

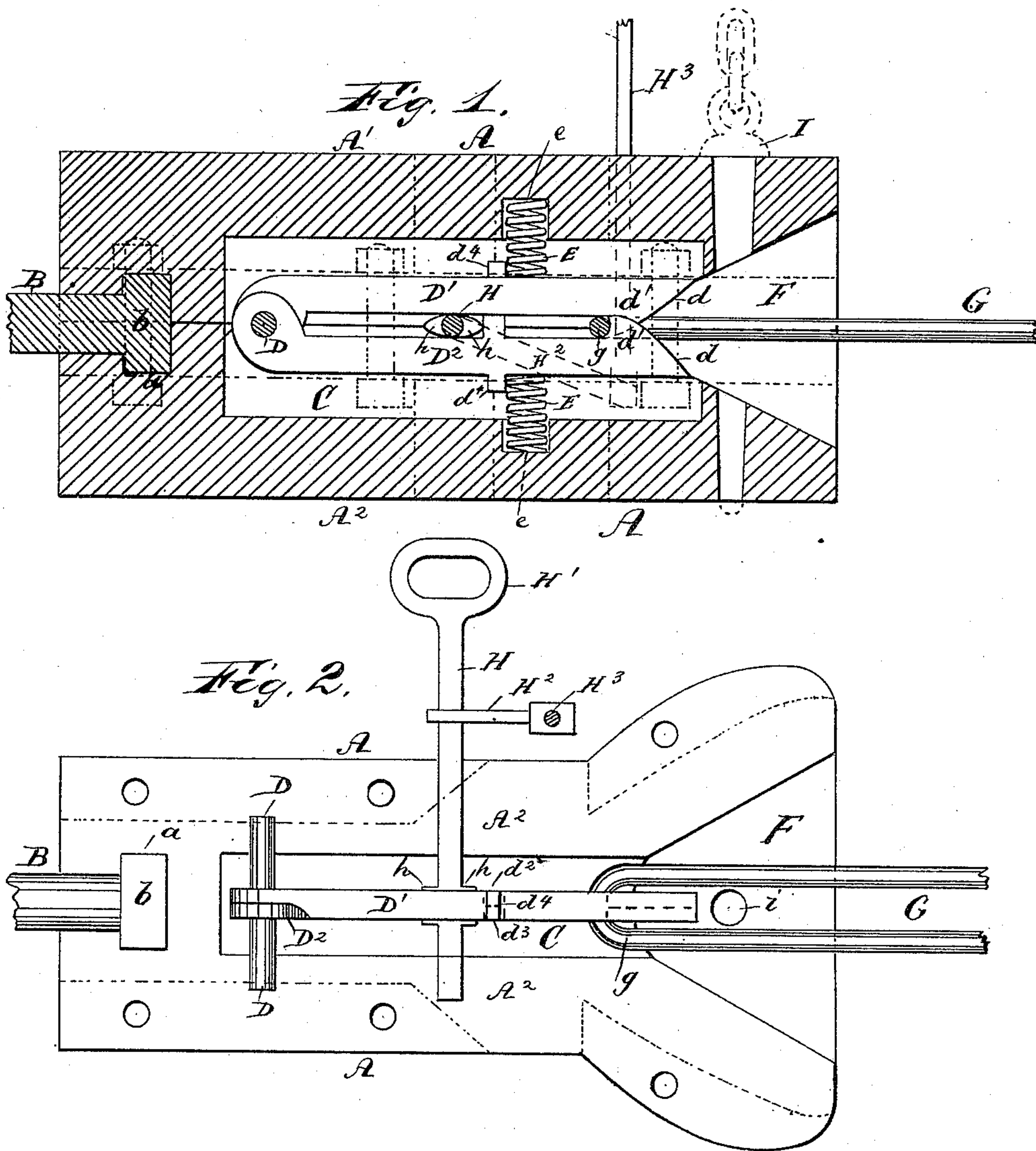
(No Model.)

A. W. AVERY.

CAR COUPLING.

No. 283,743.

Patented Aug. 28, 1883.



WITNESSES:

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UNITED STATES PATENT OFFICE.

