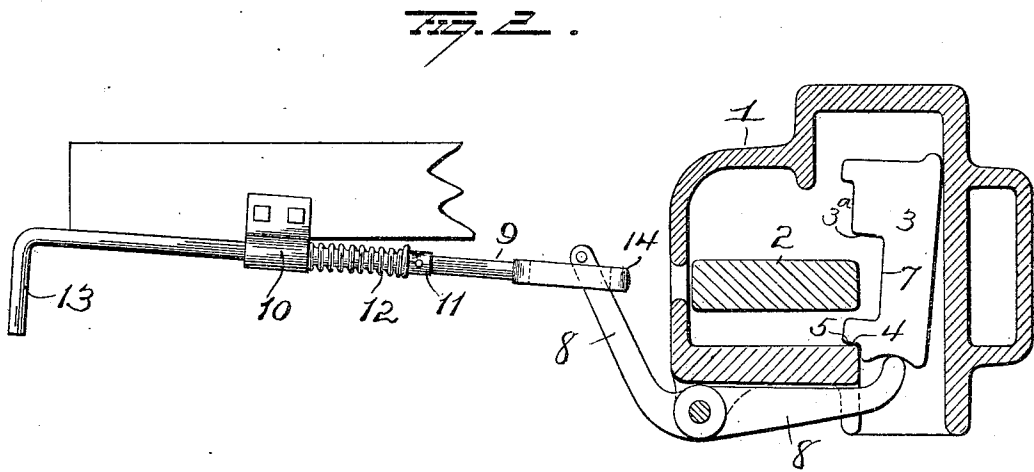
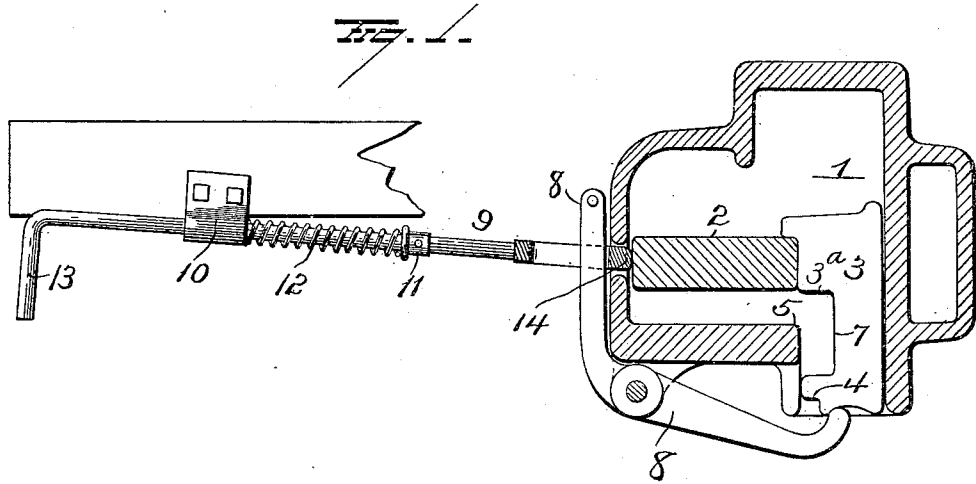


S. P. BUSH.
CAR COUPLING OPERATING DEVICE.
APPLICATION FILED APR. 13, 1908.

958,361.

Patented May 17, 1910.



WITNESSES
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SAMUEL P. BUSH, OF COLUMBUS, OHIO, ASSIGNOR TO THE BUCKEYE STEEL CASTINGS COMPANY, OF COLUMBUS, OHIO.

CAR-COUPLING-OPERATING DEVICE.

958,361.

Specification of Letters Patent.

Patented May 17, 1910.

Application filed April 13, 1908. Serial No. 426,833.

To all whom it may concern:

Be it known that I, SAMUEL P. BUSH, of Columbus, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Car-Coupling-Operating Devices; 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.

My invention relates to an improvement in car coupling operating devices the object being to provide improved means for elevating the locking block to its unlocking position, and then automatically throwing the knuckle to its open position, and it consists in the parts and combination of parts as will be more fully explained and pointed out in the claim.

