

(No Model.)

B. S. REDDING
CAR COUPLING.

No. 437,514.

Patented Sept. 30, 1890.

Fig. 4.

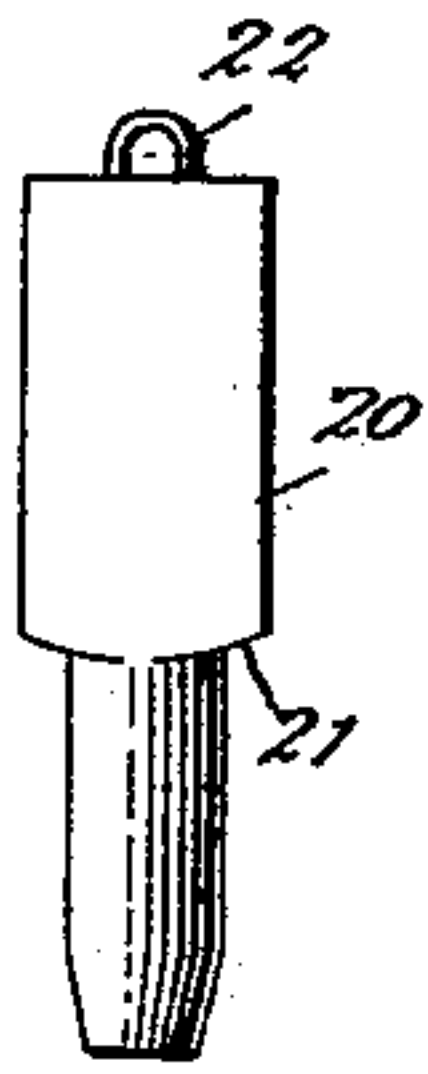


Fig. 1.

