

(No Model.)

W. KELSO.
CAR COUPLING.

No. 492,357.

Patented Feb. 21, 1893.

FIG. 1.

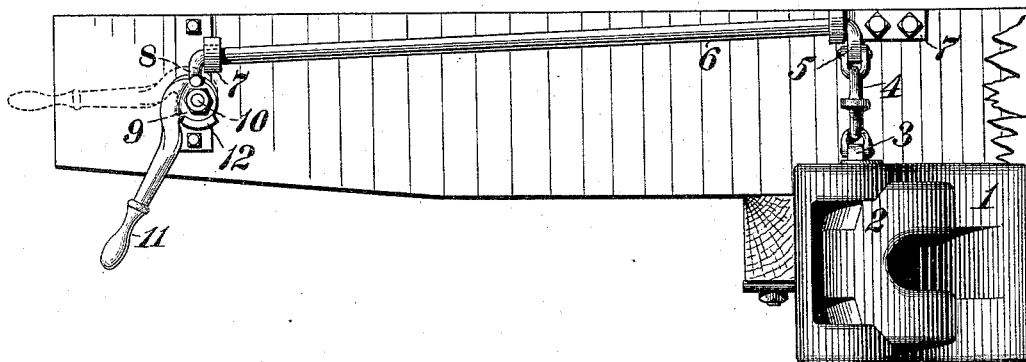


FIG. 2.

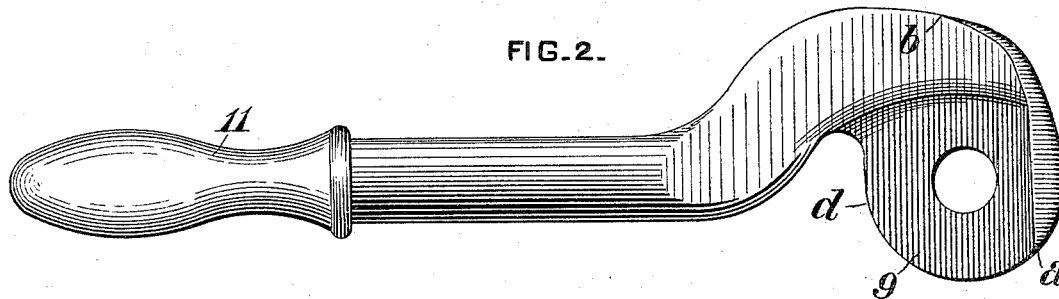


FIG. 3.

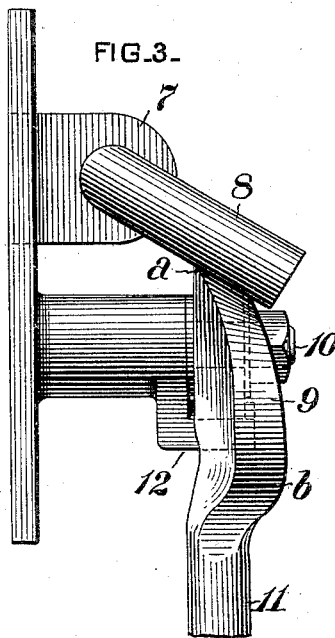


FIG. 4.

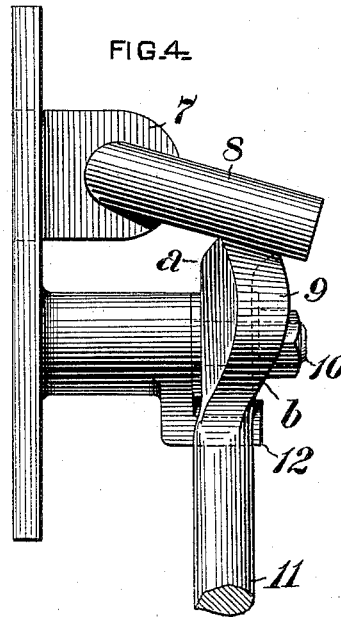
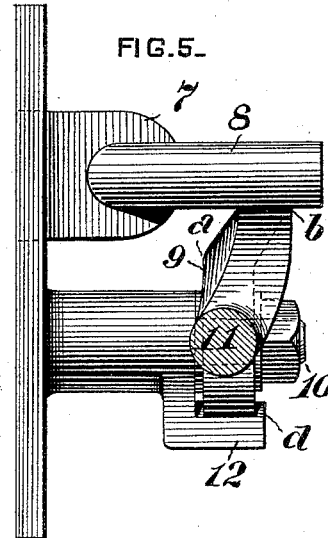


FIG. 5.



