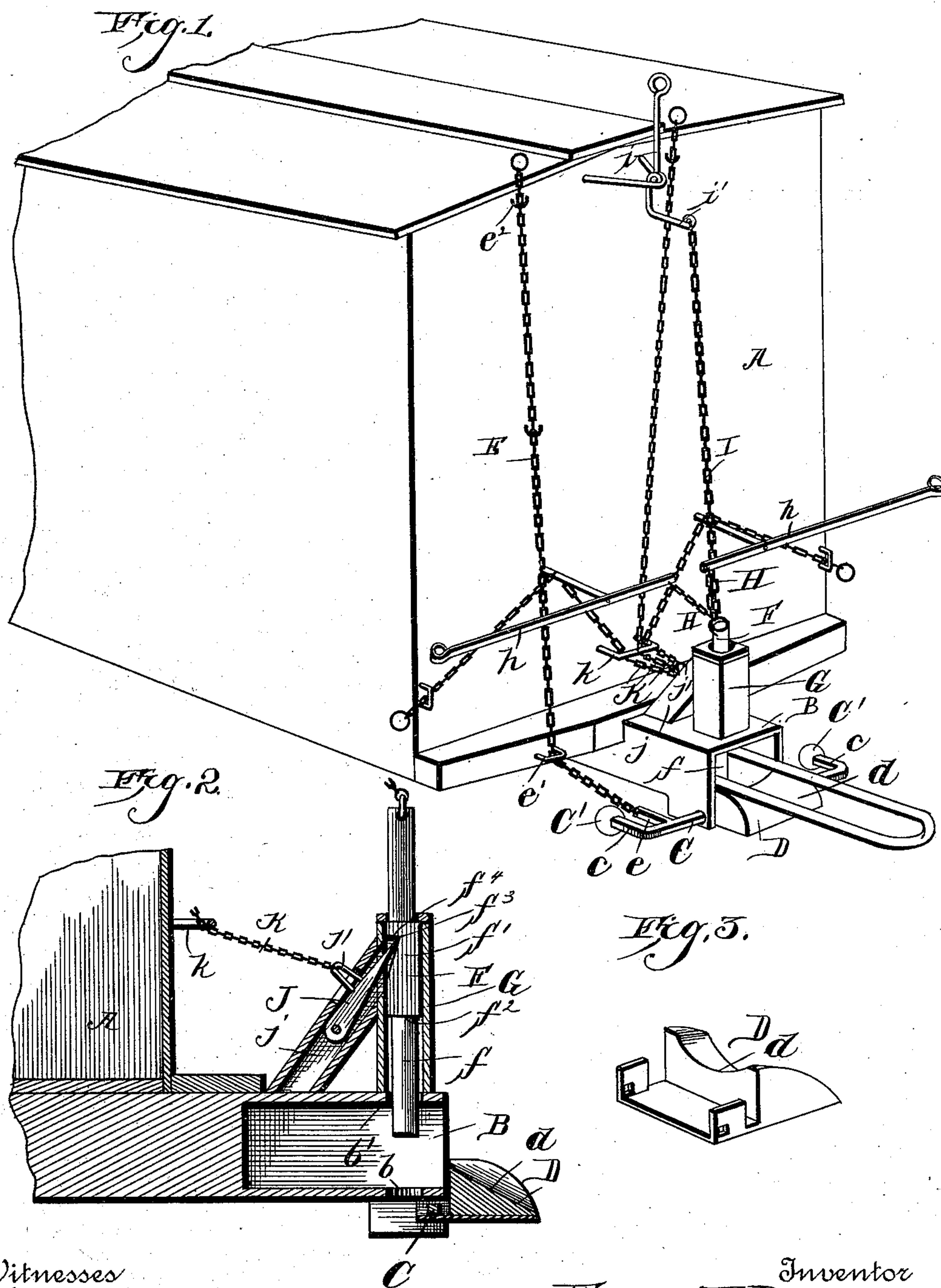


(No Model.)

F. T. ROGERS.
CAR COUPLING.

No. 400,490.

Patented Apr. 2, 1889.



Witnesses

Henry G. Dietrich
J. H. "Diggers"

Inventor

Freemon T. Rogers,

By his Attorneys

Attorneys
C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

FREEMON T. ROGERS, OF LINTON, KENTUCKY.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 400,490, dated April 2, 1889.

Application filed November 7, 1888. Serial No. 290,240. (No model.)

To all whom it may concern:

Be it known that I, FREEMON T. ROGERS, a citizen of the United States, residing at Linton, in the county of Trigg and State of Kentucky, have invented new and useful Improvements in Car-Couplings, of which the following is a specification.

The invention relates to improvements in car-couplers; and it consists in the construction and novel combination of parts hereinafter described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a perspective view of the end of the car having a draw-head embodying the invention attached, with a link of common construction therein. Fig. 2 is a central vertical longitudinal section of the draw-head with the pin raised. Fig. 3 is a perspective view of the coupling-pin detached.

Referring to the drawings by letter, A designates the end of the car, and B a draw-head attached thereto in the usual manner, and provided with the coupling-pin openings $b\ b'$ in its roof and floor, respectively.

