

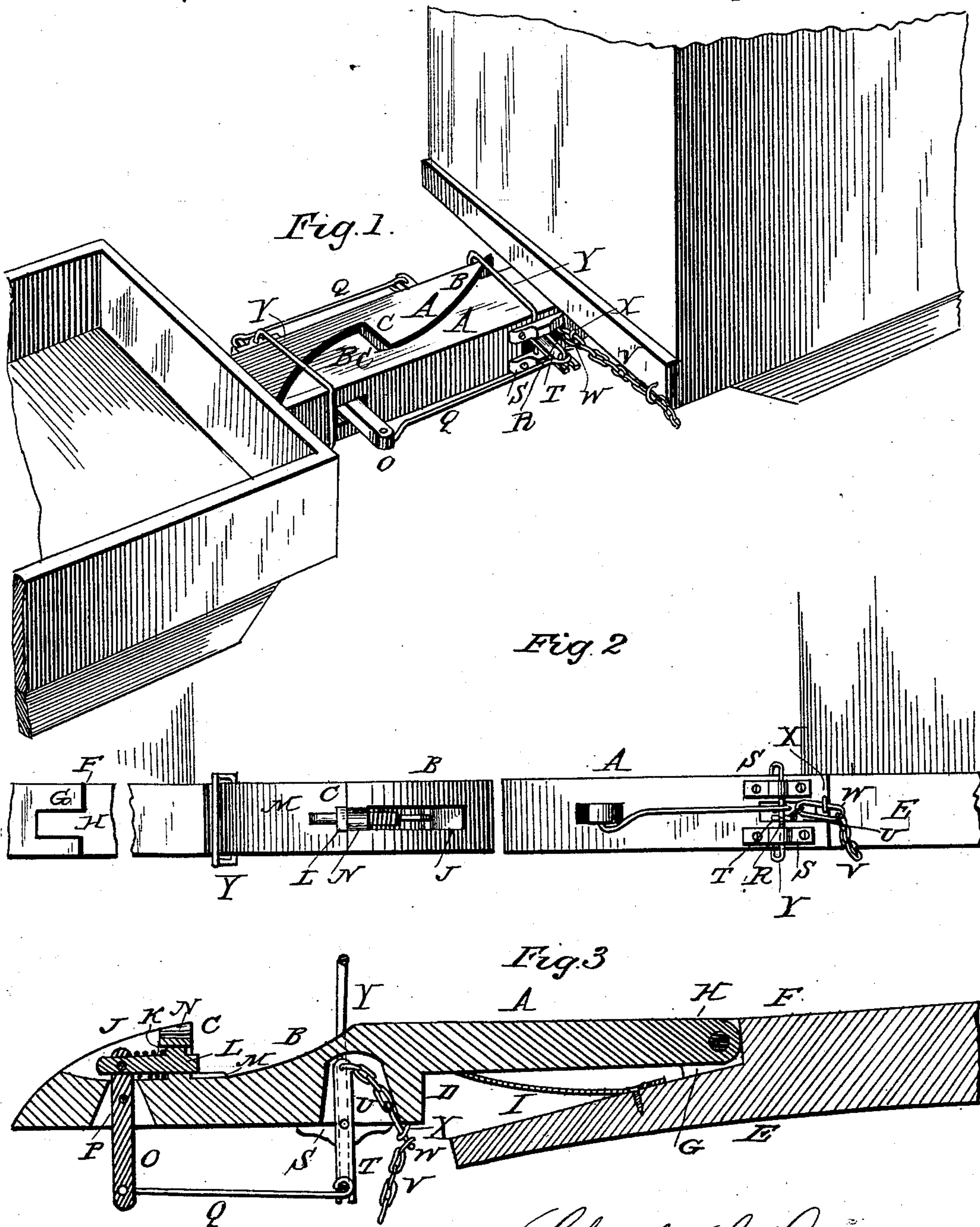
(No Model.)

C. L. HATHAWAY.

CAR COUPLING.

No. 285,616.

Patented Sept. 25, 1883.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

CHARLES L. HATHAWAY, OF AUSTIN, TEXAS.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 285,616, dated September 25, 1883.

Application filed July 7, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES L. HATHAWAY, a citizen of the United States, residing at Austin, in the county of Travis and State of Texas, have invented certain new and useful Improvements in Car-Couplings; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of the ends of two cars provided with my improved car-couplings. Fig. 2 is a side view of the same uncoupled, and Fig. 3 is a horizontal section of one of the draw-heads.

Similar letters of reference indicate corresponding parts in all the figures.

My invention has relation to that class of automatic car-couplings in which two arrow-heads catch into each other; and it consists in the improved construction and combination of parts of the same, as hereinafter more fully described and claimed.

