T. TEPLY.

SWITCH THROWING APPARATUS.

APPLICATION FILED APR. 17, 1909.

945,251.

Patented Jan. 4, 1910.

2 SHEETS—SHEET 1.

Fig. 1.

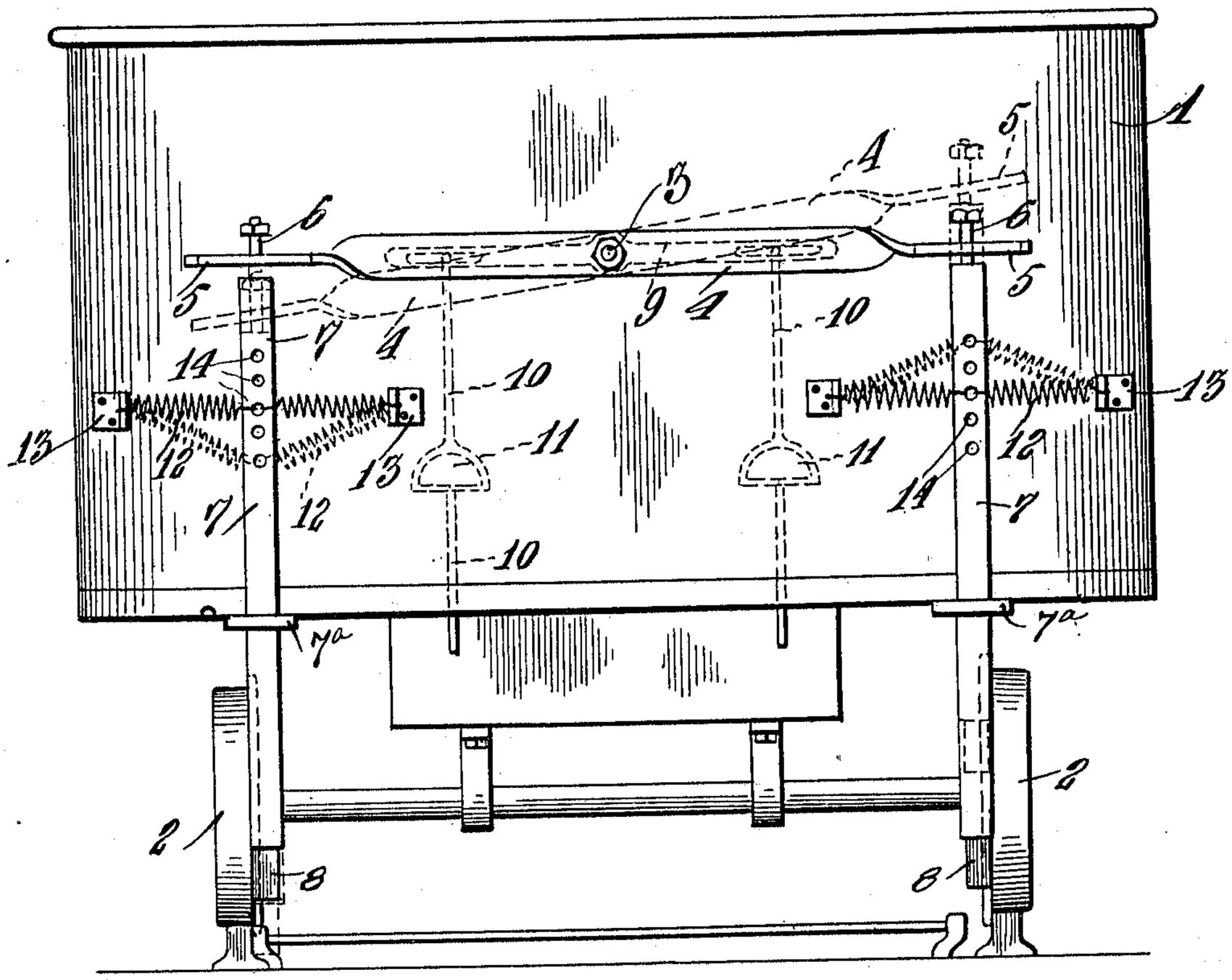
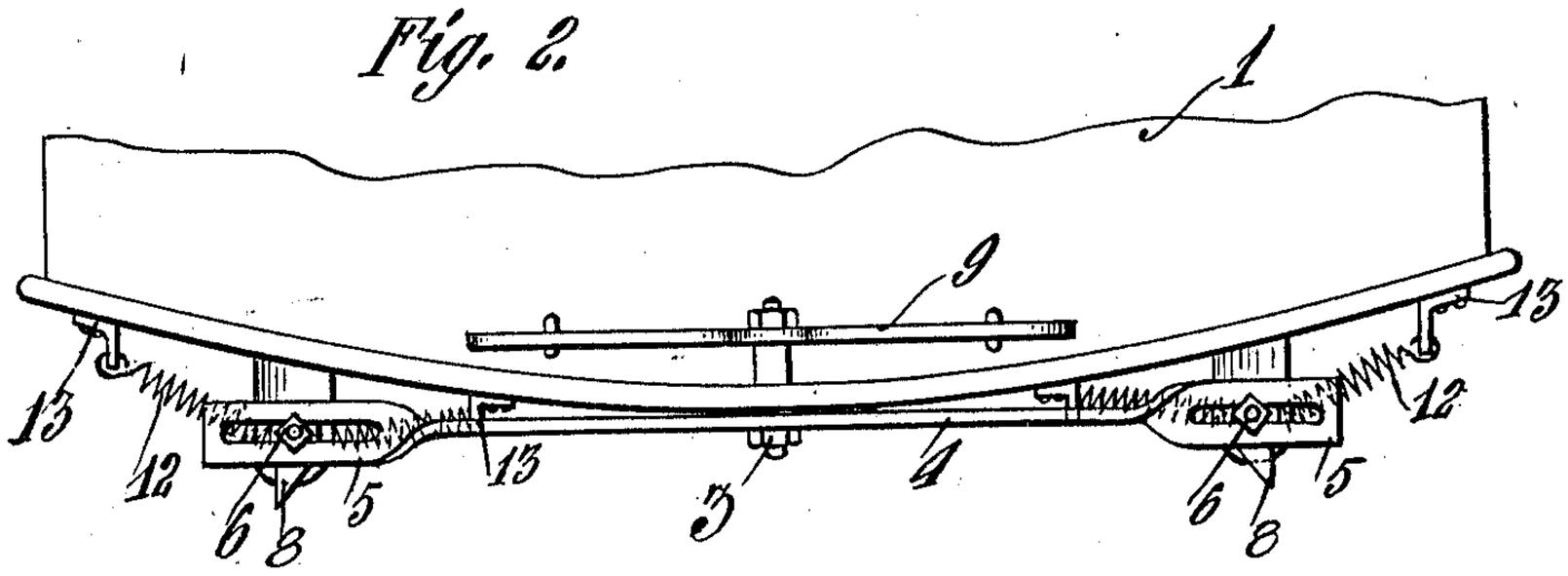


