

No. 835,560.

PATENTED NOV. 13, 1906.

F. SCHATZKA.
CAR COUPLING.

APPLICATION FILED JULY 29, 1904.

2 SHEETS—SHEET 1.

Fig. 1.

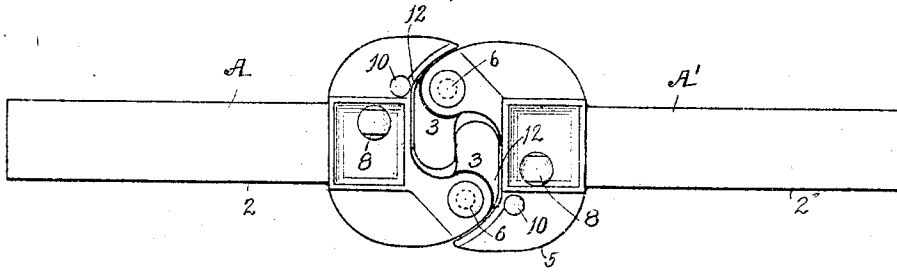


Fig. 2.

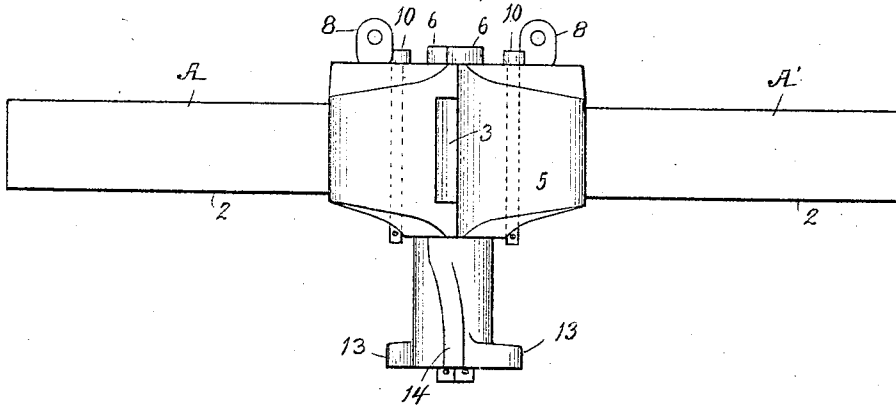


Fig. 3.

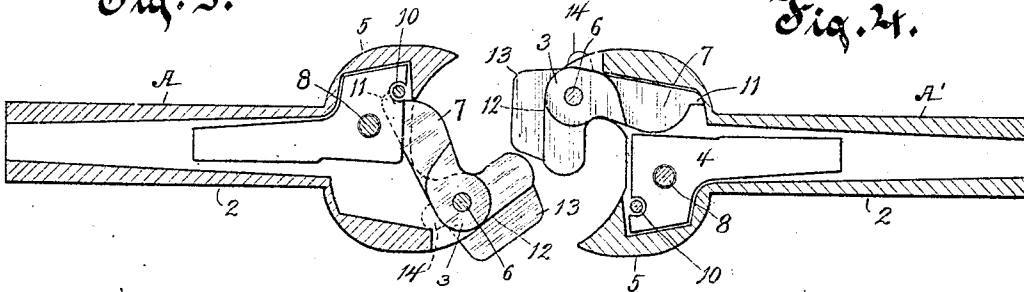
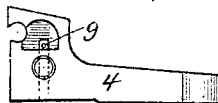


Fig. 4.

Fig. 5.



Witnesses.

