

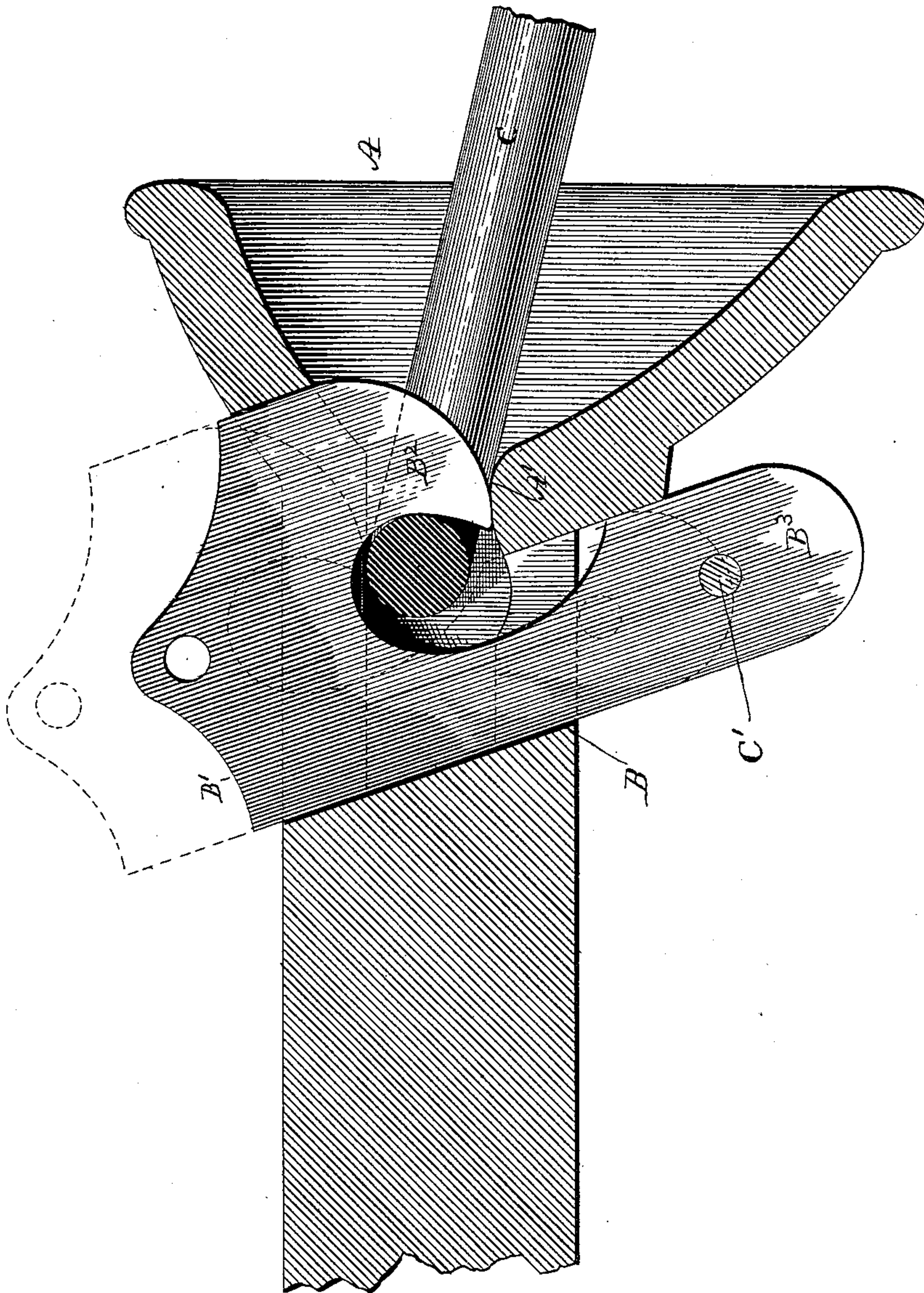
(No Model.)

A. W. PHILLIPS.

CAR COUPLING.

No. 351,399.

Patented Oct. 26, 1886.



Witnesses

Edwin L. Jewell,

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UNITED STATES PATENT OFFICE.

ANSON W. PHILLIPS, OF FAIRFIELD, NEW YORK.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 351,399, dated October 26, 1886.

