

No. 689,494.

Patented Dec. 24, 1901.

J. S. JENCKES, JR.  
RAILROAD CROSSING.

(Application filed Mar. 29, 1901.)

(No Model.)

2 Sheets—Sheet 1.

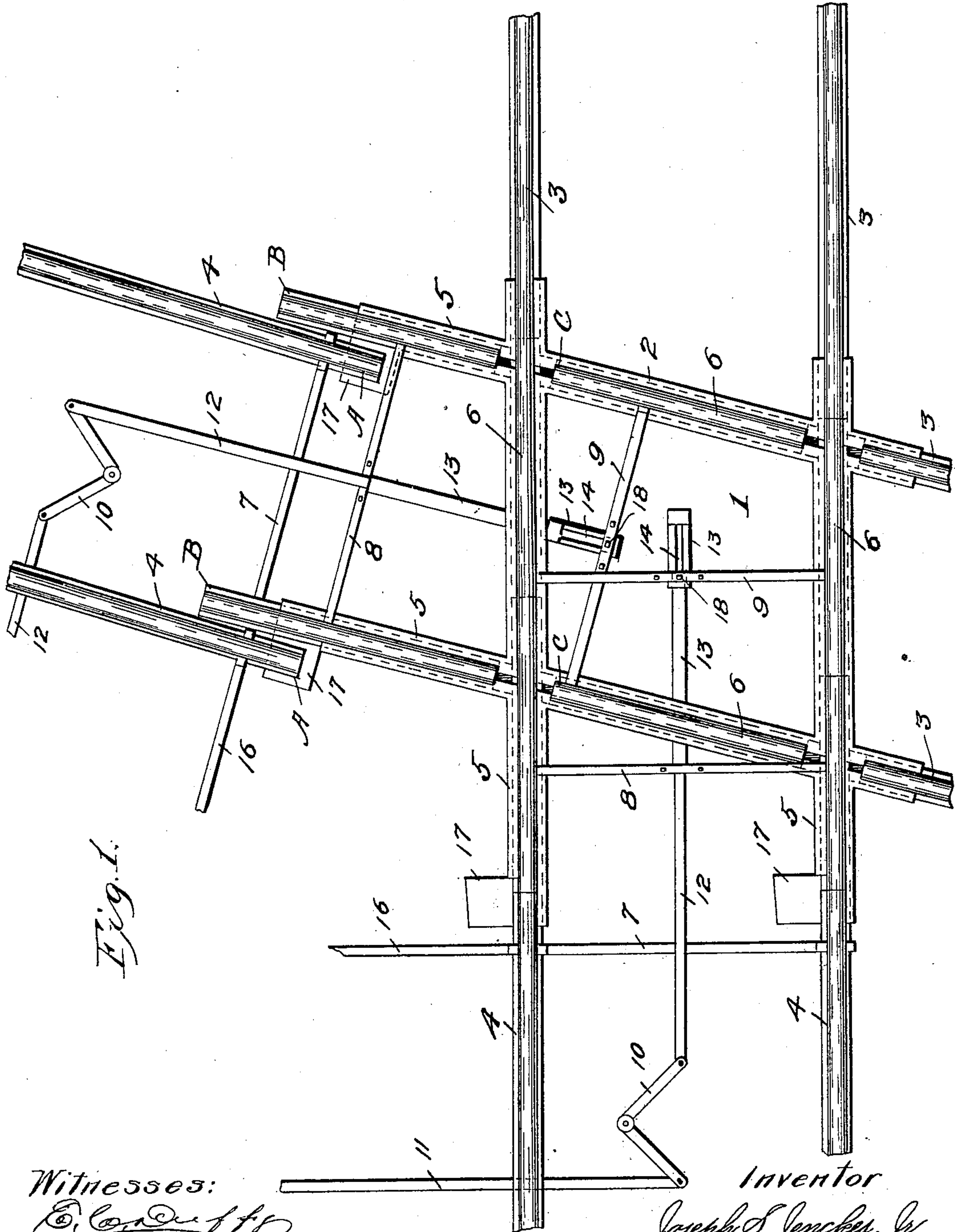


Fig. 1.

