

(No Model.)

E. J. TAGUE.
RAILWAY CROSSING.

No. 574,285.

Patented Dec. 29, 1896.

Fig. 1.

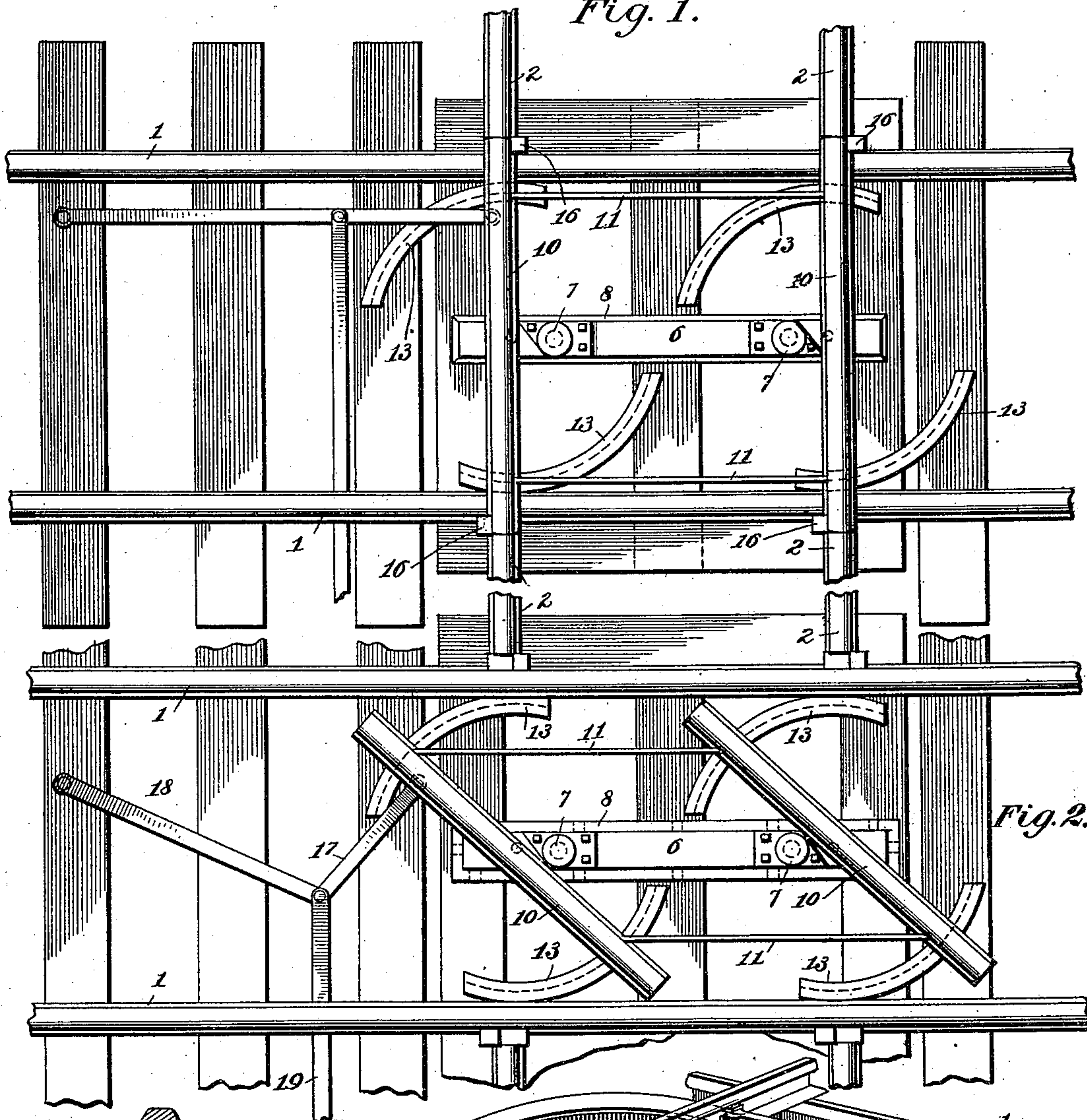


Fig. 2.

