(No Model.)

J. F. BATCHELOR.

CAR BRAKE AND COUPLING.

No. 304,157. Patented Aug. 26, 1884.

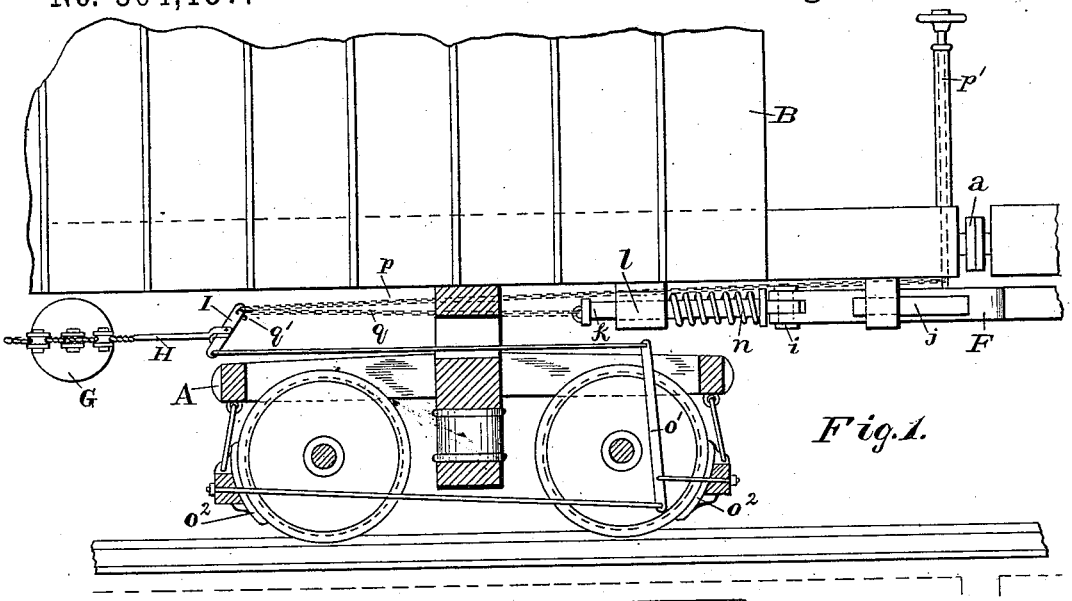

Fig. 1.

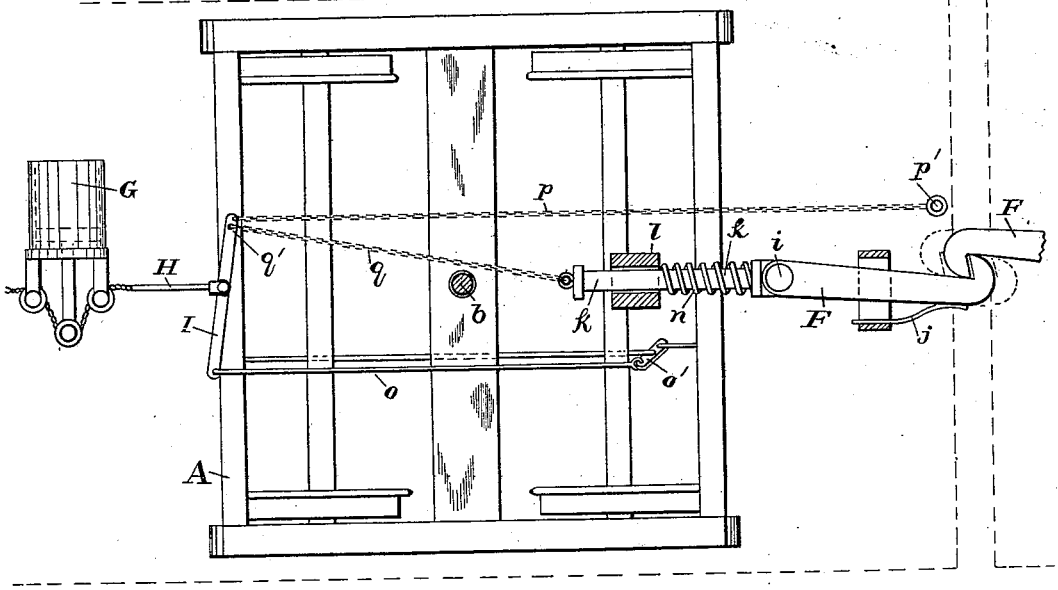

Fig. 2.

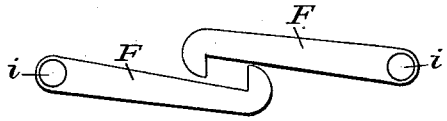

Fig. 3.

WITNESSES:

A. C. Eader.

John E. Morris.

