

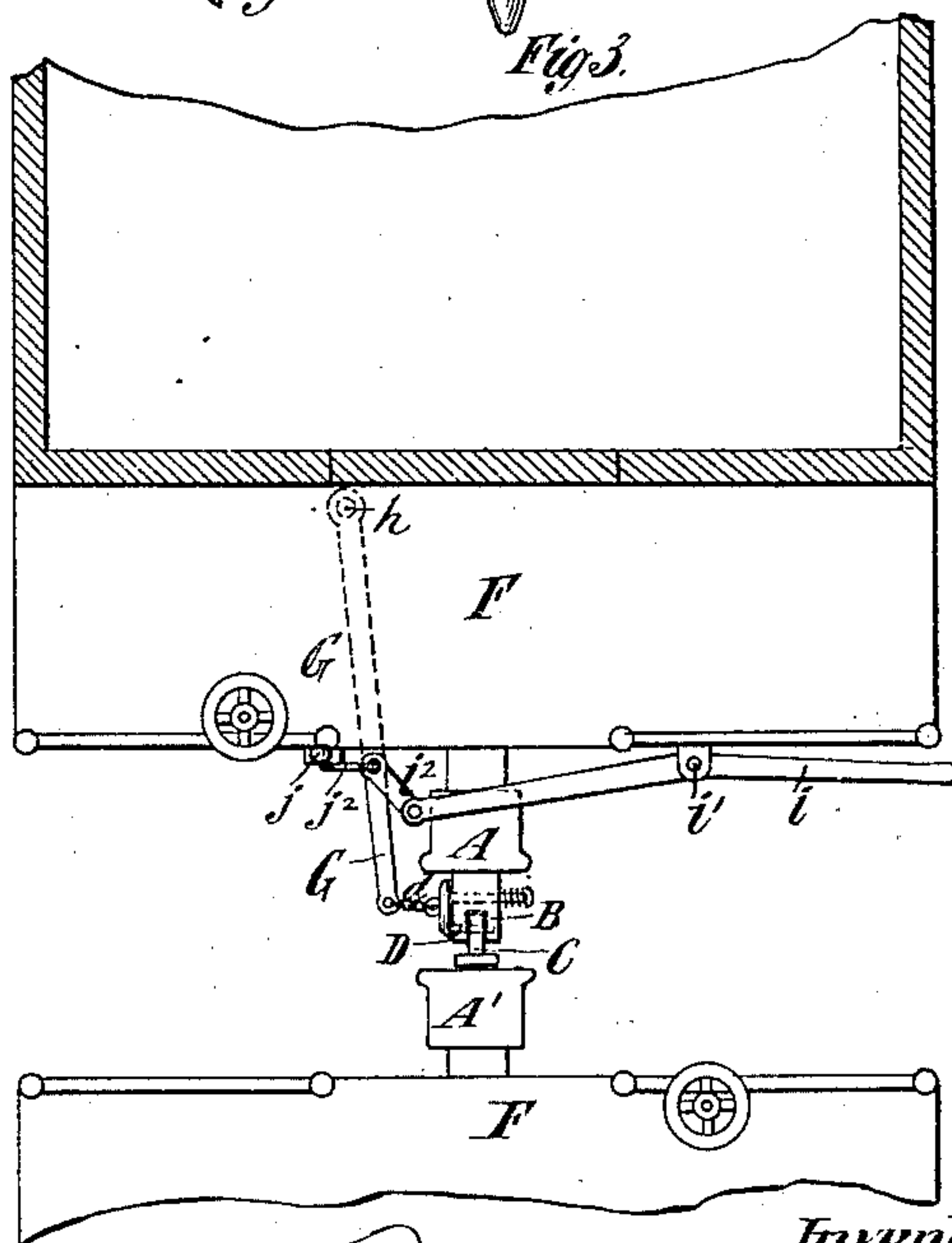
