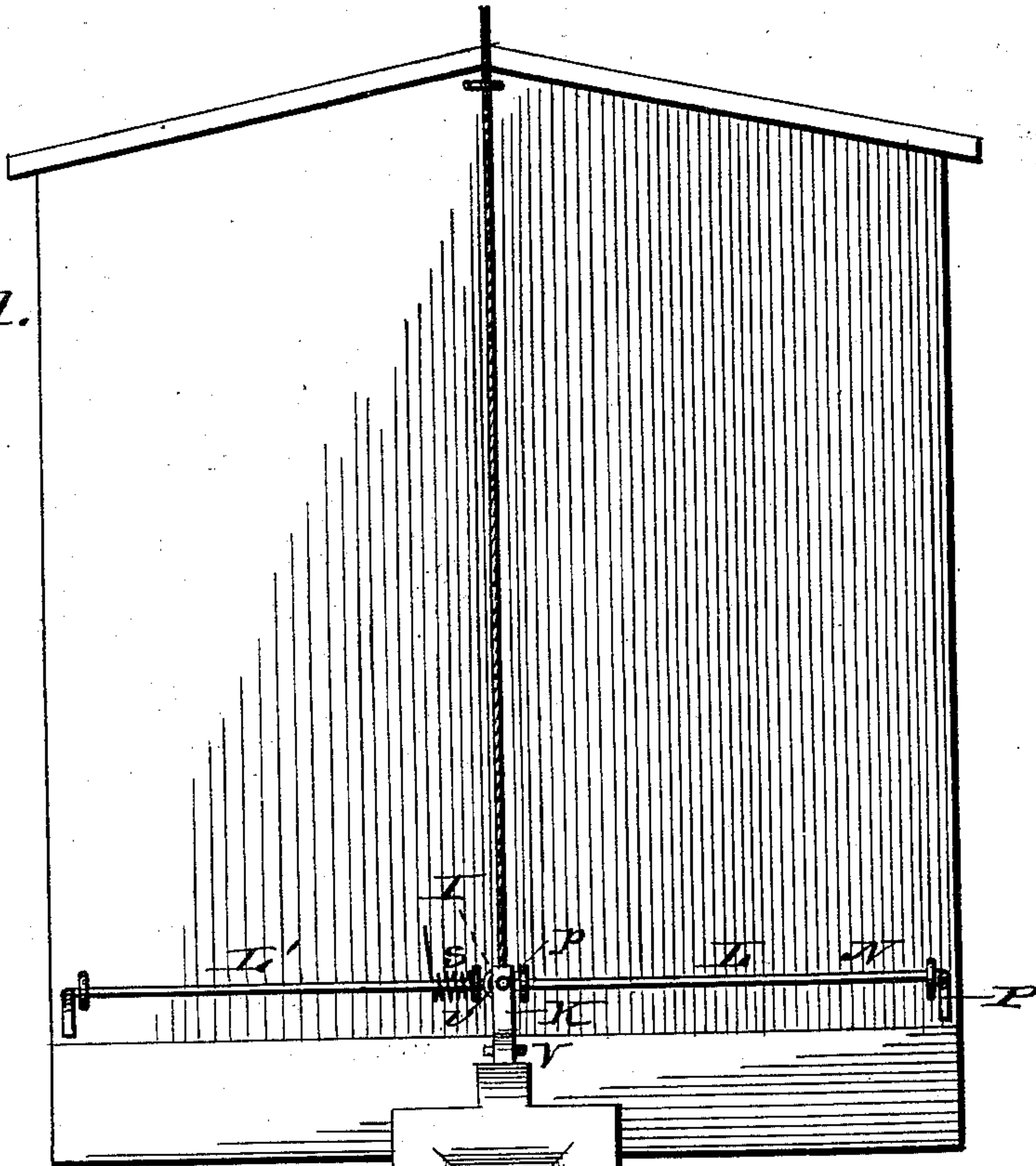


(No Model.)

