

No. 606,730.

Patented July 5, 1898.

W. McCaffery.
RAILROAD SWITCH.

(Application filed July 12, 1897.)

(No Model.)

Fig. 1.

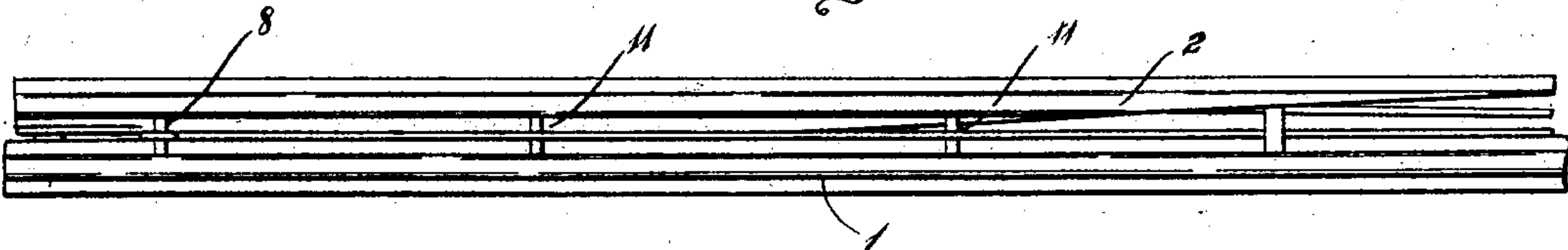


Fig. 2.

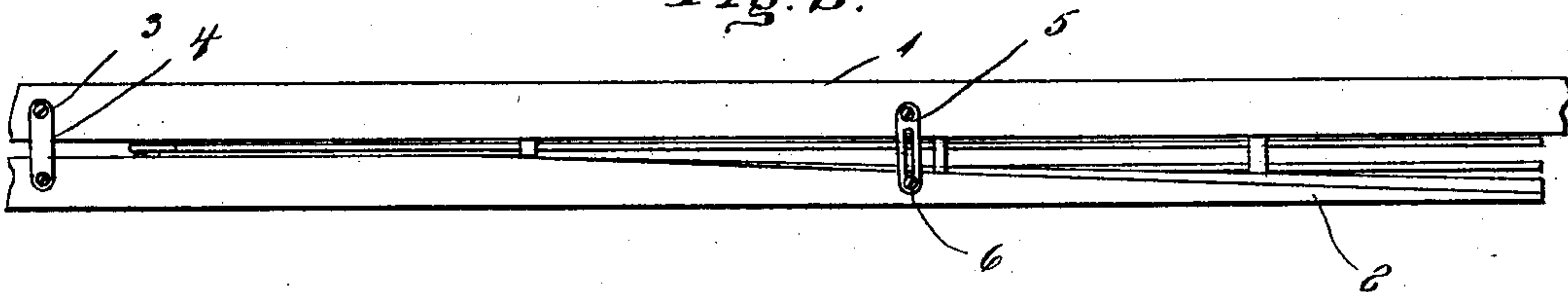


Fig. 3.

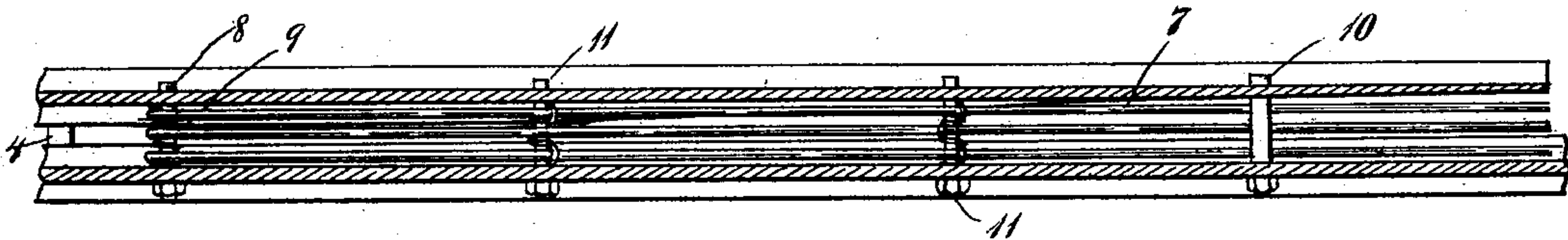


Fig. 4.