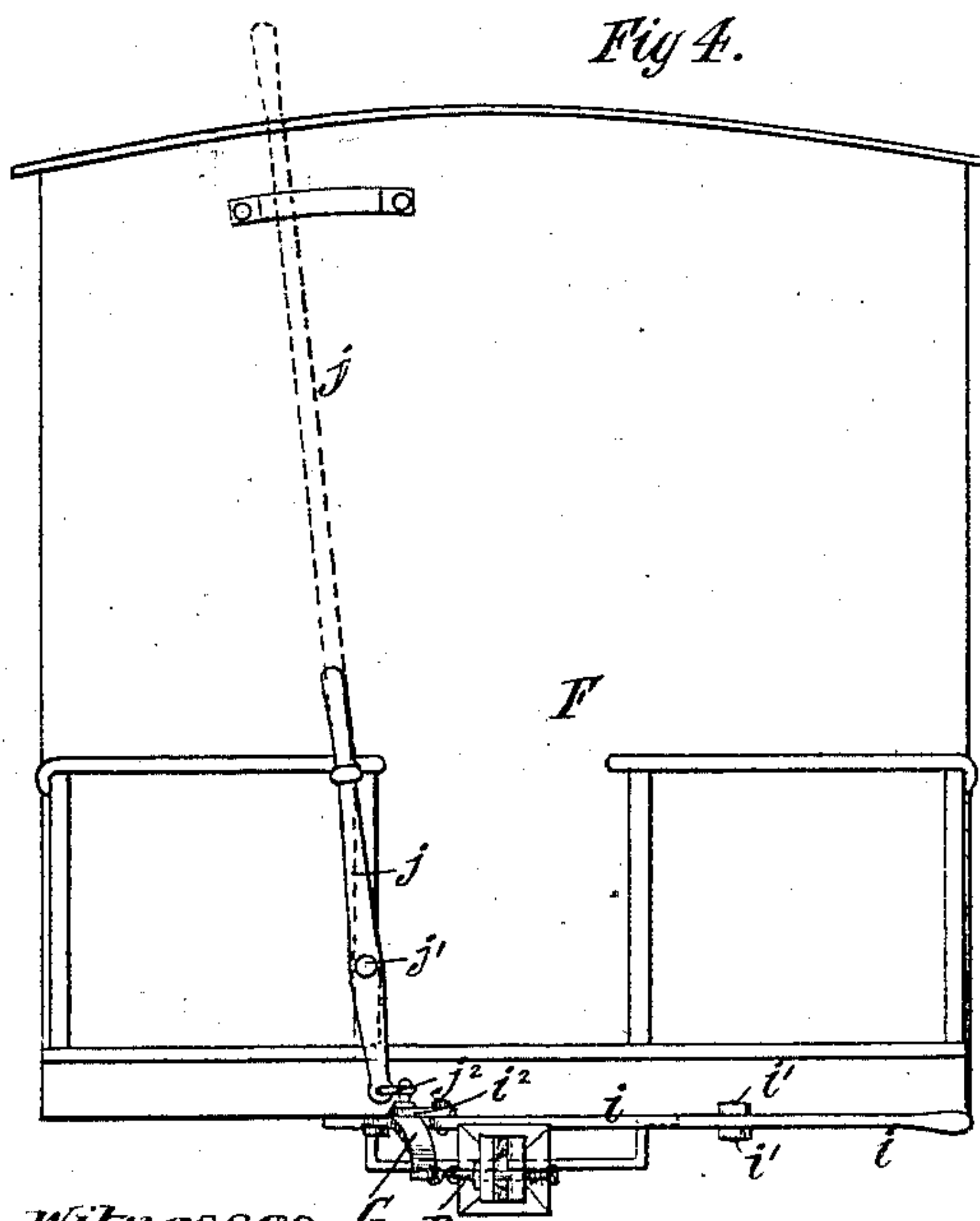
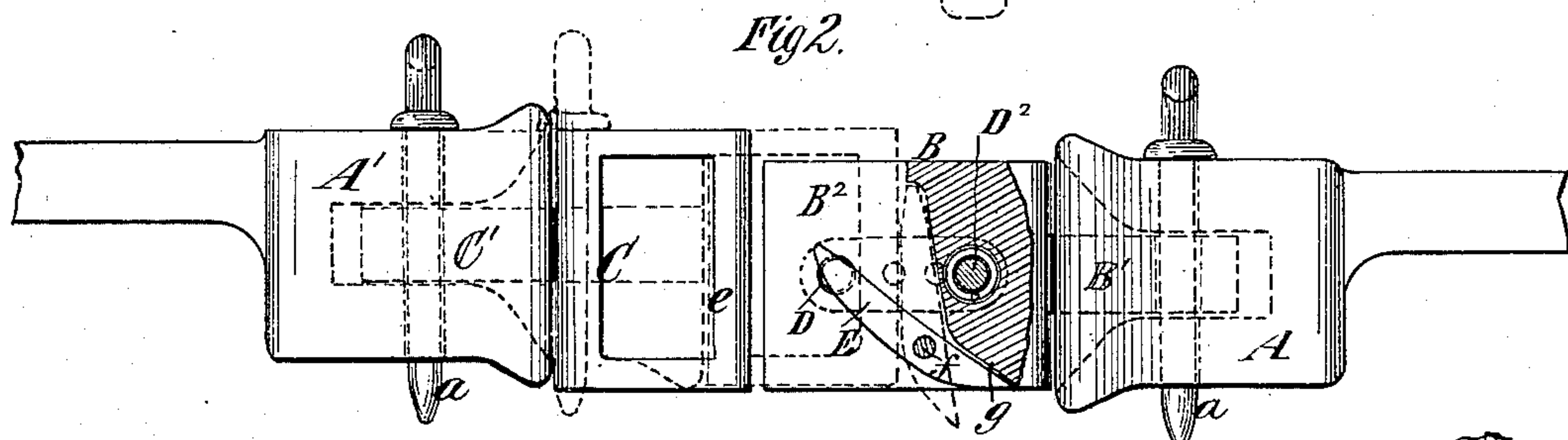