Application filed August 23, 1886. Serial No. 211,630. (No model.)

To all whom it may concern:

Be it known that I, ANSON W. PHILLIPS, a citizen of the United States, residing at Fairfield, in the county of Herkimer, State of New York, have invented certain new and useful Improvements in Car-Couplers, of which the following is a specification, reference being had therein to the accompanying drawing.

My invention relates to that class of car-couplers in which the coupling-pin is automatically raised by the link in being forced into the draw-head; and my invention consists in a novel construction of pin or hook, and to the manner of mounting the same in the draw-head, whereby the same may be readily and automatically raised by the link to engage therewith to couple the cars, all as hereinafter explained.

In the accompanying drawing I have shown a sectional view of the draw-head and also of one end of the link with the pin or hook in full lines, and in which drawing A represents the head having an enlarged open forward end, with its lower face made to incline at a greater angle than the upper face, to serve to more readily guide the link to the pin or hook in coupling cars of different heights. This head is provided with a longitudinally-arranged inclined slot, B, made longer in the upper portion of the head, and is formed in such manner as to leave a curved shoulder or rest, A', at the upper inner end of the lower portion of the flaring mouth of the head, substantially as shown, and for a purpose hereinafter described.

The coupling hook or pin is composed of a head portion, B', having two downwardly-projecting arms, B² B³, the rear one, B³, being of such length and width as to pass down through the narrower slotted portion of the head and project out beyond the lower face of the draw-head, the head portion of the pin or hook being made wide enough to fit the wider portion of the slot. The forward arm is made of such length that when the hook or pin is in position the lower end of the arm will rest upon the shoulder A', before referred to. The forward face of this arm B² is curved downward and rearward in such manner that when resting upon the shoulder it will, in connection with the inclined face of the lower portion of the draw-head, form a curved V-shaped recess

in cross-section, so that as the link C strikes the forward face of the lower portion of the draw-head it will be guided thereby up to and into engagement with the curved face of the pin or hook, and readily raise said hook or pin by its engagement with said curved face.

The slot formed in the hook or pin by the two arms projecting from the head is made semicircular at its upper end, and the inner or adjacent walls of the two arms curve downward and inward toward each other, and the curve formed in the wall or inner face of the arm B³, extends down a short distance below the end of the forward arm, B², and in such manner as to leave an opening a little wider than the link between the rear end of the forward arm and the lower end of the curve formed in the rear arm, to permit the passage of the link into the slot.

When in its normal position, as shown in the drawing in full lines, the forward arm of the pin or hook rests upon the shoulder A', and by the form of the parts shown and described it will be readily seen that in forcing two cars together to couple the same the link, in coming in contact with the lower curved face of the draw-head, will be guided thereby up and into engagement with the curved face of the forward arm of the hook, and by the continued movement of the link against the same will force the pin or hook upward and backward into the position shown in dotted lines, in which position the link can pass by the forward arm and into the slot formed between the arms, when the hook will drop by its own weight into its former position and the forward arm will engage the link; and in reversing the movement of the cars the link by its engagement with the curved face of the arm will serve to draw and hold the hook or pin in such position.

By forming the slot in the draw-head in which the pin or hook moves on an incline it will be readily seen that, while it allows the hook to be easily raised or pushed backward to permit the entrance of the link when the link is engaged by the forward arm and a force or pull is exerted on the link to draw the cars, the link will tend to draw or pull the hook downward.

A pin, C', is arranged in the lower end of the arm B', at right angles thereto, to prevent

the pin from being accidentally thrown out of the head when the cars come together with great force. The pin or hook may be connected to any suitable form of rod or chain upon the cars, to raise the hook out of engagement with the link to uncouple the cars.

Having now described my invention, I claim—

The combination, with the draw-head provided with an inclined slot and a shoulder or rest curved on its forward face, of the sliding pin or hook having two arms arranged to move in the said slot, the forward arm having its

forward face curved downwardly and inwardly, and adapted to operate in connection with the forward face of the rest and the link to guide said link and cause the said link to automatically lift the pin and couple the cars, substantially as specified.

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

ANSON W. PHILLIPS.

Witnesses:

EDWARD M. BURNS,
WM. MAY.