

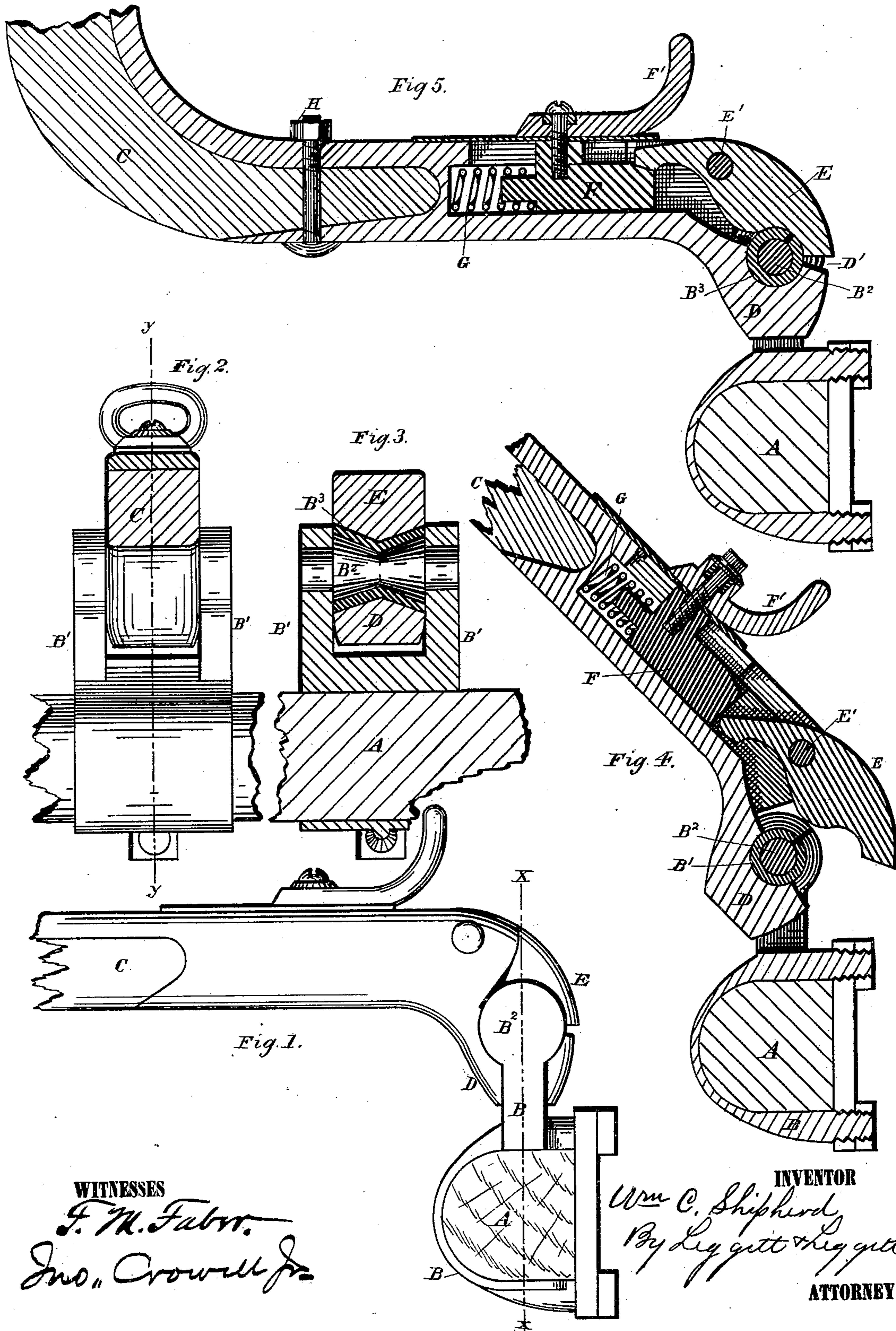
(No Model.)

W. C. SHIPHERD.

THILL COUPLING.

No. 246,915.

Patented Sept. 13, 1881.



