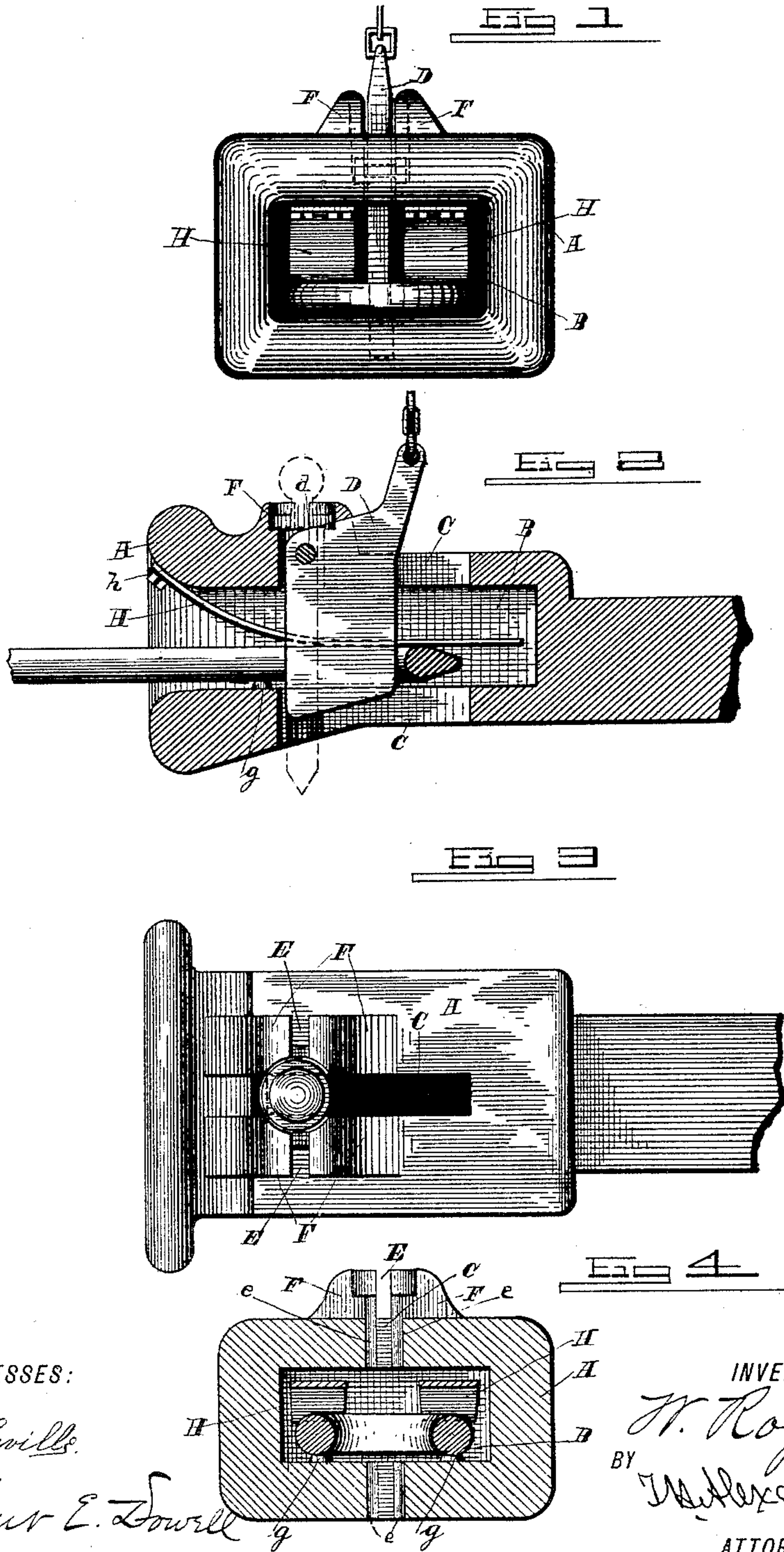


(No Model.)

W. ROYSDON.  
CAR COUPLING.

No. 437,801.

Patented Oct. 7, 1890.



WITNESSES:

*C. W. Seville.*  
*Arthur E. Dowell*

INVENTOR

*W. Royson*  
BY *W. Alexander*  
ATTORNEY.



# UNITED STATES PATENT OFFICE.

WILLIAM ROYSDON, OF CHAMPAIGN, ILLINOIS.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 437,801, dated October 7, 1890.

Application filed June 4, 1890. Serial No. 354,252. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM ROYSDON, of Champaign, in the county of Champaign and State of Illinois, 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 thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification, in which—

Figure 1 is a front view of my improved car-coupling draw-bar and attachments. Fig. 2 is a central longitudinal vertical sectional view of the same. Fig. 3 is a top plan view with the tumbler removed. Fig. 4 is a transverse sectional view.

My present invention is an improvement on the coupling for which Letters Patent were granted to me on the 18th day of February, 1890, and my object is to simplify the construction thereof to render the tumbler removable and more readily adjustable, to adapt the device for an ordinary link-and-pin coupling, and to provide means for holding or depressing the inner end of the coupling-link so that it can be set to couple with another draw-bar at a higher or lower elevation. To accomplish these objects I have invented certain devices, which are hereinafter clearly described and claimed, reference being had to the drawings by letters.

A designates a draw-bar having an elongated throat B and vertically slotted, as at C, through its top and bottom for the accommodation of a swinging locking-tumbler D, which is suspended by trunnions *d* in slots E E, formed in the side walls of the draw-bar and in opposite upstanding ears F at the sides of the draw-bar, the slot E being open at top so that the tumbler can be freed from the draw-bar. The tumbler is raised and lowered by a chain and crank devices, as in my patent referred to, and its operation is substantially as therein described. The slots E E are enlarged at their inner edges to permit the passage of an ordinary coupling-pin and its

head, and below the slots E vertical channels or grooves *e e* are formed in the opposite faces of slots C C to receive and retain the body of the pin, as indicated in the drawings. Of course, when the pin is used the tumbler is removed and vice versa.

H H designate a pair of springs lying on opposite sides of the tumbler within the throat of the draw-bar and attached at their front ends to the mouth and roof of the draw-bar, as shown at *h h*, thence extending downwardly and inwardly to the rear end of the draw-bar throat and pressing upon the inner end of the link when inserted in the draw-bar throat, as shown, bearing down upon the link and holding it in whatever position it may be adjusted—*i. e.*, in a horizontal position or with its outer end raised or lowered to properly enter the mouth of another draw-bar in the act of coupling.

A swell or transverse protuberance *g* may be formed on the bottom of the draw-bar just in front of slot C, and on this swell the link rests and is substantially fulcrumed, allowing its outer end to be adjusted up or down to properly enter the mouth of an opposite draw-bar in coupling when the draw-bars are at different elevations.

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

1. The combination of the draw-head having slots in its top and bottom, and upstanding lugs F and a tumbler D, substantially as described, with the pair of springs H H, arranged on each side of the tumbler, all substantially as and for the purpose specified.

2. The draw-bar A, having slots E and C, and channels *e*, with the tumbler D and springs H, substantially as specified.

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

WILLIAM ROYSDON.

Witnesses:

SOLON PHILBRICK,  
JOHN C. ROBERTS.