

(No Model.)

J. C. FOWLER.

CAR COUPLING.

No. 277,701.

Patented May 15, 1883.

Fig. 6.

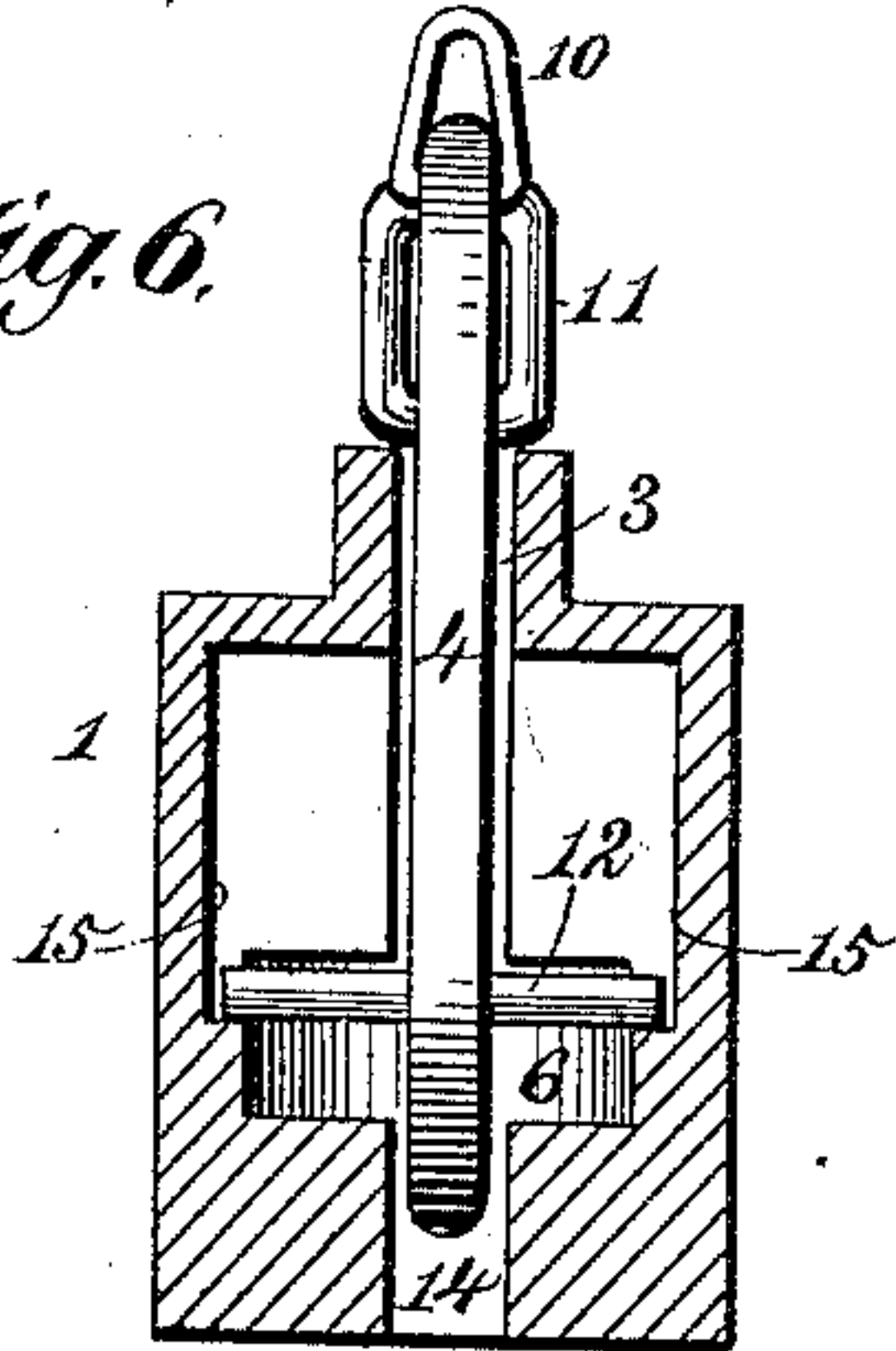


Fig. 1.

