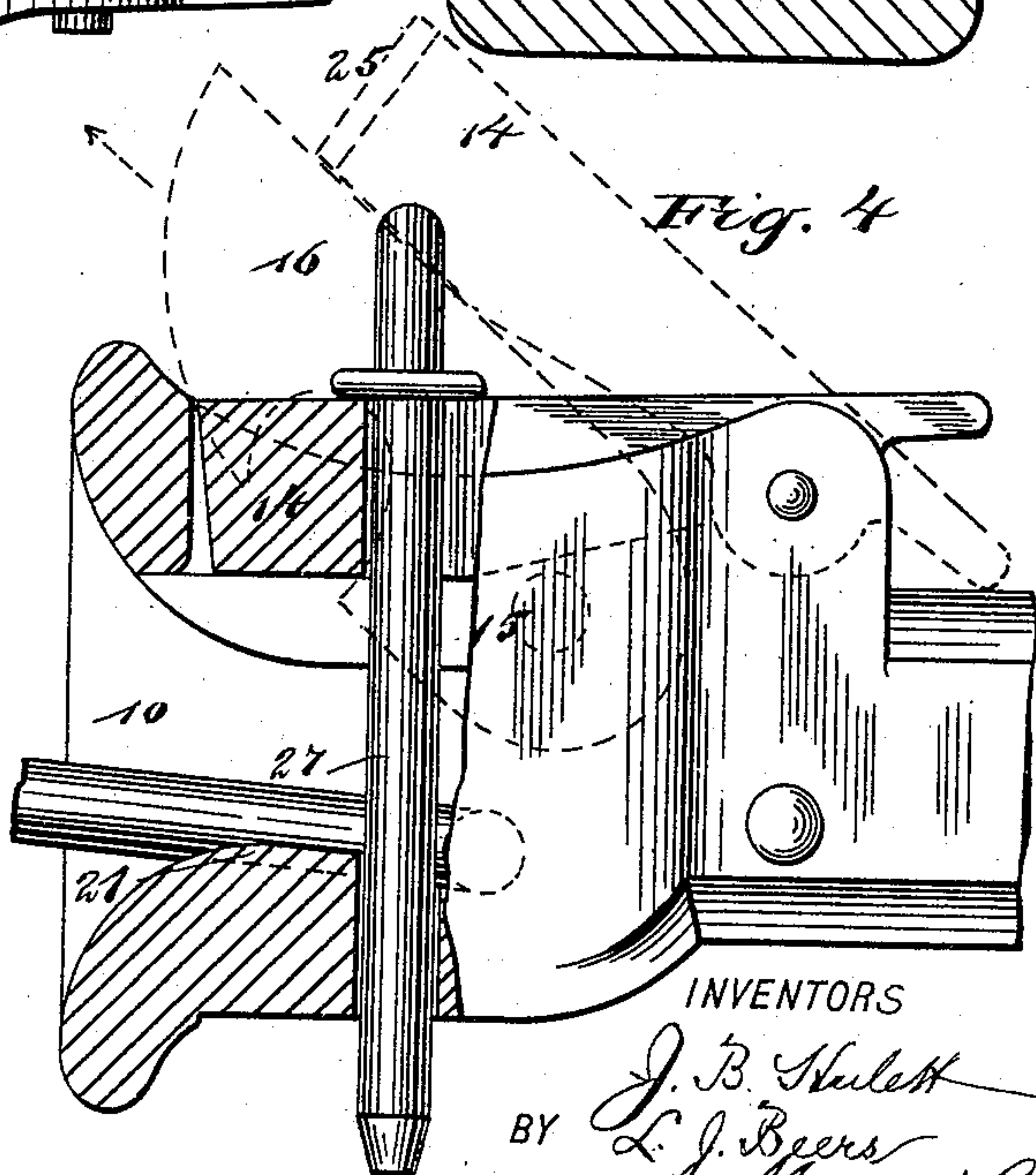
