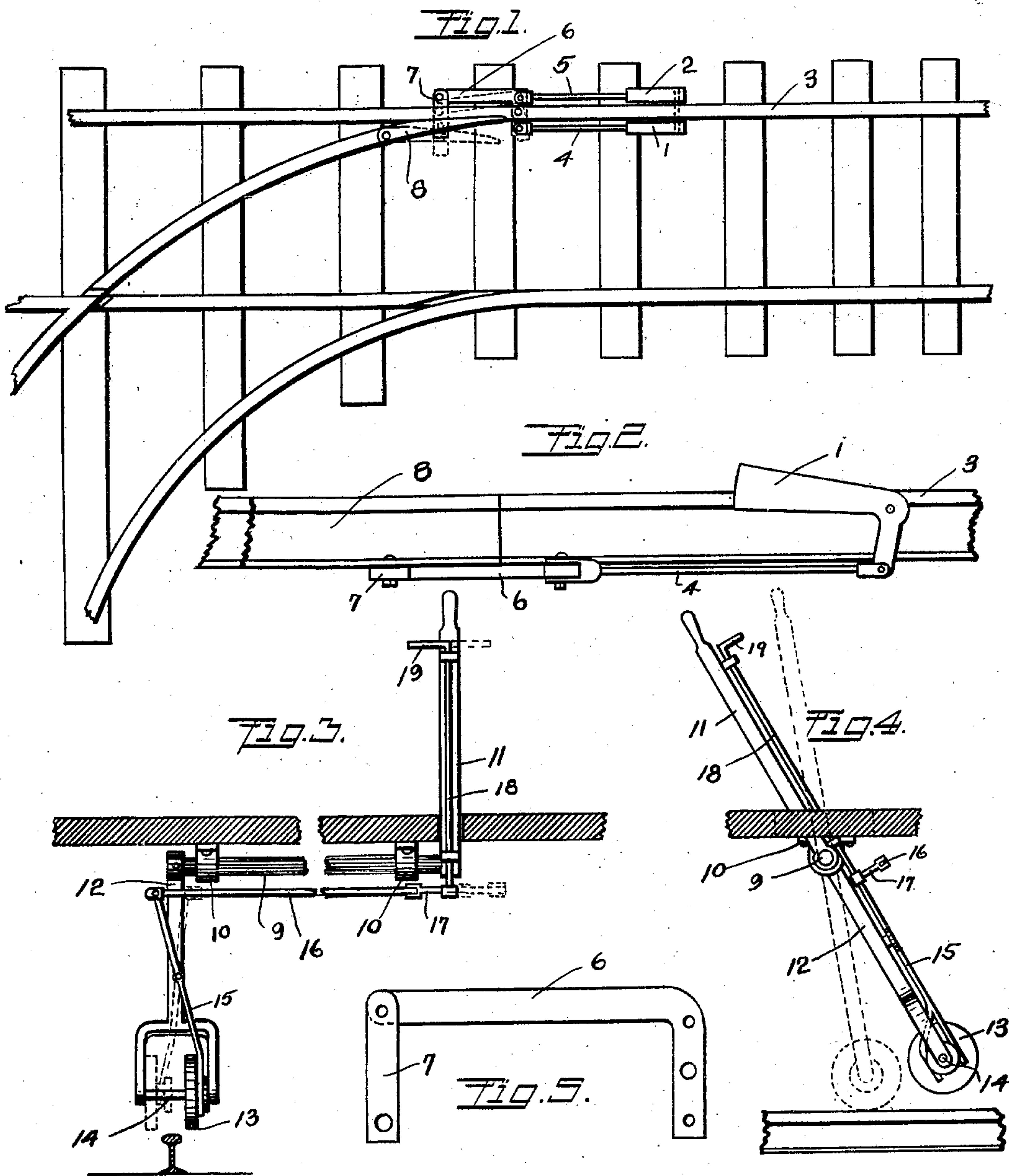


No. 763,043.

PATENTED JUNE 21, 1904.

A. E. CAUGHEY.
STREET RAILWAY SWITCH.
APPLICATION FILED JUNE 8, 1903.

NO MODEL.



Witnesses
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ALBERT E. CAUGHEY, OF OMAHA, NEBRASKA.

STREET-RAILWAY SWITCH.

