

(No Model.)

2 Sheets—Sheet 1.

W. H. BROCKSMITH.

ANTIRATTLE ATTACHMENT FOR THILL COUPLINGS.

No. 572,629.

Patented Dec. 8, 1896.

Fig. 1.

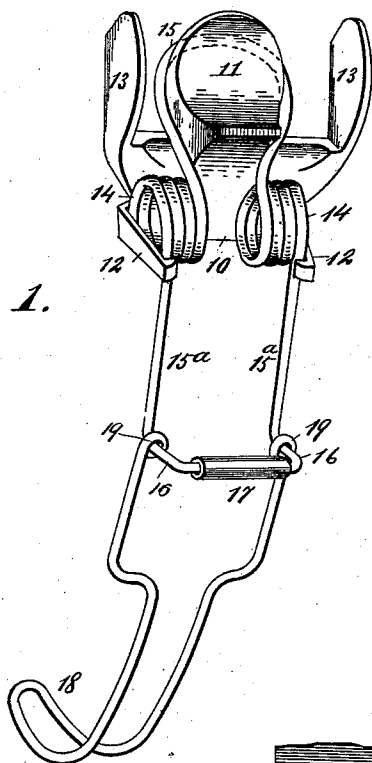
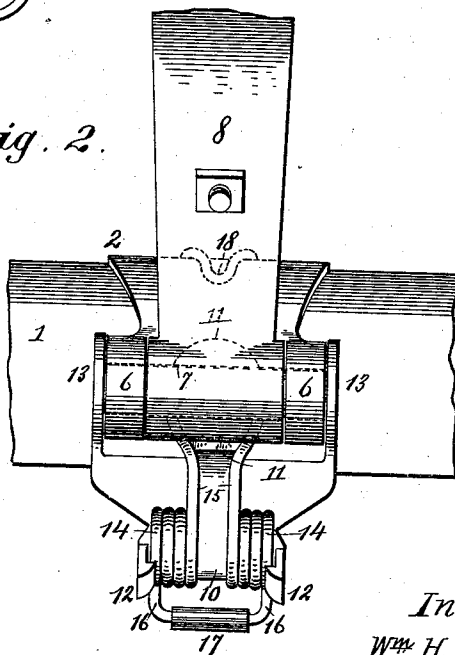


Fig. 2.



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Fig. 3.

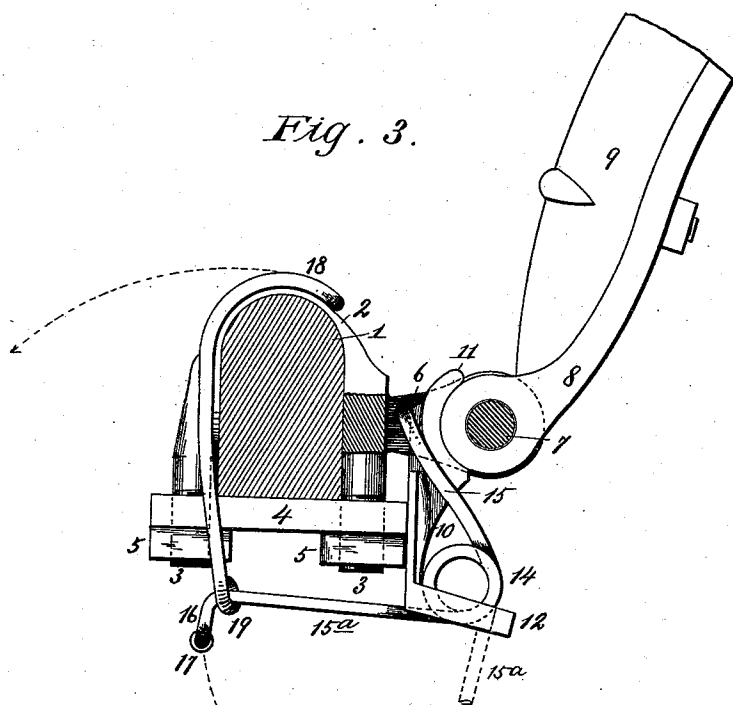
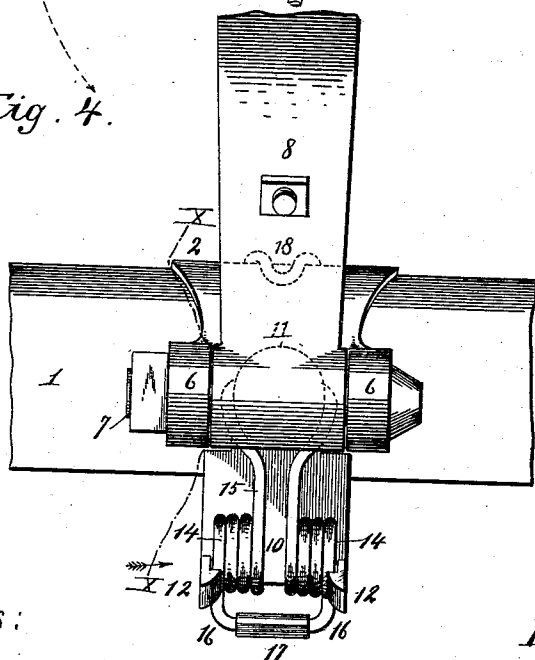


