

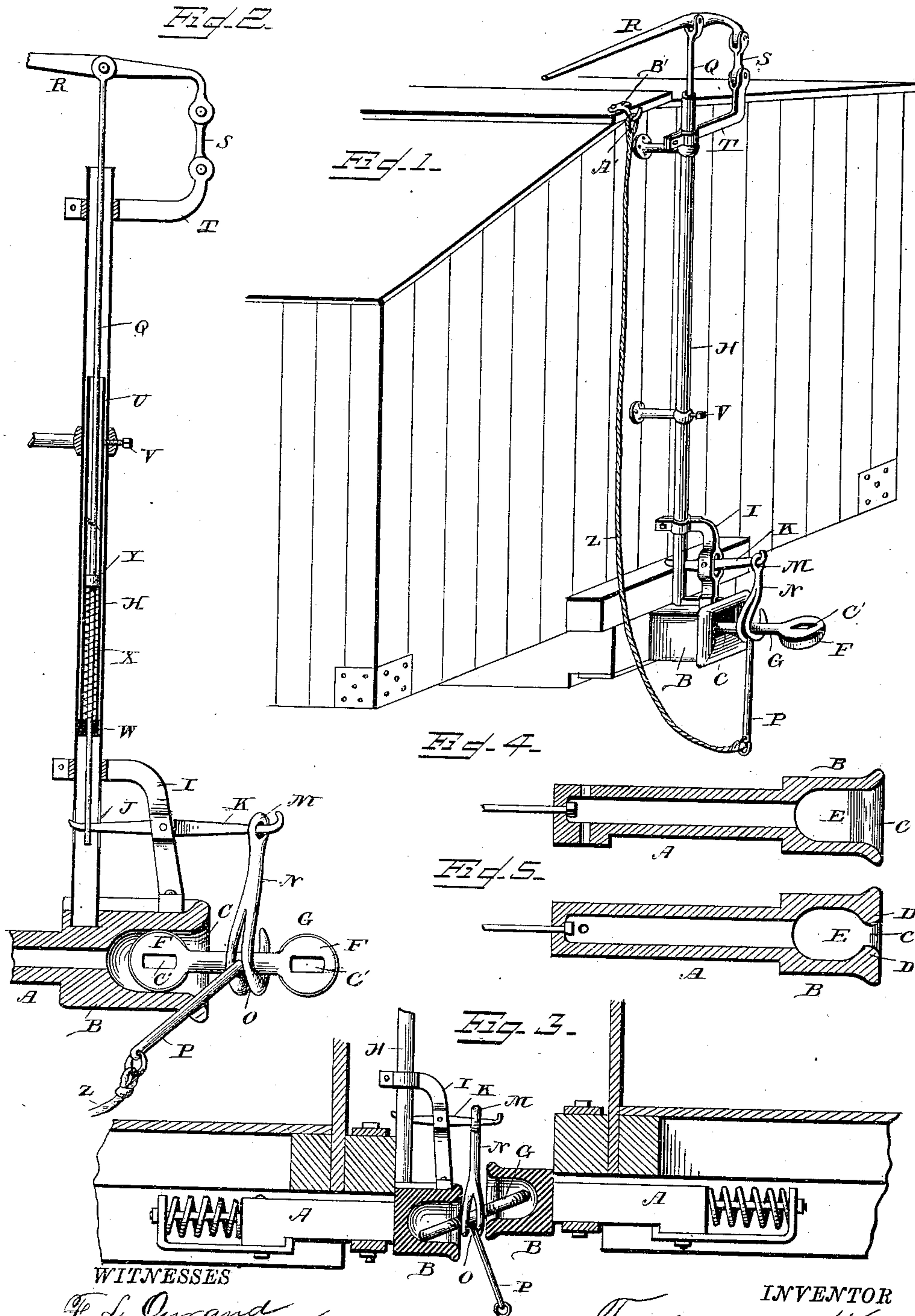
(No Model.)

F. WINDLER.

CAR COUPLING.

No. 336,029.

Patented Feb. 9, 1886.



WITNESSES  
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# UNITED STATES PATENT OFFICE.

FERDINAND WINDLER, OF KEOKUK, IOWA.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 336,029, dated February 9, 1886.

Application filed December 12, 1885. Serial No. 185,473. (No model.)

*To all whom it may concern:*

Be it known that I, FERDINAND WINDLER, a citizen of the United States, and a resident of Keokuk, in the county of Lee and State of Iowa, 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 one end of a railway-car provided with my improved coupling. Fig. 2 is a vertical sectional view of the coupling. Fig. 3 is a longitudinal vertical sectional view of the ends of two cars provided with the coupling, showing the cars coupled together; and Figs. 4 and 5 are respectively a vertical and a horizontal longitudinal sectional view of the draw-head.

