

(No Model.)

A. B. COOLEY.

CAR COUPLING.

No. 355,864.

Patented Jan. 11, 1887.

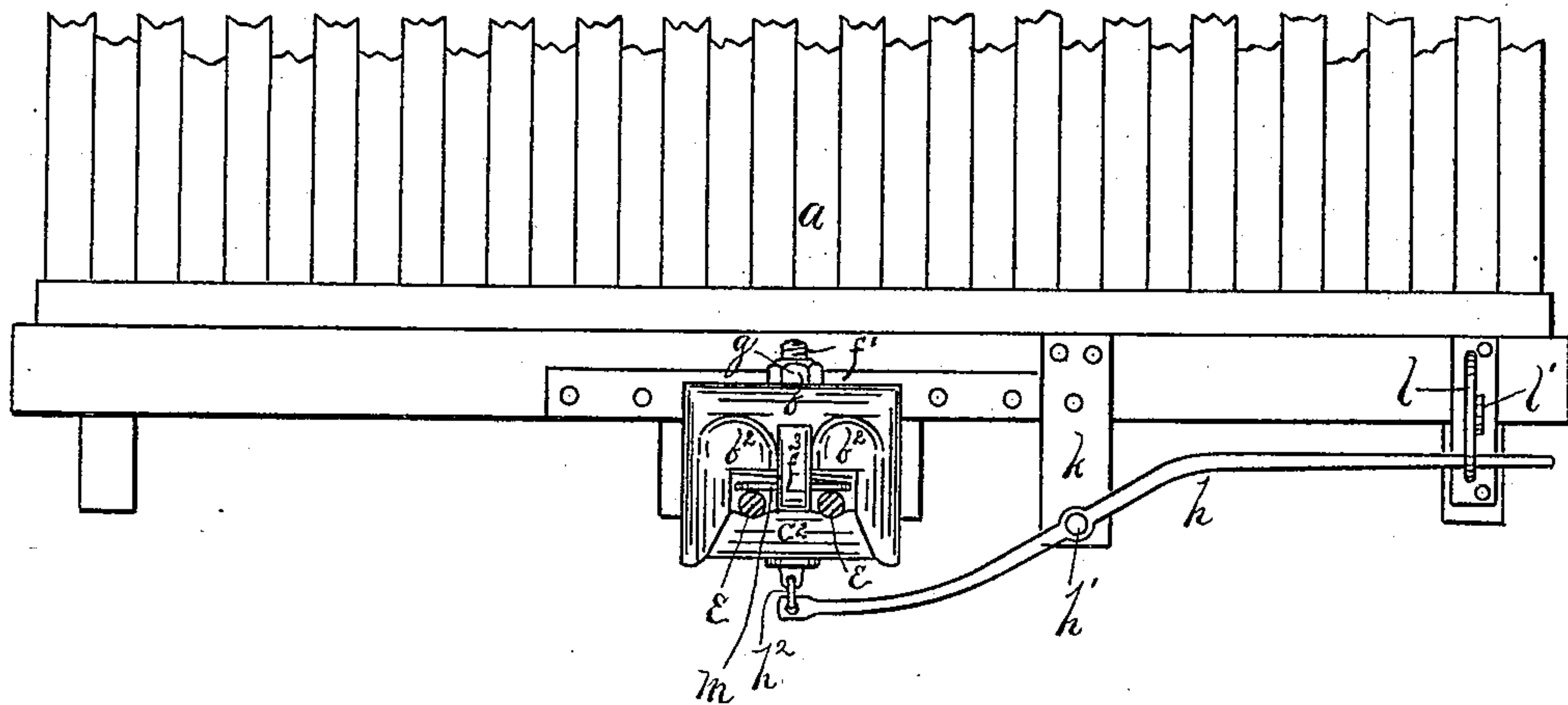


FIG. 1.

