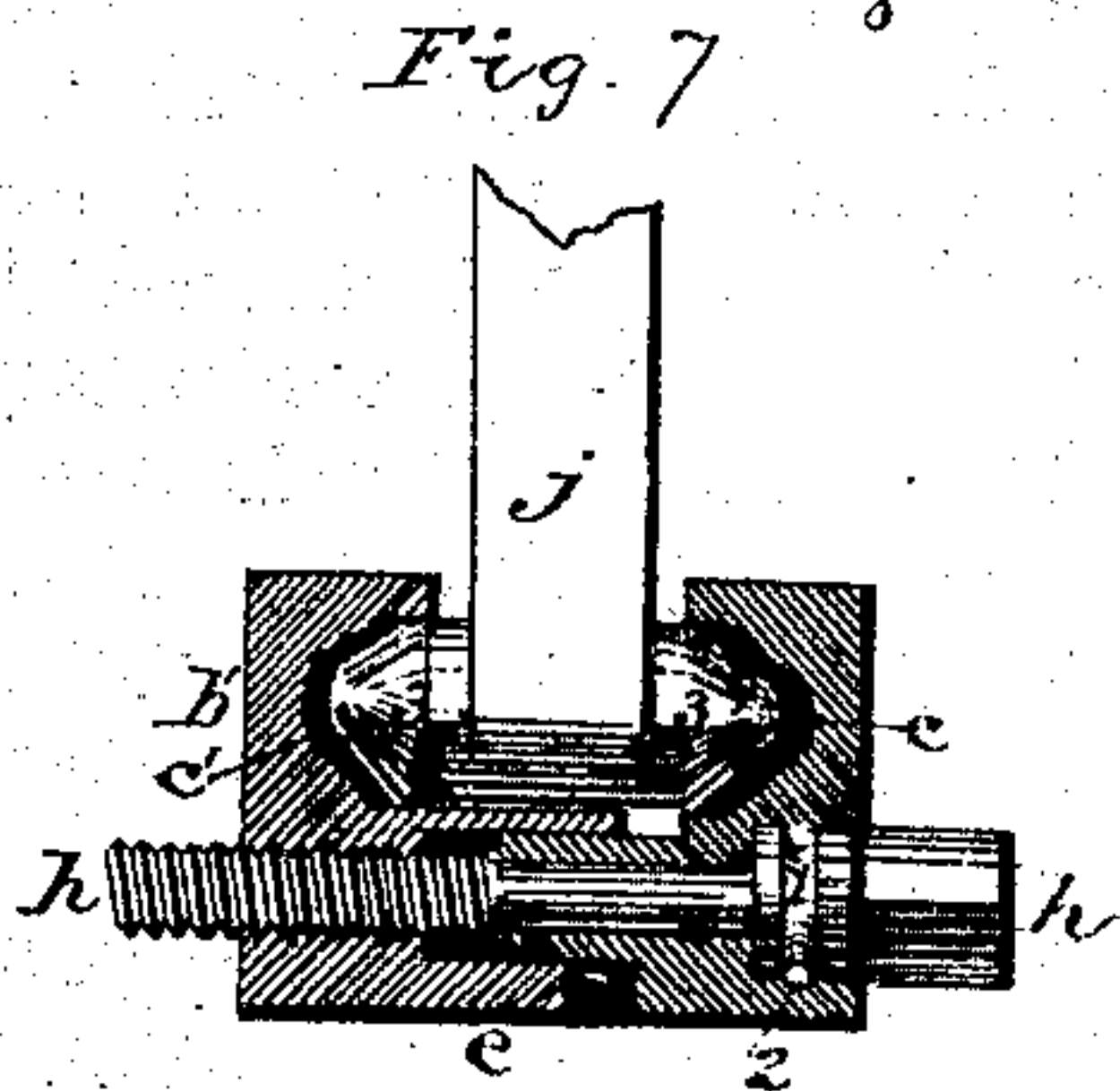
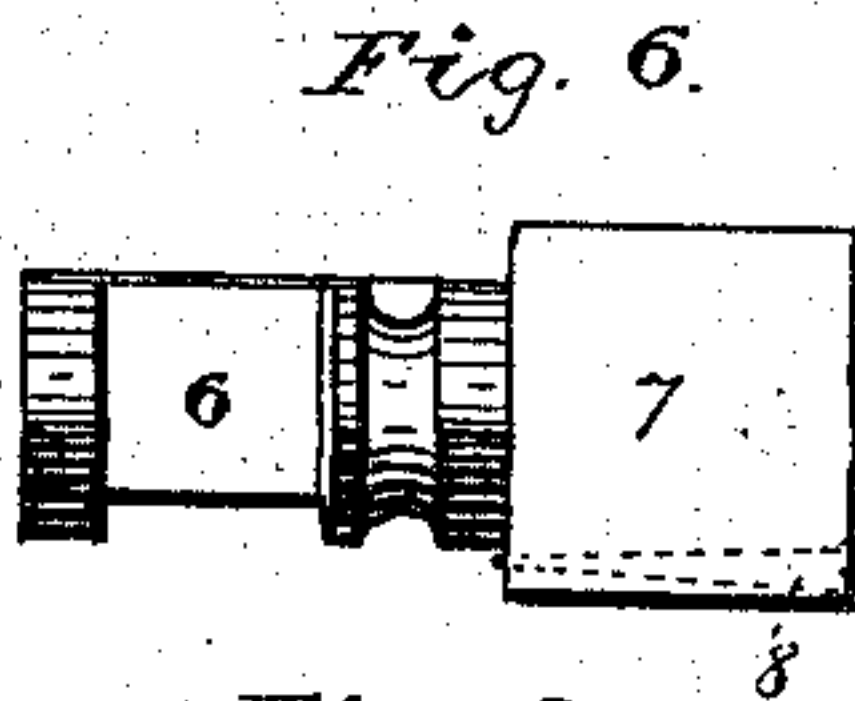