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

My invention has relation to that class of car-couplings in which a link provided with a flat head may enter a slot in the face of the draw-head, and by turning in the recess in the draw-head be retained within the same; 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 letter A indicates the draw-bar, which is secured to the car in any suitable manner, and the draw-head B of which is formed with a vertical slot, C, in its face, which slot forms shoulders D D in the recess E within the head, serving to prevent the flat disk-shaped ends F of the link G to slip out of the recess after a head has been inserted through the slot in the face of the draw-head and been turned at a right angle, the disk-shaped head resting transversely in the recess, bearing against the shoulders with its edges.

A vertical tube, H, is secured upon the front of the car, and a bracket, I, projects from the upper side of the draw-head and is secured to the lower end of the tube, which is secured at its lower end to the upper side of the draw-head, and is formed with a longitudinal

slot, J, near the end. The bracket forms a bearing for a lever, K, which is fulcrumed in the said bearing, and projects with its inner end into the slot in the tube, while its outer end is bent slightly upward and inserted through an eye, M, at the upper end of a hook, N, the curved portion of which is provided with a slot, O, through which an arm, P, projects from the coupling-link, and slides with its inner end in the slot, the link resting with its middle in the hook. A rod, Q, is pivotally connected at its lower end to the inner end of the lever, and is pivoted at its upper end to a hand-lever, R, which is fulcrumed upon the upper end of a link, S, pivoted upon a bracket, T, upon the top of the car, the rod passing up through the tube. A tube, U, is adjustably secured within the tube by means of a set-screw, V, passing through the outer tube, and this inner tube is provided at its lower end with a ring or collar, W, which projects outward and fills the outer tube, while it projects inward and forms a shoulder for the lower end of a spiral spring, X, to rest against, the upper end of the spring bearing against a collar, Y, secured upon the rod which passes through the inner tube.

It will be seen that by depressing or raising the upper lever, and through that the vertical rod, the outer end of the lower lever and the hook supporting the link will be raised and lowered, adjusting it to engage a coupling of another car, placing the head of the link at the proper height to enter the slot of the opposite coupling.

The inner tube may be adjusted within the outer tube by means of the set-screw, adjusting the rod within it to the height at which it is desired to retain it according to the relative heights of the two couplings to be coupled together, and the spring will allow the link to yield to any change of the level of the two cars and their couplings during the running of the train.

The laterally-projecting rod or arm of the link projects at a right angle to the plane of the disk-shaped heads of the link, and a cord, Z, is attached to its outer end, which cord is provided with a suitable eye or eyes, A', which may be engaged by a hook, B', upon the top of the car; and it will be seen that



when the arm is allowed to depend freely in a downward position the heads are turned at a right angle to the slots in the draw-heads, bearing against the shoulders within the recesses in the draw-heads, while when the arm is raised at its outer end by means of the cord the flat heads of the link will stand in a vertical plane, ready to enter into or slip out of the slots in the draw-heads, ready for coupling or uncoupling.

It will be seen that in case of an accident to the train, and in the case that a car should be overturned upon the track, the links at its couplings will be turned so as to allow them to be withdrawn from the opposite couplings, thus uncoupling the overturned car from the remaining cars of the train, and possibly by so doing prevent any accident happening to the other cars.

The disk-shaped heads of the links are provided with perforations C', so that they may be used in connection with the usual pin-and-link couplings, the pins entering the perforations in the same manner as into an open link.

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

1. In a car-coupling, the combination of a vertical tube secured to the front of the car, a tube secured adjustably within the outer tube and having a collar at its lower end, a rod sliding within the tubes and having an operating-lever at its upper end and a collar at its middle, a lever pivoted at the lower end of the tube, rocking in a vertical plane, and pivotally connected to the lower end of the vertical rod with its inner end, a hook supported with its upper eyed end upon the outer end of the lever, and a coupling-link resting in

the hook, as and for the purpose shown and set forth.

2. In a car-coupling, the combination of the draw-head having a slot in its face, a link having flat heads and a laterally-projecting arm at its middle, and a hook having a longitudinal slot at its hooked portion for the laterally-projecting arm, and having means for raising and lowering it, as and for the purpose shown and set forth.

3. In a car-coupling, the combination of a draw-head having a slot in its face forming shoulders at the mouth of its recess, a link having flat heads at its ends and a laterally-projecting arm at its middle, a hook having means for raising and lowering it, and having a longitudinal slot in its hooked portion for the laterally-projecting arm of the link, and a cord secured to the end of the arm of the link and secured at the top of the car, as and for the purpose shown and set forth.

4. In a car-coupling, the combination of a draw-head having a vertical slot in its face forming shoulders at the mouth of its recess, a link having flat disk-shaped heads at its ends and an arm projecting from its middle at a right angle to the plane of the disks, a hook for supporting and forming a bearing for the link, and a cord attached to the end of the arm of the link and to the top of the car, as and for the purpose shown and set forth.

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

FERDINAND WINDLER.

Witnesses:

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