Witnesses:

*E. C. Duff*  
*C. H. Duff*

per

*C. E. Duff*

Inventor

*Joseph S. Jenckes, Jr.*

Att'y.

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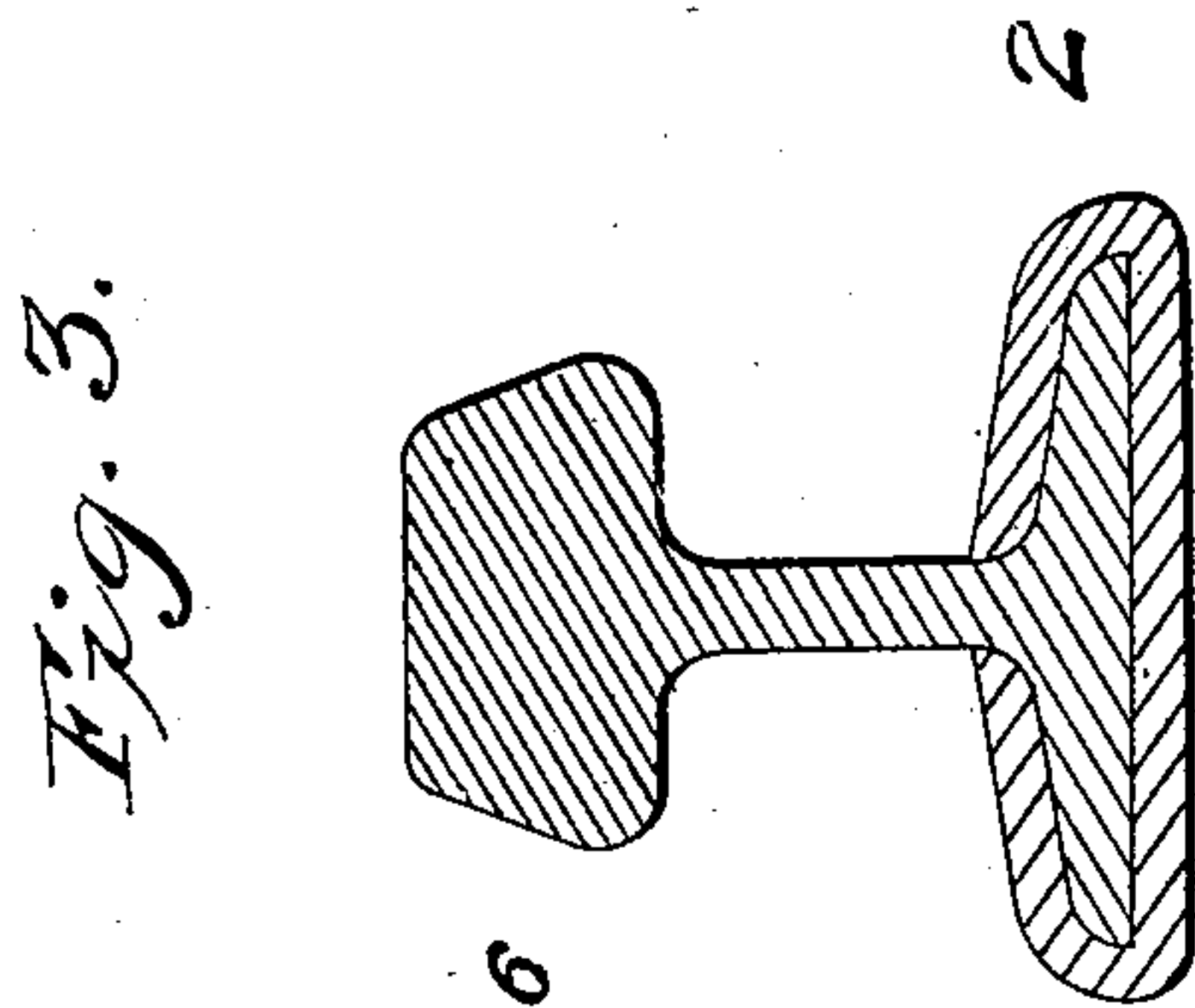
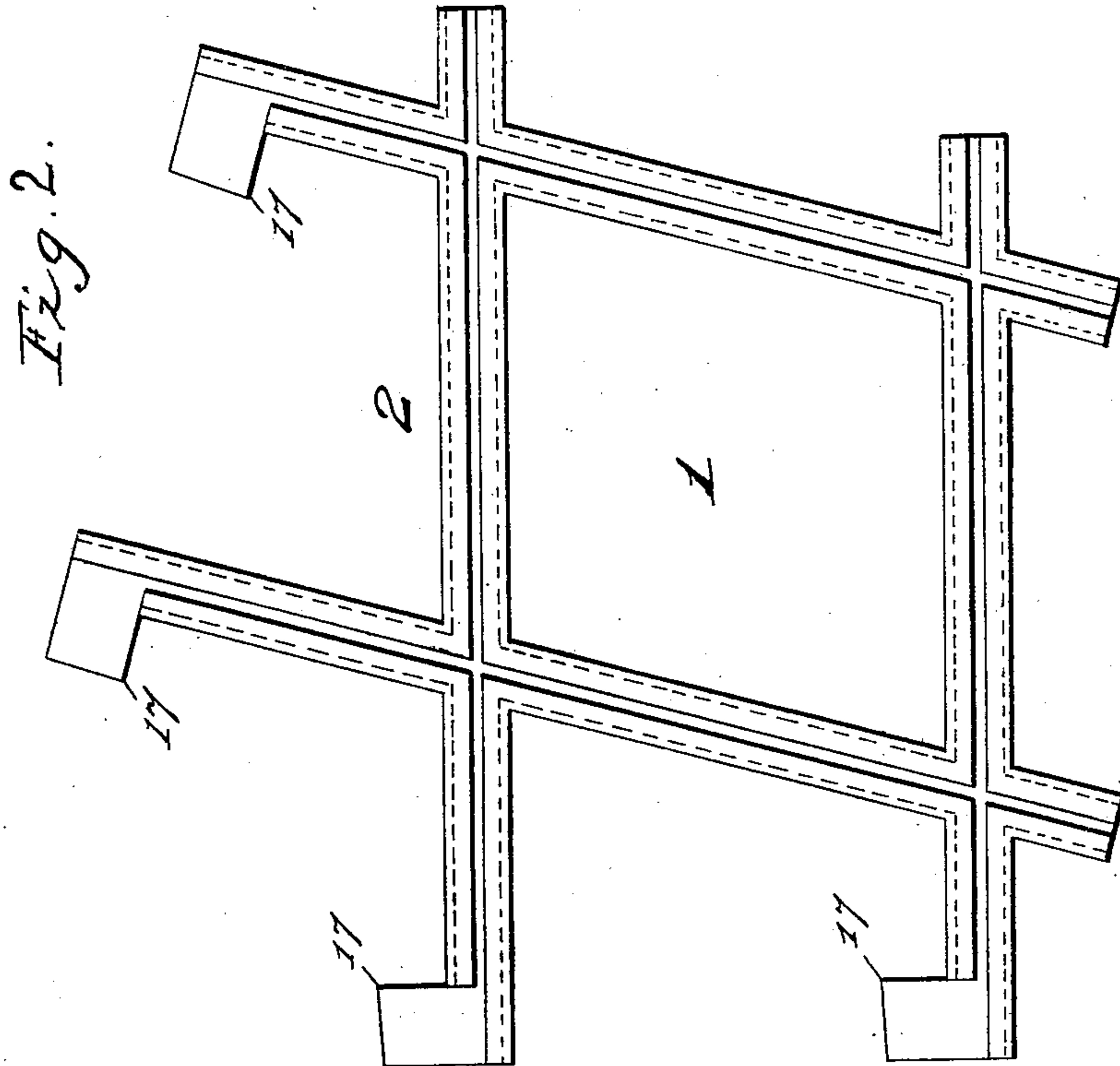
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2 Sheets—Sheet 2.