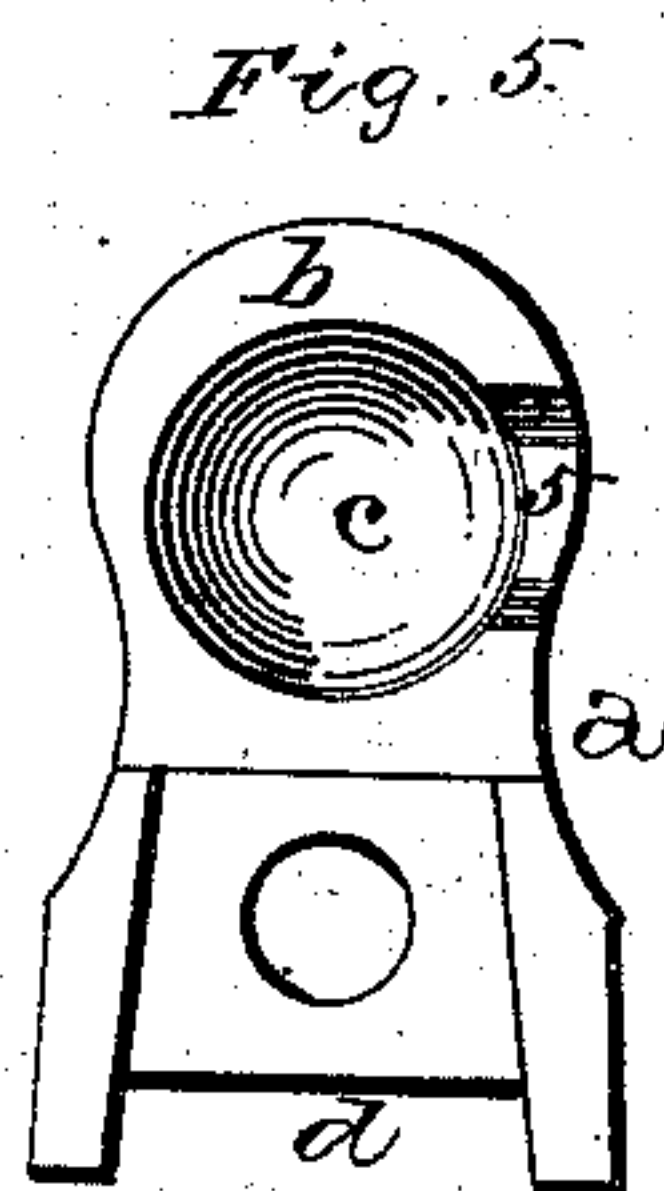
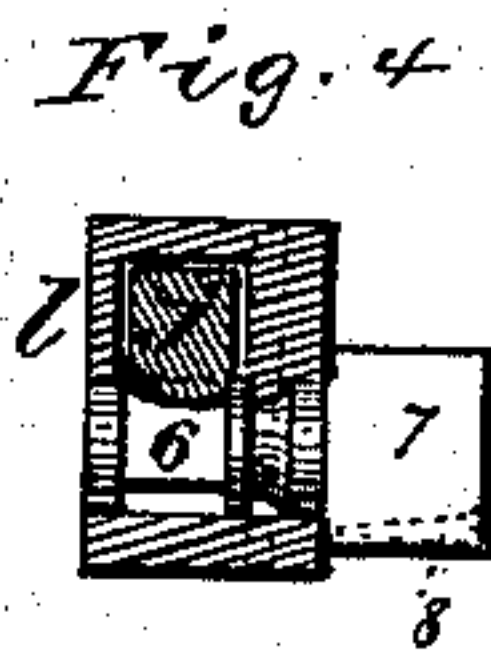
