

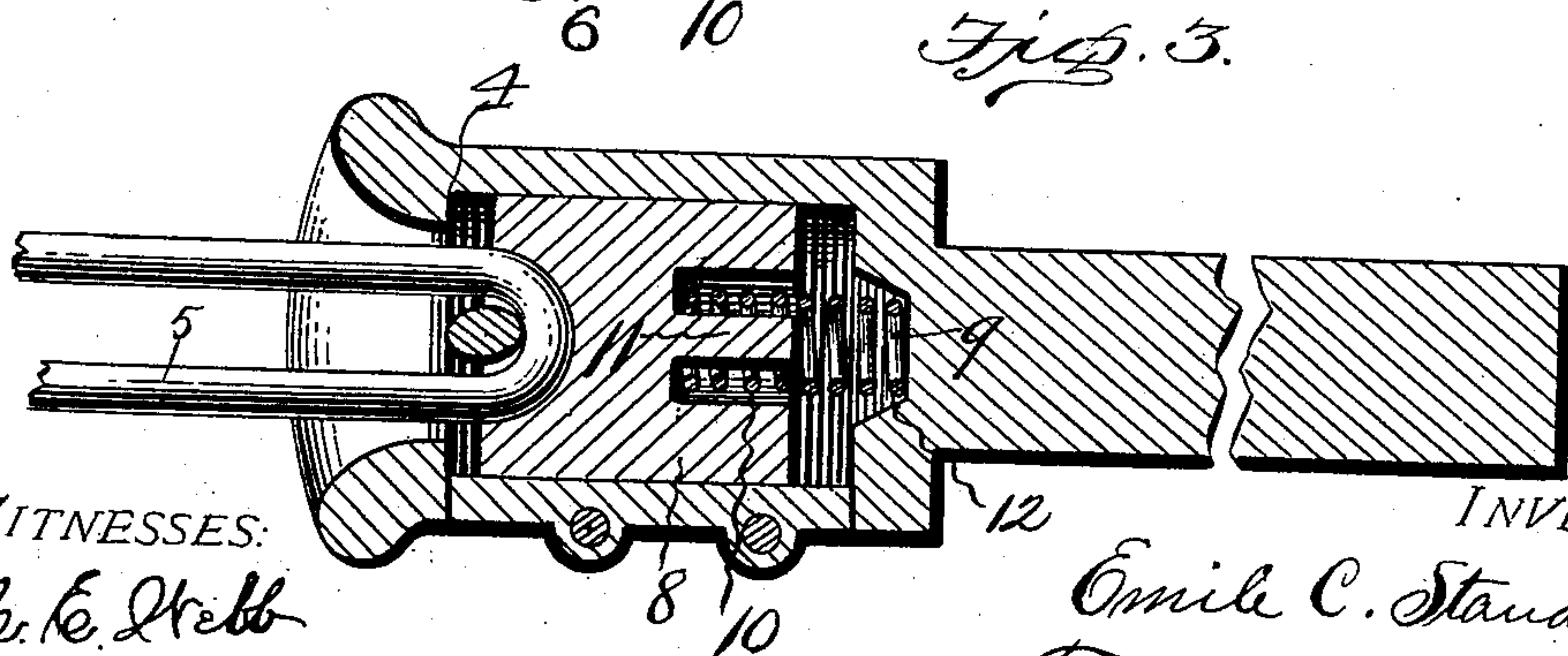
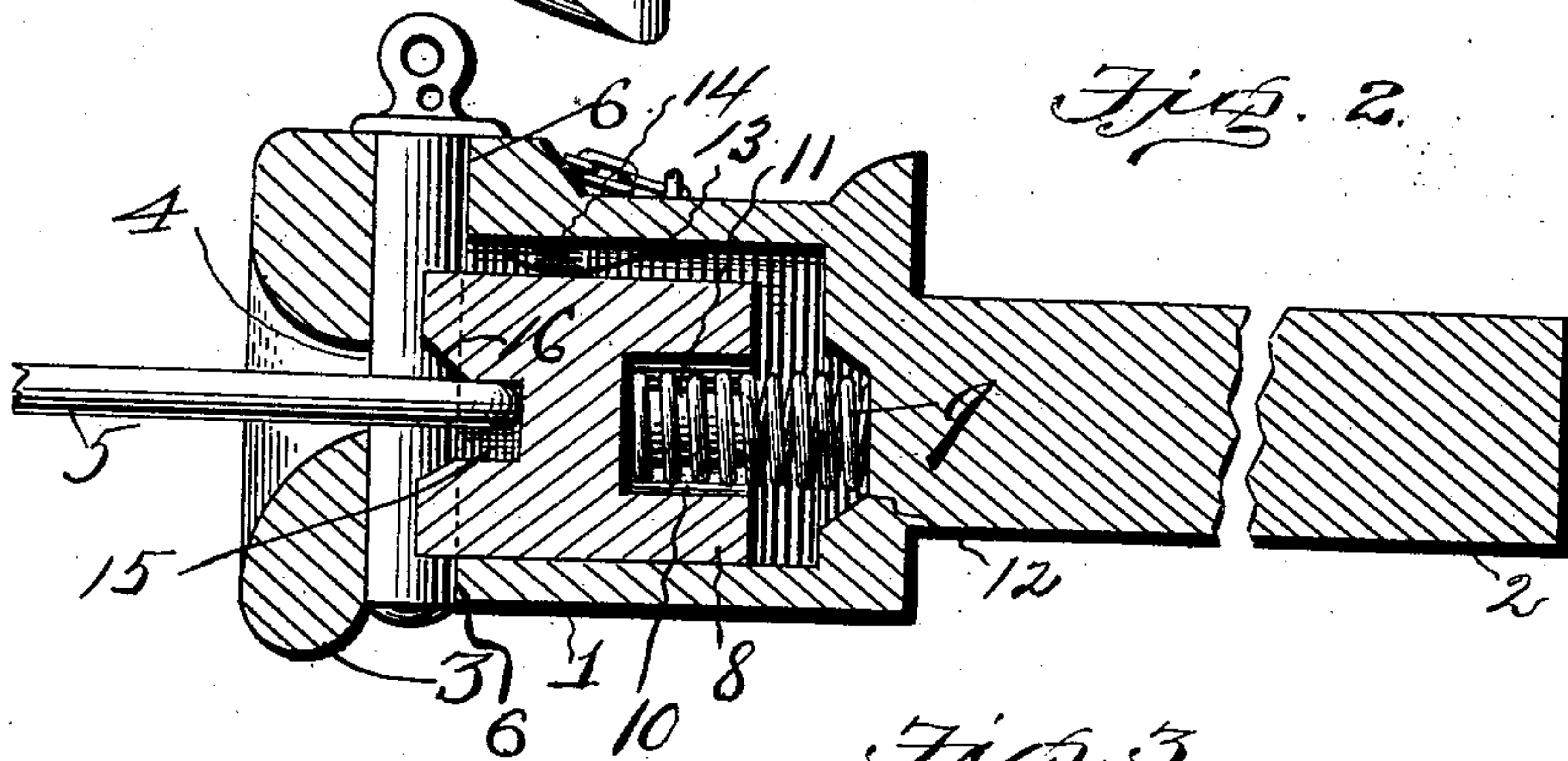
