

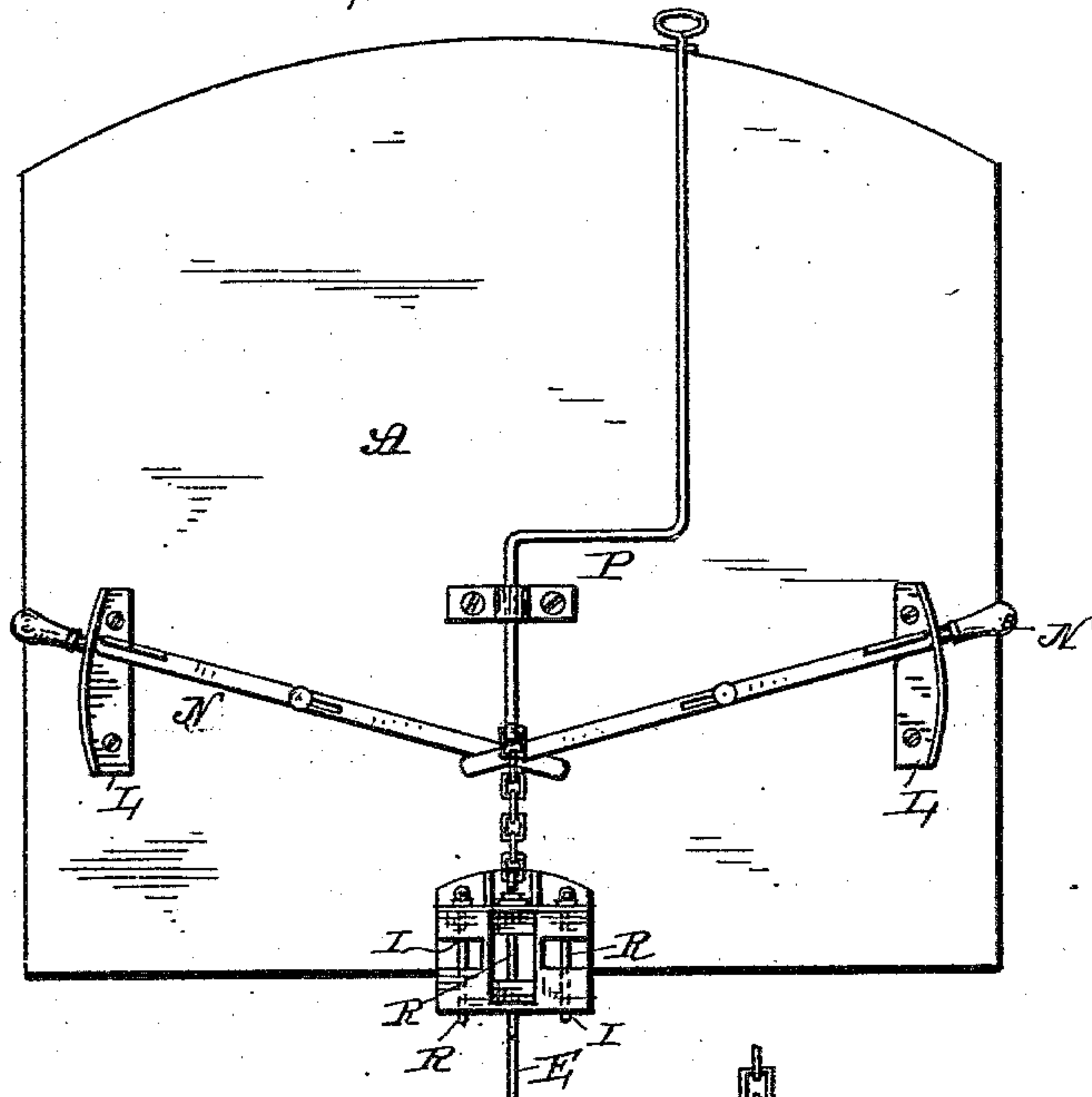
(No Model.)

