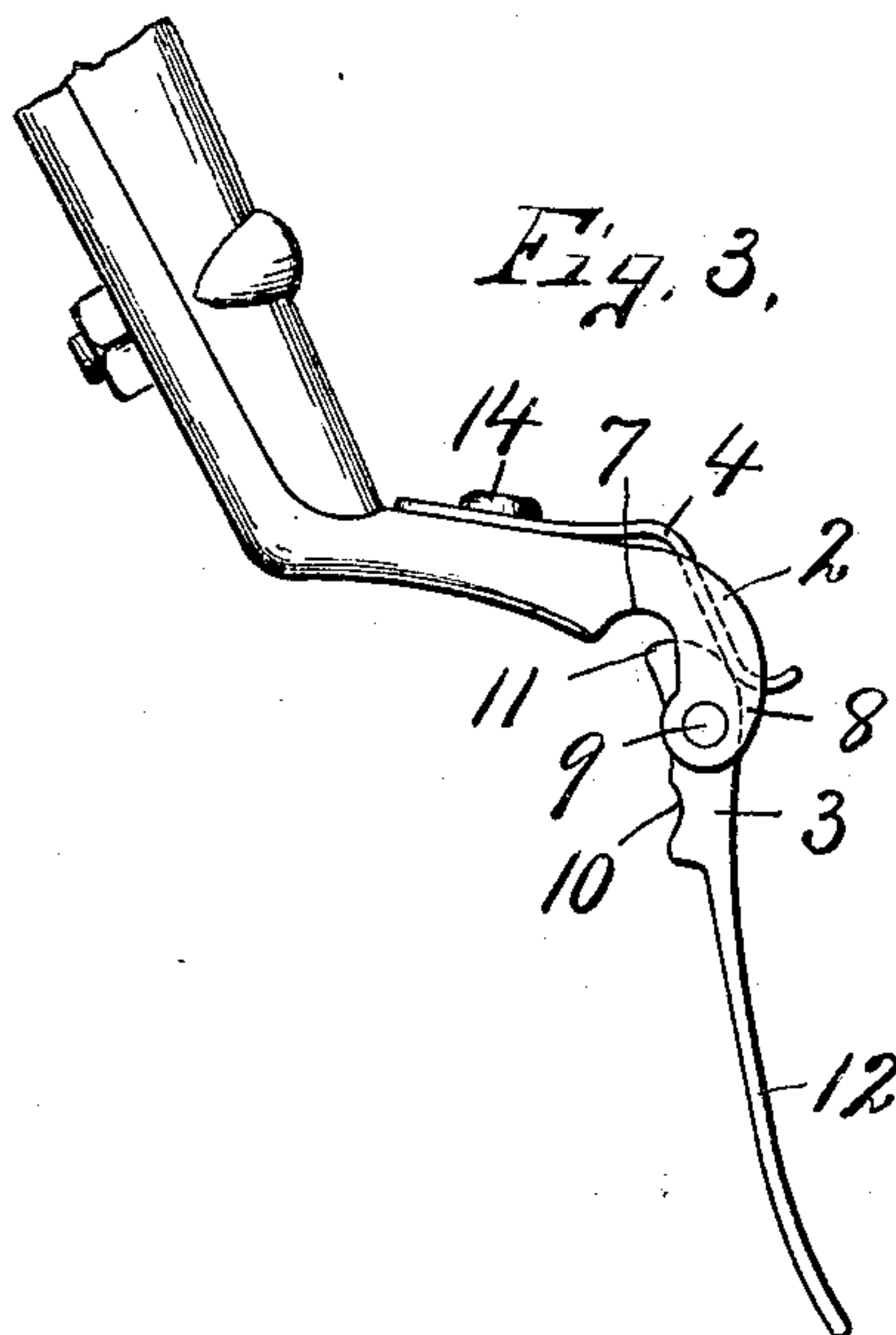
