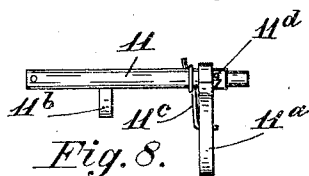
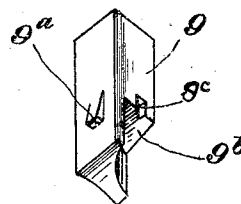
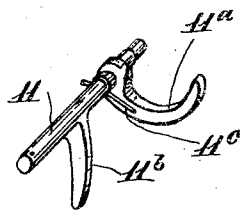
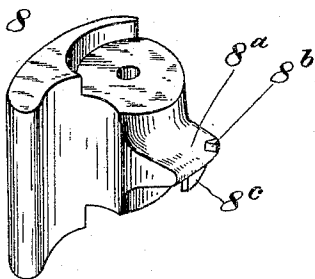
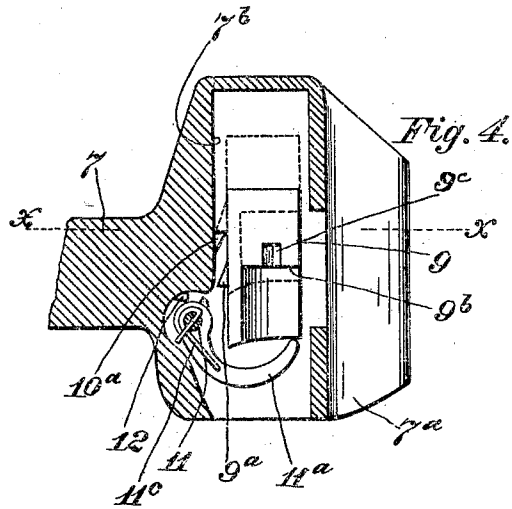
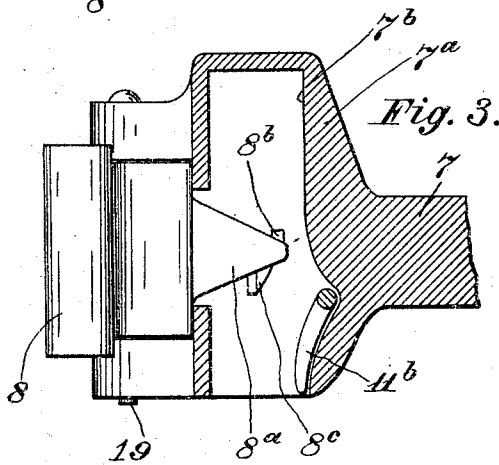
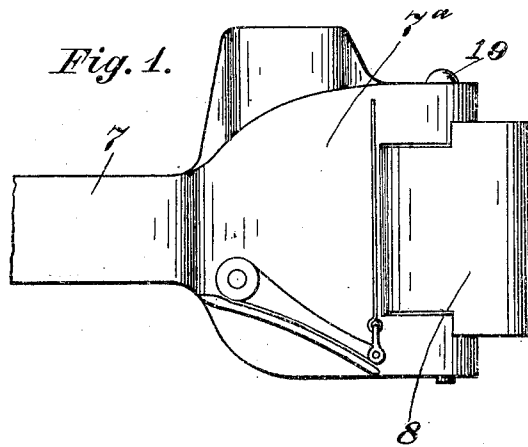
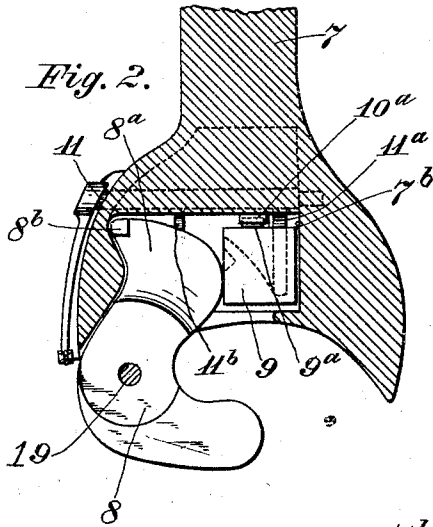


D. S. MONTGOMERY.
CAR COUPLING.
APPLICATION FILED OCT. 4, 1909.

958,884.

Patented May 24, 1910.



Witnesses
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UNITED STATES PATENT OFFICE.

DANIEL S. MONTGOMERY, OF COLUMBUS, OHIO.

CAR-COUPLING.

958,884.

Specification of Letters Patent.

Patented May 24, 1910.

Application filed October 4, 1909. Serial No. 520,869.

To all whom it may concern:

Be it known that I, DANIEL S. MONTGOMERY, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented a certain new and useful Improvement in Car-Couplers, of which the following is a specification.

