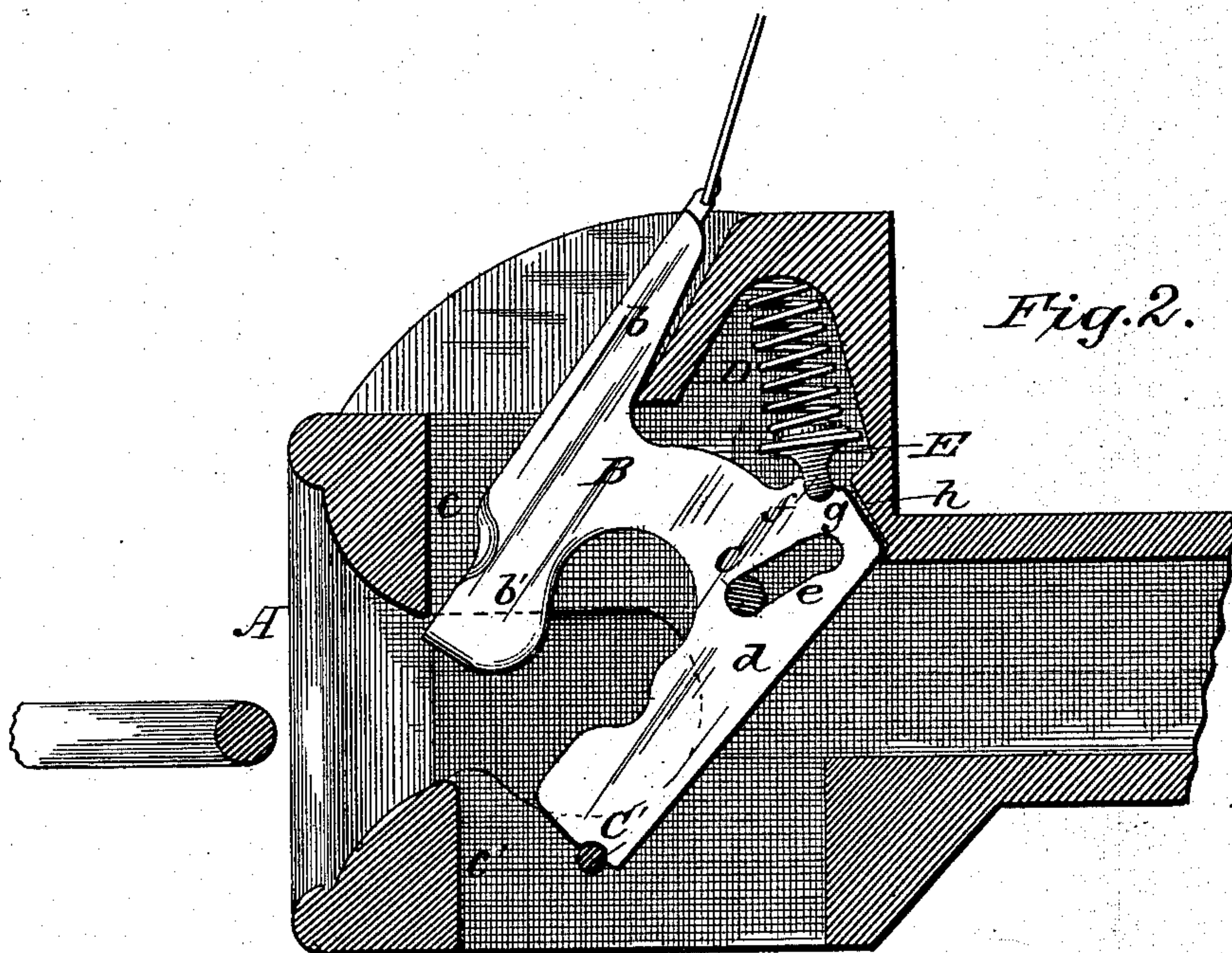