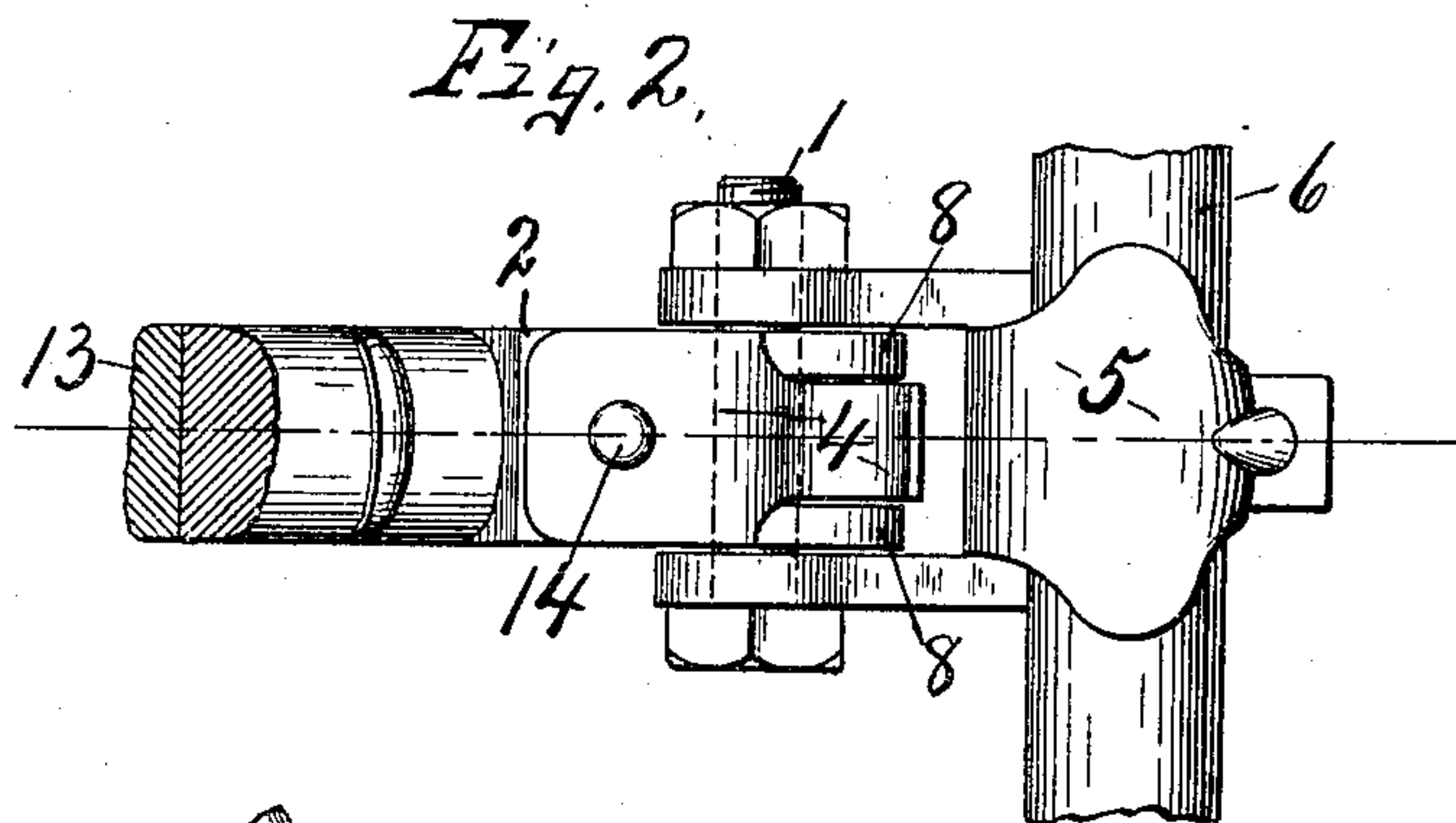
