No. 661,208. Patented Nov. 6, 1900.

E. J. S. DAVIS.

THILL COUPLING.

(Application filed May 7, 1900.)

(No Model.)

Fig. 1.

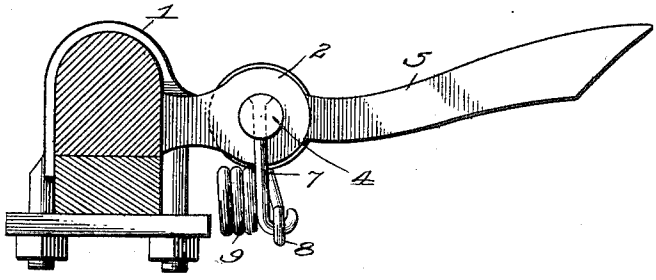


Fig. 2.

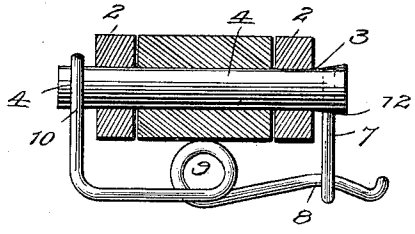
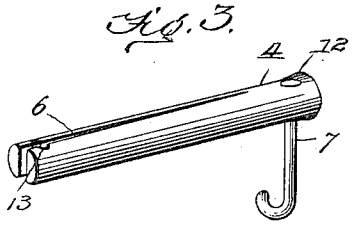
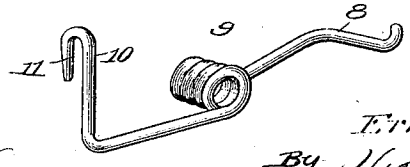


Fig. 3.





Witnesses
Henry S. Robinson
Herbert D. Lawson

Inventor;
Ernest J. S. Davis.
By Victor J. Evans
Attorney

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

ERNEST J. S. DAVIS, OF KNOXVILLE, IOWA.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 661,208, dated November 6, 1900.

Application filed May 7, 1900. Serial No. 15,752. (No model.)

To all whom it may concern:

Be it known that I, ERNEST J. S. DAVIS, a citizen of the United States, residing at Knoxville, in the county of Marion and State of Iowa, have invented certain new and useful Improvements in Thill-Couplings, of which the following is a specification.

This invention relates to new and useful improvements in antirattling thill-couplings; and its object is to provide a device of this character which is simple in construction, cheap to manufacture, and effective in use.

To these ends the invention consists in providing a split bolt adapted to extend through the arms of the axle-clip and the shaft-iron therebetween and having a hook projecting therefrom which is adapted to engage a spring which clamps upward against the hooked end, adapted to project into the slot of the bolt and spread the same, thereby firmly binding it in position.

The invention further consists in the novel construction and combination of parts hereinafter more fully described and claimed and illustrated in the accompanying drawings, showing the preferred form of my invention, and in which—

Figure 1 is a side elevation. Fig. 2 is a transverse section. Fig. 3 is a detail view of the coupling detached.

Referring to the figures by numerals of reference, 1 is an axle-clip of suitable form, from which projects arm 2, each of which has a passage 3 therein for the reception of a bolt 4, adapted to extend through a thill-iron 5. This bolt is split longitudinally, as at 6, and is provided with a downwardly-extending hook 7, which is secured thereto at one end. Engaging with the hook 7 is a downwardly-bent end 8 of a spring-fastener, which is provided with a coil 9 near its center and has an upwardly-extending hook 10, provided with a tapered wedge-shaped end 11. The coil 9 is adapted to bear upward upon the lower surface of the thill-iron 5 and firmly clamp the same upon the bolt 4. The end 11 is inserted into the slot 6 of said bolt and will, as is obvious, spread the same, and thereby prevent its removal from the arms of the clip.

It will be noticed that the bolt 4 is enlarged or tapered at one end 12, whereby the same will fit tightly within the arm of the clip at all times. It will also be seen that I provide notches 13 within the slit 6, near the outer end thereof, adapted to receive the end 11 of the fastener and prevent lateral movement thereof.

In the foregoing description I have shown the preferred form of my invention; but I do not limit myself thereto, as I am aware that modifications may be made therein without departing from the spirit or sacrificing the advantages thereof, and I therefore reserve the right to make all such changes as fairly fall within the scope of my invention.

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

1. In a coupling, the combination with a clip having arms, and a shaft-iron, of a slotted bolt engaging said arms and shaft-iron, a hook projecting from the bolt, a spring engaging the bolt and adapted to bear upon the shaft-iron, and a recurved end to the spring adapted to extend into the slot of the bolt.

2. In a coupling the combination with a clip having arms and a shaft-iron, of a split bolt engaging the said arms and iron, a hook projecting from the bolt, a spring coiled at the center engaging said hook, the coil adapted to bear upon the thill-iron, and a recurved tapered end to the spring adapted to extend into, and expand the bolt.

3. In a coupling the combination with a clip having arms and a shaft-iron, of a split bolt engaging the said arms and iron, an enlarged end thereto, a hook projecting from said end, a spring coiled at the center and engaging said hook, the coil adapted to bear upon the thill-iron, and a recurved tapered end to the spring adapted to project into, and engage with notches within, the slit in the bolt.

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

ERNEST J. S. DAVIS.

Witnesses:

T. B. THOMPSON,

L. B. MYERS.