

(No Model.)

H. A. HUNTER.
TRAMWAY SWITCH.

No. 333,076.

Patented Dec. 22, 1885.

Fig. 1.

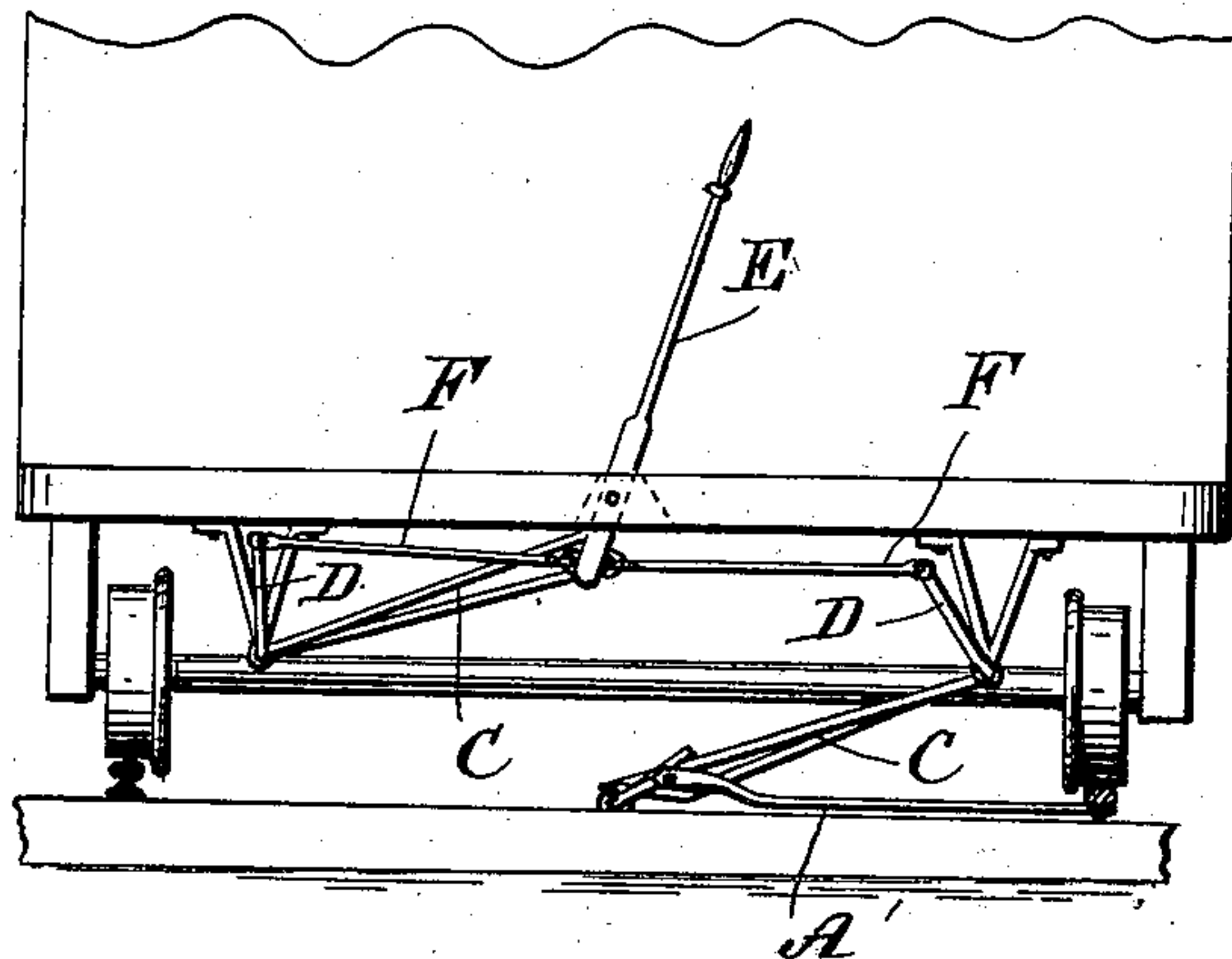


Fig. 2.

