

No. 781,151.

PATENTED JAN. 31, 1905.

L. B. MURRAY.
STREET RAILWAY SWITCH.
APPLICATION FILED MAR. 29, 1904.

Fig. 1.

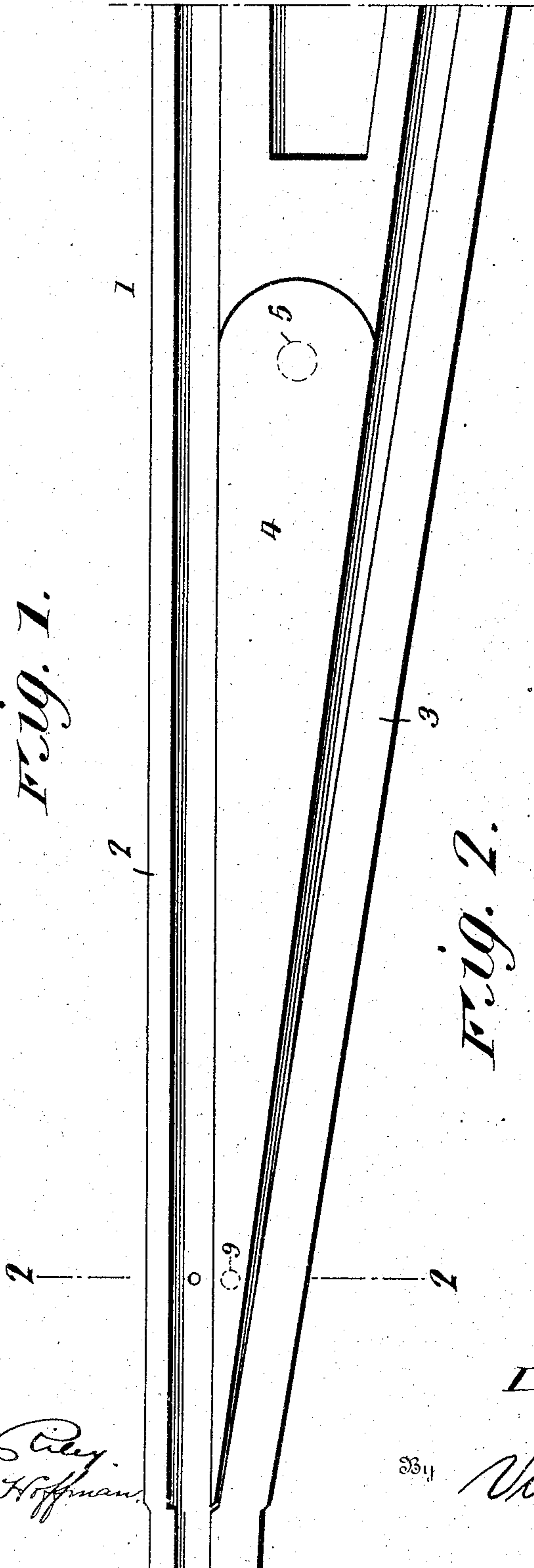
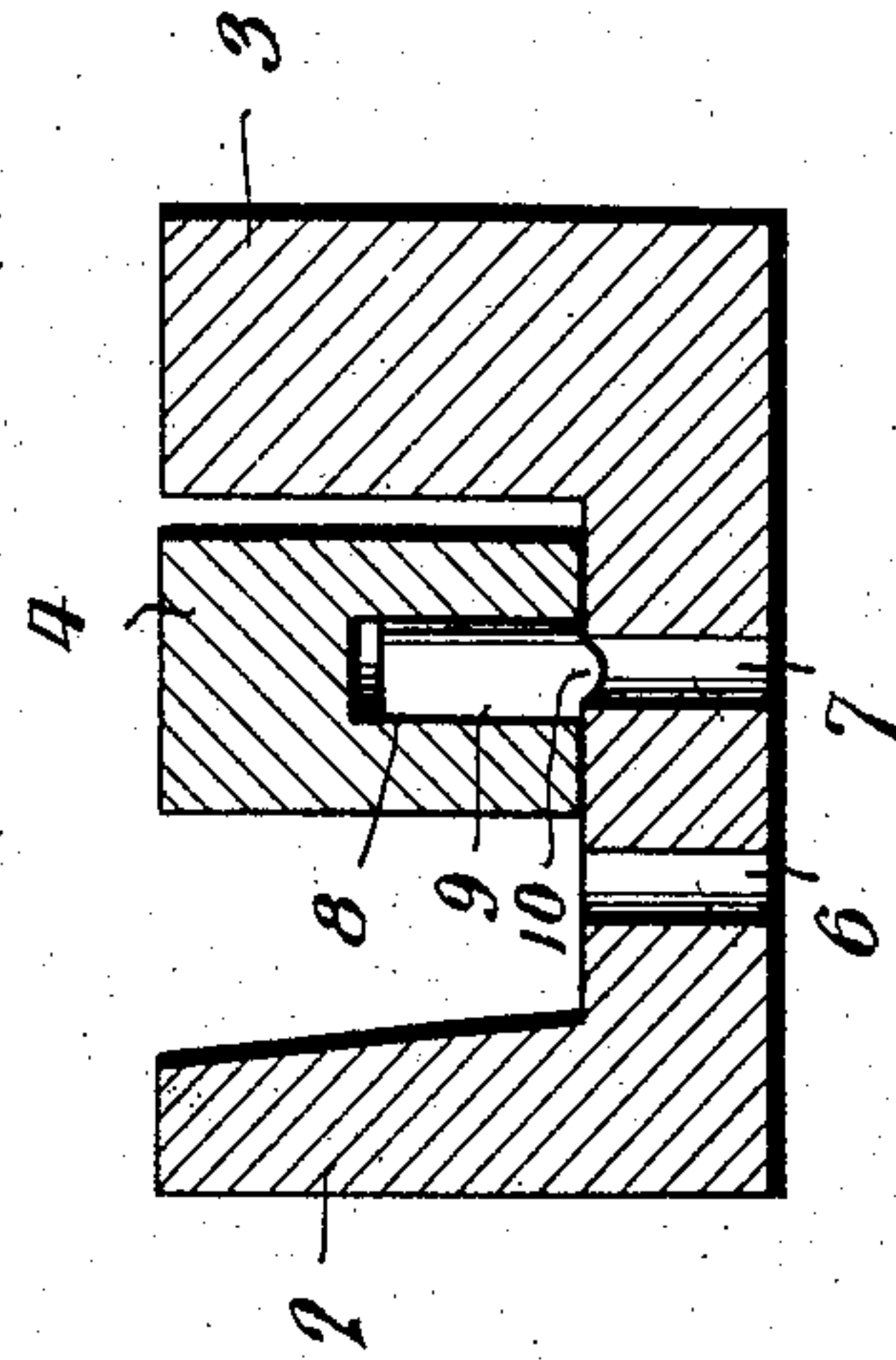


