

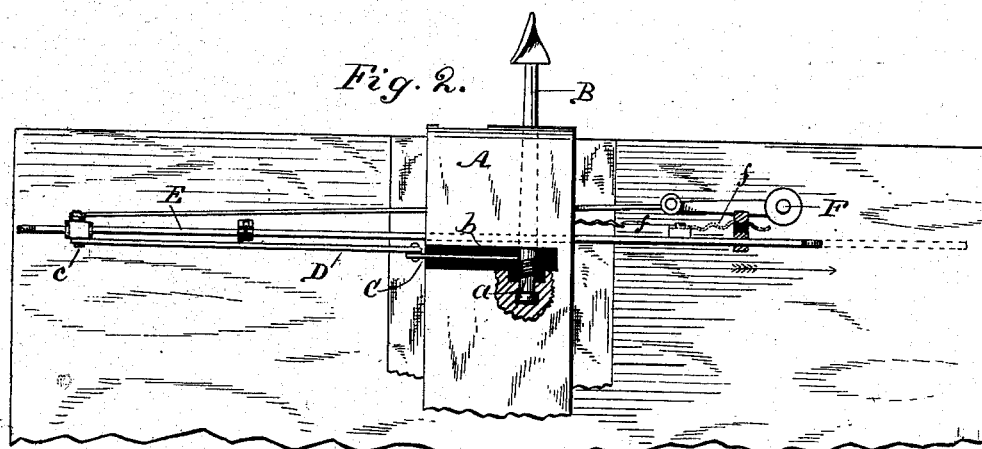
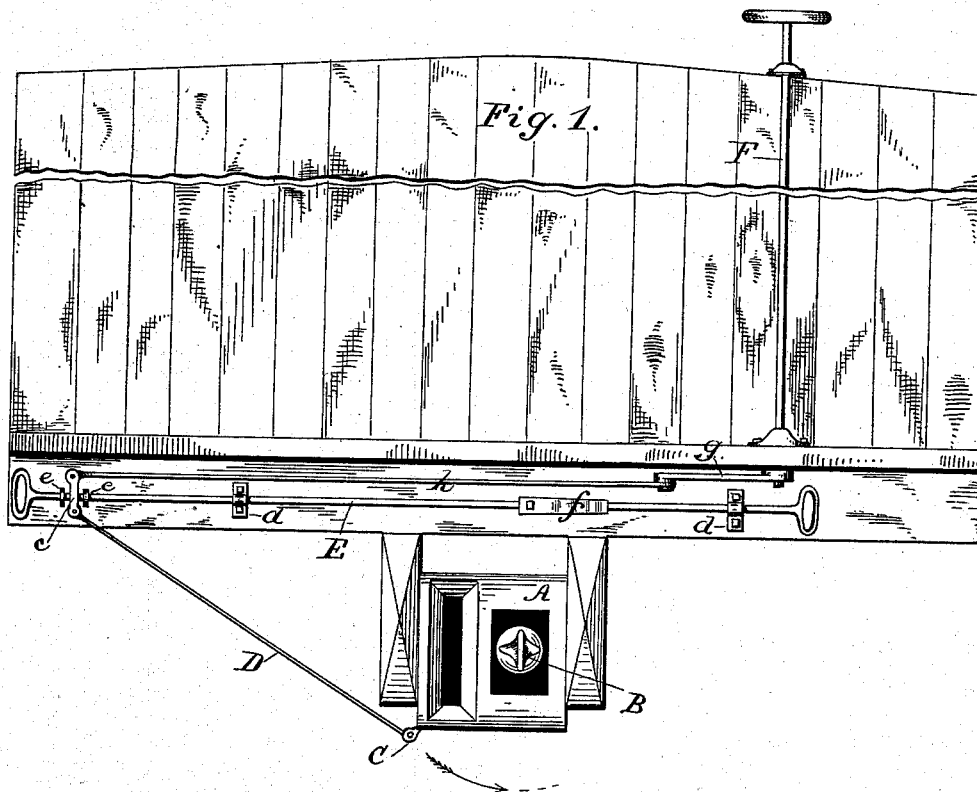
(No Model.)

R. CHAMBERLAIN.

CAR COUPLING.

No. 263,114.

Patented Aug. 22, 1882.



WITNESSES:

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UNITED STATES PATENT OFFICE.

ROSSCO CHAMBERLAIN, OF EAST LIBERTY, OHIO.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 263,114, dated August 22, 1882.

Application filed May 3, 1882. (No model.)

To all whom it may concern:

Be it known that I, ROSSCO CHAMBERLAIN, a citizen of the United States, and a resident of East Liberty, in the county of Logan and State of Ohio, have invented a new and useful Improvement in Car-Coupling Attachments, of which the following is a specification.

This invention relates to improvements in car-couplings of that class employing auger-pointed or spirally-bladed draw-bars, and has for its object to effect the ready and easy coupling and uncoupling of the cars without causing the operator to pass between the cars, which is attended with great danger to life and limb.