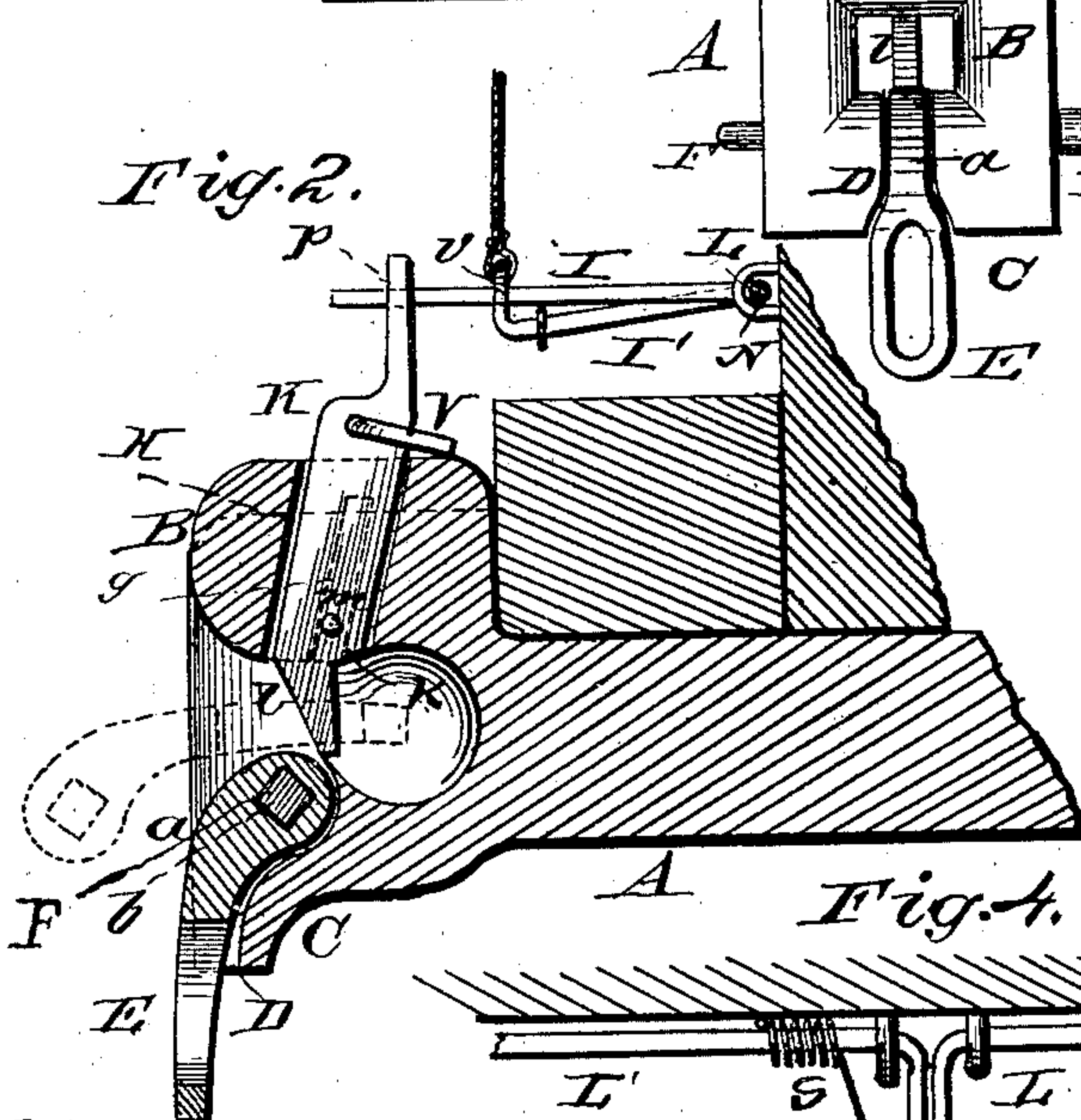
R. H. DOWLING.  
CAR COUPLING.

No. 281,983.

Patented July 24, 1883.