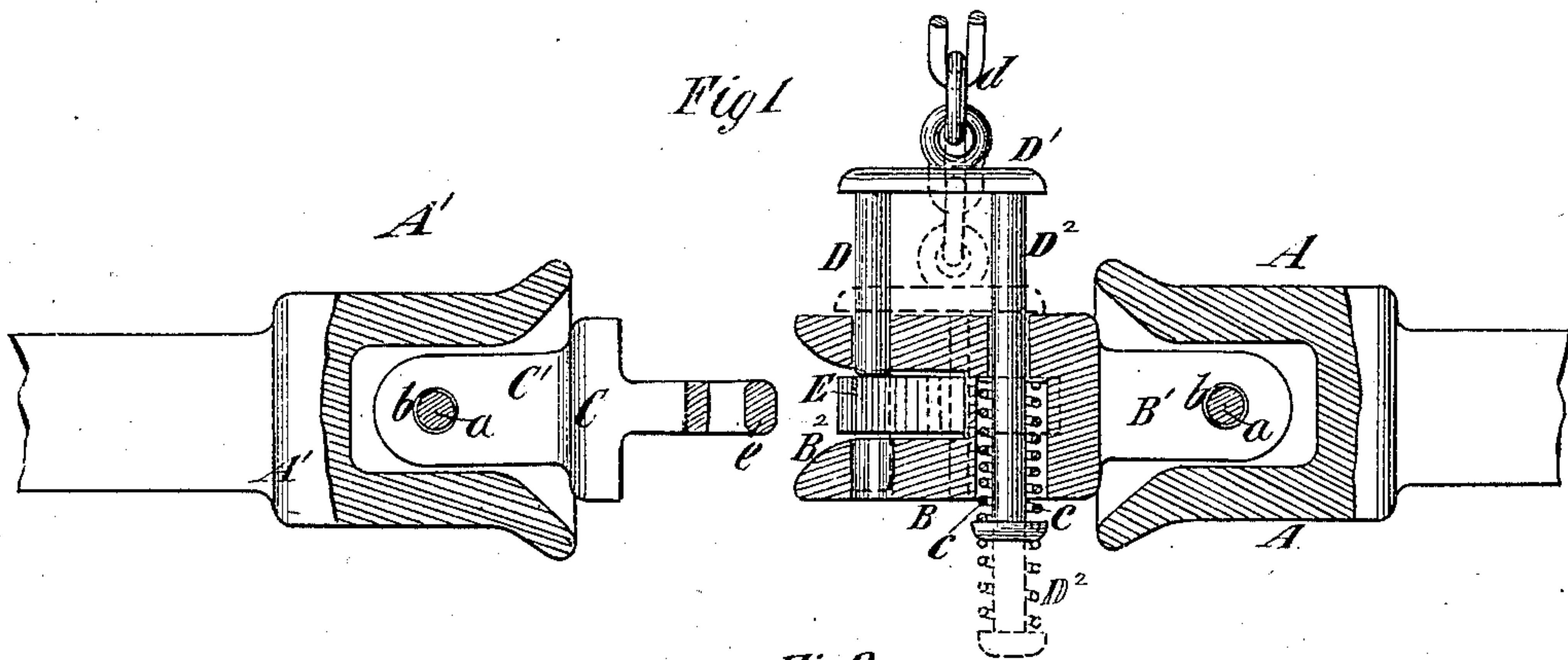
(No Model.)