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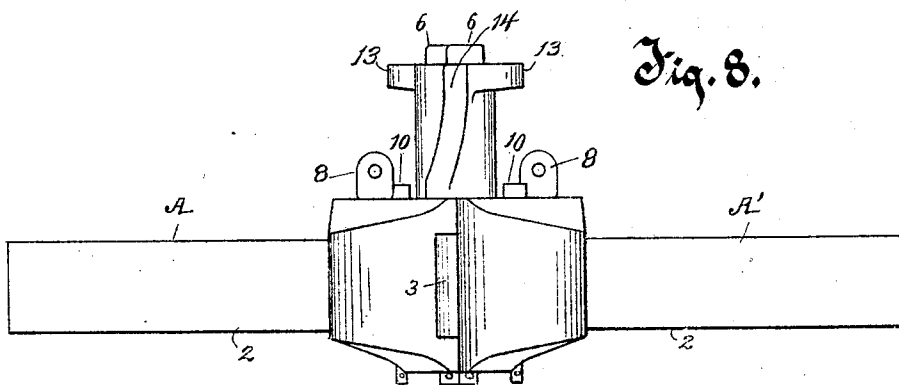
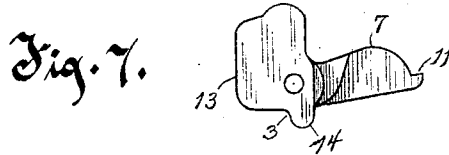
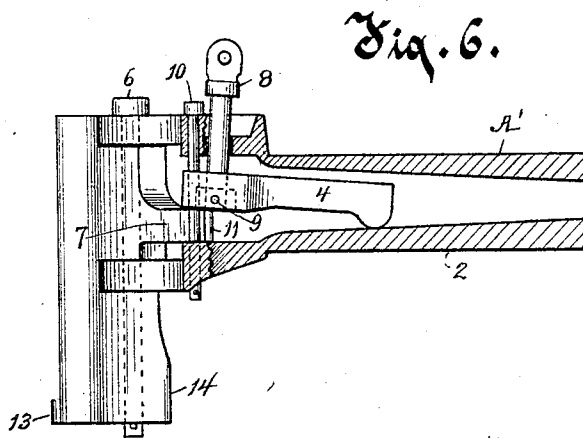
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2 SHEETS—SHEET 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

FRANK SCHATZKA, OF KAUKAUNA, WISCONSIN.

CAR-COUPLING.

No. 835,560.

Specification of Letters Patent.

Patented Nov. 13, 1906

Application filed July 29, 1904. Serial No. 218,591.

To all whom it may concern:

Be it known that I, FRANK SCHATZKA, residing in Kaukauna, in the county of Outagamie and State of Wisconsin, have invented new and useful Improvements in Car-Couplings, of which the following is a description, reference being had to the accompanying drawings, which are a part of this specification.

My invention relates to improvements in a class of car-coupling devices that are adapted to automatically couple cars together.

It is unfortunately a fact that the draw-bar of one coupler is occasionally pulled out of its car—that is, it is broken loose from the car by some sudden and great strain—and in such case as car-couplings of this class are usually constructed such draw-bar and coupler when pulled out of the car falls to the ground and may get under the wheels of the remainder of the train, thus derailing following cars.

A chief object of my invention is to provide means for preventing such withdrawn draw-bar and its coupler-head from falling to the ground and includes also an improved construction of the coupling and locking members of the device.

The invention consists of the car-coupler, its parts and combinations of parts, as herein described and claimed, or the equivalents thereof.

In the drawings, Figure 1 is a top plan view of the two members of a car-coupling in coupled-up position and involving my invention. Fig. 2 is a side view of the same construction shown in Fig. 1. Figs. 3 and 4 are top plan views of the coupling devices, the draw-bars and their heads being in section. In Fig. 3 the gripping device is shown in open position with its arm underneath the locking device, which rests thereon, and in Fig. 4 the lip or gripping device is shown in closed position, its arm being behind and engaged by the locking device, which has dropped down into the same plane. Fig. 5 is an under side view of the locking device. Fig. 6 is a vertical longitudinal section of the draw-bar, showing the locking device and my improved form of gripper or lip of the car-coupling in the open or non-coupled and non-locked positions. Fig. 7 is an end view of the lip or gripping device looking at the lower end. This lower end view is also a view of the top end in the modified form shown in Fig. 8; and Fig. 8 is a side view of the car-coupler, in which the grip-

ping device or lip is formed with the coupler-retaining device at the upper instead of the lower end, as in the other form of construction.

The car-coupling consists of two members A and A', duplicates in form, one to be attached to one car and the other to another car. Each member consists of a draw-bar 2, adapted to be placed in and secured to the end of a car, a pivoted lip or gripping device 3, and a locking device 4.