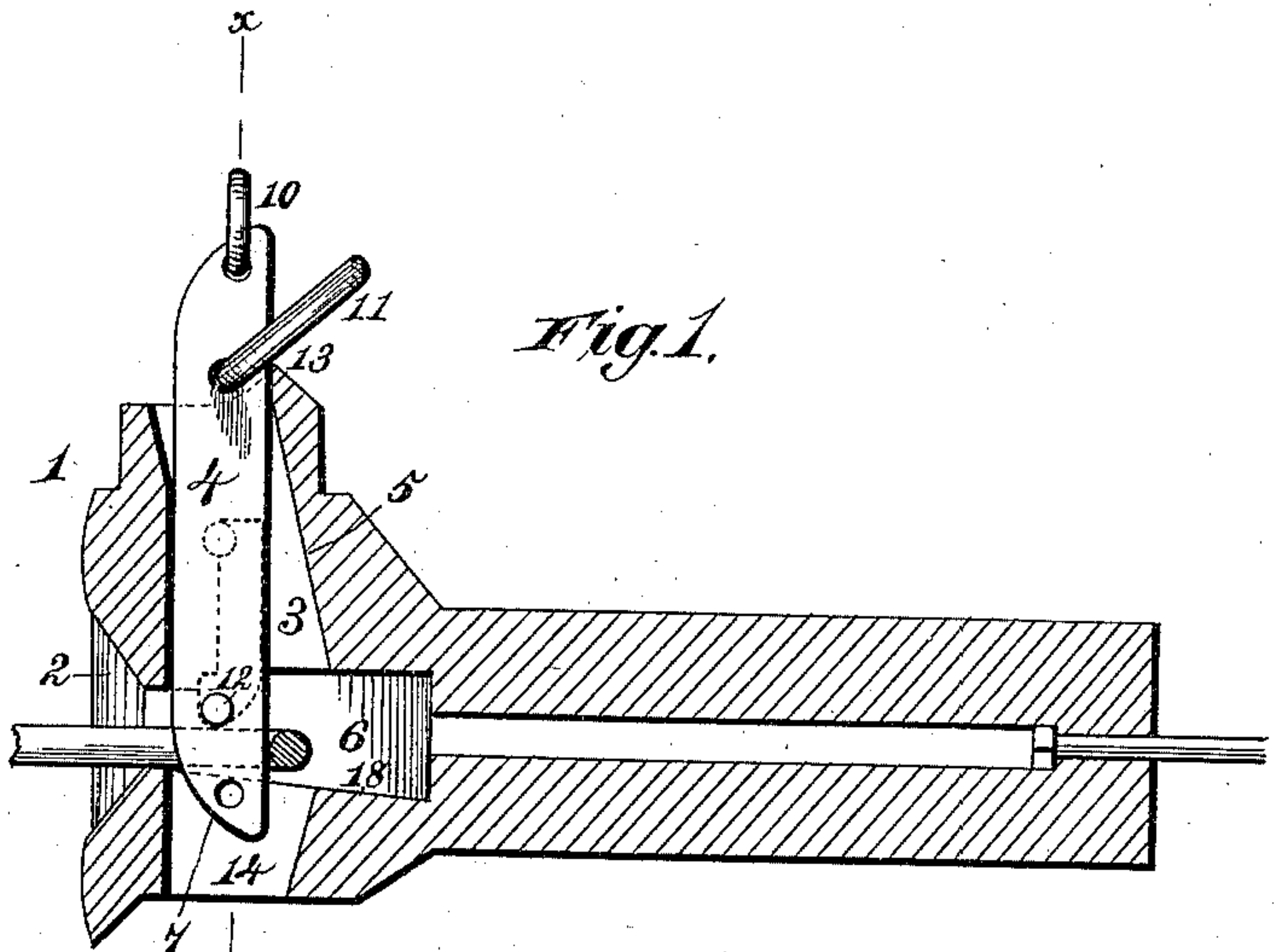


Fig. 4.

