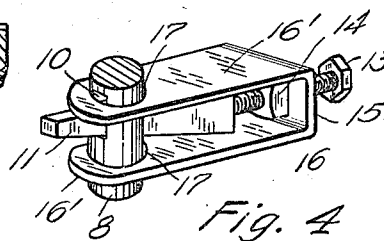
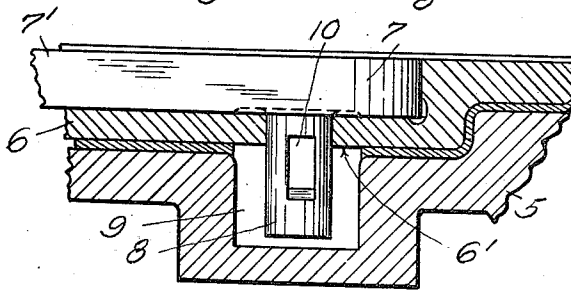
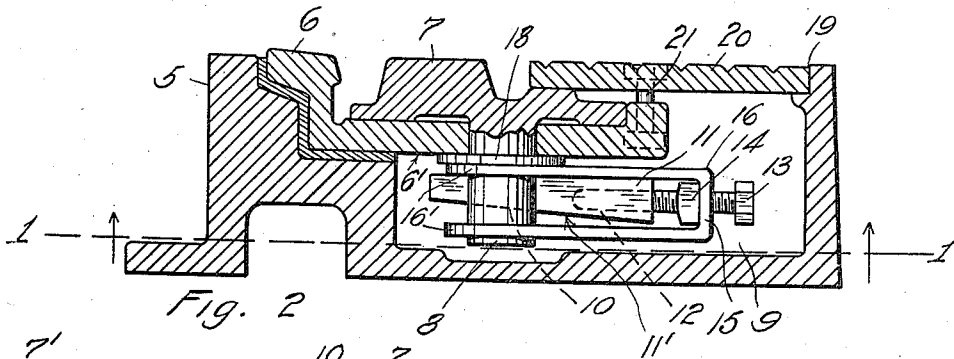
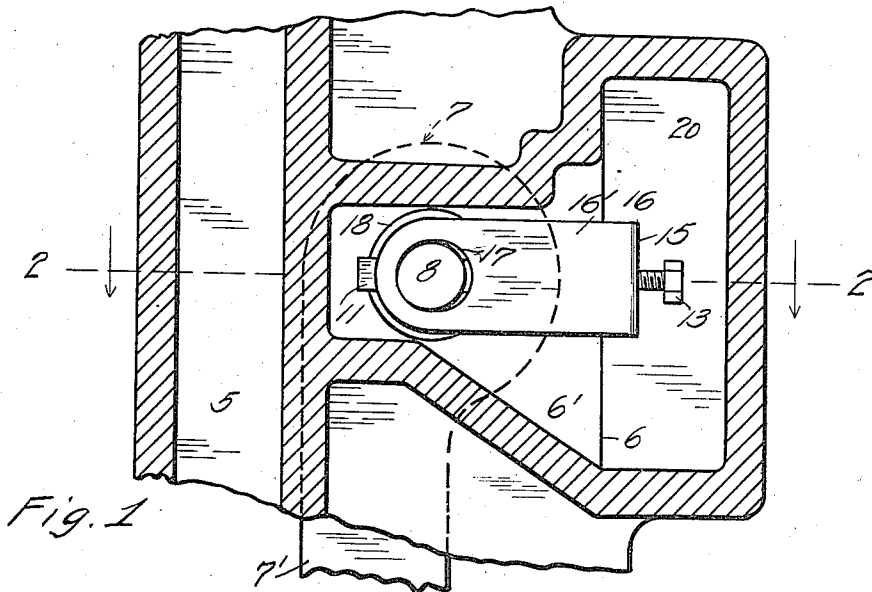


M. J. HENEHAN.
RAILWAY TONGUE SWITCH.
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1,060,183.

Patented Apr. 29, 1913.



WITNESSES:

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MARTIN J. HENEHAN, OF SEATTLE, WASHINGTON.

RAILWAY TONGUE-SWITCH.

1,060,183.

Specification of Letters Patent.

Patented Apr. 29, 1913.

Application filed March 5, 1912. Serial No. 681,844.

To all whom it may concern:

Be it known that I, MARTIN J. HENEHAN, a citizen of the United States, residing at Seattle, in the county of King and State of Washington, have invented certain new and useful Improvements in Railway Tongue-Switches, of which the following is a specification.

This invention relates to tongue-switches for railways; and its object is the provision of simple and efficient devices whereby the heel end of a switch-tongue may be adjusted to compensate for wear and also retain the same in suitable operative position.

The invention is illustrated in the accompanying drawings, wherein—

Figure 1 is a horizontal section through 1—1 of Fig. 2, showing the invention applied to a switch structure. Fig. 2 is a transverse vertical section taken substantially through 2—2 of Fig. 1. Fig. 3 is a detail longitudinal view shown partly in section and partly in elevation, with the tongue adjusting and securing means omitted. Fig. 4 is a perspective view showing the tongue-pin with the adjustable securing means therefor.