SPECIFICATION forming part of Letters Patent No. 763,043, dated June 21, 1904.

Application filed June 8, 1903. Serial No. 160,578. (No model.)

To all whom it may concern:

Be it known that I, ALBERT E. CAUGHEY, a citizen of the United States, residing at Omaha, in the county of Douglas and State of Nebraska, have invented certain new and useful Improvements in Street-Railway Switches; and I do hereby 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 appertains to make and use the same.

My invention relates to street-railway switches; and it is the object thereof to provide simple and convenient means for throwing switches without stopping the movement of cars.

My invention consists in the construction and arrangement of the switch-operating means and in the means carried by the car for engaging the switch-operating means.

In the accompanying drawings, Figure 1 is a plan view of a section of railway-track containing a switch provided with my operating means. Fig. 2 is a side view of the said operating means. Fig. 3 is a front elevation of the engaging means carried by the car. Fig. 4 is a side view of the same, and Fig. 5 is a detail plan view of the switch-throwing lever.

In the construction shown the bell-crank levers 1 and 2 are pivoted on the rail 3 at a suitable distance from the switch-point and are movable in a vertical plane. The longer arms of said levers are adapted to extend slightly above the surface of the rail 3, while the short arms thereof extend downward and have the rods 4 and 5 connected thereto, as shown.

An L-shaped lever 6 is pivoted at the center of the short arm thereof on the rail 3 at a point adjacent to the switch-point and is movable in a horizontal plane. The rod 4 is connected to one end of the short arm of the said lever 6, and the rod 5 is connected to the other end of said short arm. A short connecting-rod 7 joins the end of the long arm of the lever 6 to the switch-point 8.

On depressing the horizontal arm of the lever 1 the rod 4 is pulled, the lever 6 turned upon its fulcrum, and the switch-point thrown, as indicated in dotted lines in Fig. 1. On depressing the lever 2 the rod 5 is pulled, the le-

ver 6 turned, and the switch-point thrown to its original position.

In switches having two movable points the connecting-rod 7 may be extended across the track and connected to both points, so that the same are thrown at the same time.

The switch-throwing mechanism is operated from the car by the following means: On the under side of the front vestibule a shaft 9 is journaled in bearings 10. A lever 11 is secured to one end of the shaft and extends upward into the vestibule, as shown. To the other end of the shaft is secured the arm 12, which is forked at its lower end and carries thereon the small wheel 13, slidably held on the shaft 14, as indicated. One side of the said wheel has a grooved collar thereon which is engaged by the forked lever 15, pivoted on the arm 12. From the upper end of said lever a connecting-rod 16 extends to the small crank 17 on the lower end of the shaft 18, journaled on the lever 11. At the upper end of the shaft 18 is a handle 19, by which the same may be turned. The movements of the handle 19, connecting-rod 16, lever 15, and wheel 13 are shown in dotted lines in Fig. 3.

The operation of the mechanism is as follows: The handle 19 of the shaft 18 is turned until the wheel 13 is shifted to that side of the rail on which is the lever 1 or 2 which it is desired to engage. The lever 11 is then pushed forward, thereby turning the shaft 9 and bringing the wheel 13 to a position such that it will engage with and push down one of the levers 1 and 2 and throw the switch to the desired position.

Now, having described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

1. In a railway-switch-operating mechanism, two levers pivoted on one of the track-rails and movable in a vertical plane, a lever pivoted adjacent to the switch-point and movable in a horizontal plane, rods connecting each of the vertically-movable levers to the horizontally-movable lever, a connecting-rod from the horizontally-movable lever to the switch-point, a wheel carried by a car and normally held clear of the track, means for depressing the wheel and means for shifting the same

from side to side, whereby the same may be brought into engagement with either of the vertically-movable levers.

2. In a railway-switch-operating mechanism, levers pivoted on one of the track-rails, means connecting said levers to the switch-point whereby depression of one of said levers will move the switch-point in one direction and depression of the other lever will move the switch-point in the other direction, a disk adapted to engage said levers, said disk being revoluble and slidable on a shaft, means for

raising and lowering said shaft relative to the car carrying the same, and means for shifting the disk longitudinally along the shaft whereby the same may engage and depress either of the levers, substantially as described. 15

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

ALBERT E. CAUGHEY.

Witnesses:

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