

(No Model.)

C. A. AKERLY & D. T. EASTON.

CAR COUPLING.

No. 316,103.

Patented Apr. 21, 1885.

Fig. 1

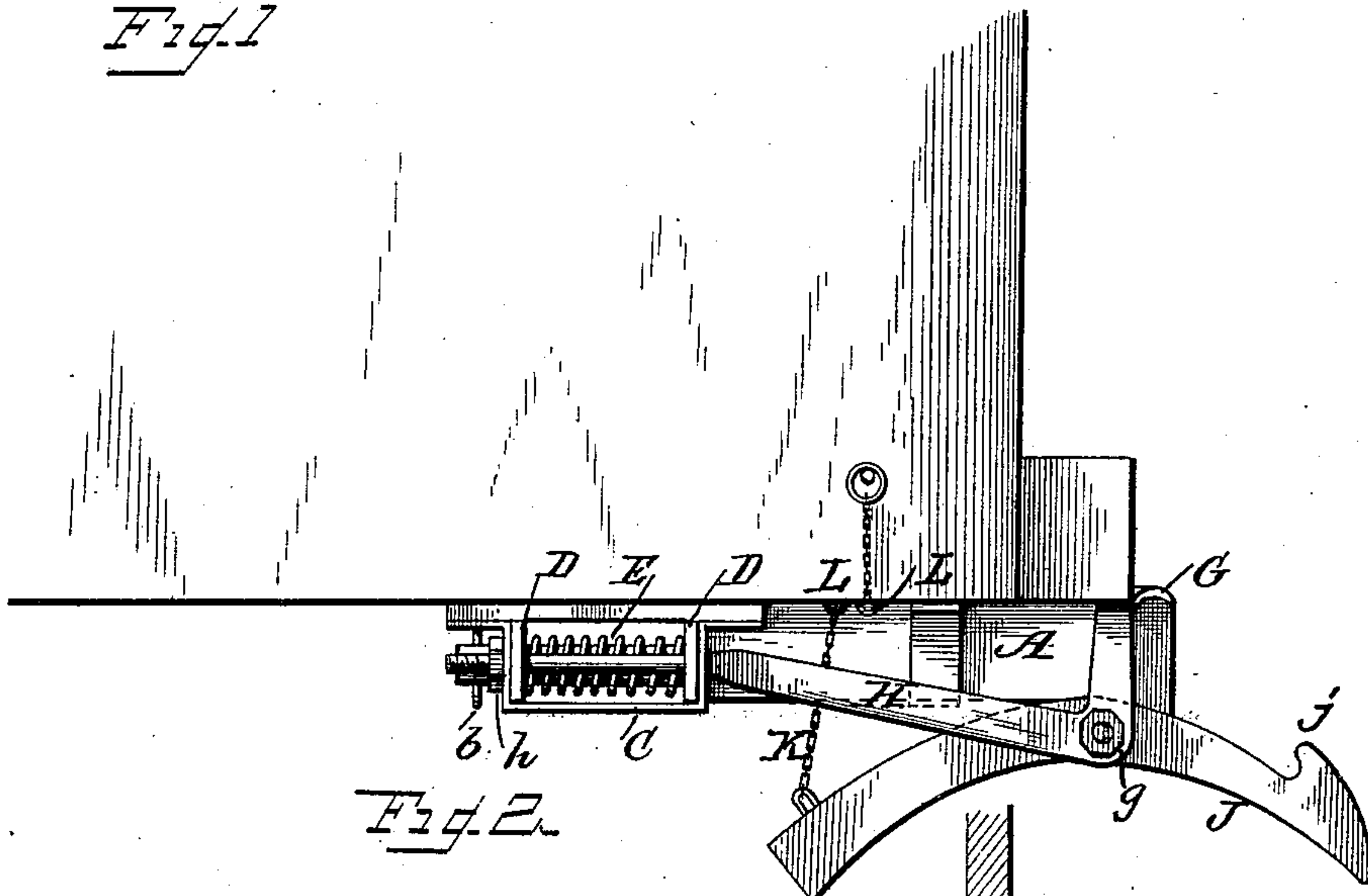


Fig. 2

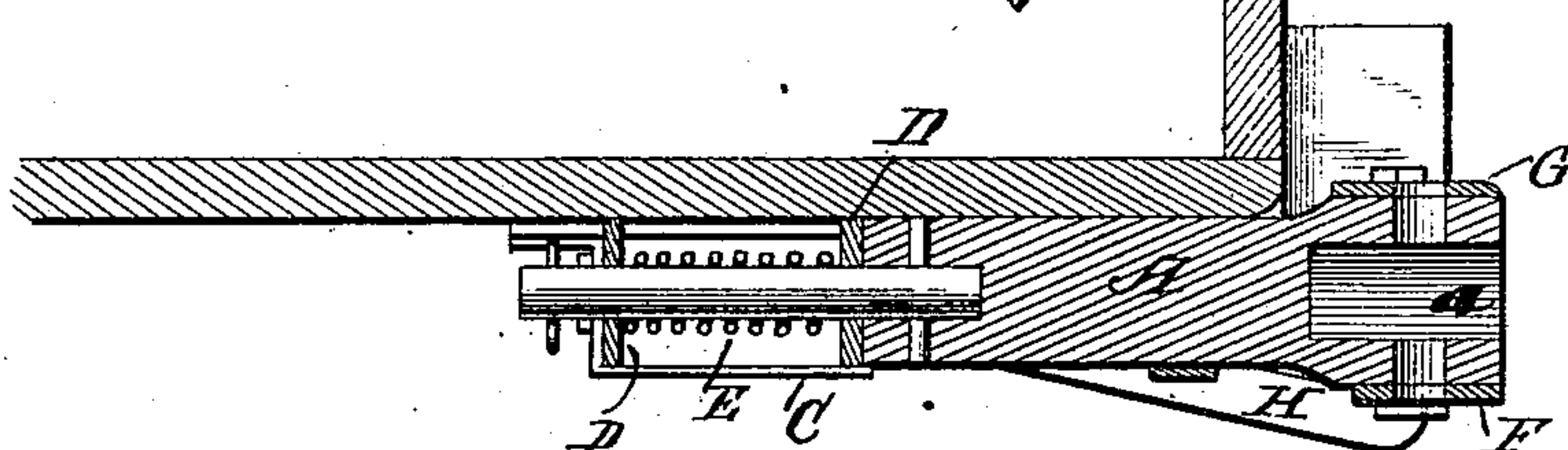
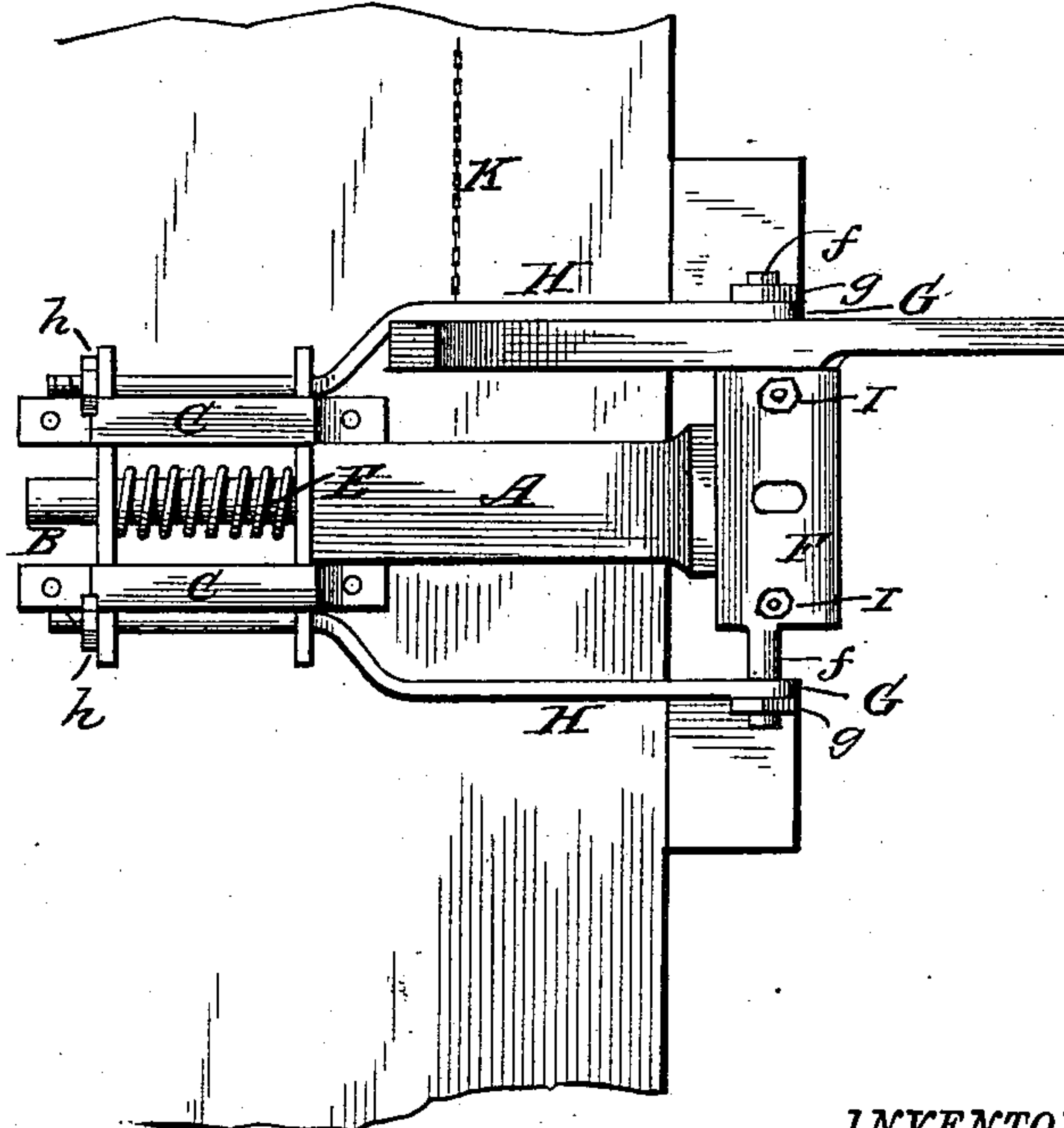