INVENTOR:

Jos. F. Batchelor.

By Chas B. Mann,

Attorney.

UNITED STATES PATENT OFFICE.

JOSEPH F. BATCHELOR, OF BALTIMORE, MARYLAND.

CAR BRAKE AND COUPLING.

SPECIFICATION forming part of Letters Patent No. 304,157, dated August 26, 1884.

Application filed July 1, 1884. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH F. BATCHELOR, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Car-Couplings, of which the following is a specification.

My invention relates to an improvement in car-couplings, and has for its object to provide means whereby, upon the brakes being applied, the couplers will be drawn back or retracted, resulting in the ends of the cars being brought close together when the train stops, as hereinafter more fully set forth. The construction whereby the desired result is accomplished will be described in connection with the accompanying drawings, which illustrate what is deemed the best means of carrying the invention into effect.

Figure 1 is a side view of a car, the truck being in section, showing the improvement applied. Fig. 2 is a plan view of a track, showing the car-coupler and brake mechanism. Fig. 3 is a detached view of the car-coupler.

A truck, A, of any known construction, supports the end of a car, B, of any kind. Ordinary cushions or spring buffer-heads *a* may be employed at each end of the car. A king-bolt, *b*, as usual, may connect the truck with the car. In the present instance a hook-coupler is shown; but the invention is not limited to this or to any particular form of coupler. Other well-known forms of car-couplers may be used instead of the hook.

At each end of the draw-head rod *k* a hook-coupler, F, is attached by a pivot, *i*, which permits it to have a side movement like other hook-couplers. A spring, *j*, bears on the side of the coupler and keeps it normally to one side. The coupler is pivoted to the rod *k*, which is adapted for endwise movement through a loop, *l*, on the car-body. A spiral spring, *n*, about the rod, between the pivoted end of the coupler and the said loop, serves to keep the coupler-hook projected, as indicated by broken lines in Fig. 2, but permits it to be retracted, as shown in the same figure.

The coupler is connected to the brake mechanism as follows: G designates an ordinary brake-cylinder; H, the rod attached to the cylinder-piston; I, the brake-lever; *o*, the rod which connects one end of the said brake-lever with the lever *o'*, which presses the bar carrying the brake-shoes o^2; and *p*, the chain or rod which connects the said brake-lever to the upright brake-shaft *p'*, usually turned by hand. All of these parts of the brake mechanism are of the ordinary construction. I apply a chain, *q*, to connect the draw-head rod *k*, to which the coupler is attached, to the brake-lever I. The connection is made by a hook, *q'*, to facilitate disconnection. By the described connection of the coupler to the brake-lever it follows that when the brakes are applied the first effect is to retract the couplers F—that is, to draw them back—which compresses the spring *n*. This retraction of the coupler is done by the piston in the brake-cylinder drawing the rod H, which draws the brake-lever I, and, through the medium of the chain *q*, drawing the coupler back. The couplers being thus retracted or drawn back at the time the brakes are applied, results in the ends of the cars being brought close together, whereby, when a train comes to a stop by the action of the brakes, the cars will be in contact just as they would be if the locomotive were to back the train. When the brakes are released, the spring *n*, back of each coupler, will force the couplers out, thereby producing a slack connection between each pair of couplers, the position at this time of their hooked ends being shown in Fig. 3. The advantage of having the cars close together when the train stops is that upon starting the locomotive can start easier, because at first it starts the first car only, then the second car, and so on.

I have here shown and described the means for retracting the coupler as consisting of the ordinary brake-cylinder, piston, and brake mechanism. It is obvious, however, that a special cylinder and piston may be used and connected with the usual brake-pipe under the control of the engineer, so as to operate simultaneously with the brakes, and a connection made between the piston of said special cylinder and the coupler, substantially as here shown. This is here stated, because the invention, broadly, is a car-coupler adapted to move endwise of the car, and connected with

a piston-cylinder under the control of the engineer.

The invention here claimed is substantially shown and described in my application for Letters Patent filed May 24, 1884, for an improvement in railroad-cars, and is therein expressly reserved to be claimed in another application.

Having described my invention, I claim and desire to secure by Letters Patent of the United States—

1. The combination of a car-coupler adapted to move endwise of the car, a piston-cylinder under the control of the engineer, and a connection, substantially as described, between the coupler and piston-cylinder, as set forth.

2. The combination of a car-coupler adapted to move endwise of the car, the brake-lever or equivalent part of the brake mechanism, and a connection, substantially as described, between the coupler and said part of the brake mechanism, whereby when the brakes are applied the coupler will be retracted, as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

JOSEPH F. BATCHELOR.

Witnesses:
CHAS. B. MANN,
JOHN E. MORRIS.