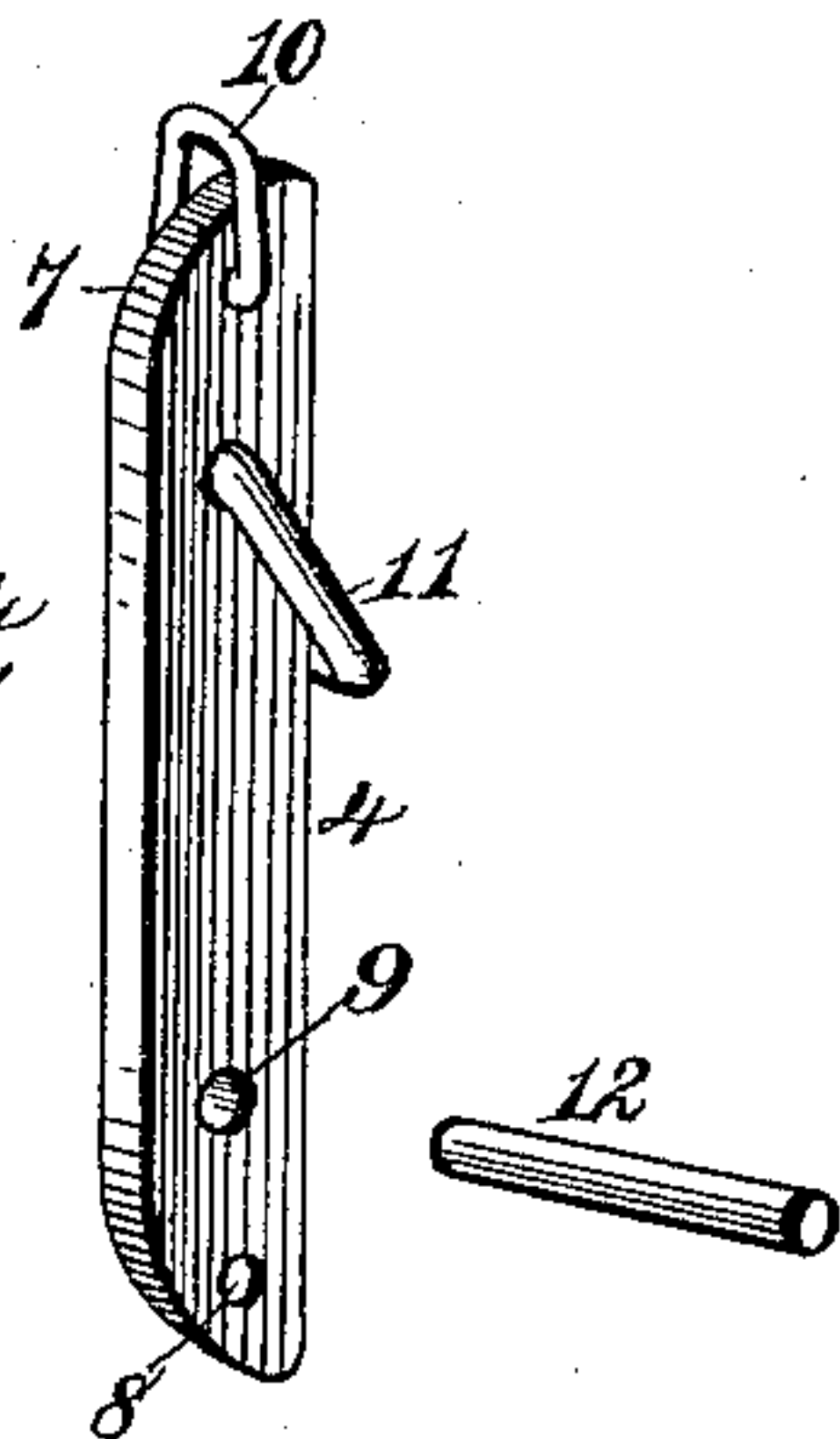


Fig. 2.

