

(No Model.)

F. THOMPSON.
CAR COUPLING.

No. 482,598.

Patented Sept. 13, 1892.

Fig. 1.

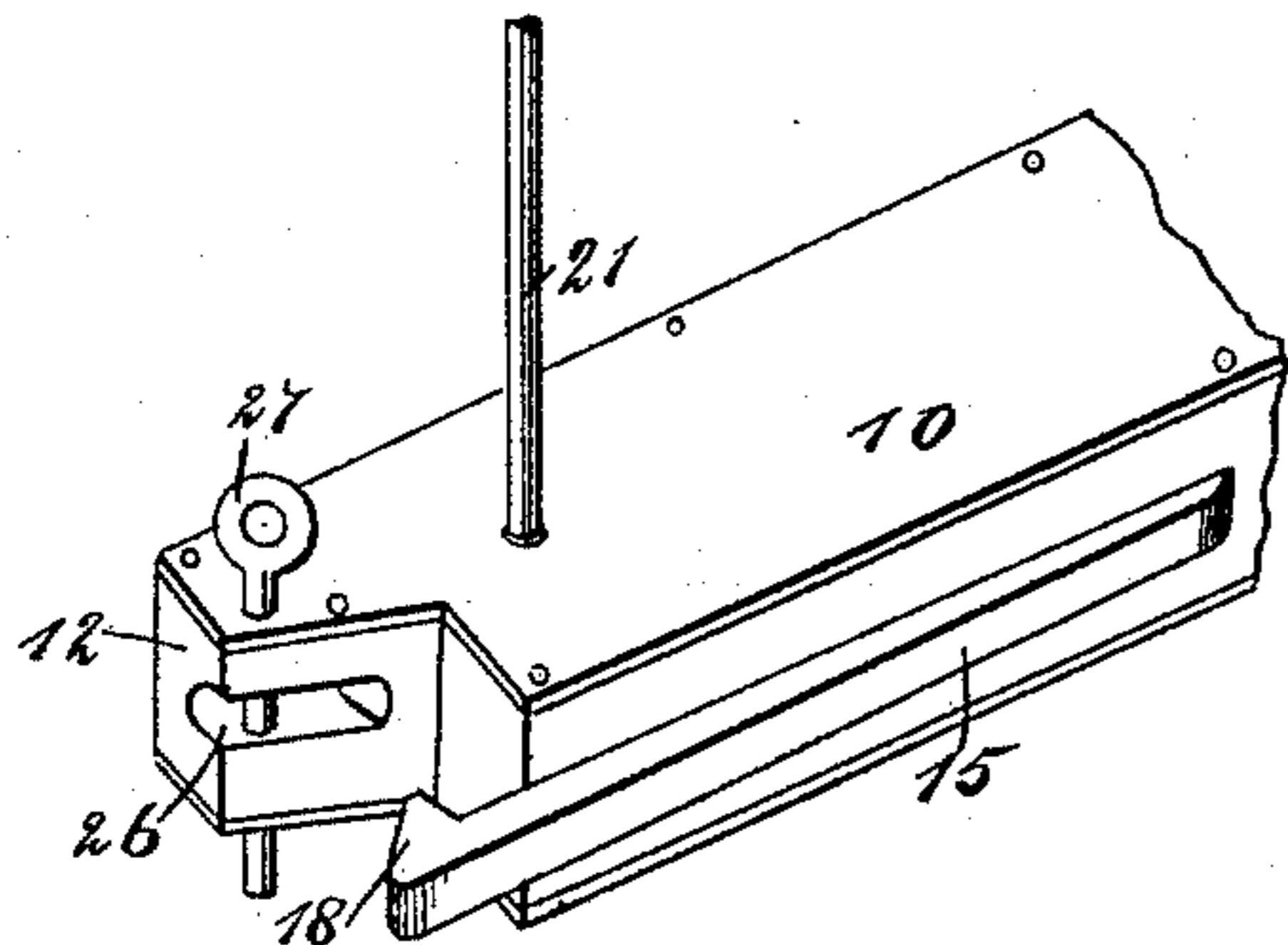


Fig. 2.