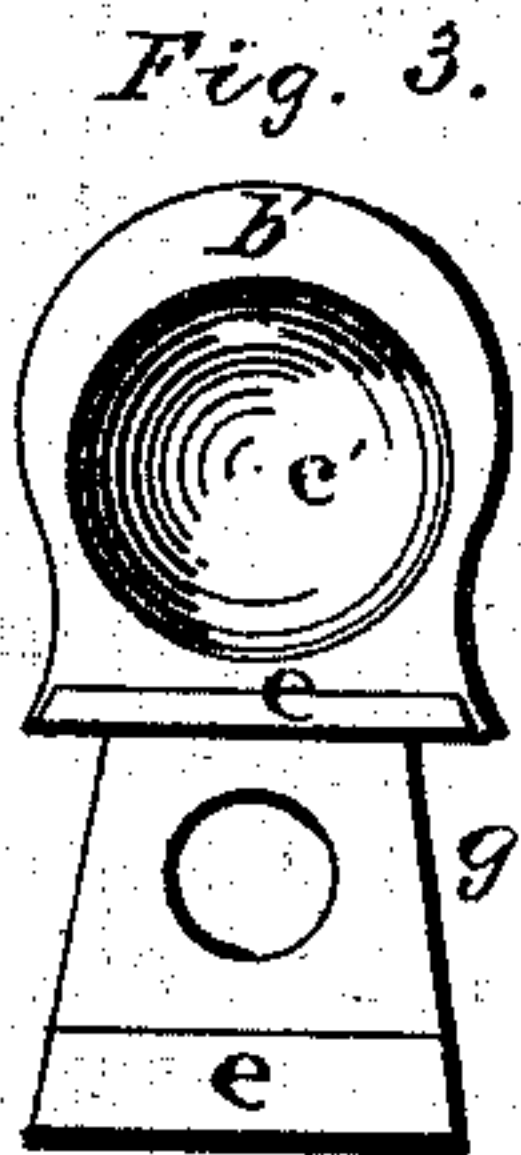