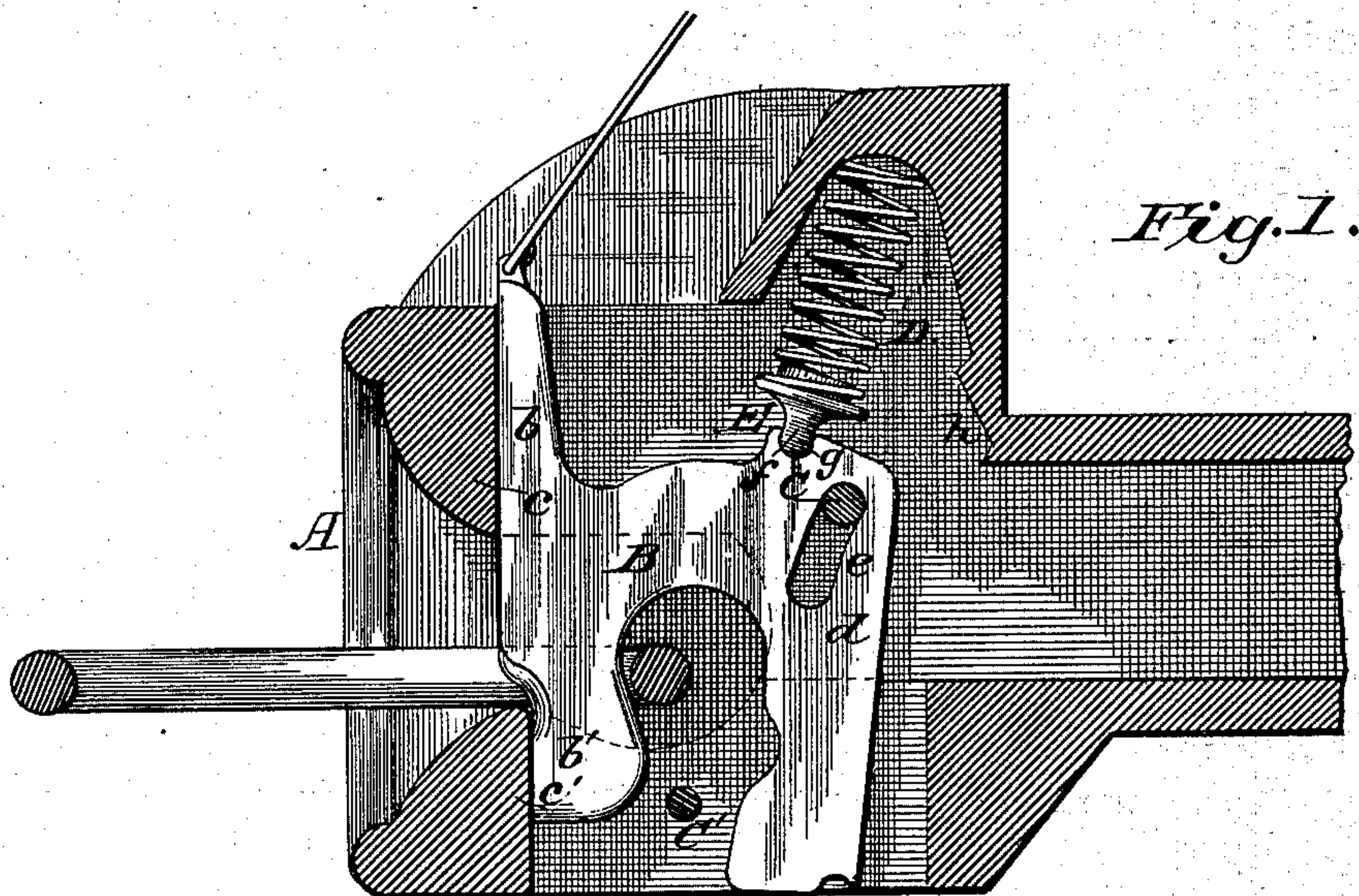