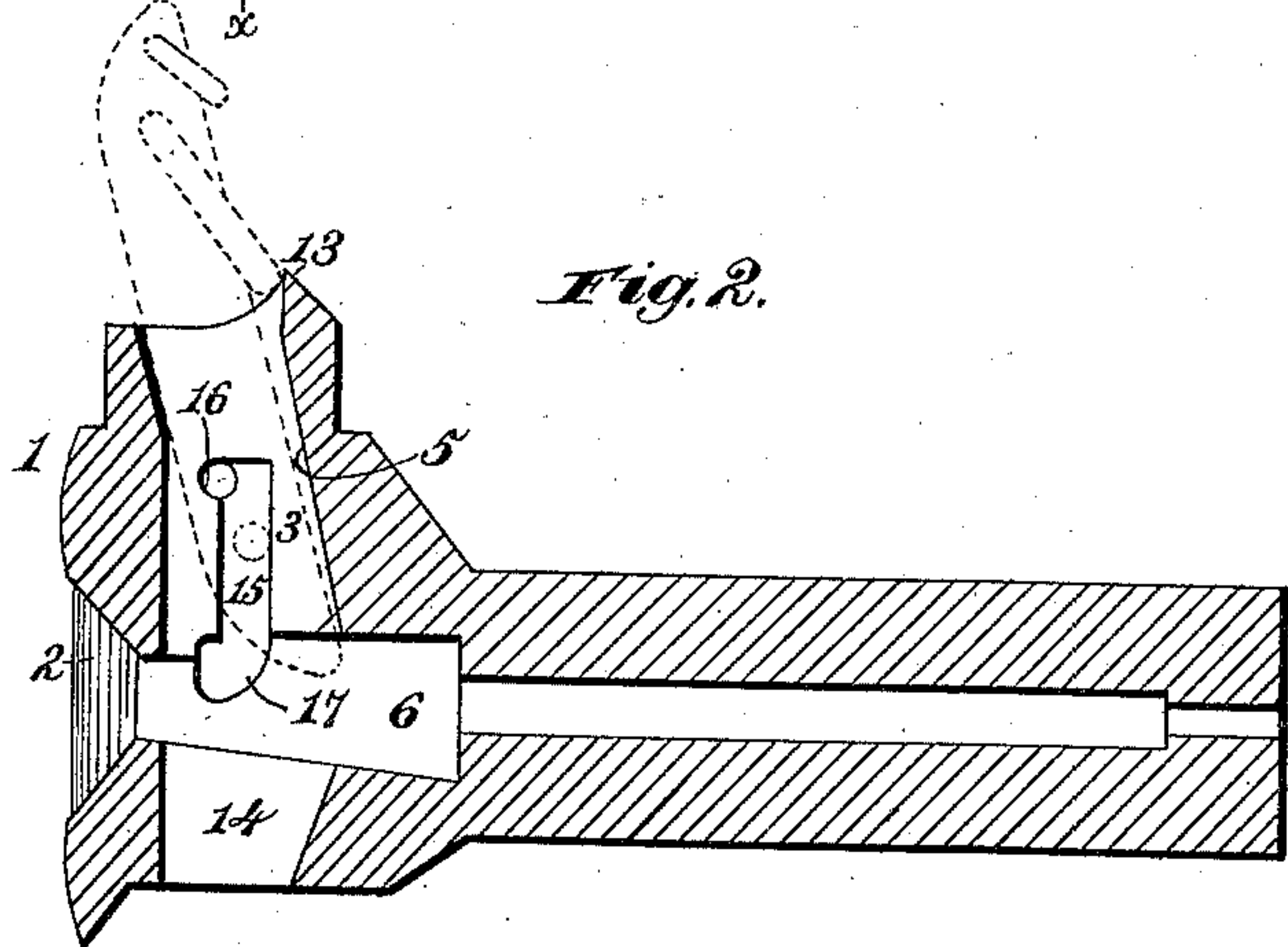


Fig. 5.

