No. 824,271. PATENTED JUNE 26, 1906.

J. B. & A. L. ALDRICH.

PORTABLE RAILWAY CROSSOVER SWITCH.

APPLICATION FILED APR. 9, 1906.

2 SHEETS—SHEET 1.

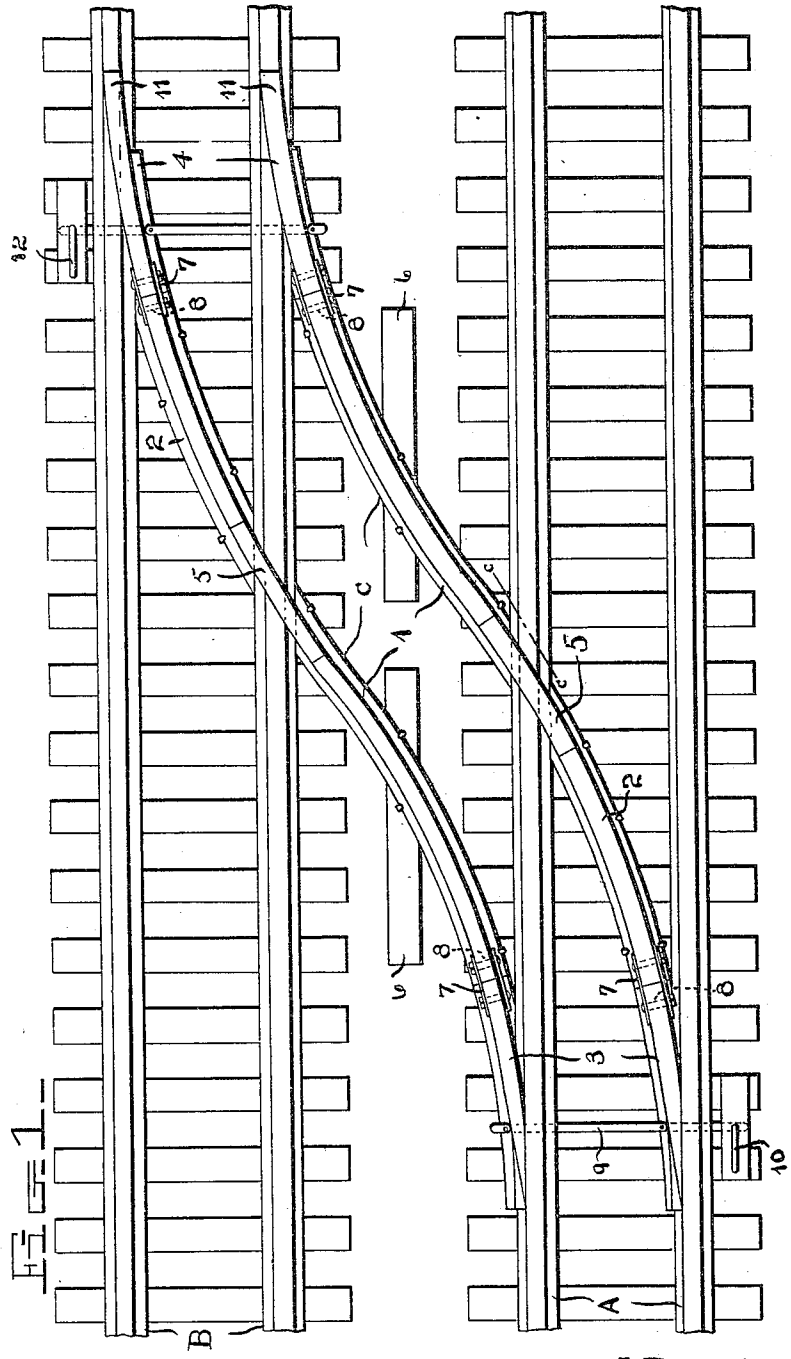

FIG. 1.

