D. S. JONES.

SWITCH POINT GUARD.

APPLICATION FILED DEC. 6, 1911.

1,032,484.

Patented July 16, 1912.

2 SHEETS—SHEET 1.

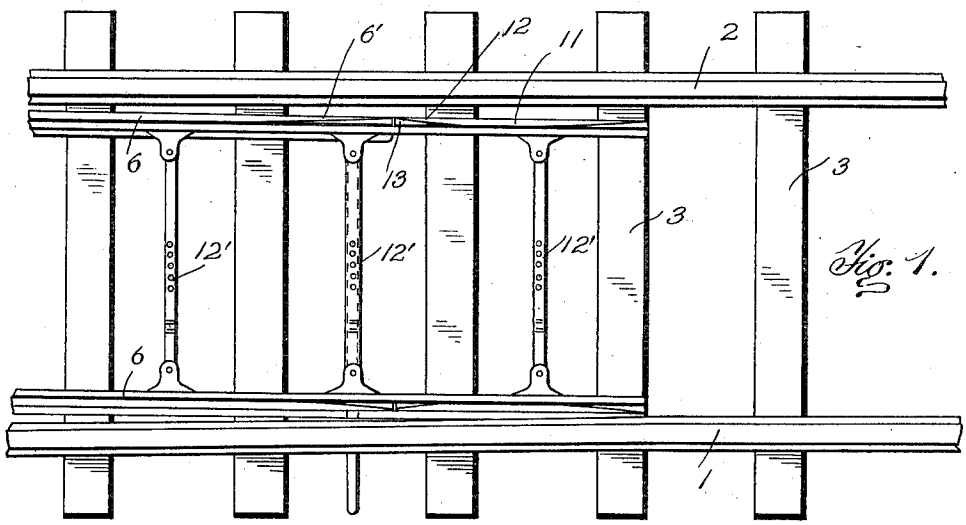

Fig. 1.

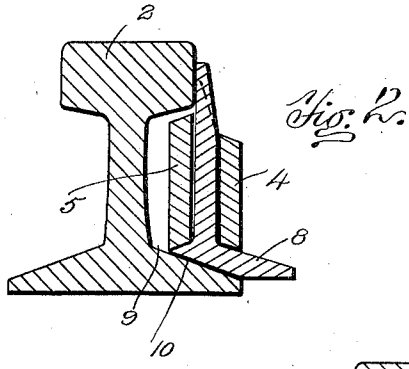

Fig. 2.

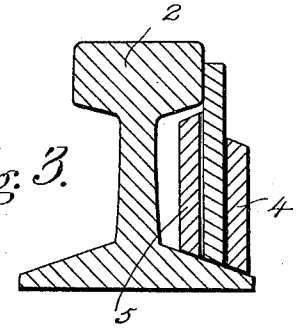

Fig. 3.

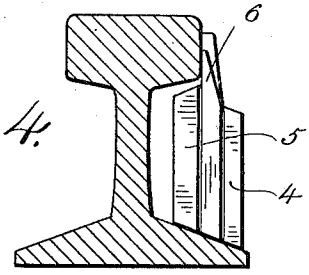

Fig. 4.

Witnesses

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2 SHEETS—SHEET 2.

Fig. 5.

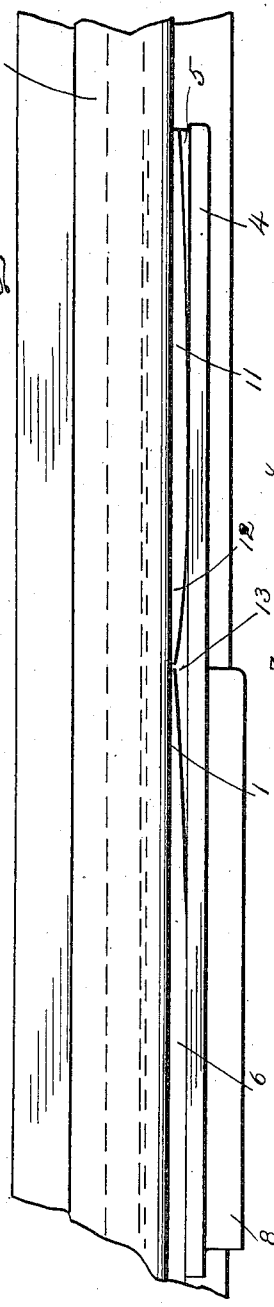


Fig. 6.

