

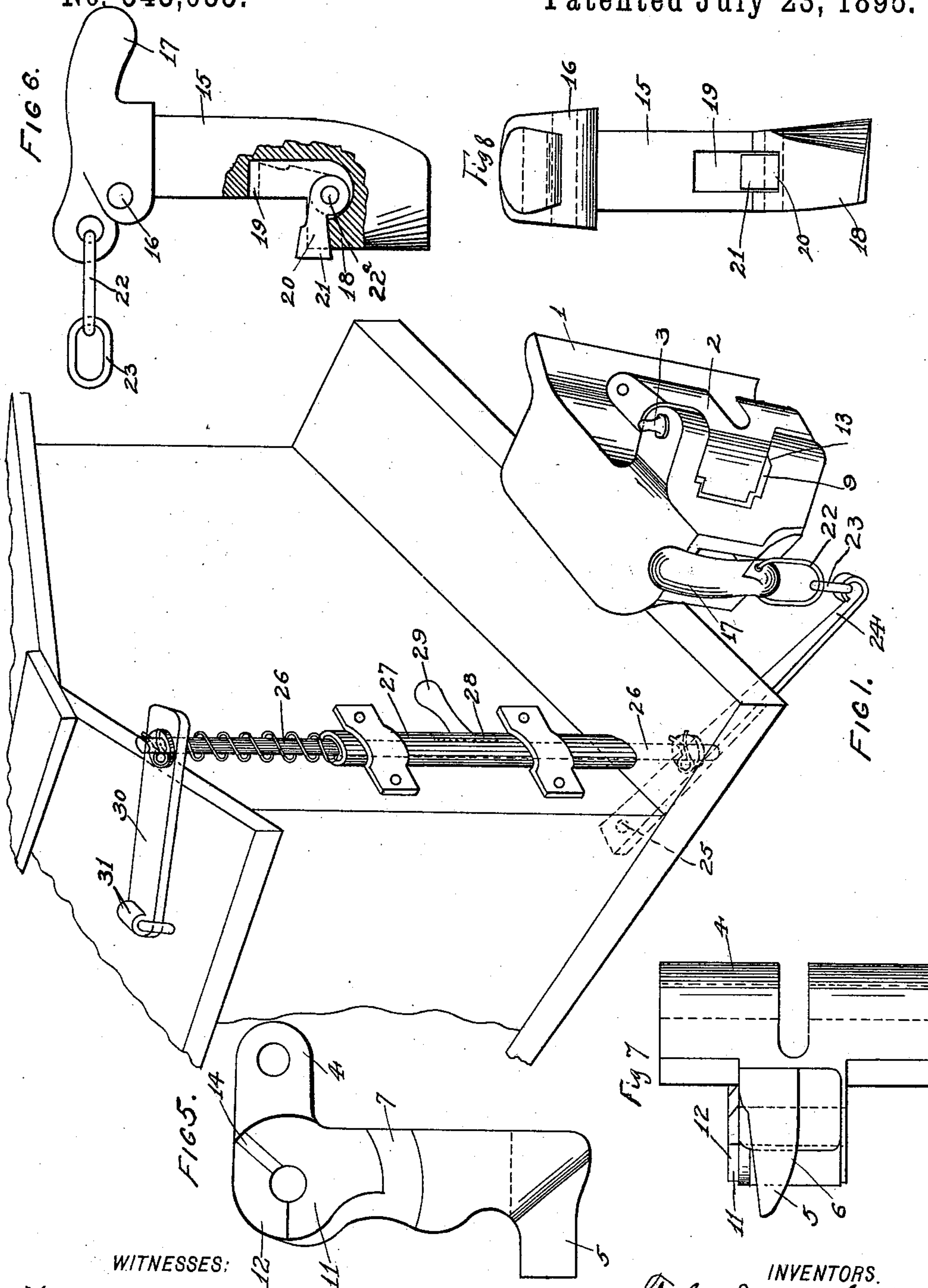
(No Model.)

2 Sheets—Sheet 1.

F. J. MACHALOSKY & J. STAWARZ.
CAR COUPLING.

No. 543,035.

Patented July 23, 1895.



WITNESSES:

William J. Brown,
Louis J. Bracht

INVENTORS.

Felix J. Machalosky
John Stawarz
BY Henry C. Everett
ATTORNEY.