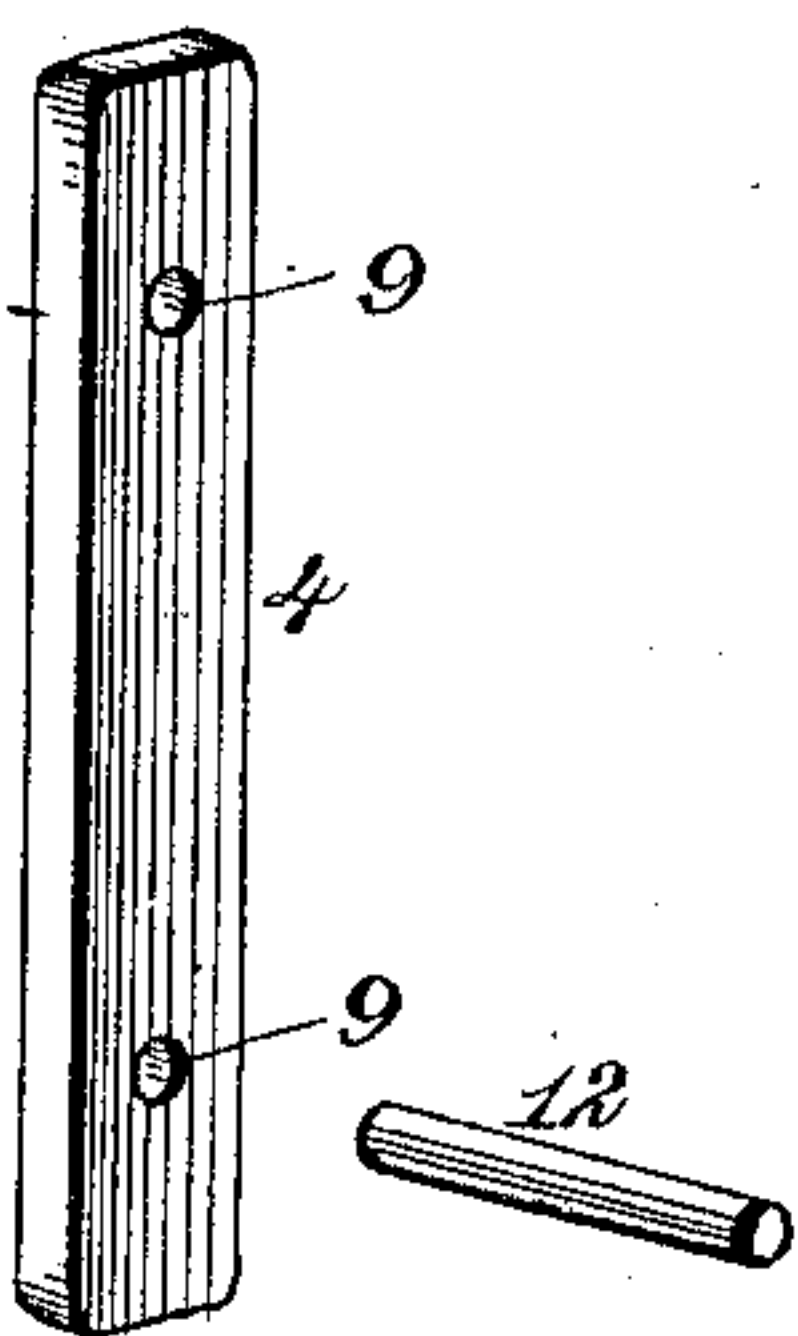
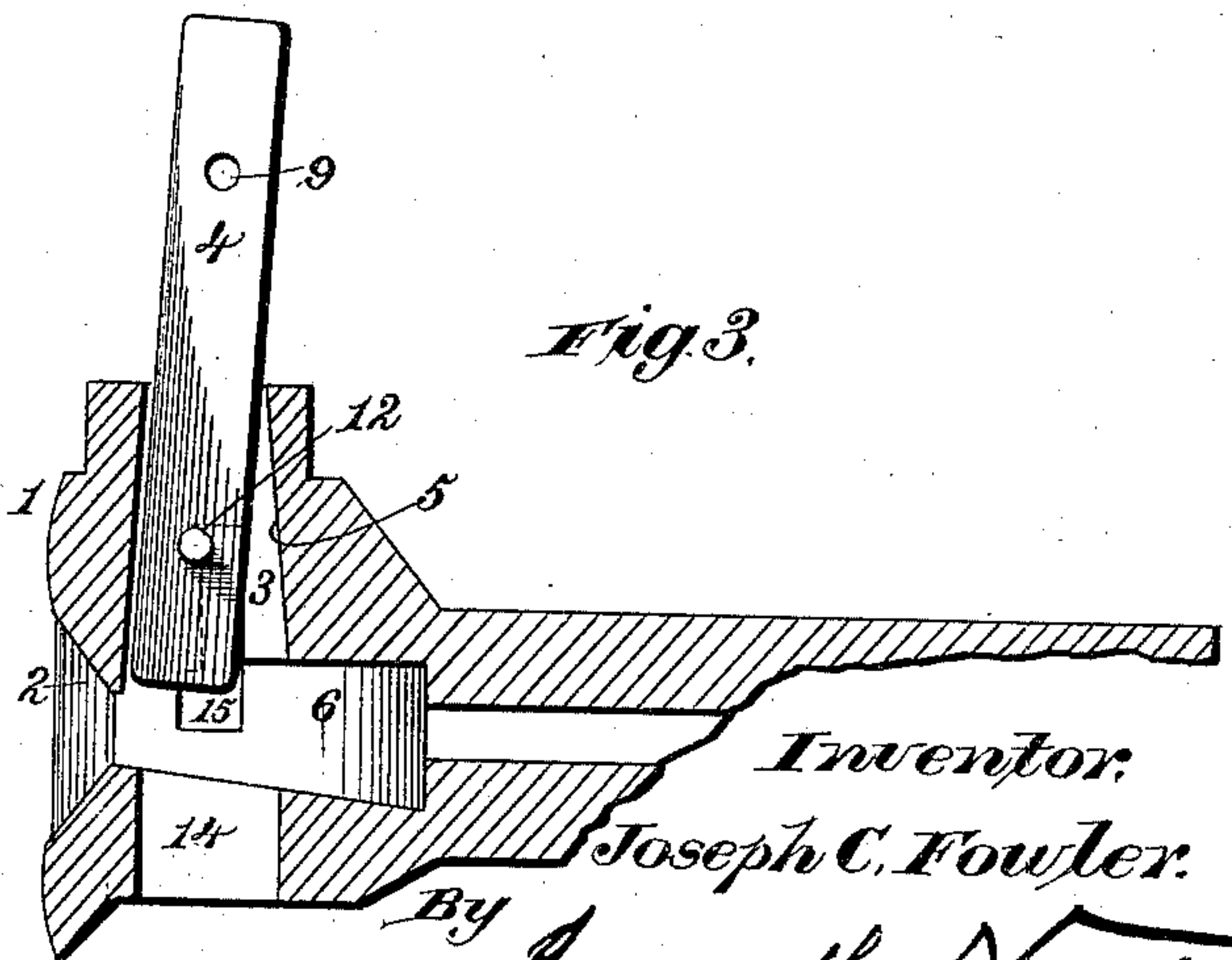