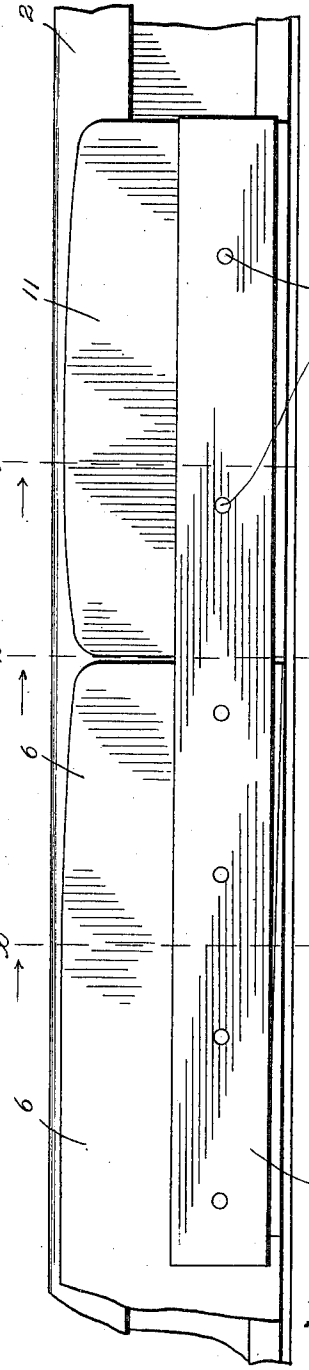
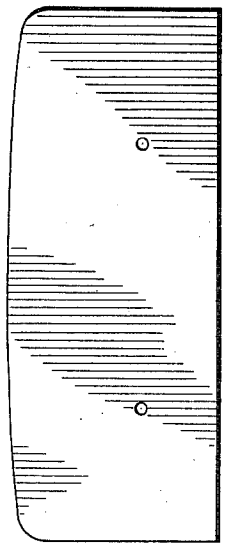


Fig. 7.



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UNITED STATES PATENT OFFICE.

DENSON S. JONES, OF NORFOLK, VIRGINIA.

SWITCH-POINT GUARD.

1,032,484. Specification of Letters Patent. Patented July 16, 1912.

Application filed December 6, 1911. Serial No. 664,197.

To all whom it may concern:

Be it known that I, DENSON S. JONES, a citizen of the United States, residing at Norfolk, in the county of Norfolk and State of Virginia, have invented certain new and useful Improvements in Switch-Point Guards, of which the following is a specification.

This invention relates to a switch point guard.

The object of my invention is to prolong the life of a switch point by preventing its wear and to this end I provide a guard member disposed substantially in alinement with a switch point and coöperating therewith to guide the flange of a car wheel, the arrangement being such that when a wheel is passing over a track in the direction of the switch point the flange of the periphery of the wheel will not contact with the switch point at all, and this will cause all friction at the point of juncture between the switch point and guard to be eliminated.

It is known that the flange of a car wheel is caused to abrade or rub against the switch point guiding it over a branch track with considerable friction, and the constant recurrence of the switching off of cars on the main line of a railroad produces considerable wear in a switch point, so that it becomes necessary to supplant it with a new switch point.

By the arrangement which I have devised the car wheel is free to ride over the rail and switch point and the flange of the wheel is caused to engage the side of the guard before it is run on over the switch point, and owing to the peculiar construction of the switch point at its juncture with said guard the flange of the wheel will ride clear of the switch point.

