

(No Model.)

S. A. ALEXANDER.

CAR COUPLING.

No. 369,382.

Patented Sept. 6, 1887.

FIG. 3.

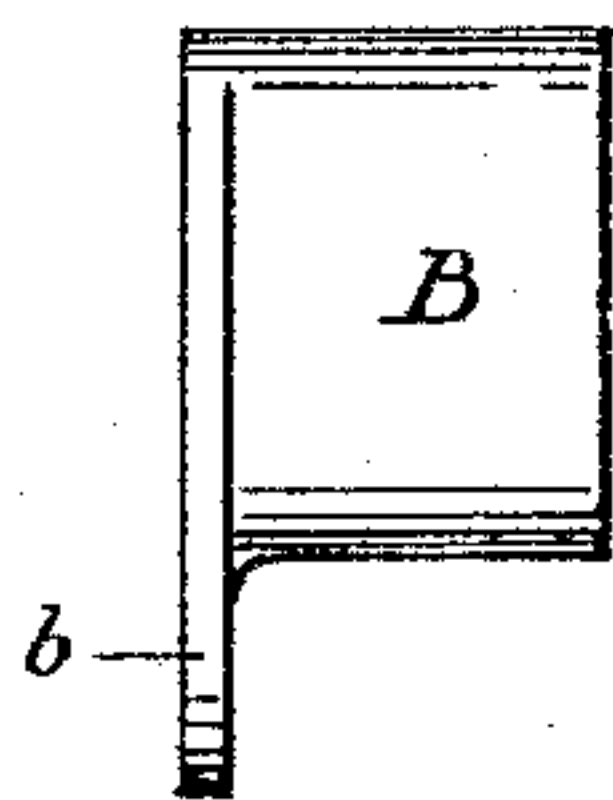


FIG. 4.

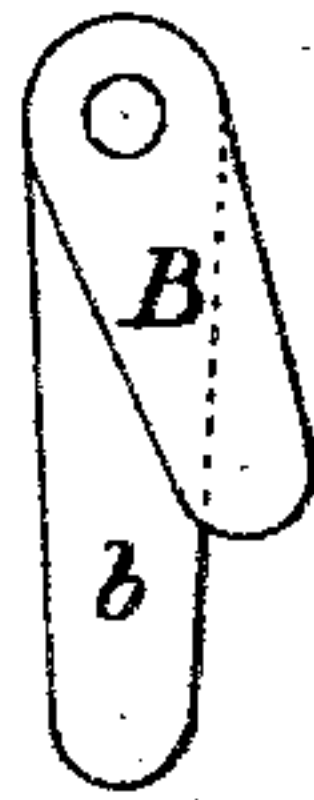


FIG. 1.

