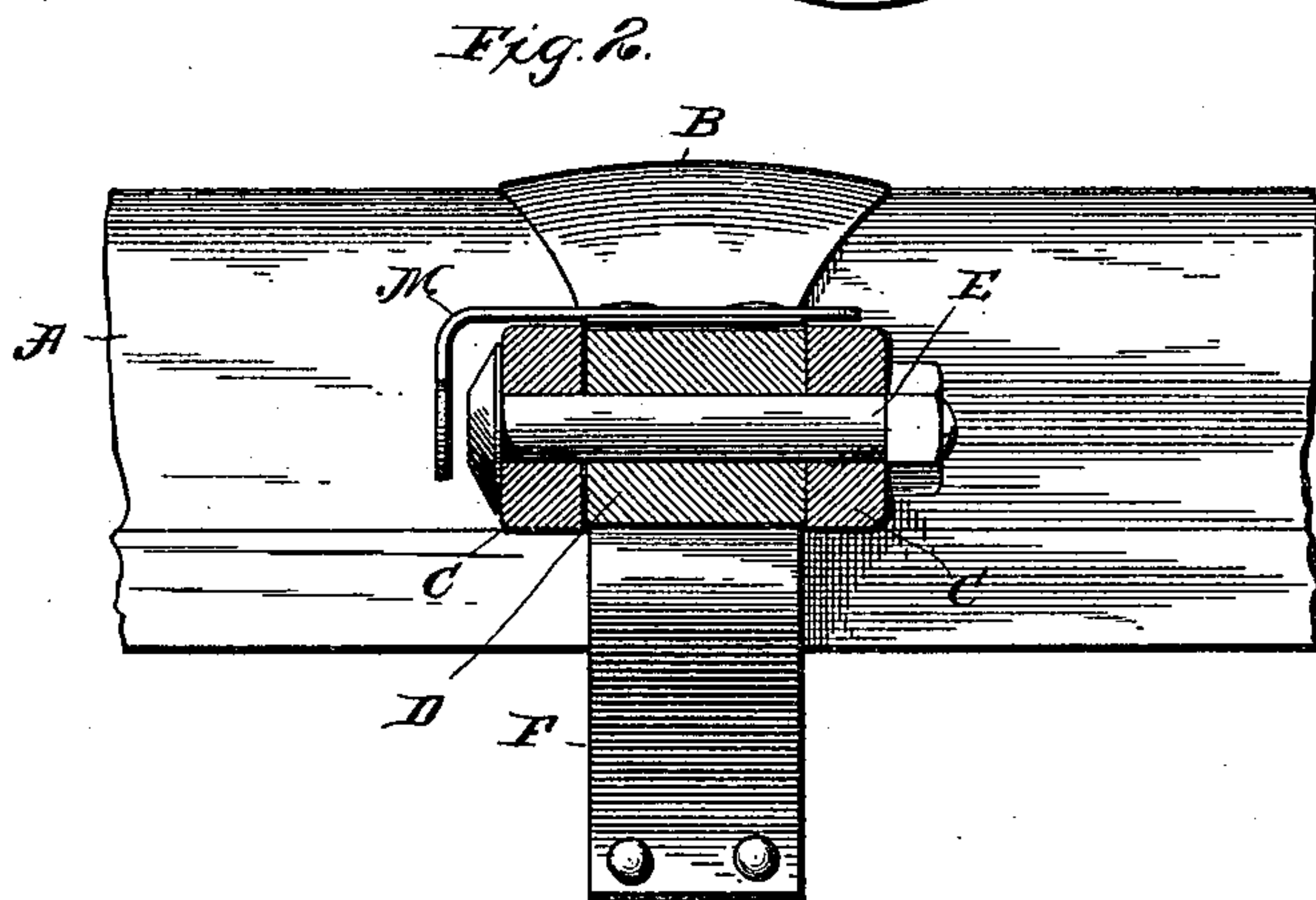