With the above and other objects in view, my invention consists in the combination, construction and arrangement of parts shown in the drawings and then more particularly pointed out in the appended claims.

Similar reference characters designate similar parts throughout the several views of the drawings, wherein,

Figure 1 is a top plan view of a railroad track showing the switch point and guard therefor in operative position between the rails, Fig. 2 is a cross sectional elevation of the novel switch point guard taken on the line X—X of Fig. 4, Fig. 3 is a cross sectional elevation thereof taken on the line Y—Y of Fig. 6, Fig. 4 is an end elevation partly in section taken on line Z—Z, of Fig. 6, of a rail showing my guard in operative position, Fig. 5 is a top plan view of a rail showing my guard and switch point in operative position, Fig. 6 is a side elevation of a switch point and guard, and Fig. 7 is a side elevation of my novel guard.

1 and 2 designate tracks of a railway secured to the ties 3.

6 are switch points of the common switch now in general use. Connected to the switch points by means of the members 4 and 5 and the belts 7 are auxiliary switch points or switch point guards 11.

I mount my novel guard between the bars 4 and 5 in such a manner that the ends of the guard and switch point are substantially in alinement so that they may be close together and so that the bolts 7 passed through said bars may hold the guard 11 in operative position in a similar way as they hold the switch point 6. It will be obvious from the disposition of the switch point that the guard is virtually an auxiliary switch point to take the wear of a wheel which otherwise would contact with the adjacent surface of the main switch point.

The tie rods 12′ spanning the switch points 6 are of the usual construction, as shown in Fig. 1, so that oppositely arranged switch points may move in unison. The switch point 6 is formed at its point of contact with the rail with a tapering or narrowed surface 6′, and the adjacent end of the guard 11 is also formed with a gradually decreasing width or tapering surface 12, and owing to this arrangement when the wheel of a car is passing over the appropriate rail the flange of the wheel will ride clear of the tapered end 6′ of the switch point 6, owing to the circumstance that a valley or recess 13 substantially pyramidal in contour will occupy the space between the guard and that portion of the switch point which is subject to direct contact of the flange when the wheel is run on over the switch point to a branch track. This will prevent the rapid wearing away of the switch point and will prolong its life.

The guard 11 is mounted in front of the switch point 6 so as to come within range of the flange of a car wheel as it is run over the switch point and the periphery of the wheel will be free to contact the upper

surface of both the guard 11 and the switch point 6 but the flange of said wheel will be disposed in the recess or valley 13 and will not bind against any portion of the tapered end 6′ of the switch point 6.

The adjacent ends 6′ and 12 of the switch point 6 and the guard 11 are, as clearly shown in Fig. 7, downwardly inclined so as to converge at the valley 13 thereof to facilitate the rolling of the car thereover.

Numerous modifications may be resorted to in practice without departing in essence from the invention disclosed.

I claim and desire to secure by Letters Patent:

1. In combination with a switch point, a guard therefor consisting of an auxiliary point, and said guard being tapered toward both its ends.

2. In combination with oppositely arranged switch points, oppositely arranged auxiliary switch points disposed in alinement in front of said first named switch points, said first named and said auxiliary switch points being in close contiguity and having their adjacent ends tapering to a point to form a recess for clearing the flange of a wheel and means for holding said first and last named switch points in position alongside a rail.

3. In combination with a switch point, a guard therefor consisting of an auxiliary point, said guard being tapered toward both its ends, and said guard being wider at its central portion than said switch point.

4. In combination with a switch point, a guard therefor consisting of an auxiliary point, said guard being tapered toward both its ends, and said guard being wider at its central portion than said switch point, and means for rigidly connecting said guard with said switch point.

5. In combination with a switch point, a guard therefor consisting of an auxiliary point, said guard being tapered toward both its ends, and said guard being wider at its central portion than said switch point, and means for rigidly connecting said guard with said switch point, and in advance thereof.

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

DENSON S. JONES.

Witnesses:
W. E. Nicholson,
T. G. Broughton.