(No Model.)

J. H. SWINDELL.

CAR COUPLING.

No. 497,612. Patented May 16, 1893.

Fig. 1.

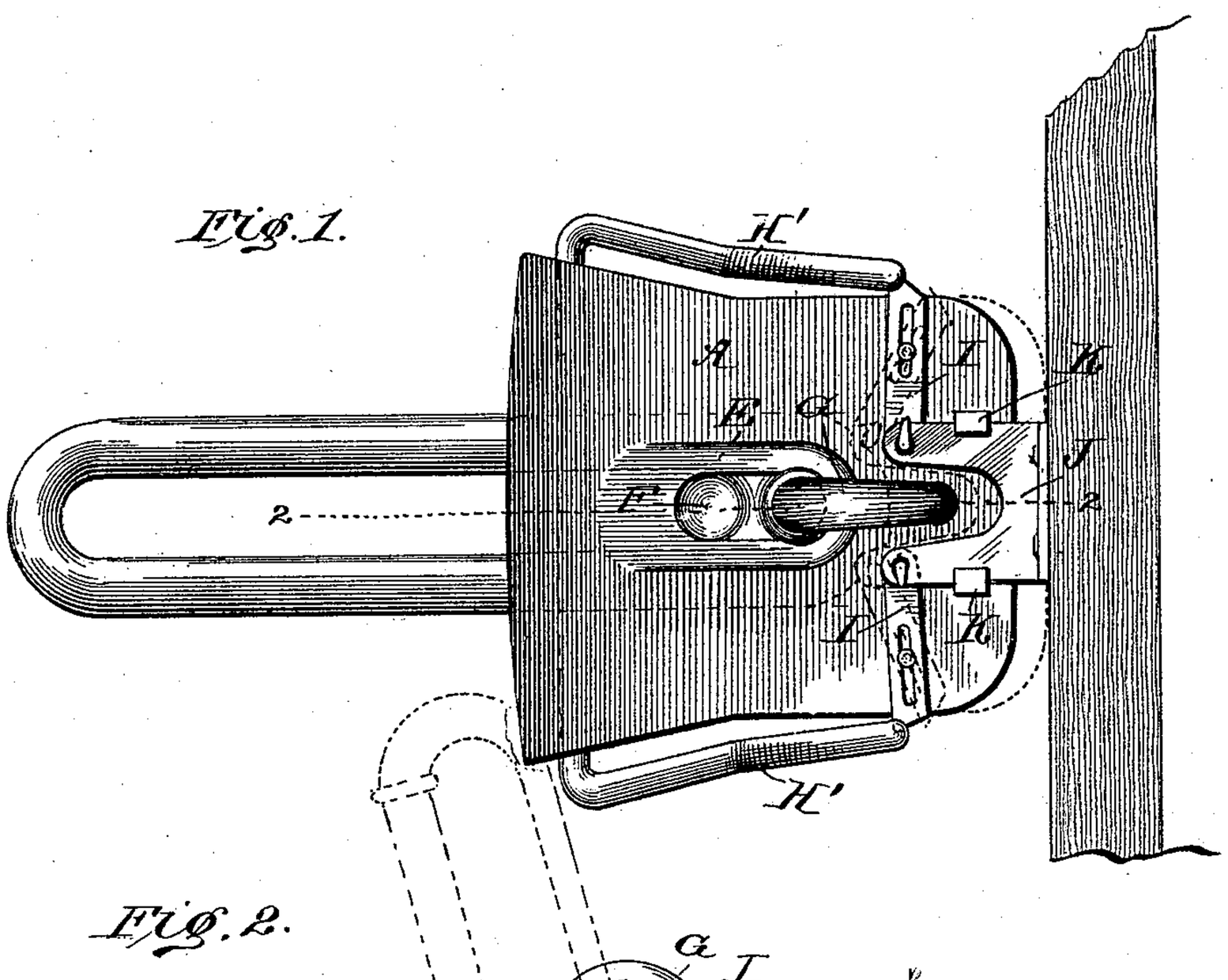

Fig. 2.