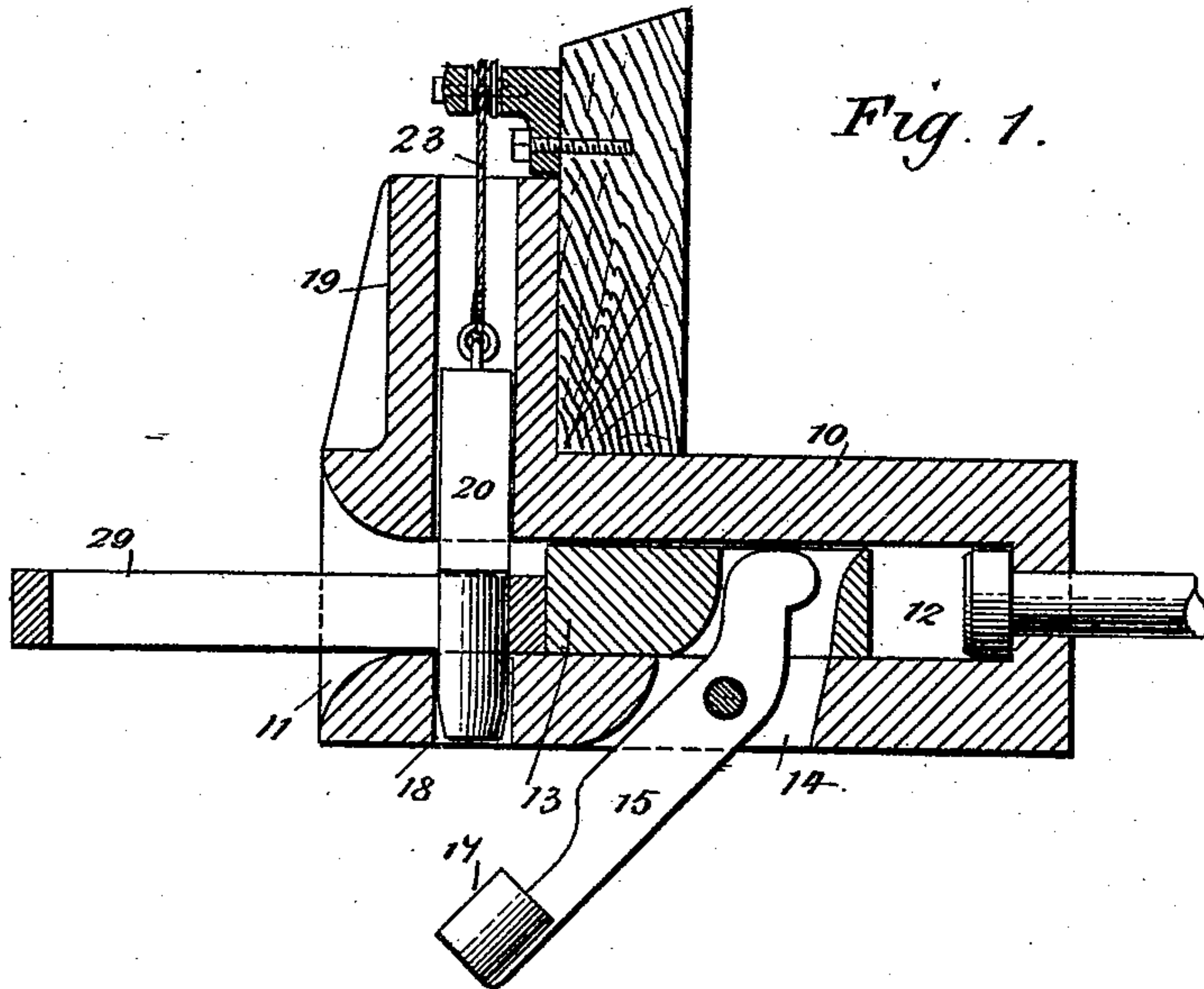


Fig. 2.

