(No Model.)

H. E. HAWK.

CAR COUPLING.

No. 265,063. Patented Sept. 26, 1882.

Fig. 1.

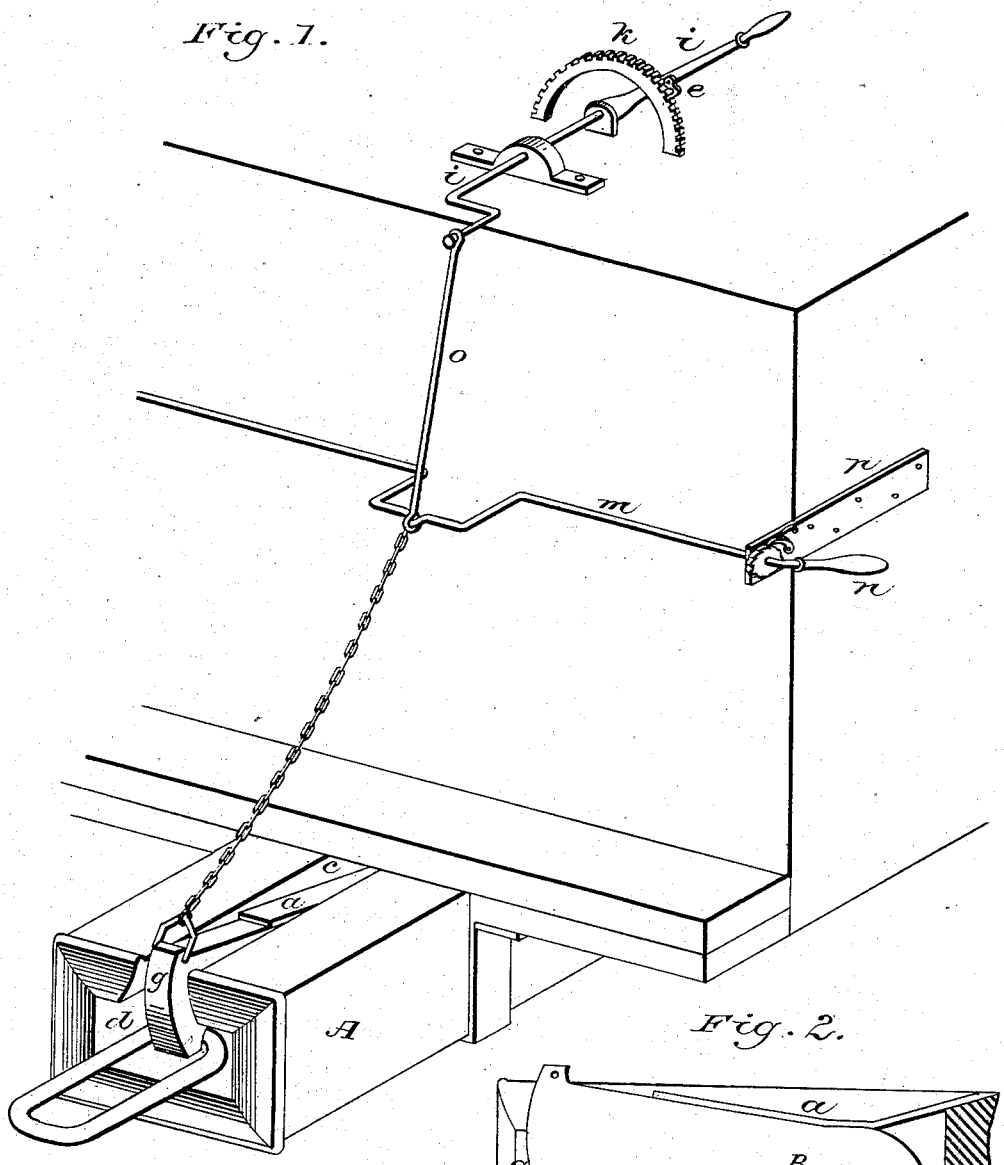
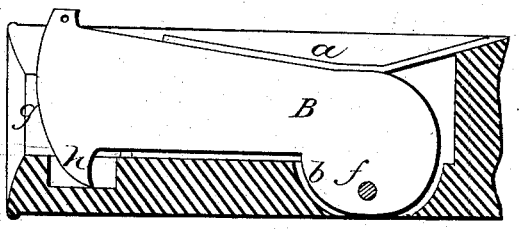


Fig. 2.



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UNITED STATES PATENT OFFICE.

HALE E. HAWK, OF KANSAS CITY, MISSOURI.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 265,063, dated September 26, 1882.

Application filed January 4, 1882. (No model.)

