No. 607,769. Patented July 19, 1898.

W. W. RUDY.

CAR COUPLING.

(Application filed Dec. 2, 1897.)

(No Model.)

FIG. 1.

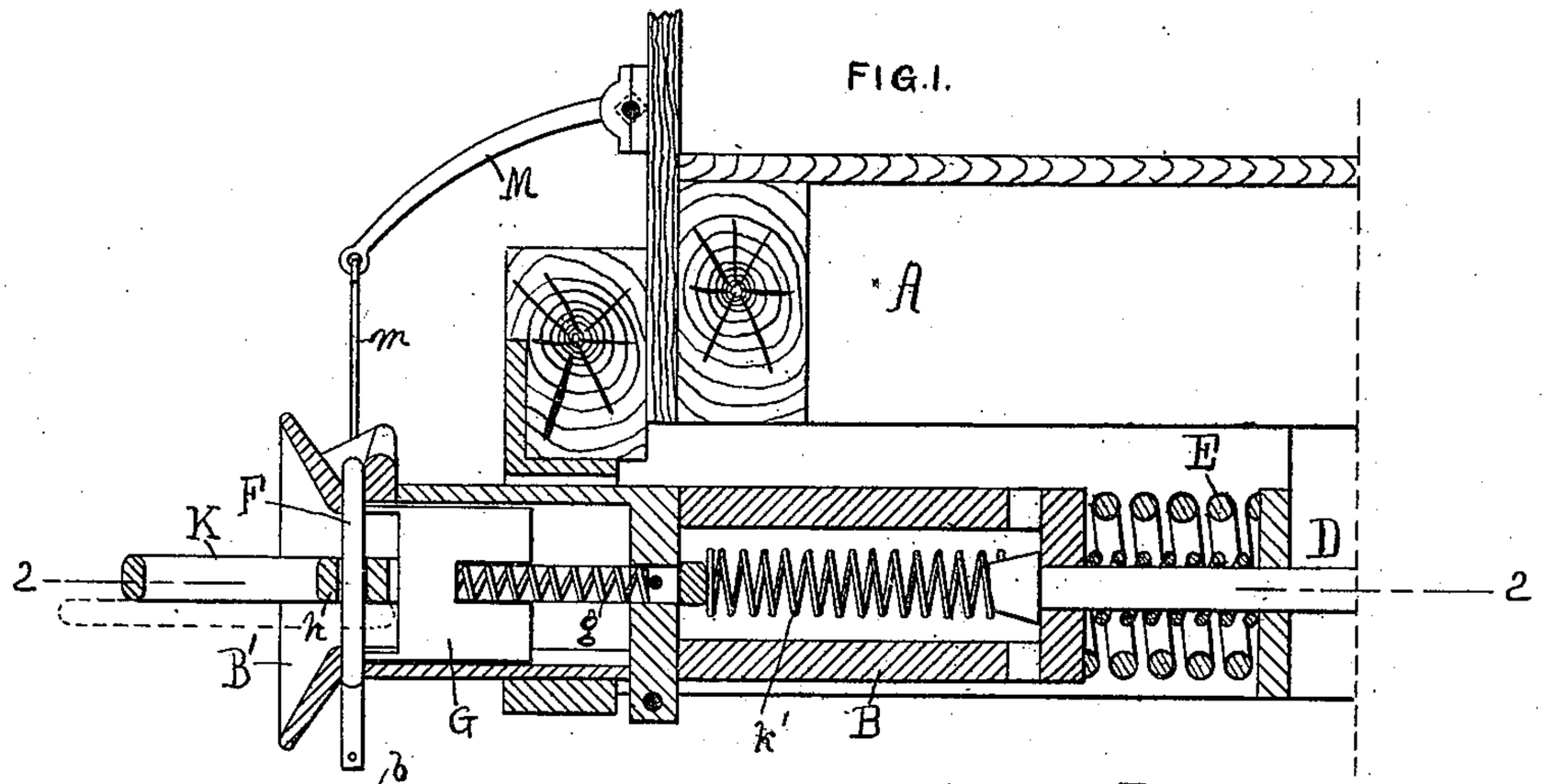

FIG. 2.

