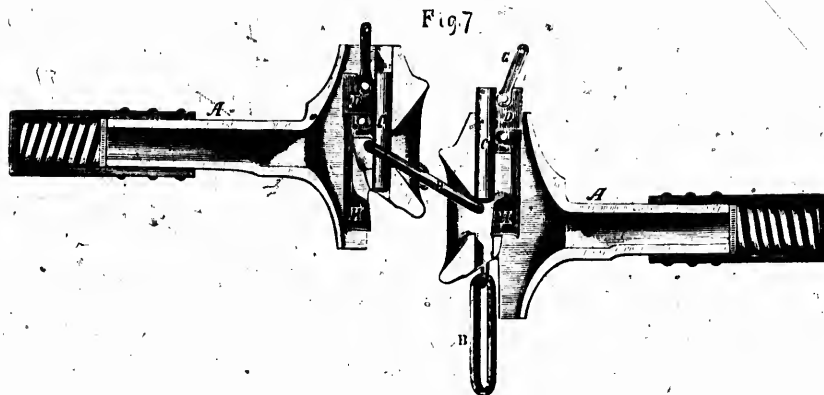


Fig. 7. Represents two drawbars varying 6 in., in height, in the act of coupling.



DESCRIPTION.

THE DRAWBAR is a simple casting, with a wrought iron eye cast on one side for attaching the link.

IT WEIGHS ABOUT 200 LBS., but of course may be made lighter or heavier as required.

IT HAS A 12 BY 9 INCH MUZZLE with an inner link chamber, made up of inclined planes to allow for up and down and side plays of the link when coupling and running.

THE MUZZLE is made 12 inches so that it will couple at a variation of six inches in height. It can be made half that size if required, and then couple at a variation of three inches.

THE SIDES OF THE MUZZLE are cut out a little, so that the C-link which holds the Coupling link will not be jammed when two drawbars come together.

IT IS provided with a plain cap to prevent ice or snow lodging in the pin hole.

THE COUPLING LINK is attached to the drawbar by two C-links made of $\frac{3}{4}$ in. iron. THIS DEVICE IS PATENTED.

THE OBJECT IS to prevent loss of links, also to facilitate the making up of trains quickly, as brakemen are not obliged to lose any time "hoisting" the link, to make up train.

THE PIN IS OBLONG, size 2 1/2 by 1 1/2 inches, and 12 inches long. It is made of drop forged steel, and so constructed that it cannot be broken, or get out of order.

THE LATCH OPERATES BY GRAVITY and is made of malleable iron. It is attached to the pin by a 1/4 inch and in no way can it be injured.

THE HOLE in the latch being off the centre the latch necessarily hangs forward, and is sure to come forward when the pin is lifted, and in the bottom of the link chamber, or on the link if two drawbars are coupled together.

TO COUPLE TWO CARS the link in one drawbar enters the mouth of the other and shoves the latch off the bottom of the link chamber, thereby coupling the pin to drop through the link coupling the two cars.

TO UNCOUPLE. The instant the brakeman lifts the pin the car is uncoupled; for it matters not what part of the link chamber the link occupies, the latch will come forward and rest on it until the link is withdrawn, when the pin will then drop into position for coupling.

THE BRAKEMAN may be on top of the car, or the train may be on a curve, in any case the signal may be given the Engineer to "go ahead" the instant the pin is lifted.

There is no stopping to lock the pin when it is up and so rendering it useless or non-automatic.