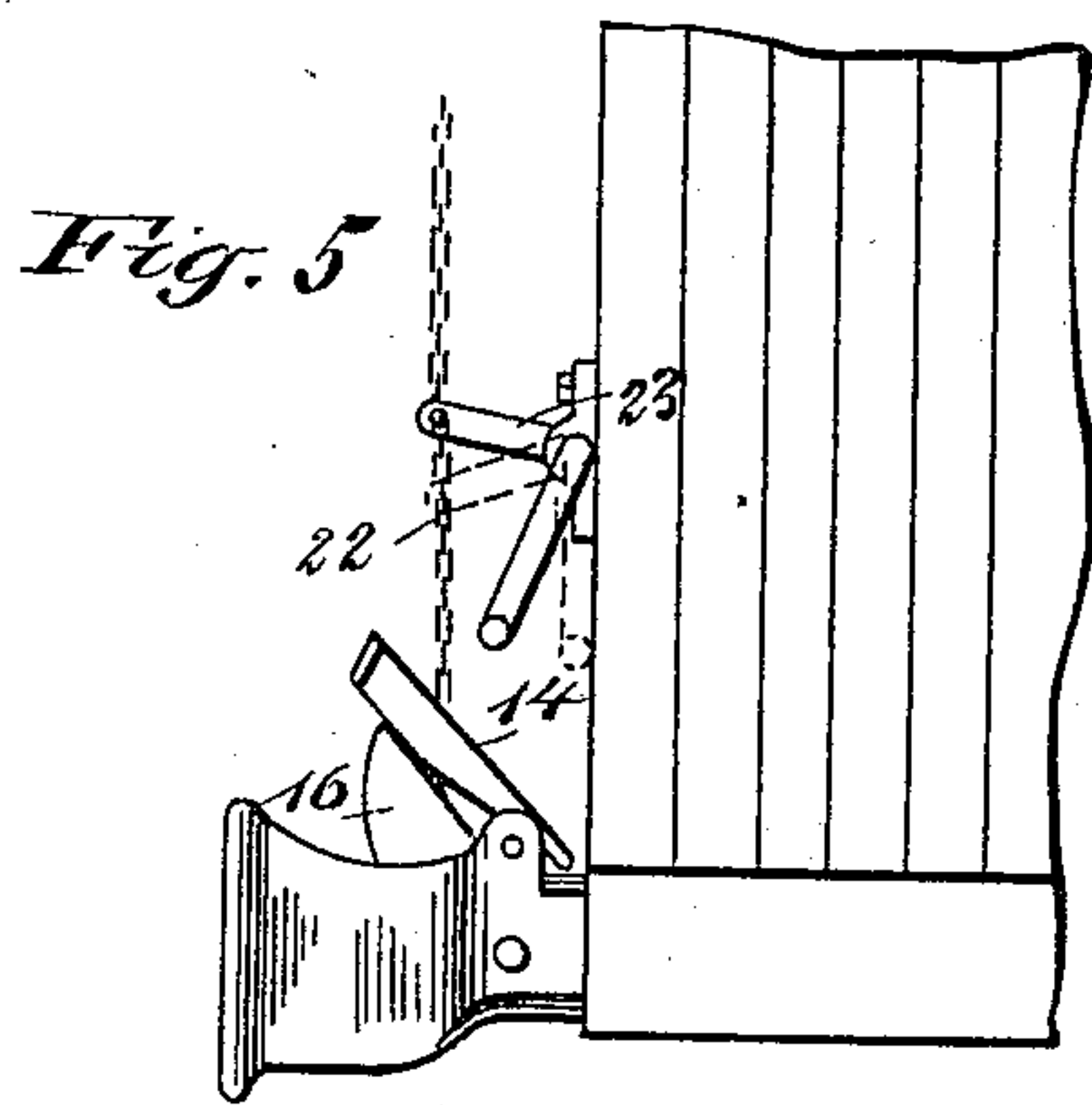