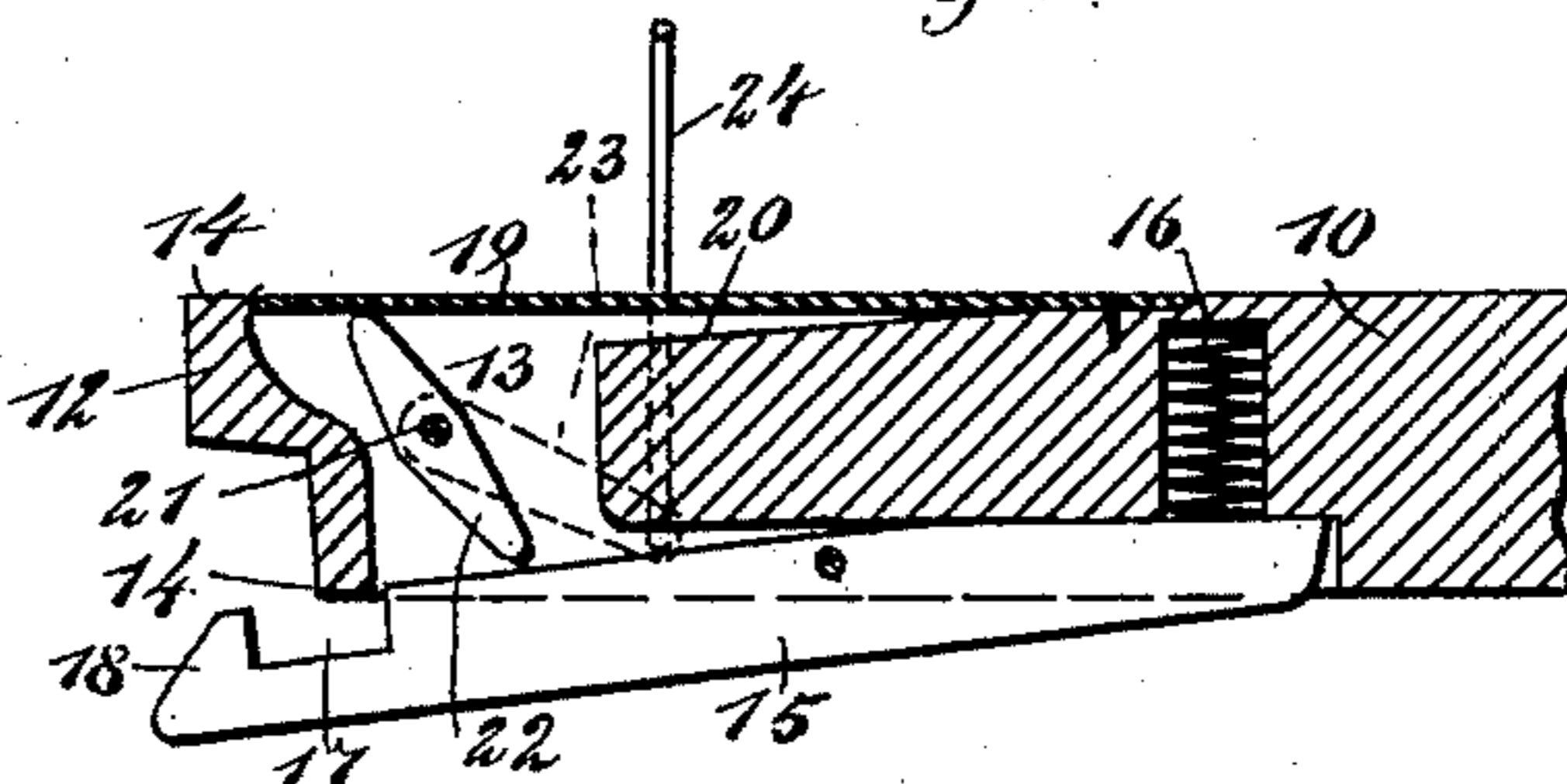


Fig. 3.