C is a transverse shaft journaled in bearings depending from the draw-head on each side at the front lower corners thereof, and having its end portions, $c\ c$, bent at right angles, as shown, to form arms.

D is a guide-block for the link, secured to the shaft C between its bearings, and having its face or upper surface, d , made concave and inclined upward and inward, so that it will guide the link in the proper direction and keep the same straight. When the arms c stand upward, the guide-block D hangs downward, and when said arms are so moved as to stand horizontally inward the guide-block stands horizontally outward, in position to guide the link into the draw-head. The said arms c have preferably knobs or balls C' on their ends, which aid in depressing the arms and raising the guide-block D.

E is a chain with its lower end fastened to an arm, e , standing from the shaft C parallel to the arms c , and passing thence upward through staples $e'\ e^2$ to the top of the car, where it has a handle attached, and can be used by the brakeman to raise the guide-block D, which can also be raised from each side by the arms $c\ c$.

F is the coupling-pin, having the lower cylindrical portion, f , and the central square portion, f' , provided at its lower end with the circumferential shoulder f^2 , and f^3 is a transverse notch in the rear side of the said pin, which notch has its shoulder f^4 upward, and inclines downward therefrom. The square portion of the coupling-pin rests in a square vertical sleeve, G, so that it cannot turn therein, which sleeve rises from the draw-head and surrounds the upper pin-opening, b , and the pin, when down, rests with its shoulder f^2 bearing on the floor of the roof of the draw-head, with its cylindrical portion projecting through the opening b and engaging the link.

H H are chains that rise from the upper end of the coupling-pin and have their upper ends attached to the inner ends of the double-armed levers $h\ h$, which are pivoted upon rods or brackets standing out from the end of the car, and having their outer ends attached to the outside of the car, so that the brakeman, by means of said levers and chains, can lift the coupling-pin from either side of the train without going between the cars.

I is a chain rising vertically from the coupling-pin, and having its upper end secured to the end of the outstanding arm i' of the angle-lever i , pivoted at its angle to a bracket secured to the end of the car, and with its upper arm extending above the car. When the pin is raised free of the link, a detent, J, pivoted at its rear end in a tube, j , that extends rearward from the sleeve G, near the top thereof, and passing through a slot in said sleeve, falls inward, and its free edge or end enters the notch f^3 and bears against the shoulder f^4 thereof, so that the detent keeps the pin raised. The detent has on its rear side a staple, j' , that passes out of a slot in the rear side of the tube j , and has connected to it the lower ends of the three chains K K K, which pass through staples k , secured to the end of the car, respectively, to the sides and top of the car, the side chains passing upward first and then downward and outward. By means of these chains the detent can be pulled out of engagement with the notch f^3 from either side or the top of the car and the coupling-pin allowed to fall.

Across the top of the sleeve G is secured a plate having a central perforation. When

the pin rises, its square portion strikes against the outer surface of said plate and prevents the pin from being withdrawn from the sleeve.

Having described my invention, I claim—

5 1. In a car-coupler, the combination, with the draw-head, of the shaft journaled in bearings depending from the lower outer corner of the draw-head, and having the weighted arms *c* at its ends on the sides of said draw-
10 head, and the guide-block for the link secured on said shaft between the bearings thereof, and having its upper side concave and inclined inward and upward from its free edge, and extending in a direction opposite to and
15 in the same plane as said weighted arms, whereby the guide-block will normally hold the link in the proper position preparatory to coupling, substantially as specified.

2. In a car-coupler, the combination, with
20 the draw-head, of the shaft *C*, journaled in bearings depending from the outer lower corners of the draw-head, and provided with the arms *c c* and *e*, the guide-block *D* for the link, which block stands downward when said
25 arms stand upward, and outward when the arms stand inward, and the chain *E*, extending downward from the end of the arm *e* to the staple *e'*, and then upward through the staples *e' e'* to the top of the car, substantially
30 as specified.

3. In a car-coupler, the combination, with the draw-head having the openings *b b'* in its

roof and floor, respectively, and the sleeve *G*, standing vertically from the draw-head around the opening *b*, and rectangular in
35 cross-section, of the coupling-pin *F*, having the lower cylindrical portion, *f*, the upper portion, *f'*, rectangular in cross-section and fitting in the sleeve *G*, and the circumferential shoulder *f'*², the chains *H H* and *I*, and the levers
40 *h h* and *i*, all constructed and arranged substantially as and for the purpose specified.

4. In a car-coupler, the combination, with the draw-head, the sleeve *G*, rectangular in cross-section, the tube *j*, extending downward
45 and inward from the sleeve, the detent *J*, pivoted in said tube, with its free end extending through a slot into the sleeve *G*, and provided with a staple, *j'*, extending out of a slot in the tube *j*, and the chains *K*, passing through the
50 staples *k* to the top and sides of the car, of the coupling-pin having the part *f'* rectangular in cross-section, fitting in the sleeve *G*, and provided on its rear or inner side with the transverse notch *f'*³, and means, substantially
55 as described, whereby said pin can be raised, as specified.

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

FREEMON T. ROGERS.

Witnesses:

J. W. CRANSHAW,
SAM T. JEFFERSON.