(No Model.)

G. J. FERGUSON.
CAR COUPLING.

No. 325,923.

Patented Sept. 8, 1885.



WITNESSES:

WITNESSES:
Fred. G. Dieterich
Edward Ryer

INVENTOR:

INVENTOR:
G. J. Ferguson
BY Munn & Co
ATTORNEYS.

UNITED STATES PATENT OFFICE.

GEORGE J. FERGUSON, OF GREENVILLE, TEXAS.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 325,923, dated September 8, 1885.

Application filed June 4, 1885. (No model.)

To all whom it may concern:

Be it known that I, GEORGE JONES FERGUSON, a citizen of the United States, residing at Greenville, in the county of Hunt and State of Texas, have invented certain new and useful Improvements in Car-Couplings, of which the following is a description.

Figures 1 and 2 are vertical longitudinal sections of the draw-head, showing the different positions of the coupling device.

The object of my invention is to provide a cheap, durable, and simple car-coupling, which shall be automatic and positive in its action, and which uses the ordinary link and takes the draft in the same way as the common pin, and which will also fit any car, and will not get out of order from being battered.

It consists, mainly, in the peculiar construction of a coupling device, in combination with a spring for holding it to the opened or closed position, and co-operating with the same for automatic action, as will be hereinafter more fully described.

In the drawings, A represents the draw-head, which has a tapered mouth, and has its rear end constructed in the usual form to adapt it to the timbers of the car. The middle part of the draw-head is chambered vertically to receive the coupling devices, and this chamber opens through both the top and bottom of the draw-head.

B is the coupling device, which, in general shape, resembles the small letter h. The vertical portion or stem *b b'* constitutes the pin portion, of which the upper part, *b*, has a bearing against the shoulder *c* at the top of the draw-head, while the part *b'* has a bearing against the shoulder *c'* at the bottom of the draw-head, so that when the draft of the link is against this portion *b b'* it has a positive bearing both above and below the link, like the ordinary pin, which gives a solid and positive draft. The other curved or back part, *d*, of the coupling device is made with a guide-slot, *e*, through it, that is nearly vertical or parallel with the vertical stem *b b'*, the upper end of this slot being, however, slightly inclined to the rear. Through this slot passes the guide-pin C, which holds this

peculiar coupling device in the chamber, and which coupling device is inserted into the draw-bar through the opening in the bottom, and the pin C afterward passed horizontally through the slot *e*. This guide-slot *e* and pin C determine the direction of movement for the coupling device. To hold this coupling device positively in its opened or closed position, a spiral or other form of spring, D, is seated in a cavity in the upper part of the draw-head, and bears at its lower end upon a shoe, E, whose toe *f* fits into a notch, *g*, on the top of the curved part *d*. When the coupling device is down and closed on the link, as in Fig. 1, the tension of the spring D is transmitted to it by the toe of the shoe at a point between the pin C and the stem *b b'* of the coupling device, thus positively holding the coupling device in place against accidental disengagement from the link. When, however, the coupling device is raised, which is effected by a cord or chain attached to the top of stem *b*, the coupling device rises nearly vertically for a short distance. As soon, however, as the lower branch, *b'*, rises above the shoulder *c'* the backward pull on the cord or chain causes the toe of the spring-shoe to pass over to the rear side of the guide-pin C, which spring then holds the coupling device in an elevated position, slightly inclined to the rear at the top, with the lower portion of the bend *d* resting against an abutment-pin C', and with the top of bend *d* resting in the abutment or shoulder *h*, formed in the back of the draw-head, all as shown in Fig. 2. When in this position, the car is ready to be coupled, and when the link of the opposing car enters this draw-bar it strikes the back part *d* of the coupling device, and, in tilting the latter forward, throws the spring-shoe to the front of pin C, where its tension forces the whole coupling device down into the closed position.

By means of this coupling a shorter link can be used than in ordinary draw-heads, thus avoiding so much slack in the length of the train. The coupling devices are also held in place from gravity, so that, even if a spring should break, the coupling does not become

ineffective. The coupling is also certain in its action, and the back-lash of the train has no effect in deranging it.

Having thus described my invention, what I claim as new is—

1. The combination, with a draw-head, of a tilting and sliding coupling device made in the general shape of the small letter *h*, with its front or stem portion fitted to bear
10 against shoulders at the front of the draw-head, and its rear curved part being connected to the draw-head by a slot and pivot-pin, and a spring and shoe or bearing for the spring adapted to be shifted from one
15 side to the other of the pivot-pin, substantially as and for the purpose described.

2. The *h*-shaped coupling device *B*, having slot *e*, in combination with the draw-bar having bearings *c c'*, abutments *C'* and *h*, the pivot and guide pin *C*, and the spring and shoe *D E*, adapted to be shifted from side to side of the pivot-pin, as and for the purpose described.

The above specification of my invention signed by me in the presence of two subscribing witnesses.

GEO. J. FERGUSON.

Witnesses:

EDW. W. BYRN,
CHAS. A. PETTIT.

Correction in Letters Patent No. 325,923.

It is hereby certified that in Letters Patent No. 325,923, granted September 8, 1885, upon the application of George J. Ferguson, of Greenville, Texas, for an improvement in "Car-Couplings," an error appears in the printed specification requiring correction as follows: In line 3, page 1, the words "the United States" should be stricken out and the words *Great Britain* inserted instead; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed, countersigned, and sealed this 15th day of September, A. D. 1885.

[SEAL.]

Countersigned:

M. V. MONTGOMERY,
Commissioner of Patents.

G. A. JENKS,
Acting Secretary of the Interior.