

No. 640,527.

Patented Jan. 2, 1900.

J. W. BENNETT.
RAILROAD CROSSING.

(Application filed May 12, 1898.)

(No Model.)

2 Sheets—Sheet 1.

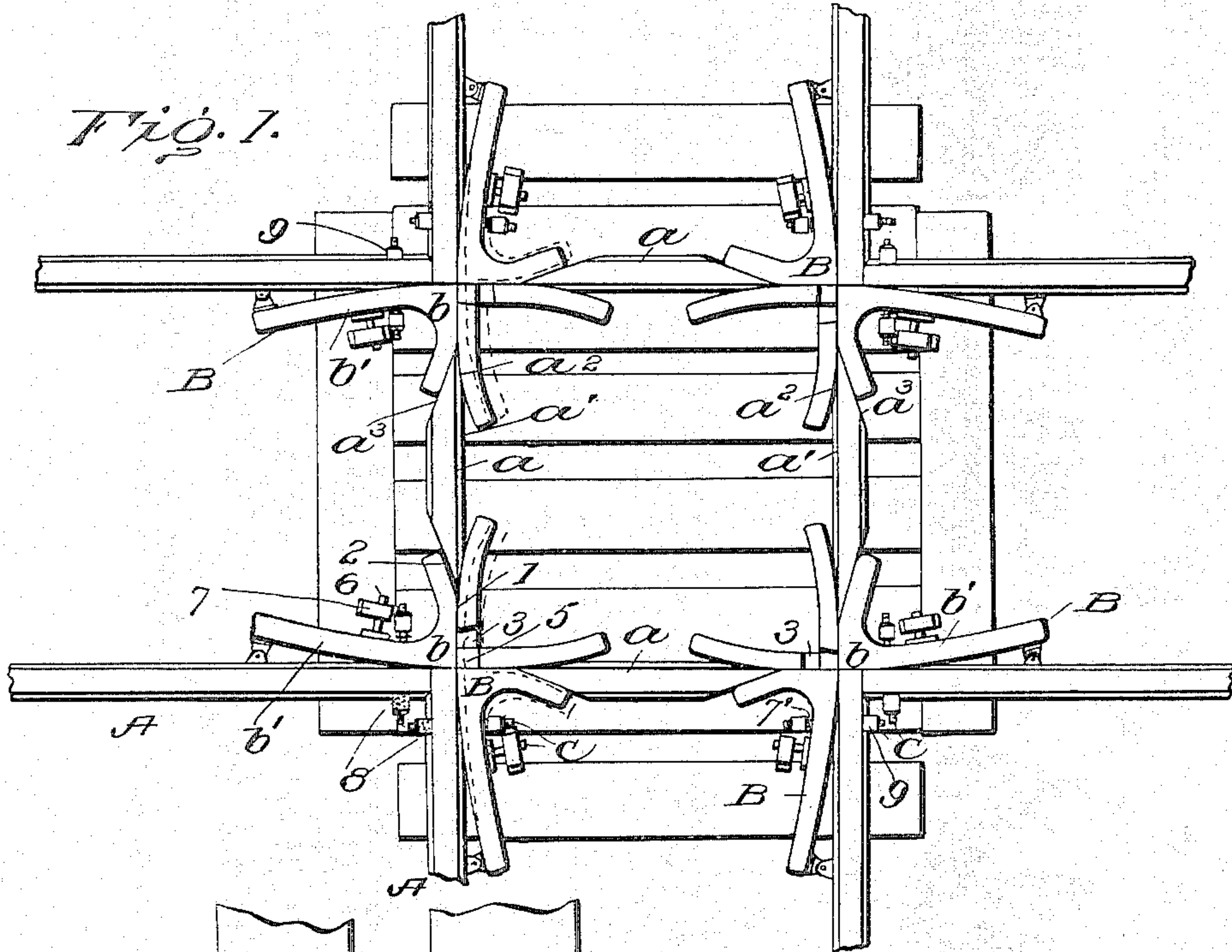
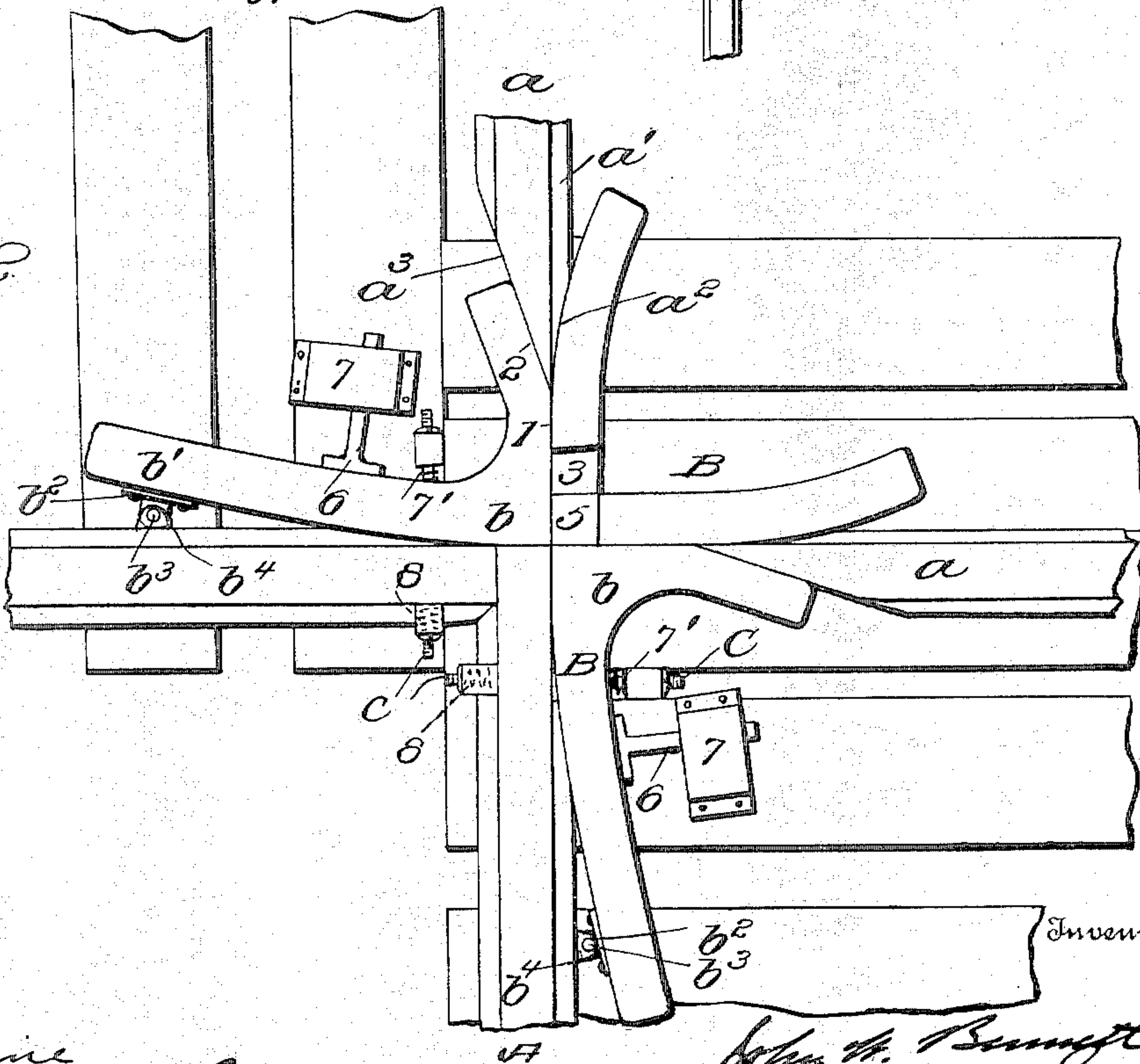