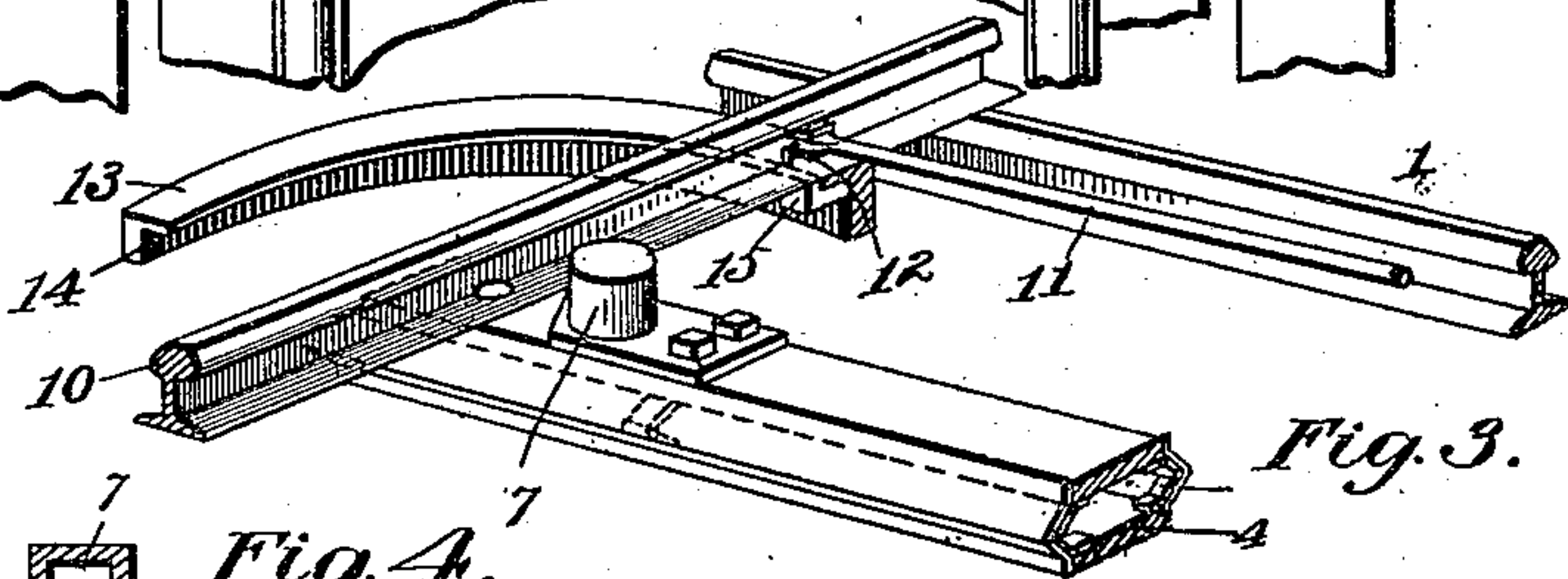
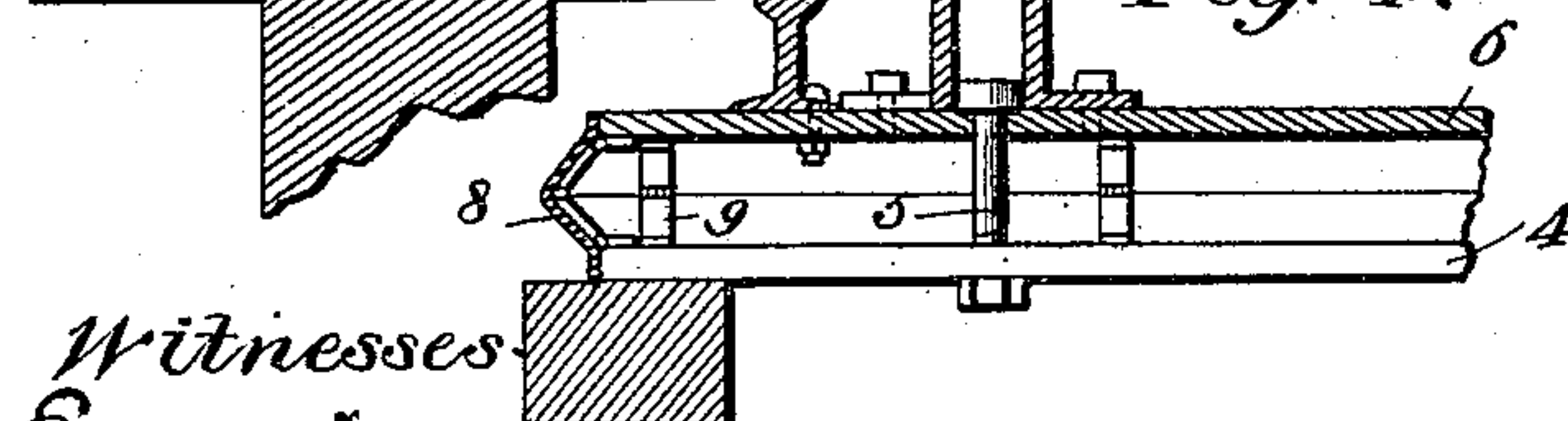
