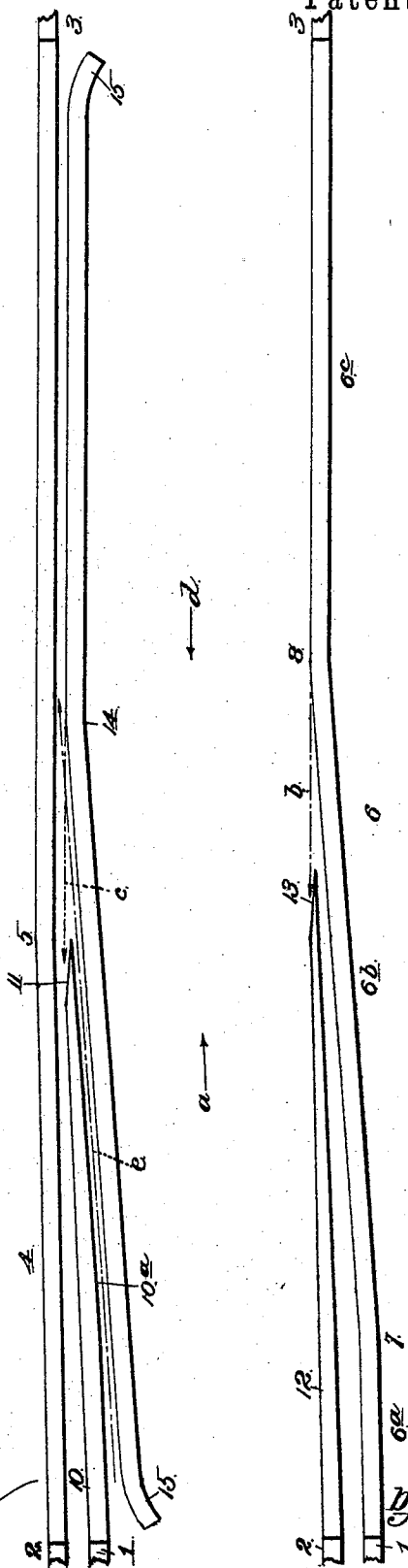


(No Model.)

M. S. PITTMAN.
STATIONARY RAILWAY SWITCH.

No. 582,313.

Patented May 11, 1897.



UNITED STATES PATENT OFFICE.

MOSES S. PITTMAN, OF INDEPENDENCE, MISSOURI, ASSIGNOR OF ONE-HALF
TO JOHN W. WOOD, OF SAME PLACE.

STATIONARY RAILWAY-SWITCH.

SPECIFICATION forming part of Letters Patent No. 582,313, dated May 11, 1897.

Application filed December 21, 1896. Serial No. 616,431. (No model.)

To all whom it may concern:

Be it known that I, MOSES S. PITTMAN, of Independence, Jackson county, Missouri, have invented certain new and useful Improvements in Stationary Railway-Switches, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, forming a part thereof.

This invention relates to stationary railway-switches; and it consists in certain novel and peculiar features of construction and organization hereinafter described and claimed.

It is designed especially as an improvement in the stationary switch patented by myself and J. W. Wood October 6, 1896, No. 568,957.

The object of the above-referred-to patented invention, as stated in lines 8 to 23, page 1, was to obviate in great measure the dangerous lateral swerve or movement of a train or car in passing from a double onto a single track.

The object of the present invention is to obviate entirely such dangerous lateral swerve or movement by providing a construction which permits a train to pass from the double onto the single track without any sudden swerve or jolt perceptible to the occupants of such train.

In order that others skilled in the art to which this invention appertains may fully understand the invention and its advantages, reference is to be had to the said accompanying drawing, which illustrates a plan view of a stationary switch embodying my improvements.

As such improvements, though very important, consist principally in bending one of the main rails and the guard-rail differently from what such parts are bent in said former patent, or rather in obviating certain bends in said parts in the patent referred to, I shall follow the order and arrangement of reference-numerals of said patent as nearly as possible that the invention may be more readily comprehended.

Referring now to the drawing in detail, 1 designate the right-hand rails of the double section of the track.

2 2 designate the left-hand rails of said double track.

3 3 designate the single-track rails, and they are arranged in longitudinal alinement with the double-track rails 2.

4 designates the rail which connects the left-hand rails 2 and 3 when viewed in the direction indicated by the arrow *a*. Said rail is bent outwardly, so as to form a slight obtuse angle. The apex occupies a vertical plane outward of the longitudinal line of the track-rails 2 and 3, as shown at 5.

6 designates the rail which connects the right-hand track-rail 1 and the right-hand track-rail 3, and owing to the fact that said rails are not in longitudinal alinement the rail 6 must be so bent as to properly connect them. To accomplish this, the said rail a short distance from the rail 1 is bent as shown at 7, and at a suitable point, occurring between the single-track rails and the bend 5 of the rail 4, is bent in the opposite direction, as shown at 8, thus providing a rail consisting of three integrally-formed parts—viz., the part 6^a between the rail 1 and the bend 7 and the inwardly-bent portions 6^b and 6^c, located, respectively, between the bends 7 and 8, and 8 and the connected track-rail 3. Said rail is so arranged that the portion 6^c is parallel with that portion of the rail 4 between the reference-numerals 3 and 5. The difference between this rail and the corresponding rail of said former patent will be noticed. The essential point of difference between said rails lies in the fact that the portion of the present rail from the numeral 7 to the numeral 8 is perfectly straight, while in the former patent a bend occurred in such portion.