Fig. 2.



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Fig. 3.

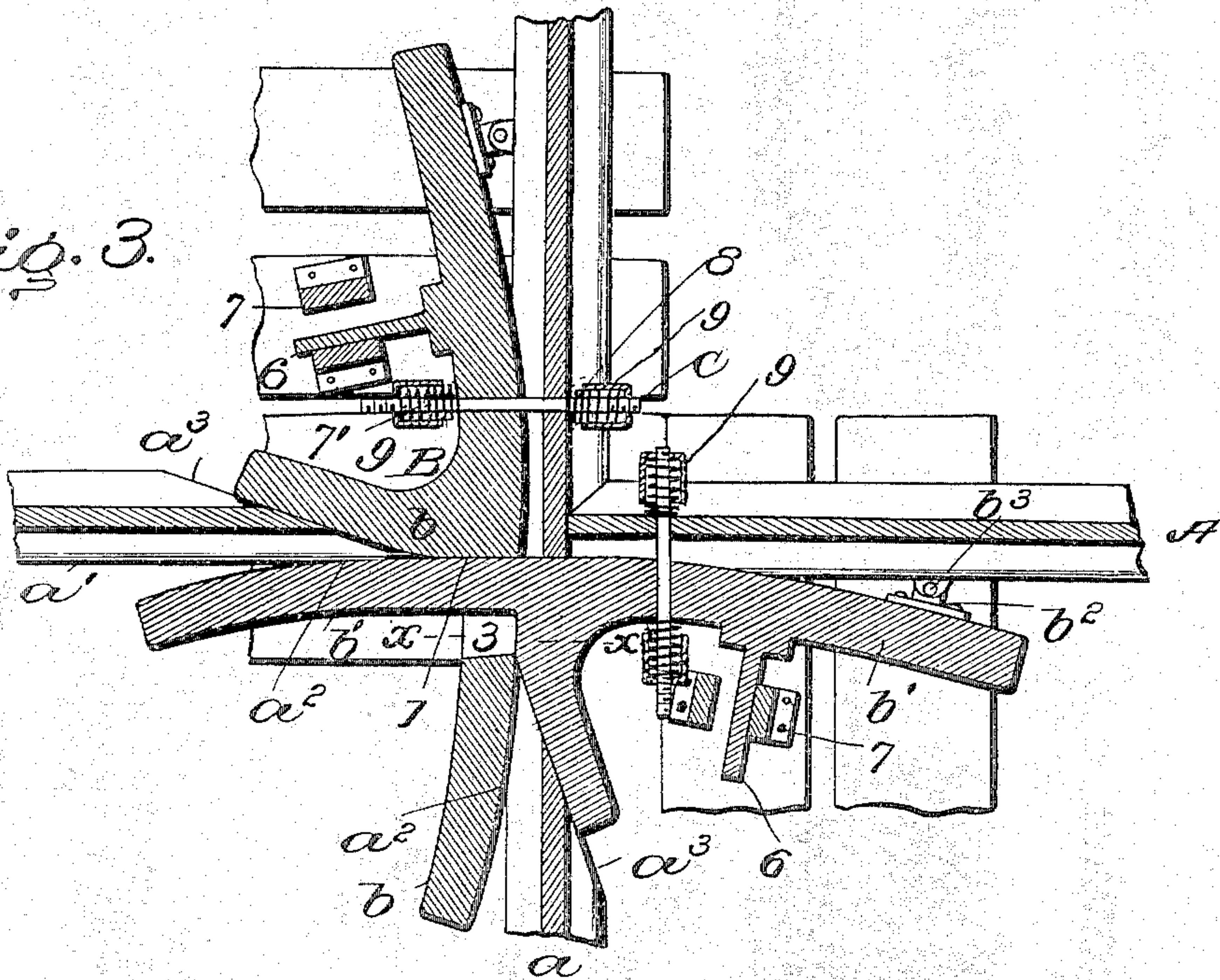


Fig. 4.