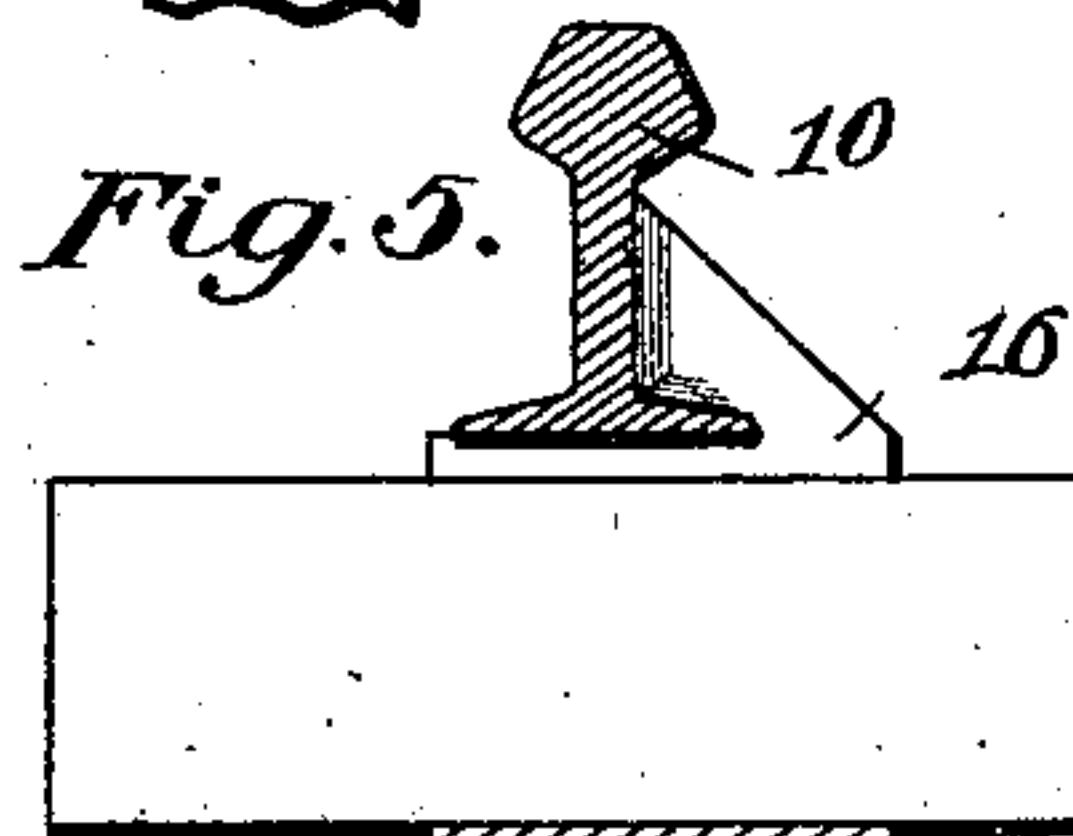


