(No Model.) 2 Sheets—Sheet 1.

A. F. SHWADLENAK.

CAR COUPLING.

No. 531,876. Patented Jan. 1, 1895.

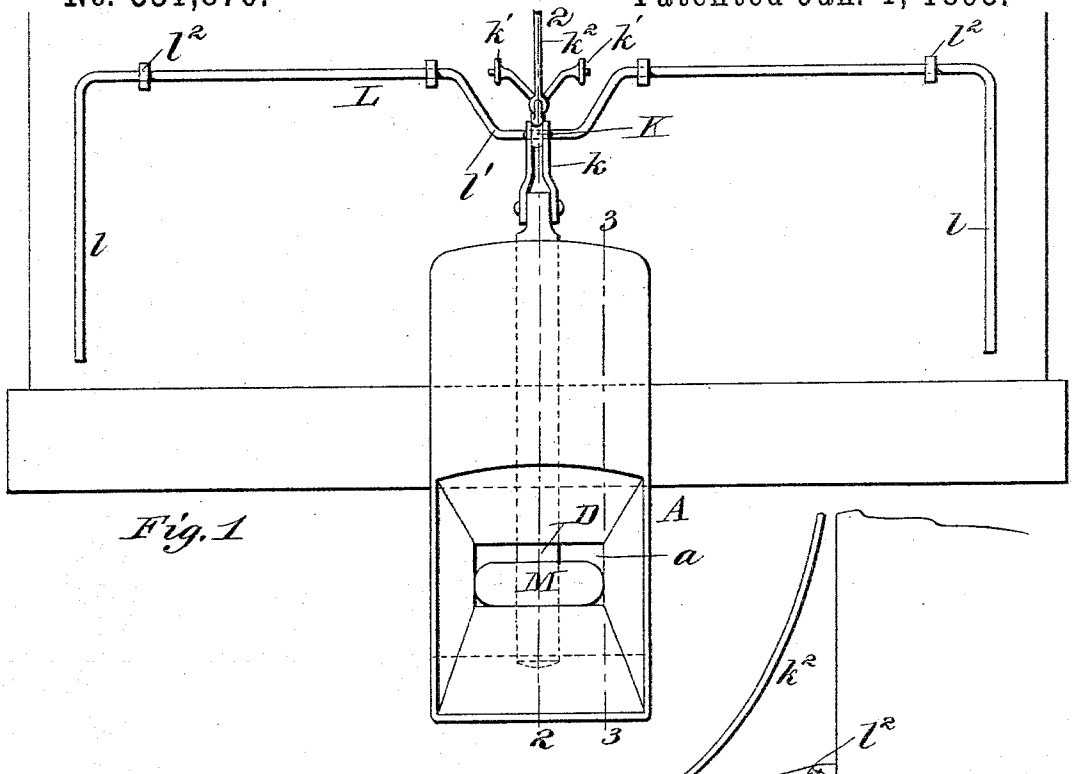

Fig. 1

