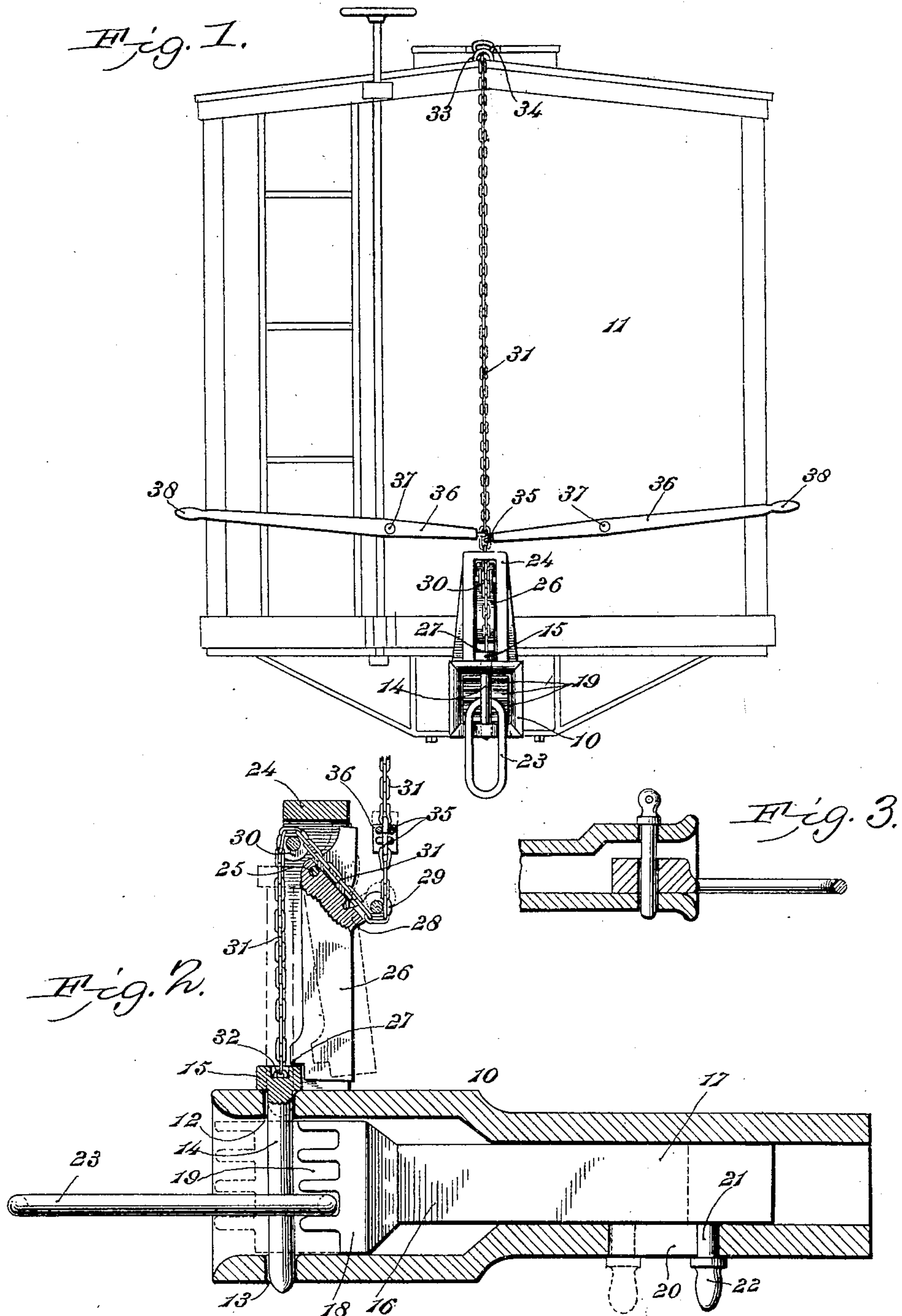


No. 810,400.

PATENTED JAN. 23, 1906.

L. P. ELLIOTT.
CAR COUPLING.

APPLICATION FILED AUG. 14, 1905.



Witnesses
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UNITED STATES PATENT OFFICE.

LEWIS P. ELLIOTT, OF JACKSON CENTER, OHIO.

CAR-COUPLING.

No. 810,400.

Specification of Letters Patent.

Patented Jan. 23, 1906.

Application filed August 14, 1905. Serial No. 274,130.

To all whom it may concern:

Be it known that I, LEWIS P. ELLIOTT, a citizen of the United States, residing at Jackson Center, in the county of Shelby and State of Ohio, have invented a new and useful Car-Coupler, of which the following is a specification.

This invention relates to car-couplers, and has for an object to provide a device of the class embodying new and improved features of utility, convenience, and efficiency.

A further object of the invention is to provide a car-coupler which will couple cars automatically and which may be uncoupled from the top or either side of the car.

A further object of the invention is to provide a coupler having a latch which automatically engages and holds the pin to its seat and which is disengaged by the pin-elevating means.

A further object of the invention is to provide a car-coupler embodying a hollow draw-head in which is slidably mounted a block having a plurality of link-receiving grooves and which is adapted to slide under and support the pin.