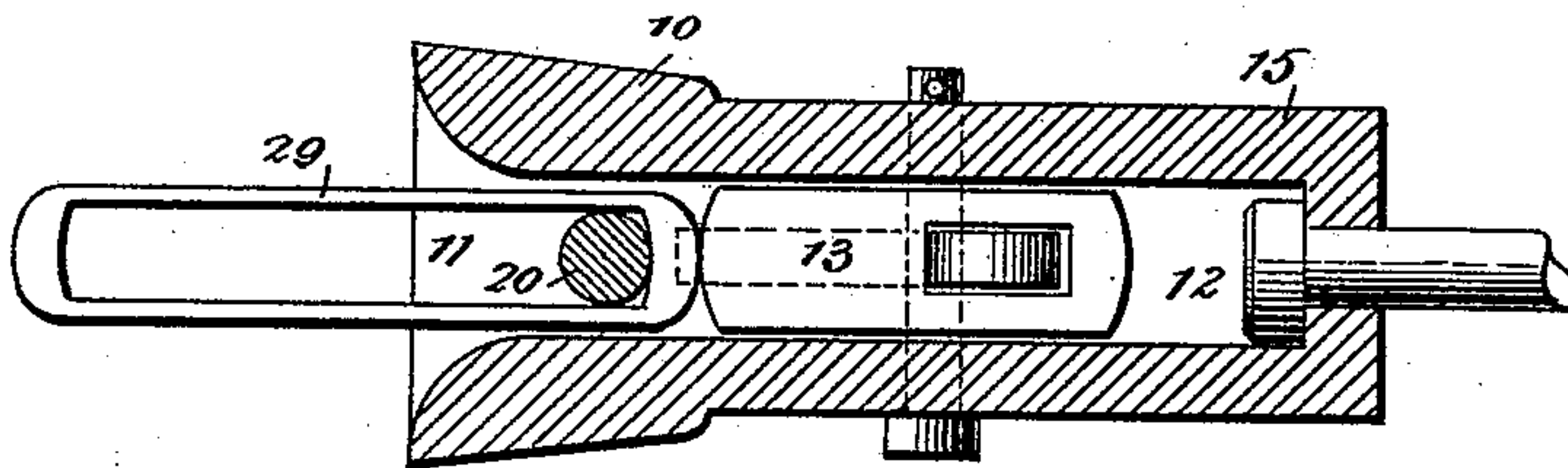
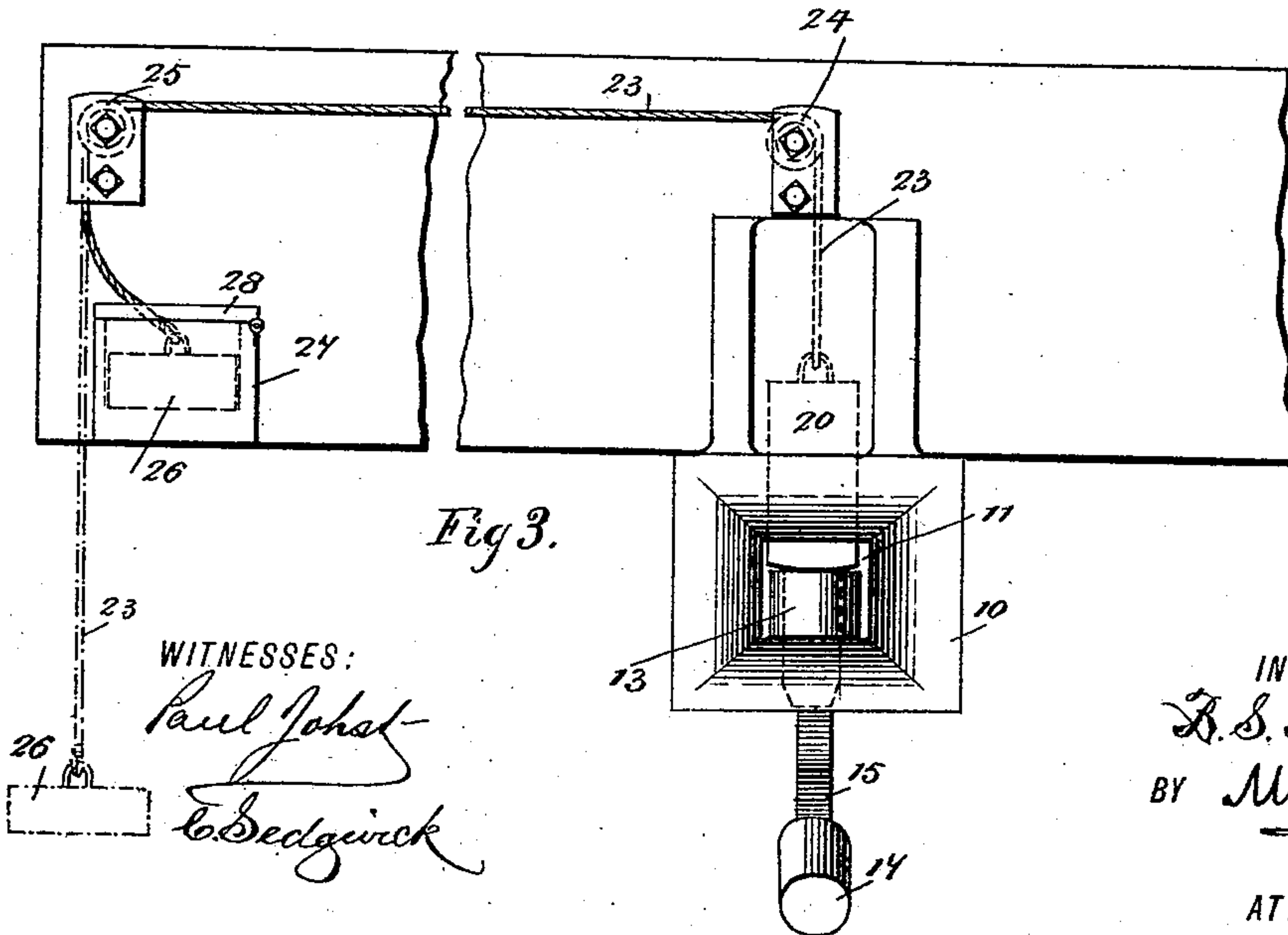


Fig. 3.



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BENJAMIN S. REDDING, OF GREENSBOROUGH, ALABAMA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 437,514, dated September 30, 1890.

Application filed June 9, 1890. Serial No. 354,748. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN SYD REDDING, of Greensborough, in the county of Hale and State of Alabama, have invented a new and useful Improvement in Car-Couplings, of which the following is a full, clear, and exact description.

My invention relates to an improvement in car-couplers, and has for its object to provide an exceedingly simple, durable, and economic coupler capable of automatic coupling, and wherein the coupling-pin may be kept suspended above the link-opening or in position for coupling with an inserted link, as desired.