The nature of this invention consists in the combination and arrangement of parts, substantially as hereinafter more fully set forth.

In carrying out my invention reference is had to the accompanying drawings, in which Figure 1 is a front elevation of a car embodying my improved coupling, and Fig. 2 is an under side view thereof.

A indicates the draw-head, having one chamber within which its draw-bar is arranged, and a second chamber to receive the head or free end of the draw-bar of the approaching car.

B is the draw-bar, having its inner end seated or supported in the draw-head, so as to rotate or turn, as shown in Fig. 2. Its outer end has a spirally-bladed or auger-pointed head. It is held under the action of a spring, *a*, by the recoil action of which its movement is reversed, after having been turned in a certain direction by its passage into the draw-head, through the unoccupied opening thereof, to automatically effect the coupling operation.

C is a lever fixed to the revolving draw-bar B, and arranged to move in a slot, *b*, cutting the draw-bar diagonally across one corner. The lever C is so connected to the draw-bar as when at rest to extend therefrom about in line with the corner edge of the draw-head having the slot *b*, as clearly seen in Fig. 1. The lever C is connected, by a rod or chain or cord, D, to a cross-bar, *e*, adapted to slide on the handled rod or lever E.

The rod E is supported and capable of being slid by hand in bearings or eyes *d*, fastened upon the lower part of the car. This rod E has two projections or shoulders, *e*, one ar-

ranged on each side of and a short distance from the slide *c*, to enable the latter to act upon and move the rod E in either direction. The rod or lever E has a spring, *f*, which is adapted to enter one of the eyes *d*, supporting the rod or lever E, at a certain time, as seen in Fig. 2.

F is an upright shaft having a hand-wheel or lever, and suitably journaled in bearings fastened one upon the lower part of the car and the other to the top thereof.

A crank, *g*, is secured to the lower end of the shaft F, and connected to a rod, *h*, which is attached to the upper end of the slide *c*.

It will be observed that the coupling operation is effected automatically. This is caused by the turning of the draw-bar by the action of its spirally-bladed head against the beveled face or sides of the opening of the side chamber in the draw-head of the meeting car until the greater area of surface or width of the head of the draw-bar is brought in line with the length of the said opening. The instant this takes place the head of the draw-bar will pass through the opening of the aforesaid chamber of the draw-head and into said chamber. The draw-bar will then turn upon its axis by the recoil action of its spring, so as to bring the greater area or width of its head behind the flanges formed by the sides of the opening of the side chamber of the draw-head, and thus effect the coupling operation.

The uncoupling of the cars may be effected either by turning the hand-wheel of the shaft F, which is desirable upon box or house cars, or by operating the handled rod or lever E to allow such operation to be accomplished when the operator is standing on the ground and at one or either side of the cars.

To perform the uncoupling operation, turn the hand-wheel shaft F, or slide the handled rod or lever E so as to move the latter in a manner to cause its spring *f* to take into one of the eyes *d*, as shown in Fig. 2. This action of the rod will turn the draw-bar on its axis, so as to distend its spring *a*, while the spring *f* will hold the rod and draw-bar as against the action of the spring *a*. The head of the draw-bar will be turned so as to present its greater width in line with that of the opening of the chamber in the draw-head, when by the movement separating the cars the draw-bar head

will be released from the draw-head and thereby uncouple the cars.

The sudden jerking action produced by the separation of the cars and the liberation of the draw-bar will cause the release of the spring *f* and permit the reversing the rotation of the draw-bar by the recoil action of its spring *a* to return it to its original position, ready for a second coupling operation.

10 Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a car-coupling, the combination, with the draw-bar having an auger-pointed or spirally-bladed head and its spring, of the lever
15 arranged to project therefrom obliquely through the draw-head and move in a slot in the latter, the rod *D*, or its equivalent, connected to a slide capable of striking either one of
20 two projections or shoulders on a sliding rod adapted to be temporarily held by a spring, substantially as and for the purpose set forth.

2. In a car-coupling, the combination, with the spring-actuated rotating draw-bar *B*, hav-

ing a spirally-bladed or auger-pointed head, 25 of the lever *C*, arranged to project therefrom obliquely through and move in a slot in the draw-head, the rod *D*, or its equivalent, the cross-bar or slide *e*, and the sliding rod *E*, having shoulders *e* and spring *f*, which enters 30 a fixture on the car, substantially as and for the purpose set forth.

3. In a car-coupling, the combination, with the rotating draw-bar *B*, acted on by a spring, *a*, and the draw-head *A*, having a slot, *b*, 35 through one corner, of the lever *C*, arranged to extend from said draw-bar obliquely through the draw-head, rod *D*, or its equivalent, cross-bar or slide *e*, sliding bar or lever *E*, having shoulders *e* and spring *f*, adapted to be tem- 40 porarily held by a fixture on the car, rod *h*, crank *g*, and hand-wheel shaft *F*, substantially as and for the purpose specified.

ROSSCO CHAMBERLAIN.

Witnesses:

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