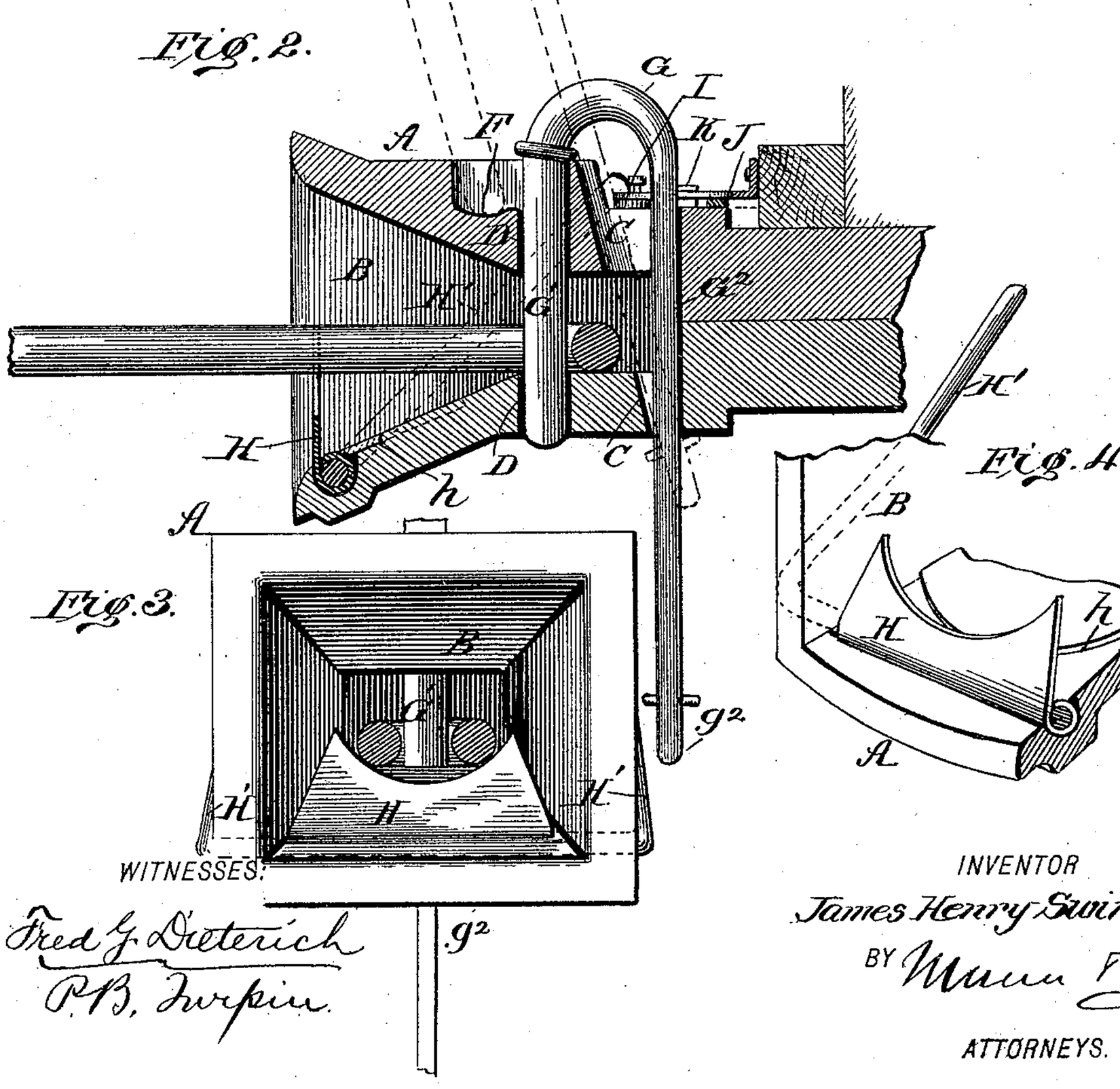

Fig. 3.

Fig. 4.

WITNESSES:

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CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 497,612, dated May 16, 1893.

Application filed September 27, 1892. Serial No. 447,078. (No model.)

To all whom it may concern:

Be it known that I, JAMES HENRY SWINDELL, of Reidsville, in the county of Tatnall and State of Georgia, have invented a new and useful Improvement in Car-Couplings, of which the following is a specification.

My invention is an improvement in car-couplings and consists in the novel constructions and combinations of parts hereinafter described and pointed out in the claims.

In the drawings—Figure 1 is a top plan view. Fig. 2 is a vertical longitudinal section. Fig. 3 is a front elevation of the improved coupler and Fig. 4 is a detail perspective view.

The drawhead A has the link mortise B and is provided in rear of said mortise with a vertical opening C which is made wedge shaped or V shaped so that the arm or rod fitted therein may tilt forward and back in the operation of the improvement. This opening C is arranged immediately in rear of the pin opening D surrounding which is a guard E which extends a short distance in advance of the pin hole and also incloses a seat F for the point of the pin. This seat is also depressed or hollowed out to better retain the point of the pin when the latter is in such seat.