*Fig. 2.*



*Fig. 3.*

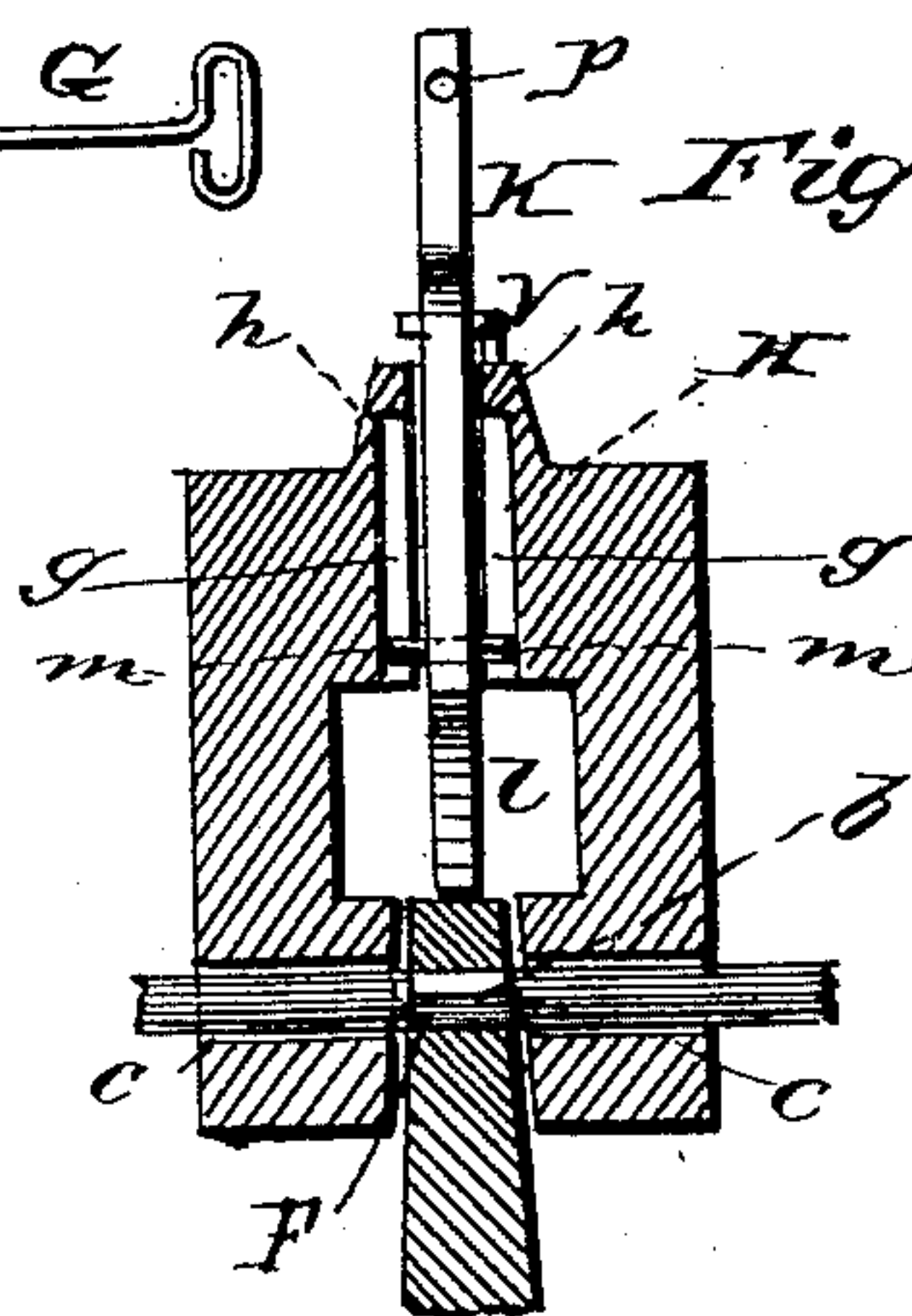
