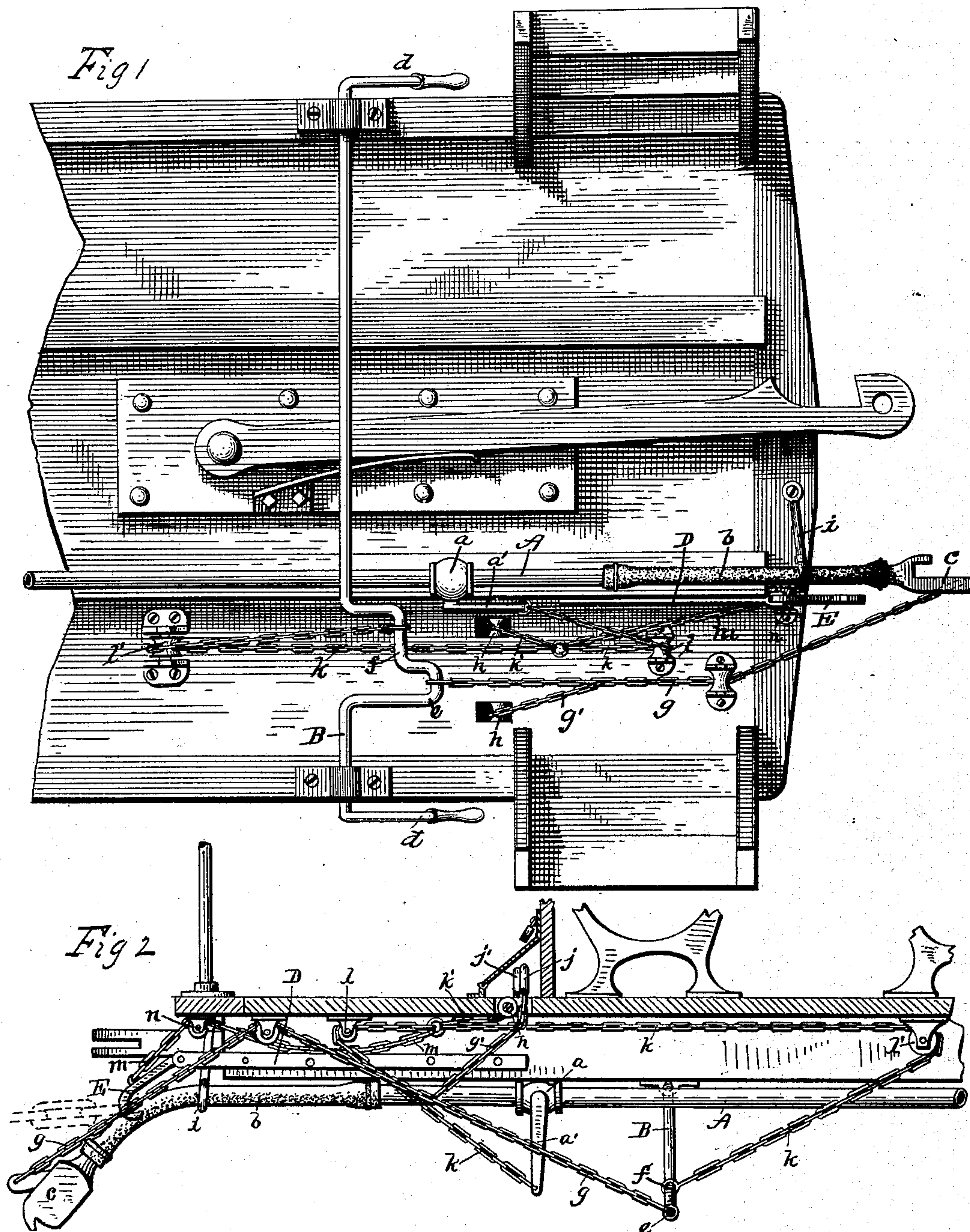


(No Model.)

R. J. EDWARDS.
CAR COUPLING.

No. 410,080.

Patented Aug. 27 1889.



Witnesses
John S. Lynch
C. H. Davis

Inventor
Richard J. Edwards
By his Attorneys
W. H. Alexander

UNITED STATES PATENT OFFICE.

RICHARD J. EDWARDS, OF GALENA, ILLINOIS.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 410,080, dated August 27, 1889.

Application filed May 6, 1889. Serial No. 309,772. (No model.)