D. T. HUBBELL.

CAR COUPLING.

No. 257,011.

Patented Apr. 25, 1882.



Witnesses
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DAVID T. HUBBELL, OF BETHEL, CONNECTICUT.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 257,011, dated April 25, 1882.

Application filed January 14, 1882. (No model.)

To all whom it may concern:

Be it known that I, DAVID T. HUBBELL, of Bethel, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Car-Couplings, of which the following is a specification.

The cars in use on different lines vary so much in the height of their draw-bars above the rails that difficulty is often experienced in coupling them; and the principal object of my invention is to provide a convenient and simple coupling device which may be used in place of the ordinary link, with the ordinary coupling-pins, for coupling cars, and which will enable cars in which the height of the draw-bars above the rails differs widely to be conveniently coupled. Another object of the invention is to provide for the self-coupling of the cars when they are brought together without the necessity of any person going between them.

To this end the invention consists in a coupling composed of two parts, each of which is provided with a tongue or shank adapted to enter an ordinary draw-head and be secured therein by the ordinary coupling-pin, one of said parts being provided with a vertical bar or yoke and the other with jaws, between which said bar or yoke is received, and a transversely-movable locking pin or bolt adapted to engage with said bar or yoke when it is inserted between said jaws, as hereinafter more fully described. The part which is provided with the aforesaid vertical bar or yoke may have its shank or tongue which receives the vertical pin placed out of the center vertically, so that the said part may be used either side up in accordance as the draw-head to which it is connected is above or below the opposite draw-head.

The invention also consists in devices, hereinafter described, whereby cars having my improved coupling may be coupled and uncoupled without the necessity of going between them.

In the accompanying drawings, Figure 1 represents a horizontal section of two draw-heads connected by my improved coupling. Fig. 2 represents a partly sectional side view thereof. Fig. 3 represents a partly sectional plan view of portions of two cars connected by my coupling, and Fig. 4 represents an end view of a portion of one of said cars.

Similar letters of reference designate corresponding parts in all the figures.

A A' designate the draw-heads of two cars which are to be coupled, which are constructed with the usual sockets or cavities for the reception of coupling-links, and are provided with the usual vertically-movable coupling-pins, *a*.

B and C designate the two parts of my improved coupling, which are adapted to be connected one with each draw-head. The parts B C are formed with shanks or tongues B' C', which are adapted to enter the sockets or cavities in the draw-heads, and are provided with vertical holes or eyes *b* for the reception of the coupling-pins *a*.