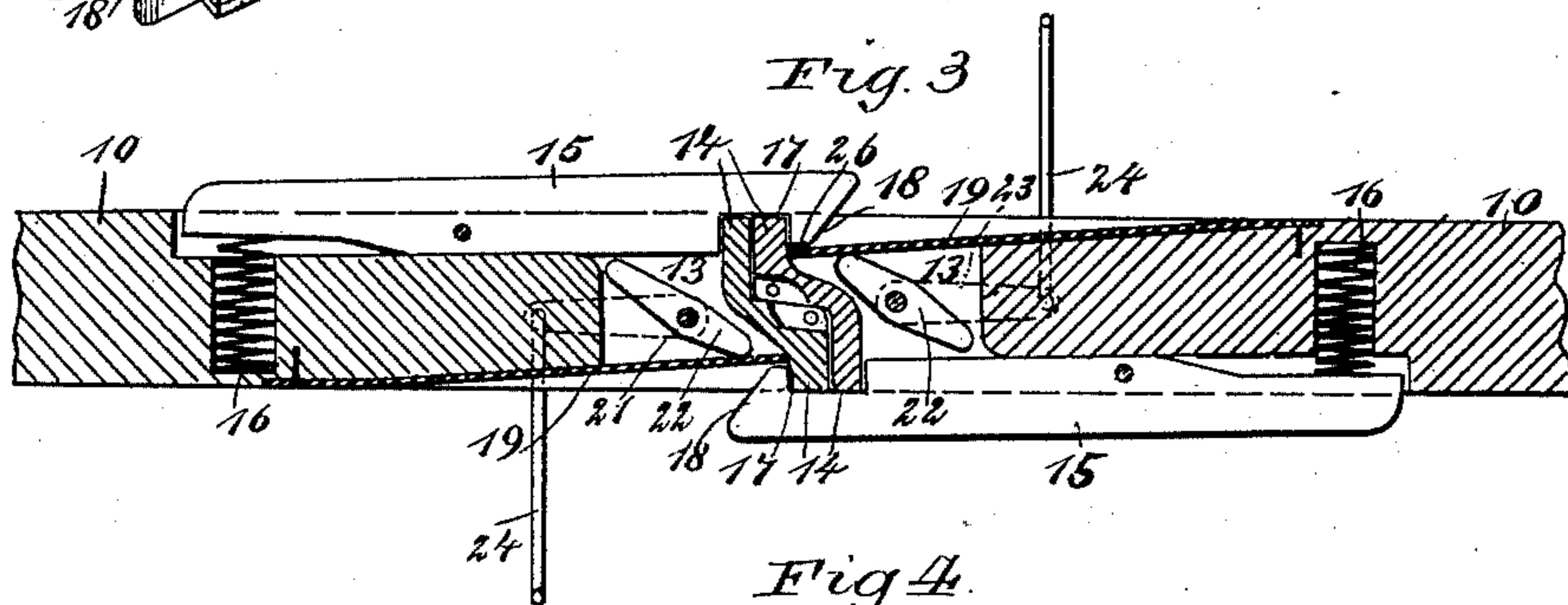