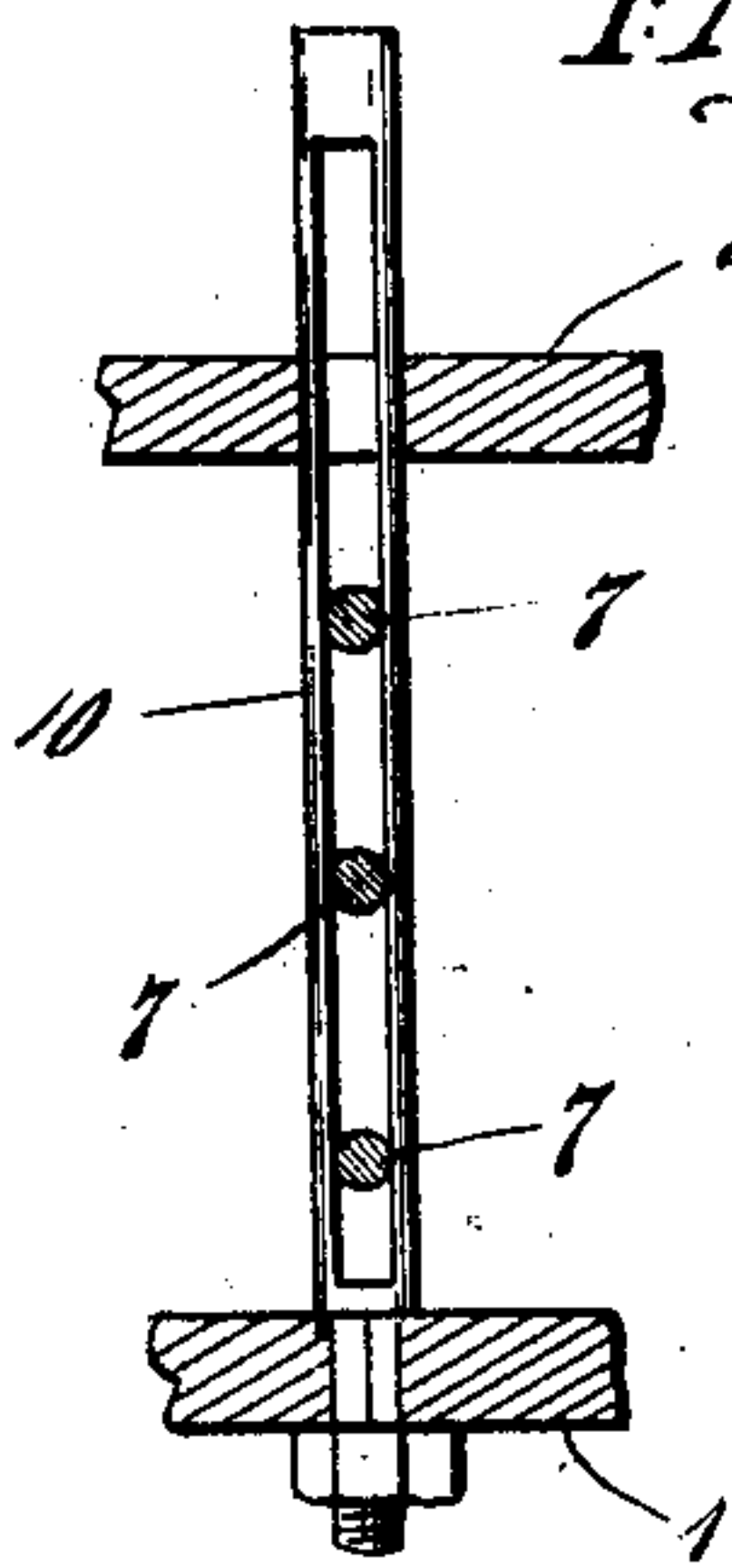


Fig. 5.