WITNESSES
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WILLIAM C. SHIPHERD, OF CLEVELAND, OHIO.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 246,915, dated September 13, 1881.

Application filed May 17, 1881. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM C. SHIPHERD, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Thill-Couplings; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to thill-couplings; and it consists, substantially, in the following parts and combination of parts, as hereinafter specified.

In the drawings, Figure 1 illustrates, in side elevation, a thill-coupling constructed according to my invention. Fig. 2 is a view, part in section, part in plan, of the same. Fig. 3 is a view in horizontal cross-section, taken on the line $x x$ of Fig. 1. Fig. 4 is a view in longitudinal vertical section, taken on the line $y y$ of Fig. 2, illustrating my coupler as open; and Fig. 5 is a view similar to Fig. 4, showing my coupler as closed and locked.

A is a wagon-axle or cross-bar, to which the clip B is applied. From this clip project two arms, B' B' , between which is supported the double cone bearing B^2 , consisting of two conical portions, as shown in Fig. 3 of the drawings. This double conical bearing is clothed with an elastic covering, B^3 , of rubber, leather, or equivalent substance. This receives the wear and can be replaced when necessary.

C is the thill, terminating in two metallic jaws, D and E. The jaw D is stationary and is rigidly attached to the thill C in any suitable manner. The jaw E has a pivot, E' , upon which it swings in opening and closing. When open, as illustrated in Fig. 4, the thill can be readily removed from or placed upon its conical bearing E^3 , and when closed and locked, as illustrated in Fig. 5, the thill is securely coupled to the wagon and the pull is upon the stationary jaw D.

I will now describe the mechanism for locking and unlocking the moving jaw E. This consists, in the device that I have illustrated, in a bolt, F, to which is attached an external handle, F' , through the agency of which it can

be longitudinally moved. The bolt F is inclosed within the heel of the thill, as indicated in Figs. 4 and 5 of the drawings, and is formed so that when moved downward it shall wedge between the jaws D and E in such a manner as to prevent the opening of the jaw E. A spring, G, may be employed to retain the bolt F in its locking position, as illustrated in Fig. 5.

By means of the handle F' the bolt F can be raised or withdrawn from its locking position, as illustrated in Fig. 4 of the drawings, which will permit the jaw E to swing open for the purposes already mentioned.

I prefer making the jaws D E and the locking mechanism specified of a single structure, forming the parts of metal in such a manner as that the whole may form an article of manufacture that shall constitute a device suitable to attach to the heel of a thill by means of a bolt, H, or otherwise.

By the use of the spring G the bolt F will act not only to retain the jaw E in its closed, but also in its open, position by its downward pressure, as illustrated in Fig. 4 of the drawings.

It will be observed that in their locked position the jaws D and E do not come in contact, but that a space, D' , is left between them. This is for the purpose of enabling the locking wedge-bolt F to perform a compensating function by keeping the jaws D and E always in close contact with the bearing B^2 or B^3 , thus preventing rattling. As this bearing wears away, the bolt F will be driven farther down and the space D' lessened.

What I claim is—

1. In a thill-coupling, the combination, with the fixed jaw D and hinged jaw E, of the bolt F, constructed and arranged to engage the short arm of the hinged jaw and retain it against displacement, substantially as set forth.

2. In a thill-coupling, the combination, with the fixed jaw D and hinged jaw E, of the bolt F and spring G, substantially as set forth.

3. In a thill-coupling, the combination, with the fixed jaw D and hinged jaw E, of the bolt F and spring G, said bolt being constructed with an inclined face, which engages with the short arm of the hinged jaw, substantially as set forth.

4. In a thill-coupling, the combination, with
the fixed jaw and jaw E, hinged thereto, of a
locking-bolt, F, and spring located in the fixed
jaw, said bolt being constructed and arranged
5 to engage with the hinged jaw and retain it
in its open or closed position, substantially as
set forth.

In testimony whereof I have signed my
name to this specification in the presence of
two subscribing witnesses.

WILLIAM C. SHIPHERD.

Witnesses:

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