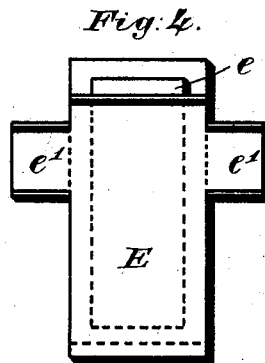
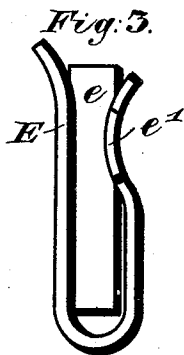
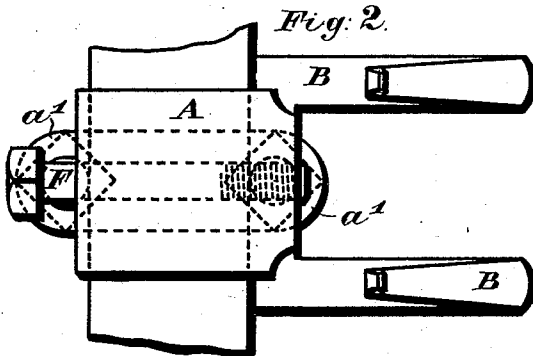
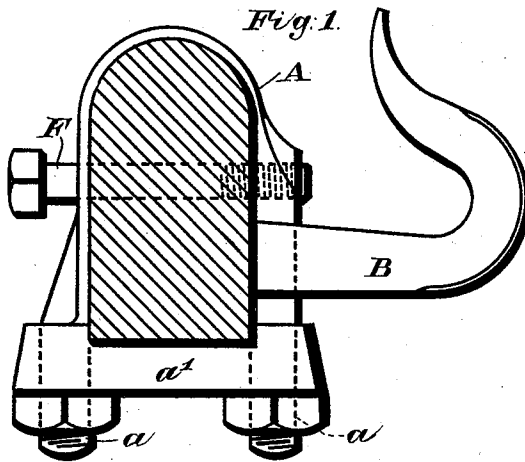


H. PARKINSON.
THILL COUPLING.

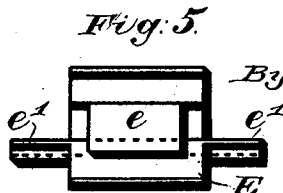
No. 464,164.

Patented Dec. 1, 1891.



Witnesses:
E. R. Bolton
M. A. C. Walsh

Inventor:
Henry Parkinson
 By *Richard A. [Signature]*
 his Attorneys.