Fig. 3



WITNESSES

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CHARLES A. AKERLY AND DAVID T. EASTON, OF OWEGO, NEW YORK.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 316,103, dated April 21, 1885.

Application filed February 10, 1885. (No model.)

To all whom it may concern:

Be it known that we, CHARLES A. AKERLY and DAVID T. EASTON, citizens of the United States, residing at Owego, in the county of Tioga and State of New York, have invented a certain new and useful Improvement in Car-Couplings; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

This invention relates to car-couplers, and aims to provide a coupler in the operation of which it will not be necessary at any time for the user to go between the cars. It also aims to so construct the improvement and combine the same with an open-mouth draw-head that the coupling may be used with another car provided with similar improvements or with a car provided only with the common link-coupling.

The invention consists in certain novel constructions and combinations of parts, arranged and operating substantially as hereinafter described and claimed.

In the drawings, Figure 1 is a side view; Fig. 2, a vertical and longitudinal section, and Fig. 3 a bottom plan view of a section of a car provided with our improvements.

In carrying out the invention it is preferred to employ a draw-head, A, having in its outer end the usual mouth or mortise, *a*, and provided with the pin-openings, as shown most clearly in Fig. 2. This draw-head is formed or provided at its rear end with a shank or stem, B. On opposite sides of this shank are secured the retaining-loops or keepers C C. Within these keepers are arranged the follower-plates D D, each of which has an opening fitted to and slipped over the shank B. The shank is held from movement forward through the rear plate D by a pin, *b*, and from movement back through the front plate by the shoulder where the shank joins the body of the draw-head. On the shank, between the follower-plates, we arrange a coil-spring, E, by which to give the draw-head the desired yielding movement in either direction to compensate for the shocks frequently experienced in starting and coupling cars. The respective follower-plates, it will be seen,

move forward or back with the motions of the draw-head. It will be noticed that the ends of the follower-plates are extended laterally beyond the loops or keepers.