WITNESSES:

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UNITED STATES PATENT OFFICE.

WILLIAM KELSO, OF PITTSBURG, PENNSYLVANIA, ASSIGNOR TO WILLIAM
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CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 492,357, dated February 21, 1893.

Application filed December 1, 1892. Serial No. 453,721. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM KELSO, a citizen of the United States, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented or discovered certain new and useful Improvements in Car-Couplers, of which improvements the following is a specification.

This invention relates to certain improvements in devices for unlocking and holding in an unlocked position the swinging hook of the Janney type of vertical plane couplers, and the invention has for its object a construction whereby the coupler may be unlocked and released from the side of the car, thereby avoiding the necessity of a brakeman passing in between the cars for coupling and uncoupling the same.

In general terms the invention consists in the construction and combination substantially as hereinafter described and claimed.

In the accompanying drawings forming a part of this specification, Figure 1 is an end elevation of a portion of a car having my improvement applied thereto. Fig. 2 is a side elevation of the operating handle on an enlarged scale. Figs. 3, 4 and 5 are detail views showing different operative positions of the operating handle.

The head 1, swinging hook 2 and locking pin 3 are of the usual or any suitable construction. The locking pin 3 is connected by a chain or other flexible connection 4, with the arm 5 of the shaft 6, which is supported in suitable bearings 7 secured to the front sill or end of the car. The shaft 6 is provided at its outer end with an arm 8 arranged to project outwardly from the end of the car, and bear at or near its outer end upon the eccentric 9. This cam is loosely mounted upon a pin 10 and is provided with a handle 11, whereby it may be rotated as required.

In order that the eccentric may bear against the arm 8 at or near the same point as the arm is moved up and down, the operative portion of the eccentric from the point *a*, where the arm normally rests is bent outward as shown in Figs. 3, 4 and 5. At the point *a* of least eccentricity, the peripheral edge of the eccentric is inclined or beveled

so that the arm 8 will have a flat bearing upon the eccentric as shown in Fig. 3. From the point *a* the eccentricity increases, so as to gradually raise the arm as the eccentric is rotated, and the inclination of the edge of the eccentric decreases, to the point *b*, where the edge is parallel or approximately so, with the axis of rotation of the eccentric and where the radius of the eccentric is such as to raise the arm to or approximately to a horizontal position, as shown in Fig. 5. The arms 5 and 8 of the shaft 6 are so arranged that when the arm 8 is raised to a horizontal or approximately horizontal position, the locking pin connected to the arm 5 will be shifted sufficiently to release the swinging hook of the coupler. The opening in the eccentric is made sufficiently large relative to the diameter of the pin 10, as to permit the non-eccentric portion *a d* of the eccentric, to bear upon the shoe 12, rather than on the pin. By this construction the eccentric will be clamped and held in its several positions by the shoe and arm 8, the latter pressing the eccentric against the shoe.

I claim herein as my invention—

1. In an unlocking device for car couplers, the combination of a shaft provided at one end with an arm and having its opposite end connected to the locking device of the coupler, and an eccentric for raising the arm and thereby rotate the shaft to unlock the coupler, substantially as set forth.

2. In an unlocking device for car couplers, the combination of a shaft provided at one end with an arm and having its opposite end connected to the locking device of the coupler and an eccentric for raising said arm, said eccentric being constructed to bear upon the arm near its outer end in all positions thereof, substantially as set forth.

3. In an unlocking device for car couplers, the combination of a shaft provided at one end with an arm and having its opposite end connected to the locking device of the coupler and an eccentric for raising the arm and thereby rotate the shaft to unlock the coupler, the edge of the eccentric being inclined or beveled so as to provide a flat bearing for the arm, substantially as set forth.

4. In an unlocking device for car-couplers,
the combination of a shaft provided at one
end with an arm and having its opposite end
connected to the locking device of the cou-
5 ler, a loosely mounted eccentric for raising
the arm, and a shoe forming a bearing for the
eccentric and operative in connection with
the arm on the shaft to hold the eccentric

as against accidental displacement, substan-
tially as set forth. 10

In testimony whereof I have hereunto set
my hand.

WILLIAM KELSO.

Witnesses:

C. O. KRAUTH,
C. K. RALL.