To all whom it may concern:

Be it known that I, HALE E. HAWK, of Kansas City, in the county of Jackson and State of Missouri, have invented a new and useful Improvement in Car-Couplings; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a perspective view of a portion of a car provided with my coupling devices; and Fig. 2, a section of a draw-head of a car, showing the automatic locking-bar and connections.

Similar letters of reference indicate corresponding parts.

The object of my invention is to provide for rolling stock a car-coupler which shall, while acting automatically, be controlled by the operator from the top or side of a car at will, in yard or out, and which will adapt itself to the old couplers now in use, and can be handled at less expense and in less time in the making up of trains. To accomplish this purpose I have constructed a draw-head of a car with suitable slots running lengthwise of said draw-head and variably formed to receive my coupling devices. Within the slots of said draw-head I insert a bar having formed upon one end an eccentric shoulder, through the lower part of which and below a line extending horizontally through the center of said bar, when in a locked position, the pivot passes and secures said bar in place. The forward end of the bar is forged with a beak having two inclined surfaces, one of which allows the shackle to pass under and raise the bar, the other exerting a downward bearing upon the shackle as power is applied in a direct line thereto. Upon the upper part of the bar is riveted a suitable spring to hold the bar in a locked position. Upon the sides of the car I attach by bolts a plate, through which a rod passes transversely across the end of the car, and, taking a U shape between the side plates, extends beyond at right angles to said plate, and forming handles for the releasing of the coupling devices. This rod may be held from changing position of the coupler by a suitable locking device attached thereto. A rod leading vertically from the locking-bar is connected by any well-known device to a horizontal rod upon the top of the car, and is operated by a handle forming part of the horizontal rod, which for uncoupling and releasing the locking-bar has a ratchet-wheel with stop at any convenient point for controlling rotary movement.

In the drawings, A represents a draw-head of a car, provided with slots *c* and *d*.

B is the locking-bar, pivoted within the draw-head by pivot *f*, and having an eccentric shoulder, *b*, and locking inclines *g* and *h*.

a is a spring attached to the locking-bar.

m is a U-shaped bar passing through plate *p* at right angles thereto, and having arms *n*.

o represents a vertically-secured rod hinged to rod *m*, and attached to and actuated by a similar rod, *i*, upon the top of the car.

p p are plates bolted to and projecting beyond the ends of the car.

k is an ordinary toothed wheel fastened upon bar *i*, and held by pawl *e* from any movement opposite thereto.

The practical advantages of my invention are as follows: In coupling cars the train-hand inserts an ordinary shackle in the draw-head past the locking-bar, which is thrown by means of spring *a* downward, the inclines upon the locking-bar entering slot *d* in the draw-head. The shackle, now in part within the draw-head, bears against the inner surface of the locking-bar as far back as the shackle is permitted to play, by this arrangement affording a leverage for the shackle at any point within the draw-head and maintaining said shackle at all times in a horizontal position for coupling, while spring *a* is allowed to operate.

To allow the locking-bar to act independently in the event of the breakage of the spring, which is common, I have constructed the locking-head with an incline at a suitable distance in rear of the slot for receiving the beaks upon the end of the locking-bar within the locking-head, so that the shackle, when carried beyond the horizontal plane within the locking-head, shall be fulcrumed thereon, and the power applied upon the inner length of the shackle will keep said shackle in the slack and pull of the train from dropping out of position, and at the same time allow the weight of the bar to act in conjuction with the spring to

give the shackle an upward tendency, and thus pass clear of the inclines at the entrance of the draw-head.

In the operation of my coupling devices the operator may, from the top or either side of the car, by means of the handles connecting the levers with the locking-bar and pawl and ratchet, uncouple and set the locking-bar from coupling at one motion. When the operator is upon the ground, and it is desired to uncouple and set the coupler in that relation, he raises the handle upon the side of the car and permits the ratchet to catch on the pawl, thus holding it in that position until it is desired to release the same. While thus held in place no subsequent contact of the coupling devices with others in the making up of trains will release the same.

The operation of setting the handle to uncouple from the ground is in my invention permissible on either side of the car, and when so done sets the bar upon the top of the car in the same relative position, thus affording the means for releasing the handle upon the side of the car from the top when desired. This arrangement affords means for releasing or setting the coupling devices in combination from distinct positions—first from either side of the car, from the ground, or on the car—and these advantages are attained with economy of labor and safety in operation.

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

In a device for controlling the automatic coupling and uncoupling of cars, a rod having a U-shaped projection working transversely across the end of a car, and provided with a suitable handle, in combination with a series of rods connected to the locking-bar in the draw-head, and operated from the top or side of said cars at will by suitable securing and releasing devices attached to said rods, substantially as described.

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