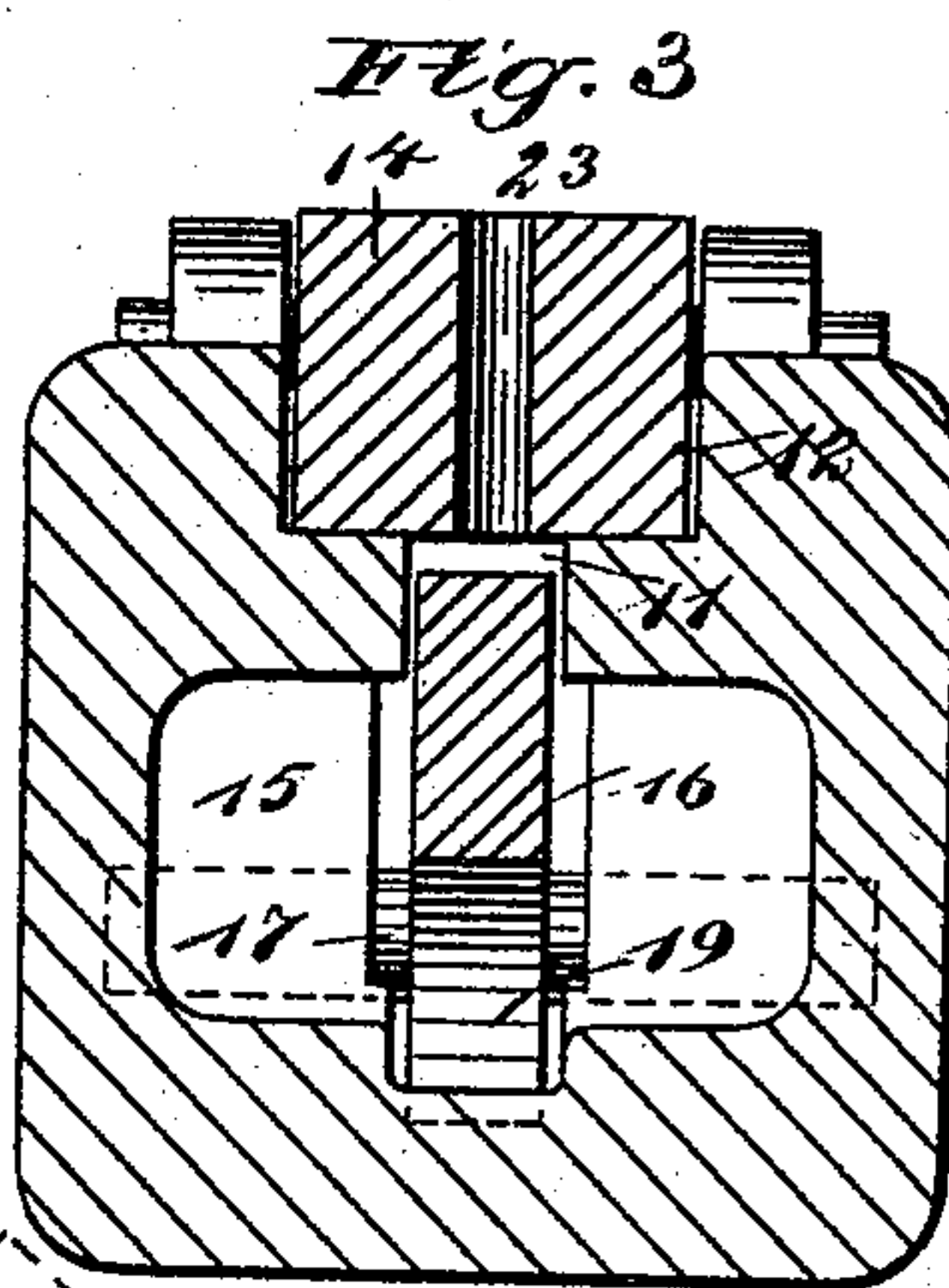