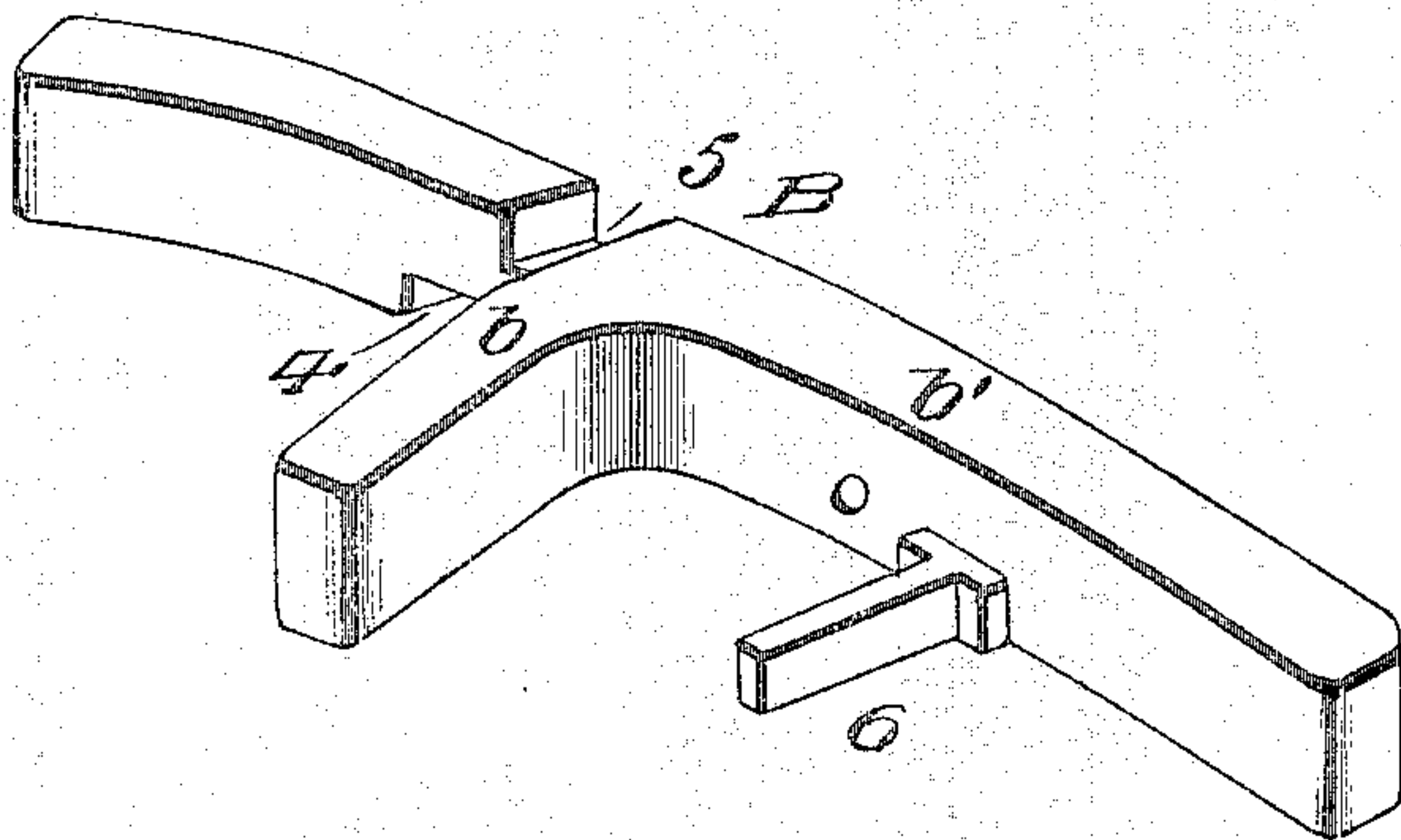
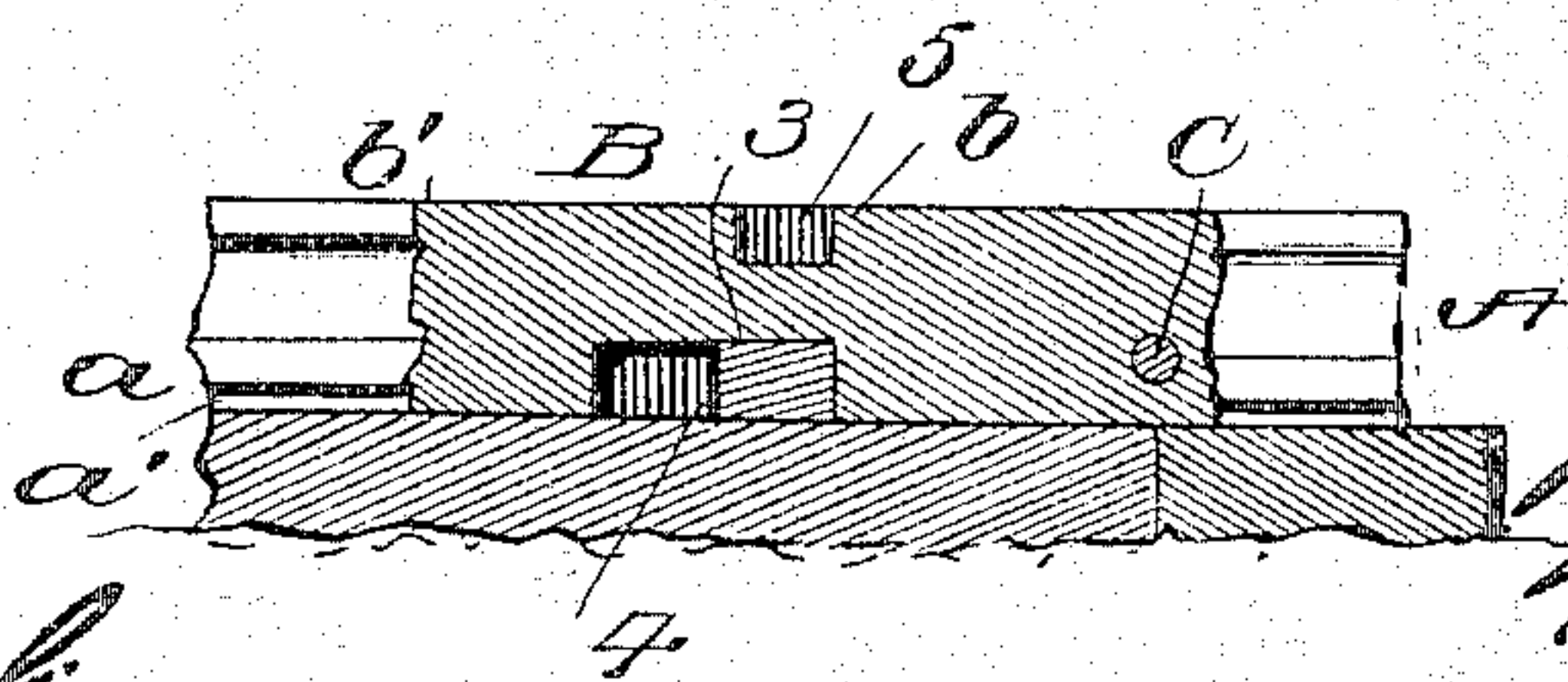


