

(No Model.)

W. W. WINDHAM.
CAR COUPLING.

No. 463,087.

Patented Nov. 10, 1891.

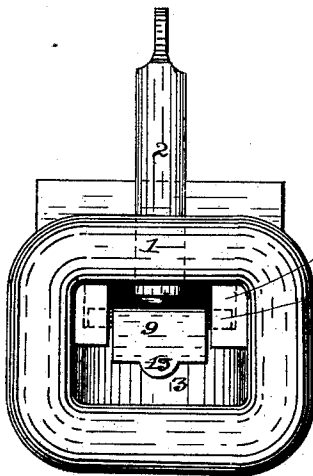
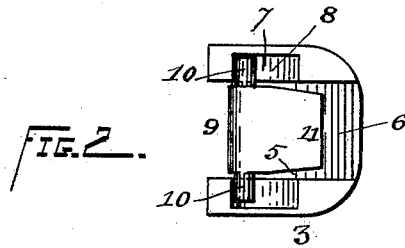


FIG. 1

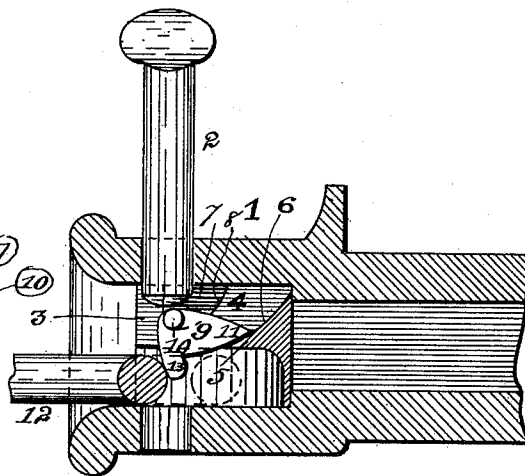


FIG. 3

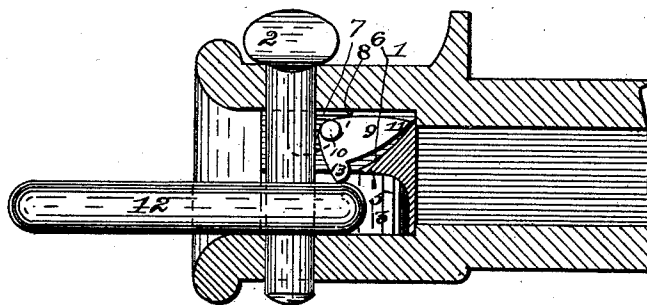


FIG. 4

Witnesses

S. M. Wood.

L. P. Hayden

Inventor:

W. W. WINDHAM.

Attorneys,

A. Woodruff.

UNITED STATES PATENT OFFICE.

WESLEY W. WINDHAM, OF ATLANTA, GEORGIA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 463,087, dated November 10, 1891.

Application filed February 24, 1891. Serial No. 382,641. (No model.)

To all whom it may concern:

Be it known that I, WESLEY W. WINDHAM, a citizen of the United States, and a resident of Atlanta, in the county of Fulton and State of Georgia, 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, reference being had to the accompanying drawings, and to figures of reference marked thereon, which form a part of this specification.

This invention relates to car-couplings, having particular reference to the adaptation of the link-and-pin draw-heads in present use to the usual legal requirements as to automatic safety-couplings, the invention consisting in an improved construction, substantially as hereinafter set forth.

In the accompanying drawings, Figure 1 is a front view of the device with the pin elevated. Fig. 2 is a plan of the box to be inserted in the mouth of an ordinary draw-head and the gravity-catch therein. Fig. 3 is a longitudinal vertical section centrally of Fig. 1, showing the interior construction and arrangement of parts, the pin being elevated and a link just entering. Fig. 4 is also a longitudinal vertical section of the draw-head, the link being secured therein and the pin therein at its coupling position.

In the figures like reference-characters are employed in the designation of corresponding elements of construction.

1 is the draw-head, which is of the ordinary construction in case it is desired to use such a draw-head; said draw-head being slung under or attached to the car by the usual means. The usual pin 2 is also employed and may be of any form adequate to the usual requirements. Seated in the posterior portions of the recess of the draw-head 1 is a box or frame 3, which is hollowed out on its under and front sides to receive the inner end of the link in coupling, the recess so formed in said box 3 being of such form that the link will be held in a desirable position for coupling to an approaching draw-head—that is, in an approximately horizontal position—the said link being fulcrumed upon the floor of the recess

in the draw-head and the inner end thereof resting under the lower side of the roof of the recess in the box 3. The roof of the box 3 is cut into by a recess 4, extending upwardly from the lower recess, and at the under side of said recess 4 is lip 5, which has its top surface 6 inclined downward forwardly for a purpose hereinafter mentioned. Other recesses 7 are cut into the side walls of the box 3, the back side 8 of each of which recesses is inclined, while the front side is vertical, or so to the desired extent.

9 is the gravity-block, which under certain hereinafter-specified conditions falls or slides under the ends of the pin 2. The block 9, the form of which is clearly shown in Figs. 1, 2, and 3, carries at its upper front corners or equivalent positions sidewise-projecting lugs or trunnions 10, which enter the recesses 7 and slide along the sides 8 of said recesses in operating said block, having also a backward extension 11, which contacts with the inclined surface 6 and acts as a counterbalance to prevent any pendulous motion of the block upon the lugs 10 when the link 12 comes into forcible contact with the downwardly-projecting lip 13 of the block 9, which said lip 13 is preferably narrow, as shown in Fig. 1, in order that it may enter between the side bars of the link in order to descend and hold the pin elevated when the said link is within the draw-head and the pin elevated by hand or by the commonly-known lever and revolving cross-bar on the end of the car. The box may be secured within the draw-head in any desired manner, either by key, bolt, or by other suitable means. Obviously the box 3 may be made integrally with the draw-head, and in that case the recesses 7 would be elongated forwardly at their tops to admit of the block 9 being placed in position by forming a way entirely through front boundary metal of said recesses large enough to pass the lugs 10.

The operation of this device is as follows: To couple, the pin having been lifted and the parts operating, as will be hereinafter seen, to sustain same, the link is entered, and, contacting with the front end of the gravity-block, the same will be pressed up the inclined sides of the recesses described, and the link will assume the position shown in dotted

lines in Fig. 3, whereupon the pin will drop within said link and secure same, the position of the elements when coupled being shown in side elevation in Fig. 4. To uncouple, the pin is lifted, whereupon the gravity-block will descend to the position shown in Fig. 3, the downward projection 13 being between the side bars of the link. The link may then be withdrawn at pleasure, the inner curved end pressing under the block and lifting same vertically to clear it by means of the beveled back side of the projection 13 of the gravity-block, the tail of said block resting on the surface 6, and the lugs thereof passing up the vertical front sides of the recesses in the side walls.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

In a car-coupling, the combination of the draw-head, the box seated within the draw-head having its lower portion hollowed out and its upper part cut by the recess extending upwardly and rearwardly from the lower recess and the recesses cut in the sides, the lip separating the upper and lower recesses, the gravity-block having trunnions registering with the recesses in the sides of the box, a rear extension registering with the upper recess and a downwardly-projecting lip at its front lower end, the pin, and the link, substantially as described.

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

WESLEY W. WINDHAM.

Witnesses:

A. P. WOOD,
A. A. WOOD.