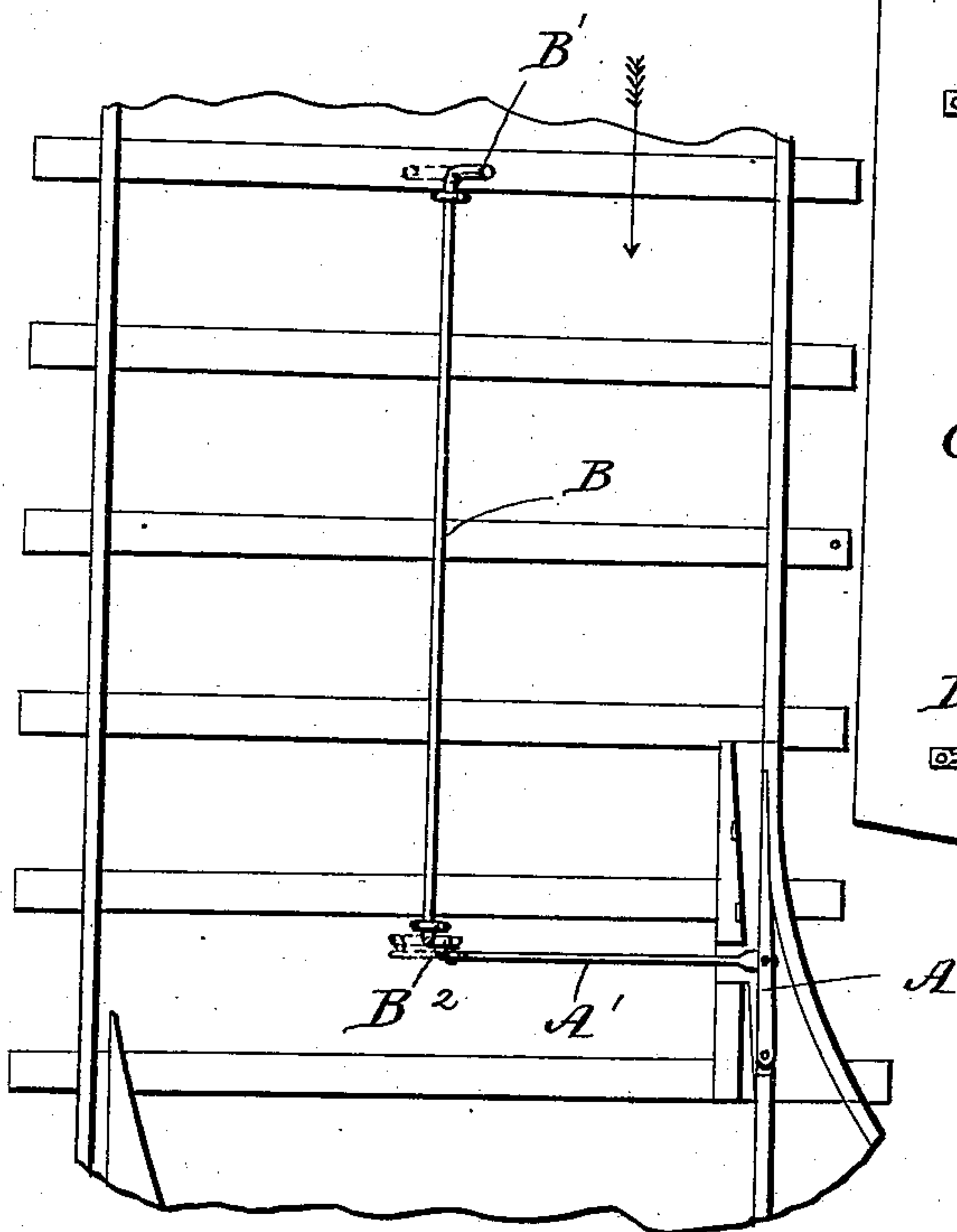
