

(No Model.)

W. P. CLARK.
CAR COUPLING.

No. 477,168.

Patented June 14, 1892.

Fig 1.

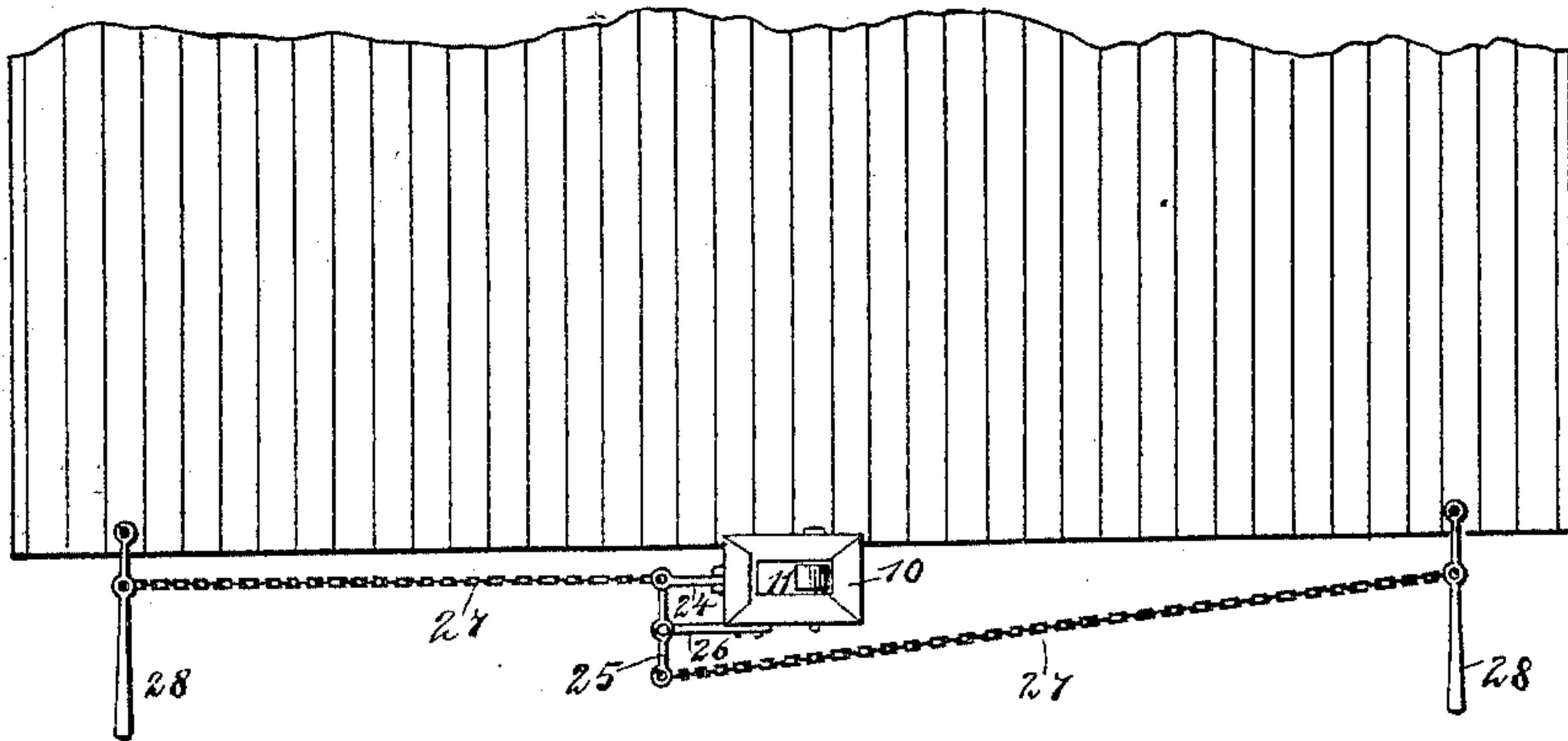


Fig 2.