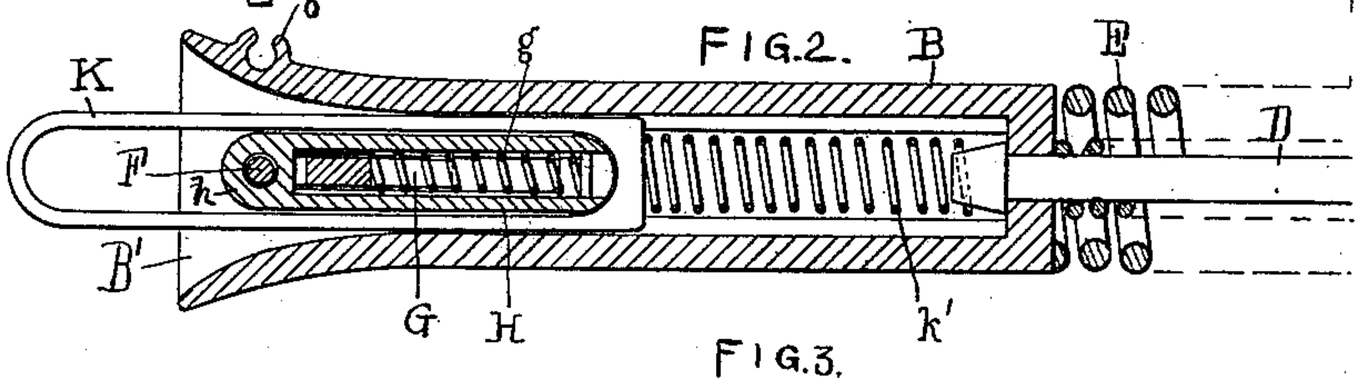

FIG. 3.

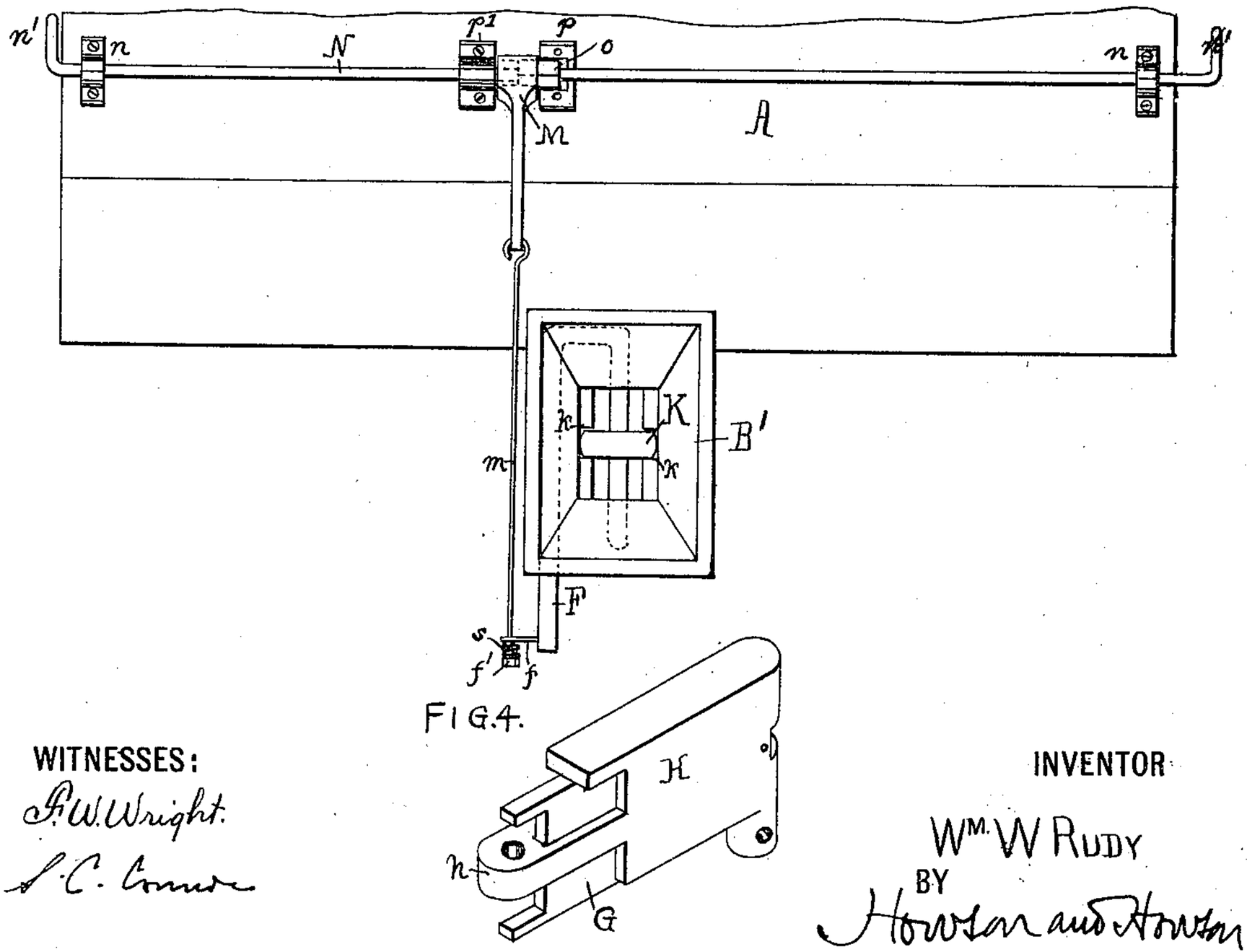

FIG. 4.

WITNESSES:

F. W. Wright.

L. C. Conner

INVENTOR

Wm. W Rudy

BY

Howson and Howson

HIS ATTORNEYS.

UNITED STATES PATENT OFFICE.