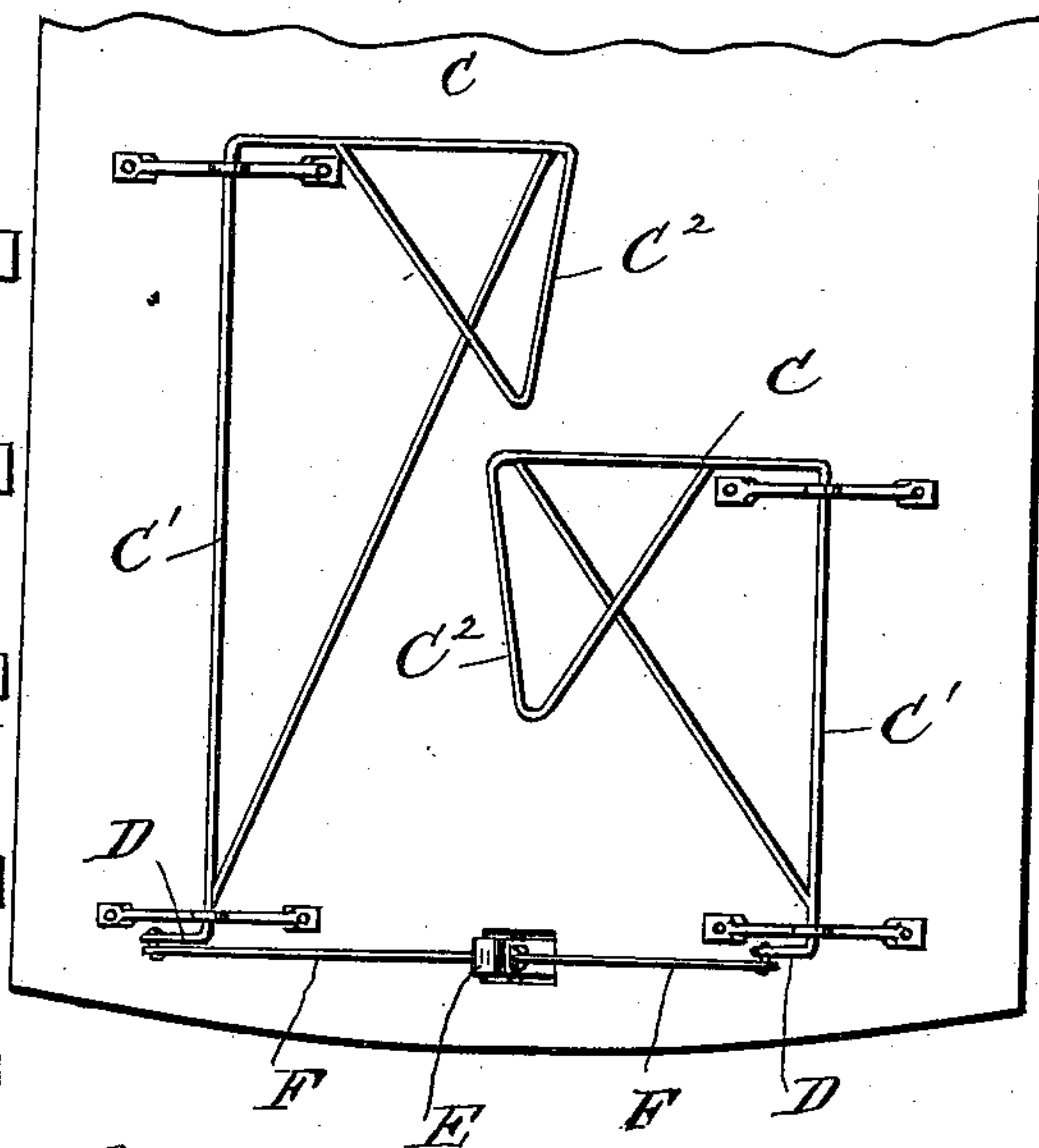


