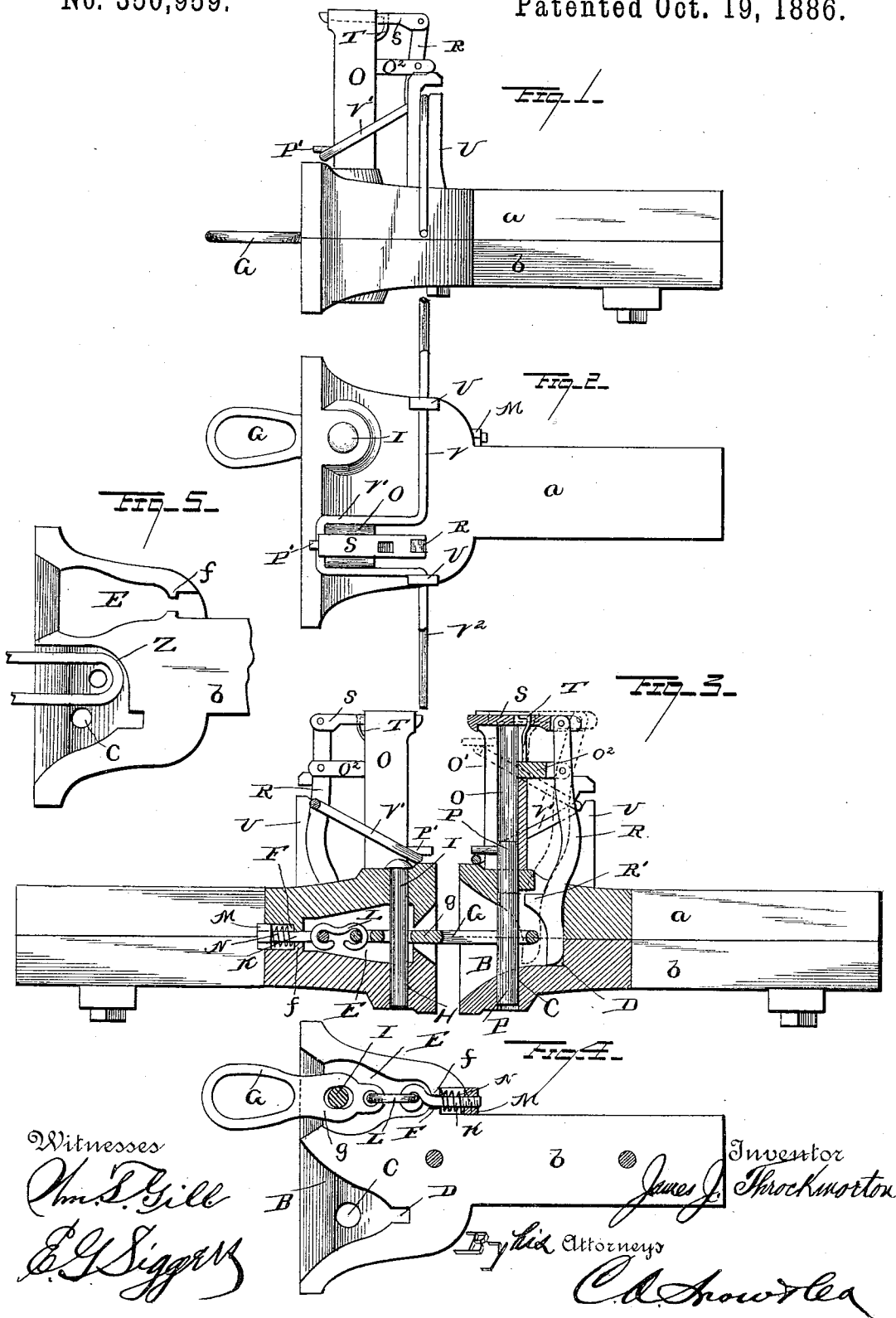


(No Model.)

J. J. THROCKMORTON.
CAR COUPLING.

No. 350,959.

Patented Oct. 19, 1886.



UNITED STATES PATENT OFFICE.

JAMES J. THROCKMORTON, OF ST. TAMMANY, VIRGINIA, ASSIGNOR OF ONE-HALF TO ALTAMONT H. BRACEY, OF SAME PLACE.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 350,959, dated October 19, 1886.

Application filed August 12, 1886. Serial No. 210,727. (No model.)

To all whom it may concern:

Be it known that I, JAMES J. THROCKMORTON, a citizen of the United States, residing at St. Tammany, in the county of Mecklenburg and State of Virginia, have invented a new and useful Improvement in Car-Couplings, of which the following is a specification.

My invention relates to an improvement in car-couplings; and it consists in the peculiar construction and combination of devices that will be more fully set forth hereinafter, and particularly pointed out in the claims.

