A. PORTER.

Improvement in Car Couplings.

No. 115,517. Patented May 30, 1871.

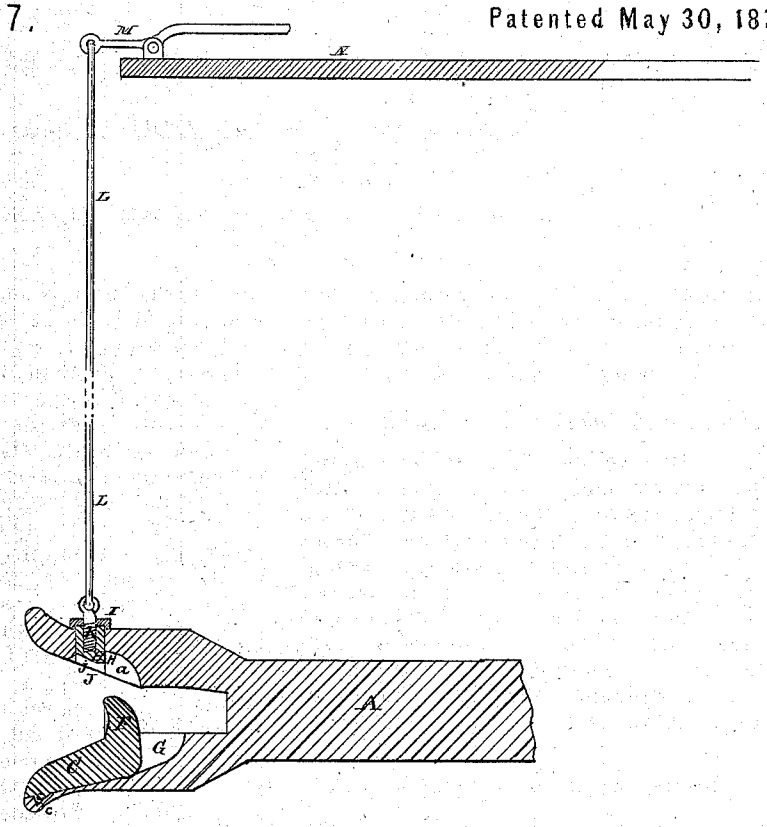

Fig. 1.

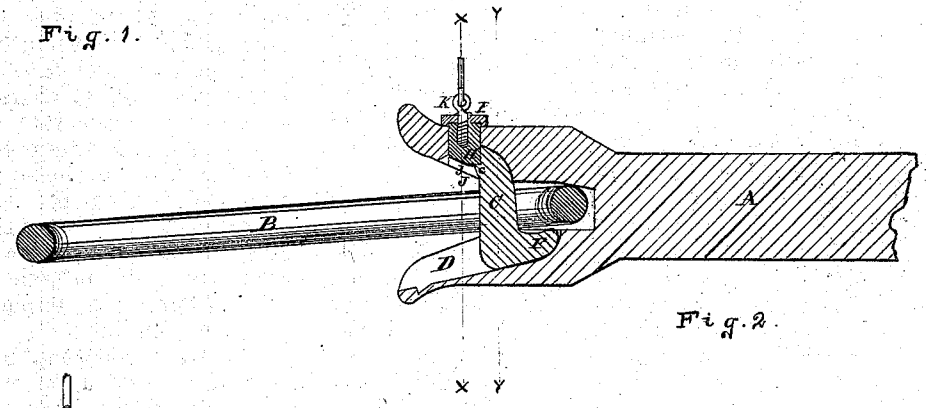

Fig. 2.

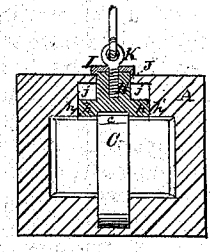

Fig. 3.

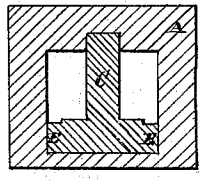

Fig. 4.

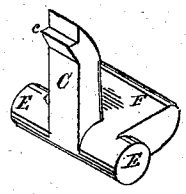

Fig. 5.