In the accompanying drawings Figure 1 is a view in section through the coupling head, showing the locking block, knuckle tail, and actuating rod, the locking block being in its locking position in front of the tail of the knuckle, and Fig. 2 is a similar view showing the locking block elevated and the spring on the actuating rod under tension.

1 represents a coupling head having a knuckle tail 2 of the Janney type, and 3 the vertically movable locking block, located within the head normally in front of the knuckle tail, and provided with a shoulder 4 adapted to rest, when the block 3 is moved to unlocking position, on the seat 5 formed on the coupling head. This block 3 is provided with a recessed portion 7, which when the block is elevated rests in the plane of the knuckle tail, thus releasing the latter and permitting it to move to its open position. As the knuckle moves to its open position it engages the locking block and moves its shoulder 4 off the seat 5, thus permitting the block to drop and rest with its shoulder 3^a on the top of the tail of the knuckle, and in a position to permit the locking block to drop in front of the knuckle as the latter moves to its closed position.

8 is a bell crank lever pivoted to the coupling head adjacent to the underside of the latter, one member of said lever, being approximately horizontal and adapted to engage the lower end of the locking block, and the other member vertical and engaged by the actuating rod 9. This actuating rod

9 is slotted, or otherwise constructed to embrace the vertical member of the lever, so that when pulled outwardly, it will engage said lever and turn the same on its pivot. When the lever is thus turned it engages the lower end of the locking block and elevates the latter to its position on the seat 5. The slot in the actuating rod, is sufficiently long to permit of some longitudinal movement of the rod without a corresponding movement of the lever.

The actuating rod 9 is mounted near its outer end in a bracket 10 and is provided intermediate said bracket and the lever 8, with the stop or washer 11 secured thereto by a pin or other fastening device. Located between the bracket 10 and the stop 11, and embracing the rod 9, is the spiral spring 12. The spring is preferably placed on the rod before bending the handle end 13 of the latter, thus absolutely preventing accidental displacement of the spring, prior to and after securing the rod to the sill of the car. The end 14 of this rod 9 passes through an opening in the side of the coupling head in the plane of the tail of the knuckle, and is adapted when pushed inwardly, or toward the coupling head, to engage the tail of the knuckle, and if the latter be unlocked, push it to its open position.

It will be apparent from the construction shown that if the rod 9 be pulled outwardly in a direction to elevate the locking block, the spring 12 will be compressed, and if the rod be then released, the spring will return it to its normal position, thus leaving the lever 8 free to rock by gravity out of the path of the locking block, or free to be moved by the weight of the locking block. By this arrangement, after the bell crank has elevated the locking block, it is automatically released by the spring forcing the rod inwardly, so as to be free to move out of the path of the locking block, and not obstruct or hinder the free fall of the latter to its normal position.

I prefer to put the spring 12 under initial compression or tension, so that after the locking block has been elevated, the spring will not only return the rod crank to its normal position, but will move the rod inwardly into engagement with the tail of the knuckle and throw the latter to its open position. With the spring under initial compression, the rod 9 will always bear

against the tail of the knuckle, and when the latter is released, operate to throw the knuckle open, hence with this improvement, it is simply necessary for the operator to
5 unlock the coupling, and the latter will then always be in condition to make another coupling without the necessity of the operator returning to the car which is to be coupled.

10 It is evident that many slight changes might be made in the relative arrangement of parts shown and described without departing from the spirit and scope of my invention hence I would have it understood
15 that I do not wish to confine myself to the exact construction of parts shown and described, but

Having fully described my invention what I claim as new and desire to secure by
20 Letters-Patent, is:—

In a car coupling, the combination with

a coupling head, a knuckle, and a device for locking the knuckle in its closed position, of a bell crank lever for moving the locking device to unlocking position, a rod, and
25 a spring on the rod tending to force the latter inwardly toward the tail of the knuckle, the said rod having a loose connection with the lever, whereby when it is drawn outwardly the lever will be rocked in a direction
30 to move the locking block to unlocking position, and when released will be forced by the spring against the tail of the knuckle and throw the latter to open position.

In testimony whereof, I have signed this
35 specification in the presence of two subscribing witnesses.

SAMUEL P. BUSH.

Witnesses:

GEO. G. MERRING,
FRED. G. BENNETT.