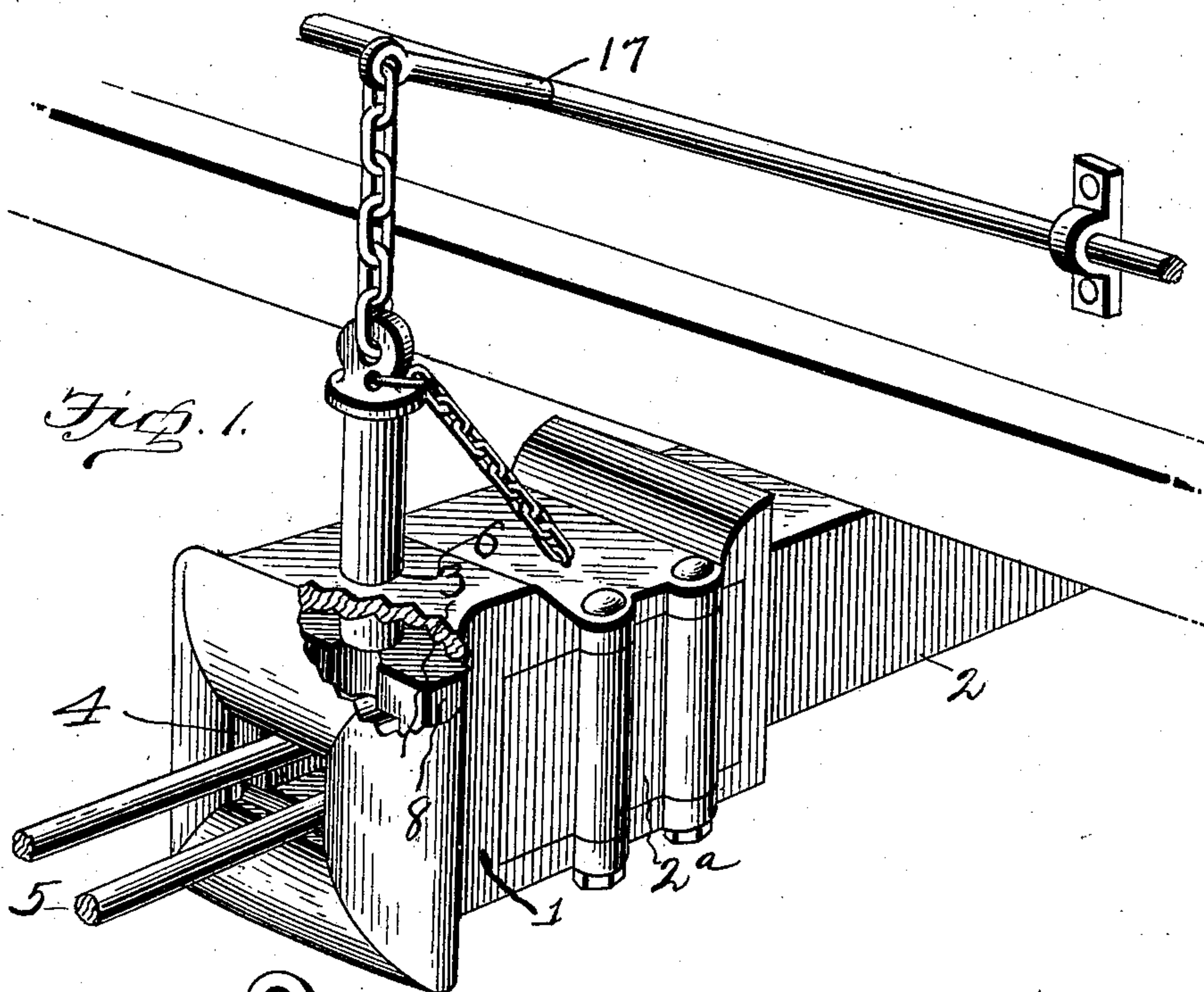
No. 689,761.