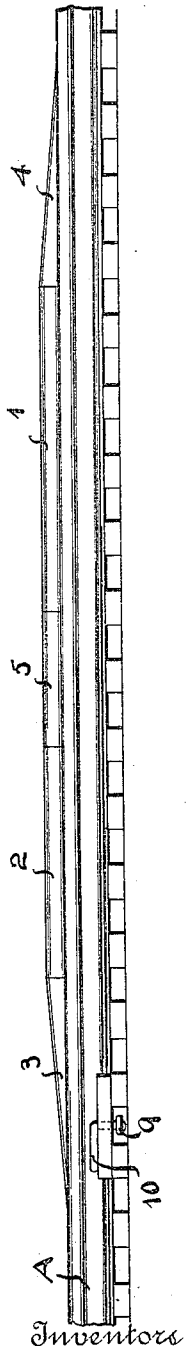

FIG. 2.

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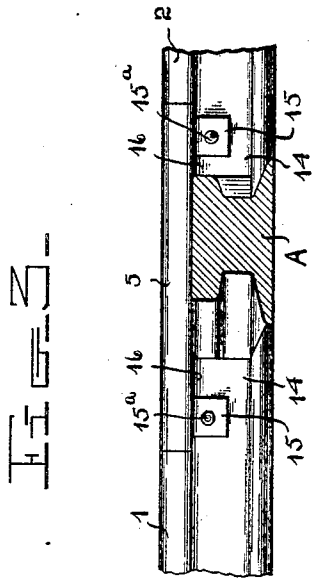

FIG. 3.

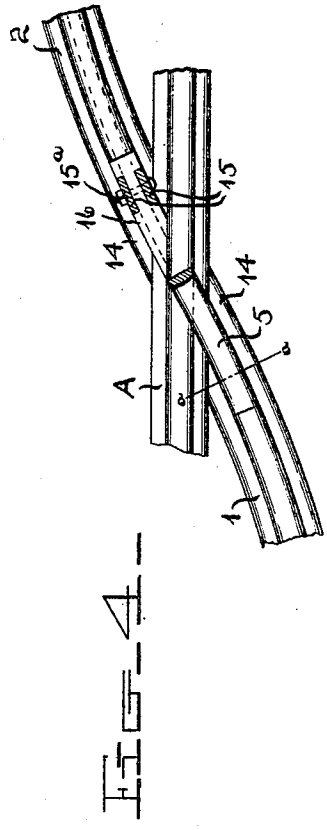

FIG. 4.

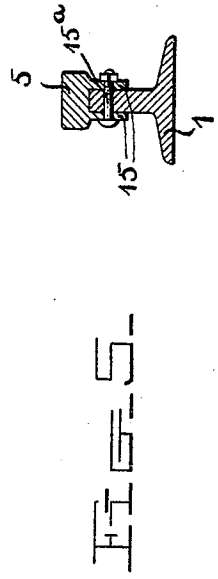

FIG. 5.

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UNITED STATES PATENT OFFICE.

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PORTABLE RAILWAY CROSSOVER-SWITCH.

No. 824,271. Specification of Letters Patent. Patented June 26, 1906.

Application filed April 9, 1906. Serial No. 310,829.

To all whom it may concern:

Be it known that we, JOHN B. ALDRICH and ARBIA L. ALDRICH, citizens of the United States, residing at Endicott, in the county of Broome and State of New York, have invented certain new and useful Improvements in Portable Railway Crossover-Switches; and we do 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 the same.

Our invention is an improved portable railway crossover-switch to be used in cases of emergency to transfer a train or trains from one track to another without the necessity of taking up or cutting either of the tracks in order to instal the emergency-switch; and our invention consists in the construction, combination, and arrangement of devices hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a top plan view of an emergency-switch embodying our improvements, showing the same in place to enable a train to be transferred from one track to another. Fig. 2 is a side elevation of the same. Fig. 3 is a sectional view showing the construction of the switch-rail sections at the point where they cross over one of the track-rails. Fig. 4 is a detail top plan view of the same, partially in horizontal section; and Fig. 5 is a vertical sectional view of the same, taken on the plane indicated by the line *a a* of Fig. 4.

