

E. D. SMITH.
Car-Couplings.

No. 143,728.

Patented Oct. 14, 1873.

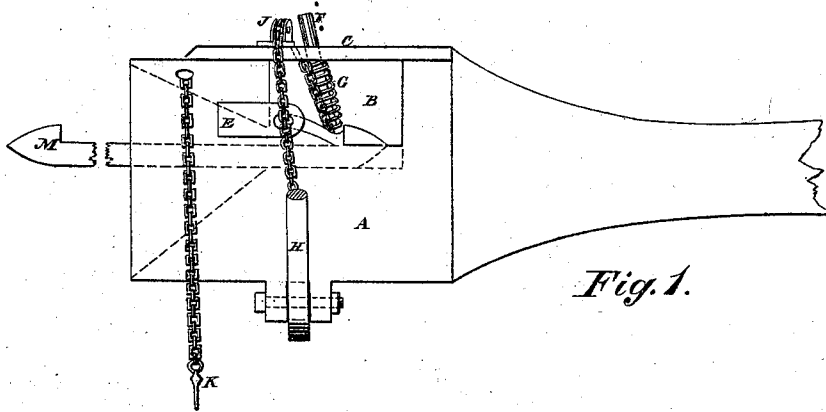


Fig. 1.

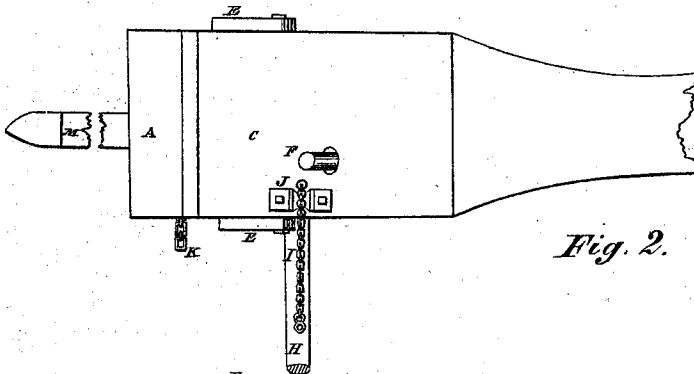


Fig. 2.

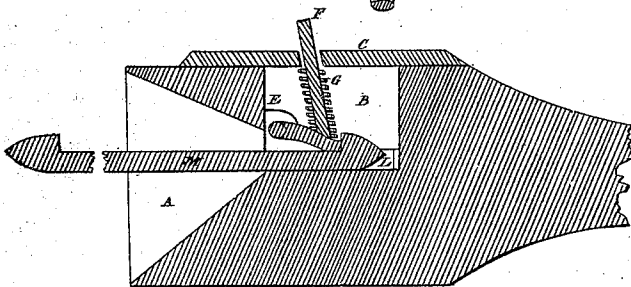


Fig. 3.

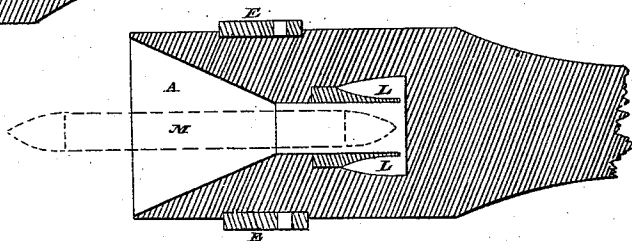


Fig. 4.

John Crist, Junr.
Frank W. W. W.
Witnesses.

E. D. Smith.
Inventor.
by his attorney
Henry Crist.

UNITED STATES PATENT OFFICE.

EDWIN D. SMITH, OF SUTTON TOWNSHIP, BROME COUNTY, ASSIGNOR OF
ONE-HALF HIS RIGHT TO LEONARD FORD, OF DUNHAM, CANADA.

IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. **143,728**, dated October 14, 1873; application filed
June 25, 1873.

To all whom it may concern:

Be it known that I, EDWIN DORWIN SMITH, of the township of Sutton, in the county of Brome, Province of Quebec, Canada, have invented Improvements on Car-Couplers, of which the following is a specification:

The invention relates to a self-coupling car-coupler; and consists in the combination and arrangement of a hinged flap and spring-rod in a recess in the draw-head to receive the coupling-bar, in connection with a lever, chain, and pulley for uncoupling; and, further, in the arrangement of springs in said recess for the purpose of holding the coupling-bar in proper position.

Figure 1 is a side elevation of a car-coupler embodying my invention. Fig. 2 is a top view of the same. Fig. 3 is a vertical section. Fig. 4 is a horizontal section of the same.

A is an ordinary bell or flanged mouthed draw-head, secured to the cars in the usual manner. B is a recess in the draw-head, bridged by a plate, C. D is a flap extending across the recess B, and journaled in bearings E at the sides of the draw-head. F is a guide-rod, pivoted to the flap D, and passing up through a slot in the bridge-plate C. G is a spiral spring passing around the rod F to depress the flap and prevent undesirable uncoupling by the motion or jolting of the cars. H is a lever, pivoted between lugs on the lower side of the draw-head, and extending to within reach from the sides of the cars. To the lever is attached a chain, I, which passes over a pulley, J, and through the bridge-plate C, and connects with the flap D, so that, when the lever is depressed, the flap will be raised, and thus effect uncoupling of the cars by releasing the draw-bar. K is a pin, attached to draw-head by a suitable chain, which is in-

serted in a hole in the guide-bar of the connecting-car previous to backing in a siding, &c., so that, when the cars separate, the pin is withdrawn by the forward motion, and leaves the flap ready for coupling. The pressure of the coupling-bar is against the lower edge of the flap D, and increased pressure in drawing the cars tends to bind the flap D downward, so as bodily to receive the strain. The draw-bar has at each end the usual projection to engage with the flap D, as before described; and the draw-bar may be provided with a hole near each end to adapt it for use, as for a pin-and-link coupling, with cars not provided with my coupler. L are springs secured in the cavity of the draw-head at each side, so as to compress between them the coupling-bar and keep it steady in line with the cars, and to allow it to have a movement laterally when strained by the cars running on a curve. By means of these springs the coupling-bar is kept in position ready to couple self-actingly when the cars are brought together.

I am aware of the patent to Jacob Miller, dated October 15, 1867; and I do not claim any of the devices therein shown and described.

I claim as my invention—

1. The combination of the flap D, rod F, spring G, lever H, chain I, and pulley J, as shown and described, for the purpose specified.

2. The springs L L in the recess B of the draw-head, in combination with the coupling-link, as shown and described, for the purpose specified.

E. D. SMITH.

Witnesses:

E. F. ELLISON,
H. D. VOEKEL.