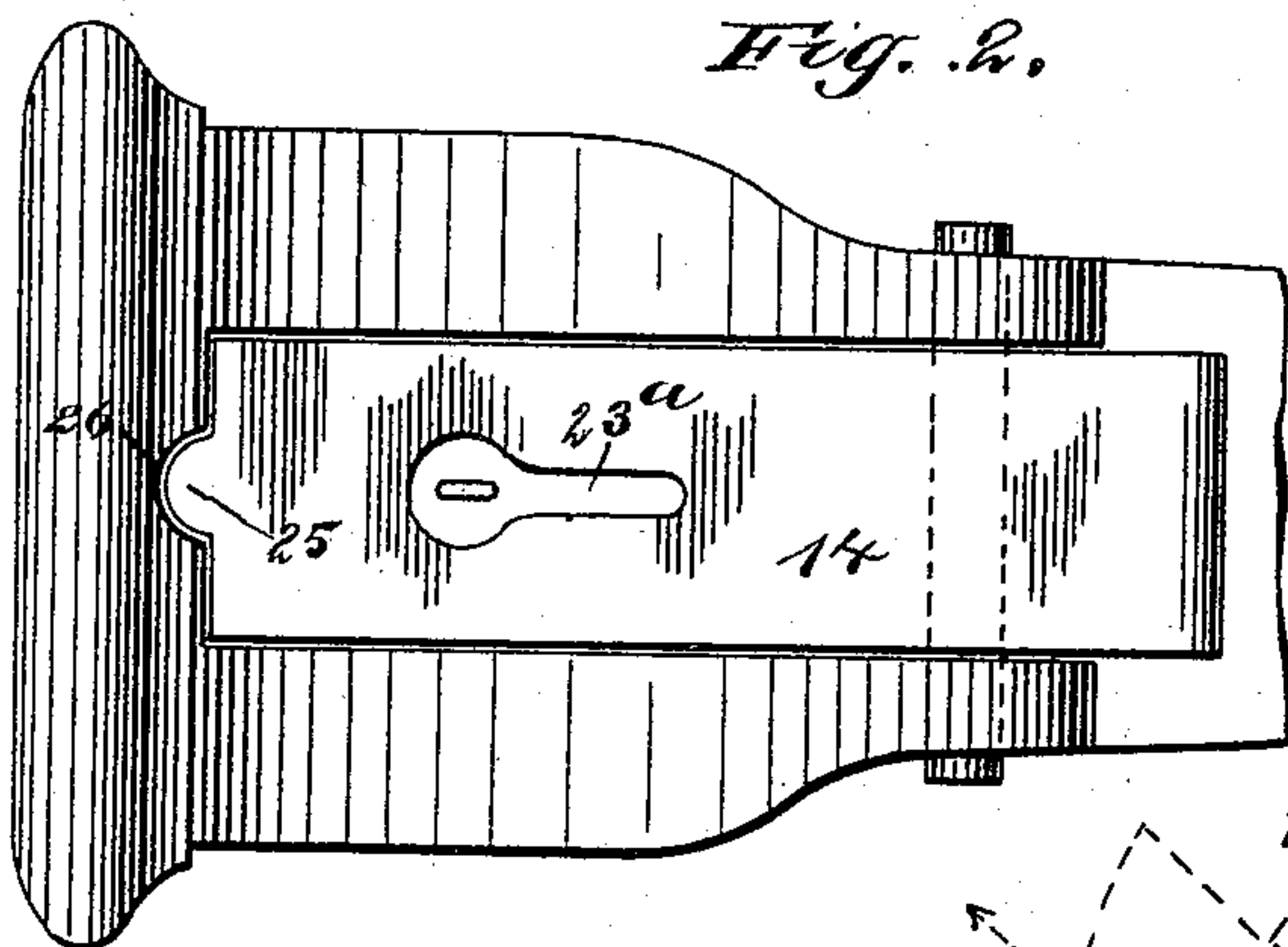