In the accompanying drawings, the letters A A indicate the draw-heads, the points of which are beveled at one side, B, forming shoulders C to the rear of the beveled sides, the draw-heads being recessed at that point. The inner portion of the draw-head is recessed at the other side, forming a rabbet, D, for the reception of the similarly-rabbeted forward end of the draw-bar E, which forms a shoulder, F, at the inner end of the rabbet, which shoulder is longitudinally and horizontally recessed at G, and into which recess the reduced end H of the rabbeted inner end of the draw-head is hinged, swinging laterally. A flat spring, I, is fastened with its inner end upon the inner surface of the rabbeted end of the draw-bar, and bears with its free end against the inner rabbeted side of the draw-head, forcing it out from it, and forcing the draw-head against the draw-head of the other car when coupled, causing the shoulders upon the draw-heads to remain hooked together when they have caught. The beveled side of the draw-head forms a recess, J, which extends as a bore, K, through the shoulder, and in which a spring-

bolt, L, slides, the inner side of the said spring-bolt sliding upon a longitudinal rib, M, upon the inner side of the recess formed by the shoulder, which rib fits into a longitudinal groove, N, in the outer side of the shoulder upon the other draw-head when coupled, keeping them from slipping vertically.

A lever, O, is pivoted in a transverse recess, P, passing through the draw-head, and is hinged at one end to the forward end of the spring-bolt, while the end projecting out through the straight side of the draw-head is hinged to a connecting-rod, Q, the rear end of which is hinged to a double crank, R, the ends of which rock in transverse bearings S upon the flat side of the draw-head, and to the outer end of an arm, T, which is pivoted in a transverse recess, U, in the flat side of the draw-head, and is hinged to the double crank and to the connecting-rod. A chain, V, is fastened to the inner end of this lever, and has a long link, W, at the point where it passes out of the recess, the one side of which link slides in a bail, X, fastened upon the rear side of the recess, so that when the free end of the chain is drawn outward the outer end of the lever will be tilted forward and the double crank with it; and a rectangular bail, Y, is fastened with its ends to the ends of the rocking ends of the crank, straddling and projecting over the recessed side of the draw-head, and fitting over the end of the draw-head of the other coupling when coupled, and it will in this manner be seen that as the chain is pulled, tilting the end of the lever and crank forward, the end of the bail will be tilted rearward, releasing the end of the opposite draw-head, drawing the draw-head to a side, allowing it to pass, with its shoulder, the shoulder of the other draw-head.

When the cars are coupled, the shoulders upon the draw-heads will bear against each other, pressing the spring-bolts forward, which will tilt the free ends of the bails forward over the ends of the opposite draw-heads, thus forming a strong and safe coupling which may be uncoupled in a moment of time, as described.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. The combination of the draw-head hav-



ing the shoulder, the outer end beveled at one side, and the transverse recesses, and having the longitudinal recess in the beveled side, forming a bore through the shoulder, the  
5 spring-bolt sliding in the said recess and bore, the lever pivoted in the forward transverse recess and hinged to the forward end of the spring-bolt, the connecting-rod hinged to the free end of the lever, the double crank rocking in trans-  
10 verse bearings upon the side of the draw-head, having the other end of the connecting-rod hinged to it, and the bail fastened to the ends of the rocking portions of the crank and extending over the recessed or shouldered side  
15 of the draw-head, as and for the purpose shown and set forth.

2. The combination of the draw-heads beveled at the end of the shouldered side, and having the transverse recesses, as described, and  
20 the longitudinal recess forming the bore through the shoulder, the spring-bolt, the transversely-pivoted lever, the connecting-rod, the double crank and bail, the arm pivoted transversely in the rear end of the draw-head  
25 and hinged to the crank and connecting-rod, and the chain fastened to the inner end of the

said arm or lever, and sliding with its long link in a bail fastened to the side of the recess, as and for the purpose shown and set forth.

3. The herein-described car-coupling, consisting of the draw-heads beveled at one side, forming shoulder having the recesses, as described, and reduced or rabbeted at their rear ends, as described, the spring-bolts, the transverse levers, the connecting-rods, the double  
35 cranks and bails, the transversely-pivoted arms or levers, the chains fastened to the said arms and having the long links, the draw-bars rabbeted at their outer ends and forming shoulders upon which the draw-heads are hinged,  
40 and the flat springs fastened with their inner ends upon the inner ends of the inner sides of the rabbets in the draw-bars, all constructed, combined, and arranged to operate as and for the purpose shown and set forth.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

CHARLES L. HATHAWAY.

Witnesses:

H. H. STANLEY,

W. P. ANDERSON.