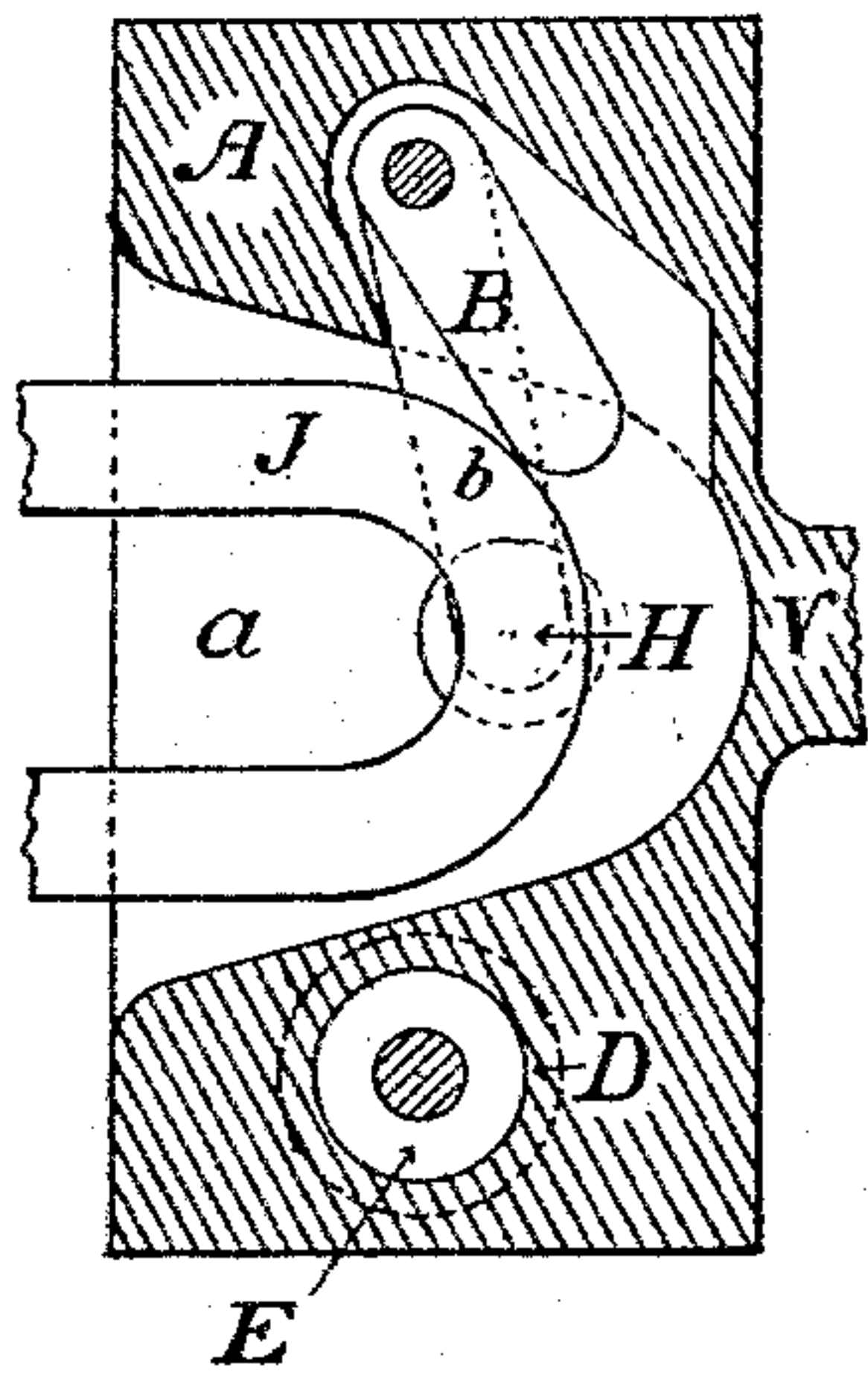
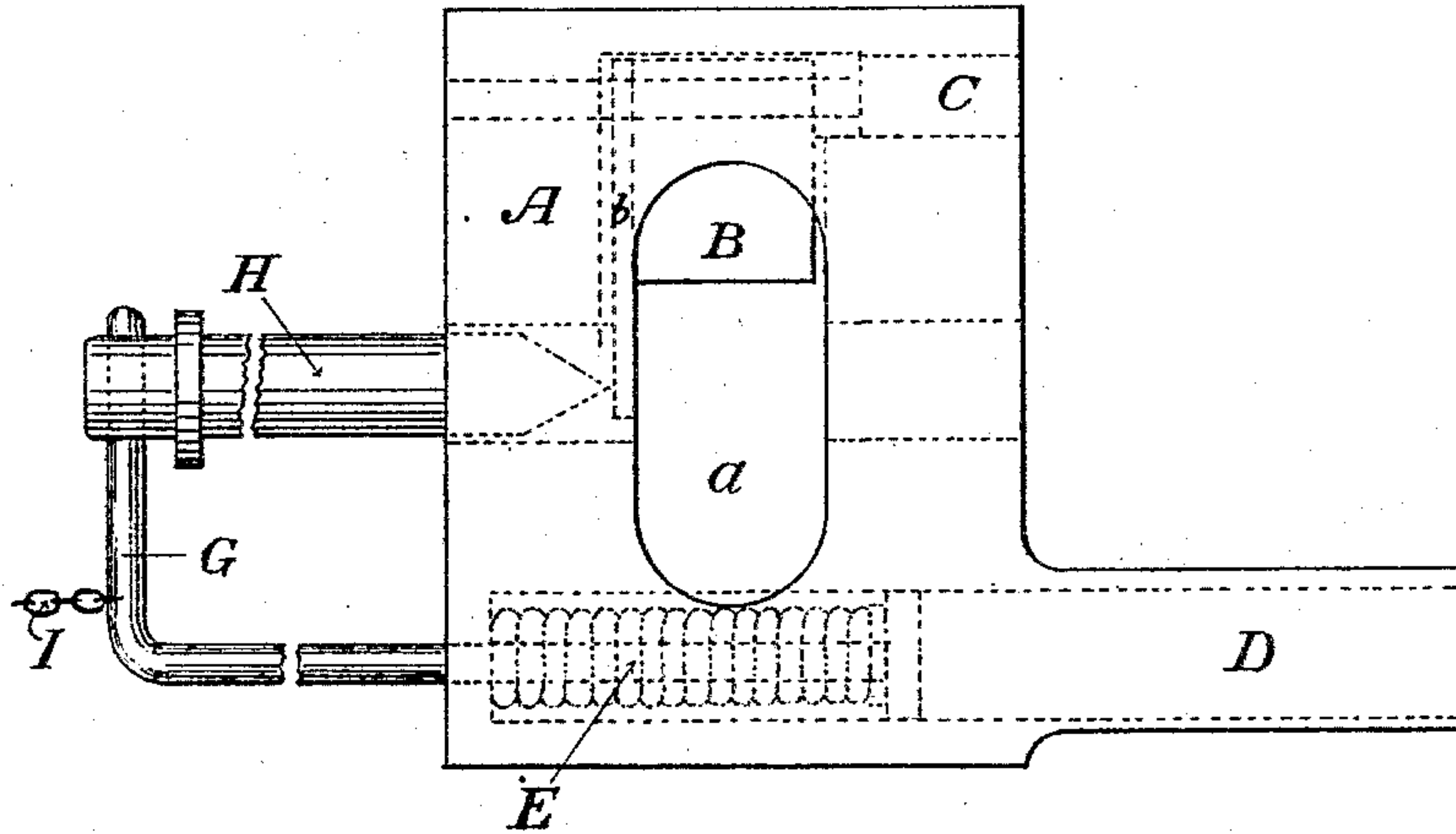


