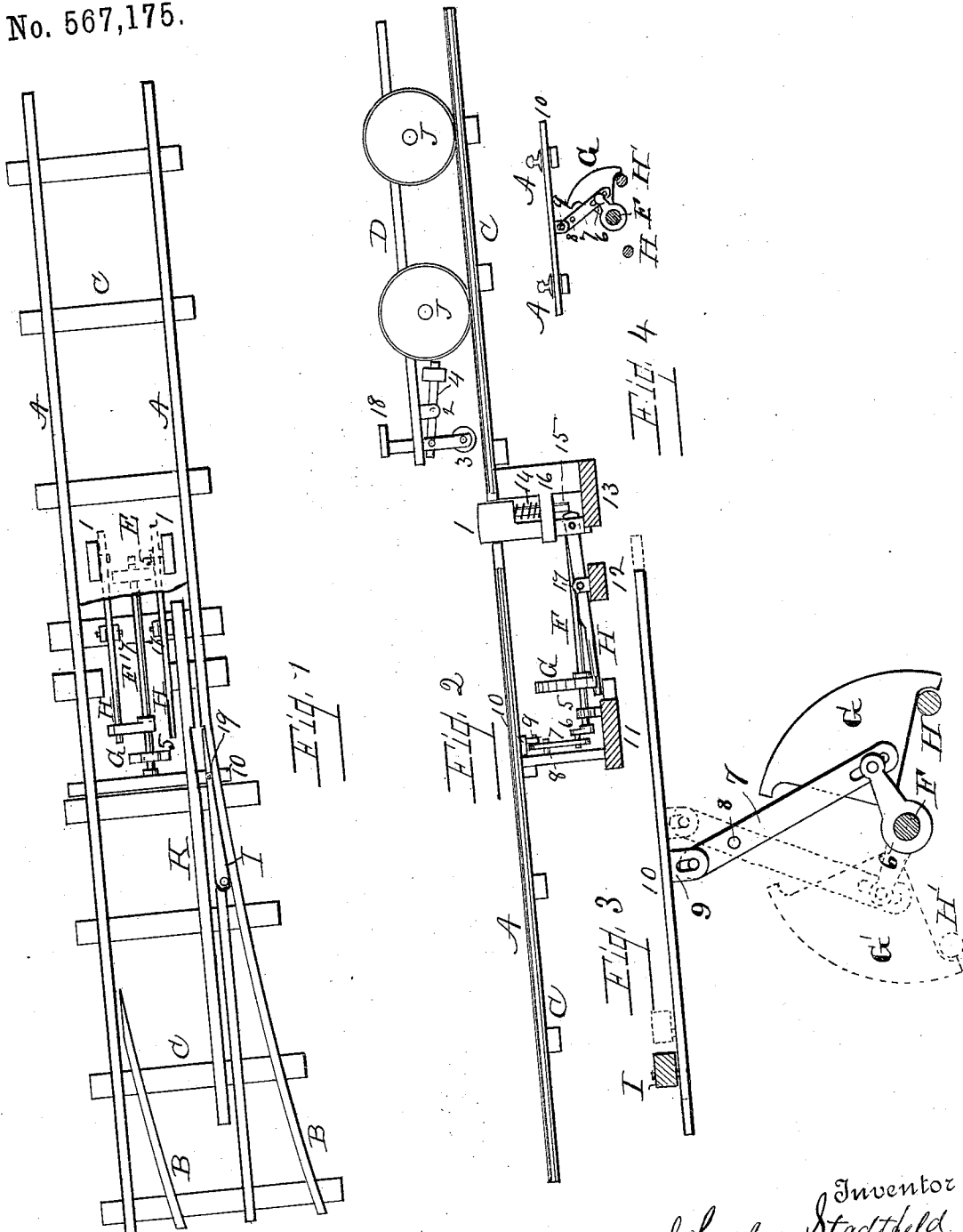


(No Model.)

C. STADTFELD.
AUTOMATIC CAR SWITCH.

Patented Sept. 8, 1896.

No. 567,175.



Witnesses
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D. C. Hoff

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UNITED STATES PATENT OFFICE.

CHARLES STADTFELD, OF DAYTON, OHIO, ASSIGNOR TO GEORGE O. WAR-
RINGTON, OF SAME PLACE.

AUTOMATIC CAR-SWITCH.

SPECIFICATION forming part of Letters Patent No. 567,175, dated September 8, 1896.

Application filed January 24, 1896. Serial No. 576,640. (No model.)