The reference numeral 5 designates the body of the switch base which is provided with a recess to furnish a seat for a hard metal tread element 6 constituting a part of the switch base, and which, in turn, is recessed for the heel portion 7 of the switch tongue 7'.

Integral with, or rigidly secured to, the tongue-heel is the pivotal pin 8 therefor which extends through an opening of said tread element into a chamber 9 therebelow in the base member 5.

A slot 10 extends diametrically through the pin 8 and at approximately right angles to the tongue. Inserted in said slot is a tapered key 11 provided at its larger end with a screw threaded hole 12 to engage an adjusting screw 13. 14 is a nut engaging said screw and abutting against the end 15 of a substantially U-shaped yoke 16 whose legs 16' are apertured, as at 17, to receive the pin 8 above and below the key 11. The diameter of said nut is such that it will fit within the space between the yoke legs 16' and thereby be prevented from rotating.

18 is a washer which may advantageously be interposed between the upper leg 16' of the yoke and the under face 6' of said tread element for the purpose of minimizing the

friction. The body 5 is provided with an opening 19 into the chamber 9 to afford access whereby the screw 13 may be conveniently regulated. 20 is a cover plate for said opening and is removably held in place by bolts, such as 21.

In operation, the tongue fastening means comprising the key, yoke and screw, are oscillated in a horizontal plane with the pin 8 as the tongue is swung in one direction or the other. To take up slack due to the wear of the tongue heel, the screw 13 is suitably turned to retract the same from the key 11 resulting in the latter being advanced to draw the tongue heel downwardly by reason of the inclined lower edge 11' of the key engaging the bottom of the pin slot 10 to forcibly depress the pin.

What I claim is—

1. In a railway switch, the combination of the base, a switch tongue thereon, a pivotal pin rigid with the tongue and extending into the base, and means including a tapered key and a regulating screw for adjusting said tongue with respect to the base, said screw and key being mounted to oscillate with said pin.

2. In a railway switch, the combination of a base including a recessed wearing plate, a switch-tongue having its heel portion seated in the recess of said plate, a slotted pin extending downwardly from the tongue heel into the base subjacent to the wearing plate thereof, a tapered key extending into the pin slot and coacting with the underside of said wearing plate to maintain said tongue against the wearing plate, and means carried by the pin whereby said key may be adjusted for taking up the wear occurring at the tongue heel.

3. In a railway switch, the combination with the base, a switch tongue, a pivotal pin extending downwardly from the tongue into said base, of a tapered key extending through a slot provided therefor in said pin, and means whereby said key may be regulated for adjustably securing the heel of said tongue against the base diametrically.

4. In a railway switch, the combination of the base, a switch tongue thereon, a pin extending downwardly from the heel of said tongue into the base, a tapered key engaging said pin and serving to maintain said tongue against the base, and a screw oscillating with the pin and engaging the

key whereby the latter is adjusted to take up the wear of the tongue with respect to the base.

5 In a railway switch, the combination of the base, a switch tongue thereon, a slotted pin extending downwardly from the tongue into the base, a tapered key engaging in the slot of the pin and coacting with the base for securing the tongue thereto, and
10 means carried by said pin for adjusting said key with respect to the pin.

6 In a railway switch, the combination of the base, a switch tongue thereon, a slotted pivotal pin for the tongue extending
15 downwardly into the base, a yoke mounted upon said pin, a tapered key inserted in the slot of said pin, and a screw extending through the yoke and engaging in a hole provided in the key.

20 7. In a railway switch, the combination of the base, a switch tongue thereon, a slotted pivotal pin for the tongue extending downwardly into the base, a yoke mounted upon said pin, a tapered key inserted in the slot of said pin, a screw extending through
25 the yoke and engaging in a hole provided in the key, and a nut for said screw and engaging against the end of the yoke.

8. In a railway switch, the combination
30 with the base comprising a chambered body and a wearing plate seated in a recess provided in said body, of a switch tongue having its heel seated in a recess provided in said wearing plate, a pin extending down-
35 wardly from the tongue heel through the wearing plate and into the chamber of the base body, a U-shaped yoke secured to the pin, a washer interposed between the yoke

and said wearing plate, and adjustable means carried by the pin and said yoke
40 whereby the wearing plate of the body is adjustably embraced by and between the tongue heel and said washer.

9. In a railway switch, the combination with the base comprising a chambered body
45 and a wearing plate seated in a recess provided in said body, of a switch tongue having its heel seated in a recess provided in said wearing plate, a pin extending downwardly from the tongue heel through the
50 wearing plate and into the chamber of the base body, a U-shaped yoke secured to the pin, a washer interposed between the yoke and said wearing plate, a tapered key extending into a slot provided in the pin, and
55 screw devices connected to the yoke and engaging the key whereby said wearing plate is embraced by the washer and the tongue heel to compensate for the wear occurring
60 between the tongue heel and the wearing plate.

10. In a railway switch, the tongue securing means comprising, in combination
65 with the base, a slotted pin for the switch tongue, a tapered key extending diametrically through the pin, a yoke attached to the pin and inclosing said key, and a screw connected with the yoke and engaging said key for the endwise adjustment of the latter.

Signed at Seattle, Wash., this 19th day
70 of February, 1912.

MARTIN J. HENEHAN.

Witnesses:

E. PETERSON,
HORACE BARNES.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."