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 claim.

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 vertical section through the draw-head. Fig. 2 is a horizontal section. Fig. 3 is a front elevation of the draw-head, and Fig. 4 is a front elevation of the coupling-pin removed from the draw-head.

The draw-head 10 is provided with the usual link-opening 11, and may be of any suitable or approved construction. The interior of the draw-head, however, is preferably shaped to form a practically rectangular chamber 12. In the chamber 12 a buffing-block 13 is held to slide, and in the bottom of the chamber an opening 14 is produced, in which opening an arm 15 is pivoted. The upper portion of the arm extends upward within a recess 16, produced in the buffing-block, preferably, at a point near its inner end, as is best illustrated in Fig. 1, and the said arm also extends quite a distance downward below the bottom of the draw-head. The lower extremity of the arm has attached thereto or formed integral therewith a weight 17. The draw-head has produced therein a pin-opening 18, the lower portion of which pin-opening is circular and the upper portion rectangular, and around the rectangular upper portion of the pin-opening a rectangular housing 19 is constructed, which may be attached to or be formed integral with the upper face of the

draw-head, and in the housing 19 the coupling-pin 20 is adapted to slide. The coupling-pin 20 is rectangular in cross-section at its upper portion and circular in cross-section at its lower portion, whereby a shoulder 21 is formed, and in the upper end of the coupling-pin an eye 22 or equivalent device is secured. To the eye 22 of the coupling-pin one end of a rope or chain 23 is attached, which rope or chain passes upward over a guide-pulley 24, located above the housing, and from thence the said rope or chain may be carried over a second guide-pulley 25, located upon the end near one side edge of the car, or at any point near the roof of the same as in practice may be found desirable.

The rope or chain 23 has secured to its lower end a weight 26, which weight is sufficiently heavy to overbalance the combined weight of the coupling-pin and its attached rope or chain. The weight 26 is normally held in a box 27, located at any suitable point upon the end of the car, which box is preferably provided with a hinged cover 28, having an opening therein through which the rope or chain passes. The link 29 employed may be of any suitable or approved construction.

The coupling-pin 20 may be raised by a suitable lever fulcrumed upon the side of the car or upon the end of the same, the said lever being connected with the pin; or any other equivalent lifting device may be employed, or the rope or chain 23 only may be used to elevate the pin. As soon as the pin 20 is elevated and carried upward in its housing 19 the weight 17 at the end of the arm 15 acts and causes the upper end of the arm to force the buffing-block 13 beneath the upper portion of the pin-opening, whereupon the coupling-pin will rest upon the upper face of the buffing-block. The weight 26 being in its box 27, the coupler is in position to couple with an opposed draw-head, and as the two draw-heads come together the link of the opposed draw-head entering the link-opening and striking against the buffing-block 13 forces the said block rearward in its chamber 12, whereupon the coupling-pin is released and the circular portion of the pin drops downward through the link, and the shoulder 21

of said pin rests upon the upper surface of the link, serving to sustain the link in a horizontal position and steadying the same. The coupling position of the coupler is illustrated in Fig. 1.

To uncouple, the coupling-pin is elevated, and the moment said pin is elevated the weighted arm 15 acts to force the buffing-block forward again to receive the lower end of the coupling-pin. If it is desired to hold the coupling-pin suspended so that the coupler will not couple with an opposed draw-head, the weight 26 is removed from its box and suffered to drop downward, whereupon the coupling-pin is carried upward in the housing and held in such position.

It will be observed that the coupler is comprised of but few parts, and that the said parts are so arranged and constructed that friction is reduced to a minimum, and likewise the possibilities of breakages. Conse-

quently but few repairs are needed. It will be further observed that any form of draw-head in use and employed in connection with a link may be quickly and inexpensively adapted to receive the improvements above noted.

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

A car-coupling consisting in the draw-head, the coupling-pin, the sliding block to support the pin, the weighted lever to project the block under the pin when raised, the guide-pulleys, the flexible connection passing from the pin thereover, the weight on the outer end of said connection, and the support on the car for the weight.

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Witnesses:

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