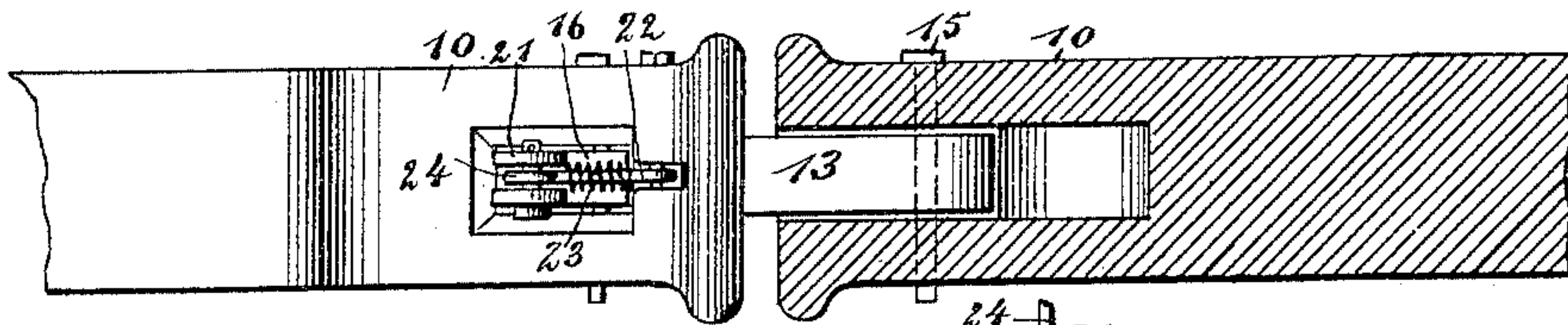


Fig 3.