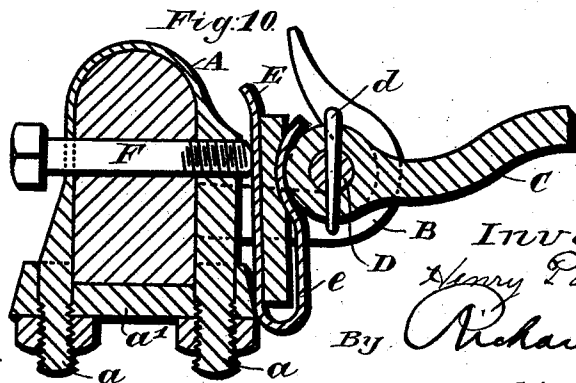
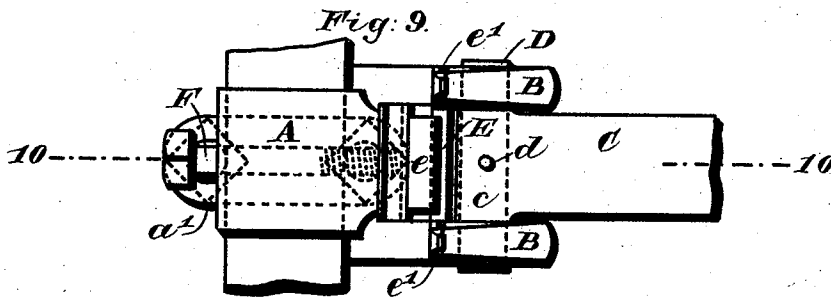
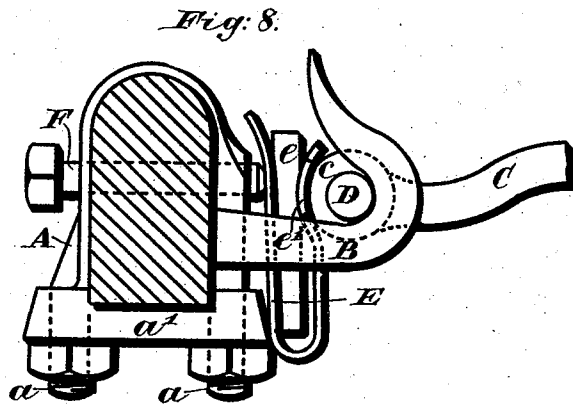
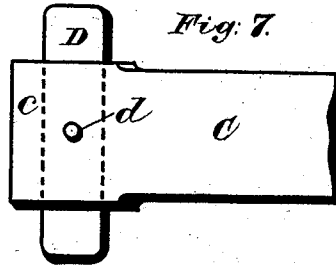
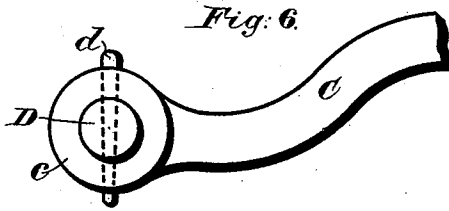
(No Model.)

2 Sheets—Sheet 2.

H. PARKINSON. THILL COUPLING.

No. 464,164.

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Witnesses:
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W. A. C. Walsh

Inventor:
Henry Parkinson
 By *Richard A. [Signature]*
 his Attorneys.

UNITED STATES PATENT OFFICE.

HENRY PARKINSON, OF MAILOR'S FLAT, NEAR WARRNAMBOOL, ASSIGNOR OF ONE-HALF TO WILLIAM HENRY BATEMAN, OF WARRNAMBOOL, VICTORIA.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 464,164, dated December 1, 1891.

Application filed June 20, 1891. Serial No. 396,963. (No model.) Patented in Victoria October 20, 1890, No. 8,178.

To all whom it may concern:

Be it known that I, HENRY PARKINSON, a subject of the Queen of Great Britain, residing at Mailor's Flat, near Warrnambool, in the British Colony of Victoria, have invented an Improved Coupling for Connecting Shafts or Poles to Vehicles, (for which I, in conjunction with William Henry Bateman, stock agent, also a subject of the Queen of Great Britain, residing at Koroit Street, Warrnambool aforesaid, have obtained Letters Patent in the British Colony of Victoria, dated October 20, 1890, No. 8,178,) of which the following is a specification.

This invention relates to those classes of couplings which are employed for connecting shafts or poles to the axles of vehicles. Its object is to provide a simple, inexpensive, and non-rattling coupling with which shafts or poles can be quickly connected to or disengaged from vehicles, and in which the principal wearing part is easily renewable.

It consists in a shaft or pole coupling for vehicles wherein a spring is arranged between the rear end of the shaft-iron and the front of the axle-clip, and a set-screw is passed through the latter to enable said spring to be pressed against said shaft-iron with any required pressure, thereby forcing a pin which passes through the rear end of said shaft-iron against a pair of hooks projecting forwardly from the axle-clip. This pin is so arranged as that it can be easily removed when worn and a new one substituted for it, as will be well understood from the following description, reference being had to my drawings, wherein—

Figure 1 is a side elevation, and Fig. 2 is a plan, of an axle-clip having a pair of hooks projecting from it and a set-screw passing through it. Fig. 3 is a side elevation; Fig. 4, a front elevation; and Fig. 5 is a plan of the spring which, as hereinbefore mentioned, I insert between the front of the axle-clip and the rear end of the shaft-iron. Fig. 6 is a side elevation, and Fig. 7 is a plan, of said shaft-iron, showing the removable pin hereinbefore mentioned passing through a boss on its end. Fig. 8 is a side elevation, and Fig. 9 a plan, of my improved shaft or pole coupling for ve-

hicles, illustrating same with the various parts in their normal or coupled positions. Fig. 10 is a vertical central section on line 10 10, Fig. 9.