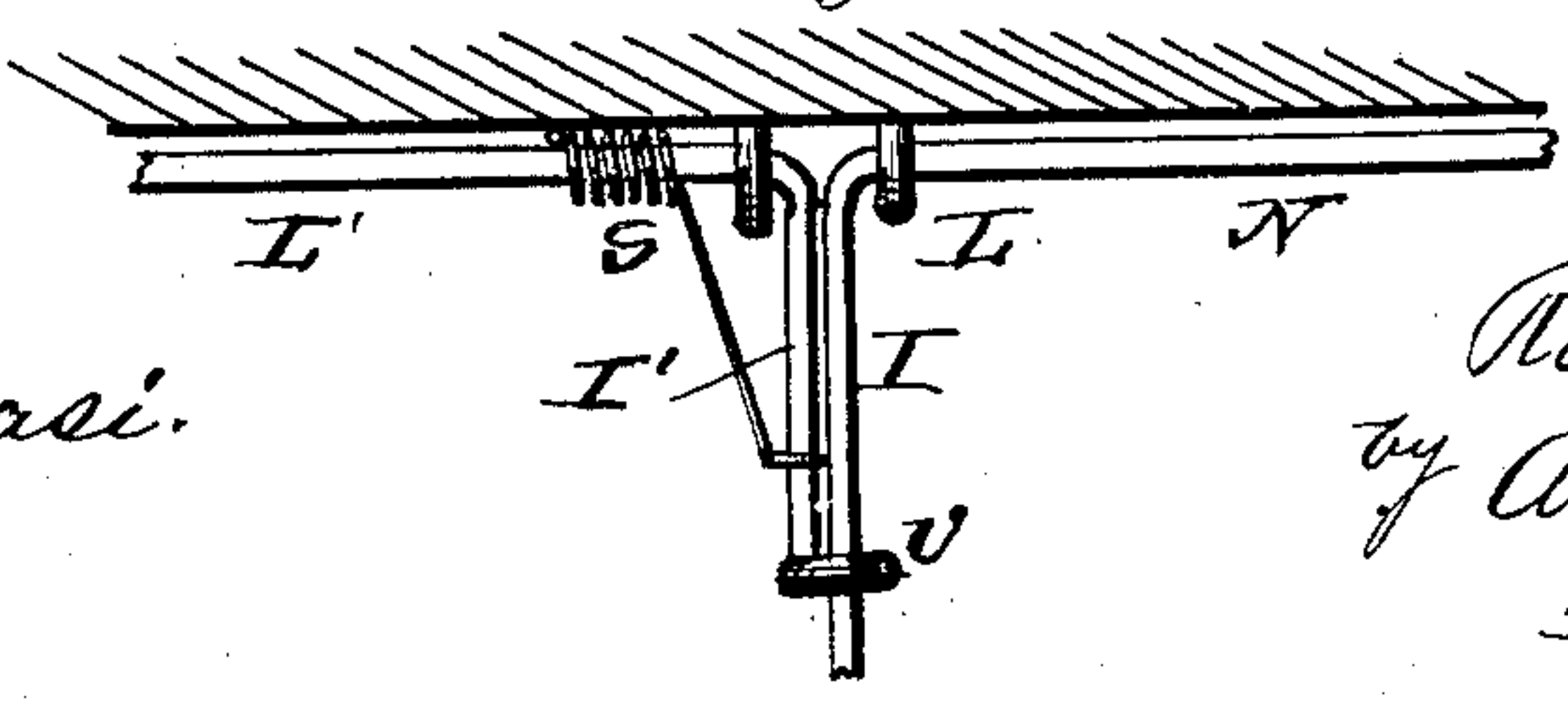


