

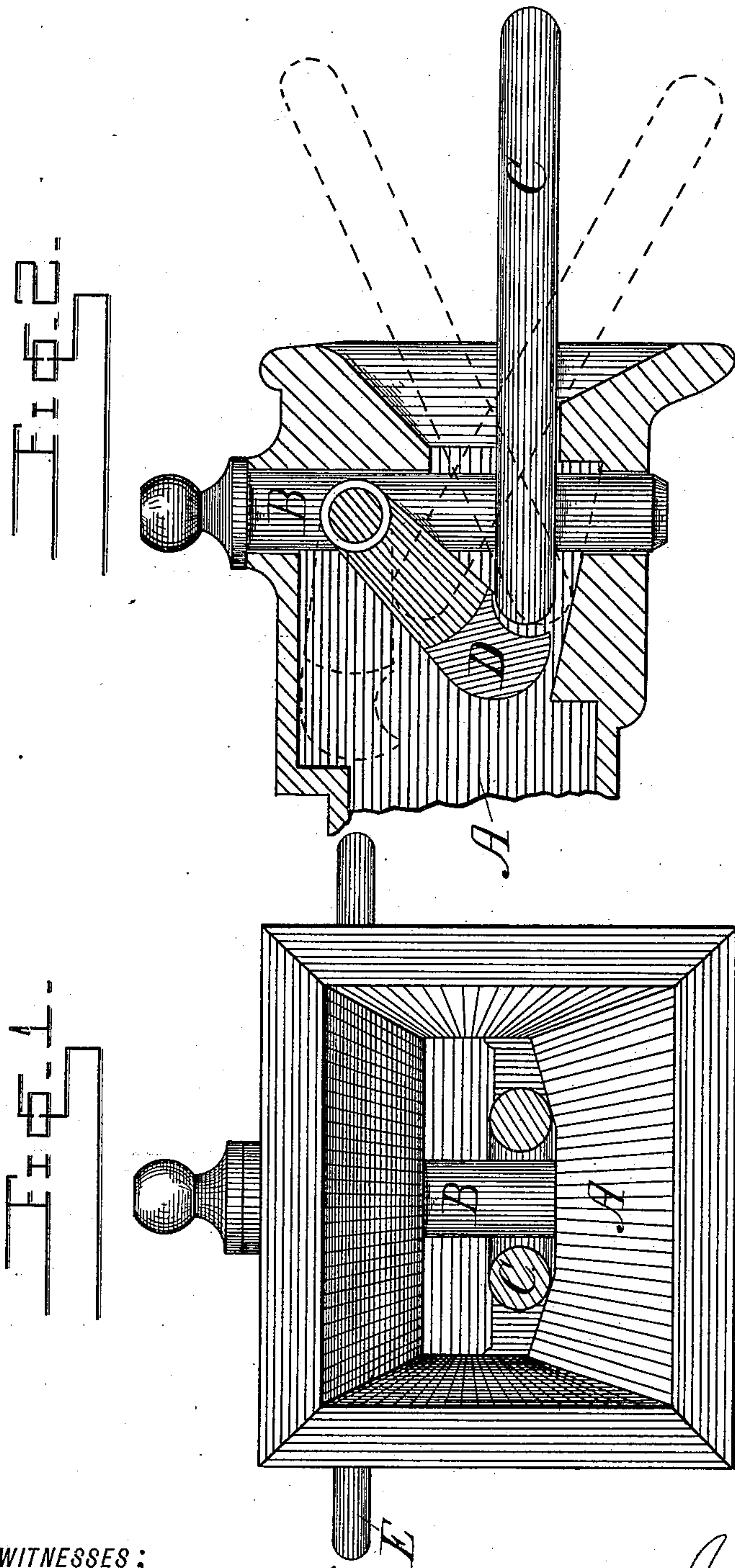
(No Model.)

2 Sheets—Sheet 1.

J. C. BLOCHER.
CAR COUPLING.

No. 333,439.

Patented Dec. 29, 1885.



WITNESSES;
Josh. H. Blackwood.
A. G. O. Bois.