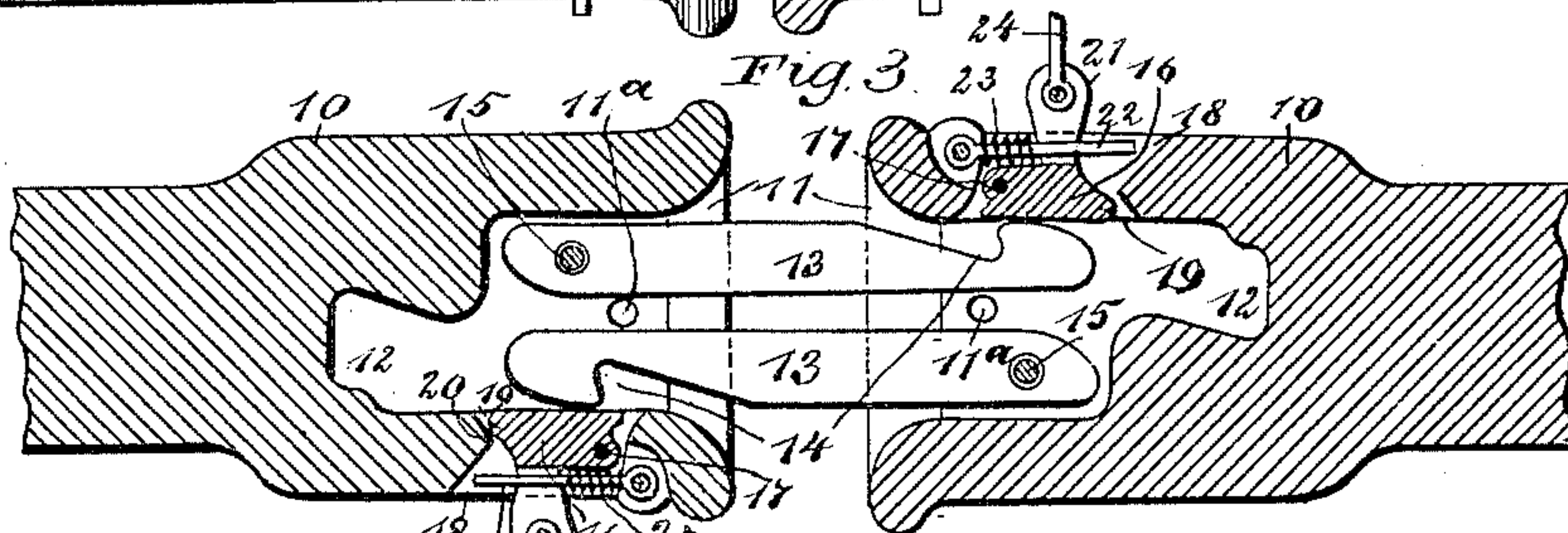
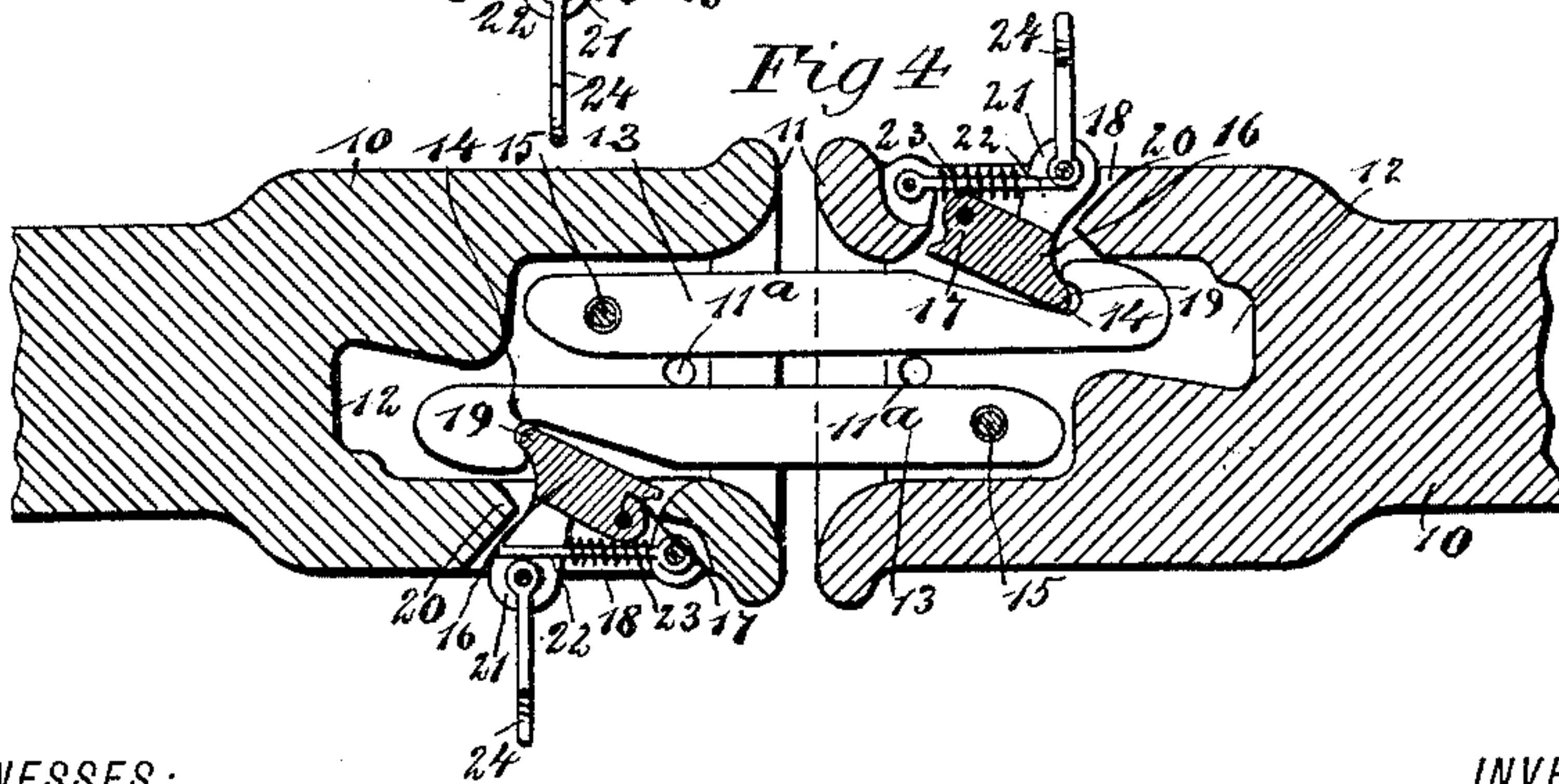


Fig 4.



WITNESSES:

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WILLIAM P. CLARK, OF ELBERTON, GEORGIA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 477,168, dated June 14, 1892.