Witnesses:

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# UNITED STATES PATENT OFFICE.

JOSEPH S. JENCKES, JR., OF TERRE HAUTE, INDIANA.

## RAILROAD-CROSSING.

SPECIFICATION forming part of Letters Patent No. 689,494, dated December 24, 1901.

Application filed March 29, 1901. Serial No. 53,474. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH S. JENCKES, Jr., a citizen of the United States, residing at Terre Haute, in the county of Vigo and State of Indiana, have invented certain new and useful Improvements in Railroad-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 railroads, but more particularly to railroad-crossings, and has for its object to provide a railroad-crossing wherein the intersecting rails can be made continuous, thus obviating the usual thumping and jolting of the cars and the consequent wear and tear on the crossing, and thereby protecting the rolling-stock.

A further object of my invention is to provide a movable-rail crossing which is constructed and operated in such a manner that the jar of the passing trains will not cause the movable parts to work loose, thus obviating the greatest of defects in movable-rail crossings and providing a crossing of this class which is practical and capable of long and continued hard usage, with the expense for repairs reduced to a minimum.

With these objects in view my invention consists in the novel arrangement and construction of rails and also in the novel manner of operating the same.

My invention also consists in certain other novel features of construction and combination of parts which will be hereinafter fully described and afterward specifically pointed out in the appended claims.

Referring to the accompanying drawings, Figure 1 is a plan view of a railroad-crossing constructed and operated in accordance with my invention. Fig. 2 is a plan view of my improved crossing frame or base, within which the movable rails are slidably secured. Fig. 3 is a cross-section showing a rail secured in my crossing frame or base.

Like characters of reference indicate the same parts throughout the several figures, in which—

1 is a crossing, and 2 my improved crossing frame or base, within which the rails are adapted to slide and which forms the dia-

mond, said crossing-frame being constructed so that it overlaps the flange or base of the rails, securely holding the same from any lateral or vertical movement, as shown in Fig. 3.

Referring to Fig. 1, 3 represents the permanently-secured rails, fastened to the ties in the ordinary or in any approved manner. 4 represents rails being capable of a lateral movement in a manner similar to an ordinary switch. 5 represents sections of rails which are adapted to butt against said laterally-moving rails 4 and are secured in the crossing frame or base, as hereinbefore described, said sections being capable of a free longitudinal movement therein. 6 represents sections of rails which are adapted to butt against the permanently-secured rails 3, said sections 6 being also secured within the crossing frame or base 2, as described. The rails 4 are securely held together by the rod 7, so that both rails move together. The sections 5 are also firmly secured together and connected by a similar rod 8, as are also the sections 6 secured and connected together by the rod 9. Pivotaly secured at a point intermediate the laterally-moving rails 4 is the bell-crank 10, which connects with the operating-rod 11 and the connecting-rod 12, said connecting-rod being secured to the rod 8. Secured to said rod 8 is a slotted rod 13, having a slotted portion 14 at the end thereof, said slotted portion being connected to the rod 9 by means of a pin 18 in said rod, which passes through the slot 14 in said slotted end.