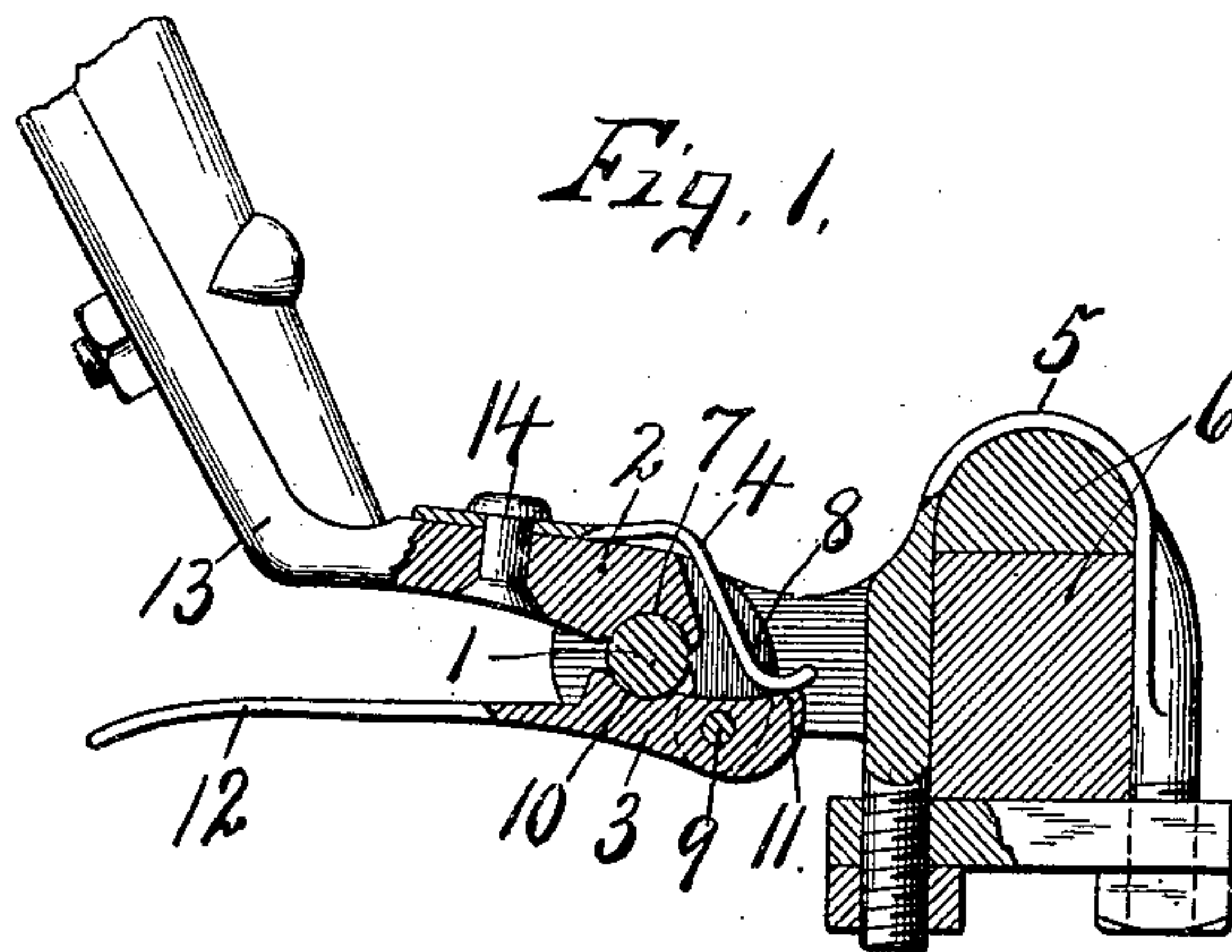