Fig. 4.



Witnesses:  
Philip Lemasi.  
E. H. Bates

Inventor:  
Robt. H. Dowling  
by Audison & Smith  
his Attorneys



# UNITED STATES PATENT OFFICE.

ROBERT H. DOWLING, OF NEWARK, OHIO, ASSIGNOR OF ONE-HALF TO  
CHARLES H. FOLLETT, OF SAME PLACE.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 281,983, dated July 24, 1883.

Application filed January 4, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, ROBERT H. DOWLING, a citizen of the United States, residing at Newark, in the county of Licking and State of Ohio, have invented certain new and useful Improvements in Car-Couplings; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a representation of a front view of my coupler. Fig. 2 is a vertical sectional view of the same. Fig. 3 is a vertical cross-sectional view, and Fig. 4 is a detail view.

This invention has relation to devices for coupling and uncoupling railway-cars; and it consists in the construction and novel arrangement of the oblique slide-pin and its stops, and in connection therewith a spring-lever having transverse arms extending to the sides of the car; the central notch-bearing in the lower lip of the mouth of the drawhead, and the curved link pivoted therein; and, in combination with the notched drawhead and curved link, the transverse pivot-pin having a square bearing for said curved link, and an operating-handle, all as hereinafter set forth.

In the accompanying drawings, the letter A designates the draw-bar, which is formed with a flaring mouth, B, in the lower lip, C, of which is made a notch seat or bearing, D, in the central portion thereof. In this notch-bearing is seated a coupling-link, E, which is formed with a curved extension or arm, *a*, which extends upward to the upper portion of the notch, and is provided with a square bearing, *b*, through which passes a transverse pivot-pin, F, which is squared at its central portion to fit said bearing. The ends or arms of the pin are rounded to form journals, which are seated in bearings *c* of the draw-head. The head of the pin is perforated at *d* to engage a loop, *e*, at the end of a handle-rod, G, which is designed to hang downward when not in use. This handle-rod is made long enough to extend

to the side of the car, or nearly thereto, so that it can be operated easily without going between the cars. The curved extension of the link lies entirely within the notch of the draw-head when it is not in use, and hangs pendent, so that it offers no obstruction to the entrance of the link of the draw-head of an approaching car. Extending from the cavity of the draw-head upward and rearward obliquely, but centrally, is a slideway, H, which is formed with lateral groove-bearings, *g*, having terminations or stops *h* below the upper end of the slideway. In the slideway is seated the oblique slide-pin K, which is laterally flattened, having its greatest breadth from front to rear, to provide great strength in the direction of strain. In rear, at the lower end of the slide-pin, a vertical bearing, *k*, is formed, which is designed to engage the coupling-link when introduced. The lower end of the slide-pin is beveled in front, as indicated at *l*, so that it will be automatically raised by the link when it enters the draw-head. The slide-pin is provided with lateral studs or pin-bearings *m*, which are designed to engage the groove-bearings *g* of the slideway, and serve to prevent the slide-pin from being forced upward out of its way or bearing. In the upper end of the slide-pin is formed a perforation, *p*, which extends from front to rear, and is designed to receive an arm, I, of the angle-lever L, whereof the transverse arm N extends to the side of the car, and is provided with a crank-arm, P. From the other side of the car extends a similar angle-lever, L', the arm I' of which is provided with a loop-bearing, *v*, which encircles the arm I of the lever first described. By operating either of these levers the slide-pin can be raised when it is desired to uncouple; and a chain or rod can be connected to either of these levers and extended to the top of the car, this being desirable on freight-cars. By means of a spring, S, the arms of the angle-levers are held in depressed position, except when raised by operating said levers by hand. A downward bearing is thus made on the slide-pin. A small swinging prop or pendent arm, V, is pivoted to the slide-pin, above the upper surface of the draw-head, and



when said slide-pin is raised to its full height above the draw-head this prop swinging downward engages the top of the draw-head and holds the slide-pin in raised position. In order to lower the slide-pin, it is then necessary to trip the swinging prop. The slide-pin then falls automatically. As the coupling link is pendent and out of the way when not in use, this draw-head and slide-pin will readily operate in connection with the common link of an ordinary draw-bar.

Having described this invention, what I claim, and desire to secure by Letters Patent, is—

15 1. The oblique slide-pin K, having the vertical rear bearing, *k*, and the under beveled front bearing, *l*, at its lower end, substantially as specified.

20 2. The combination, with the oblique slide-pin K, its studs and perforation *p*, of the slideway H in the draw-bar, having lateral groove-bearings *g*, and a spring-lever having transverse arms L' N, extending to the sides of the car, substantially as specified.

3. The oblique slide-pin K, having the vertical rear bearing, *k*, the under bevel front bearing, *l*, at its lower end, and the lateral studs *m*, in combination with the draw-head, having the oblique slideway H, provided with lateral grooves *g*, terminating in stops *h* at their upper ends, all adapted to operate substantially as specified.

4. The combination, with the draw-head having the notch-seat D and bearing *c*, of the curved link E, constructed substantially as described, with the upward extension *a*, the transverse pivot-pin F, having square central bearing for said link, and the pendent operating-handle, all adapted to operate substantially as and for the purpose specified.

In testimony whereof I affix my signature in presence of two witnesses.

ROBERT H. DOWLING.

Witnesses:

JAMES E. LAWHEAD,  
WM. W. PECK.