ASHER W. AVERY, OF VERNDALE, MINNESOTA, ASSIGNOR OF ONE-HALF TO
ENOCH L. INGALLS, OF SAME PLACE.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 283,743, dated August 28, 1883.

Application filed September 30, 1882. (No model.)

To all whom it may concern:

Be it known that I, ASHER W. AVERY, a citizen of the United States, residing at Verndale, in the county of Wadena and State of Minnesota, have invented certain new and useful Improvements in Automatic Car-Couplers, of which the following is a specification.

My invention relates to improvements in what are commonly known in the trade as "automatic car-couplers" for railroad rolling-stock, the nature of which will be fully explained in the following specification and the drawings annexed, which form part of the same.

Referring to the drawings, Figure 1 is a vertical central section of my improved automatic car-coupler. Fig. 2 is a plan view of the lower half of the car-coupler, showing the working parts.

In each of the views similar letters of reference are employed to indicate corresponding parts wherever they occur.

A represents the bumper-head, and B the draw-bar, which is shown formed with a head, *b*, setting into a seat, *a*, formed equally in each half *A' A'* of the bumper-head A. The two halves *A' A'* of the bumper-head are each formed with flanges *A³ A³*, perforated with holes *a'* for the passage of screw-bolts.

In the center of the bumper-head A is a cavity, C, formed equally in each half *A' A'*. In the rear of this cavity is pivoted a cross-bar, D, to which is hinged a pair of levers, *D' D'*, each of which is borne against by means of spiral or other suitable springs, E E, one end of each of which sits in a suitably-formed seat, *e*, in its respective half of the bumper-head A, while its opposite end rests against one of the pair of levers *D' D'*.

F is a bell-shaped mouth formed in the front of the bumper-head A, adapted to guide the coupling-link G, which is held in a correspondingly-formed or other suitably-constructed bumper-head, A, of an adjoining car. When it is desired to couple a pair of cars together, a link, G, is inserted into the bumper-head of one car, and it will be there held until the two cars come together, when the end of the link G which is free will, when the cars come together, slide up the inclined surface of the bell-shaped mouth F of the bumper-head A of the adjoining car, when it will come against the forward inclined ends, *d*, of the levers *D'*

D, and cause the same to open. It will then be further pushed in, and its loop *g* will fall behind the claws or hooks *d'*, formed on the levers *D' D'*, which will immediately close and retain the link.

The levers *D' D'* are prevented from coming close together by means of stops *d² d³*, formed on each lever *D' D'*, and which work side by side. The levers *D' D'* are also prevented from rising too far by means of similar stops, *d⁴ d⁴*, which come against the upper and lower surfaces, respectively, of the cavity C when necessary. When a link, G, has coupled a pair of cars for the desired time, and it is necessary to disconnect the cars, it is simply necessary to turn the shaft H, by means of the handle *H'*, from the side of the car in the case of a platform-car, or by means of the lever *H²* and vertical rod *H³*, leading to the roof in the case of a freight-car, when the lugs *h h* on the shaft H will immediately cause the levers *D' D'* to be separated, and the link G will be free to be drawn out by the adjoining car in which it is held, or otherwise.

The dotted lines I in Fig. 1 represent an ordinary coupling-pin, which is capable of being employed in the hole *i* when a link held by a common or other form of bumper-head is presented for coupling, and such link is not capable of being grasped by the claws or hooks *d'*.

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

1. The combination, with the bumper A, formed in two pieces, *A' A'*, and with a bell-shaped mouth, F, of the levers *D' D'*, provided with stops *d² d³ d⁴ d⁴*, the cross-bar D, springs E E, and link G, all being arranged to operate substantially as shown and described.

2. The bumper A, formed in two parts, *A' A'*, each of which is constructed with a flange, *A³ A⁴*, in combination with the levers *D' D'*, hinged to a cross-bar, D, which is pivoted within the bumper, said levers being provided with stops *d² d³ d⁴ d⁴*, substantially as shown and described.

In witness whereof I have hereunto set my hand this 25th day of August, 1882.

ASHER W. AVERY.

Witnesses:

I. H. BRADFORD,
S. L. FRAZIER.