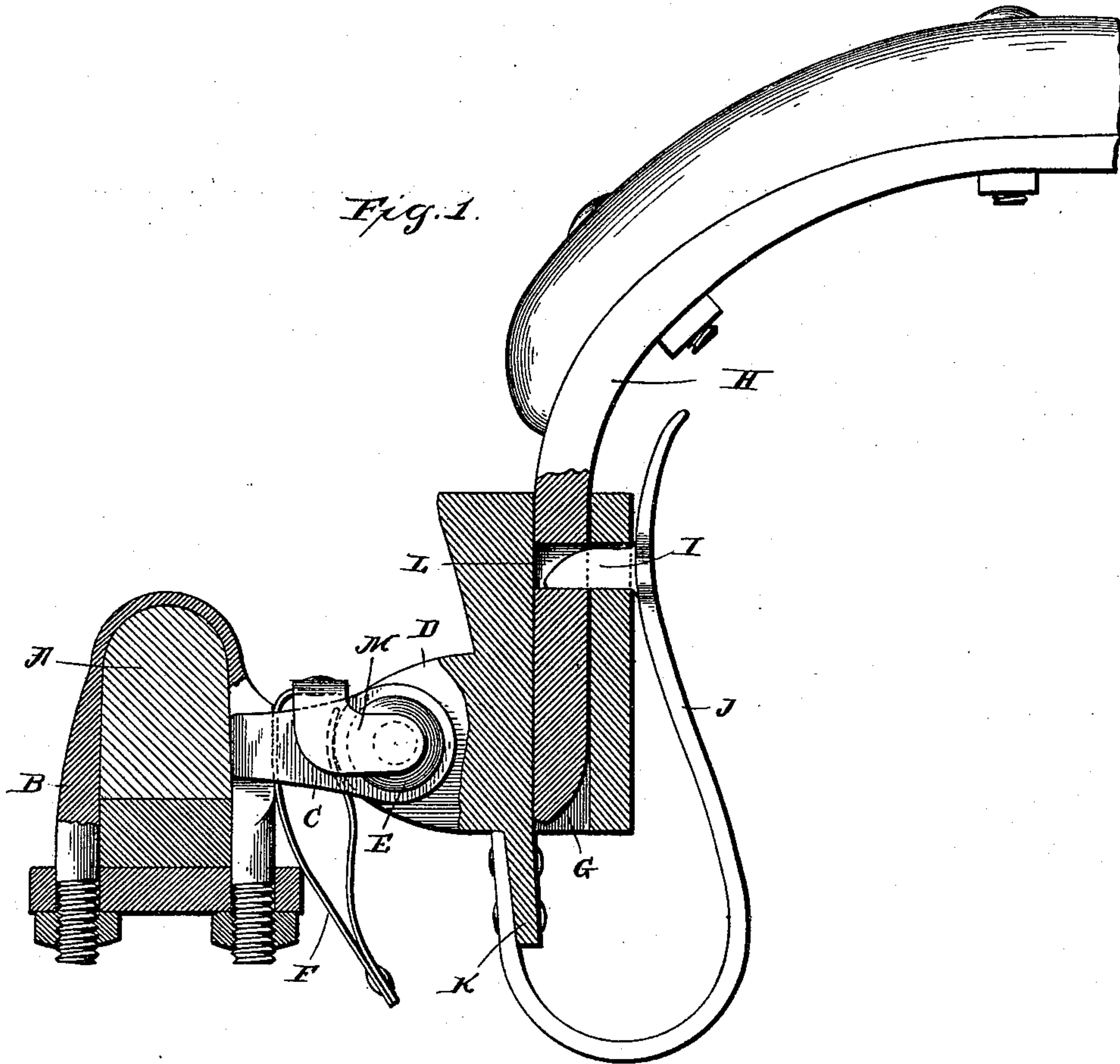