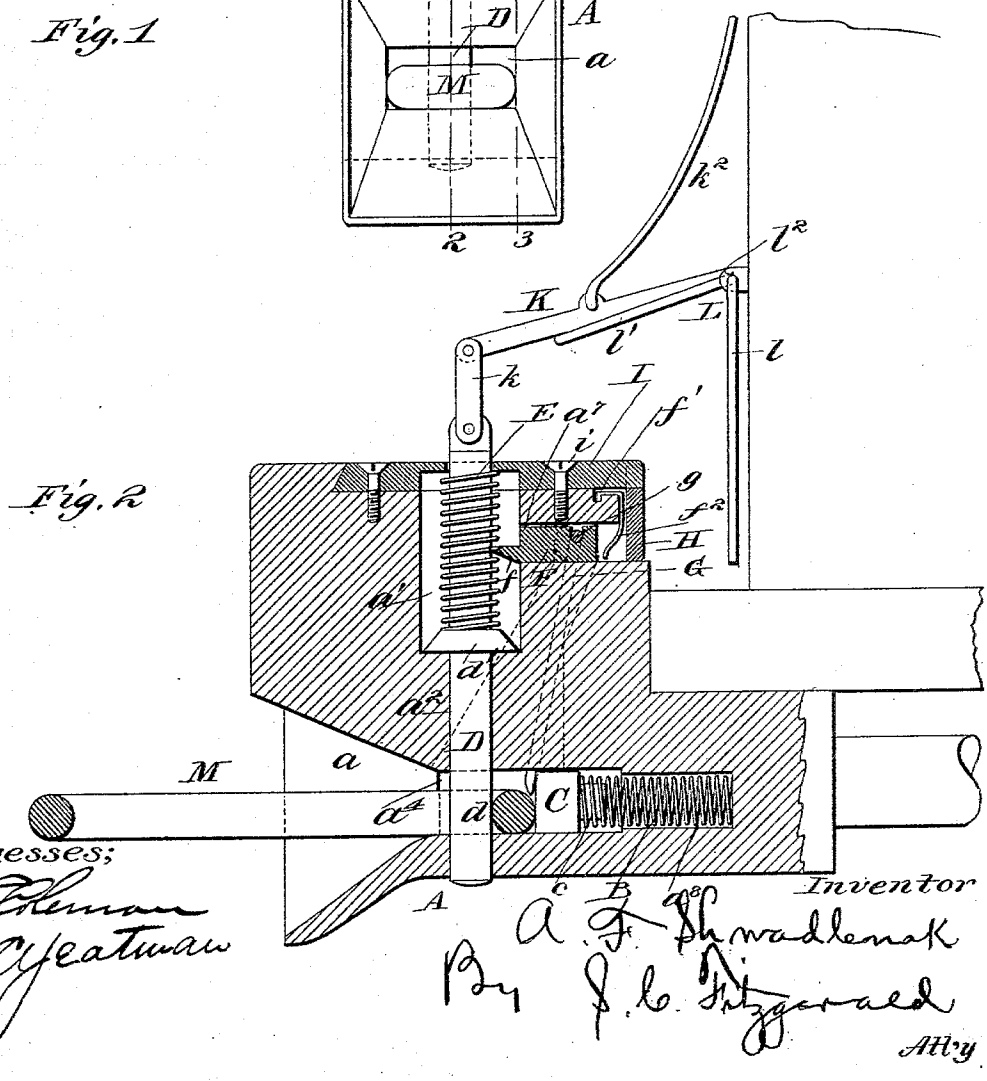

Fig. 2

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(No Model.) 2 Sheets—Sheet 2.

A. F. SHWADLENAK.

CAR COUPLING.