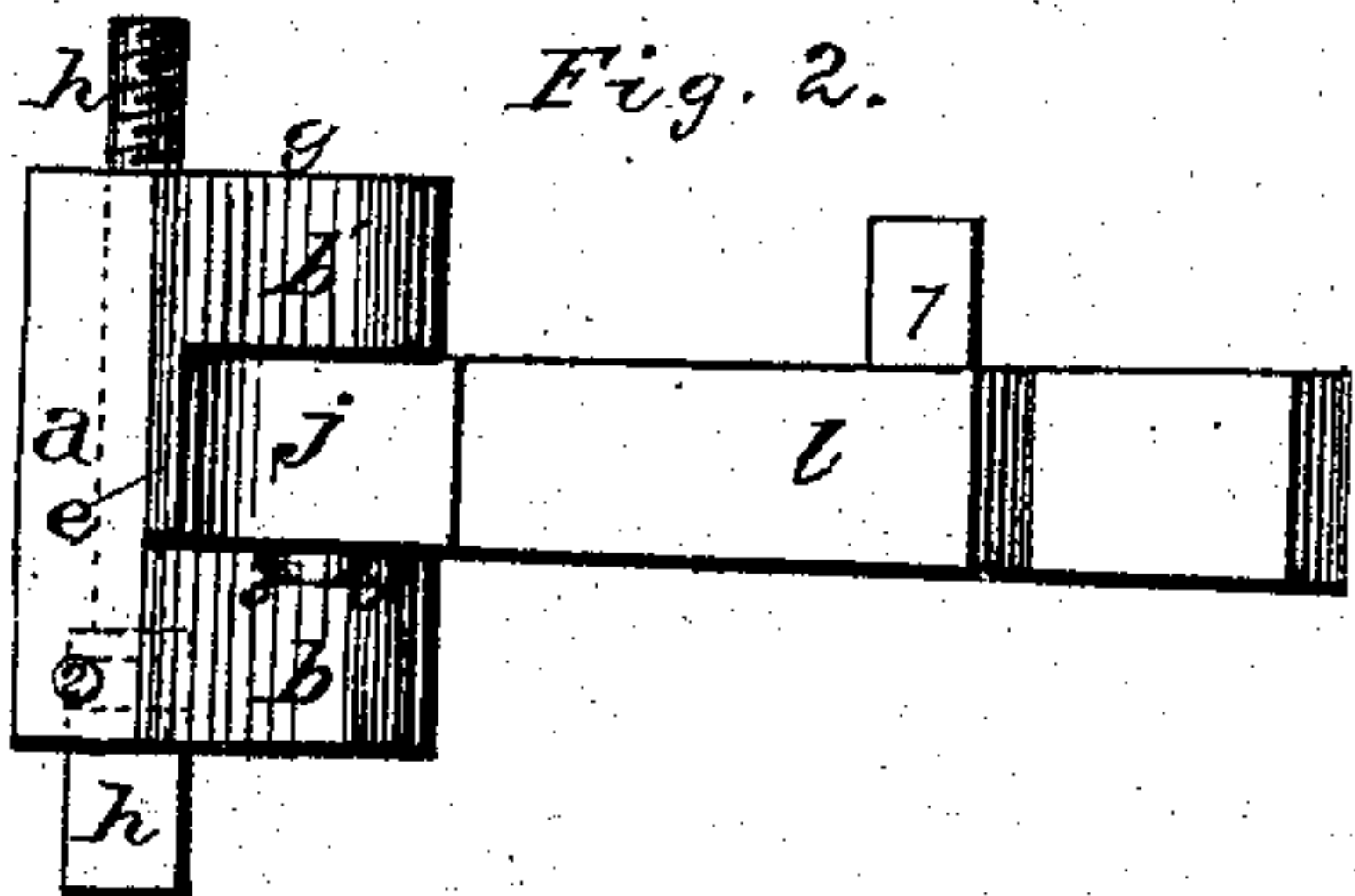
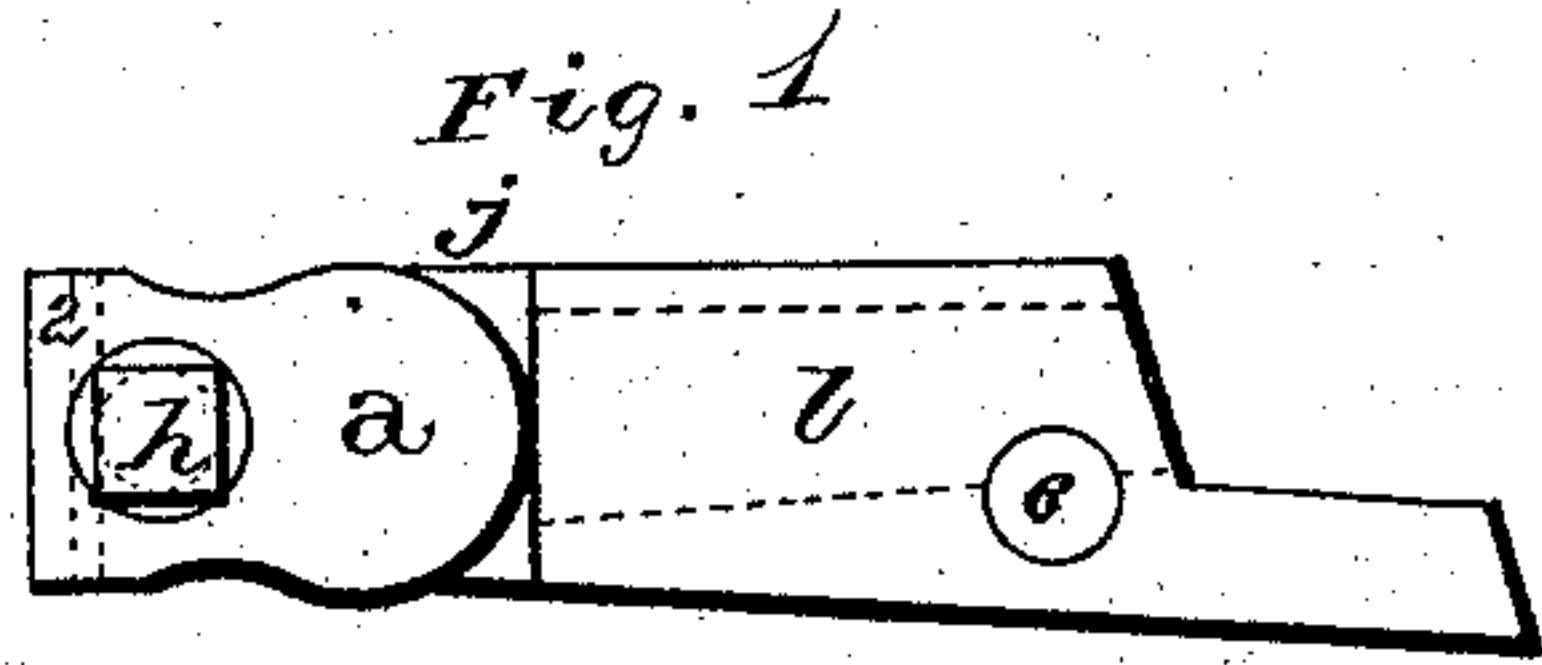