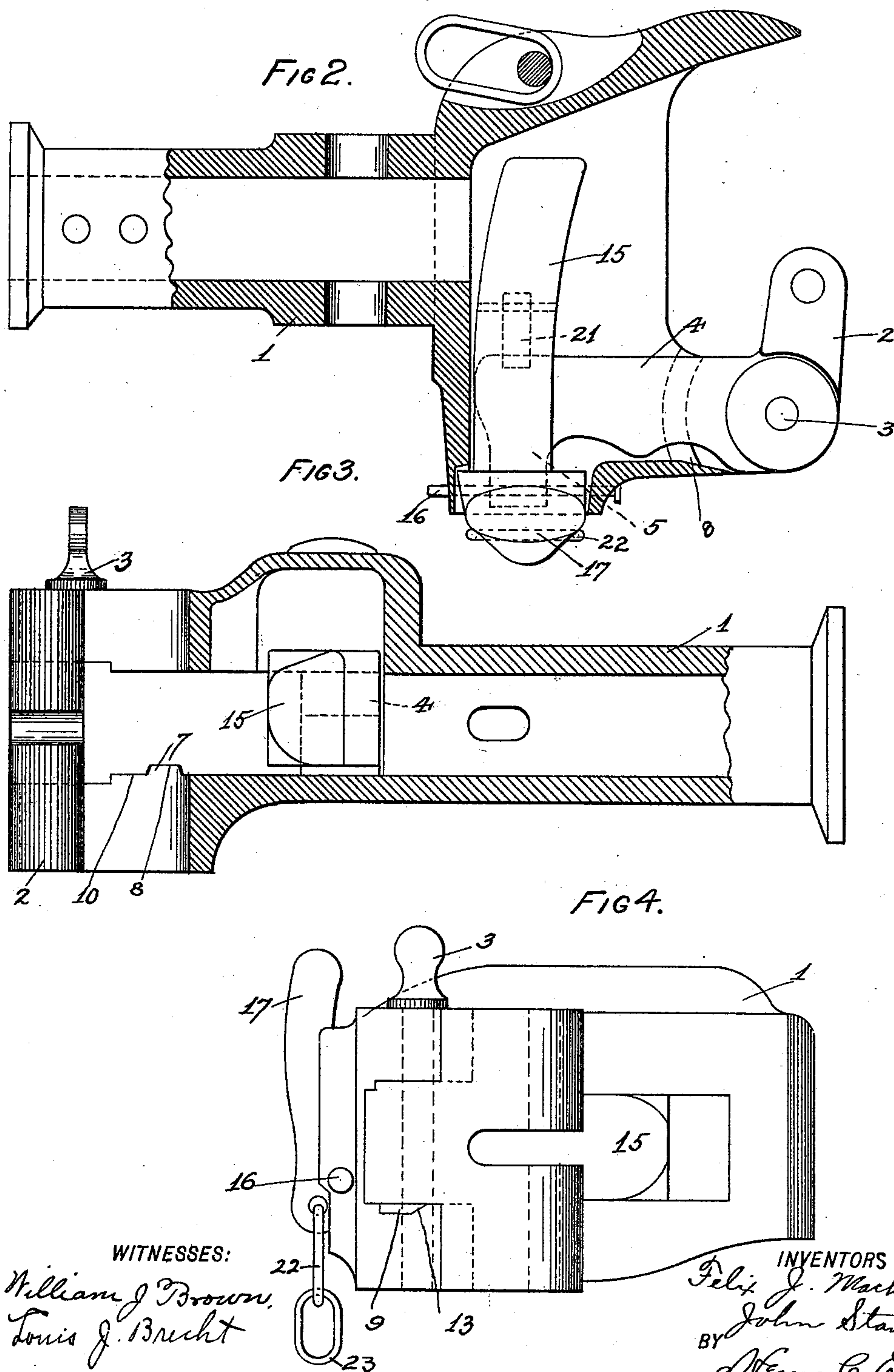
(No Model.)

2 Sheets—Sheet 2.

F. J. MACHALOSKY & J. STAWARZ.
CAR COUPLING.

No. 543,035.

Patented July 23, 1895.



UNITED STATES PATENT OFFICE.

FELIX J. MACHALOSKY AND JOHN STAWARZ, OF PITTSBURG, PENNSYLVANIA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 543,035, dated July 23, 1895.

Application filed February 20, 1895. Serial No. 539,088. (No model.)

To all whom it may concern:

Be it known that we, FELIX J. MACHALOSKY and JOHN STAWARZ, citizens of the United States of America, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Car-Couplings, of which the following is a specification, reference being had to the accompanying drawings.

10 This invention relates to certain new and useful improvements in car-couplers, and more particularly to that class known as "automatic couplers."

15 The invention has for its object the provision of novel means whereby cars may be automatically coupled; furthermore, a releasing mechanism that may be operated from either the draw head, platform, or top of the car.

20 The invention has for its further object to construct a car-coupler that will be simple in its construction, strong, durable, and highly efficient in its operation.

25 With the above and other objects in view the invention finally consists in the novel construction, combination, and arrangement of parts to be hereinafter more particularly described, and specifically pointed out in the claims.