Patented Dec. 24, 1901.

E. C. STAUDINGER.  
CAR COUPLING.

(Application filed Aug. 24, 1901.)

(No Model.)



WITNESSES:

*C. E. Webb*

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# UNITED STATES PATENT OFFICE.

EMIL C. STAUDINGER, OF NEW ORLEANS, LOUISIANA.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 689,761, dated December 24, 1901.

Application filed August 24, 1901. Serial No. 73,140. (No model.)

*To all whom it may concern:*

Be it known that I, EMIL C. STAUDINGER, a citizen of the United States of America, residing at New Orleans, in the parish of Orleans and State of Louisiana, have invented certain new and useful Improvements in Car-Couplers, of which the following is a specification.

This invention relates to car-couplers, and particularly to that class known as the "link-and-pin" type.

The object of the invention is to produce a link-and-pin coupler in which a pin-support is provided by which said pin may be held in a normally vertical position and whereby it is released when the link of the opposite coupler trips the pin-support, it being understood that the links and pins may be set while the cars are separated in order that they will automatically couple when brought together, thus obviating the necessity for a brakeman or other operator remaining between the bumpers when the cars approach.

A further object of the invention is to provide a car-coupler which will possess advantages in points of simplicity and efficiency and proving at the same time comparatively inexpensive to produce and sustain.

With the above and other objects in view the invention consists in the details of construction and in the arrangement and combination of parts to be hereinafter more fully set forth and claimed.

