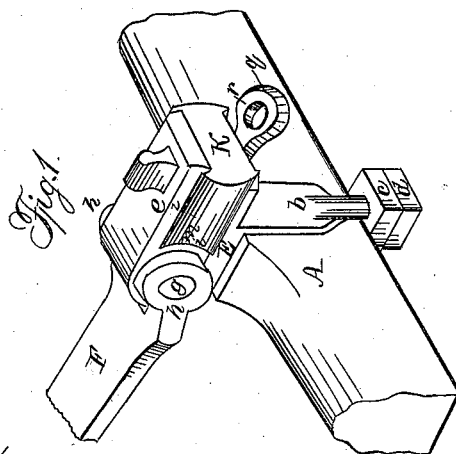
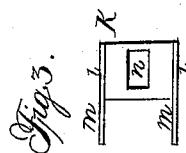
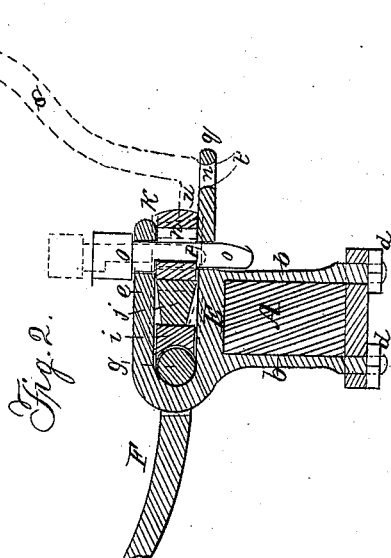


Thill-Coupling.

Patented Feb 13, 1866.



Witnesses.
Jay Hayatt
James A. A. Cow

Inventor.
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UNITED STATES PATENT OFFICE.

H. L. TAYLOR, OF FREDONIA, NEW YORK.

IMPROVEMENT IN POLE AND THILL COUPLINGS.

Specification forming part of Letters Patent No. 52,621, dated February 13, 1866.

To all whom it may concern:

Be it known that I, H. L. TAYLOR, of Fredonia, in the county of Chautauqua and State of New York, have invented a new and useful Improvement in Thill and Pole Couplings; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a perspective view of my improved coupling attached to a section of the axle of a carriage. Fig. 2 is a longitudinal vertical section of the same; Fig. 3, a plan of the follower-block K detached.

Like letters designate corresponding parts in all the figures.

It is the object of my improvement to produce a coupling for attaching a pole or thills to vehicles that shall be noiseless and readily uncoupled when it is required to change or remove the pole or thills; and the invention consists in the construction and arrangement of the peculiar devices hereinafter described, by which the above is accomplished.

In the drawings, A represents a portion of a carriage-axle to which one of my couplings is attached in an ordinary manner by means of the clip-plates *b b* and connecting-bar and nuts *c d d*.

E and *e* are parts of the upper bar of the clip, bent backward so as to form a loop or hook; F, one of the bars attached to the thills or pole, having at its end the two lugs or ears *h h*, connected by the bolt *g*, forming an eye, which is engaged with the clip by hooking the same over the end *e*, so that it will rest in the position shown.

i, Fig. 2, is a metallic washer or bearing formed to fit against the bolt from the rear; *j*, a piece of india-rubber or other elastic material, which acts as a spring to keep the washer *i* pressed against the bolt *g* by being compressed by means of the follower-block K. This block is constructed with flanges *l l*, that overlap the edges of E and *e* so as to retain the former in place. Thin portions *m m*, Fig. 3, of the same extend forward so as to inclose and shield the spring or rubber *j* at its sides. (Shown in Fig. 2 by dotted lines.) It is also provided with a hole, *n*, made vertically, of sufficient size to admit the introduction of key

o, as shown in Fig. 2. There is a notch or recess, *p*, formed in the front edge of this key to receive the block K, as also represented in the same figure.

The bar E is extended backward, forming a projection, *q*, provided with a hole, *r*, for a purpose presently to be described.

S is a lever provided with the point *t* and spur *u*, as represented in red lines, by which the compression of the rubber spring *j* is effected in the manner following: After the parts *i, j*, and K have been successively inserted in place the point *t* of the lever is introduced in hole *r*, when by pressing forward the same the projection *u* forces the block K inward, compressing the rubber *j*, so as to allow the key *o* to be inserted or removed, as shown in red lines, Fig. 2. The key being inserted, the lever is removed, when the partial recoil or reaction of the spring *j* presses the block back into the notch *p* of the key, thereby firmly securing the latter in place, while the rubber still continues to press the washer *i* against the bolt *g*, so as to effectually prevent any vibration or rattling of the same.

When it is required to uncouple the device for changing the thills or other purposes, it may be readily accomplished by again pressing forward the head K out of the notch *p*, when the key is removed and the parts easily detached.

The advantages of my improvement are, first, the safety and security which it occasions by its non-liability or the impossibility of its becoming accidentally uncoupled and the thills detached; second, the perfect and permanent prevention of all noise arising from vibration by the constant pressure of the rubber spring against the bolt; third, the protection which is afforded by the sides *m m*, preventing any displacement of the rubber and obviating the necessity of readjustment; fourth, preventing the disintegration of the rubber packing by removing it from contact with the bolt *g* or other moving part of the device; fifth, the ease and rapidity with which the uncoupling is effected.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination of the hook E *e* and draft-bolt *g* with the follower-block K, india-

rubber spring *j*, or its equivalent, washer *i*, and self-locking key *o*, arranged and operating in the manner and for the purpose shown and described.

2. Constructing the block K with the lips *l l* and checks *m m*, in combination with the hook E *e* and rubber *j*, substantially in the manner and for the purposes described.

3. The employment of the lever S, provided with the hook *t* and spur *u*, in combination

with the extension *q* and hole *r*, for inserting and removing the key *o*, substantially as described.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

H. L. TAYLOR.

Witnesses:

JAY HYATT,

LYMAN P. PERKINS.