INVENTOR
John C. Blocher
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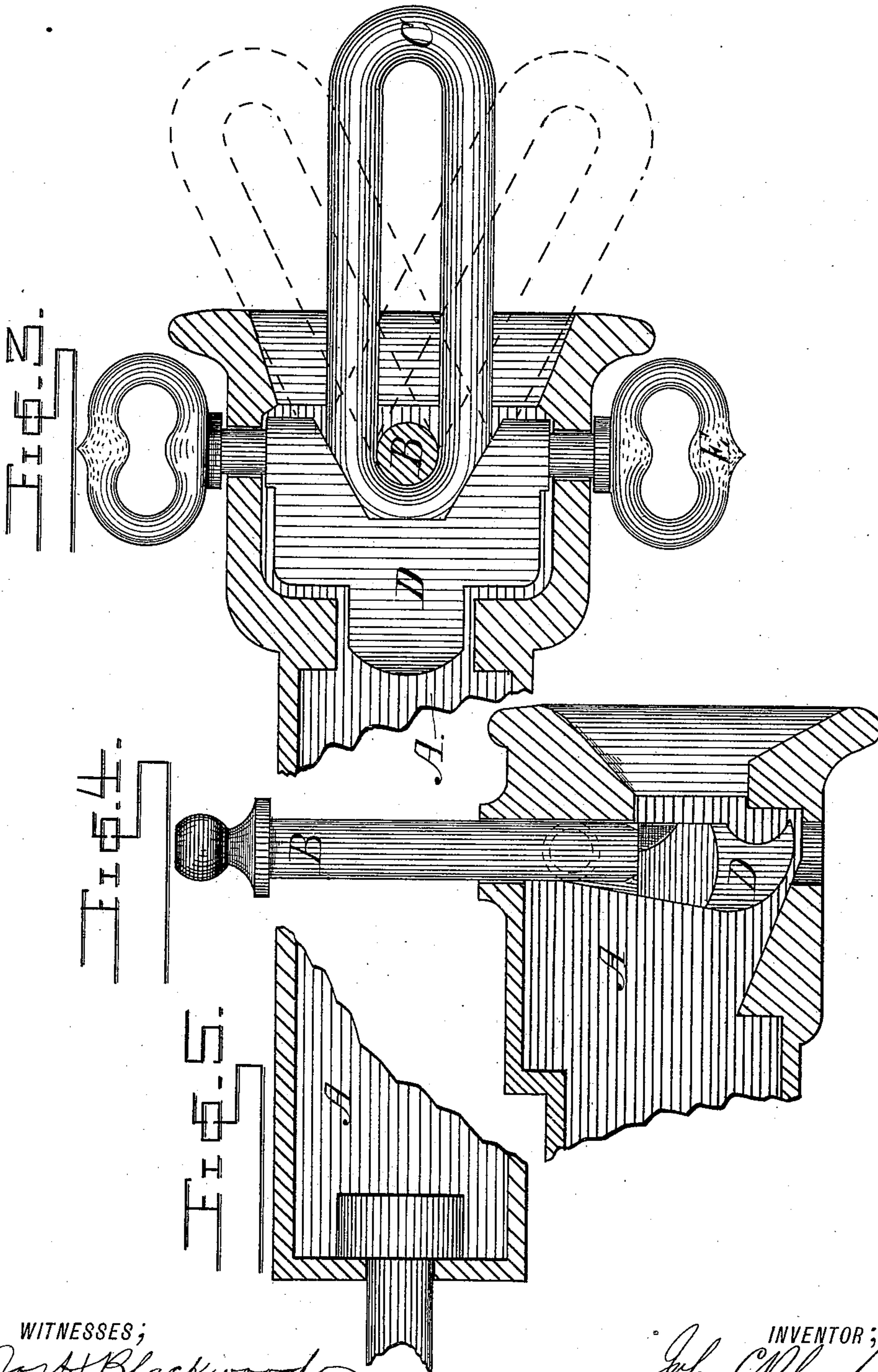
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R. G. DuBois.

INVENTOR;

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UNITED STATES PATENT OFFICE.

JOHN C. BLOCHER, OF LIMA, OHIO.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 333,439, dated December 29, 1885.

Application filed June 1, 1885. Serial No. 167,268. (No model.)

To all whom it may concern:

Be it known that I, JOHN C. BLOCHER, a citizen of the United States, residing at Lima, in the county of Allen and State of Ohio, have
5 invented certain new and useful 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 appertains to
10 make and use the same.

My invention relates to automatic car-couplings of that class in which the pin is held up by a tumbling-latch until the link enters the draw-head, and, striking the latch, causes the
15 pin to fall and engage the link.

In very many of the devices of this character heretofore invented, owing to defects in design or construction, the mechanism has been rendered inoperative and useless by dis-
20 arrangement, breaking, bending, or cramping of the parts within the draw-head, due to the violent shocks and other rough usage to which said parts are subjected.