With these and other objects in view the present invention consists in the combination and arrangement of parts, as will be herein-after fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes in the form, proportion, size, and minor details may be made without departing from the spirit or sacrificing any of the advantages of this invention.

In the drawings, Figure 1 is a view of the car in end elevation with the improved coupler mounted thereon. Fig. 2 is a longitudinal sectional view of the improved coupler, showing in outline the coupler set to couple automatically. Fig. 3 is a longitudinal sectional view of a link which may be used to connect this coupler and an ordinary coupler.

Like characters of reference indicate corresponding parts in all of the figures of the drawings.

In its preferred embodiment the car-coupler, forming the subject-matter of this application, comprises a hollow draw-head 10, which may be attached to a car of ordinary construction, as 11, and in the usual manner. The draw-head is provided with upper and lower registering openings 12 and 13, within which is disposed a vertically-sliding pin 14 of substantially the ordinary construction

and having the head 15. Within the draw-head is mounted the sliding block 16, having a stem 17 extending rearwardly into the smaller part of the draw-head and a head-like portion 18 disposed within the larger portion of the draw-head and provided with transverse grooves 19. Through the bottom wall of the smaller part of the draw-head is formed a slot 20, and a pin 21 extends there-through and is connected rigidly with the stem 17 and has a handle or knob 22 without and below the draw-head. The grooves 19 are proportioned and arranged to receive a link 23 of substantially the usual construction which is engaged by the pin 14.

Upon the upper side of the larger end of the draw-head is erected a frame 24, preferably integral therewith and within which is pivoted at 25 a latch 26, having a notch 27 at its lower end proportioned to engage the head 15 of the pin and hold the pin to its seat. The latch is also provided with a bifurcated arm 28, offset therefrom and between the extremities of which is journaled the pulley 29. At the front and upper end a pulley 30 is journaled in the frame 24, and a chain 31 is attached to a ring 32 in the head 15 of the pin and running over pulley 30 and under pulley 29 is carried to the top of the car, when it passes through a ring 33 and ends in a handhold 34. Adjacent the upper end of the frame 24 a ring 35 is introduced into the chain 31 and to which are secured the inner ends of levers 36, which are pivotally secured at 37 to the end of the car and extending without the lines of the car terminate in handles 38.

To uncouple, the chain 31 is pulled either by the handhold 34 at the top of the car or by depressing the outer ends of levers 36. The pull on the chain first draws upwardly on the arm 28, which draws the latch back to the position shown in outline and permits the pin 14 to rise under the pull of the chain, when the link 23 may be withdrawn. For coupling cars the pin is raised and the block 16 moved longitudinally beneath the pin. When the link 23 strikes the block, it is pushed back, whereupon the pin drops and the latch 26 by gravity engages the upper end of said pin, thereby preventing the pin from becoming unseated under any of the incidents of use.

Having thus described the invention, what is claimed is—

1. In a car-coupler, a vertically-sliding pin, a latch pivoted above and arranged to hold the pin to its seat, and a cable passing through

an arm of the latch and secured to the pin and arranged to disengage the latch and raise the pin.

2. A car-coupler comprising a link, a hollow draw-head having a slot formed in the walls thereof, a pin vertically slidable adjacent the end of the draw-head, a block movable longitudinally within the draw-head to a position beneath the pin when the latter is raised and provided at one end with a plurality of spaced link-receiving grooves and at the opposite end with a depending operating-knob engaging the slot in the draw-head, means at the top of the car to raise the pin and so arranged that the contact of the link moves the block and permits the pin to drop and the latch to engage the pin.

3. In a car-coupler, a draw-head, a pin vertically slidable in the draw-head, a latch pivoted above the draw-head and arranged to contact with the upper end of the pin to hold the latter to its seat and a cable so connected with the latch and pin that a pull on the cable first disengages the latch and then raises the pin.

4. In a car-coupler, a draw-head, a pin vertically slidable in the draw-head, an upright rigidly upstanding from the draw-head, a latch pivotally mounted upon the upright and arranged to contact with the upper end of the pin and hold the latter to its seat and having an arm offset therefrom, a cable passing through the arm and connected to the link.

5. A car-coupler comprising a link, a hollow draw-head, a pin vertically slidable in

the draw-head, an upright rigidly upstanding from the draw-head, a latch pivotally mounted upon the upright and arranged to contact with the upper end of and hold the pin to its seat, a cable so connected with the latch and pin that a pull upon the cable first disengages the latch and then raises the pin, a block slidably mounted in the draw-head, means for sliding the block to support the pin when raised and so arranged that the contact of the link moves the block and permits the pin to drop and the latch to engage the pin.

6. A car-coupler comprising a link, a hollow draw-head, a pin vertically slidable in the draw-head, an upright rigidly upstanding from the draw-head, a latch pivoted adjacent the top of the upright and arranged to contact with the upper end of and hold the pin to its seat, said latch having an arm offset from its upper end, a cable passing through the arm and connected to the pin, means disposed at each side and the top of the car for pulling the cable to disengage the latch and raise the pin, a block slidably mounted in the draw-head, and means for sliding the block to support the pin when raised and so arranged that the contact of the link moves the block and permits the pin to drop and the latch to engage the pin.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

LEWIS P. ELLIOTT.

Witnesses:

I. L. DAVIS,
A. A. DAVIS.