To all whom it may concern:

Be it known that I, RICHARD J. EDWARDS, a citizen of the United States, residing at Galena, in the county of Jo Daviess and State of Illinois, have invented certain new and useful Improvements in Car-Couplings, of which the following is a specification, reference being had therein to the accompanying drawings, in which—

Figure 1 represents a bottom view of one end of a passenger-car provided with my improvements, and Fig. 2 a vertical sectional view of the same.

The invention has relation to certain new and useful improvements upon that class of railway pipe-coupling covered by Patent No. 400,759, issued to me on the 2d day of April, 1889; and it has for its object, particularly, to adapt the same for employment upon passenger-cars, as will be more fully hereinafter specified.

Referring to the annexed drawings by letter, A designates the air or steam conducting pipe, attached to the bottom of the car and provided with a stop-cock *a* and a flexible hose-section *b*, this flexible section having attached to its forward end a coupling *c*. Journaled in suitable bearings upon the bottom of the car-beams is a transverse rock-shaft B, provided at its ends with operating-handles *d* and at suitable points intermediate its ends with crank-arms *e* and *f*. Connecting the crank-arm *e* to an upwardly-extending arm upon the coupling *c* is a chain *g*, which passes over a suitable pulley secured to the bottom of the car, near the forward end of the same. Connected to the chain *g*, and extending up through an aperture formed in the front platform of the car, is another chain *g'*, which is provided with an operating ring or handle *j* at its upper end, and which preferably passes over a roller *h*, journaled in the said aperture, through which the said chain passes. The flexible hose-section *b* is preferably braced by means of an arm *i*, bolted rigidly to the bottom of the car.

The coupling *c* is constructed and operated in substantially the same way as in my former patent hereinbefore referred to.

The stop-cock *a*, which controls the pas-

sage of air and steam through the main conducting-pipe, is provided with an arm *a'*, which is connected to the crank-arm *f* by means of a chain *k*, which passes over two pulleys secured upon the bottom of the car—one *l* forward of the crank-shaft and the other *l'* to the rear thereof. When the stop-cock is open, the arm or lever *a'* is turned down, as shown in Fig. 2, and when closed it is turned up in a horizontal position, as shown in Fig. 1.

Connected to the chain *k* at a suitable point forward of the crank-shaft is another chain *k'*, which passes up over a pulley or roller *h'*, journaled in an aperture in the platform of the car, alongside the roller *h*, and which is provided with a ring or handle *j'* at its upper end.

To prevent meddling with the rings *j j'*, a pivoted guard C is placed over the same, as shown in Fig. 2, the guard being held in place over the rings by means of a suitable staple and lock.

Pivoted to a rod D, secured to one of the car-beams, is a stout hook E, which is adapted to hook into a safety-chain attached to the adjacent car. To unhook the hook E from the safety-chain, a chain *m* is attached to it and connected to the chain *k* at a suitable point in its length, the said chain *m* passing over an intermediate pulley *n*, secured to the bottom of the car.

The couplings *c* are connected in the same manner as in my former patent.

When it is desired to uncouple the hose-sections of two connected cars, the crank-shaft B is first rocked in a forward direction, which action, through the medium of the chains *k* and *m*, close the stop-cock *a* and unhook the hook E from its safety-chain, as is evident. Then the shaft is rocked in the reverse direction and the hose-couplings uncoupled through the medium of the chain *g*. Should it be desired to operate the devices from the platform of the car, the chains *g'* and *k'* are employed, thus avoiding the necessity of dismounting from the car.

It is evident that the lever *a'* may be arranged so as to work in a horizontal plane instead of in a vertical plane, as shown, without departing from the invention.

Having thus fully described my invention,

what I claim, and desire to secure by Letters Patent, is—

1. The combination, with a car provided with a conducting-pipe, a stop-cock in said
5 pipe, and a flexible section attached to the said pipe and provided with a hose-coupling, of a multiple crank-shaft journaled upon the car, chains connecting the crank-arms respectively to the coupling and stop-cock, and
10 independent chains g' and k' , connected to the said chains and extending up to the platform of the car, substantially as described.

2. The combination, with a car, a conduct-

ing-pipe, a stop-cock in this pipe, an arm attached to this stop-cock, a safety-hook E, piv- 15
otally attached to the car, of a crank-shaft journaled upon the car, and chains k and m , connecting the crank-arm on the said shaft to the said safety-hook and stop-cock arm, substantially as described. 20

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

RICHARD J. EDWARDS.

Witnesses:

JOHN M. LEEKLEY,

JAS. S. BAUME.