The coupling device G is formed in siphon shape with the front and rear arms G′ G^2 connected at their upper ends and operating respectively in the openings D C. The arm G′ is the pin proper while the arm G^2 is a guide pin to direct the movements of the pin G′. This arm G^2 extends below the drawhead and has below such drawhead a retaining pin g^2 and is made of sufficient length to permit the pin G^2 to be raised and pin G′ to be seated at its point in the seat F in the uncoupled position of the device.

Within the drawhead is pivoted the link lifter H, arranged to lie flat in a recess *h* in the base of the drawhead and to be tilted upward at its rear edge to lift the link. When down in the recess *h* the upper face of the lifter is flush with the bottom of the link mortise so that it forms no obstruction to the entrance of the link. This lifter is provided with arms H′ extended from its journals and by which the lifter may be raised or lowered as desired. When raised the arms H′ extend above the drawhead and may be held in such position by the sliding supports I. These supports are connected with the drawhead so that they may be protruded beyond the side of the same to support the link lifter arms or may be retracted to release the said arms in the operation of coupling as will be presently described. These supports are in the nature of levers pivotally connected between their ends to the drawhead and having the pivots fitted in slotted openings so the supports may both rock and slide. It is preferred to secure the supports so that they may both rock and slide but manifestly the sliding operation may be dispensed without departing from the principles of the invention. In practice these supports are operated by a plate J secured to the framing of the car and held to the drawhead by overlapping cleats K so that the drawhead can slide back and forth under the said plate. The plate J is connected to the inner ends of the supports so that when the drawhead is pushed back against its buffer spring the said supports will be retracted to release the link lifter and when the drawhead moves forward said supports will be protruded into position to again engage the link lifter arms. The supports it will be seen are adapted to permit the link lifter arms to move past them into position to be held by the said supports.

When desired a cord or chain may be attached to the loop of the coupling pin and allowed a play equal the length of the pin proper or short arm, and conducted by means of eye screws to any part of the car, so that a pull upon such cord will uncouple the cars. Such cord may be kept attached to the pin or ready for attachment at any time desired. Also when desired a shaft may be extended across the car and have crank handles and a crank connected with the coupling pin. It will be noticed that the swinging edge of the link lifter is hollowed out or concaved so that it will operate when raised to bring the link into alignment as desired.

In operation to uncouple it is only necessary to raise the coupling pin. To couple, the link being in one drawhead it should be raised by its link lifter, the arms of the latter being held by the supports described, and the pin of the other drawhead should be raised until the point of the short arm rests in its seat. Now if the drawheads be brought to-

gether the link will strike the guide arm of the pin of the meeting drawhead and trip such pin to coupled position. At the same time the drawhead will be pushed back so that the link lifter supports will be operated to release the link lifter arms so that the said lifter will fall to its usual position in the recess in the base of the drawhead.

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

1. In a car coupling a drawhead having a link mortise and a coupling pin hole opening thereinto and provided in rear of the said mortise with a vertical wedge shaped opening having its front wall inclined forward from bottom to top, communicating at its front side with the link mortise substantially as set forth.

2. In a car coupling the combination of the drawhead the link lifter having arms or levers, the supports for said arms arranged to be projected beyond the sides of the drawhead and retracted and devices whereby said supports may be operated substantially as set forth.

3. In a car coupling the combination with the drawhead, having a limited longitudinal movement the link lifter and the supports for the arms of said lifter of a plate or bar secured to the car frame and connected with the supports whereby to operate the same by the aid of the longitudinal movement of the drawhead substantially as set forth.

4. In a car coupling the combination with the drawhead and the link lifter having crank arms or levers of supports for said arms or levers such supports being held to rock and slide on the drawhead and adapted to be projected and retracted to support and release said arms substantially as set forth.

5. In a car coupling the combination of the drawhead, the link lifter having crank arms or levers, the supports for said arms consisting of plates pivotally secured between their ends to the drawhead and arranged at their outer ends to protrude beyond the side of the drawhead and support the link lifter arms and a plate or bar fixed to the car frame and connected with the inner ends of the link lifter supports substantially as set forth.

6. In a car coupling a drawhead provided with a pin opening and in rear of such opening with a guide opening made V or wedge shaped and communicating with the rear of the link mortise, and having surrounding its pin holes a guide ledge and provided within said guide ledge with a seat for the point of the coupling pin substantially as set forth.

7. In a car coupling the combination of the drawhead having a pin hole and provided in rear thereof with a V or wedge shaped guide opening and surrounding the pin opening with a guide ledge and having within said guide ledge a seat for the point of the coupling pin, the coupling pin having a pin proper to operate in the pin hole and an arm or portion to operate in the guide opening substantially as set forth.

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Witnesses:
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