E. G. STANLEY.

THILL-COUPLING.

No. 187,192. Patented Feb. 6, 1877.

Fig. 1.

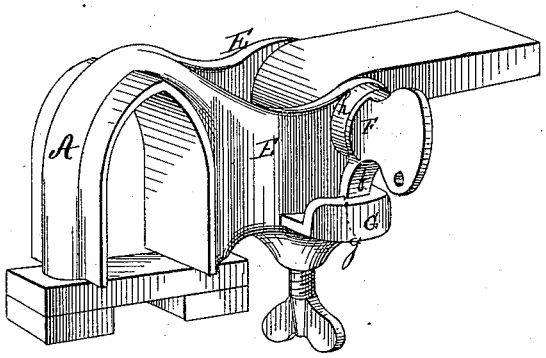
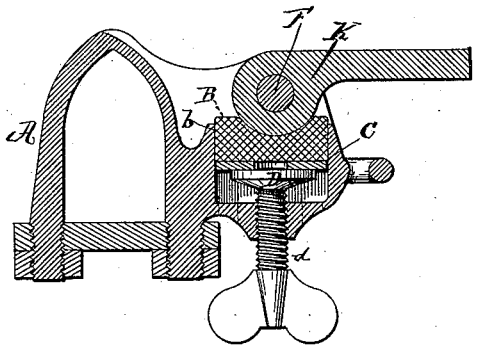


Fig. 2.



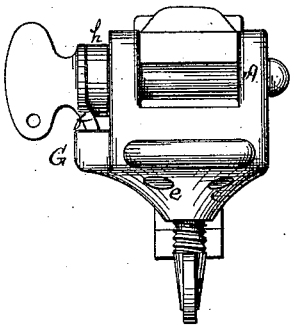


Fig. 3.

Witnesses:

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UNITED STATES PATENT OFFICE.

ELBRIDGE G. STANLEY, OF FITCHBURG, MASSACHUSETTS.

IMPROVEMENT IN THILL-COUPLINGS.

Specification forming part of Letters Patent No. **187,192**, dated February 6, 1877; application filed October 21, 1876.

To all whom it may concern:

Be it known that I, E. G. STANLEY, of Fitchburg, Massachusetts, have invented certain new and useful Improvements in Thill-Coupling, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a perspective view of a thill-coupling, with my improvements attached. Fig. 2 is a longitudinal vertical section of the same. Fig. 3 is a front view of the coupling.

My invention relates to thills of carriages and other vehicles; and it consists in the combination of devices hereinafter explained and claimed, to avoid the use of threaded bolts and nuts, and to prevent the rattling of the thill-iron.

To enable others skilled in the art to make and use my invention, I will proceed to describe the exact manner in which I have carried it out.

In the drawings, A represents the portion of the coupling which is designed to fit over the axle-tree of a carriage, or be secured to the runner or cross-bar of a sleigh. The pressure-block B rests in the pocket *b* formed in the coupling, and below it may be placed a metallic plate, C, or the block itself may rest upon the flange or button D, which is secured to the thumb-screw *d*, which enters the bottom of the said pocket, by which the pressure-block is raised and brought in contact with the thill-head iron. It is evident that this pressure may be readily increased to compensate for wear or change in construction, and effectually prevent any rattling. The bottom of the pocket is perforated, as shown at *e e* in Fig. 3, to allow dust or water which might accumulate in the pocket to escape. The button D, inside the pocket *b*, being rigidly secured to the thumb, or other kind of screw, provides against the possibility of losing the screw from its place, while the friction of the button against the plate C, or directly against the pressure-block prevents the screw from working loose, or any accidental relaxation of the pressure upon the thill-head iron.

On the frame A is cast the ears E E, which ears have holes to receive the bolt F, which connects the thill-head to the coupling. Outside of, and cast in a piece with one of the ears E, is lock-catch G, which has a bevel or incline on inside, which incline terminates with an offset or shoulder, *g*, with a slot, into which fits the arm *f*, on the head of the bolt F, as shown in Figs. 1 and 3. On the bolt, next its head, is secured the spring or elastic washer *h*, which, when compressed, allows the arm of the bolt F (the bolt being in position) to be passed along the incline of the lock-catch G until it passes the shoulder *g*, when the spring forces the arm into the slot, as shown in Fig. 1, where it is securely held without nut, thread, pin, or key, or any of their equivalents, until it is desired to release the same, when, by pressing in the bolt F until the arm passes outside of the shoulder *g*, the arm of the bolt-head can be turned out of the lock-catch and the bolt itself be withdrawn. Before pressing in the bolt for the purpose of unlocking it, the pressure from the thumb-screw upon the thill-head iron must be relieved, which relieves the bolt and allows it to be pressed inwardly. The spring *h* may be made of rubber, or it may be a coiled or other spring to secure the longitudinal action of the bolt F.

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

1. The bolt F, provided with the arm *f*, and spring *h*, in combination with the rigid lock-catch G, constructed to operate as described.

2. The concentric bolt F, provided with the arm *f*, and spring *h*, constructed substantially as and for the purpose set forth.

3. The screw *d*, constructed with a rigid button or flange on its end, in combination with pressure-block B, and thill-eye K, substantially as and for the purpose set forth.

ELBRIDGE G. STANLEY.

Witnesses:

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