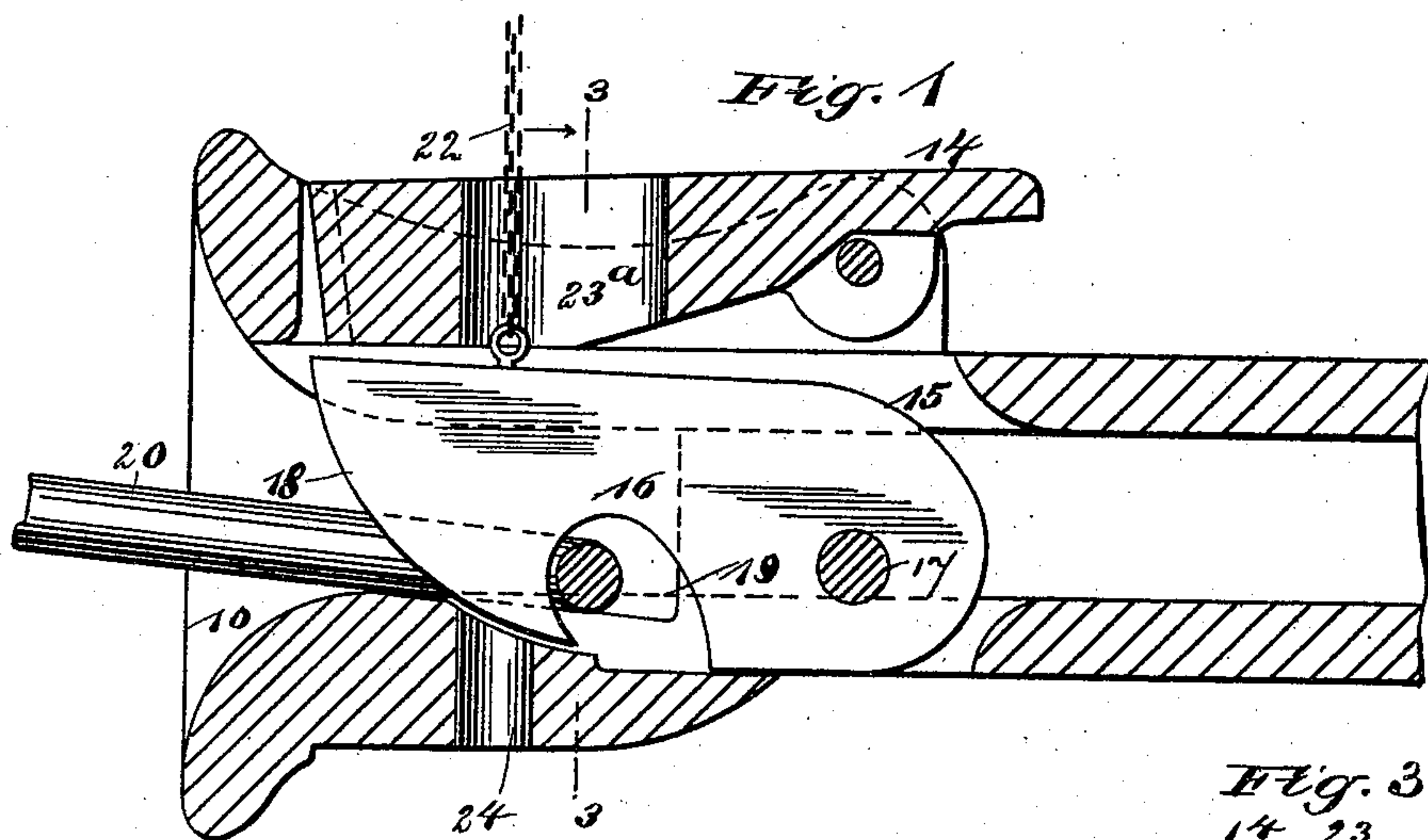