Having thus described the several parts of my invention, its operation is as follows: The permanent rails 3 extend to a point substantially in line with the outer sides of the intersecting rails. The sections 6, as aforesaid, butt against said permanent rails and are in length substantially shorter than the distance between the intersecting rails. Thus it will be seen that in the continuous track in Fig. 1 the sections 6 cross the line of the right intersecting rail, but do not extend to the line of the left intersecting rail. The sections 5, crossing the line of said left intersecting rail, butt against the section 6 at a point intermediate the lines of the intersecting rails and butt the laterally-moving rails 4 at a point to the left of said intersecting rails, thus forming a continuous track. Should it now be de-



sired to make the other track continuous, the laterally-moving rails 4 are thrown out of line with the rest of the track, as shown at A, moving out and resting upon the small projection or platform 17, formed on the crossing frame or base 2, said rails being drawn in this position by the operating-rod 16, which is operated in any approved manner. The operating-rod 11 is then pulled outwardly, which motion is, by reason of the bell-crank 10, transmitted to the connecting-rod 12 and to the slotted rod connected thereto. The pin in the rod 9, which passes through the slot in said slotted rod, being now in the inner end of said slot, said pin 18 is not engaged by said rod until said rod 13 moves the length of the slot 14. When, therefore, the rod 13 has moved the length of the slot 15, the pin 17 is engaged and the rod 9 and track-sections 6 take up the movement of the slotted rod 13. As aforesaid, the slotted rod 13 has to travel the length of the slot 14 before the track-sections 6 are moved. The rod 8, connected to the track-sections 5, however, moves the entire distance of the connecting-rod 12. It will consequently be seen that the track-sections 5 move the length of the slot 14 before the track-sections 6 start to move at all. This brings said track-sections 5 to a point B outside of the intersecting track and moves the track-sections 6 until the same are between the two intersecting rails. The intersecting rails are now ready to be made continuous, which is accomplished by reversing the movement of the operating-rods 11 and 16, which inward movement of the operating-rod 11 causes the track-sections 6 to butt against the permanently-secured rails 3 and the track-sections 5 to butt against said track-sections 6. The operating-rod 16 is then moved inwardly, which moves the laterally-moving rails 4 in line with the track-sections 5 and 6, thus making said tracks continuous.

It will be observed that the track-sections 5 and 6 are slidably secured within the crossing frame or base 2, which is spiked or bolted to the ties, and when the rails are made continuous the said sections are as rigid as a track secured to ties, there being no movable parts to work loose and nothing in the entire construction which would give in the slightest degree to the jarring of a passing train.

It might be well to state that my crossing can be operated, as described, in the same time that is required to operate an ordinary switch, thereby rendering the use of the same at all times practical and providing a cross-

ing for railroads which is extremely simple and, above all, durable and efficient.

Having thus described the operation of my invention, I do not wish to be understood as limiting myself to the exact construction as herein set forth, as various slight changes might be made therein by those skilled in the art which would fall within the limit and scope of my invention, and I consider myself entitled to all such changes and modifications.

What I claim as new, and desire to secure by Letters Patent of the United States, is—

1. A railroad-crossing comprising movable rail-sections within the crossing, and longitudinally-movable rails in alinement with said movable rail-sections, substantially as described.

2. A railroad-crossing comprising movable rail-sections within the crossing, longitudinally-movable rails in alinement with said movable rail-sections and laterally-movable rail-sections, substantially as described.

3. In a railroad-crossing, the combination of the movable sections having a longitudinal movement in the same direction, and the intersecting tracks having a lateral movement, substantially as described.

4. In a railroad-crossing, the combination of a crossing-frame, movable track-sections secured therein within said crossing, and the main tracks, the whole operated in such a manner that either line of tracks may be made continuous, substantially as described.

5. A railway-crossing comprising movable rail-sections at the diamond, longitudinally-movable rails in longitudinal alinement therewith, and with the track-rails, and means for moving said track-rails in and out of contact with said longitudinally-moving sections, substantially as described.

6. A railway-crossing comprising two pairs of movable rail-sections at the diamond, a pair of longitudinally-movable rail-sections in longitudinal alinement with each of said movable rail-sections, laterally-movable track-rails, means for moving the same in and out of alinement with said longitudinally-movable sections, and means for moving said sections in and out of contact with the laterally-movable rail-sections, substantially as described.

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

JOSEPH S. JENCKES, JR.

Witnesses:

BERT TAYLOR,  
OSKAR DUENWEG.