

H. T. ROOK.
Car-Coupling.

No. 220,663.

Patented Oct. 14, 1879.

Fig. 1.

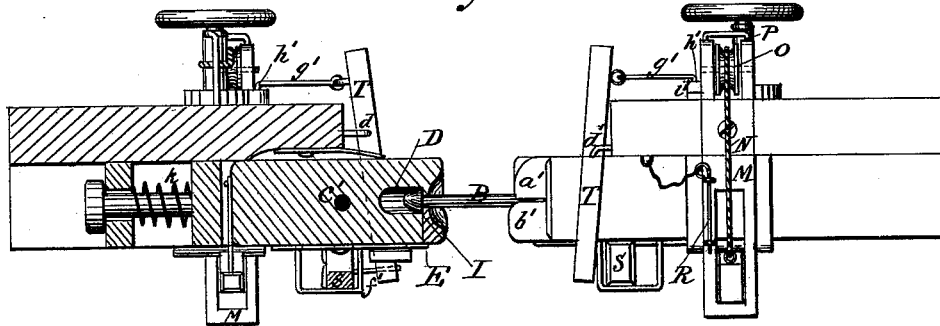


Fig. 2.

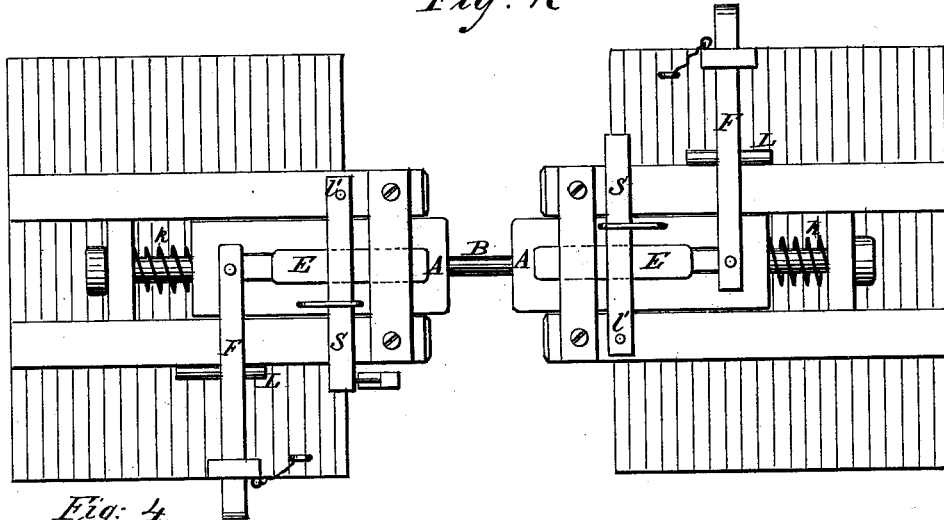


Fig. 4.

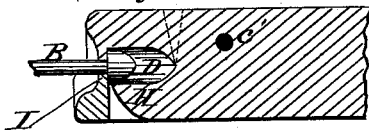


Fig. 3.

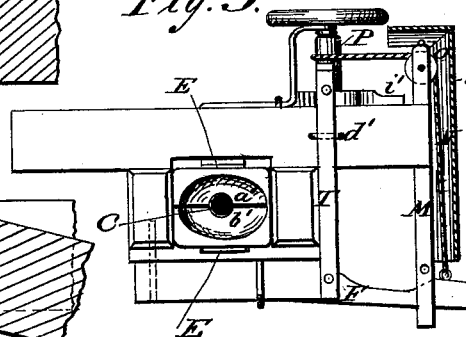


Fig. 5.

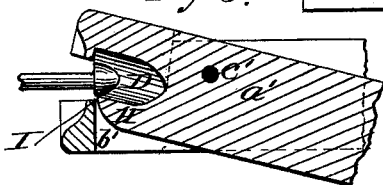
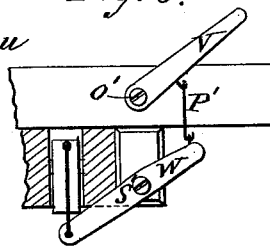


Fig. 6.



WITNESSES:

Achilles Schehl.
C. Sedgwick

INVENTOR:

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UNITED STATES PATENT OFFICE.

HARRISON T. ROOK, OF HOT SPRINGS, ARKANSAS.

IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. **220,663**, dated October 14, 1879; application filed September 19, 1879.