FIG. 2.



Witnesses:

John B. Rosser,
Edward Leber.

Inventor.

Solomon A. Alexander.

UNITED STATES PATENT OFFICE.

SOLOMON A. ALEXANDER, OF YORK, PENNSYLVANIA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 369,382, dated September 6, 1887.

Application filed May 26, 1887. Serial No. 239,414. (No model.)

To all whom it may concern:

Be it known that I, SOLOMON A. ALEXANDER, a citizen of the United States, residing at York, in the county of York and State of Pennsylvania, have invented a new and useful Car-Coupling, (for which I have not obtained a patent in any country,) of which the following is a specification.

My invention relates to improvements in car-couplings in which a recess in the draw-head of a car is arranged to receive a coupling-link vertically, in combination with a coupling-pin automatically actuated horizontally by a spring, and wherein a latch or cam is made to retain the said pin, or, when pressed by a link, to release it; and the objects of my improvements are, first, to place the actuating-spring, with its chamber, in such a safe position that they will not be liable to damage by coming in contact with parts of a preceding or a following car, and, second, to make the draw-head compact, leaving the contiguous parts of the car easily accessible for renewal or repairs. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a vertical section of my draw-head. Fig. 2 is an end view as it appears looking at the end of the car. Fig. 3 is a side elevation of a cam which retains or releases a coupling-pin, as may be desired. Fig. 4 is an edge view of the same.

Similar letters refer to similar parts throughout these views, in which—

A is a draw-head recess, in which *a* is arranged to receive any coupling-link in a vertical position. The broken part V may be attached to any draw-bar as a permanent or as an auxiliary draw-head, and as this feature forms no part of my invention it is omitted.

B is a cam with a projection, *b*, on one side, the projection being at a different angle from the cam itself. The cam is perforated to receive the pin C, on which it can vibrate, and which also secures it to the draw-head.

D is a chamber in the lower part of the draw-head, inclosing a spiral spring, E, which spring incloses a spindle having a collar at one end for the spring to press. An arm, G, is secured at the other end of this spindle. The other end of the arm is arranged to receive a coupling-pin, H, in a horizontal position. A chain, I, is attached to the end of the spindle. The other end of the chain is led to the side of the car.

J is a coupling-link. By drawing the chain I the pin H is partly drawn out of the draw-head, releasing the link J. At the same time the cam B drops by gravity, so that the extended part *b* prevents the pin H from returning to its coupling position.

In coupling a car the link J enters the recess *a* and, pressing the cam B, releases the pin H, which, being actuated by the spring E, forces the pin through the link J, thus allowing cars to be coupled.

I am aware that prior to my invention draw-heads were arranged to receive coupling-links vertically, and that coupling-pins were actuated horizontally by springs, and that said pins were retained and released by gravity latches or cams placed within draw-heads. I therefore do not claim these features, broadly; but

What I do claim as my invention, and desire to secure by Letters Patent, is—

1. The combination, with the draw-head A, of the spring-chamber D in the lower part of the same, adapted to receive the spring E, and the spindle G, constructed and arranged substantially as described and shown.

2. The combination, with the draw-head A, of the spindle G, the spring E, the horizontal pin H, the cam B *b*, and the vertical link J, all constructed, arranged, and operating substantially as described and shown.

SOLOMON A. ALEXANDER.

Witnesses:

JONOTHAN JESSOP,
WM. BEITZEL.