

T. LANSTON.

## Improvement in Car-Couplings.

No. 115,964.

Patented June 13, 1871.

Fig. 1.

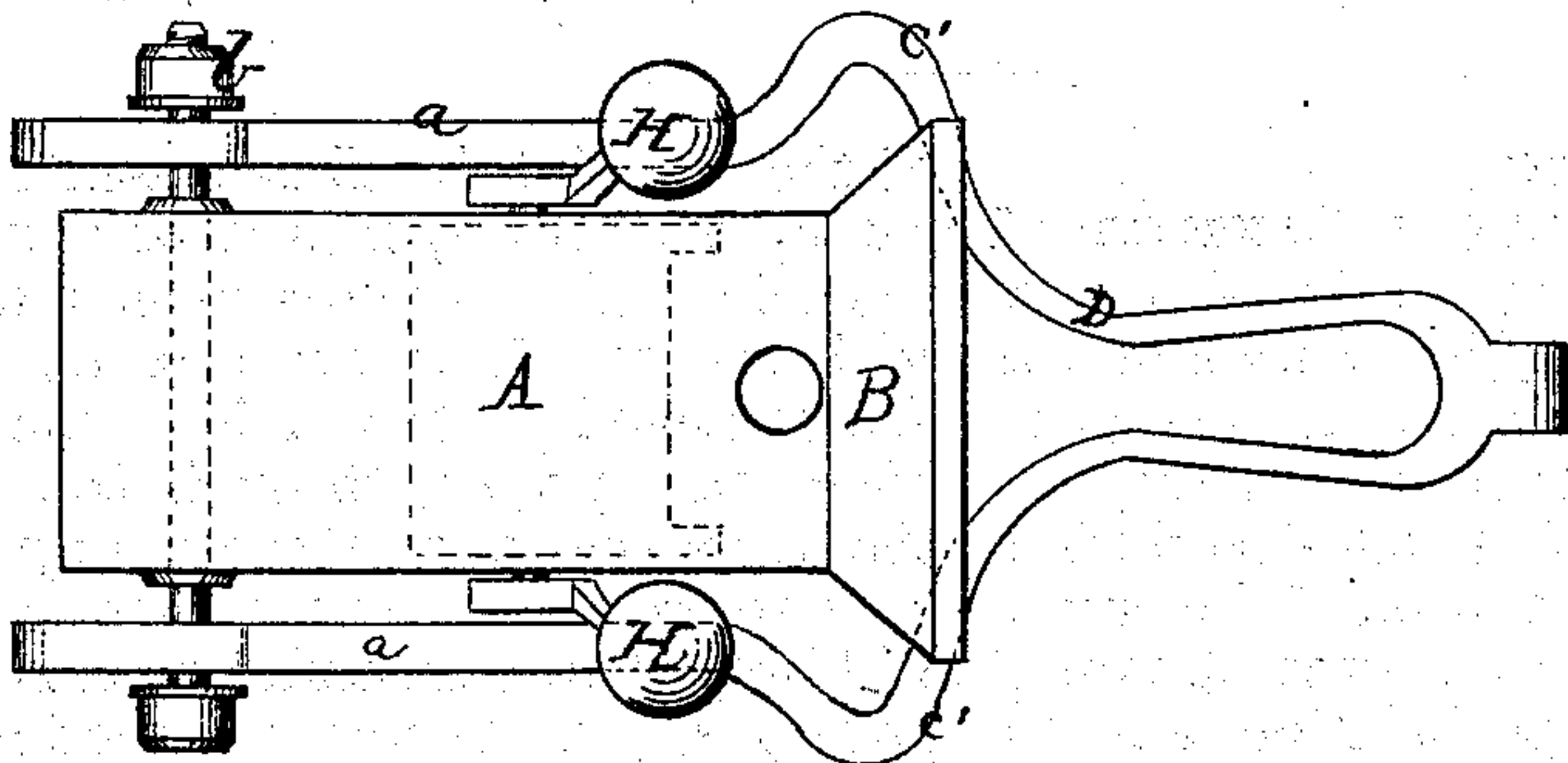
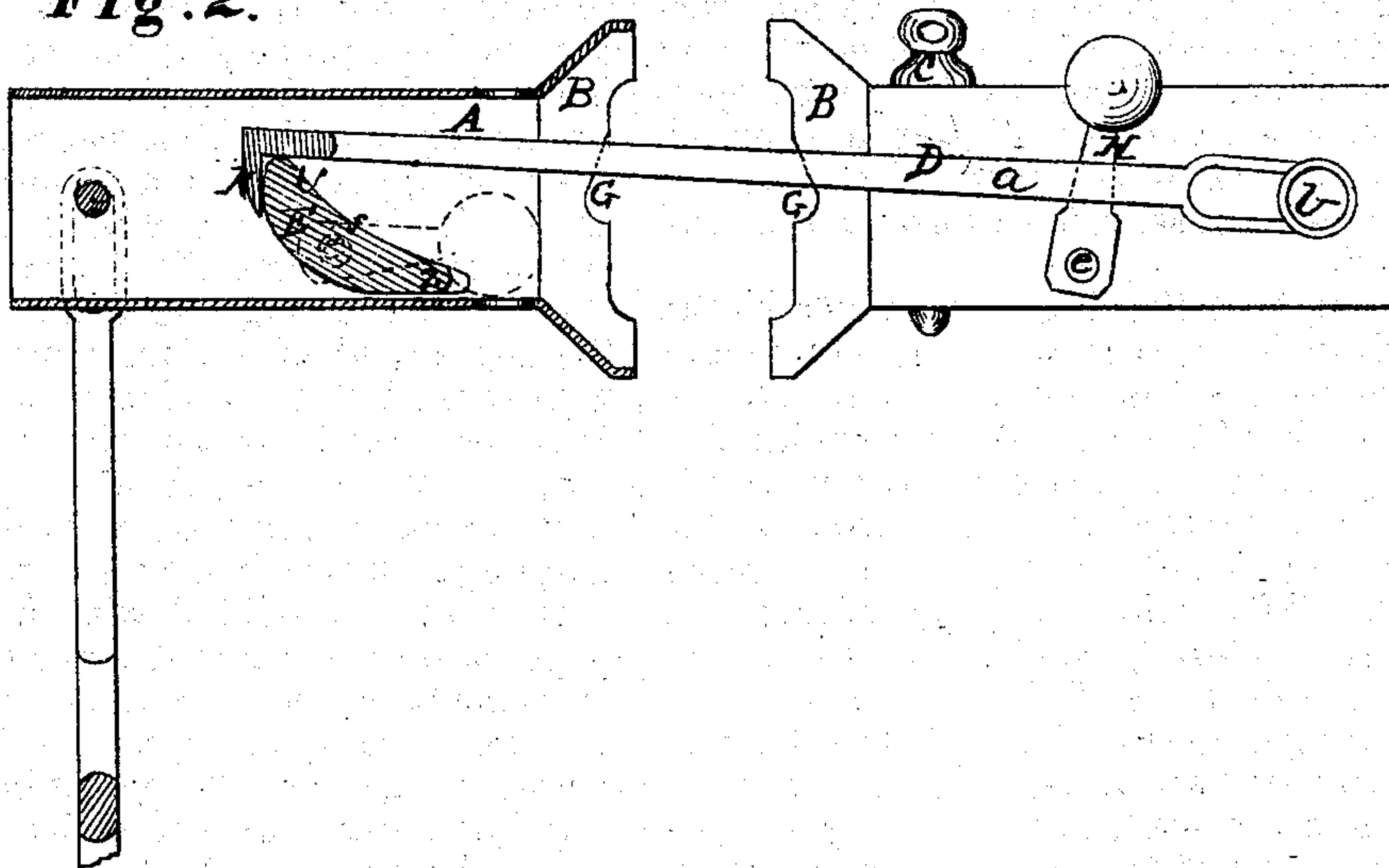


Fig. 2.