The part B of the coupling is formed with an opening or cavity, B², extending from the upper to the under side thereof, forming a pair of jaws, and is provided with a transversely-movable locking pin or bolt, D, which is adapted to extend across the said opening or cavity. In the present example of my invention the locking pin or bolt D is connected by a cross head or piece, D', with a guide pin or rod, D², which is also movable transversely to the part B, and has upon it a spring, *e*, for impelling the locking pin or bolt inward across the opening or cavity B². The pin or bolt D may be drawn outward to uncouple by a chain, *d*, or other means.

The part C of the coupling is constructed with a vertical bar or yoke, *e*, which is adapted to enter the opening B², and which is secured in said opening by the locking-bolt passing across said opening behind it.

In order to provide for automatically coupling the two parts B C, I employ a tripping-stop, E, which is pivoted at *f* in the end of the opening or cavity B², and is adapted to swing forward, as shown in Fig. 2, until its lower end strikes against the end of the opening B² at *g*, which forms a stop or abutment therefor. When the locking pin or bolt D is drawn back and the bar or yoke *e* recedes the stop E follows it and drops into line with the locking pin or bolt, thereby preventing the latter from moving forward.

When the cars are to be coupled the bar or yoke *e* comes in contact with the stop E, and by pushing it inward releases the locking pin

or bolt D and allows the latter to move forward to couple the parts B and C together.

As clearly shown in Fig. 2, the shank or tongue C' of the part C may be out of the center vertically between the upper and lower sides of said part, and the latter may be used with either side uppermost. Where the draw-head A' is higher than the draw-head A, as in Fig. 2, the part C is arranged, as shown, so that the shank or tongue C' is nearest the top; but if the draw-head A' were the lowest the part C should be reversed in position.

Referring now to Figs. 3 and 4, which show the devices employed for uncoupling, F designates the cars to which the coupling is applied. In this example of my invention the chain *d* on the transversely-movable locking pin or bolt D is connected with a lever, G, which is pivoted at *h*, and *i* designates a horizontal lever, which is fulcrumed at *i'*, and is connected with the lever G by a link, *i*². By pulling the outer end of the lever *i* away from the car the link *i*² is straightened into line with the lever and moves the lever G to draw back the locking pin or bolt D. The same result may be produced by means of an upright lever, *j*, pivoted at *j'* and connected by a link, *j*², with the lever G, and when the coupling is applied to a box freight-car the lever *j* may be extended upward to the top of the car, as shown in dotted lines in Fig. 4. The two levers *i* and *j* enable the cars to be uncoupled either from the platform or side of the car and without going between the cars.

By my invention I provide a very simple and convenient device, which may be carried by a train and employed to couple thereto cars having higher or lower draw-heads.

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

1. A coupling composed of two parts, each of which is provided with a tongue or shank adapted to enter an ordinary draw-head and be secured therein by the ordinary coupling-pin, one of said parts being provided with a vertical bar or yoke and the other with jaws, between which said bar or yoke is received, and a transversely-movable locking pin or bolt adapted to engage with said bar or yoke, substantially as herein described.

2. In a coupling, the combination of the part C, provided with the tongue or shank C', which is arranged out of the center vertically, so as to adapt the coupling for cars having draw-heads at different heights, and also provided with the bar or yoke *e*, the part B, provided with the shank or tongue B', and the vertical slot or opening B², forming jaws, and the transversely-movable locking pin or bolt D, all constructed and operating substantially as and for the purpose specified.

3. The combination of the part B, the locking pin or bolt D, its attached guide rod D², the spring *c*, the tripping-lever E, and the part C, having a bar or yoke, *e*, substantially as specified.

4. The combination of the part B and its transverse pin or bolt D, the part C and its bar or yoke *e*, the lever G, and the lever *i*, connected with said lever G, substantially as specified.

5. The combination of the part B and its transverse locking pin or bolt D, the part C and its bar or yoke *e*, the lever G, and the lever *j*, connected with said lever G, substantially as specified.

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