Fig. 2.



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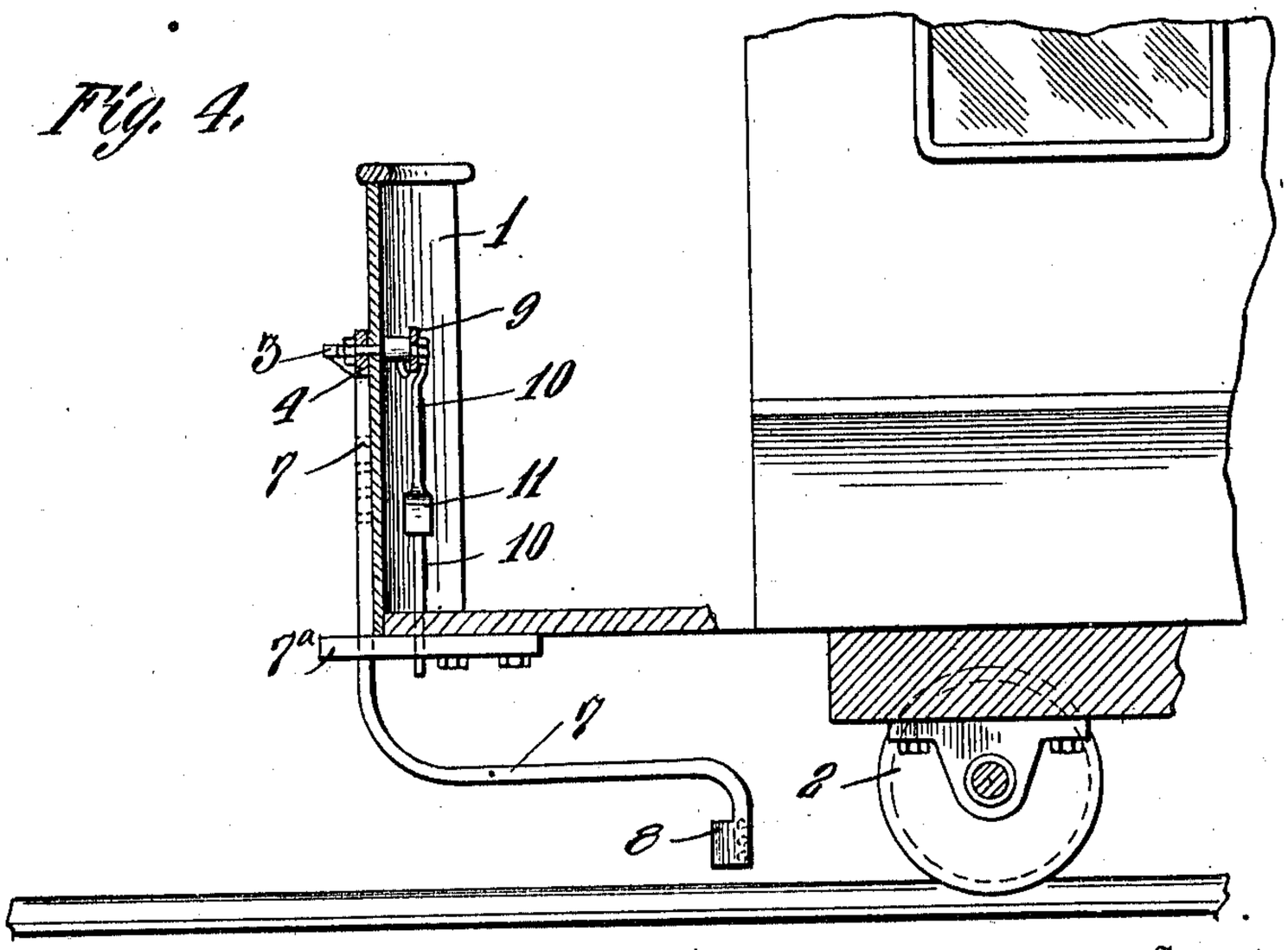
2 SHEETS—SHEET 2.

Fig. 3.

Fig. 4.



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UNITED STATES PATENT OFFICE.

THOMAS TEPLY, OF BUHL, MINNESOTA.

SWITCH-THROWING APPARATUS.

945,251. Specification of Letters Patent. Patented Jan. 4, 1910.

Application filed April 17, 1909. Serial No. 490,491.

To all whom it may concern:

Be it known that I, THOMAS TEPLY, a citizen of the United States, residing at Buhl, in the county of St. Louis and State of Minnesota, have invented certain new and useful Improvements in Switch-Throwing Apparatus, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to switch operating devices and is designed to provide means whereby a railroad switch may be quickly thrown from a moving car.

At present the usual method of operating street railroad and other switches is for the motorman or conductor or other person to dismount from the car and to operate the switch while the car or train is held stationary or under greatly diminished speed. This practice occasions frequent delays in the movement of traffic and in cold weather results in great discomforture to the passengers and operator.

By means of my invention means are provided whereby the motorman of a street car may quickly operate a switch by foot pressure while the car is moving at a good rate of speed, thereby eliminating the necessity of stopping the car and for a conductor or other person to dismount therefrom and often at the risk of grave danger in order to throw a switch.

