, OF SAME PLACE.

ANTIRATTLING THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 608,524, dated August 2, 1898.

Application filed March 14, 1898. Serial No. 673,812. (No model.)

To all whom it may concern:

Be it known that I, JAMES MORGAN, farmer, a subject of the Queen of the United Kingdom of Great Britain and Ireland, residing at Timboon, in the Colony of Victoria, have invented a certain new and useful Improved Antirattling Thill-Coupling; 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.

The object of this invention is to produce a durable simple antirattling coupling the coupling members of which are easy to put into or out of engagement and possess certain novel features.

Referring to the drawings, Figure 1 is a perspective view of the part of the coupling which is attached to the vehicle permanently. Fig. 2 shows the rear part of the detachable thill-iron A in perspective. Fig. 3 is a side elevation of parts of the coupling, showing parts more fully described hereinafter; and Fig. 4 is a front elevation of parts in Fig. 3 when the thill-iron is extended forward horizontally, or nearly so.

B is the clip which surrounds the axle, being fastened by nuts in the usual way.

C are a pair of hooked lugs integral with clip B, projecting forward therefrom, forming sockets for the reception each of an end of the thill cross-pin D. These lugs have a space between them, the rear part of which contains the free and upper end E of a bent spring, while the fore part of the lugs contains the stops or projections F or some similar stop or stops, for the purpose hereinafter mentioned. The fixed and rear end G of the said spring is tightly held by the nuts H, which secure clip B in place, the screwed ends J of the clip passing through longitudinally-elongated slots K in said fixed end G. The intermediate part L of the spring forms a forward extension to a point underneath the pin D when the pin is seen in side elevation, as dotted in Fig. 3.

The rear end M of the thill-iron is rounded and is sufficiently far back from the pin D to force back the spring end E toward the clip (the dotted lines in Fig. 3 show this position) when the thill-iron is horizontal or very considerably out of the vertical; but the said spring at L is so positioned that there is no contact of L with the thill end either when the thill stands vertically or in any other position.

Owing to the mouths of the hooks being comparatively narrow, it is preferable to hold the vehicle-shaft to which the thill is attached vertical, or nearly so, (position Y, Fig. 3,) in inserting it, and then, after letting it slide to position Z, to give it a quarter-turn to position X, in which position the pressure of spring end E on thill end M will prevent all rattle during use; but as there will be wear on the thill end, so varying its length, and as springs will differ in tensional qualities and also deteriorate, while the thill-pin and the parts in frictional contact therewith will also wear, the spring is made adjustable longitudinally by means of the elongated slots K, so that the whole spring can be made at all times effectively antirattling and compensate for the defects liable to arise.

Having described the mode of inserting the thill-iron, its easy disengagement is effected by putting said iron first in about position Z and then with an oblique motion bringing it to position Y and out. To prevent the inclining of the thill-iron backward considerably in the process of disengagement, (as the disengagement would be hampered by any considerable inclination,) the projections or stops F are provided, these being in the path which the rear part of the thill-iron must travel to attain any excessive backward inclination. The said stops are made strong and placed low enough to allow the shaft (not shown) connected to the thill to rest upon the ground when required and forward enough to allow the shaft to stand up when the part M is rested against the stops.

What I claim is—

1. A thill-coupling comprising in combination a thill A having a pin D and rounded end M, a clip B having hooks C with projections F and screwed ends J, and a spring E L G having elongated slots K, all substantially as

and for the purposes described and as illustrated.

2. In a thill-coupling, the combination with a clip for engaging the axle, and a pair of hooks formed rigidly upon one side of said clip and spaced a short distance apart, and provided with a pair of lugs at their bottom extending into said space and partially obstructing the lower portion thereof; of a thill-iron having a cylindrical pin projecting from opposite sides thereof, and having a rounded extension at its rear end, the said extension adapted to enter the space between said hooks and strike said lugs when the thill is raised, and the said pin adapted to engage said hooks; and a bent spring attached to said clip and passing between said hooks and engaging the said rounded extension upon the thill, substantially as described.

In witness whereof I have hereunto set my hand in presence of two witnesses.

JAMES MORGAN.

Witnesses:
G. G. TUNIS,
W. H. CUBLEY.