Fig. 3.



Witnesses.

Robert Everett.

J. A. Rutherford.

Inventor.

Joseph C. Fowler.

By

James L. Norris.

Atty.

UNITED STATES PATENT OFFICE.

JOSEPH C. FOWLER, OF GALVESTON, ASSIGNOR OF ONE-HALF TO SINCLAIRE TALIAFERRO, OF HOUSTON, TEXAS.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 277,701, dated May 15, 1883.

Application filed March 20, 1883. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH C. FOWLER, a citizen of the United States, residing at Galveston, in the county of Galveston and State of Texas, have invented new and useful Improvements in Car-Couplings, of which the following is a specification.

This invention relates to improvements in devices for coupling and uncoupling railway-cars, and has for its objects to provide a coupling-pin which can be reversed when one end becomes worn, to provide a reversible pin of novel construction, which is adapted to automatically engage the ordinary coupling-link, and to provide a coupling-pin of novel construction, with a device for holding it elevated when it is not desired to engage a coupling-link. These objects I accomplish in the manner and by the means hereinafter described and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a longitudinal sectional view of a draw-head provided with my invention, the coupling-pin being down and engaging the link; Fig. 2, a similar view, with the link held in its elevated position; Fig. 3, a similar view, showing a modified form of coupling-pin; Figs. 4 and 5, perspective views of the coupling-pins detached, and Fig. 6 a vertical sectional view taken on the line *xx* of Fig. 1.

In the drawings, number 1 indicates the draw-bar, having a mouth, 2, of suitable construction to receive a link, and a vertical throatway, 3, for the movements of the coupling-pin 4, the rear wall, 5, of the throatway inclining rearward from top to bottom, where it communicates with the enlarged chamber 6, whereby the pin can yield rearwardly when struck by the link of an adjoining car.

