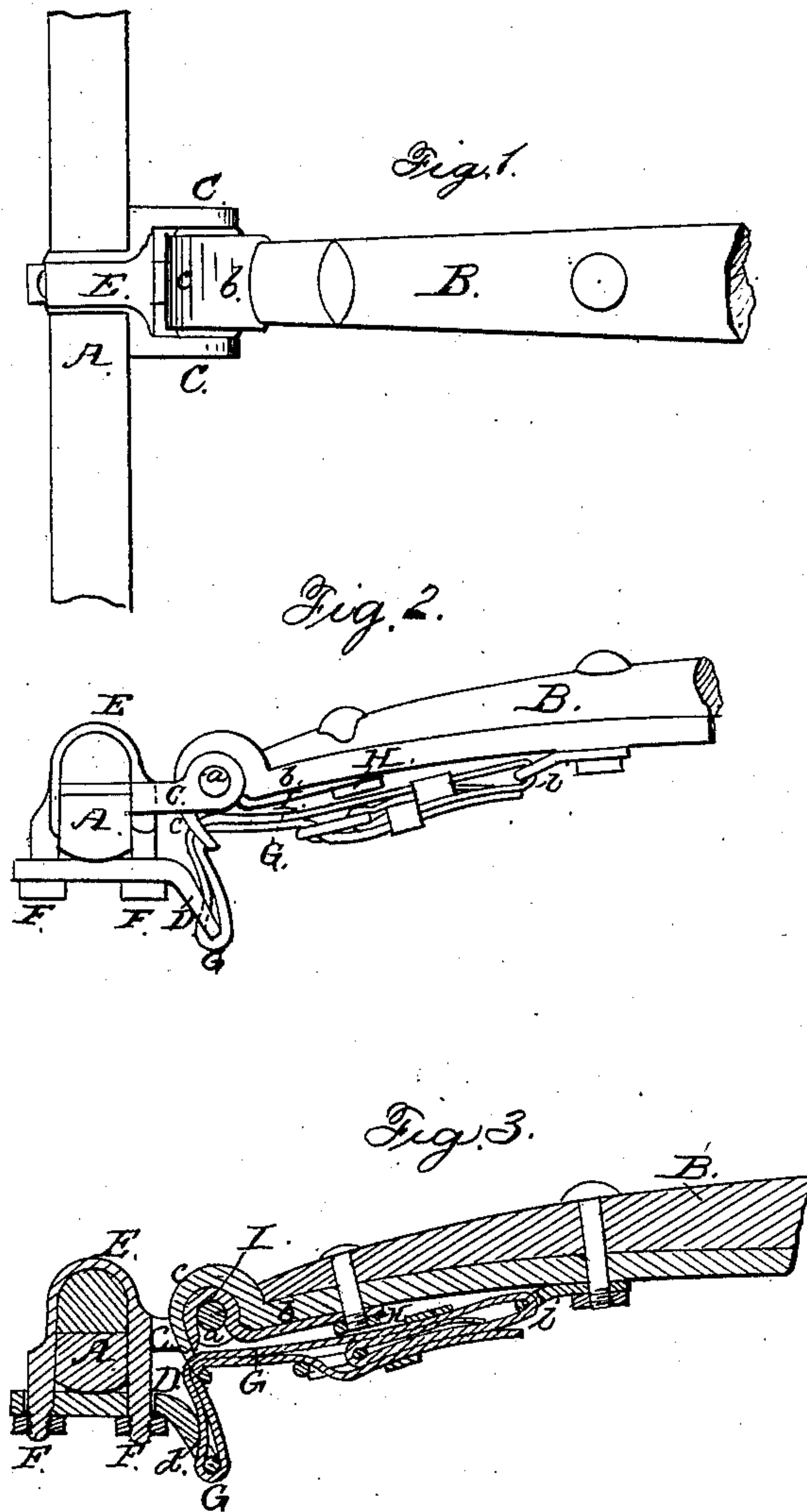


B. L. WOOD.
Thill-Coupling.

No. 57,809.

Patented Sept. 4, 1866.



WITNESSES:

D. P. Hale Jr.
G. H. Washburn

INVENTOR:

Benjamin L. Wood

By his Attorney

R. H. Cary

UNITED STATES PATENT OFFICE.

BENJAMIN L. WOOD, OF TAUNTON, MASSACHUSETTS.

IMPROVEMENT IN CARRIAGE-THILLS.

Specification forming part of Letters Patent No. 57,809, dated September 4, 1866.

To all whom it may concern:

Be it known that I, BENJAMIN L. WOOD, of Taunton, in the county of Bristol and State of Massachusetts, have invented a new and useful Carriage-Shaft or Pole-Connection; and I do hereby declare the same to be fully described in the following specification and represented in the accompanying drawings, of which—

Figure 1 is a top view, Fig. 2 a side elevation, and Fig. 3 a longitudinal section, of it as applied to a carriage thill or shaft and front axle.

The purpose of my invention is to enable a shaft or pole to be readily applied to or detached from an axle, as circumstances may require.

In the drawings, A denotes the axle, or a part thereof, and B the shaft. C C are the starts, and D the safety-strap eye-piece, usually applied to an axle, they being held in place by a yoke, E, and two nuts, F F, screwed thereon, the whole being as shown in the drawings.

The bolt *a*, which extends from one start to the other, and under ordinary circumstances is a screw-bolt provided with a nut, I fasten firmly in the starts in any proper manner, as it is to be immovable with reference to them.

In carrying out my invention, instead of forming the rear part of the shaft, or the iron bar or plate *b* thereof, with an eye to go between the starts to receive the bolt thereof, I construct it with a hook, *c*, to hook upon and project below the bolt, and I make such hook with an aperture, *d*, going through it where it extends below the bolt *a*. This aperture is to receive the safety-strap G, usually affixed to the shaft and axle, such strap being carried through the aperture and applied to the shaft and axle in manner as represented in the drawings.

Within the hook, and so as to lap around the bolt *a* and be fastened to the shaft by a clamp, H, I usually apply a strap of leather or other suitable substance, I, it being to pre-

vent wear of the hook and looseness or shake of the hook on the bolt *a*, and also noise which would arise from such looseness.

The safety-strap, when through the aperture of the hook, will prevent the hook from being thrown off the bolt. Instead of such safety-strap being used for such purpose, as well as for that for which it is usually intended, a strap carried through the aperture, and also through the eye *i* applied to the shaft, may be employed, the ends of the strap being afterward connected or buckled together; or, in the place of such, a tongue or strip of leather or other suitable flexible material, fastened to the shaft, may be run through the aperture of the hook.

I prefer, however, to use the safety-strap in the manner specified, as by so doing I make it answer two purposes, and save the necessity of an auxiliary strap or its equivalent.

It will be readily observed that with my improvement or invention, as applied to an axle and its shafts or pole, the attachment of such shafts or pole to or their disconnection from the axle will be a very easy and quick operation.

I claim as my invention—

1. The improved shaft or pole-connection, as made with a hook, *c*, and an aperture, *d*, therein, arranged with the start-bolt *a*, and to receive a strap or its equivalent, as specified.

2. The arrangement of the safety-strap G to pass through the aperture of the hook, as described.

3. The combination of a strap or its equivalent, to go through the eye of the hook, with such hook and the shaft or its equivalent.

4. The arrangement and application of the anti-friction strap I with the shaft or its equivalent and the hook *c*, provided with an aperture, *d*, as and for the purpose described.

BENJAMIN L. WOOD.

Witnesses:

R. H. EDDY,
F. P. HALE, Jr.