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Fig. 3

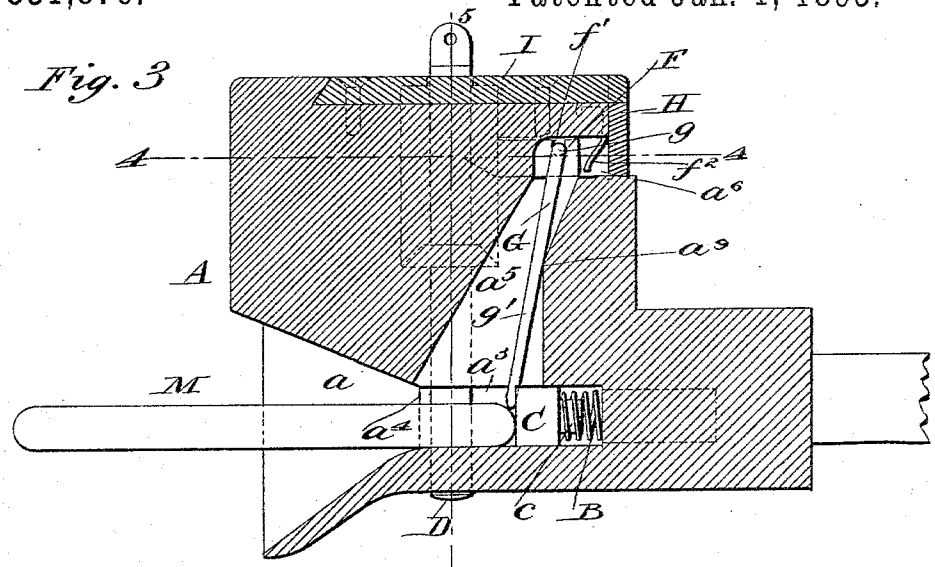


Fig. 4

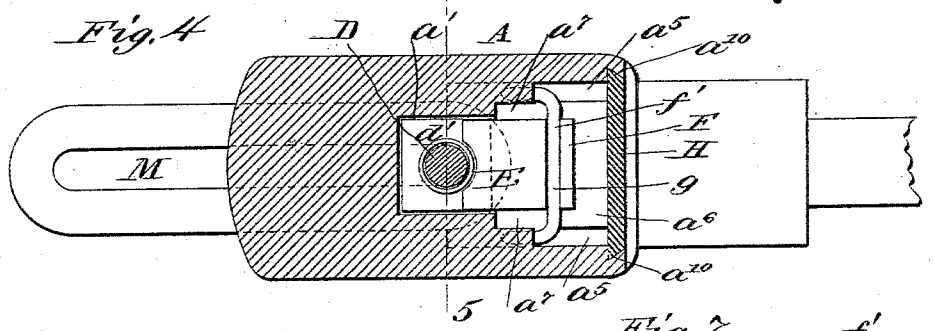


Fig. 6

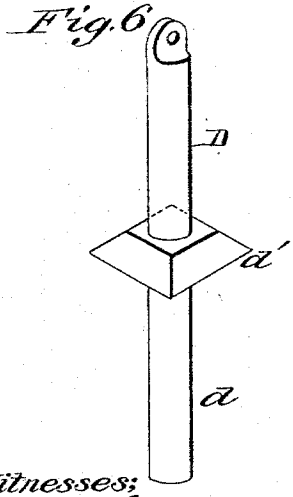


Fig. 5

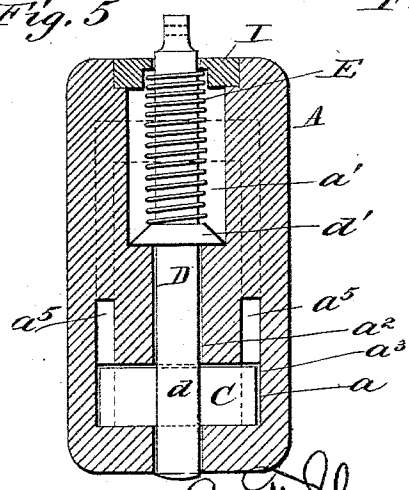
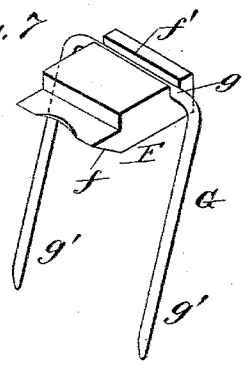


Fig. 7



Witnesses;

J. Coleman

L. C. Yeatman

Inventor

A. F. Shwadlenak

By J. L. Fitzgerald

Att'y.

UNITED STATES PATENT OFFICE.

AUGUST FRANK SHWADLENAK, OF DEXTER, TEXAS.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 531,876, dated January 1, 1895.

Application filed July 5, 1894. Serial No. 516,535. (No model.)

To all whom it may concern:

Be it known that I, AUGUST FRANK SHWADLENAK, a citizen of the United States, residing at Dexter, in the county of Cooke and State of Texas, have invented certain new and useful Improvements in Car-Couplings; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in car couplers.

The invention consists in such features, details and combinations of parts as will first be described in connection with the accompanying drawings and then particularly pointed out in the claim.

In the drawings—Figure 1 is an end elevation of a portion of a car equipped with my improved coupler. Fig. 2 is a longitudinal section on the line 2—2 Fig. 1. Fig. 3 is a similar view on line 3—3. Fig. 4 is a horizontal section on line 4—4 Fig. 3. Fig. 5 is a cross section on line 5—5 Figs. 3 and 4. Figs. 6 and 7 are detail views.

Referring to the drawings, A is a draw head having a link opening or recess a and a vertical link pin opening, the upper portion a' of which is square while the lower portion a^2 is round. The latter part of the opening intersects the link opening a and extends below it, as shown, in order to receive the lower end of the link pin. The rear portion of the link opening a is somewhat wider than the part just in front of the pin opening, a^2, in order to form slideways a^3 for a purpose hereinafter described, these slideways being terminated at their forward ends by shoulders a^4 as shown. Extending upward from each slideway a^3 is a side recess a^5, these side recesses sloping toward the rear and gradually contracting toward their upper ends where they finally terminate in a horizontal recess a^6 open toward the rear and extending from the top end of one side recess to the other, this horizontal recess also having a forward extending portion a^7 which intercepts the square upper portion a' of the pin opening.