Fig. 3.

Witnesses
Edw. S. Duwall
J. L. Johns

Inventor.
Edward J. Tague
By Percy B. Hills
Atty.

UNITED STATES PATENT OFFICE.

EDWARD J. TAGUE, OF McLUNEY, OHIO.

RAILWAY-CROSSING.

SPECIFICATION forming part of Letters Patent No. 574,285, dated December 29, 1896.

Application filed October 17, 1896. Serial No. 609,228. (No model.)

To all whom it may concern:

Be it known that I, EDWARD J. TAGUE, a citizen of the United States, residing at McLuney, in the county of Perry and State of Ohio, have invented certain new and useful Improvements in Railway-Crossings; 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.

My invention relates to railway-crossings wherein the tracks of one of the meeting lines are normally shifted to permit an unobstructed switchless passage of the other line, the shifted rails being capable, when desired, of being turned to complete the broken track and permit a free passage-way thereon to a train, and has for its objects, first, to provide a means for locking the movable rails in their closed position against the danger of accidental movement; second, to provide a means for pivotally governing the movement of said rails from one position to another, and, third, to provide a means for preventing the introduction of foreign matter into the mechanism controlling the said movements of the rails. These objects I accomplish in the manner and by the means hereinafter described and claimed, reference being had to the accompanying drawings, in which—

Figure 1 is a top plan view of my improved crossing, showing the movable rails closed. Fig. 2 is a similar view showing the movable rails shifted to their open position. Fig. 3 is a detail perspective view of one of the movable rails and a portion of its controlling mechanism. Fig. 4 is a detail longitudinal sectional view of a portion of the plate to which the movable rails are pivoted. Fig. 5 is a detail elevation showing one of the stops for limiting the movement of the movable rails when in their closed position.

Similar figures of reference denote corresponding parts in the several views.

In the said drawings the numeral 1 denotes the rails of a continuous line of track, and 2 the rails of a line of track approaching track 1 at an angle, but terminating just before they reach the same, the tracks 2 being elevated above tracks 1, so that the bottom of the former is on a level with the top of the latter.

Running parallel with the tracks 1 and lo-

cated centrally therebetween and upon the track-ties 3 is a plate 4. This plate has fixed therein near each end a headed bolt 5, passing freely through a vertically-movable plate 6, corresponding in size with plate 5 and normally resting thereon. Bolted to the upper side of plate 6 over said bolts 5 are protecting-caps 7, the same being deep enough to permit a considerable vertical movement to said plate 6 and affording a protection to said bolts 5 to prevent any accumulation of dirt, snow, or ice to prevent such movement. Between the edges of said plates 4 and 6 I attach a curtain 8, of rubber or other suitable material, to prevent access of foreign matter therebetween, and I also locate at suitable intervals therearound outwardly-bending hinges 9 for forcing said rubber outward when the plates 4 and 6 come together. Pivoted upon said plate 6 are the two rail-sections 10, so located thereon that when they are in alinement with the track 2 they will form a continuous track therewith above the track 1, as shown in Fig. 1. Suitable connecting-rods 11, pivoted to brackets 12, attached to the sides of said rail-sections, serve to move said rail-sections uniformly, while the pivotal connections between said rail-sections and plate 6 are located centrally with respect to the length of said rail-sections, but in a line drawn between the points of pivotal connection of the rods 11 therewith to prevent binding of the parts during movement. Lying under said rail-sections 10 near their ends are the inclined segments 13, upon which said rail-sections are adapted to travel, the said sections being undercut at 14 on their adjacent sides to receive the lugs 15, attached to the under sides of the track-sections 10, as shown in Fig. 3.

Located adjacent to the ends of the tracks 2 are the stops 16 for limiting the movement of the rail-sections 10, the same conforming in configuration with the webs and flanges of said rail-sections and being brought to a knife-edge to cut through any accumulation of ice or snow on said rail-sections, thereby insuring a complete movement of said rail-sections into place. Pivoted to the outer side of one of said rail-sections 10 is an arm 17, that is in turn pivoted at its free end to an arm 18 and lever 19, as shown in Figs. 1 and 2. The

arm 18 is also pivoted to one of the ties, while the lever 19 is connected to any suitable mechanism for operating the same.