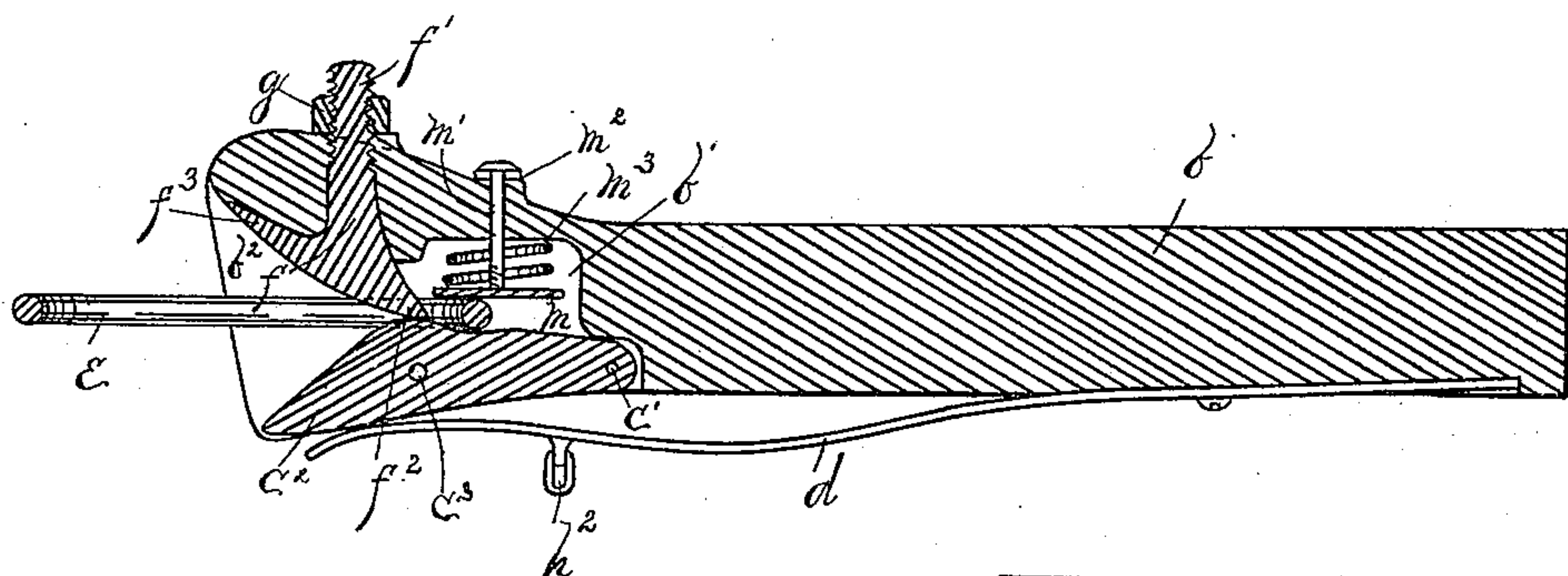


FIG. 2.

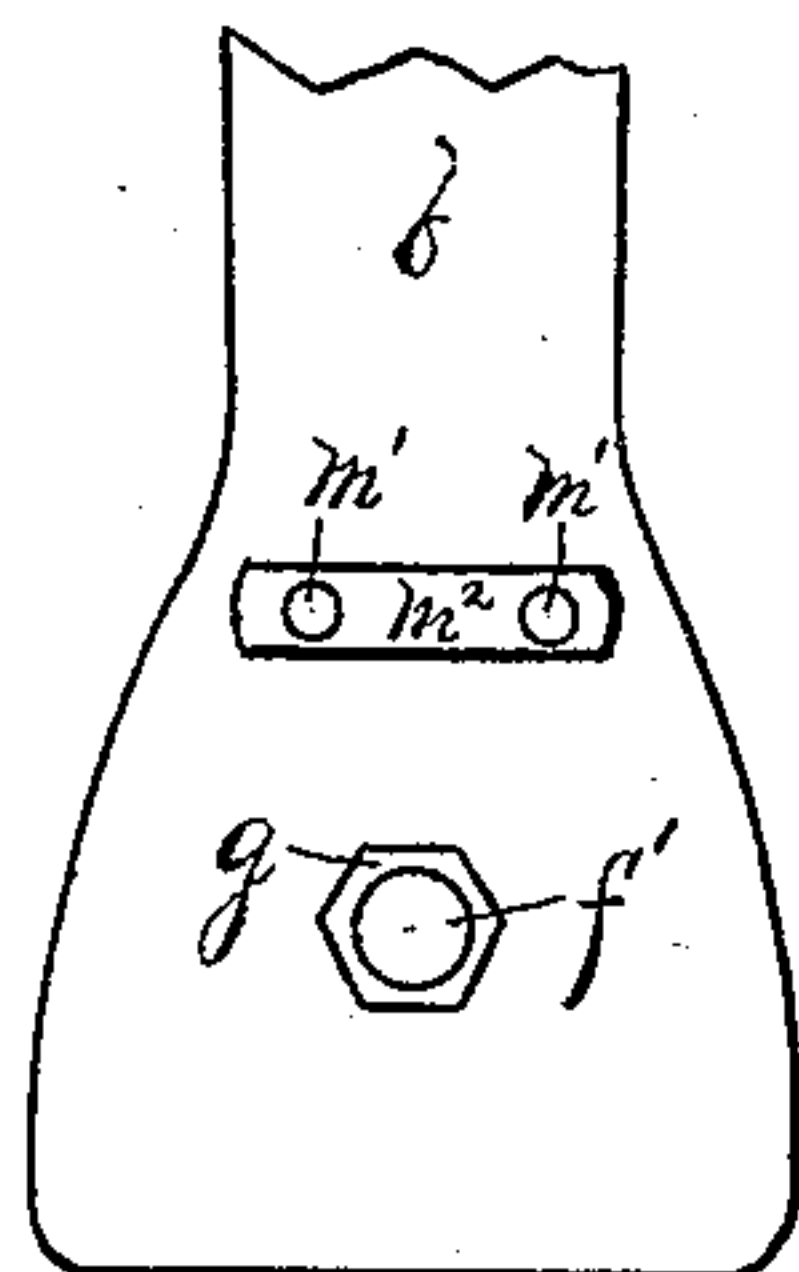


FIG. 3.