The draw-bar is provided with a head having forwardly-extending cheeks 5 5, separated from each other at the front, and to one of these cheeks the lip or gripping device 3 is pivoted by a pin 6. The lip or gripping device swings in a horizontal plane and is provided with a laterally-projecting arm 7, which projects rearwardly therefrom when the lip is closed, the arm being in a recess in the head of the draw-bar and being adapted to swing laterally and toward the front when the lip or gripping device is swung open outwardly. The locking device 4 is provided with a lifting-pin 8, which is advisably secured loosely in the locking device conveniently by inserting it in a slightly larger aperture therein and securing it in place by a transverse pin 9. This pin 8 extends upwardly through the upper wall of the head of the draw-bar and is provided with a head or handle to be caught hold of by a trainman for lifting the locking device out of engagement with the arm 7, whereby the lip or gripping device can swing outwardly to open position, taking the arm 7 under the locking device, on which the locking device rests loosely until the lip is again swung back to its closed position, when the locking device falls into place in front of the arm 7 and locks the lip or gripping device in its closed position.

A pin-guide 10, fixed in vertical position in the head of the draw-bar, may be employed as a guide for the vertical movement of the locking device 4 and to serve also as a stop adapted to engage a finger 11 on the arm 7 and prevent the swinging of the lip or gripping device outwardly beyond the limit permitted by the engagement of the finger 11 with the guide-stop 10. If the pin 10 is not employed, as it is not essential to the working of the construction, the outer edge 12 of the lip 3 should be so formed that when the lip 3 has swung outwardly to its proper open position this outer edge 12 will strike against the

outer surface of the head of the draw-bar and will prevent the lip from swinging outwardly beyond a proper position. It will be noticed that a feature of this construction is that the locking device 4 when it has been lifted from behind the arm 7 to permit of the opening of the lip or gripping device, is thereafter constantly supported on the arm 7 until the arm is again thrown inwardly and laterally to the position shown in Fig. 4, which it occupies when the lip is closed, when the locking device automatically drops in front of the arm and prevents the opening of the gripping device.

In my improved form of construction the lip 3 is extended downwardly below the lower surface of the draw-bar head, and at a distance below the draw-bar less than the vertical thickness of the draw-bar head there is provided a projecting shoulder or stop 13, which if the complementary draw-bar is pulled out of the car, and thereby so loosened in its connection with the complementary coupler that it would ordinarily slip therefrom and fall down, it instead thereof drops only a little distance and then engages this shoulder and is prevented thereby from escaping from the still supported coupler and falling to the ground. I also advisably extend the lateral vertical edge of the gripping device outwardly, as shown at 14, thereby forming an auxiliary stop, preferably inclined or beveled outwardly on its outer edge toward the end of the gripping device or lip 3 and adapted, either alone or in connection with the stop 13, to wedgingly engage the head of the complementary draw-bar when the draw-bar is pulled out of the other car and would otherwise fall to the ground and prevent its falling to the ground.

In the form shown in Fig. 8 the lip or gripping device instead of being extended downwardly and being provided at its lower end with the stop 13 is projected upwardly, and the stop 13 is then located on the upper end of the extension of the lip. The operation and function of the lips 13 and 14 when on the upper end of the lip 3 are exactly the same as when on the lower end of the lip, except that the head of the draw-bar that re-

mains fixed in its car is caught by the stop 13 or 14 or both of them as the detached draw-bar drops down in the head of the still fixed draw-bar.

What I claim as my invention is—

1. In a car-coupling, a draw-bar, a gripping device pivoted and swinging horizontally in the front end of the draw-bar, means for locking the gripping device in closed position, a vertical extension on the gripping device and a vertically-disposed stop on the lateral edge of the extension tapering inwardly to the extension toward its top adapted to engage a falling complementary interlocked coupler when otherwise unsupported.
2. A car-coupling, comprising duplicate members adapted to be secured severally to different cars, each coupler including a draw-bar with a head having forwardly-projecting side cheeks, a gripping device pivoted in one cheek to swing in horizontal plane outwardly and inwardly, means for locking the gripping device in its inner closed position, a vertical extension on the gripping device, a transverse stop on the outer face of the vertical extension and a vertically-disposed wedge-shaped stop on the edge of the extension adapted to prevent a complementary interlocking coupler from falling from the engaging coupler.
3. In a car-coupling, a draw-bar with a head, a gripping device pivoted in the head to swing in horizontal plane outwardly and inwardly, means for locking the gripping device in its inner closed position, a vertical extension on the gripping device, a horizontal stop on the outer face of the vertical extension and an auxiliary vertical stop on the edge of the extension in and extending beyond the horizontal plane of the stop on the face of the extension adapted to prevent a complementary interlocking coupler from falling from the engaging coupler.

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

FRANK SCHATZKA.

Witnesses:

Jos. H. DUISON,
JOSEPH CHOPIN.