(No Model.)

S. B. ELDER & W. A. MANCHESTER.
THILL COUPLING.

No. 583,593.

Patented June 1, 1897.



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UNITED STATES PATENT OFFICE.

SAMUEL B. ELDER AND WILLIAM A. MANCHESTER, OF WARSAW, OHIO.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 583,593, dated June 1, 1897.

Application filed September 14, 1896. Serial No. 605,734. (No model.)

To all whom it may concern:

Be it known that we, SAMUEL B. ELDER and WILLIAM A. MANCHESTER, citizens of the United States, residing at Warsaw, in the county of Coshocton and State of Ohio, have invented a certain new and useful Improvement in Thill-Couplers, of which the following is a specification.

Our invention relates to a new and useful improvement in thill-couplings for either single or double team vehicles, and has for its object to provide a device of this description which will prevent the usual rattling taking place between the coupling and the clip, and also to provide means for the ready attachment or detachment of the shafts of a single-team vehicle or the pole of a double-team vehicle from the coupling without the removal of the latter, thus greatly facilitating the storing of a vehicle by the quick removal of the shafts or pole, and another object of this invention is to facilitate the detaching of the team from the vehicle should occasion require such, as in case of a runaway.

With these ends in view the invention consists in the details of construction and combination of elements hereinafter set forth and then specifically designated by the claim.

In order that those skilled in the art to which this invention appertains may understand how to make and use the same, the construction and operation will now be described in detail, referring to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a section of our improved coupling, showing the mode of attaching the shaft or pole thereto. Fig. 2 is a transverse section showing the check-strip which prevents the accidental withdrawal of the pivoting-bolt.

In the drawings, A represents the axle of a vehicle, having the clip B secured thereto in the usual manner, and between the ears C of this clip is pivoted the coupling D by means of the bolt E. This coupling is prevented from rattling from the vibration of the vehicle by the spring F, which is so formed as to bear against the clip and the rear portion of the coupling, as clearly shown, thus forcing said coupling forward and causing it to bear at all times upon one side of the bolt, with the consequent result of preventing a to-and-

fro and up-and-down movement of said coupling. This coupling has formed therein a socket G, preferably rectangular in cross-section for the reception of the brace-iron H of the shaft or pole, and when said iron is placed within this socket it is held against withdrawal by the latch I, which latter projects from the spring J. The spring J is secured to an offset K of the coupling and is of sufficient resiliency to maintain the latch I in engagement with the hole L in the brace-iron, from which it will be seen that when a shaft or pole is thus attached to the coupling it will be securely held and permit the drawing of the vehicle by said shaft or pole without liability of detachment; yet when it becomes necessary to remove the shaft or pole the spring J is forced outward, thereby disengaging the latch I from the brace-iron and permitting the removal of the latter. The upper surface of the latch I is beveled and the lower end of the brace-iron is also beveled, so that when said iron is to be inserted within the socket it has only to be forced downward to cam back the latch, thereby automatically bringing about its attachment. It is to be noted that when a pair of shafts are used there are to be two clips and couplings, as will be readily understood, and this may be also true when a pole is used, as said pole may be bifurcated at its rear end, thus giving it further rigidity in its attachment to the front axle of the vehicle.

Considerable advantage is gained by the use of our improvement, since the time heretofore necessary to remove a pair of shafts from a vehicle by the unbolting of the brace-irons is saved, and such shafts may be instantaneously removed by the withdrawal of the latches I from engagement with said irons. Sometimes great damage and loss of life are occasioned by the inability of a driver to detach the horse from the vehicle when said horse has become unmanageable; but when our improvement is used the horse may be quickly and safely detached, however excitable it may be, by simply forcing the springs J outward, which will permit the shafts or poles to free themselves from the vehicle without injury to the occupants of said vehicle.

The antirattling-spring F has fitted to its upper end a check-strip M, which is so bent

at its outer end as to lie in the path of the bolt E should said bolt work loose and have a tendency to move outward. The result of this is that the coupling cannot become accidentally detached, even though the nut upon the bolt be lost; yet when it is necessary to remove this bolt this may be accomplished by the withdrawal of the antirattling-spring, whereby the check-strip is removed from the path of said bolt.

Having thus fully described our invention, what we claim as new and useful is—

In a device of the character described, a clip, a coupling pivoted thereto having a rectangular socket, a lug beneath the coupling,

a spring secured thereto, a beveled latch on the spring projecting through a hole in the coupling into the socket, and a thill-iron having a beveled nose and an aperture to be engaged by the latch, as and for the purpose described.

In testimony whereof we have hereunto affixed our signatures in the presence of two subscribing witnesses.

SAMUEL B. ELDER.

WILLIAM A. MANCHESTER.

Witnesses:

S. S. WILLIAMSON,
GEO. T. CROM.