10 designates the short pointed rail. Said rail forms a continuation of the left-hand rail 1 and extends from said rail convergingly to a point opposite the apex 5 of the rail 4. It is beveled at its inner side for nearly its entire length, and such beveled side 10^a extends parallel with the portion of the rail 6 lying between the reference-numerals 7 and 8. Said rail at its outer side and free end is beveled to a point, as shown at 11, the inclination

of said bevel being toward the single-track and the opposite or right-hand track rails, or, in other words, said bevel extends divergently from that portion of the rail 4 lying between the reference-numerals 2 and 5.

12 designates the long pointed rail, which forms a continuation of the right-hand track-rail 2. The general disposition of this rail is inward from said track-rail, so that its inner margin extends approximately parallel with the inner margin of that portion of the rail 4 lying between the reference-numerals 2 and 5, while its outer margin, which is beveled, preferably, for nearly its entire length, converges with the inwardly-bent portion of the rail 6 lying between the numerals 7 and 8. This pointed rail 12 projects forwardly some distance beyond the end of the pointed rail 10 and at its inner side is beveled abruptly to a point, as shown at 13, such bevel extending approximately parallel with the beveled surface 11 of the rail 10, so that the extreme point of said rail 12 shall lie outward of the plane of the apex of the bend 8 of the rail 6, as indicated by the dotted line *b*.

Referring now to the guard-rail, which is also of different formation from the guard-rail in the aforesaid patent and which is arranged inward of the rails 4 and 10, it will be noticed that it is bent, as at 14, at a point forward of the point of the rail 10 about equal to the distance between the point of the rail 12 and the bend 8 of the rail 6, and consequently is disposed between the bend 8 and said pointed rails. From such bend 14, which occurs outward of the plane of the point of the rail 10, as indicated by dotted line *c*, it extends parallel with that portion of the rail 4 lying between the reference-numerals 3 and 5 and is curved inwardly, as shown at 15, in the customary manner. In the opposite direction and from the point 14 said rail extends parallel with the beveled margin 10^a of the short pointed rail 10. It projects beyond said beveled margin, and consequently such projecting portion diverges slightly with respect to the remaining or continuing unbeveled portion of said rail 10, and at its extreme end said guard-rail is curved slightly inward in the customary manner, as at 15.

In the passage of a train, in the direction indicated by the arrow *d*, from the single onto the double track it is obvious that there is no perceptible jar or jolt and that there is no possible chance for the train to pass in any but the proper direction, as clearly pointed out in the aforesaid patent. In passing in the opposite direction, however, by the construction shown in said patent the train would be caused to swerve more or less abruptly. This abrupt movement is entirely obviated in my present construction, owing to the fact that the guard-rail and the rail 6,

between the numerals 7 and 8, are perfectly straight, and consequently a train passing in the direction indicated by the arrow *a* follows the course indicated by the dotted line *e* and does not vary its course in the slightest degree until it has passed through the throat formed between the guard-rail and the rails 4 and 10 and beyond the bend 14 of said guard-rail, when it is deflected slightly, as in the former patent, but such deflection is so slight that in actual practice it is imperceptible to the occupants of the train.

In the former patent the deflection, as heretofore referred to, though slight, was more or less perceptible, and consequently this invention was designed to obviate and has practically obviated all lateral movement perceptible to the car occupants. This is accomplished not alone by bending said rails as described, but also by separating the heels of the rails 10 and 12 farther from the corresponding or opposite portions of the rails 4 and 6 than is done in the aforesaid patent, so as to give the requisite inclination to the pointed rails and to the opposite portion of the guard-rail. This disposition of said rails, however, may be accomplished by planing them to the requisite bevel, and consequently reliance is chiefly placed upon bending the guard-rail and the rail 6, as described. In other words, I desire it to be understood that while I prefer to separate the heels of the said pointed rails, so as to form a converging passage between them and the adjacent rails, I do not limit myself to this arrangement, as the same object may be accomplished in other ways.

From the above description it will be apparent that I have produced a stationary railway-switch which embodies the feature of advantage enumerated as desirable in the statement of invention and which is simple, strong, durable, and comparatively inexpensive of construction.

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

In a stationary railway-switch, the combination of a double set of track-rails 1 and 2, single-track rails in alinement with one set of double-track rails, a bent rail connecting one of the double-track rails 2 with one of the single-track rails, a pointed rail connected to the adjacent double-track rail 1, and extending approximately parallel with the adjacent bent portion of said rail connecting the double-track rail 2 and the single-track rail, and terminating opposite the apex of said bent rail, a rail connecting the other double-track rail 1 with the other single-track rail, and bent to form a portion which extends parallel approximately with said pointed rail, and with a second portion which extends parallel with that portion of the rail connecting the double-track rail 2 and the single-track rail, in ad-

vance of the point of said pointed rail, and a
guard-rail, which is bent to provide a portion
which extends parallel with that portion of
said first-named bent rail between the pointed
5 rail and the single-track rail, and a second
portion, which extends parallel with that por-
tion of the bent rail connecting the other sin-
gle-track rail and the double-track rail 1, ex-
tending parallel with the short pointed rail,

or with its inner margin, substantially as de- 10
scribed.

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

MOSES S. PITTMAN.

Witnesses:

G. Y. THORPE,
M. R. REMLEY.