From the above description the operation of my improved construction will be understood to be as follows: When the rail-sections 10 are in the position shown in Fig. 1, the tracks 2 are completed and ready for the passage of a train, and the plate 6, to which the rail-sections are pivotally connected, is raised to the position shown in Figs. 3 and 4, the ends of the rail-sections abutting against the stops 16, as shown in Fig. 5. It will also be noticed that the arms 17 and 18 are in a straight line, thus offering the greatest resistance to any movement of the rail-sections 10 in that direction and affording, in connection with the stops 16, a most perfect resistance to any accidental lateral displacement of said rail-sections in either direction. Now when it is desired to open tracks 2 to permit the passage of a train over tracks 1 it is only necessary to exert a pull on the lever 19 through the proper mechanism, thus breaking the joint between arms 17 and 18 and partially rotating the rail-sections 10 on their central pivots to the position shown in Fig. 2. The downward inclination of the segments 13, upon which said rail-sections travel, will at the same time permit said rail-sections to move down out of the way, this downward movement being positively applied through the engagement of the lugs 15 with the undercut portions of said segments. The plate 6, to which said rail-sections are pivoted, will at the same time move down upon the plate 4, any other movement being prevented by the bolts 5, the hinges 9 forcing the rubber curtain 8 outward, so as not to interfere with this movement.

It will thus be observed that the plate 6 is completely protected from any accumulation of foreign matter thereunder, while the rail-sections 10 are positively forced into their lowermost position out of the way of a train passing over the track 1. It will be understood that the operation of the switch-lever 19 will at the same time operate any suitable signals to indicate the position of the rail-sections 10, so that the engineers of approaching trains will be apprised of the condition of the tracks.

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

1. In a railway-crossing, the combination with an unbroken track, and a broken track approaching the same at an angle thereto and in a slightly-higher plane, of movable rail-sections,

a vertically-movable plate to which said rail-sections are pivoted, and means for rotating said rail-sections on their pivots, substantially as set forth.

2. In a railway-crossing, the combination with an unbroken track, and a broken track approaching the same at an angle and in a slightly-higher plane, of movable rail-sections, a vertically-movable plate to which said rail-sections are pivoted, inclined segments upon which said rail-sections move in their rotation, and means for rotating said rail-sections, substantially as set forth.

3. In a railway-crossing, the combination with an unbroken track, and a broken track approaching the same at an angle and in a slightly-higher plane, of movable rail-sections, a vertically-movable plate to which said rail-sections are pivoted, inclined undercut segments upon which said rail-sections move in their rotation, lugs on said rail-sections engaging with the undercut portions of said segments, and means for rotating said rail-sections on their pivots, substantially as set forth.

4. In a railway-crossing, the combination with an unbroken track, a broken track, rotatable rail-sections, and inclined segments upon which said rail-sections move, of a central vertically-movable plate to which said rail-sections are pivoted, a fixed plate thereunder, bolts connecting said plates, caps on said upper plate over the bolts but permitting a limited vertical movement to said plate, a curtain connected to said plates, outwardly-bending hinges for forcing said curtain outward, and means for rotating said rail-sections, substantially as set forth.

5. In a railway-crossing, the combination with an unbroken track, a broken track, centrally-pivoted rotatable rail-sections, connecting-rods for said rail-sections, and inclined segments upon which said rail-sections move, of knife-edged stops for limiting the movement of said rail-sections in one direction, an arm pivoted to one of said rail-sections, a second arm having a fixed pivotal point at one end, and a lever pivotally connecting the adjacent ends of said arms, the said arms adapted to lie in a straight line when said rail-sections are against their stops and to be broken by a pull exerted on said lever, substantially as set forth.

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

EDWARD J. TAGUE.

Witnesses:

JNO. O'NEILL,
GEO. L. FOLEY.