

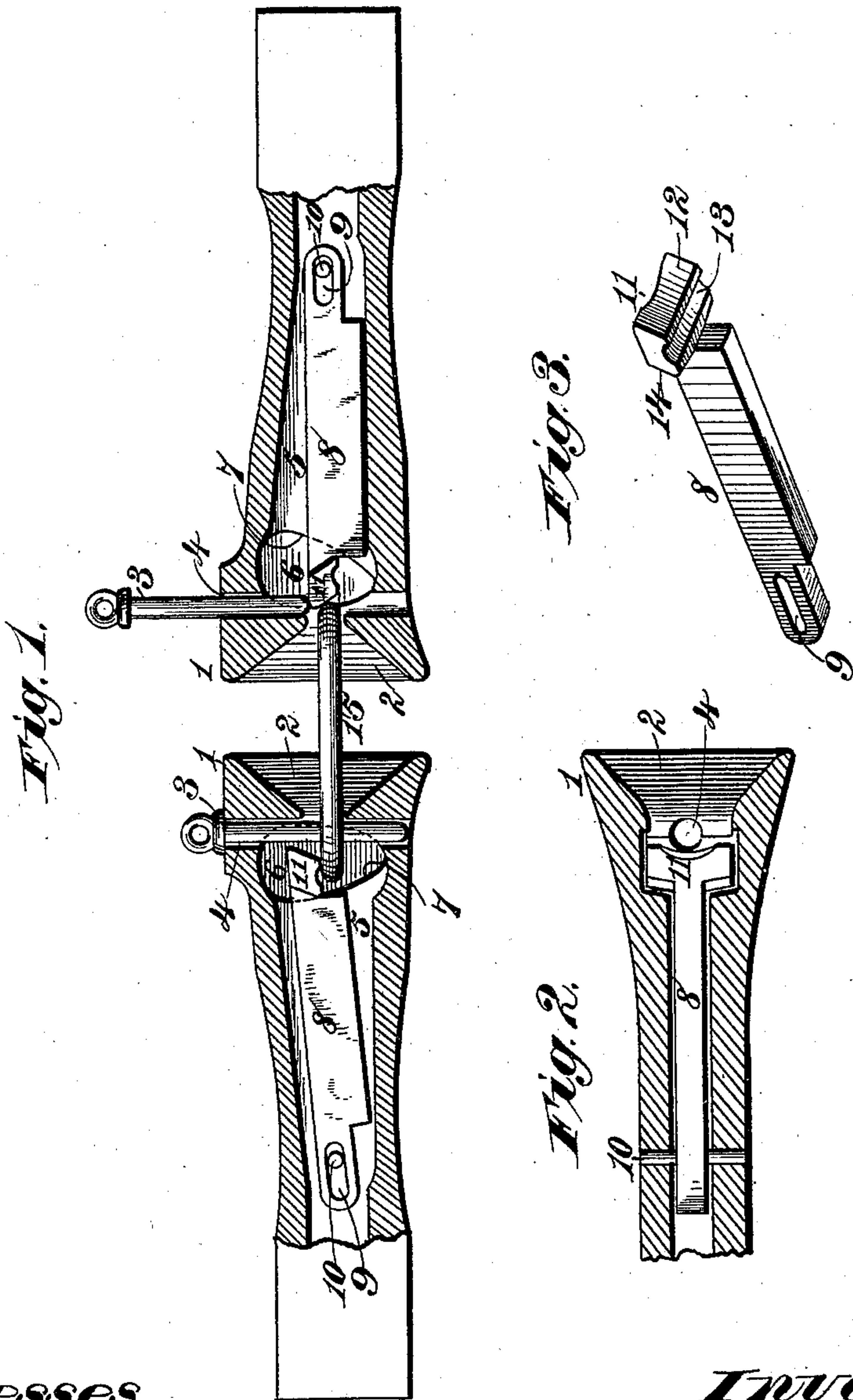
(No Model.)

J. SKINNER.

CAR COUPLING.

No. 300,148.

Patented June 10, 1884.



Witnesses,
Robert Everett.

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UNITED STATES PATENT OFFICE.

JOHN SKINNER, OF FLINT, MICHIGAN, ASSIGNOR OF ONE-HALF TO
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CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 300,148, dated June 10, 1884.

Application filed April 24, 1884. (No model.)

To all whom it may concern:

Be it known that I, JOHN SKINNER, a citizen of the United States, residing at Flint, Michigan, have invented new and useful Improvements in Car-Couplings, of which the following is a specification.