In the accompanying drawings the preferred embodiment of my invention is illustrated, in which,

Figure 1 is a front elevation of a street car provided with my improved device, with one of the operating bars thereof shown in dotted lines in an engaged position, Fig. 2 is a top plan view, Fig. 3 is a side elevation, and Fig. 4 is a longitudinal section of a modification.

Referring to the drawings which are prepared for illustrative purposes and are accordingly not drawn to scale the numeral 1 denotes the front end board of a street car which is provided with the usual wheels 2. Secured by a pivot bolt 3 to the outer side of the front or dash board 1 is a flat rocker bar 4, the outer ends 5 of which are twisted upon said bar so that the flat surfaces thereof will occupy a horizontal plane.

The ends 5 are longitudinally slotted for the reception of securing bolts 6 arranged on the upper ends of switch operating bars 7, secured by guide plates 7^a, which are formed on their lower ends with V-shaped or wedge spreaders adapted to pass between two contacting rails and force the movable rail apart from the stationary rail. Mounted upon the inner end of the pivot bolt 3 is a second rocker bar 9 having secured on its opposite ends depending foot operated rods 10 which are provided with foot rest plates or stirrups 11 located immediately thereon so that the lower ends of said rods may slidably project through the platform of the car, thereby holding the stirrups against lateral movement.

In order to hold the switch operating bars normally out of engagement with the rails a pair of springs 12 are connected by means of brackets 13 with the dash board 1. Said springs have their other ends provided with hooks to engage longitudinal series of openings 14 formed in the bars 7, the tension of the springs being equal on both bars with the result that the rocker bars are held on a horizontal plane and the lower ends of the switch operating bars are held above the ground or rails. The outer ends 5 of the rocker bar 4 are slotted so that the switch operating bars may be held in vertical positions while said rocker bar is being rocked, and each of the bars 7 is provided with a plurality of openings or pins 14 so that the tension of the springs may be varied. The lower ends 8 of the switch operating bars 7 may be extended rearwardly so as to occupy positions adjacent to the car wheels 2, by bending the lower portion thereof on a horizontal plane and bending the ends on to a vertical plane. Any suitable wedge may be formed on the lower end of the switch operating bars but it should be adapted to freely pass between a movable switch rail and a stationary rail so as to quickly spread apart the movable switch rail from the stationary rail.

When a motorman desires to operate a right hand switch he presses the right stirrup with his right foot, thereby rocking the bars 4 and 9 on the pivot and forcing the spreader of the right switch bar into position to engage with a switch rail; and when a motorman desires to operate a left switch he applies pressure by his left foot to the left stirrup, thereby bringing the spreader of the left switch bar into an engaging position. In either case pressure is applied on the stirrup supporting rods 10 before the switch is reached so that the spreader will

be in proper position for action. When pressure has been released the springs 12 will automatically return the operating switch bars to their normal positions.

Having described my invention I desire to secure by Letters Patent:

1. In combination with a car, a transverse rocker bar pivoted at its center, guides, switch operating rods arranged for movement in said guides and having their upper ends loosely connected to the ends of said rocker bar, pairs of coil springs connecting said switch operating rods to the car and means for actuating said rocker bar.

2. In combination with a car, a transverse rocker bar pivoted at its center, guides, switch operating rods arranged for movement in said guides and having their upper ends loosely connected to the ends of said rocker bar, pairs of coil springs connecting said switch operating rods to the car, a rock shaft forming a pivot for said rocker bar, a second rocker bar on said rock shaft and foot pieces connected to the ends of said rocker bar and depending therefrom.

3. In combination with a car having a platform and a dash board, a rocker bar having slotted ends pivotally supported on said dash board, switch operating bars having spreaders on the lower ends pivotally connected with the slotted ends of said rocker bar, a second rocker bar connected to the first rocker bar, operating rods extending slidably through the platform of the car connected with the second rocker bar, and springs connected with the dash board of the car and the switch operating rods for holding the same above the ground.

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

THOMAS TEPLY.

Witnesses:
GEO. K. TRASK,
MARIA CERNOE.