For the purpose of this specification we show a pair of parallel tracks A B in connection with our improved emergency crossover-switch C. The latter comprises sections 1 of suitable length to diagonally cross the space between the track A and the track B, sections 2, placed, respectively, between the rails of the tracks A and B, switch-point sections 3 4, and crossover-sections 5. These sections correspond generally in construction with ordinary railroad-rails, with the exception that their webs or shanks are sufficiently high to dispose their heads above those of the track-rails. The sections 1 are spiked on temporary cross-ties 6, placed between the tracks A B. The sections 2 are spiked on the ties of the said tracks, and the switch-points 3 4, which lie close to the rails of the said tracks, are connected to the outer ends of the sections 1 2 by fish-plates 7 and bolts 8. The points 3 are split points, and their upper sides incline downwardly from their inner ends to their free ends, so that at their free ends said split points are of the same height as the rails of the track A, while at their inner ends they are of greater height than the rails of the track A. The free ends of the split points are connected together by a rod 9, and a switch-lever 10 is employed in connection with said rod to operate said split switch-points. The points 4 or lap-points are provided with projecting lap-heads 11 at their free ends, which are adapted to move over the heads of the rails of the track B and to bear on said rails of said track. The lap projections 11 of the said lap switch-points have their upper sides inclined downwardly and outwardly, so as to gradually lower the wheels of a car or train on the crossover-switch to the rails of the switch B. It will be understood that owing to their inclined upper sides or heads the split points 3 will gradually raise the wheels of a car or train from the rails of the track A. A suitable switch-lever 12 may be employed to operate the lap switch-points 4.

The heads of the rails 1 2 are removed for a suitable distance from the ends thereof which are approximate to the inner rails of the tracks A B. The crossover-sections 6 are in the form of rail-heads to bear on the shoulders formed by the projected webs 14 of the sections 1 2 and are provided near their ends with pairs of depending ears 15 to bear on opposite sides of the webs of said sections 1 2 and to be secured thereto by bolts 15^a, which pass through alined openings in said ears and in said webs. The ends of the webs of the sections 1 2 are widened, as at 16, to form shoulders against which the ears of the crossover-sections abut, said shoulders coacting with the shoulders formed by the heads of said sections 1 2 to prevent longitudinal movement of said crossover-sections and to prevent excessive stress from being exerted on the bolts which secure the crossover-sections to the approximate ends of the sections 1 2. The said crossover-sections bear directly at their intermediate portions on the heads of the inner rails of the tracks A B, so as to lift the wheels of the train entirely over said inner rails and enable the train to readily pass from one track to the other.

It will be understood that our improved emergency crossover-switch may be readily installed and readily taken up and that it may be transported by a wrecking-car or

upon an ordinary hand-car. Inasmuch as our improved emergency crossover-switch renders it unnecessary to cut, remove, or in any wise alter the rails of the tracks to be connected thereby, it will be understood that our emergency crossover-switch may be installed in a very short time.

From the foregoing description, taken in connection with the accompanying drawings, the construction, operation, and advantages of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of the invention as defined by the appended claims.

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

1. An emergency crossover railway-switch comprising track-sections of greater height than ordinary railroad-rails so that the heads of said track-sections are higher than those of ordinary rails, switch-points for the ends of said sections having their upper sides inclined for the purpose set forth, and crossover-sections recessed in and detachably connected to the opposing ends of the first-mentioned sections where the latter are approximate to the inner track-rails and bearing on the heads of said inner track-rails, substantially as described.

2. In a switch of the class described, switch-rail sections having recesses at their opposing ends and their upper sides, in combination with crossover-sections fitted in said recessed ends of said switch-sections and having depending members bearing on opposite sides of the webs of said switch-sections, substantially as described.

3. In an emergency crossover railway-switch, the combination of switch-rail sections having their heads removed for suitable distances from their inner ends to form recesses and having their webs at said ends widened to form shoulders spaced from the heads at the recessed ends of said sections, in combination with crossover-sections to bear on said webs and overlapping said recessed sections, said crossover-sections having depending members bearing on opposite sides of the webs of said switch-sections and against the shoulders formed on said webs, substantially as described.

In testimony whereof we have hereunto set our hands in presence of two subscribing witnesses.

JOHN B. ALDRICH.
ARBIA L. ALDRICH.

Witnesses:
HERBERT T. WILBUR,
GEO. J. AMES.