The coupling-pin shown in Figs. 1 and 2 is beveled at each end, as at 7, and adjacent thereto are two perforations, 8, at the extremities of the pin, being for the purpose of receiving a ring or loop, 10, by which to lift the pin for the purpose of releasing the coupling-link, or for adjusting the pin to be held in an elevated position, as hereinafter explained. The other perforations, 9, are for loosely receiving a bail or yoke, 11, and a transverse rod, 12, and by such construction and arrangement, if

one end of the pin becomes worn, injured, or broken, the rod 12 can be removed, the pin lifted from the draw-bar, the ring or loop and the bail or yoke applied to the perforations at the other end of the pin, and the latter inserted back into the draw-bar in a reversed position, after which the rod can be passed through the pin by a suitable passage-way formed transversely through the vertical side walls of the draw-bar. By lifting the coupling-pin and swinging the bail or yoke downward, so that its outer extremity rests upon a vertical projection, 13, of the draw-bar, as shown in Fig. 2, the pin is retained in an elevated position, and hence will not engage a link; but if the pin be in its lower position an entering link will strike its beveled end, move such pin rearward, and by the beveled end raise the same, so that the link can pass beneath the pin, when the latter will fall through the link and its lower end enter the pin-hole 14 in the bottom wall of the draw-bar.

In Fig. 3 the coupling-pin is not beveled at its ends, but is of rectangular shape, having, however, the perforations for the reception of the transverse rod, whereby the pin can be reversed, as hereinbefore explained. The side walls of the draw-bar are provided on their inner surfaces with vertical recesses 15, in which the ends of the transverse rod are arranged to move, and at the upper ends of the recesses are arranged lateral pockets 16, so that if the coupling-pin be lifted and slightly tipped to cause the ends of the transverse rod to enter the said pockets the pin will by such means be retained in its elevated position without the necessity of employing the swinging bail or yoke for this purpose. The lower rear edges of the vertical recesses 15 are curved, as at 17, as shown in Figs. 1 and 2, to permit the pin to automatically couple cars, while in Fig. 3, where the pin does not automatically couple, the curved rear edges of the recesses are not essential.

It will be obvious that the ends of the transverse rod are by the recesses accurately guided in the vertical movements of the pin, and, further, that such rod prevents accidental displacement of the pin from the draw-bar.

The bottom wall of the chamber 6 in the

draw-bar is inclined downward, as at 18, the object of which is to present the outer end of the link in varying positions to approaching cars to fulfill all conditions that may be required, as where draw-heads of different heights are to be coupled. If the link be inserted to its limit within the draw-bar, the outer end will be thrown upward to its highest limit, while any forward adjustment of the pin will, by reason of the increasing leverage of the forward end of the link, cause the latter to uniformly lower itself, thereby permitting the link to be adjusted to the plane required. In whatever plane the link may be adjusted, it will be held by the weight of the coupling-pin through the medium of the transverse rod bearing thereon.

It will be seen that by making the pin with two similar ends and rendering it reversible, as set forth, I obtain two wearing-surfaces—one at each end of the pin.

A suitable lever or other contrivance can be employed for lifting the coupling-pin, and the draw-bar will be connected with the car by any of the well-known attaching devices.

By making the coupling-pins reversible, as herein explained, they are rendered exceedingly serviceable, and consequently desirable where saving of coupling-pins is a matter of considerable consequence.

Having thus described my invention, what I claim is—

1. A coupling-pin having a perforation adjacent to each end, in combination with a draw-bar and a detachable transverse rod, whereby the pin can be reversed and confined in either

position within the draw-bar by the said rod, substantially as described.

2. The combination with a draw-bar having vertical recesses in its side walls, of a reversible coupling-pin having a perforation adjacent to each end, a detachable transverse rod for guiding and confining the pin in either position within the draw-bar, and means for holding the pin in an elevated position, substantially as described.

3. A coupling-pin for passing through a coupling-link, provided with a swinging bail or yoke for resting against the top of the draw-bar to hold the pin in an elevated position, substantially as described.

4. The combination, with a draw-bar having its side walls provided with vertical recesses, of a coupling-pin having a transverse rod detachably connected therewith, adjacent to one end, and a swinging bail or yoke at the other end of the pin, which is adapted to rest upon the top of the draw-bar to hold the pin in an elevated position, substantially as described.

5. A reversible coupling-pin having a perforation adjacent to each end, combined with the detachable bail or yoke, and the detachable transverse rod for permitting interchangeability of the parts when the pin is to be reversed, substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

J. C. FOWLER.

Witnesses:

JAMES L. NORRIS,
J. A. RUTHERFORD.