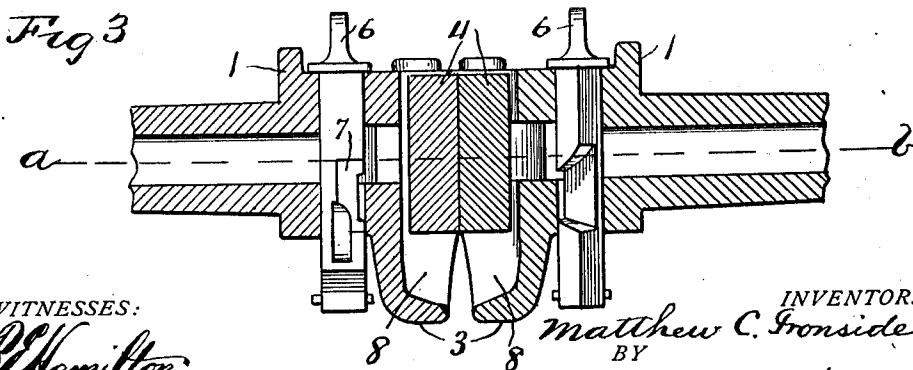
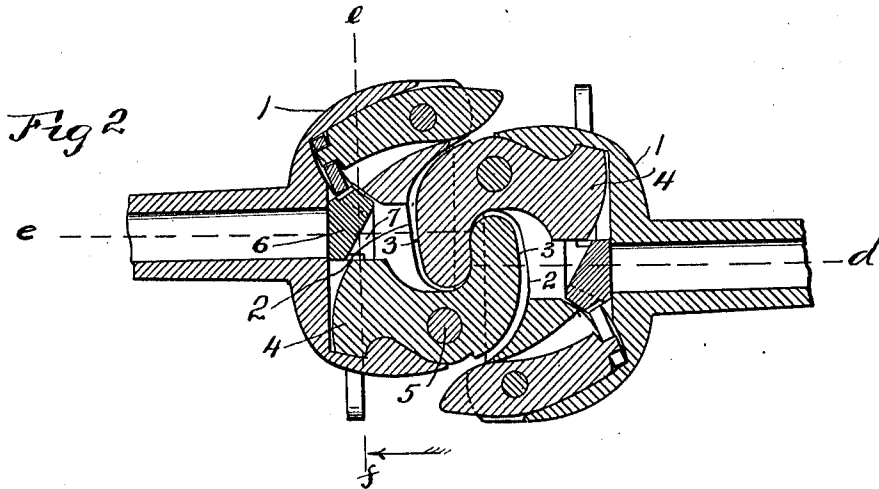
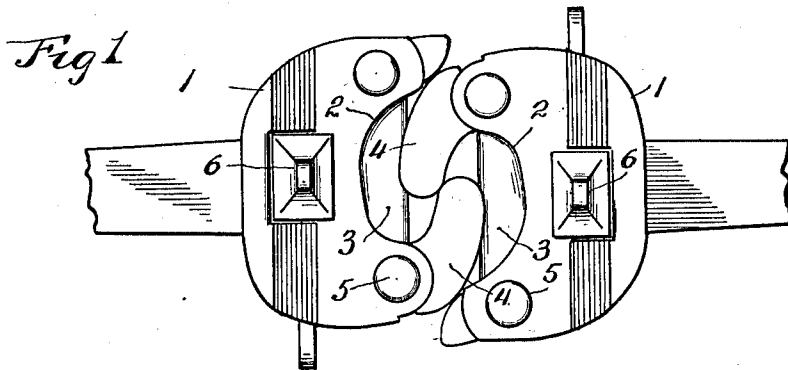


M. C. IRONSIDE.
CAR COUPLING.
APPLICATION FILED OCT. 26, 1909.

1,021,103.

Patented Mar. 26, 1912.

2 SHEETS—SHEET 1.



WITNESSES:

R. Hamilton.
E. B. House

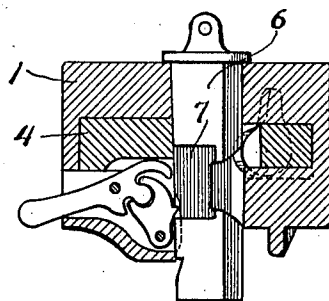
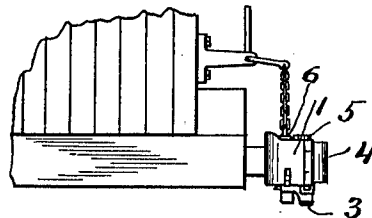
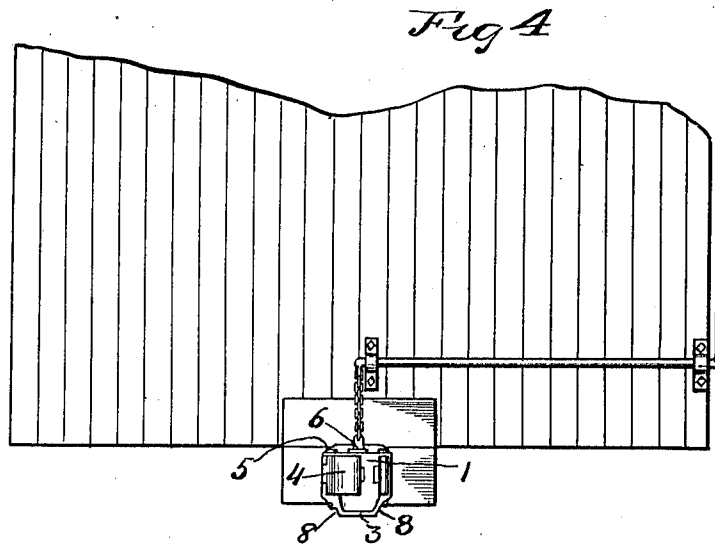
INVENTOR.
Matthew C. Ironside
BY
Warren D. House
His ATTORNEY.

