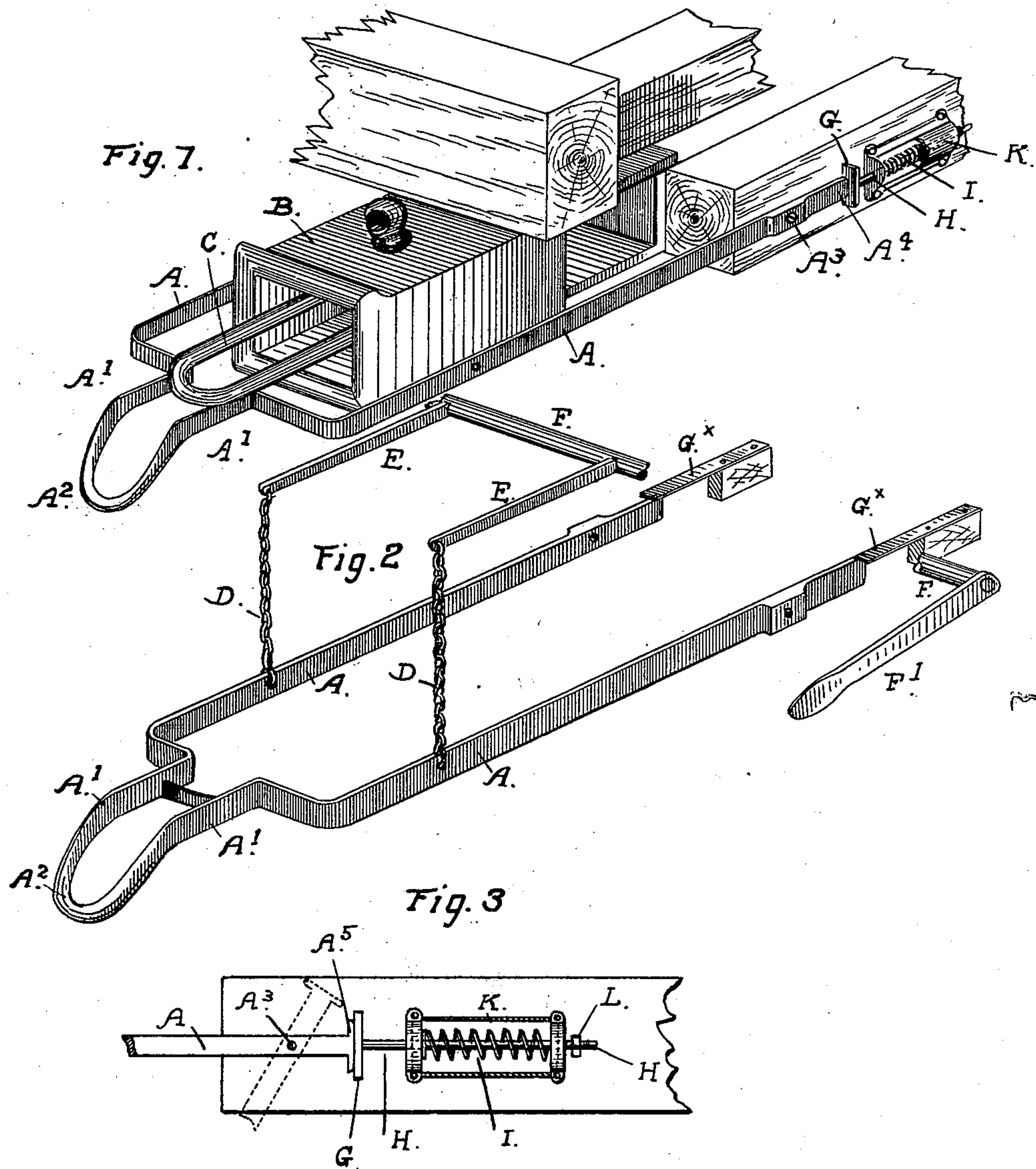


(No Model.)

V. PFAFF.
CAR COUPLING.

No. 560,326.

Patented May 19, 1896.



Witnesses:

M. Regner

Marcus S. Levi

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UNITED STATES PATENT OFFICE.

VALENTINE PFAFF, OF SAN FRANCISCO, CALIFORNIA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 560,326, dated May 19, 1896.

Application filed December 12, 1895. Serial No. 571,912. (No model.)

To all whom it may concern:

Be it known that I, VALENTINE PFAFF, a subject of the Emperor of Germany, residing in the city and county of San Francisco, State of California, have invented certain new and useful Improvements in Automatic Link-Lifters for Draw-Heads of Railway-Cars, of which the following is a specification.

My invention relates especially to that class of devices for which Letters Patent of the United States were granted to me July 9, 1895, No. 542,597; subject, car-coupling.

The object of my present invention is to provide for a more positive and certain action of the link-holder; and it consists in a rectangular frame composed of flat iron, instead of iron rods, as in my former invention, pivoted to the woodwork of the car back of the draw-head, the ends of the two arms of the frame terminating in flat plates, which engage with like plates connected to rods or pistons of helical springs arranged so as to admit of the rectangular frame being forced downward when the draw-head of an opposed car strikes it. Combined with these parts is a means for raising the frame to position again, consisting of a shaft pivoted across the front end of the car above the draw-head and provided with outwardly-extending arms, and chains connecting the said arms with the frame, all of which, together with the details of construction and operation, is hereinafter more fully described, reference being had to the annexed drawings, that form part of this specification.

In the said drawings, Figure 1 is a perspective view of my said improvements applied for operation to a pin-and-link coupling. Fig. 2 is a view in perspective of the parts, showing flat springs at the ends of the arms of the frame, as in my former invention, and the crank and chain connections for raising the frame. Fig. 3 is a side view of the piston and helical spring with portions of the link-holder, the position of the parts when the frame is forced down being shown in dotted lines.

The link-lifter or frame is composed of a flat rectangular bar set on edge and bent into shape to produce a loop A', curved and

rounded at the front, as at A², and two arms A A. The said arms are pivoted to the wooden timbers of the car-body at A³, and the rear end A⁴ of each arm is formed with a head A⁵. Both arms extend forward along the sides of the draw-head B, holding the loop A' in front of the throat or opening for the link. At this loop a cross-bar A⁵ joins together the two side bars. This part also acts to center or direct the coupling-link into the opposite draw-head.

The chains D D connect the arms A A with the arms E E of the rock-shaft or rod which is set across the front of the car, and is provided with a hand-lever F' on each end for working it. When the bumper or draw-head of the opposed car strikes the bent loop A², it bears down the frame A out of the way and permits the link to enter the draw-head with ease and surety without requiring to be guided by the hand. During this action the plate on the end of the arm will slip from the plate G on the end of the piston H and assume the position shown in Fig. 3. When the parts are in the position shown in Fig. 1, the heads A⁵ on the ends of the arms are brought against the plates G on the ends of the pistons, which are held by the spiral springs I in the casings K with sufficient pressure to hold the frame A A in a true horizontal position.

The piston H and helical spring I are inclosed by the casing K, and this casing is screwed or bolted to the woodwork at each side of the car-frame, as shown in Fig. 1.

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

The combination with the herein-described link-lifter pivotally connecting with the car-frame and provided with heads on the rear ends, of a piston having a corresponding head on the end and a surrounding helical spring incased and fixed to the frame-timbers of the car, substantially as and for the purpose specified.

In testimony that I claim the foregoing I have hereunto set my hand and seal.

VALENTINE PFAFF. [L. S.]

Witnesses:

C. W. M. SMITH,
CHAS. E. KELLY.