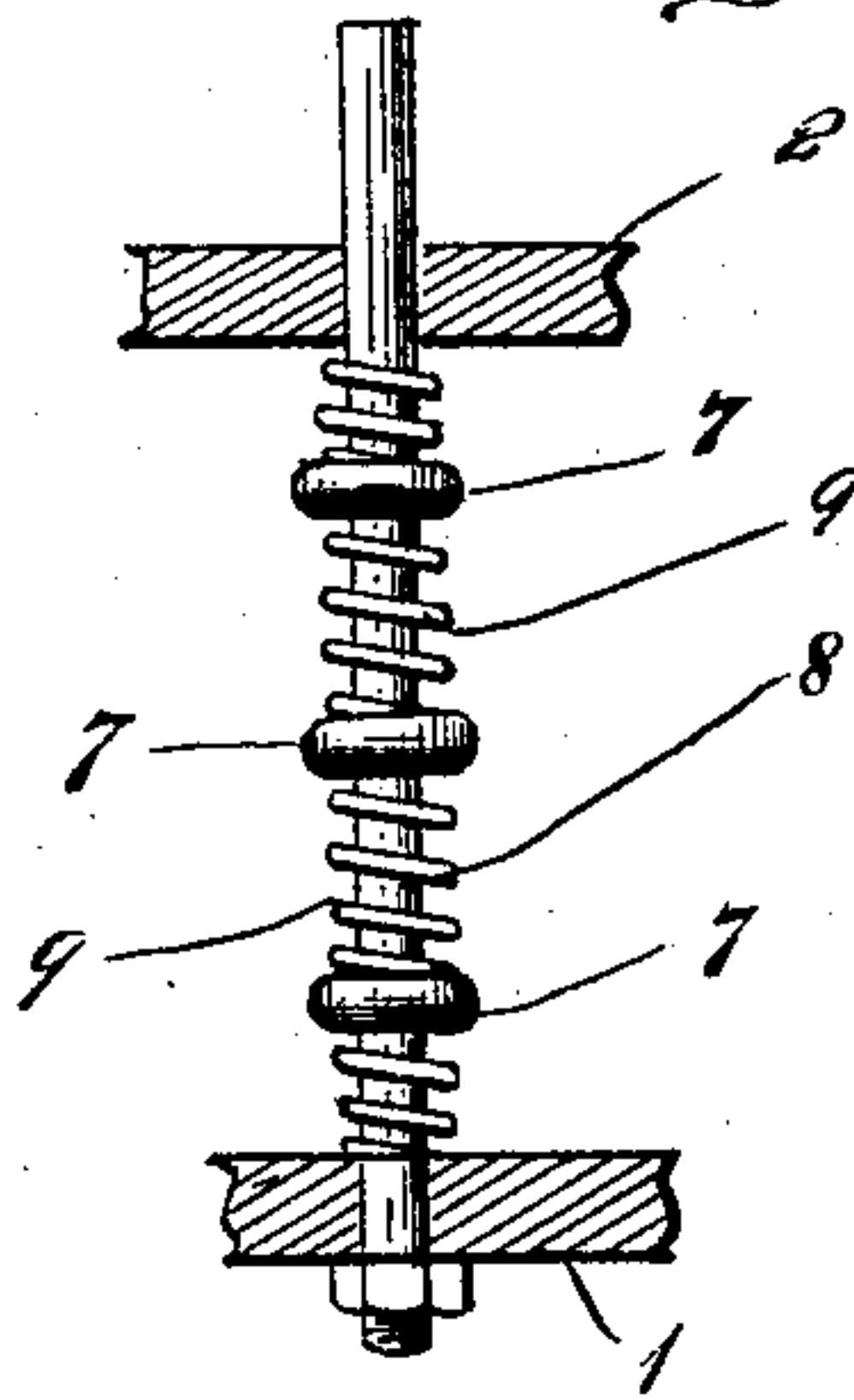
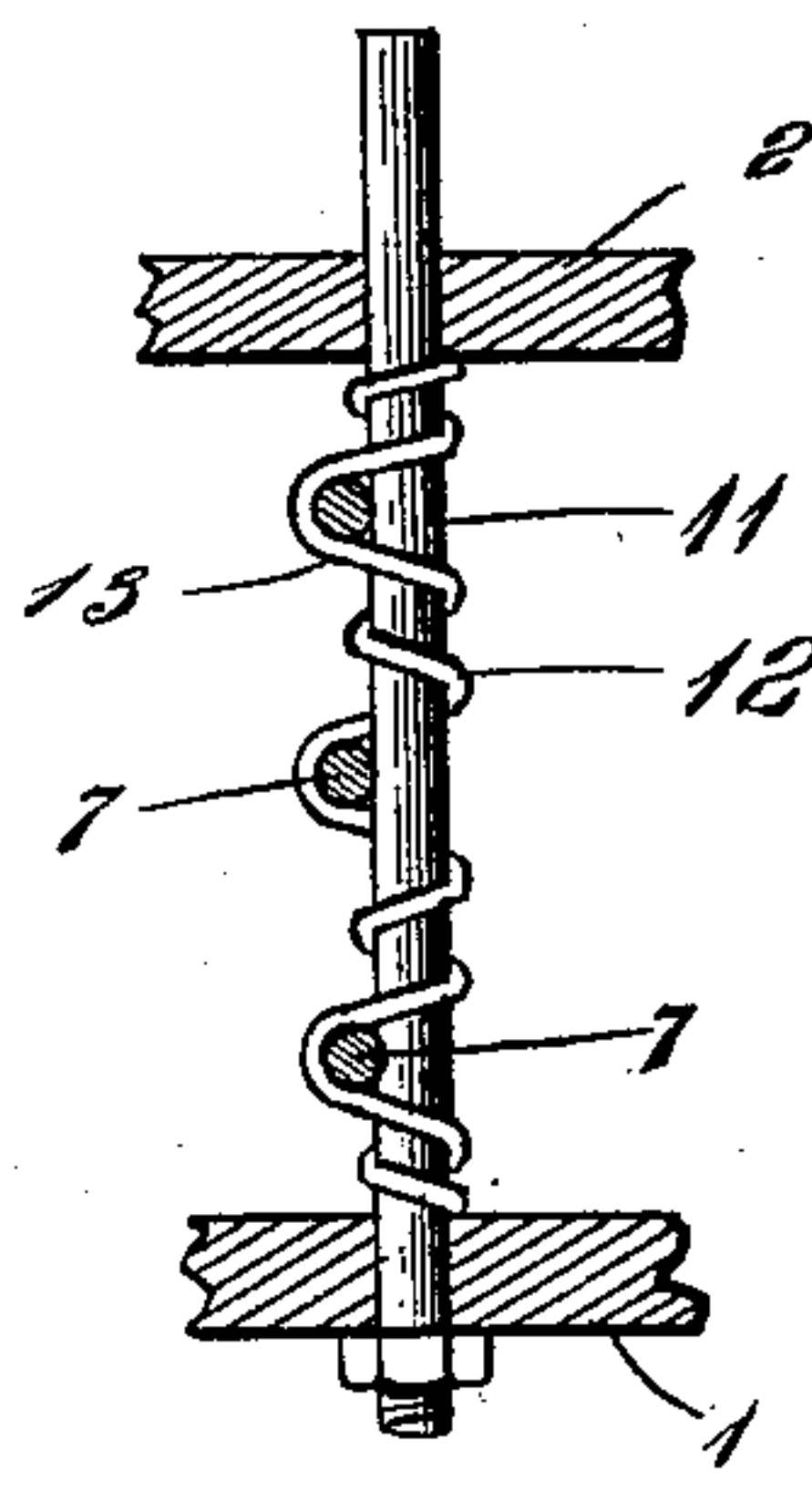