Fig. 5.



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JOHN W. BENNETT, OF STURGIS, MICHIGAN.

RAILROAD-CROSSING.

SPECIFICATION forming part of Letters Patent No. 640,527, dated January 2, 1900.

Application filed May 12, 1899. Serial No. 716,553. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. BENNETT, of Sturgis, in the county of St. Joseph and State of Michigan, 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.

This invention contemplates certain new and useful improvements in railroad-crossings.

The primary object of the invention is to provide improved means for obviating the jumping of car-wheels from one rail to another and providing a continuous bearing-surface for such wheels at railroad-crossings.

A further object is to so construct the operative parts that snow, rain, or sleet cannot interfere with their proper working.

The invention will be hereinafter fully set forth, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a plan view, two of the movable rail-sections being shown out of position in dotted lines. Fig. 2 shows two of the movable rail-sections on an enlarged scale. Fig. 3 is a horizontal sectional view. Fig. 4 is a view in perspective of one of the movable rail-sections. Fig. 5 is a sectional view on line xx , Fig. 3.

Referring to the drawings, A A designate the rails of the two intersecting tracks, and a the short rails of each pair of rails, which short rails are of less length than the spaces between the main rails. Each short rail on its inner side has its flange a' beveled at a^2 , while on its outer side the flange, web, and tread are beveled at a^3 , the bevels a^3 terminating at the ends of the short rail.

B designates a series of movable sections which are designed to fill in the spaces between the ends of the short rails a and the main rails of each track. They are so constructed that a car upon reaching the crossing will pass over those sections in line with the main rails over which it is traveling and push aside the movable sections forming the complementary parts of the rails of the intersecting track. The latter will, after the car-wheels have passed, automatically return

to their normal positions. Each of these movable sections consists of an arm b , projecting laterally from a bar b' , which latter is hinged or pivoted at or near one end, the means shown consisting of a tongue b^2 , held by a bolt b^3 between two ears b^4 . The lateral arm b is formed with a straight edge 1 and an angular portion 2, which latter normally bears against the bevel a^3 of the adjacent rail a . The bar b' is curved at one end, so that neither end will contact with the rails of the intersecting track. In this way spaces are formed for the entrance of the flanges of wheels, which upon coming in contact with the inner side of bar b' will force the latter inward, moving it on its pivot or hinge. Of each pair of movable sections one bar b is cut away at 3 to accommodate the upper bar, which latter is also cut away on its under side at 4. This upper bar is also formed on its upper side with a groove 5 to allow the flange of a car-wheel to pass thereover without contact with the bar. Each bar b' has a tongue 6 projecting laterally therefrom and fitted within a guide-block 7, mounted on one of the ties. Each tongue and block form a guide for one of the bars and also serve to stop or limit the movement of each section.