To all whom it may concern:

Be it known that I, HARRISON THOMPSON ROOK, of Hot Springs, in the county of Garland and State of Arkansas, have invented a new and Improved Car-Coupling, of which the following is a specification.

Figure 1 shows a sectional and side elevation of the coupling and attachments. Fig. 2 is a bottom view of the same. Fig. 3 is an end elevation. Fig. 4 is a sectional view of the draw-head detached from the car. Fig. 5 is a sectional view of the draw-head uncoupling. Fig. 6 is a rear view, showing a lever attachment.

Similar letters of reference indicate corresponding parts.

The invention consists of a draw-head, A, composed of two parts, *a'* and *b'*, forming what may be called a pair of jaws, of which the one is movable and the other fixed. The movable jaw *a'* is pivoted on pin *c'*, passing through *b'*.

When the connecting-pin B, which has a conical head on each end, is thrust into the opening C of the draw-head, the jaw *a'* lifts to admit one head of it into the recess D, and is then closed and held down by springs E E.

By the operation of the lever F the inner end of the jaw *a'* is depressed and the tongue H lifted, so as to raise the pin-head clear of the lip I and permit its withdrawal. The draw-head itself is kept forward in its usual place by the spiral spring *k*.

The lever F, which is attached to jaw *a'* of the draw-head and operates it for uncoupling, has its fulcrum, as shown, at L, and extends out to or beyond the side of the car, and the handle of it is restrained and guided by upright guides M. This lever may be operated from the ground; but should it be desirable to operate it from the roof of the car the cord or chain N, of which one end is attached to the handle of the lever, while the other passes over guide-pulley O to the windlass-rod P, will serve as the medium.

A pin, R, is used to thrust through a hole in the guides just above the handle of the lever F, to hold it in place when uncoupling from the ground, or to prevent accidental uncoupling.

Two other levers, S, pivoted at *U'*, and T, having a fulcrum at *d'*, and attached at *f'* to

S, are of great advantage under certain conditions. The lever T extends far enough above the top of the car for attachment to it of a rope, rod, or chain with a hook at the other end. Should the brakeman wish to leave the car in a condition to couple again without his further assistance, (when it is uncoupled and the jaws *a'* and *b'* are held apart by the lever F, controlled from the roof of the car,) he has only to place the hook *g'* in a hole at *h'* in the catch-block or pawl *i'*, when, by the concussion of the cars coming together, the draw-head is driven back, moving the lever S with it, which transfers motion through lever T and causes the withdrawal or disengagement of the pawl from the windlass-rod, and permits the dropping of the handle of the lever F and the consequent closing of the jaws of the draw-head.

A hood or cover is secured over the pulley O and cord or chain N, to protect them from rain and ice.

The two levers V and W, Fig. 6, are here shown to demonstrate the way in which they may be attached to passenger-cars in combination with or to operate in lieu of lever F. The lever V is pivoted at O', and is connected by rod, chain, or rope P' to the handle of lever W. Lever W is pivoted at S', and one end of it extends to about half-way between the buffers of the car. To this end may be attached a rod, chain, rope, or another lever, connecting it with jaw *a'* at or near the connecting-point of lever F.

It will be evident that through this system the jaw *a'* can be readily opened for uncoupling. It is proposed more especially to apply this system to passenger-cars.

Instead of the windlass-rod P, a lever having a fulcrum a few inches from the edge of the car-roof can be used for uncoupling.

To the shorter end of the lever the cord N may be attached, while the other end of the lever may extend to near the brake-rod, for the convenient control of the brakeman, and be held down by a spring-latch, the releasing of which will permit the coupling of the cars by closing the draw-head jaws upon the connecting-pin head.

The levers, for the purpose of working the draw-heads, are preferably placed on alter-

nate sides of the cars, for two purposes: First, the operator may uncouple an entire train when he is on the ground at either side of the train; and, second, should a car by any means get turned around end for end, it would remain in the same relative position to another car or cars as it was before it was changed.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination of the guides M, the cord or chain N, the pulley O, and the windlass-rod P, substantially as and for the purpose described.

2. The combination of the levers S and T

and the hook g' , arranged and operating substantially as and for the purpose described.

3. The combination of the draw-head having jaws $a' b'$, the lever S, pivoted at l' , the lever T, having a fulcrum at d' and attached at f' to lever S, the hook g' , and the pawl i' , as and for the purpose specified.

4. The combination of the two levers V and W, substantially as and for the purpose described.

HARRISON THOMPSON ROOK.

Witnesses:

S. V. CORNISH,

T. W. GIBBS.