Fig. 4.



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UNITED STATES PATENT OFFICE.

WILLIAM H. BROCKSMITH, OF CARROLLTON, MISSOURI.

ANTIRATTLER ATTACHMENT FOR THILL-COUPPLINGS.

SPECIFICATION forming part of Letters Patent No. 572,629, dated December 8, 1896.

Application filed August 5, 1896. Serial No. 601,807. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. BROCKSMITH, of Carrollton, Carroll county, Missouri, have invented certain new and useful Improvements in Antirattler Attachments for Thill-Couplings, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part thereof.

My invention relates to antirattler attachments for thill-couplings; and it consists in certain novel and peculiar features of construction and combinations of parts, which will be hereinafter described and claimed.

The object of the invention is to produce a coupling of this character which is simple, strong, durable, and inexpensive of construction.

Referring to said drawings, Figure 1 represents a perspective view of my preferred form of thill-coupling. Fig. 2 represents a front view of the same applied in operative position. Fig. 3 represents a cross-section taken on the line *x x* of Fig. 4. Fig. 4 represents a front view of a modified form of thill-coupling arranged as shown in Fig. 2.

Similar reference-numerals designate corresponding parts in all the figures, in which—

1 designates the axle of a vehicle.
2 designates the clip member of the thill-coupling. It embraces the axle in the customary manner, and its depending threaded arms 3 are engaged by the plate 4, bearing against the under side of the axle, and the clamping-nuts 5.

6 designates a pair of forwardly-projecting oppositely-arranged ears or lugs of the customary construction. They are preferably cast integral with the clip in the usual manner and are provided with circular holes or apertures, through which extends the customary bolt or pin 7.

8 designates the thill-iron or socket member of the coupling. At its lower end it is formed with the usual cylindrical head, which is journaled loosely upon the bolt 7 between the ears or lugs 6, and bolted to said thill-iron or otherwise rigidly secured thereto is the corresponding thill or shaft 9.

Referring to the detail construction of the antirattler, 10 designates a plate which is arranged vertically and bears against the front

end or edge of the plate 4. Said plate 10 is extended upwardly to provide the segmental shoe 11, which fits snugly against the correspondingly-curved surface of the eye or socket member of the coupling. At its lower end it is provided with the forwardly-projecting hook-arms 12, and at opposite sides of the shoe extension 11, at a distance apart slightly exceeding the distance between the outer faces of the lugs or ears 6, it is provided with the parallel and vertically-disposed arms 13, which embrace loosely the outer sides of said lugs. This construction, or rather the employment of these arms 13, is found only in my preferred form of attachment. In the other form said arms are dispensed with, for a reason which will be presently explained.