Fig. 6.



Witnesses

G. Chas. Comer,
Victor J. Evans

Inventor
William M. Caffery.

by John Wedderburn
Attorney

UNITED STATES PATENT OFFICE.

WILLIAM McCAFFERY, OF TYLER, WASHINGTON, ASSIGNOR OF ONE-HALF
TO JOHN CASSADY, OF CHENEY, WASHINGTON.

RAILROAD-SWITCH.

SPECIFICATION forming part of Letters Patent No. 606,730, dated July 5, 1898.

Application filed July 12, 1897. Serial No. 644,266. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM McCAFFERY, of Tyler, in the county of Spokane and State of Washington, have invented certain new and
5 useful Improvements in Railroad-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
10 the same.

The invention relates to a railroad-switch, and more especially to the filling interposed between the fixed rail and the movable rail or switch-tongue.

15 It will be readily understood that as the switch-tongue has to be moved toward and away from the fixed rail no stationary filling can be used between said parts, and to this fact are due many serious and even fatal accidents that have occurred owing to parties—
20 switchmen and others—getting the foot accidentally caught between the rail and said switch-tongue just in advance of an approaching train or engine.

25 The object of the present invention is to provide a filling which will yield to permit the switch-tongue to move either toward or away from the fixed rail, as required, and which will uphold the foot of the person stepping
30 thereon and prevent it from becoming wedged between the rails and the tongue.

It will be understood from the following description and claims, reference being had to the accompanying drawings, in which—

35 Figure 1 is a plan view of a section of rail and the switch-tongue with the improvement applied. Fig. 2 represents a bottom view of the same. Fig. 3 represents a horizontal section taken immediately below the rail-heads, showing the filling in plan view. Fig. 4 represents
40 a transverse section showing the split or slotted bolt adjacent to the free end of the switch-tongue in side elevation. Fig. 5 shows a similar view of the bolt at the pivoted-end of the
45 tongue, and Fig. 6 shows an intermediate bolt or pin and its spring with the filler-rods in section.