In describing the invention in detail reference will be had to the accompanying drawings, forming part of this specification, wherein like characters denote corresponding parts in the several views, and in which—

Figure 1 is a perspective view of the end of a car with the invention applied thereto. Fig. 2 is a similar view showing the pin engaging the link. Fig. 3 is a horizontal sectional view with the link-and-pin engaging device shown in plan.

In the drawings, 1 indicates a hollow draw-head, and 2 a draw-bar formed with the head. The head has an opening in its side closed by the plate 2<sup>a</sup>. The front end of the head is partially inclosed by a face-plate 3, having an opening 4 therein for the reception of the link 5. The face of the draw-head tapers to the opening 4 in order to form a guide for the

link, that it may pass within the opening to the interior of the draw-head. The draw-head has openings 6 at the top and bottom, just at the rear of the face-plate 3, for the reception of the pin 7.

A sliding block 8 is seated in the draw-head and is held normally projected forwardly by the action of the spring 9, bearing against the rear wall of the draw-head. The rear surface of the block is recessed in a manner to form an annular seat 10 for the spring and a stud 11, which projects into the spring to hold it on a horizontal plane. The rear wall of the draw-head is recessed at 12 to form a seat for the rear end of the spring.

Secured to the upper inner wall of the draw-head is a plate 13, which extends forwardly on an incline to engage the upper surface of the block. A spring 14 bears against the upper wall of the draw-head and the plate in order to yieldingly retain the said block in the bottom wall of the draw-head.

The forward end of the slidable block 8 is recessed at 15, said recess extending considerably below the opening in the face-plate. As shown in Fig. 2, the pin is in place to hold the link within the draw-head for engaging the coupler of the opposite car.

As shown in Fig. 1, the pin is supported by the sliding block in a vertical position, and when the link enters the draw-head and displaces the sliding block from the position there shown the pin will fall by gravity through the lower hole 6 and prevent the withdrawal of the link. The recess in the face of the sliding block is curved to conform to the contour of the end of a link, thereby insuring a maximum frictional engagement between the link and the sliding block. The recess in the sliding block is flared, as shown at 16, in order that the link coming in contact therewith may be guided to the main recess, as shown at 3. It will be observed that the pin as supported will automatically engage the link as soon as the sliding block is displaced by the link, hence effecting an automatic coupling with the link-and-pin type. The pin of each coupler is withdrawn by means of the lever 17, projecting at the side of the car.

It is noted that various changes in the proportions and details of construction may be



made without departing from the scope of the claims.

Having thus fully described the invention, what I claim as new, and desire to secure by

5 Letters Patent, is—

1. In a car-coupler, a hollow draw-head having an opening in its wall, a closing-plate bolted in the opening of the draw-head, a sliding block in the draw-head, springs in the rear  
10 and on the top of the sliding block; said sliding block having a recess extending below the link-opening of the face-plate, whereby the said link may rest on the edge plate, and a pin for holding the link in place, the elements being so arranged as to permit the link  
15 to rest on the face-plate and be frictionally held at varying inclinations by the sliding block and pin.

2. In a car-coupler, a hollow draw-head having an opening in its wall, a plate set in the opening and secured, a block in the draw-head having a recessed rear wall and a stud projecting into the recess, a spring in the recess encircling the stud, a spring-pressed  
20 plate bearing on the top of the block, said block having a recess in its front wall about centrally, extending below the lower edge of the link-opening of the draw-head, said sliding block having a vertical recess for the pin,  
25 the elements being so arranged as to permit

the link to rest on the face-plate and be frictionally held at varying inclinations by the sliding block and pin, substantially as described.

3. In a car-coupler, a hollow draw-head having an opening in its wall, a plate set in the opening and secured, a block in the draw-head having a recessed rear wall and a stud projecting into the recess, a spring in the recess encircling the stud, a spring-pressed plate bearing on the top of the block, said block having a recess in its front wall about centrally, extending below the lower edge of the link-opening of the draw-head, said sliding block having a vertical recess for the pin, the front  
35 wall of the block being beveled from the edge to the first-named recess in the front wall, the elements being so arranged as to permit the link to rest on the face-plate and be frictionally held at varying inclinations by the  
40 sliding block and pin, substantially as described.

In testimony whereof I affix my signature, in the presence of two witnesses, this 28th day of June, 1901.

EMIL C. STAUDINGER.

Witnesses:

JNO. J. WARD,  
H. M. DANNIEL.