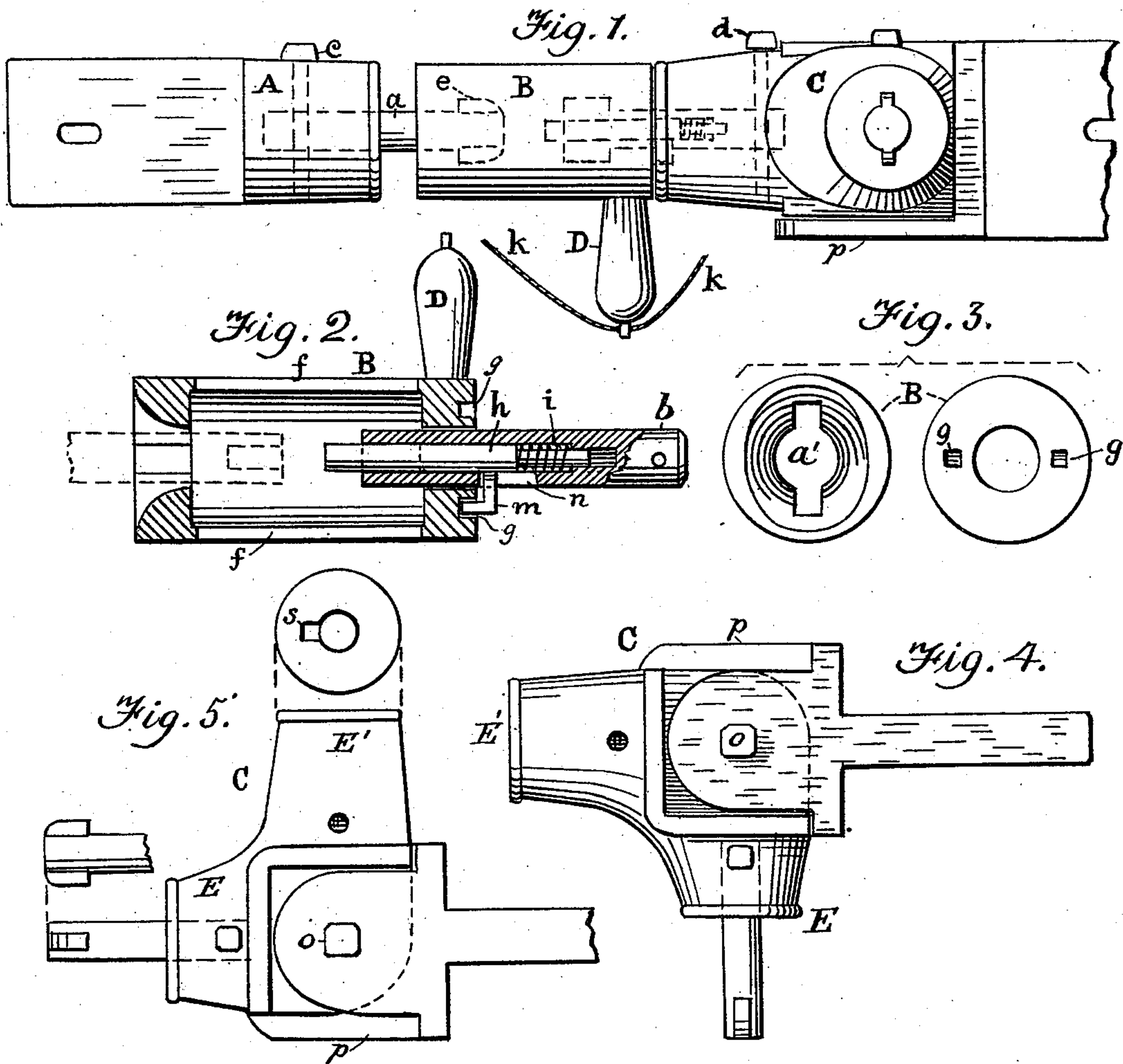


(No Model.)

A. LYNCH.  
CAR COUPLING.

No. 418,732.

Patented Jan. 7, 1890.



Witnesses :  
W. Burris  
G. B. Twiss.

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# UNITED STATES PATENT OFFICE.

AMOS LYNCH, OF EUGENE CITY, OREGON.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 418,732, dated January 7, 1890.

Application filed July 23, 1889. Serial No. 318,385. (No model.)

*To all whom it may concern:*

Be it known that I, AMOS LYNCH, a citizen of the United States, residing at Eugene City, in the county of Lane and State of Oregon, have invented certain new and useful Improvements in Railroad-Car Couplings, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to car-couplings; and it consists of an improved construction of draw-heads, draw-bars, and coupling-head and connections, as described and claimed herein.