Attest.

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UNITED STATES PATENT OFFICE.

ALBERT PORTER, OF IRVING, ILLINOIS.

IMPROVEMENT IN CAR-COUPLINGS.

Specification forming part of Letters Patent No. 115,517, dated May 30, 1871.

I, ALBERT PORTER, of Irving, in the county of Montgomery and State of Illinois, have invented a certain Car-Coupling, of which the following is a specification:

Nature and Object of the Invention.

My invention relates to a self-engaging coupling for railroad cars. It has a turn-piece, which receives a partial rotation by the entering-link, and the pin upon which passes up through the link and raises a gravitating-catch that descends when the pin has passed beneath it and engages the end of the pin. The object is to provide an automatic coupling, which will combine the qualities of cheapness, simplicity, efficiency, and durability in a higher degree than those now in use.

Description of the Drawing.

Figure 1 is a vertical longitudinal section ready for the entrance of the link. Fig. 2 is a similar section, showing the link engaged. Fig. 3 is a transverse section at the line *x x*, Fig. 2. Fig. 4 is a transverse section at the line *y y*, Fig. 2. Fig. 5 is a perspective view of the pin or turn-piece.

General Description.

A is the draw-head, and B the link. The link, when coupled, is held by a pin, C, which forms part of a turn-piece, whose journals or pivots E rest in suitable recesses of the lower portion of the draw-head. D is a recess, which contains the pin when the link is uncoupled. F is an extension of the turn-piece, projecting at about right angles with the pin, and upon which the entering-link acts to raise the pin, the extension F being carried backward and downward into a recess, G, in the draw-head. H is a gravitating-catch, having shoulders *h h'* and a cap, I, above the draw-head. The shoulders *h h'* have vertical movement in side extensions *j* of the vertical rectangular socket J of the catch H. The cap I has greater diameter than the socket J, and sustains the catch when the link is uncoupled; but when coupled the catch is sustained, in case of cap becoming detached, by a shoulder, *c*, upon the front side of the pin C, so as to prevent possibility of accident by the dropping out of the catch when the cars are coupled. The catch is connected to the cap by an eyebolt, K, which connects with a rod, L, that may be connected to a lever, M, upon the car-roof N, or which may extend merely to the platform. The rod L allows the catch to be drawn up, to uncouple, by a person standing on the platform or car top. The turn-piece C E F may be of cast-steel or malleable iron, or forged iron, but should be made in one piece. At the rear of the lower end of the catch H is a recess, *a*, to receive the end of the pin C when raised.

The operation of the coupling is as follows: The entering-link encounters the extension or toe-piece F, and, driving it backward and downward into the recess G, raises the pin C, whose end, in moving backward, raises the catch H and passes into the recess *a*. To uncouple, the catch H is drawn upward and releases the pin, which is drawn outward by the link, and falls into the recess D. The turn-piece C E F admits of removal from the recess of the draw-head when the cars are uncoupled, but cannot be raised when they are coupled, as the pin is held down in the recess *a*, and by unscrewing the bolt K the catch will drop out when the cars are uncoupled, but when coupled the catch is kept in by the shoulder *c*.

I am aware that couplings have before been made with a turning or tumbling hook, adapted to catch the link automatically and be itself caught and held by a latch or catch; this, therefore, I do not claim. But my coupling is superior to others in that the tumbling-hooks are made to turn upon trunnions made in one piece therewith, instead of on a separate pin or pivot. Springs are entirely dispensed with, and the entire apparatus is made up of a small number of pieces, which may be readily taken apart, if necessary, but have no liability to become accidentally detached.

Claim..

I claim as my invention—

The turn-piece, consisting of the holding-pin C provided with a projection, *c*, trunnions E E, and rear extension F, made in one piece, in combination with the shouldered gravitating-catch H *h' h'*, cap I, and recessed draw-head A D G *a*, all constructed, arranged, and operated in the manner and for the purpose set forth.

In testimony of which invention I have hereunto set my hand.

ALBERT PORTER.

Witnesses:

SAML. KNIGHT,

RICHARD M. SPURGEON.