Fig. 2.



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STREET-RAILWAY SWITCH.

SPECIFICATION forming part of Letters Patent No. 781,151, dated January 31, 1905.

Application filed March 29, 1904. Serial No. 200,597.

To all whom it may concern:

Be it known that I, LEON B. MURRAY, a citizen of the United States, residing at Williamstown, in the county of Berkshire and State of Massachusetts, have invented new and useful Improvements in Street-Railway Switches, of which the following is a specification.

This invention relates to street-railway switches, the main object of the invention being to provide, in connection with an ordinary pivotal switch-tongue and bed-plate on which the tongue is supported, means for locking the free end of the switch-tongue when properly adjusted to either of its operative positions, the said locking means consisting of a gravity pin or latch carried by the switch-tongue and adapted to engage the bed-plate.

With the above and other objects in view, the nature of which will more fully appear as the description proceeds, the invention consists in the novel construction, combination, and arrangement of parts as hereinafter fully described, illustrated, and claimed.

In the accompanying drawings, Figure 1 is a plan view of a street-railway switch embodying the present invention. Fig. 2 is an enlarged cross-section through the same, taken in line with the locking device.

Like reference-numerals designate corresponding parts in both views.

Referring to the drawings, 1 designates the bed-plate of an ordinary street-railway switch, which bed-plate is provided with the usual main and switch flanges or rail-heads 3, while 4 designates the usual tapering and pointed switch-tongue, which is pivotally mounted at 5. In carrying out the present invention the bed-plate is provided with a plurality of recesses 6 and 7, which may be in the form of holes extending entirely through the bed-plate, as shown in Fig. 2, so as to allow dirt and water, &c., to escape from the space between the flanges 2 and 3.

The switch-tongue 4 is provided in its under side with a vertically-disposed socket or cavity 8, preferably cylindrical in form, in which is slidably mounted a locking device consisting of a gravity pin or latch 9, also preferably of cylindrical form. The socket 8 is of larger diameter than the recesses or holes

6 and 7, and the pin or latch 9 is also of larger diameter than said holes and is provided with a rounded and shouldered lower end, as shown at 10, the rounded portion of the extremity being substantially hemispherical and of somewhat less diameter than the main body of the pin 9, so as to leave an annular shoulder encircling the rounded portion and adapted to bear against the bed-plate around the edge of either of the holes 6 and 7, while the rounded extremity or nose of the pin enters and engages said recesses or holes. When the switch is opened or closed, the rounded end of the pin drops in one of the recesses or holes and locks the switch, so that direct lateral pressure will not move the switch-tongue from its locked position, especially when the lateral pressure is accompanied by downward pressure due to the weight of the wheels and the car and its load imposed thereon. When, however, the point of a pry or lever is inserted between the end portion of the switch-tongue and one of the flanges of the bed-plate and a pressure exerted on the tongue, the end of the tongue is slightly raised, and the rounded extremity of the pin moves easily from its engagement with one of the holes or recesses, allowing the end of the tongue to move laterally until the pin drops into the other recess or hole, thereby again locking the switch-tongue under the new adjustment. As the switch-tongue moves laterally the rounded end or nose of the pin passes across the space between the holes, being at such time on a level with the lower surface of the switch-tongue. This obviates undue wear on the locking device and also prevents cutting a groove in the bed-plate, which would certainly occur were the locking-pin subjected to any superimposed weight, such as the weight of the tongue itself.

Having thus described the invention, what is claimed as new is—

1. A switch comprising a bed-plate, a swinging switch-tongue, and a gravity locking device movable with the switch-tongue and adapted to engage the bed-plate and hold the switch-tongue at a proper adjustment.

2. A bed-plate provided with a recess, and a switch-tongue provided with a socket, in

combination with a locking device consisting of a gravity-pin mounted in the tongue-socket and adapted to engage the recess in the bed-plate.

- 5 3. A bed-plate provided with a plurality of recesses, and a switch-tongue provided with a socket, in combination with a locking device consisting of a gravity-pin movable in the tongue-socket and having a rounded end
10 to engage said recesses.

4. A bed-plate provided with a plurality of holes, and a switch-tongue provided with a

socket, in combination with a locking device consisting of a pin movable in the tongue-socket and of larger diameter than said holes, 15 the pin being terminally rounded to engage in the holes in the bed-plate.

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

LEON B. MURRAY.

Witnesses:

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