(No Model.)

J. B. HULETT & L. J. BEERS.
CAR COUPLING.

No. 488,814.

Patented Dec. 27, 1892.



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UNITED STATES PATENT OFFICE.

JOSEPH B. HULETT AND LOUIS J. BEERS, OF MIDDLETOWN, NEW YORK.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 488,814, dated December 27, 1892.

Application filed April 12, 1892. Serial No. 428,792. (No model.)

To all whom it may concern:

Be it known that we, JOSEPH B. HULETT and LOUIS J. BEERS, of Middletown, in the county of Orange and State of New York, have invented a new and useful Improvement in Car-Couplers, of which the following is a full, clear, and exact description.

Our invention relates to an improvement in car couplers, and has for its object to provide a coupler which will be exceedingly simple and durable, and another object of the invention is to provide a coupler in which the link will be held in substantially a horizontal position, whereby it may be automatically guided into an opposing drawhead, and also whereby the link will be held in such a manner as to permit it to have limited upward and downward movement as well as a lateral movement so that it may be capable of entering opposing drawheads of greater or less height.

Another object of the invention is to provide in connection with the link a hook-shaped pin for maintaining the link in place, and a weight used in conjunction with the pin so arranged that the pin will be normally held in a lower or coupling position, and to so construct the hook-like pin that when in the coupling position a link entering the drawhead in which the pin is located will be grasped by the pin without the assistance of an attendant.

Another object of the invention consists in constructing the coupling in such manner that in the event the hook-like pin should break or become useless it may be readily removed and replaced by another, and whereby also the hook-like pin may be conveniently and expeditiously removed and the coupling be made to act as an ordinary link and pin coupler.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth and pointed out in the claims.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a central longitudinal and vertical section through the coupler; Fig. 2 is a

plan view; Fig. 3 is a vertical transverse section on the line 3—3 of Fig. 1; Fig. 4 is a partial vertical section through the coupler, illustrating the pivoted coupling pin as removed and an ordinary coupling pin as applied; and Fig. 5 is a broken side elevation of a car having the invention applied.

The drawhead is provided with the usual link opening 10, the upper wall of which is provided with a longitudinal slot 11, and this slot extends upward in direction of and communicates with a recess 12, produced in the upper outer face of the drawhead. In the recess 12, the rear end of a weight 14, is pivoted. This weight is normally adapted to fill the recess and to rest upon the bottom wall thereof, as shown in Fig. 1, the rear under portion of the weight being cut away in order that its forward and free end may be elevated. This weight partakes therefore of the contour of the recess 12, which is usually made more or less square or rectangular. The link opening 10 of the drawhead communicates with the usual interior chamber 15; and within this chamber the rear end of the hook like pin 16, is pivoted. This pin is pivoted preferably through the medium of a pin 17, which passes through it and through the sides of the drawhead, and this pin is made removable in order that the hook-like pin may be removed from the drawhead when in practice it is found desirable. The forward end of the hook like pin is curved from the top downwardly and rearwardly, this curved surface being designated as 18 in the drawings, and the hook is formed by producing at the back of this curved under surface 18 a recess 19, the said recess being made in the under edge of the pin. The weight 14, being above this pin will normally keep it in a horizontal position within the drawhead chamber; but the coupling pin 16 may be forced upward by an entering link 20, during the process of coupling, as the force exerted upon the link by the hook-like pin will elevate the weight 14. If in practice it is found desirable, channels 21 may be made in the bottom of the link opening to receive the link, as shown in dotted lines in Fig. 4.