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UNITED STATES PATENT OFFICE.

MATTHEW C. IRONSIDE, OF KANSAS CITY, KANSAS, ASSIGNOR OF TWO-NINTHS TO JAMES CUMMINGS, OF KANSAS CITY, KANSAS, AND TWO-NINTHS TO PATRICK J. HORAN AND TWO-NINTHS TO DAVID McDONNELL, OF KANSAS CITY, MISSOURI.

CAR-COUPLING.

1,021,103.

Specification of Letters Patent.

Patented Mar. 26, 1912.

Original application filed September 26, 1908, Serial No. 454,872. Divided and this application filed October 26, 1909. Serial No. 524,611.

To all whom it may concern:

Be it known that I, MATTHEW C. IRONSIDE, a citizen of the United States, residing at Kansas City, in the county of Wyandotte and State of Kansas, have invented certain new and useful Improvements in Car-Couplers, of which the following is a specification.

My invention relates to improvements in car couplers.

It relates particularly to automatic couplers of the type having a pivoted coupler hook for lockingly engaging with the hook of an opposing coupler.

The object of my invention is to provide a coupler head with a safety lip which will prevent the opposing coupler hook from moving downward to a position in which the coupler hooks would be disengaged. Oftentimes a coupler head becomes detached by breaking of some of the parts from the car and being unsupported by the opposite coupler it falls upon the track and causes wrecking of the train.

By means of my present improvement the coupler hook of the detached coupler is retained in locked engagement with the opposing coupler thereby preventing an accident from the cause just referred to.

This application is a division of the application filed by me Sept. 26, 1908, having Serial No. 454,872.

In the accompanying drawings which illustrate the preferred form of my invention—Figure 1 is a top view of two of my improved couplers about to enter into locked engagement with each other. Fig. 2 is a horizontal sectional view of the two couplers shown in locked engagement with each other, the section being taken on the dotted line *a—b* of Fig. 3. Fig. 3 is a vertical sectional view, taken on the broken dotted line *c—d* of Fig. 2. Fig. 4 is an end elevation of a portion of a car equipped with my improved coupler. Fig. 5 is a side elevation of what is shown in Fig. 4. Fig. 6 is a cross section on the dotted line *e—f* of Fig. 2.

Similar reference characters denote similar parts.

1 denotes the coupler head which is preferably of the well known "Janney" type and is provided at its forward and outer end with a recess 2, which is adapted to

force the coupler hook of the opposing coupler into the locked position. The coupler head 1 is provided below the recessed portion 2 with a safety lip 3, the purpose of which will be described hereinafter.

4 denotes a coupler hook, pivoted to swing on a vertical axis by means of a vertical knuckle pin 5, which extends through openings provided therefor in the coupler head 1.

6 denotes a vertically slidable locking pin mounted in a vertical opening provided therefor in the coupler head 1, and disposed so as to be moved by gravity to a position in which it will extend across the path of movement of the rear end of the coupler hook 4, thereby releasably holding the coupler hook in the locked position shown in Figs. 2 and 6. The locking pin 6 is provided with a notch or recess 7, disposed so that when the locking pin is raised to the proper position the coupler hook 4 will be permitted to swing horizontally to the unlocked position shown in Fig. 1.

The mechanism for elevating the locking pin 6 automatically and for automatically supporting the pin in the raised position, is described and shown in the aforesaid application for Letters Patent, and as these features form no part of the present invention, they need not be described.

When the couplers are in the locked position shown in Figs. 2 and 3, the hook 4 of each coupler will have its forward end disposed above the safety lip 3 of the opposite coupler. If, by any chance, either coupler head becomes detached from its car by breakage or by being pulled out from the car, it will fall by gravity upon and be supported by the lip 3 of the opposing coupler head. It cannot therefore, fall upon the track and possibly effect wrecking of the train. If such detachment from a car of a coupler head occurs the damaged coupler may be afterward removed upon the raising of either locking pin 6 to a position in which the adjacent hook 4 may swing through the recess 7 of the raised locking pin.

The lip 3 of the safety guard preferably has its upper side inclining upwardly and rearwardly from its upper front edge, so that formation thereon of ice is prevented. As shown in Figs. 3 and 4 the safety guard is provided with side walls 8 the inner sides

of which incline upwardly and laterally from the lip 3 and which have front edges which incline forwardly and upwardly from the lip 3. This form of the side walls affords great strength to resist impact of an opposing coupler and also prevents lateral movement of an opposing coupler, which has become detached from its car, to a position in which it might become disengaged from the coupler. By having the front edges of the walls 8 inclined forwardly and upwardly these walls are more liable to receive the impact of an opposing coupler on their upper portions, thereby reducing the liability of breaking of the guard.

Modifications of my invention, within the scope of the appended claims, may be made without departing from its spirit.

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

1. In a car coupler, the combination with a coupler head, of a coupler hook pivoted

thereto, the coupler head having a safety guard having a horizontal lip and a side wall which extends to the forward edge of the lip and has its inner side inclining upwardly and laterally from the upper side of the lip.

2. In a car coupler, the combination with a coupler head, of a coupler hook pivoted thereto, the coupler head having a safety guard having a horizontal lip and a side wall which extends to the forward edge of the lip and has its inner side inclining upwardly and laterally from the upper side of the lip, the side wall having its front edge inclining forwardly and upwardly from the upper side of the lip.

In testimony whereof, I have signed my name to this specification in presence of two subscribing witnesses.

MATTHEW C. IRONSIDE.

Witnesses:

E. B. HOUSE,
J. C. IRWIN.