

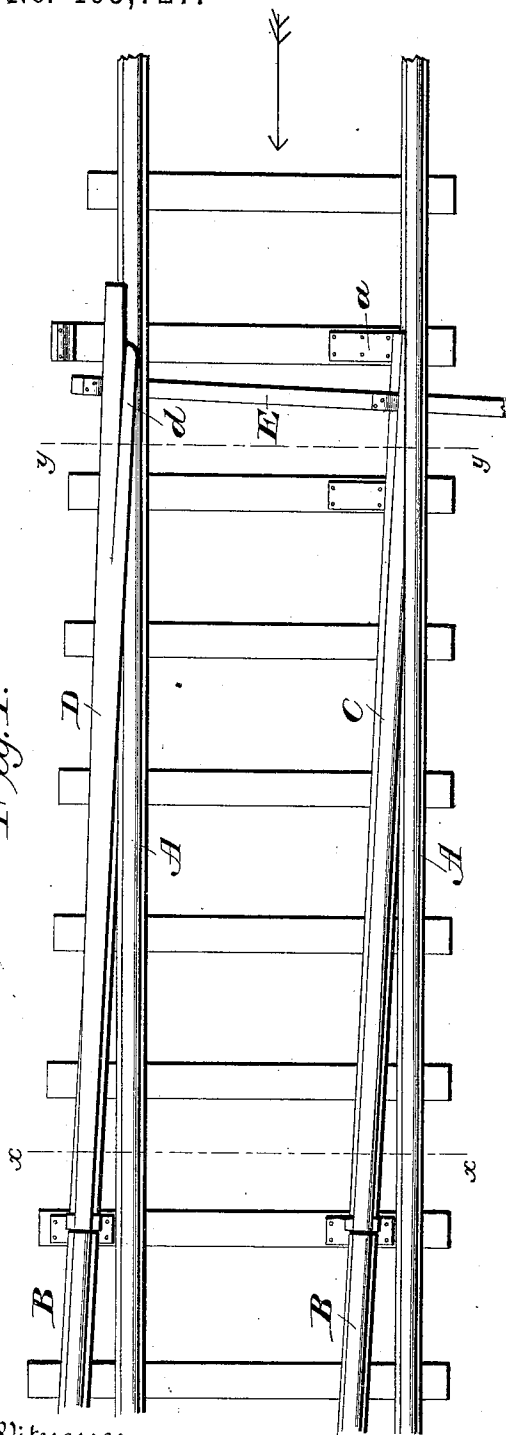
(No Model.)

A. M. GRUBBS.
RAILROAD SWITCH.

No. 463,727.

Patented Nov. 24, 1891.

Fig. 1.



Witnesses

G. S. Elliott.
E. M. Johnson.

Fig. 2.

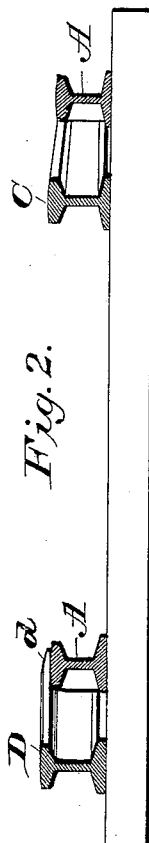
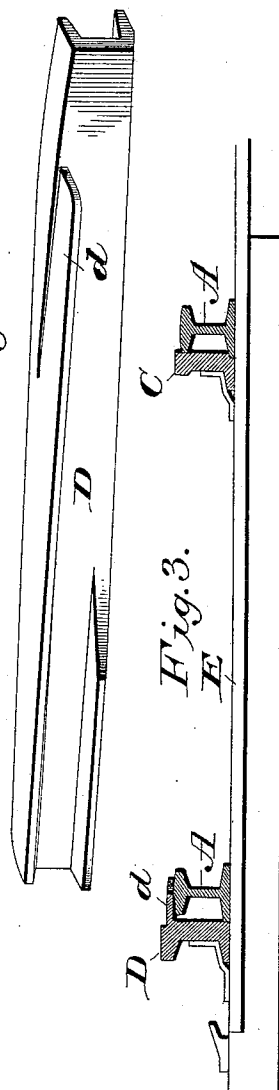
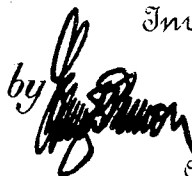


Fig. 3.