The hook-like coupling pin 16, may be

raised to effect an uncoupling by attaching to it one end of a link or chain 22, and this link or chain is secured to any form of rock shaft or lever 23, attached to the rear end of the car, as shown in Fig. 5, and capable of being operated from either side of the car, and a second lever or shaft may be located at the top of the car to manipulate the pin from that point. This link or chain 22 passes up through an opening 23^a, which is made in the weight 14. This opening is preferably made in the shape of a key-hole slot, as shown in Fig. 2; and immediately below the larger section of the opening an aperture 24, is produced in the bottom wall of the link opening of the drawhead, extending through to the bottom thereof.

In the operation of coupling, the link being held in an opposing drawhead, when two couplers are brought together, the link will strike the curved or beveled surface of the pin in the drawhead without a link, will raise the said hook-like pin passed beneath it and enter the recess 19 in the pin. When the pin is elevated the weight 14, is carried upward also, but the moment that the link has entered the recess 19, and the head of the hook-like pin has passed through the pin, the weight 14 instantly and automatically acts to force the pin down to its coupling position, from which position it can not be moved except purposely, no matter whether or not the cars may be traveling upon a most decided curve. The weight which exerts its influence more or less upon the hook-like coupling pin will so bear down the link at its inner end that it will be held in suspension in a horizontal position, as shown in Fig. 1, yet the link will be free to move upward to a limited extent, or downward or in direction of either side, so that it may couple with an opposing drawhead which is of greater or less height from the track.

The weight is provided at its forward end with a lip 25, and this lip is adapted to enter a concavity 26, produced in the forward wall of the upper recess 12. This concavity is to admit of the coupling pin being removed from the drawhead when occasion may require; and this is effected by elevating the weight, as shown in dotted lines in Fig. 4, removing the pivot pin 17, and drawing the coupling pin upward and outward. It will thus be seen that the coupling pin, should any accident happen thereto, may be replaced by another; but if a coupling pin of the hook type is not at hand an ordinary coupling pin 27 may be employed, in which event the coupling pin is passed down through the larger portion of the opening 23^a in the weight 14,

and also through the opening 24 in the drawhead, as illustrated in Fig. 4.

Having thus described our invention, we claim as new and desire to secure by Letters Patent,—

1. In a car coupler, the combination, with a drawhead, of a hook shaped coupling pin pivoted therein, and a weight pivoted above the coupling pin and normally maintaining the said pin in a coupling position, as and for the purpose specified.

2. In a car coupler, the combination, with a drawhead, of a coupling pin of the hook type removably pivoted within the interior chamber of the drawhead, the drawhead being provided with a recess in its upper surface leading into said chamber, and a weight fulcrumed within the recess of the drawhead, the said weight being capable of elevation and normally acting to maintain the coupling pin in a coupling position, and means, substantially as shown and described for elevating the coupling pin, as and for the purpose set forth.

3. In a car coupler, the combination, with the drawhead provided with a recess in the bottom wall of its interior chamber, extending through said wall and provided with a recess in its top leading into the said interior chamber, of a coupling pin of the hook type pivoted within the interior chamber of the drawhead, a weight pivoted in the upper recess of the drawhead and provided with an opening therein, and a chain or link leading upward from the coupling pin through the opening in the weight, as and for the purpose set forth,

4. In a car coupler, the combination, with a drawhead provided with an interior chamber and the usual link opening, an aperture formed in the lower wall of the interior chamber and extending through said wall, and also provided with a recess in its upper face, said recess having a concavity produced in one wall, of a coupling pin of the hook type pivoted within the chamber of the drawhead, a weight fulcrumed within the upper recess of the drawhead, having a lip entering the concavity of the end wall of said recess and provided with an opening extending through and practically of the key-hole type, the larger portion of this opening being in vertical alignment with the aperture in the bottom of the drawhead, and means, substantially as shown and described, for elevating the coupling pin, as and for the purpose set forth.

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LOUIS J. BEERS.

Witnesses:

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