In the accompanying drawings, Figure 1 is a side view of my improved car-coupling, representing the parts coupled. Fig. 2 is a sectional plan of the coupling-head and a draw-bar with a locking device holding the head in position for coupling. Fig. 3 shows the two ends of the coupling-head. Figs. 4 and 5 are plan views of a double draw-head, showing different adjustments of the same.

A designates a draw-head, in which is secured a draw-bar *a* by means of a pin *c*, the said draw-bar being provided at its coupling end with flanges or wings *e*, for connection with a rotary coupling-head B, which is placed between the draw-heads. The said rotary head is cylindrical and hollow, and has an opening *a'* at one end, which conforms to the coupling end of the draw-bar *a*, so as to admit said bar when the head B is in position for coupling, and to retain said bar after it has entered the head and the latter has been turned, as hereinafter set forth. The opposite end of the head B has a circular aperture for a draw-bar *b*, which is connected with the draw-head C by a pin *d*, the said draw-bar extending into a tubular recess in said draw-head. Two recesses *g* are made in the end of the head B, which is toward the draw-head C, one of said recesses being on each side of the aperture through which the draw-bar *b* passes, (see Fig. 3,) said recesses being intended to receive a catch or detent which connects with the rotary head, as hereinafter stated. The head B has the opposite slots *f*, and is provided with a weighted arm D, which extends laterally from the head, so that the latter, when released from the detent, is turned by grav-

ity, the coupling being thus automatically effected. The bolt *b* has an enlargement, by flanges or otherwise, on its end which is in the rotary head, thus forming a swivel-connection between the rotary head and the draw-head C. The said draw-bar *b* is made hollow, and a pin or small bolt *h* is inserted therein. On a reduced part of the bolt *h* is placed a spring *i*, which tends to press said bolt forward in position for contact with the draw-bar *a* when the latter enters the head B. Rigidly attached to the bolt *h* is a rectangular catch or detent *m*, which extends through a slot *n* in the hollow bar *b*, and is in position to connect with the head B in either of the recesses *g*, according to the position in which the head, with its weighted arm D, is set for the purpose of coupling, and lock the head in position to receive the draw-bar *a*. The arm D has two chains or cords *k* attached to it, to be severally used by a person on either side of a train to raise said arm to a horizontal position and turn the head B to its position for coupling or for uncoupling. When the parts are coupled, the arm D is pendent from the head B, and the catch *m* bears against the end of the head; but when the said arm is raised to a horizontal position on either side the said catch enters a recess *g* in the head and the latter is thus locked in position to receive the draw-bar *a*.

The cars being moved together, the draw-bar *a* enters the head B and pushes back the bolt *h*, thus releasing the head B from the catch *m*, and the head being turned by gravity one-quarter of a revolution, the coupling end of bar *a* is secured in the head and the coupling is thus effected. When it is desired to uncouple, an attendant at either side can, by means of a cord *k*, raise the arm D to a horizontal position, when the head will be locked by the catch *m*, and the bar *a* may be withdrawn.

The double draw-head C is constructed in two parts which are coupled together by a bolt *o*, the stock or main part being intended to be fastened to a car. The forward part of the draw-head C may be turned on the pivotal bolt *o*, and is provided with two mouths E and E', arranged at a right angle with each other, as shown. The mouth E has an open-



ing like that of the draw-head A, and receives and usually carries a draw-bar *a*. The mouth *E'* is constructed to receive a draw-bar *b*, and is recessed at *s* to admit the catch *m*, so that the head B may be brought closely to it, as seen in Fig. 1. The stock or main part of C is provided with a base or support *p* for the forward part, the latter being turned on its pivot as may be desired.

The double draw-head is adapted to be attached to the tender, and may be readily shifted for connection with either end of rotary head B, either of the mouths *E E'* being used, as occasion may require.

A draw-head substantially in the form of the draw-head A, but provided with a recessed mouth like *E'*, may be used in connection with a draw-bar *b* for coupling cars.

I claim—

1. In a car-coupling, the combination, with a hollow rotary head which is laterally weighted, of a draw-bar constructed to enter said head at one end and couple therewith, a hollow draw-bar which is loosely connected with said head at the opposite end, and a spring-bolt which is inserted in said hollow

draw-bar and is provided with a catch which is adapted to connect with said rotary head, substantially as and for the purposes set forth.

2. The combination, with a hollow rotary head B, provided with a lateral weight D and one or more recesses *g*, of a hollow draw-bar *b*, provided with a spring-bolt *h*, which is provided with a catch *m*, which is in position to enter a recess *g* in said rotary head, substantially as described, for the purposes set forth.

3. In combination with the rotary head B, a draw-head C, constructed in two parts which are pivotally connected, one of said parts being provided with two mouths *E E'*, which extend at a right angle with each other, substantially as described, for the purposes set forth.

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

AMOS LYNCH.

Witnesses:

ALEXANDER WEIGHT,  
JOSHUA J. WALTON.