30 In describing our invention in detail reference is had to the accompanying drawings, forming a part of this specification, and wherein like letters of reference indicate similar parts throughout the several views, in which—

35 Figure 1 is a perspective end view of a freight-car with our improved coupler and releasing mechanism attached thereto. Fig. 2 is a horizontal sectional view of our improved coupler. Fig. 3 is a vertical longitudinal sectional view. Fig. 4 is an end view. Fig. 5 is an underneath plan view of the locking-arm. Fig. 6 is a side view, partly in section, of the gravity-latch. Fig. 7 is a front elevation of the locking-arm. Fig. 8 is an underneath plan view of the gravity-latch.

40 In the drawings, 1 indicates the draw-bar; 2, the coupling-hook, which is pivoted to one of the forwardly-projecting ends of the draw-head by a pin 3.

50 The numeral 4 represents the locking-arm provided with a hook 5, having an inclined

surface 6, and on the underneath side of said locking-arm is formed a guideway 7, which is adapted to fit over a semicircular projection 8, formed in the draw-head near the knuckle-joint. The lower projecting end, forming a knuckle-joint of the coupling-hook and locking-arm is partially recessed on the lower bearing-surface, as shown at 9, and forming a shoulder 10. The underneath side of the coupling-hook is correspondingly recessed at 11 and provided with a raised portion 12, adapted to fit in the recess 9, the shoulders formed being inclined, as shown at 13 and 14, respectively.

15 represents a gravity-latch pivoted at 16 and arranged within the draw-head, the said latch having formed on its outward extremity an upwardly-extending ear 17 and at its other extremity formed into a hook 18. On the underneath side of said hook slots 19 and 20 are formed, being at right angles to one another, said slots containing a gravity-pawl 21, pivoted at 22, said pawl being so arranged that in its normal position it will extend slightly below and beyond the alignment of the hook 18.

At the lower portion of the ear 17 a link 22 is arranged, to which is connected a link 23, the said link being attached to a lever 24, extending rearwardly underneath the car and pivotally attached at 25, the said lever being further connected to a vertical shaft 26, partially inclosed in a casing 27, the casing being slotted at 28 for the reception of the operating-pin 29, the latter being rigidly attached to the shaft. At the upward extremity of the casing a coil-spring is provided, which surrounds the vertical shaft 26, a foot-lever 30 being secured to the end or top of said shaft and extending rearwardly a suitable distance, its free end being hinged at 31.

Operation: When it is desired to couple the cars the coupling-hook is opened, and as the draw-heads are brought together, the locking-arm being forced under the gravity-latch, the hook portion thereof riding over the inclined surface of the locking-arm until the locking-arm has passed the said hook portion of the gravity-latch. At this point the hook portion of the gravity-latch will operate and close and complete the latch by means of the hook

portion of the gravity-latch. Simultaneously with this operation the coupling-hook of the opposite draw-head will close and a like operation take place. Thus both the coupling-hooks are locked together and the operation of coupling is completed.

In order to uncouple the cars the upwardly-extending ear of the gravity-latch is pressed downwardly. The gravity-pawl arranged within the hook portion of the gravity-latch will assume a vertical position and retain the gravity-latch on top of the locking-arm until such a time as it is desired to uncouple the cars, this being done by a forward motion of the car, and the coupling-hook unlocking from engagement with the one arranged in the opposite draw-head.

The upwardly-extending ear of the gravity-latch may be operated from the ground or from the platform by forcing the operating-pin downwardly, thus communicating motion to the vertical shaft and operating the lever connected by means of links to the lower portion of the ear. The releasing mechanism may also be operated from the top of the cars by pressure exercised on the foot-lever carrying the vertical shaft, and the desired result will be obtained, as will be readily apparent. The coil-spring will be compressed when the vertical shaft is operated, and when the spring expands it will tend to again place the vertical shaft and its attachments in their normal position, the knuckle-joint of the coupling-hook being formed with projections and shoulders on its underneath side, and operating in

corresponding recesses arranged in the draw-head for the purpose of accomplishing better results in the locking device than would otherwise be the case.

It will be noted that cars not provided with the special design of draw-head may be readily coupled to the above-described coupler by means of the well-known link and pin arranged to the coupling-hook.

We call particular attention to the fact that various changes may be made in the details of construction of our improved coupler without departing from the spirit of our invention.

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

1. In a car coupler, a gravity latch provided with a hooked portion and upwardly extending ear, in combination with a gravity pawl, said gravity latch being adapted to engage a locking arm, substantially as described.

2. In a car coupler, a gravity latch having a hooked portion, said hooked portion provided with a gravity pawl, in combination with locking arm carrying a hook, substantially as described, and for the purpose set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

FELIX J. MACHALOSKY.
JOHN STAWARZ.

Witnesses:

H. C. EVERT,
ALFRED M. WILSON.