In my preferred form, instead of a bolt 7, as shown in Figs. 3 and 4, provided at one end with a head and at the other with a retaining-nut, I simply use its equivalent in the form of a cylindrical non-threaded pin, as shown in Fig. 2, and said pin is held in its proper position by reason of the fact that the embracing arms 13 prevent its endwise movement.

The spring to hold the shoe extension 11 with a yielding pressure against the eye or socket member 8 consists of a stiff spring-wire, which is bent at a suitable point to form the oppositely-arranged coils 14, which fit between and are embraced by the plate 10 and its hook-arms 12. Said wire is also bent to form the upwardly-extending loop 15, which embraces the opposite sides and rear of said shoe extension. It is also provided with the parallel arms 15^a, which, when the attachment is in operative position, extend rearwardly in an approximately horizontal position, but which, when the coupling is not in operative position, depend about vertically and are limited as to outward or forward movement by engagement with the hook-arms 12, as shown most clearly in Fig. 1. Said arms 15 are also bent at right angles to provide the arms 16 and are then bent inwardly and toward each other and are reinforced and strengthened at such meeting-point by the connecting-sleeve 17.

The arms 16, when the attachment is in operative position, extend downwardly, as shown in Figs. 2 and 3, and to force the lower por-

tion of the spring to such position the connecting-sleeve 17 forms a convenient gripping-point or handle.

18 designates a yoke or hook which is pivotally mounted at one end, as at 19, upon the arms 16. Said yoke is preferably formed of stiff spring-wire bent to the required form.

After the coupling is properly secured the antirattler attachment is arranged first with the plate 10 bearing against the front end or edge of the plate 4 and its shoe extension 11 bearing against the cylindrical eye or socket of the thill-iron. The operator then places his hand upon the sleeve 17 and bends the arms 15^a horizontally to the rear, and holds them in such position until he can swing the yoke or handle 18 pivotally upward and cause it to embrace the upper and curved side of the clip, as shown in dotted lines, Figs. 2 and 4, and full lines, Fig. 3. When in such position, it cannot possibly become accidentally detached, owing to the fact that the tendency of the arms 15^a is to spring downward, and the greater such tendency the tighter will the yoke or hook 18 embrace the clip, and by holding said arms 15^a in such position it is obvious that the loop 15 is held with a firm but yielding pressure against the shoe extension 11, which latter therefore, by its frictional contact with the circular eye or socket of the thill-iron, prevents any rattling of the latter upon the bolt or pin 7, as will be readily understood.

In case it be desired to employ a pole in lieu of the shaft or thill the change can be quickly accomplished by pressing upwardly on the arms 15^a and disengaging the yoke or hook arm from the clip by swinging it rearward. The plate 10 may then be slipped from position, or, rather, will fall from position, and the pin 7 disengaged from the thill-iron, so that the latter may be removed.

When employing the modified form of con-

struction shown in Figs. 3 and 4, which is not provided with the arms 13, to disengage the thill-iron the nut must be unscrewed and the bolt removed in the customary manner.

My preferred form will be found very advantageous upon vehicles which are changed occasionally from a single to a two horse vehicle—that is, where the thills are removed and a pole coupled on in lieu thereof, and vice versa. The modified form is designed particularly for use upon vehicles to be drawn by a single animal only.

From the above description it will be apparent that I have produced a thill-coupling which is positive and reliable in operation and simple, strong, durable, and inexpensive of construction.

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

The combination with a thill-coupling, of an antirattler attachment, consisting of a plate bearing against the front side of the clip member, and provided with forwardly-projecting hook-arms 12, at its lower end, and a segmental shoe extension engaging the socket member, a spring comprising two hinge-coils 14, which rest against said plate and are embraced at their outer sides by the hook-arms 12, a loop pressing forwardly against the shoe extension of the plate, and a loop below the hinge-coils, and a bail, pivotally connected to said last-mentioned loop, and bent to hook form at its opposite end to fit over and engage the rounded top portion of the clip, substantially as described.

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

WILLIAM H. BROCKSMITH.

Witnesses:

E. HANNA,

A. R. BROCKSMITH.