No. 891,035.

PATENTED JUNE 16, 1908.

C. C. BRADLEY.
THILL COUPLING.

APPLICATION FILED MAR. 26, 1907. RENEWED MAY 7, 1908.



Witnesses.

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UNITED STATES PATENT OFFICE.

CHRISTOPHER C. BRADLEY, OF SYRACUSE, NEW YORK.

THILL-COUPLING.

No. 891,035.

Specification of Letters Patent.

Patented June 16, 1908.

Application filed March 26, 1907, Serial No. 364,642. Renewed May 7, 1908. Serial No. 431,337.

To all whom it may concern:

Be it known that I, CHRISTOPHER C. BRADLEY, of Syracuse, in the county of Onondaga, in the State of New York, have invented new and useful Improvements in Thill-Couplings, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention relates to certain improvements in thill couplings in which the coupling pin is grasped between a fixed jaw and a movable jaw under the yielding tension of a spring which operates to hold the movable jaw in its closed position to automatically take up wear, and at the same time permits said movable jaw to be thrown into and out of operative position to hold and release the coupling pin in and from the grasp of the jaws.

The essential object of my present invention is to provide a simple, practical and efficient quick shift coupling of the character described which may be manufactured at a minimum cost and may be readily attached to or released from the coupling pin by the operation of a single lever, rigid with the movable jaw.

Another object is to provide a spring adapted to bear upon a suitable cam on the movable jaw at the rear of its pivot whereby said movable jaw is spring pressed into engagement with one side of the coupling pin.

Other objects and uses will appear in the following description.

In the drawings—Figure 1 is a sectional view, partly in elevation, of a thill coupling embodying the features of my invention. Fig. 2 is a top plan of the same, the movable jaw being shown in both views in its closed position. Fig. 3 is a side elevation of the detached coupling jaws in their open position.

This coupling comprises essentially a coupling pin —1—; a fixed jaw —2— and a movable jaw —3— adapted to grasp between them the coupling pin, and a spring —4— for holding the movable jaw under pressure in its closed position.

The coupling pin —1— is secured in any well known manner to a clip —5— on the front axle, as —6—, of the vehicle, leaving ample clearance between the pin and main body of the clip for the operation of the movable jaw —3— and spring —4—.

The fixed jaw —2— is provided with a transverse groove or concave bearing —7—

adapted to rest upon the upper face of the coupling pin —1—, said fixed jaw being provided with a pair of rearwardly and downwardly projecting ears or lugs —8— at the rear of the coupling pin —1— and normally extending some distance below the horizontal plane of said pin.

The movable jaw —3— is pivoted by a pivotal pin —9— between and to the lower ends of the ears —8— and is provided with a transverse groove or concave bearing —10— adapted to engage the lower side of the coupling pin, said movable jaw being provided with a rearward extension, constituting a cam bearing —11— for the adjacent end of the spring —4—. This cam is located at the rear of the pivot —9—, and also at the rear of the coupling pin —1— and forms an integral part of the jaw —3—, which is provided with a forwardly projecting arm —12— underlying the fixed jaw and adjacent portion of the thill iron, as 13—, of which said fixed jaw is a part, said arm constituting a handle by which the movable jaw may be swung to and from its closed position.

The spring —4— is secured at one end by suitable fastening means, as a rivet —14— to the top face of the fixed jaw —2— in front of the coupling pin —1— and extends rearwardly and downwardly between the ears —8— and has a curved lower extremity bearing upon the top face of the cam —11— at the rear of the pivot —9— so as to yieldingly hold the movable jaw in its closed position under a spring pressure. It now appears that the movable jaw —3—, engages the spring —4— and coupling pin —1— at opposite sides of its pivot —9—, ample space being left between the contiguous faces of the jaws to permit the take-up of any wear between the coupling and coupled parts, as effected by the pressure of the spring —4—.

When it is desired to detach the jaws from the coupling pin, the operator engages the handle —12— and moves it downwardly and rearwardly, thereby rocking the movable jaw —3— upon its pivot —9— and forcing the cam —11— upwardly against the action of the spring —4—, the rear face of the cam being so constructed as to bear upon the spring when the jaw is in its open position, so that the spring serves to hold the jaw either in its open and closed position.

What I claim is:

1. In a thill coupling, in combination with a coupling pin, a fixed jaw, a movable jaw

hinged to the fixed jaw at the rear of the coupling pin, and provided with a forward extending hand piece, and a rearwardly extending bearing, and a spring on the fixed jaw bearing against the movable jaw at the rear of its pivot.

2. In a thill coupling, in combination with a coupling pin, a fixed jaw having opposite ears extending downwardly at the rear of the coupling, a movable jaw pivoted to and between said ears, and a spring secured to the

fixed jaw and extending downwardly at the rear of the coupling pin between said ears and bearing upon the movable jaw at the rear of its pivot.

In witness whereof I have hereunto set my hand this 20th day of March 1907.

CHRISTOPHER C. BRADLEY

Witnesses:

H. E. CHASE,
C. M. McCORMACK.