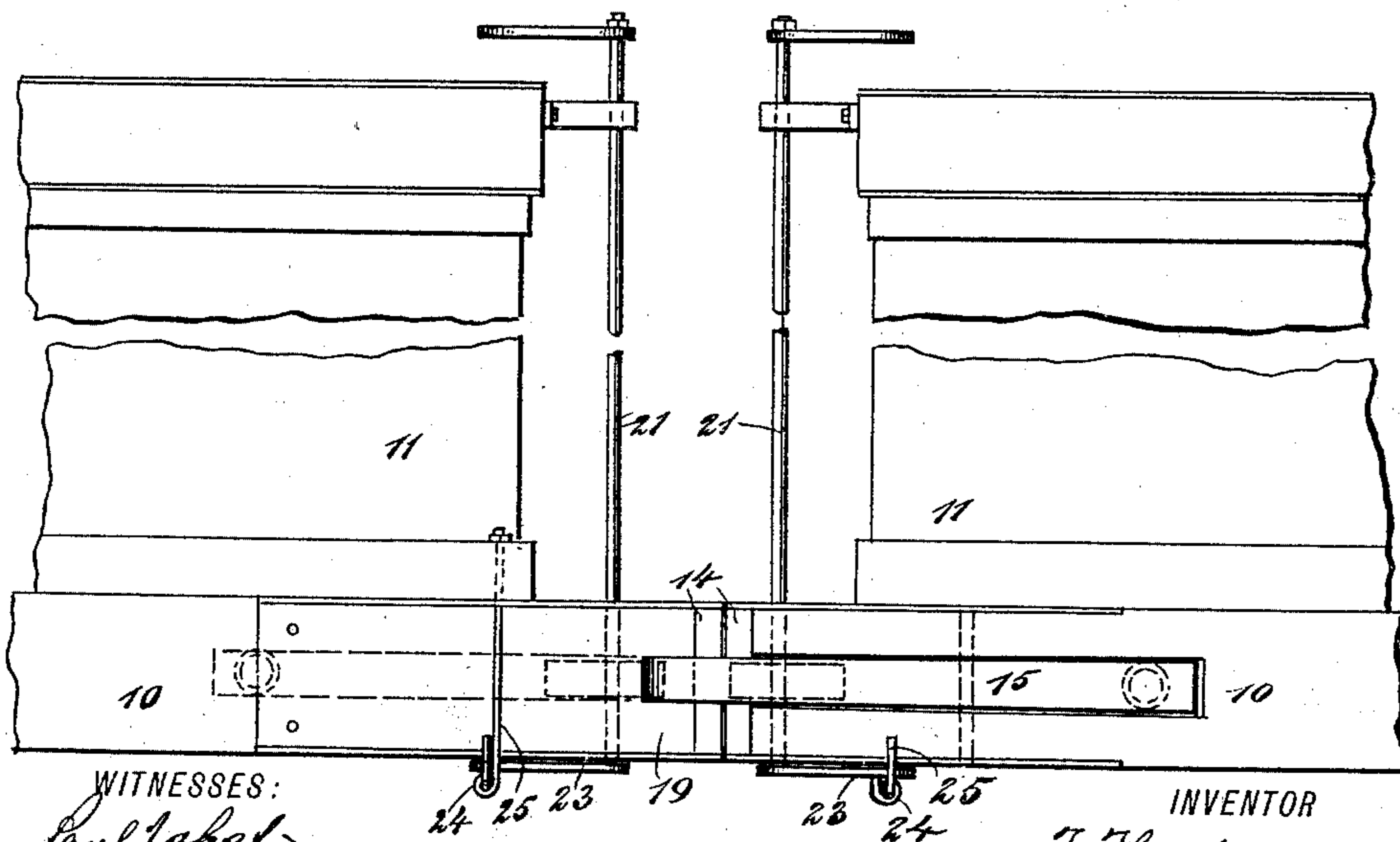