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Inventor

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UNITED STATES PATENT OFFICE.

ALBERT MARION GRUBBS, OF FOREST GROVE, OREGON.

RAILROAD-SWITCH.

SPECIFICATION forming part of Letters Patent No. 463,727, dated November 24, 1891.

Application filed February 26, 1891. Serial No. 383,005. (No model.)

To all whom it may concern:

Be it known that I, ALBERT MARION GRUBBS, a citizen of the United States of America, residing at Forest Grove, in the county of Washington and State of Oregon, have invented certain new and 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 the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

15 This invention relates to improvements in railroad-switches, and is designed more especially as an improvement upon Letters Patent No. 444,633, granted to me January 13, 1891.

20 In the accompanying drawings, forming part of this specification, Figure 1 is a plan view of a railroad-switch constructed in accordance with my invention. Fig. 2 is a sectional view taken on the line *xx* of Fig. 1. Fig. 3 is a sectional view on the line *yy* of Fig. 1. Fig. 4 is a detail perspective view of the elevated and flanged switch-rail detached.

30 A A refer to the main-track rails, which are unbroken—that is to say, at the point adjacent to the switch these tracks are secured rigidly or permanently to the ties.

35 B B refer to the switch-rails, which are secured at an angle to the main-track rails, the switch-rail points C and D being connected to said switch-rails in the usual manner. The free ends of the points C and D are connected to a switch-rod E, so that they will be moved in unison. The point C has its inner side nearest the main track tapered and the flange thereof is cut away, so that said switch-point when moved will abut against and be in close proximity to the tread of the rail, while its lower portion rests partly upon the flange of the rail and the upper surface of the tie beneath the point provided with the plate *a*. The extreme point is beveled inward. The point C rises slightly from its end, so as to provide a raised portion above the plane of the main-track rail. The point D, which moves over the outer edge of the opposite main-track rail, is beveled from its free end

rearwardly, and it is provided above the tread of the main track with an overhanging flange *d*, which commences at the end of the rail B and gradually widens toward the point of the rail. This flange curves slightly upward and being reduced in thickness, so as to taper from its thickest portion to the end of the part which lies over the main-track rail. The flange does not extend to the extreme end of the removable switch-point D, but terminates as shown, the end of the flange being below the upper portion of said point.

When the switch is open, the main track is entirely unobstructed and has no break or joint therein; but when the switch is closed and a train coming in the direction of the arrow, Fig. 1, toward the switch the flanges of the wheels of such a train will contact first with the end of the switch-point C and be guided toward the switch-rails B B. The tread of the wheels then coming in contact with the flange *d* of the point D, which overlaps the other rail, will ride thereon, it being noted that the flanges of the wheel will be raised above the tread, so as to be entirely free of the main track. The train can also pass freely over the switch-rails to the main track.

By the construction hereinbefore described it is not necessary to bend or cut away any portion of the main-track rails, nor is it necessary to provide guard-rails.

I am aware that prior to my invention it has been proposed to provide a railroad-switch with movable points which are adapted to overlap the main-track rails, which will be seen by reference to the patent of Swartz, No. 363,348, dated May 17, 1887; but in this case the construction is radically different and means have to be provided for elevating the switch-points above the plane of the main-track rails, and in such case both of the switch-points overlap the rails.

Having thus described my invention, I claim—

In a railway-switch, the combination of the main-track rails A and siding rails B B, the movable points C and D, pivotally connected to the siding rails on a line with each other and connected to each other near their free ends by a switch-rod E, the point C having its inner side adjacent to the main-track

rail cut vertically, so as to provide a point which will lie snugly against the inner side of the main-track rail A when moved toward the same, the movable point D having a raised
5 portion of a greater height than the tread of the main-track rail adjacent thereto, and side flange *d*, which is adapted to lie over the tread of the main-track rail adjacent thereto, said overlapping portion *d* terminating before

reaching the end of the point D, the overlapping portion *d* being of less length than the point C, substantially as set forth. 10

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

ALBERT MARION GRUBBS.

Witnesses:

JOHN W. H. ADKINS,
I. W. BALDWIN.