In the drawings, Figure 1 is a side elevation of a car-coupling embodying my improvements. Fig. 2 is a top plan view of the same. Fig. 3 is a vertical section taken on the line *x x* of Fig. 2; and Fig. 4 is a horizontal section taken on the line *y y* of Fig. 1. Fig. 5 is a horizontal section showing how the draw-head may be constructed to receive the ordinary link.

A represents the draw-head, which is formed of two separable horizontal sections, *ab*, placed one on top of the other and bolted together, as shown. In the front end of the draw-head, on one side thereof, is formed a mouth, B, through which extends a vertical opening, C. In the rear side of the mouth, at the center thereof, is a vertical open recess, D. In the opposite side of the draw-head, from the mouth B, an opening, E, is formed between the sections, and communicating with the said opening is a longitudinal opening, F, at the rear end thereof. The said opening F is provided near its front end with a shoulder, *f*.

G represents a draw-link, which is provided with a rearward-extending arm, *g*, that enters the opening E. This arm is provided with a central opening, which is slightly elongated, and through the said central opening and through a vertical opening, H, in the draw-head passes a vertical bolt, I.

K represents a draw-bar which passes through the opening F. This draw-bar has an eye at its front end, which is connected to an eye in the rear end of the arm of the draw-link by means of a link, L. The rear end of the draw-bar is screw-threaded, and is provided with a nut, M.

N represents a coiled extensile spring, which is placed on the draw-rod and works in the opening F, the front end of, the said spring

bearing against the shoulder *f*, and the rear end thereof bearing against the nut M. The function of the said spring and the draw-rod is to normally retract the draw-link, as will be very readily understood.

From the upper side of the draw-head, above the mouth B, projects a vertical standard, O, which is hollow, the bore of the said standard communicating with the upper end of the vertical opening C.

P represents a coupling-pin, which is located in the hollow standard, and is provided at its upper end with an outwardly-projecting arm, P', that extends through and works in a vertical slot, O', on the front side of the standard O.

R represents a vertical latching-arm, which is pivoted near its upper end in an arm, O², that projects rearwardly from the standard O. The lower portion of the latching-arm extends into the vertical recess in the rear side of the mouth B, and to the upper side of the latching-arm is pivoted a slide-rod, S, the front end of which works in a horizontal guideway formed in the upper end of the standard O. On the front side of the latching-arm, near the lower end thereof, is formed an offset or shoulder, R'.

T represents a flat spring, which is attached near the upper end of the standard O on the rear side thereof, and the free end of the said spring bears rearwardly against the slide-rod S, so as to force the upper end of the latching-arm rearwardly normally, and thus normally move the offset or shoulder near the lower end of the latching-arm under the coupling-pin, when the latter is raised, so as to support it in an elevated position.

U represents a pair of vertical standards, which extend from the upper side of the draw-head, and in the said standards is journaled a rock-shaft, V, having a yoke-arm, V', which extends forwardly and embraces the standard O. The ends of the rock shaft are provided with crank-arms V², by means of which the said shaft may be partly rotated by a person standing on the ground on either side of the car to which the draw-head is attached.

The operation of my invention is as follows: In order to couple two cars together that are provided with my form of coupling the coupling-pins are first raised in the standards O by turning the rock-shafts V, so as to cause the

yoke-arm V' to strike against the lower side of the arms P', and thus raise the coupling-pins in the standards when the latching-arms by reason of the springs T immediately engage the lower ends of the coupling-pins and support them in their elevated position. When the cars come together, the draw-links enter the mouths B and strike against the lower ends of the latching-arms, forcing them rearwardly and causing them to release the coupling-pins, when the latter descend by their own gravity into the opening C and through the draw-links, thus effectually coupling the cars together. When the train starts, the springs K are compressed and yield slightly, thus preventing the cars from being suddenly jerked forward when the locomotive starts.

When coupling with a car having the ordinary pin and link, a portion of the draw-head is cut out, as at L, to receive the end of the link, and a pin is passed through the draw-head to hold the link in place.

Having thus described my invention, I claim—

1. The combination, in a car-coupling, of

the draw-head having the vertical standard O, forming the guideway for the vertical coupling-pin P, and the spring-actuated latching-arm having the stud R', adapted to engage the coupling-pin and lock it when raised, the said latching-arm extending downwardly in the mouth of the draw-head in the path of the coupling-link, whereby when the latter enters the draw-head the latching-arm is tripped and the coupling-pin is automatically released, for the purpose set forth, substantially as described.

2. The combination of the draw-head with the draw-link, the draft-rod longitudinally movable and connected to the draft-link, and the extensile spring K on the draw-rod, for the purpose set forth, substantially as described.

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

JAMES J. THROCKMORTON.

Witnesses:

E. G. SIGGERS,
JOHN H. SIGGERS.