On the under side of and transversely to the draw-head, at its forward end, we secure the bottom plate, F, having its ends formed with bearing-arms *ff*. The top plate, G, is secured on the draw-head above the bottom plate, and has its ends bent downward and secured to the outer ends of the bearing-arms, usually by nuts *g g*, as shown. From this point the top plate bends to the rear, forming the side bars, H H, which extend back through the lateral extensions of the follower-plates, and are secured in rear of the latter, usually by nuts *h*. These side bars serve to brace and give steadiness to the entire arrangement of the draw-head, follower-plates, &c. Bolts I I connect the top and bottom plates at points close to the opposite sides of the draw-head and slightly in from the juncture of the bearing-arms with the body of the bottom plate. By these bolts the top and bottom plates are secured firmly to the draw-head, and they, together with such top and bottom plates, form a clamp by which to readily attach our improvement to any of the ordinary draw-heads. It will be noticed that the top and bottom plates have openings coinciding with the pin-openings through the draw-head. The coupling-bar J is pivoted between its ends on one of the bearing-arms *f*, and is provided or formed at its forward end with a hook, *j*, facing upward, as shown most clearly in Fig. 1. In the arrangement shown, this bar J is on the right arm *f*, so its hook will engage the left arm of an approaching coupling. If the approaching car be not supplied with the coupling of the form shown, it may be coupled to the draw-head by the common link and pin. The rear end of the draw-bar is the heavier, and operates at all times to hold the hook *j* up in proper arrangement to engage an approaching coupling and to retain it in couple when the cars are joined.

In order to conveniently uncouple the bar J, we provide the chain or cord K, which is secured at one end to the rear end of the coupling-bar, and extends thence upward and outward through guides L to the side of the car.

By this chain the rear end of the coupling-bar may be raised, and its hook consequently disengaged from the arm of the adjacent coupling.

5 Having thus described our invention, what we claim, and desire to secure by Letters Patent, is—

1. In a car-coupling, a clamp adapted to be applied to the draw-head and consisting of a
10 bottom plate provided at its opposite ends with bearing-arms, the top plate having its ends bent down and secured to the outer ends of the said arms, and bolts connecting the top and bottom plates at points slightly in from
15 the juncture of the bearing-arms with the body of the bottom plate, substantially as set forth.

2. The combination of the retaining-loops or keepers, the follower-plates held between
20 said keepers and extended laterally beyond the same, the draw-head having at its rear end a shank or stem extended between the keepers and through the follower-plates, a spring on said shank, the bearing-arms extend-
25 ed laterally from the forward end of the draw-head, the coupling-bar pivoted on one of said arms, the side bars connected at their forward ends to the bearing-arms and extended rearwardly through the lateral extension of the
30 follower-plates and secured, substantially as set forth.

3. The improved car-coupling herein described, consisting of the draw-head having at its rear end a shank or stem, retaining-loops or keepers located on opposite sides of such
35 shank, follower-plates placed on the shank within the keepers and extended laterally beyond the same, the spring placed on the shank between the follower-plates, the base-plate secured to the under side of the draw-head near
40 its forward end and provided with bearing-arms, the top plate secured on the draw-head and having its ends bent down and secured to the ends of the bearing-arms and extended thence rearwardly through the follower-plates,
45 the coupling-hook pivoted between its ends on one of the bearing-arms, having its forward end provided with an upwardly-facing hook and its rear end made the heavier, and a cord or chain secured at one end to the rear end of
50 the coupling-bar and extended thence upward and outward through suitable guides to the side of the car, substantially as set forth.

In testimony that we claim the above we have hereunto subscribed our names in the
55 presence of two witnesses.

CHARLES A. AKERLY.
DAVID T. EASTON.

Witnesses:

M. HALL,
C. B. HUBBARD.