WILLIAM W. RUDY, OF BOUND BROOK, NEW JERSEY, ASSIGNOR OF ONE-THIRD TO ORLANDO W. BLAUVELT, OF NEW YORK, N. Y.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 607,769, dated July 19, 1898.

Application filed December 2, 1897. Serial No. 660,543. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM W. RUDY, a citizen of the United States of America, residing in Bound Brook, Somerset county, State of New Jersey, have invented Improvements in Car-Couplings, of which the following is a specification.

The object of my invention is to construct an automatic car-coupling to work with a coupling-pin and an ordinary link or a specially-provided link and to permit of the coupling or uncoupling of the cars without the necessity of going between them; and a further object of my invention is to so construct the coupling that it can be coupled up with cars having draw-heads at different heights within all ordinary limits.

In the accompanying drawings, Figure 1 is a vertical section of my improved coupling. Fig. 2 is a sectional plan view of the same on the line 2 2, Fig. 1. Fig. 3 is an end view of the coupling and the devices for operating the coupling-pin, and Fig. 4 is a perspective view of a part of the coupler.

In the drawings, A represents the frame of the car, which may of course be of any construction. B is the draw-head, D the draw-bar, and E the usual springs.

Draw-head B has a large flaring mouth B', and immediately behind this is the vertical coupling-pin F, which is U-shaped, as illustrated more clearly in Fig. 3. One leg of this U-shaped coupling-pin passes vertically through central openings in the draw-head and is adapted to engage with the coupling-link, while the other leg moves in suitable vertical guides *b* on the outside of the draw-head and at one side thereof, Fig. 2. To the lower end of this outer leg is connected a system of links and levers, hereinafter described, for raising the coupling-pin.

To keep the coupling-pin in an elevated position when desired, but ready to drop down into place in the draw-head when a link of the draw-head of another car enters this draw-head to be coupled, I provide a spring-latch plate G, which is guided in a groove in the bottom of the draw-head and can slide to a limited extent horizontally in a flat stationary box H, Fig. 4, fitted centrally into the draw-head B. The box is introduced through a slot in the top of the draw-head and can be removed, if desired. A spring *g* tends to keep this latch-plate G in its outer position, supporting the coupling-pin; but when a link enters the draw-head it pushes the latch-plate G inward against the spring *g*, so that the pin can then drop into engagement with the entered link. The box H preferably has a central projection *h* with an opening in it for the passage of the coupling-pin F.

I provide each draw-head with a long link K, permanently in place in the draw-head. This link embraces or fits around the box H and is guided in a position about midway between the top and bottom of the draw-head by shoulders or ledges *k*, Fig. 3. A spring *k'* at the back of this link tends to keep it pushed outward, so that it is ready to be used for coupling up with the draw-head of another car; but if the latter has a link already in place the link K is simply pushed back into its own draw-head against the push of the spring *k'*.

To enable the cars to be uncoupled without requiring the brakeman to go between them, I provide the device which I will now describe to work in conjunction with the pin F. The lower end of the outer leg of the pin F is connected to a link *m*, suspended from a lever M on a horizontal rod N, mounted to turn in bearings *n* on the car-frame. The connection of the pin F and link *m* may be by means of an eye *f* on the pin and nuts *f'* on the link, and a spring *s* may be interposed to give a yielding connection. The horizontal rod N has hand-levers *n'*, by which it may be manipulated from either side of the car. The rod has a square or other polygonal boss *o* passing through a corresponding opening in the hub of the lever M. On opposite sides of the hub of this lever guide-blocks *p p'* are secured to the car-body. One of these blocks *p* has an opening in it of sufficient size to permit the polygonal boss of the rod to turn freely therein, while the other guide-block *p'* has an opening of a shape corresponding to the polygonal boss, so that if the latter be pushed sidewise into this opening in the guide-block the rod N will be prevented from turning. This rod is so mounted in its bearings *n* that it can be moved longitudinally to en-

ter its boss into or withdraw it from the polygonal opening in the guide-block p'. When the said boss is free from the polygonal opening and the rod is turned, it will be readily understood that the pin can be elevated, and if then it is desired to keep it in that position the rod N can be moved endwise to cause this polygonal boss to engage with the polygonal opening in the guide-block p' to keep the lever M elevated.

I claim as my invention—

1. A draw-head having a coupling-pin and containing a permanent link with a stationary box H embraced by the link, a spring-latch to support the coupling-pin, and a spring at the rear of the link to tend to push it outward, as and for the purpose described.

2. In a car-coupling, the combination of a coupling-pin and a draw-head having a slot in the top, with a flat box H removably fitted into said slot, and a spring-latch plate G in the box to support the coupling-pin, substantially as described.

3. The combination of the draw-head and coupling-pin with operating devices therefor, comprising a rod having a polygonal boss, a lever connected to the coupling-pin and having the said boss passing through its hub, with fixed guides for the hub, one of the said guides having an opening with which the polygonal boss on the rod can be locked, as and for the purpose described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM W. RUDY.

Witnesses:
F. WARREN WRIGHT,
HUBERT HOWSON.