A. M. TROY.
Thill-Couplings.

No. 158,544.

Patented Jan. 5, 1875.



WITNESSES.

J. W. Larnet.
J. F. Lehmann.

INVENTOR.

A. M. Troy
per J. F. Lehmann.

UNITED STATES PATENT OFFICE.

ABIEZER M. TROY, OF JUDD, WISCONSIN.

IMPROVEMENT IN THILL-COUPPLINGS.

Specification forming part of Letters Patent No. **158,544**, dated January 5, 1875; application filed November 14, 1874.

To all whom it may concern:

Be it known that I, ABIEZER M. TROY, of Judd, in the county of Green and State of Wisconsin, have invented certain new and useful Improvements in Thill-Coupling; 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 an improvement in thill-couplings; and it consists in forming the blocks by which the thills are fastened to the axle in two pieces, one of which is dovetailed into the other, and held in position by means of a screw-bolt. It also consists in forming a socket in the end of the thill, so that it can be readily attached and detached from the coupling, all of which will be more fully described hereafter.

a represents a metal block, by means of which the thills are fastened to the axle. Upon one side of this block, at one end, is formed an ear or extension, *b*, in the inner side of which is formed a socket, *c*. In the opposite end of the block there is formed a dovetailed recess, *d*, in which is placed the detachable block *g*. This block has also an ear, *b'*, having a socket, *c'*, in its inner side, and has the two extensions *e* projecting outward from its side, which fit over the top and bottom of the block *a*, so as to stiffen and support the block *g* in position, the upper extension resting simply on the top of the block *a*, while the lower one fits in a recess in its under side, made to receive it. Passing through these two blocks is the screw-rod *h*, which holds the two blocks together, and which draws the detachable block *g* toward the one *a*, like the jaws of a vise, so as to clamp the ends of the thills in between the two ears *b b'*. In the neck of the screw is formed a groove, 1, and down through the block is passed a pin, 2, which prevents any lateral motion to the screw, but allows it to revolve freely around. Upon each side of the rear end of the part *j* is formed a conical

projection, 3, which fit in the two sockets in the ears, and upon which comes the whole draft of the vehicle. One of these projections has two notches, 4, cut in its outer end, which correspond to the notch 5 in the side of the socket *c*, whereby the part *j* can be taken out from between the two ears without having to move back the block *g* so far. The rear ends of the thills *l* are made hollow, or have a socket formed in them, into which the front ends of the parts *j* are thrust, and securely held by means of the cam 6, which extends through the thill and catches in a notch formed in the side of the part *j*. This cam has a head, 7, formed upon one end, so that it can be easily operated by hand, and has a set-screw, 8, passing through it, so that it can be prevented from turning. There is also a groove cut in the circumference of this cam, and a pin passed through it, so as to hold it in position, in the same manner as the screw-bolt. By turning this cam the thills can be instantly detached from the coupling without in any manner loosening any part of the coupling itself.

Having thus described my invention, I claim—

1. The combination of the block *a*, having the recess *d*, ear *b*, and notch 5, with the block *g*, having the ear *b'*, and the two extensions *e*, the screw-bolt *h*, pin 2, and part *j* 3, all to operate substantially as set forth.

2. The combination of the block *a*, having a dovetailed recess in one end, with the block *g*, made to fit in this recess, and provided with the two extensions *e*, substantially as shown.

3. The combination of the thills *l*, having hollow ends, with the part *j* and cam 6, provided with the head 7 and set-screw 8, substantially as specified.

In testimony that I claim the foregoing I have hereunto set my hand this 28th day of October, 1874.

ABIEZER M. TROY.

Witnesses:

B. F. CARLE,
D. WITMER.