1 indicates the fixed rail of a railway-track, and 2 the switch-tongue, which is pivotally
50 supported at its heel end, as indicated at 3,

by a strap 4, connecting it with the fixed rail 1. The tongue, however, may be pivoted at its heel end in any suitable manner.

5 indicates a slotted strap connected with the base of the rail 4 and connected at its slot-
55 ted end, by a headed pin or screw 6, with the switch-tongue 2. The strap 5 is arranged intermediate the ends of said switch-tongue and serves to limit the outward movement of the tongue-point away from the fixed rail 1. 60

7 7 7 indicate parallel rods arranged intermediate the rail 1 and the switch-tongue or movable rail 2 and extending from a point at or near the point of the switch-tongue to a point at or near the heel end of said tongue,
65 where they are provided with eyes looped around a transversely-arranged pin or bolt 8, secured in the rail 1 and passing through an eye or perforation in the switch-tongue 2, immediately underneath the heads of the rails. 70
The pin or bolt 8 is wrapped by a spiral spring 9, which serves to engage the eyes or loops in the ends of the rods 7 and to hold them at uniform distances apart on the bolt 8. The free
75 ends of the rods, near the point on the switch-tongue, pass through a split or slotted bolt 10, secured in the rail 1 and passing through a perforation in the switch-tongue 2, adapting the latter to move laterally thereon, the split bolt
80 affording a support for the free ends of the rods 7 and permitting them to be brought together as the switch-tongue is moved into contact with the fixed rail 1 for switching purposes. Intermediate the split bolt and the bolt 8, sup-
85 porting the heel ends of the rods 7, are arranged a series of transverse bolts 11, secured, like the bolts 8 and 10, in the rail 1 and passing through perforations in the switch-tongue for permitting the lateral movement of said
90 tongue upon them. The rods 7 rest upon the bolts 11 and pass through eyes or loops 13, formed in spiral springs 12, wrapping the bolts 11, and which, by the compression of the springs, permit relative lateral movement of the rods 7, while at the same time they serve
95 to space said rods and hold them at uniform distances apart when the switch is open. These rods are placed, as stated, immediately underneath the plane of the rail-head and are
100 sufficient in number and in strength to form

a support for the foot of the person stepping thereon, thereby preventing the foot from passing below the head of the rail and rendering it practically impossible for the foot to be-
 5 come wedged in between the fixed rail and the movable rail or switch-tongue. By supporting the free ends of the rods 7 in the manner described the switch-tongue is adapted to be moved into contact with the fixed rail, its
 10 movement serving to compress said ends of the rods and bring them together under the head of the rail in a manner that will be readily understood.

As stated, the rods 7 will be made sufficient
 15 in strength and in number to form a firm support for the weight of a person stepping thereon and will effectually prevent the foot from passing so low as to become wedged between the fixed and movable parts of the rail. As
 20 stated, the manner of pivoting the tongue and also the arrangement of the stop for limiting the outward movement of the tongue may be varied, as also the means for supporting and permitting the compression of the yielding or
 25 elastic foot-support may be varied without departing from the spirit of the invention.

Having thus described the invention, what I claim as new, and desire to secure by Letters Patent, is—

30 1. A yielding or elastic filling composed of

parallel rods interposed between the fixed rail and the movable rail or switch-tongue, in combination with supports for said rod connected with the rails, and yielding loops or eyes on
 said support for said rods, substantially as 35 described.

2. In a filling interposed between the fixed rail and the movable rail or switch-tongue, the yielding rods forming said filling, in combination with the supporting transverse rods 40 connected with the rail and tongue, spacing-loops on said rods, and a spring permitting said loops and the yielding rod passing through them to yield and move, one toward or away from the other, substantially as de- 45 scribed.

3. The filler-rods interposed between the fixed portion of a railway-rail and the switch-tongue looped, at their shank ends to a trans- 50 verse rod or bolt and extending thence toward the movable end of the switch-tongue, their guiding-supports permitting their yielding movement, substantially as described.

In testimony whereof I have signed this specification in the presence of two subscrib- 55 ing witnesses.

WILLIAM McCaffery.

Witnesses:

J. E. MARSTON,

C. H. CHAMBERS.