Fig. 4.



WITNESSES:

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FREEMAN THOMPSON, OF DOVER, NEW HAMPSHIRE.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 482,598, dated September 13, 1892.

Application filed April 26, 1892. Serial No. 430,754. (No model.)

To all whom it may concern:

Be it known that I, FREEMAN THOMPSON, of Dover, in the county of Stratford and State of New Hampshire, have invented a new and Improved Car-Coupling, of which the following is a full, clear, and exact description.

My invention relates to improvements in car-couplings; and the object of my invention is to produce a simple car-coupling which will enable two cars to be automatically coupled together, which cannot become accidentally uncoupled, and which may be conveniently and safely operated from the back or sides of the cars.

To this end my invention consists in a car-coupling the construction of which will be hereinafter described and claimed.

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 broken perspective view of the coupling. Fig. 2 is a broken sectional plan of the same. Fig. 3 is a broken sectional plan of two united couplings; and Fig. 4 is a broken side elevation of two united couplings, showing them applied to cars.

The coupling is provided with an elongated draw-head 10, which may be secured to a car 11 in any of the usual ways, and the coupling has at its front end and on one side a forwardly-extending projection 12, and the coupling near the front end is recessed horizontally, as shown at 13, thus leaving a lip 14 on the front end of the draw-head, the opposite edges of which lip engage the locking-arms of the coupling on which the lip is formed and of the opposing coupling. On the side of the draw-head opposite the projection 12 is a locking-arm 15, the rear end of which is pressed outward by a spring 16, and near the front end the locking-arm is recessed, as shown at 17, which recess is long enough to permit the entrance of the lips 14 of two couplings. The front end of the locking-arm projects forward beyond the end of the coupling, and this end is inclined inward, as shown at 18, so that when two couplings come together the inclined end will strike the lip of an opposing coupling, and thus force the locking-arm to one side over the lip, and after the inclined end has passed the lip the pressure of the

spring 16 causes the locking-arm to spring back to its normal position, so that the lips of the two couplings will enter the recess 17. 55

Arranged longitudinally in the recess on the side of the draw-head opposite the locking-arm 15 is a flat spring 19, which normally presses inward against the inclined surface 20 of the draw-head, as best shown in Fig. 2, 60 and secured in the recess 13 to the rod 21, which extends vertically through the draw-head and to a point adjacent to the top of a car, is a double crank 22, which when turned presses outward upon the locking-arm 15 and 65 the spring 19, thus forcing the free ends of the locking-arm and spring outward, so as to uncouple the cars, as described below. The upper ends of the rods 21 are provided with suitable handles, which enable them to be easily operated. On the lower end of the rod 21, 70 which projects through the draw-head, is a crank 23, having a handle 24 secured to its free end, and the handle is supported in a hanger 25. This handle 24 extends to a point 75 adjacent to the side of the car, and by manipulating the handle the crank 23, rod 21, double crank 22, locking-arm 15, and spring 19 may be operated. The projecting end 12 of the draw-head is recessed horizontally, as shown 80 at 26, and provided with the usual coupling-pin 27, so that the coupling may, if necessary, be coupled to an old-fashioned coupling using the ordinary link and pin.

The operation of the coupling is as follows: 85 When two couplings come together, the locking-arms will be on opposite sides, as shown in Fig. 3, and the inclined ends of the arms, striking the lips 14, will be caused to move outward, thus permitting the ends of the draw-heads to come together, and as the projections 12 of the draw-heads will be on opposite sides they will fit closely together, side by side, and the spring-pressed locking-arms will slip over the lips 14, which lips will be held 95 in the recesses 17 and the draw-heads will be firmly secured together.

To uncouple the cars, the rod 21 is turned either by the handle on its upper end or by means of the handle 24 at its lower end, and 100 by properly turning the rod the double crank 22 will be thrown into a position nearly at right angles to the draw-head, as shown in Fig. 2, thus forcing out the locking-arm 15

and the spring 19. The locking-arm 14 thus forced outward by the crank will be released from the lips 14 on one side of the draw-heads and the outward pressure of the spring 19 will
5 remove the other locking-arm from the opposite edges of the lips 14, thus freeing the couplings, so that the cars may be separated.

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

A car-coupling comprising a draw-head having at the end and on one side a forwardly-extending projection, said draw-head being horizontally recessed near the end to form a
15 vertical end lip and provided with a transverse socket in one side containing a spring 16, a locking-arm pivoted on one side of the

draw-head, crossing the spring 16 at its rear end, and having a recess near its free end to engage the lips of two couplings, a spring-plate rigidly secured at its inner end on the
20 opposite side of the draw-head and having its front end arranged in the rear of the lip, a crank-rod extending vertically through the recess in the draw-head and provided with a
25 handle mechanism at each end, and a double crank secured to the crank-rod within the recess and adapted to press simultaneously upon the locking-arm and spring-plate, substantially as shown and described.

FREEMAN THOMPSON.

Witnesses:

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