Application filed October 1, 1891. Serial No. 407,385. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM P. CLARK, of Elberton, in the county of Elbert and State of Georgia, 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 automatically couple with an opposing coupling, which may be operated from the sides of the cars or from a platform if the cars are passenger-cars, and which is constructed in such a way that in case the coupling-hook of one coupling breaks the other coupling-hook will hold the two cars together.

To this end my invention consists in certain features of construction and combinations of parts, 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 an end view of the coupling, showing it applied to a car. Fig. 2 is a broken side elevation, partly in section, of two connected couplings. Fig. 3 is a sectional plan of two couplings in the act of coupling, and Fig. 4 is a sectional plan of two connected couplings.

The coupling is provided with a draw-head 10, which is substantially like the ordinary draw-head, having a flaring mouth 11 and an internal recess which is elongated or deepened near one side of the coupling, as shown at 12, to provide for the entrance of the hook of the opposing coupling. Pivoted in the draw-head near one side is a coupling-hook 13, which projects from the mouth of the coupling and is provided with a rounded outer end and with a recess 14 in the outer side, which recess forms the hook. The coupling-hook 13 is pivoted on a removable pin 15, and, if necessary, the coupling-hook may be removed and the draw-head made to receive the link of an ordinary coupling, and to this end the draw-head is provided with the usual vertical pin-hole 11^a.

The draw-head is provided on one side (the side opposite that in which the link is piv-

oted) with a horizontally-swinging dog 16, which is pivoted adjacent to its front end, as shown at 17, and which swings in a recess 18 in the draw-head, and in order that the dog may not swing too far out it has its free end 19 elongated, and this end is adapted to strike against a shoulder 20 in the recess 18, the shoulder serving to limit the movement of the dog. The dog is provided on its outer side with parallel ears 21, and extending between these ears is a rod 22, which is hinged to the draw-head and on which is a spiral spring 23, the spring serving by pressing against the ears to swing the dog into the draw-head. If desired, a strong flat spring may be used as a substitute for the rod and spiral spring. Pivoted between the outer portions of the ears is a link 24, the outer end of which is pivoted to a vertical lever 25, which lever is centrally pivoted on an arm 26, which is secured to the draw-head, and the ends of the lever 25 connect by chains 27 with levers 28 on opposite sides of the car, so that by pulling upon either lever 28 the lever 25 may be tilted and the link 24 and dog 16 drawn outward. The mechanism for moving the dog, as shown, is adapted for freight-cars; but on passenger-cars one lever 28 will answer, and this may extend upward above the platform instead of downward from the car, as shown in Fig. 1.

The operation of the device is as follows: When two couplings come together, the hook 13 of one will enter the recess in the opposing coupling and the two hooks will pass each other back to back, as shown in Fig. 3, and the rounded ends of the hooks, striking the dogs 16, will push the dogs outward until the recesses 14 of the hook come opposite the free ends of the dogs, and then the dogs will spring back into the draw-heads and engage the hooks, thus holding the couplings securely together.

To uncouple the cars it is necessary that a lever 28 on each car be operated at the same time, in order that both dogs 16 may be freed from engagement with the hooks 13, and it will be seen that if one of the hooks should be broken the other would still hold the two draw-heads together.

Having thus fully described my invention,

I claim as new and desire to secure by Letters Patent—

5 1. A car-coupling comprising a hollow draw-head, a horizontally-swinging hook pivoted in the draw-head and adapted to project therefrom, and a spring-pressed dog mounted to swing horizontally in the side of the draw-head opposite the hook, substantially as described.

10 2. A car-coupling comprising a hollow draw-head, a horizontally-swinging hook pivoted in one side of the draw-head and projecting forwardly therefrom, a spring-pressed dog pivoted to swing horizontally in the opposite side
15 of the draw-head and adapted to engage the hook of an opposing coupling, and a lever

mechanism for moving the dog against the spring, substantially as described.

3. A car-coupling comprising a hollow draw-head having a forwardly-extending and horizontally-swinging hook pivoted therein, a
20 spring-pressed dog held to swing horizontally in the draw-head, said dog being pivoted in the side of the draw-head opposite the hook, a stop to limit the movement of the dog,
25 and a lever mechanism for moving the dog against its spring, substantially as described.

WILLIAM P. CLARK.

Witnesses:

M. M. CARR,

W. T. VAN DUZE.