To all whom it may concern:

Be it known that I, CHARLES STADTFELD, a citizen of the United States, residing at Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Automatic Car-Switches; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains 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.

My invention relates to improvements in automatic car-switches, the features of which will be fully hereinafter described and claimed.

The object of my invention is to operate a track-switch by some agency attached to a moving car which will depress a lever, the vertical bar of which is normally sufficiently elevated above the surface for the purpose. When depressed, it operates a weighted lever which carries the sliding bar to which is attached the switch-bar. The object is accomplished by the device illustrated in the accompanying drawings, in which—

Figure 1 is a plan of the device as attached to the usual form of railway-track and switch-bar. Fig. 2 is a side elevation of the device, showing track and car. Fig. 3 is an enlarged detailed view of the principal operative parts. Fig. 4 is a similar transverse view.

Like letters and numerals designate like parts throughout the several views.

The form of the main track, the side or turning-off track, and the pivotal shift bar or switch is identical in construction with those in general use.

A A are the main tracks of a railway, B B the turning-off tracks, and I the pivotal switch-bar. These have the usual supporting-ties C. The usual guide-rails are used, but the guide-rail K is the only one shown. Beneath the rails is supported the sliding bar 10, and to this bar is secured the switch-bar by the pin 19. The ground is excavated beneath the tracks, and on sleepers within this cavity are supported the several parts of the device. To the under side of sliding bar 10

is attached the slotted arm 9. On an upright secured between the sleeper and tie is attached the pivot 8, on which is suspended the oscillating bar 7. This bar at its top is provided with a pin which engages the slot of the arm 9, and is provided with a slot in its lower end to engage the pin or wrist of the crank 6. The shaft F is supported in bearings 5, central between the tracks. The aforesaid crank is attached to the end of the shaft outside of the shaft-bearing. To the right of this bearing is attached to said shaft the weighted arm G. This arm is preferably of the form shown at Fig. 3, but the form may be varied. The sole function is to complete the movement of the sliding bar when said weighted arm is carried by the lever beyond its center of gravity. Within standards 17 17 are pivoted the levers H H equidistant from the center of the track. The forward ends of these levers extend beneath the weighted arm, and the back ends are attached by pins to the vertical depressing-bars 1. These bars are held in orifices of the plate E and in the guide 16. To elevate these bars, the spiral spring 14 is used on a cylindrical part, and said spring bears between the head and said guide. The springs hold up these bars sufficiently to be depressed by the device attached to the moving car. The depressing-bars and their connections are identical in construction.

At D, Fig. 2, is shown the side of a car. In a mortise in the platform is loosely held the operating-arm 18. In the lower end is held the roller 3. The lever 4 is held in the bearing 2, attached to the under side of the floor. To this is pivoted the said arm, and on the right end of the lever is attached a weight, the effect of which is to hold up the arm, and which engages the depressing-bars to operate the switch when pressed down by the foot of the driver or motorman. The dotted lines at Fig. 3 show the position of the connecting parts when the weighted arm is thrown to the right, and in this position the switch-bar would be in the position shown in Fig. 1. To throw the car off the main track, the weighted arm would have to be thrown in the opposite position.

The operation may be thus described: On the moving of car the operating-arm is de-

pressed. This engages the depressing-bar. The end of one of the levers is raised sufficiently to carry the weighted arm beyond its center of gravity, the same falls down, thereby completing the movement of the switch-bar, and the car is thereby directed as may suit the purpose of the operator. Any form of suitable device may be used to depress the engaging bar, and the same may be held up by spring or weight. The only essential feature is that it shall be capable of depressing the bar that gives the initial movement. The mechanism is covered by suitable plates conforming to the surface of the street or road-bed and are omitted in the drawings.

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

1. In a car-switch the combination of the vertically-held depressing-bar, the lever attached thereto, the weighted arm to engage said lever, the shaft on which said weighted arm is supported, the crank attached to said

shaft, the oscillating bar engaging with said crank, the sliding bar joined with said oscillating bar and the switch-bar engaging said sliding bar, substantially as described.

2. In a car-switch the combination of the depressing-bar held normally above the street-surface and adapted to be depressed by a device attached to a moving car, the lever attached thereto, the weighted arm to engage said lever, the shaft on which said weighted arm is supported, the crank, the oscillating bar connected with said crank, the sliding bar joined with said oscillating arm, and the switch-bar joined with the said sliding bar, substantially as described.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

CHARLES STADTFELD.

Witnesses:

B. PICKERING,
W. D. MCKENNY.