At the rear of the link opening a is a spring socket a^8 in which is placed a spiral spring B bearing against a sliding head C provided with a nipple c which holds the spring in place, the said sliding head having its ends movably located in the slideways a^3.

In the pin opening is placed a pin D having a cylindrical lower end d and a square central portion d' whose edge is beveled downward and outward. The upper end of the pin D is also cylindrical and surrounded by a spiral spring E, the squared central portion fitting loosely in the squared upper portion a' of the link pin opening.

In the forward extending portion a^7 is located a reciprocating catch block F having a beveled lower face f and a transverse slot or groove f' in which lies the central portion g of double armed lever G, the arms g' of which are located in the side recesses a^5 and have their lower ends arranged to be engaged by the sliding heads C, whereby the lever arms g' are operated, moving on the projections a^9 as fulcrums, whereby when the sliding head is moved forward the lower ends of the lever arms g' are also pushed forward, thereby moving the catch block F rearward, and vice versa. The catch block is normally held forward by a small spring f^2 which is secured to the top of the draw head and projects downward against the rear face of the catch block F. To limit the rearward movement of the catch block F, a plate H is provided being arranged to slide in dovetails a^{10} formed in the head A and held from accidental removal by a top plate I which fits over the pin D and is secured to the head A by a screw i passing through the plate I and threaded into the head, this plate overlapping the top edge of the plate H as shown in the drawings. The plate I is engaged on its under surface by the spring E which surrounds the pin D, the said spring resting with its lower end on the square central portion d' of the pin, whereby the latter is normally forced downward.

The draw head is attached to the end of the car in the usual way and the link pin D may be operated by any suitable means, but I preferably employ the following construction: To the top of the pin D is attached a link k pivotally secured to an arm K hinged to the end of the car in two places k', this arm K being operated from the top of the car by a rod k^2 attached to the center of the arm, the said rod k^2 having a suitable handle at its upper end. The arm K may also be operated

from the side of the car by a stirrup L having handle bars l and a central cranked portion l' which engages the under side of the arm K and projects at right angles to the handle bars l, the said stirrup L being journaled in boxings l^2 fixed to the car.

The operation of my device is as follows: In its normal position, when not holding a link, the sliding head C is held at its extreme forward position by the spring B while the link pin D is pressed downward by its spring E, the lower end of the pin resting on top of the sliding head C. If now a car having a link of the usual pattern is moved toward one of my improved couplers, the link, M, will enter the link opening and will contact with the forward end of the sliding head, forcing the latter rearward and compressing the spring B. As soon as the head C is forced rearward the coupling pin D is thrown downward by its spring E, thereby passing through the link M its lower end entering the lower portion of the cylindrical pin opening which is below the link recess or opening a. At the same time, the sliding head C having cleared the ends of the arms g' of the lever G, the catch block F is forced forward by its spring f^2 until over the squared central portion d' of the coupling pin D whereby the latter is prevented from being accidentally forced upward by any jars or jerks of the link M due to the movement of the cars.

When it is desired to uncouple the cars the pin D is raised by means of either the rod k^2 or the stirrup L, the beveled edge of the squared central portion d^2 engaging the beveled under edge of the catch block F, thereby forcing the latter rearward against its spring f^2 and permitting the pin D to be raised from the link M, whereupon the latter may be withdrawn.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is—

In a car coupler, the combination with a draw head having a link opening, a pin opening intersecting the link opening, the latter being wider in the rear of the pin opening than forward of the same, and a pair of side recesses, of a sliding head located in the wider portion of the link opening, a spring tending to hold the sliding head in its forward position, a pair of lever arms movable in the side recesses and arranged to engage the sliding head, a catch block operated by the lever arms, a spring tending to force the catch block forward into engagement with the coupling pin, and means for raising the coupling pin, substantially as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

A. FRANK SHWADLENAK.

Witnesses:
J. D. HENRY,
M. F. CARTER.