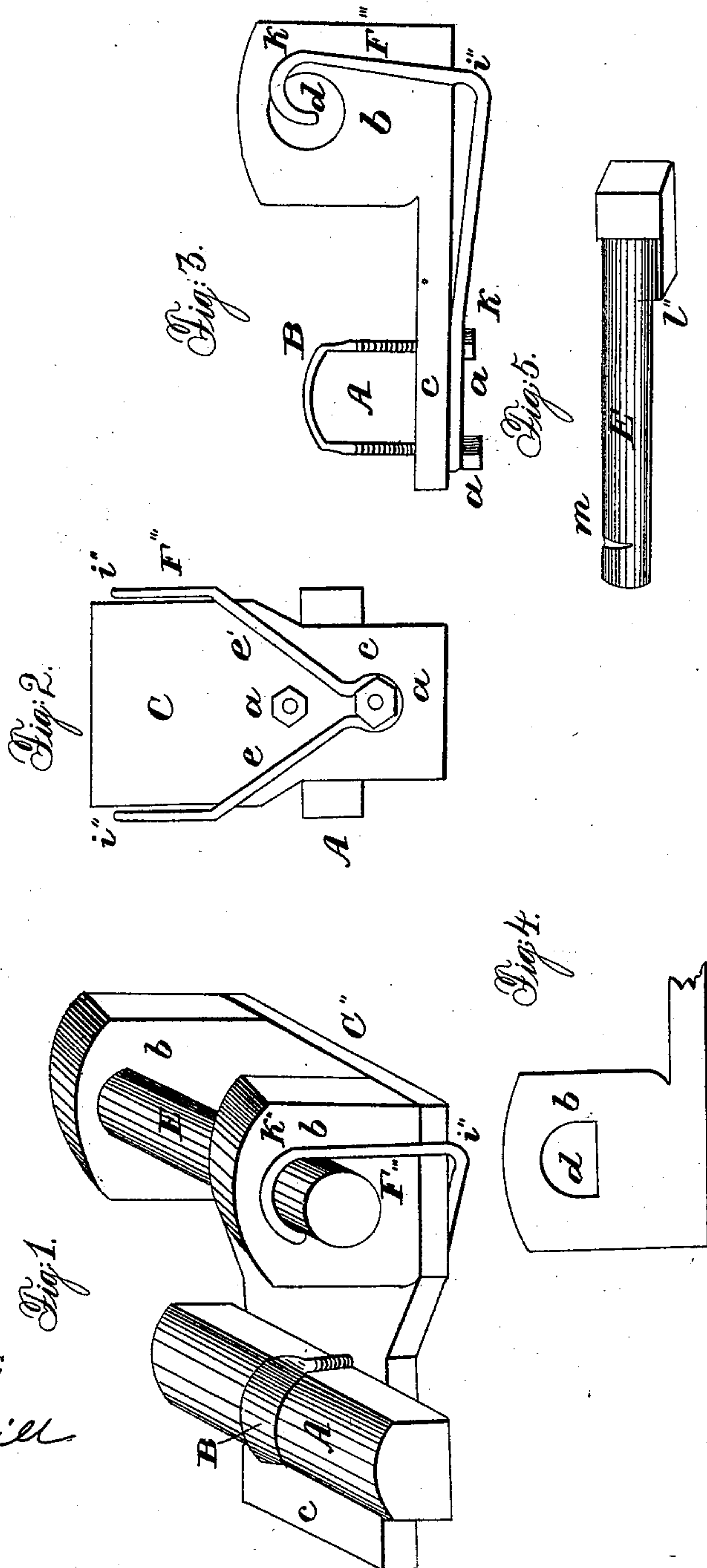


L. SQUIRE.
Thill-Coupling.

No. 64,590.

Patented May 7, 1867.



Witnesses
Lyndon Hill
Chas. May

Inventor:
Lymon Squire
Brown & Beale atty

United States Patent Office.

LUMAN SQUIRE, OF NORWALK, OHIO.

Letters Patent No. 64,590, dated May 7, 1867.

IMPROVEMENT IN THILL-COUPLING.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, LUMAN SQUIRE, of Norwalk, in the county of Huron, and State of Ohio, have invented a new and improved Thill-Coupling; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, and to the letters of reference marked thereon. In the drawings—

Figure 1 represents a perspective view of my invention.

Figure 2, a bottom view.

Figure 3, a side view without the coupling-pin.

Figure 4, a side view of the orifice for the shoulder of the pin; and

Figure 5, the coupling-pin.

This invention consists of a thill-coupling provided with a spring which, by virtue of its elasticity, exerts a pressure upon the coupling-bolt sufficient to hold it firmly in place, and, by virtue of its pliancy, admits of the withdrawal of such pressure, and the consequent removal of the bolt, as is hereinafter fully described.

To enable those skilled in the art to make and use my invention, I will now proceed to describe its construction and operation.

A represents a section of a carriage-axle. B represents a metallic yoke or "clip," placed upon the axle, and provided with screw-threads upon its ends, which project below the axle far enough to enable the shank *c* of the coupling C to be placed upon them in contact with the under side of the axle, and also to enable nuts *a* to be screwed upon them. *b b* represent ears projecting upward from the shank *c*, provided each with a hole, *d*, through which passes the coupling-bolt E. F represents a piece of wire, passed at its centre about the rear end of the clip B, between the shank *c* and the nut *a*, where it is securely held, and running thence in two diverging arms *e e'* to the forward corners of the shank *c*; there at the points *i* each arm is bent nearly to a right angle, and passing upward a short distance is curved at *k* over the bolt E, at the outer side of each of the ears *b*. At the point *h*, near the rear nut, both arms of the wire F are in contact with the under side of the shank *c*, and from these points both arms recede from the shank, passing downward as they pass outward, so that the points of flexion *i* are a quarter of an inch, more or less, below the bottom of the shank. When the curves *k* are passed over the bolt E, the arms *e e'* shall be drawn a little above the position they would naturally have assumed, and thus, by virtue of their elasticity, exert a pressure upon the coupling-bolt E sufficient to hold it firmly in its place. One of the holes, *d*, is semi-elliptic in shape, and a shoulder, *l*, is made on the bolt, next the head of a corresponding form, to fit in the said hole, and thus be prevented from turning. Near the other end of the coupling-pin is a groove, *m*, in which one of the curves *k* rests, in order that the pin may not work backward out of one or both ears. When it is desired to remove the pin, it is only necessary to press the arms *e e'* upward with one hand, when the pin may be easily withdrawn with the other.

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

The spring-arms *e e'*, in combination with the bolt E, provided with the shoulder *l*, semi-elliptic in its transverse section, when constructed and arranged as set forth.

LUMAN SQUIRE.

Witnesses:

CHAS. B. STICKNEY,
HARRISON MORRILL.