My invention relates to car-couplings, and has for its purpose to provide a simple, durable, and efficient device which may be used as an automatic coupling, and by which the link may be held at any desired angle to enable it to be used upon cars having their draw-heads at different heights, the coupling-pin being upheld by a counterbalance which has pivotal connection with the draw-head, as will be more fully set forth hereinafter.

Referring to the drawings, Figure 1 is a central longitudinal section taken vertically through two contiguous draw-heads provided with my invention. Fig. 2 is a horizontal section taken longitudinally and substantially in a central plane. Fig. 3 is a detail perspective showing the construction of the pin-supporting device.

In the said drawings, the reference-number 1 indicates the draw-head, which is provided with the flared opening 2 behind the coupling-pin 3 in a vertical opening, 4. Running longitudinally through or nearly through the draw-head 1 form an opening or chamber, 5, having its forward end opening into an enlarged chamber or space, 6, which is located just behind the pin 3. Upon each side of this chamber the walls thereof which are adjacent to the channel 5 are formed with curved and forwardly-inclined surfaces 7, for a purpose presently to be explained.

Within the channel or opening 5 I place a bar, 8, having at its rear a slot, 9, through which passes a pivot-pin, 10, set in the vertical walls of the opening 5. At its forward end the bar is provided with a cross-head, 11, which lies in the chamber 6. This cross-head is beveled off in front at 12, and upon the lower surface is formed a transverse groove, 13. The rear edges, 14, lying upon each side of the bar, engage with the curved walls 7 of the chamber 6, and ride thereon as the cross-head moves up and down in said chamber. As

the said cross-head moves downward, it is evident that it will draw toward the front, thereby bringing its beveled edge toward the opening 2 and beneath the upper portion of the pin-opening 4. The bar 8 is formed of metal, and is of such dimensions as to give it the required strength and weight. The link 15, which is inserted through the opening 2, and rests upon the lower shoulder, 16, of the same, has its end lying in the groove or channel 13, the weight of the bar 8 and its cross-head being sufficient to counterbalance the outer end of the link and support it in whatever position it may be placed.

In coupling, the link being thus arranged in one draw-head, the coupling-pin 3 is placed in the other, with its point resting upon the beveled edge of the cross-head 11, the latter being drawn forward by the inclined walls 7, in the manner already described. The entrance of the link 15 pushes back the cross-head, the slotted end of the bar slipping upon the pin 10. This permits the descent of the pin, which drops through the loop of the link, thus accomplishing the coupling. The cross-head 11, being beveled off at 12, as already described, permits the end of the link to pass underneath and beyond the end of the pin before the latter drops off the cross-head, as it will be seen that the push of the coupling-link will cause the cross-head to ride upward upon the curved walls 7 for a short distance before it passes from beneath the pin. By my invention the link may be placed in any suitable position for coupling, and retained in that position. As the draw-heads upon different cars are often arranged at different heights from the ground, it is often necessary to incline the link upward or downward to enable it to enter the opposite draw-head. In whichever position placed the weight of the bar 8 and cross-head 11 will hold the parts in the proper position till the coupling is accomplished.

The entire device is simple, comparatively inexpensive, efficient in operation, and cannot get out of order.

Having thus described my invention, what I claim is—

1. The combination, with the draw-head, of

the bar having a cross-head which overlies the end of the link, the bar having connection to the draw-head at its rear end, and a shoulder supporting the link beneath, the weight of the projecting end of the link being substantially counterbalanced by the weight of the bar and cross-head, substantially as described.

2. In a car-coupling, the combination, with the recessed draw-head, of a bar lying therein, and provided with a cross-head, the ends of which engage with and ride up and down upon the forwardly-inclined walls of a chamber located behind the coupling-pin, substantially as described.

15 3. In a car-coupling, the combination, with a recessed draw-head, of a bar lying therein, a cross-head upon the end of said bar, having its lower edge inwardly beveled, and a chamber or recess within the draw-head, having

forwardly-inclined walls which engage with the said cross-head, substantially as described.

4. In a car-coupling, the combination, with the draw-head having the recess 6 and inclined walls 7, of the bar 8, having slot 9, and beveled cross-head 11, having the groove 13, substantially as described.

5. In a car-coupling, the combination, with the draw-head 1, having opening 2 and shoulder 16, of the bar 8 and cross-head 11, the latter having beveled edge 12, and groove 13, and the pin 3, and link 15, substantially as described.

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

JOHN SKINNER.

Witnesses:

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