Witnesses.

E. A. Bates.

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# UNITED STATES PATENT OFFICE.

TOLBERT LANSTON, OF WASHINGTON, DISTRICT OF COLUMBIA.

## IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. 115,964, dated June 13, 1871.

*To all whom it may concern:*

Be it known that I, TOLBERT LANSTON, of Washington, in the county of Washington and District of Columbia, have invented a new and valuable Improvement in Car-Couplings; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing making a part of this specification and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a top view of my invention. Fig. 2 is a central vertical longitudinal section of the same.

My invention has relation to means for coupling cars; and it consists in the construction and relationship of the bell-mouth and coupling-link, and in the pivoted catch operated by means of weighted arms, and so arranged that it shall be automatically set by the link when the same is withdrawn from the draw-head.

The letter A of the drawing designates the hollow draw-head, cast with the bell-mouth B. C represents the coupling-pin. D, the coupling-link. This link is of peculiar formation. One end of it is narrow, and is designed to be inserted into the throat of the opposite draw-head to engage with the catch or coupling-link. The other end of the link is expanded laterally sufficiently to extend beyond the side-walls of the bell-mouth, and then, forming elbows *c' c'*, extends to the rear in the form of two arms, *a a*, one on each side of the draw-head, to which they are secured by means of the bolt *b* passing transversely through the draw-head. The ends of the arms *a a* are slotted where they embrace the bolt, thus giving to the link a certain play, which is required to allow it to be set in the guiding-notches of the bell-mouth. The lateral edges of the bell-mouth B are notched centrally at G in order to afford guiding-rests for the laterally-expanded arms *a a* of the link, and in order that the link may not be injured by the edges of the bell-mouths in coming together. These edges are recessed above and below the notches G for a distance equal to the vertical diameter of the throat

of the draw-head. E represents a triangular catch, pivoted, by means of journals *e e*, to the side walls of the draw-head, and provided with the weighted arms H H. These arms are attached to the ends of the journals *e e*, where they project through the side walls of the draw-head, and their angular position with reference to the catch is such that they will hold it automatically in either of its two positions. In its vertical section, as shown in Fig. 2 of the drawing, the catch is triangular, one of the angles being somewhat obtuse, while the other two are acute. The journals on which the catch turns are nearest to the obtuse angle. When the catch is set, with the weighted arms down, there will be presented toward the mouth of the draw-head the inclined plane *f* of the catch, up which inclined plane the hooked end *k* of the approaching coupling-link passes until it falls over the upper angle *v* and becomes securely engaged. In order to effect a disengagement the weighted arms H H are thrown back, thereby depressing the angle *v* and raising the angle *z*, when the link may be withdrawn with ease; but in passing forward out of the draw-head the hook *k* of the link operates to turn the catch over, thus automatically setting the catch for the reception of the next coupling-link which may enter. While each draw-head is provided with a link, D, and catch E, both are not designed to operate at the same time; but the link of one draw-head and the catch of the opposite draw-head are operated together. When not in use the coupling-link hangs suspended by the arms *a a* under the draw-head. The coupling-link is so arranged that it can be coupled with the ordinary draw-head by means of the usual coupling-pin; or the link may be thrown down and the ordinary link used between the draw-heads, the pin C being brought into operation.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The draw head A, having the lateral walls of its bell-mouth notched at G G, and recessed above and below the notches, in combination with the coupling-link D having the

slotted arms *a a* extending laterally beyond the walls of the bell-mouth.

2. In combination, the notched draw-head A, the automatic triangular catch E, and the coupling-link D, having the hook K, the laterally-expanded elbows *c' c'*, and the slotted arms *a a*, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

TOLBERT LANSTON.

Witnesses:

D. D. KANE,  
JNO. M. HYNE.