H. A. PALMER.
CAR COUPLING.

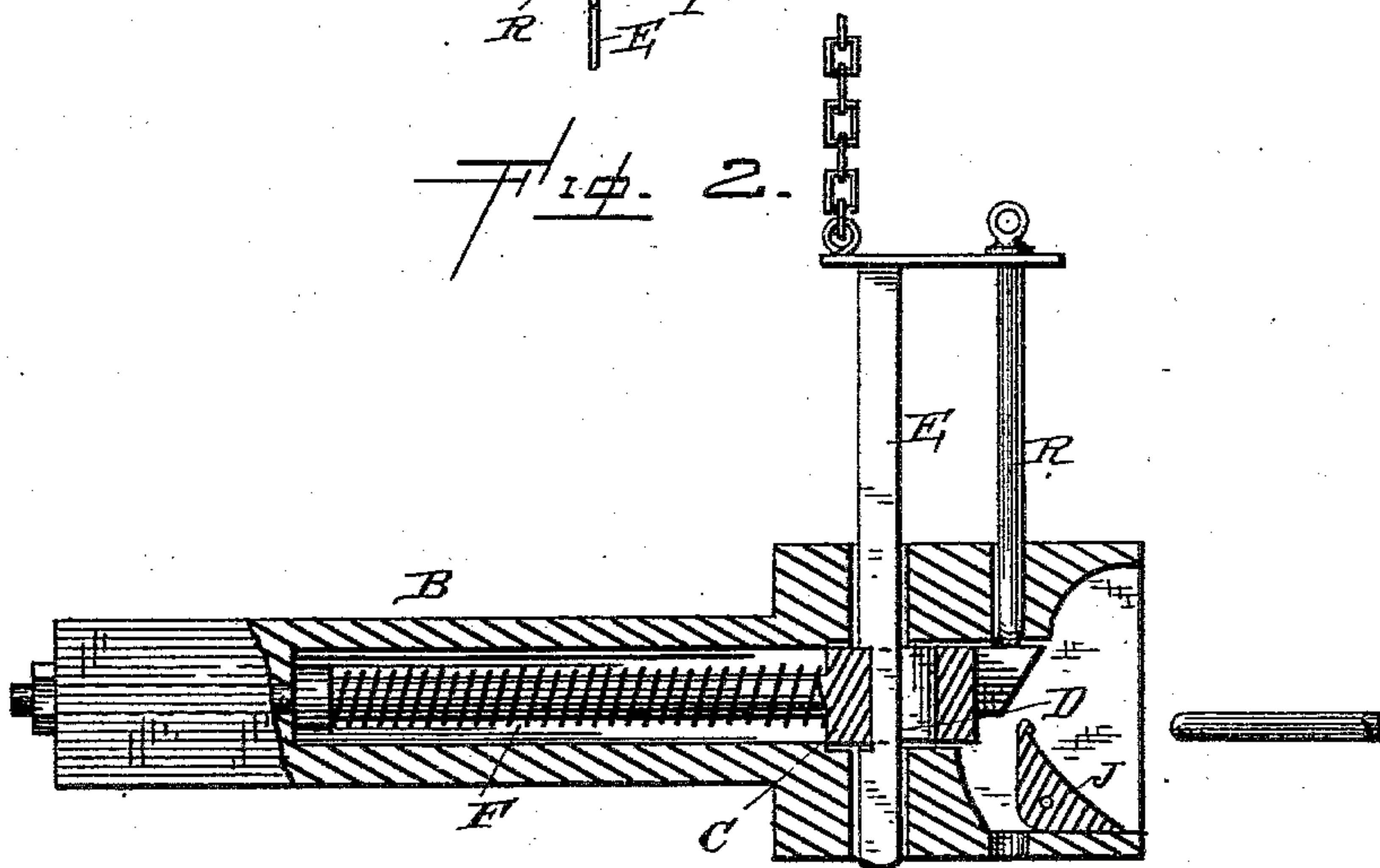
No. 286,480.

Patented Oct. 9, 1883.

7/20 1.



7/10 2.



- WITNESSES. -

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J. M. Garner

-Inventor-

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per
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UNITED STATES PATENT OFFICE.

HENRY A. PALMER, OF VILLISCA, IOWA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 286,480, dated October 9, 1883.

Application filed July 20, 1883. (No model.)