Similar letters of reference indicate the same parts in all the figures.

A, Figs. 1 and 2 and 8 to 10, represents a clip, from which project a pair of hooks B B. This clip is provided with clamping-nuts *a a* and a bar *a'*, whereby it can be securely fixed to the axle of the vehicle in the ordinary manner.

C, Figs. 6 to 10, represents a shaft-iron, whose rear end is formed with a boss *c*, through which is passed a pin D, whose ends project beyond the sides of said shaft-iron, as shown, so that said pin may engage with the said hooks B B.

E represents a spring, which is inserted between the face of the axle-clip A and a boss *c* on the rear end of the shaft-iron C after the pin D, passing through the end of this latter, has been placed in engagement with the hooks B B on the axle-clip A.

F represents a set-screw, which is passed through the axle-clip A and the axle of the vehicle from back to front and which bears against the back of the spring E, whereby I am enabled to regulate the pressure of said spring against the boss *c* to any required amount. I prefer to construct said spring E of approximately the shape shown in Figs. 3 and 4—that is, with its upper ends curved outwardly—and I prefer to insert a piece of india-rubber *e* between its two sides in order to increase its strength. Said spring is, moreover, provided with two outwardly-projecting parts *e' e'*, which extend across the hooks B B, and so prevent the spring from falling out of the coupling.

The pin D is retained in position within the boss *c* by a smaller pin *d* passing transversely through it, as shown in Figs. 6 to 10, and riveted over at its ends, so that when the pin D becomes worn it is merely necessary to cut off one of the riveted heads of the small pin *d* and knock it out of the larger pin D to enable the latter to be removed and a fresh one substituted for it, as will be well understood.

The manner of employing my invention is

as follows: The clip A having been secured to the front axle of the vehicle by means of the clamping-bar *a'* and nuts *a*, the set-screw F is drawn back, as illustrated in Figs. 1 and 2, and the pin D, which, as above described, passes through the rear end of the shaft-iron C, is placed in engagement with the hooks B. The spring E is then dropped between the boss *c* and the axle-clip A, and said spring is pressed against said boss by turning the set-screw F to the right with the aid of a spanner or key provided for the purpose. The effect of this is to force the pin D forward against the hooks B, thus effectually preventing any rattle taking place between them. When it is required to remove a shaft or pole from a vehicle, it is merely necessary to slack back the set-screw F and to remove the spring E, when the shaft-iron C may be lifted out of engagement with the hooks B without any further operations being necessary.

Having now particularly described and ascertained the nature of my said invention

and in what manner the same is to be performed, I declare that what I claim is—

In a shaft or pole coupling for vehicles, the combination, with an axle-clip provided with a pair of forwardly-projecting hooks, such as B, and a bar *a'* for clamping said clip to the axle, of a shaft-iron provided with a pin, such as D, projecting from either side thereof so as to engage with said hooks, a pin *d*, passing through pin D and riveted at its ends, a spring, such as E, having its ends outwardly curved and fitted between said axle-clip and the rear end of said shaft-iron, a set-screw, such as F, passing through said axle-clip and bearing against said spring, and a rubber block inserted between the sides of said spring, the whole being constructed and arranged substantially as and for the purpose specified, and as illustrated in my drawings.

HENRY PARKINSON.

Witnesses:

WALTER SMYTHE BAYSTON,
WILLIAM HENRY CUBLEY.