Another defect existing in this and many
25 other classes of couplings is that either no means at all or no efficient means are provided whereby the link can be guided to the mouth of the opposite draw-head without the brakeman or operator being compelled to touch the
30 link with his hand, or otherwise endangering himself in guiding the link to its place.

The object of my invention is to obviate these and other defects; and to this end it consists of the parts and their relative construction and arrangement, as more fully hereinafter described and claimed, and illustrated in
35 the accompanying drawings, in which—

Figure 1 is a front view of the draw-head, link, and pin; Fig. 2, a vertical side section;
40 Fig. 3, a bottom plan view, partly in section; Fig. 4, a vertical cross-section, and Fig. 5 a section of the draw-head at rear end.

In the drawings, A, B, and C are respectively a flaring-mouthed draw-head, a pin, and
45 an open link of the ordinary form.

D is a tumbling-latch of the form shown, having its lower end bent into the form of a hook to catch, sustain, and hold the inner end of the link, as hereinafter explained. It is
50 provided at its upper end with arms, which

extend through the draw-head, and which have on their outer ends hand-holds E.

The draw-head and tumbling-latch, with its hand-holds, are cast together.

In casting, a pattern of the latch, with its
hook and hand-holds, is first made in one piece
and placed in the core with sufficient sand to
protect all parts of it from coming in contact
with the draw-head, which is then cast around
it. Sufficient space is allowed within the
60 draw-head and around the arms of the latch to permit the latch to swing freely therein. The latch is so located, hung, and made of such shape, and the inside of the mouth and front
end of the draw-head is so shaped correspond-
65 ingly, that when the link is in place in the draw-head the hooked end of the latch rests against the inside end of the link, and it is made heavy enough to hold the end of the link
down on the bottom of the draw-head and hold
70 it level at the same time. By turning either of the hand-holds of the latch on the outside of the draw-head the outer end of the link can be elevated or depressed at will. Thus, by
reason of the greater weight of the latch and
75 the operation of the hand-holds, the link is held to a position so that in all ordinary cases the link will enter the mouth of the opposite draw-bar, whether the latter is above, below, or on a level with the other one, and at the
80 same time the operator is not exposed to any danger by the collision of the draw-heads.

I do not wish to confine myself to this precise form of hand-hold. The handles may, for instance, be linked to the tumbling-latch, so
85 that they may hang down when not in use. The passage-ways through the draw-head for the arms of the latch may be protected by water-sheds, so as to prevent the accumulation of ice, snow, or other foreign substances with-
90 in the draw-head to interfere with its free operation. The pin may be attached to any part of the draw-head or platform by a chain, so as not to be lost when not in use; and when the pin is not inserted in the draw-head the cars
95 can be easily backed or sided without coupling them. When the pin is in the draw-head before coupling, it rests in a notch in the top of the tumbling-latch, as shown in Fig. 4. When
100 the car is coupled, the link strikes the latch

and throws it back and upward, as shown in Fig. 2. Thereupon the pin falls through the link and the latch falls by its own weight, so that its lower curved portion rests against the inner end of the link, as also shown in Fig. 2. When the link is standing in a horizontal position, held that way by the latch, and it is desired to raise the link to meet a higher opposite draw-head, the hand-hold is used to press the hook end of the latch against the link, which raises the outer part of the link; and when the outer end of the link is to be lowered the latch is raised so as to permit the inner end of the link to escape from the recess of the hook, and as the outer end of the link falls its falling can be checked, at any moment the desired direction is obtained, by pressure on the hand-hold. The extent of change in direction and position of the link as thus obtained is indicated in dotted lines in Fig. 2.

My improvement is better than any arrangement of toggles, as the latter are liable to be easily broken and to get out of order.

By my improvement the latch simply balances the link. There is no other strain upon it, as the weight of the pin when resting upon it effects no appreciable wear or strain; and

as it has a free movement within the draw-head, it can always be operated with certainty, and, owing to the feature of the hand-holds, with perfect freedom from danger.

Having thus described my invention, what I claim is—

1. In a car-coupling, the combined draw-head and the tumbling-latch provided with arms extending through and swinging in said draw-head, the two parts cast together and constituting a single article of manufacture, substantially as described.

2. In a car-coupling, the draw-head, the tumbling-latch provided with arms extending through said draw-head, and on which the latch swings, the handles to operate said latch from outside the draw-head, and the hooked end to engage with the link, in combination with an open link and coupling-pin, substantially as described.

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

JOHN C. BLOCHER.

Witnesses:

JOHN F. BROTHERTON,
RUDOLPH RINCK.