C designates a series of spring-actuated rods which serve to hold the several sections B in their normal positions. Each rod is extended through coincident openings in the bar of one of the sections and the adjacent rail. On each rod are two springs 7' and 8, inclosed by cylindrical casings 9, which are adjustable on the rod—that is, they have threaded openings which engage threads on the rod. These casings serve to protect the springs and enable the tensions of the latter to be changed at pleasure.

It will be noted by reference to Fig. 1 that each movable section is normally positioned, so as to form a continuous bearing-surface for wheels passing over the track of the rails of which they form complementary parts. They remain in this position until a train moving over the intersecting track reaches the crossing, whereupon the movable sections of the other track-rails will, by reason of the wheel-flanges engaging their bars b , be moved to one side, as against the tensions of the springs, and allow the train to pass over the

uninterrupted rails or bearing-surfaces of the track. As the wheels clear each section of the intersecting track such sections are returned to their normal positions by the action of the springs, so that a car on the track to which they belong will upon reaching the crossing likewise pass over an uninterrupted surface, the sections of the other track being moved to one side, as before recited.

By reason of the several sections being normally in the positions they will occupy when a train is passing over the rails of which they form a part snow and sleet will not interfere with their operation, since upon the sections being once moved as against the tensions of their springs by the wedging action of the wheel-flanges between the rails on the sides of the sections all accumulated snow or sleet will be forced out of the way, and such sections so moved will after the wheels have passed resume their normal positions.

From what has been said it will be seen that I have produced extremely simple means for providing continuous bearing-surfaces for car-wheels at railroad-crossings, thus avoiding all jumping of the wheels from one rail to another at such points.

I claim as my invention—

1. In a railroad-crossing having intermediate short rails, movable sections normally filling the spaces at the ends of such short rails and fitting up against the rails of an intersecting track so that the wheels of a train moving over the latter will contact with and move such section, a pivot connection for each section, and means for holding such sections in their normal positions, as set forth.

2. In a railroad-crossing having intermediate short rails, movable sections normally filling the spaces at the ends of such short rails, a pivoted connection for each of such sections, and a spring for holding each movable section in its normal position, as set forth.

3. In a railroad-crossing having intermediate short rails formed with beveled ends, hinged sections bearing against the ends of

said short rails and filling the spaces between the latter and the adjacent rails, and springs for holding said sections in their normal positions, as set forth.

4. In a railroad-crossing having intermediate short rails formed with beveled ends, bars hinged at one end and having lateral arms bearing against the beveled ends of the short rails, and springs for holding said bars in their normal positions, as set forth.

5. In a railroad-crossing having intermediate short rails formed with beveled ends, curved bars having lateral arms bearing against the beveled ends of the short rail, a stop and guide for each bar, and springs for holding such bars in their normal positions, as set forth.

6. In a railroad-crossing having intermediate short rails formed with beveled ends, curved bars having lateral arms bearing against such beveled ends, a rod for each of such bars having a spring thereon, and a stop and guide for each bar, as set forth.

7. In a railroad-crossing having intermediate short rails, curved bars having lateral arms bearing against the ends of such short rails, and rods extended through coincident openings in said bar and the adjacent rails, springs on such rods, and adjustable inclosing cylinders for such springs, as set forth.

8. In a railroad-crossing having intermediate short rails formed with beveled ends, curved bars hinged each at one end of the adjacent rail, a rod extended through such bar and rail, springs on such rod, adjustable cylindrical sleeves inclosing such springs, lateral arms bearing against the ends of said short rails and tongues carried by such bars, and guide-blocks for such tongues, as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

JOHN W. BENNETT.

Witnesses:

CHRIST. WILHELM,
LUTHER H. POWERS.