Fig. 3.



Witnesses.
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UNITED STATES PATENT OFFICE.

HIRAM A. HUNTER, OF TOPEKA, KANSAS.

TRAMWAY-SWITCH.

SPECIFICATION forming part of Letters Patent No. 333,076, dated December 22, 1885.

Application filed March 5, 1885. Serial No. 157,768. (No model.)

To all whom it may concern:

Be it known that I, HIRAM A. HUNTER, a citizen of the United States, residing at Topeka, in the county of Shawnee and State of Kansas, have invented certain new and useful Improvements in Tramway-Switches; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it ap-
10 pertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to devices by which
15 to automatically adjust and set switches from a moving engine, car, or truck; and it consists in the novel construction, combination, and arrangement of parts, as will be hereinafter described.

20 In the drawings, Figure 1 is a front view of a car provided with my improvements. Fig. 2 is a plan view of the switch and devices adapted to be operated by my improvements; and Fig. 3 is a bottom plan view of a section
25 of a car provided with my improvements, all of which will be described.

In carrying out my invention I provide a switch having a pivoted section, A, which may be moved on its pivot in such manner as to
30 direct an approaching train onto one or the other of converging tracks. To this section I connect a link, A', the other end of which couples with a rock-shaft, B, arranged centrally between the rails. This rock-shaft is
35 preferably formed with cranks B' B'', the latter of which forms a connection between the rock-shaft B and the link A'. The crank B' projects upwardly in position to be engaged by and moved from side to side by the switch-
40 operating frame. I prefer to employ the arrangement of lever shown, journaled longitudinally, as will be seen from Fig. 2. It is manifest the lever might be pivoted midway its ends, so it can be vibrated in horizontal
45 plane, and having a suitable upward projection, as B', by which to engage the switch-operating frames, and various other modifications might be effected in the devices on the track without departing from my invention.

50 On the under side of the car I arrange the switch-operating frames C C, which are piv-

oted at one edge, C', to the under side of the car, on opposite sides of the central longitudinal line of said car. The other or outer ends are each beveled or inclined longitudinally at
55 an angle to the line of motion of the car and in opposite direction one to the other, as shown in Fig. 3. Near their forward ends these frames are provided with crank-arms D. It will be noticed that one of the frames C is
60 longer, so that its operative inclined portion may lie in rear of the other frame, so that the frames will not interfere one with the other in the movement of same while being adjusted
65 up or down in use. The pivots of these frames are preferably arranged parallel to the line of motion of the car, in order that the engagement with the switch devices in operation will have no tendency to raise such frames on their
70 pivots.

A lever, E, is journaled vertically to the car, and has one arm extended below the car and connected by links F F with the cranks D of the frame C. By this lever and its connections, as shown, the frames C C may be raised
75 and lowered, and one frame will be raised as the other is lowered, as will be understood from Fig. 1. As will be seen from Fig. 3, the inclined faces C² of the frame C are arranged to engage the projection B' when the said faces
80 C² are lowered.

When the train is moving in the line indicated by the arrow, Fig. 2, the engineer, by lever E, drops one or the other of the frames C, according as he wishes to continue on the
85 main line or switch off, as will be understood. It is manifest that one of these frames might be used without the other, although I prefer their concurrent use and to operate them in substantially the manner shown, as thereby
90 the engineer has the power to continue on one or switch off onto another track, and the adjustment of one frame into operative position necessarily involves the adjustment of the other out of such position. Where, however,
95 one train moves at all times on one track and the other train on the other track, each of said trains may be provided with but the single frame necessary for the proper adjustment of the switch for the said train.

My invention, it will be seen, obviates the delay required for the train to stop and one of
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the trainmen to get off and fix the switch, and provides simple means by which the switch may be easily and accurately set from the moving train.

5 Another modification of my device would be to provide each of the operating-frames C with a separate lever. This would enable the frames to be placed in position exactly opposite each other, instead of one in the rear
10 of the other, as shown, and might be a desirable feature if from lack of room it were found necessary to decrease the longitudinal space in which the frames were to be operated.

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

1. The combination, with a car, of a switch-
operating frame, having an operating-edge in-
clined to the line of motion of the car, and
20 pivotal connections for attaching said frame

to the car substantially parallel with its line of motion, whereby said inclined edge is free to be carried to or from the car, substantially as and for the purposes specified.

2. In combination with the car, the switch- 25
operating frames, each pivoted at one edge to the car on opposite sides of its longitudinal center, and having their other edges inclined in opposite directions and at an angle to the
line of motion of the car, cranks secured one 30
to each of said frames concentric with the pivots thereof, a lever located between the frames, and links connecting the said lever with each of the cranks, substantially as set forth.

In testimony whereof I affix my signature in 35
presence of two witnesses.

HIRAM A. HUNTER.

Witnesses:

A. W. WATERS,
J. G. SLONECKER.