Witnesses:

Otto Hoddick.
Gehrmann

Inventor

Alonso B. Cooley

By

W. T. Miller

Attorney

UNITED STATES PATENT OFFICE.

ALONZO B. COOLEY, OF MOSCOW, NEW YORK.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 355,864, dated January 11, 1887.

Application filed November 17, 1886. Serial No. 219,122. (No model.)

To all whom it may concern:

Be it known that I, ALONZO B. COOLEY, a citizen of the United States, residing at Moscow, in the county of Livingston and State of New York, have invented certain new and useful Improvements in Car-Couplers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

My invention consists in a certain improved construction and arrangement of the operative parts of a car-coupling which is intended to be automatic, all of which will be more particularly hereinafter described and claimed.

In the drawings, Figure 1 is an end view of my improved coupler, shown applied to the end of a car. Fig. 2 is a central longitudinal section of the coupler, and Fig. 3 is a top plan view.

Referring to the drawings, *a* is the body of the car, to which my coupler is suitably secured. *b* is the draw-head, having the recess *b'* in its outer end, with the flaring mouth *b''*. The lower wall of this recess *b'* consists of the portion *c*, pivoted at *c'* in the body of the draw-head. This portion *c* loosely fits and is movable within the lower portion of the recess *b'*, of which it forms the floor or bottom. Its outer end, *c''*, slopes downwardly, such sloping surface forming the lower portion of the flaring mouth *b''* of the draw-head.

d is a stiff steel spring, its rear end being securely fastened to the under surface of the draw-head, its outer end, which curves downwardly, resting against the under surface of the pivoted portion *c* and serving to hold it in its extreme upper position, at the same time allowing it to be pushed downwardly as the link *e* enters the recess *b'*.

The catch-piece for the link *e* consists of the shank *f*, its upper end, *f'*, being screw-threaded and its lower end having the downwardly and rearwardly extending point *f''*, against which the pivoted portion *c* rests when in its normal position and behind which the link *e* is caught.

f''' is an upwardly and outwardly extending portion of the catch-piece *f*, which serves as a striking and guiding surface for the link *e* in

the act of coupling. This catch-piece *f*, I construct entirely of steel, it being fitted in the upper portion of the mouth of the draw-head by passing the screw-threaded shank up through the same and securing it by the fastening-nut *g*, which is screwed down upon its protruding portion. As will be seen in Fig. 1, this catch-piece *f* is narrow and centrally arranged within the draw-head. When the link *e* enters the draw-head, in the act of coupling, it pushes down the pivoted portion *c* until its end has passed the point *f''* of the catch-piece. The pivoted portion *c*, under the action of the spring *d*, is then free to return to its normal position against the point *f''*, thus locking the link *e* within the draw-head. To release the link therefrom, I employ the lever *h*, pivoted at *h'* to the hanger *k*, its inner end being engaged with the link *h''* upon the spring *d* and its outer end being adapted to be moved within the keeper *l*. By throwing up the outer end of the lever *h* the spring *d* is pulled downwardly and the pivoted portion *c* is free to fall, thus releasing the link *e*. A catch, *l'*, serves to hold the lever *h* in its raised position. When the lever is thrown down the spring *d* again acts to press the pivoted portion against the point *f''*.

To hold the link *e* in a horizontal position within the draw-head, so as to adapt it for engagement with the opposite draw-head of the next car, I have arranged within the recess *b'* the plate *m*, having two rods, *m'*, rigidly attached thereto and extending up loosely through the draw-head, upon the upper surface of which they are secured to the cross-plate *m''*. A spiral spring, *m'''*, interposed between the plate *m* and the upper wall of the recess *b'*, serves to press the inner end of the link against the portion *c* and thus hold it in a horizontal position, as desired, at the same time permitting the link to be moved up or down into any angular position within proper limits.

If the spring *d* should in any way become accidentally broken or detached the pivoted portion *c* could be held temporarily in position by passing a pin through the side of the draw-head and into the hole *c'''* in the portion *c*.

Should the catch-piece *f* become broken it can be removed and replaced by a new one.

I claim—

1. In a car-coupling, in combination, a recessed draw-head provided with a removable catch-piece, a spring-pressed pivoted portion adapted to co-operate with such catch-piece
5 to retain the link within the draw-head; and a spring-pressed plate in the draw-head to hold the link in a horizontal position, substantially as shown and described.

2. In a car-coupling, the combination, with
10 the recessed draw-head $b\ b'$, provided with the removable catch-piece $f\ f'\ f^2\ f^3$, of the pivoted portion c , spring d , and operating-lever h , substantially as shown and described.

3. A car-coupling consisting of the recessed draw-head $b\ b'$, the removable catch-piece $f\ f'$ 15 $f^2\ f^3$, the pivoted portion c , the spring d , and spring-pressed plate m , all combined and operating substantially as shown and described.

In testimony whereof I have signed my name to this specification in the presence of two sub- 20 scribing witnesses.

ALONZO B. COOLEY.

Witnesses:

W. E. RAYMOND,
JOHN K. BROWN.