To all whom it may concern:

Be it known that I, HENRY A. PALMER, of Villisca, in the county of Montgomery and State of Iowa, have invented certain new and useful
5 Improvements in Car - Couplings; 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 pertains to make and use it, reference being
10 had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in car-couplings; and it consists in the combination of a sliding block which is moved in one
15 direction by the pressure of the link and in the opposite direction by a spiral spring, a pin-supporter which passes through the sliding block, and is provided with a notch for the block to catch in, and a pivoted block which is placed in
20 the mouth of the draw-head for the purpose of directing the end of the link in entering the draw-head, as will be more fully described hereinafter.

The object of my invention is to provide an
25 automatic car-coupling which can be operated either from the top of the cars or from either side, and thus do away with the necessity of having a person to go between the cars and risking both life and limb.

30 Figure 1 is a front elevation of my invention complete. Fig. 2 is a vertical longitudinal section of the same.

A represents the end of the car, and B the draw-head, which is secured thereto. In this
35 draw-head is placed the sliding block C, which has an opening, D, through it for the passage of the vertical pin-supporter E. This block C slides back and forth in the head, and is forced backward by the entrance of the end of the
40 link into the draw-head, and forward by the pressure of the spiral spring F, which bears against the block and keeps the block constantly pressed forward when the block is free to move. The vertically-moving pin-support
45 has a notch formed in its rear side, so that when the pin is raised upward the block will be forced forward by the spring, so as to catch in the notch in the rear edge of the supporter, and thus hold the pin in position ready to
50 couple. When the end of the link enters the draw-head and strikes against the front end of

the block, the block is forced backward out of the notch in the supporter, and the pin and supporter then instantly fall, and thus couple the cars together.

55 In order to make the mouth of the draw-head as large and flaring as possible, and thus enable cars of different heights to be coupled more readily together, the upper and lower portions of the mouth are shaped as shown. 60 Should the link enter the upper part of the mouth, it will be deflected downward and strike against the sliding block. As the lower portion of the mouth is differently shaped, it becomes necessary to place the pivoted block J
65 inside of the mouth, so as to direct the ends of the link upward, so as to cause it to strike against the front end of the block. This block is pivoted in the front end of the mouth and has its lower edge flush with the edge
70 of the mouth of the draw-head, while its rear end extends upward nearly in contact with the front end of the sliding block. When the end of the link enters the lower end of the mouth, it strikes against the rear end of
75 the pivoted block and tilts the block back. This block, being so shaped as to just fill the lower cut-away portion of the block, serves as means for lifting the end of the link upward,
80 so as to strike against the block and force the block backward. The front end of the sliding block and the rear end of the pivoted block are grooved, so that when the coupling-pin drops it will pass through these grooved portions. Were the parts not grooved, they would
85 interfere with the free movement of the pin when it drops to couple the cars together.

The pin-supporter is attached by means of a short chain with the lower end of the bent rod P, which extends from the top of the car, so
90 that the pin can be set from the top of the car without the necessity of the brakemen going in between the cars to couple them when they run together. Also pivoted upon the ends of the car at the points O are the slotted levers
95 N, which are connected together at their inner ends, and which have their inner ends catch under the lower end of the bent rod P. These levers project out through suitable guides, L, are provided with flanges to engage with the
100 guides, and thus cause them to be held in any position in which they may be adjusted. When

the outer end of either one of the slotted levers is depressed, the rod P is raised upward. If the slotted levers are moved endwise far enough toward either side to engage with the guide L, 5 the pin-supporter will be locked in a raised position and the cars will not then couple when they run together. Also formed upon each side of the mouth of the draw-head are the additional mouths or openings I, down through 10 which the coupling-pins R are passed. To these coupling-pins may be fastened additional coupling-links.

All of the attachments here shown may be applied to the ordinary draw-head by a few 15 changes or alterations in them, and thus save the necessity of the railroad company which adopts the coupling from having to throw away all of their old draw-heads.

Having thus described my invention, I 20 claim—

The combination of the draw-head, sliding slotted block C, spring F, which is applied to the rear end thereof, the supporting-rod E, pin R, and the pivoted block J, which is placed in the lower portion of the mouth of the draw- 25 head for the purpose of guiding the end of the link with the chain which is connected to the upper end of the supporting-rod, the slotted levers N, and the bent rod P, the parts being combined and arranged to operate substan- 30 tially as shown and described.

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

HENRY ALMER PALMER.

Witnesses:

DILLARD PITTMAN,
LUKE SMITH.