The object of this invention is to provide an improved car coupling of the Janney type in which there is a vertically sliding gravity lock with means for setting the lock and opening the knuckle, it being my object more especially to provide means whereby both the knuckle and its lock can be operated by the same shaft.

The invention is embodied in the construction herein shown and described and then pointed out in the claims.

In the accompanying drawing: Figure 1 is a side elevation looking at the side containing the exterior lever for operating the knuckle and knuckle lock. Fig. 2 is a horizontal section on the line $x-x$, Fig. 4 looking down with the knuckle and lock in full; Fig. 3 is a central vertical section looking toward the knuckle; Fig. 4 is a similar view looking in the opposite direction; Fig. 5 is a perspective view of the knuckle; Fig. 6 is a perspective view of the knuckle operating and lock setting device; Fig. 7 is a perspective view of the lock; Fig. 8 is a plan view of a modified form of knuckle operating and lock setting device.

In the views 7 designates the draw bar, the head 7^a of which is of suitable form and provided with a suitable cavity to receive the operative parts.

8 designates the knuckle mounted to swing horizontally on a pin 19 as usual. The tail 8^a of the knuckle is provided at its upper side with a lug 8^b and at its under side with a cam 8^c. The lock consists generally of a rectangular block 9 having one of its lower corners cut away as at 9^b to permit the said tail to work under it. The lock is provided at its rear side with a lug 9^a and the lock moves vertically in a suitable recess 7^b closed at its top. The rear wall of said recess is provided with a projection 10^a that is engaged by the lug 9^a when the lock is raised and tilted rearward to carry the latter above the former.

Journaled horizontally in the draw head is a shaft 11, having laterally extending curved fingers 11^a and 11^b. The finger 11^a is loose and preferably has a limited move-

ment on the shaft but is provided with a spring 11^c to hold it against the limiting member 11^d (see Fig. 8) in the upward direction. Said finger 11^a is positioned to work under the lock 9 and the finger 11^b is located to work on the tail of the knuckle, and particularly on the cam 8^c at the under side of the tail. The fingers 11^a and 11^b normally extend from the shaft 11 at such an angle to each other that the points of the finger 11^a can be turned upward to raise the lock into position to be caught and held in elevated position by the projection 10^a, without affecting the action of the finger 11^b on the cam 8^c and the construction is such that the tendency of the point of the finger 11^a is to press the lock toward the rear wall of the recess in which it works. The spring of the finger 11^a is of sufficient strength to permit the raising of the lock to its said supported position but at that point the finger is obstructed by a stop lug 12 fixed in the wall of the coupling head. The arm 11^b is a cam member. When the cars containing the couplings are jammed together and it is desired to uncouple it suffices to raise the lock to the position just described because in that position of the lock the tail of the knuckle is free to pass under the lock to open position as happens when the cars are separated. But in separated cars both knuckles, and possibly in some instances, neither may be opened amply to permit recoupling. In such cases the finger 11^b is turned to operate on the tail of the knuckle, and by the action of that member on the cam 8^c to throw the knuckle to open position. The action of the finger 11^b on the cam 8^c is, therefore, independent of the action of the finger 11^a on the locking block after the latter has been raised to its elevated position referred to. But when the tail of the knuckle is turned to its full open position the lug 8^b strikes the locking block at a notch 9^c in the side of the block and dislodges the block from its rest in elevated position permitting it to drop slightly and to rest on the tail of the knuckle. When, therefore, cars equipped with such couplings are pushed together and the knuckle of each is shoved inward the tail of that member passes from under the locking block permitting the latter to fall into locking position.

What I claim and desire to secure by Letters Patent is:

1. In a car coupling the combination with

the draw head having a support for a
knuckle-locking block when the latter is in
elevated position, of a knuckle pivoted in
said draw head, said knuckle having a tail
5 piece provided at its upper side with a lug
and its under side provided with a cam, a
knuckle locking block vertically sliding in
the draw head, a shaft journaled in the
draw head having a finger to move the
10 knuckle to open position and a finger to ele-
vate the locking block to engage the said
support, said last named finger having a
limited movement upward with reference
to said shaft and a spring to hold the same
15 at the limit of its movement, said draw head

having a stop to limit the upward movement
of said last named finger by the operation of
the said shaft.

2. In a car coupling the combination with
a draw head, and a knuckle, of a locking 20
block for the knuckle, a shaft having fingers
for operating the knuckle and locking block,
the finger for operating the locking block
having means for yieldingly holding it
while the finger for operating the knuckle 25
moves the knuckle.

DANIEL S. MONTGOMERY.

Witnesses:

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