

W. A. BLANKINSHIP & W. COPELAND.
RAILROAD CROSSING.

APPLICATION FILED SEPT. 26, 1910.

990,799.

Patented Apr. 25, 1911.

2 SHEETS—SHEET 1.

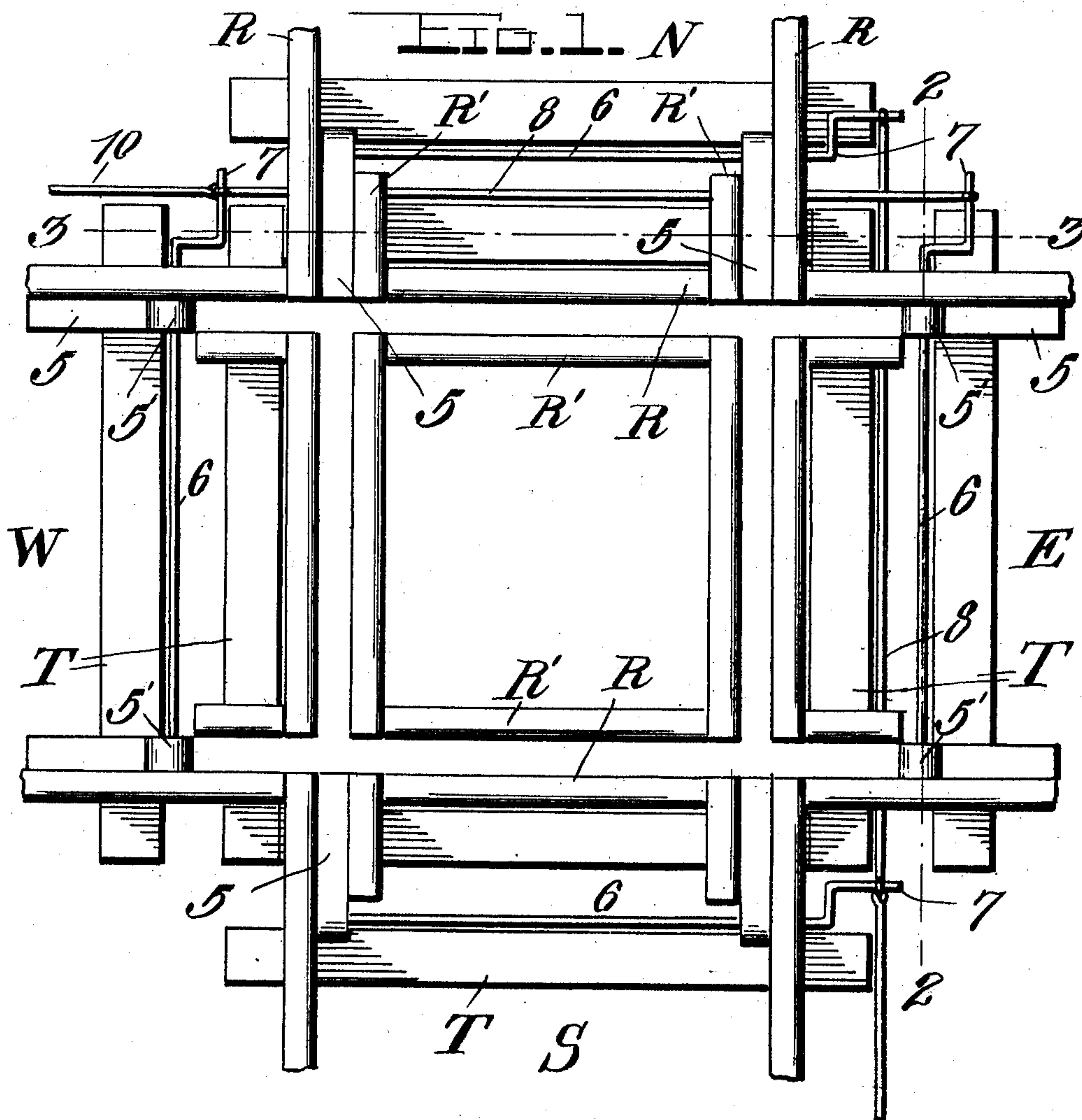


FIG. 1.

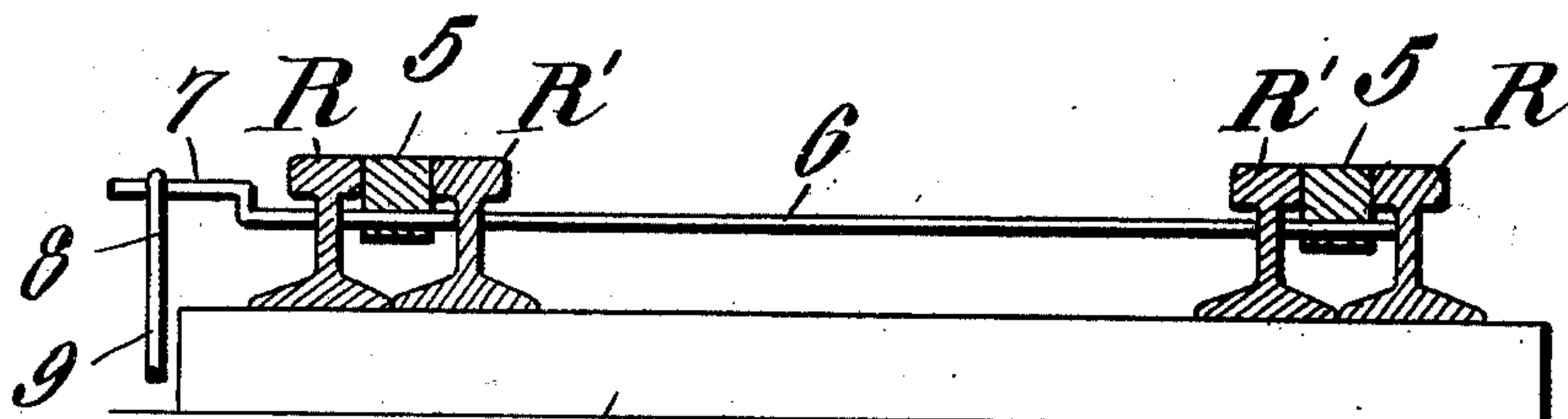


FIG. 2.

Witnesses

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2 SHEETS—SHEET 2.

FIG. 4.

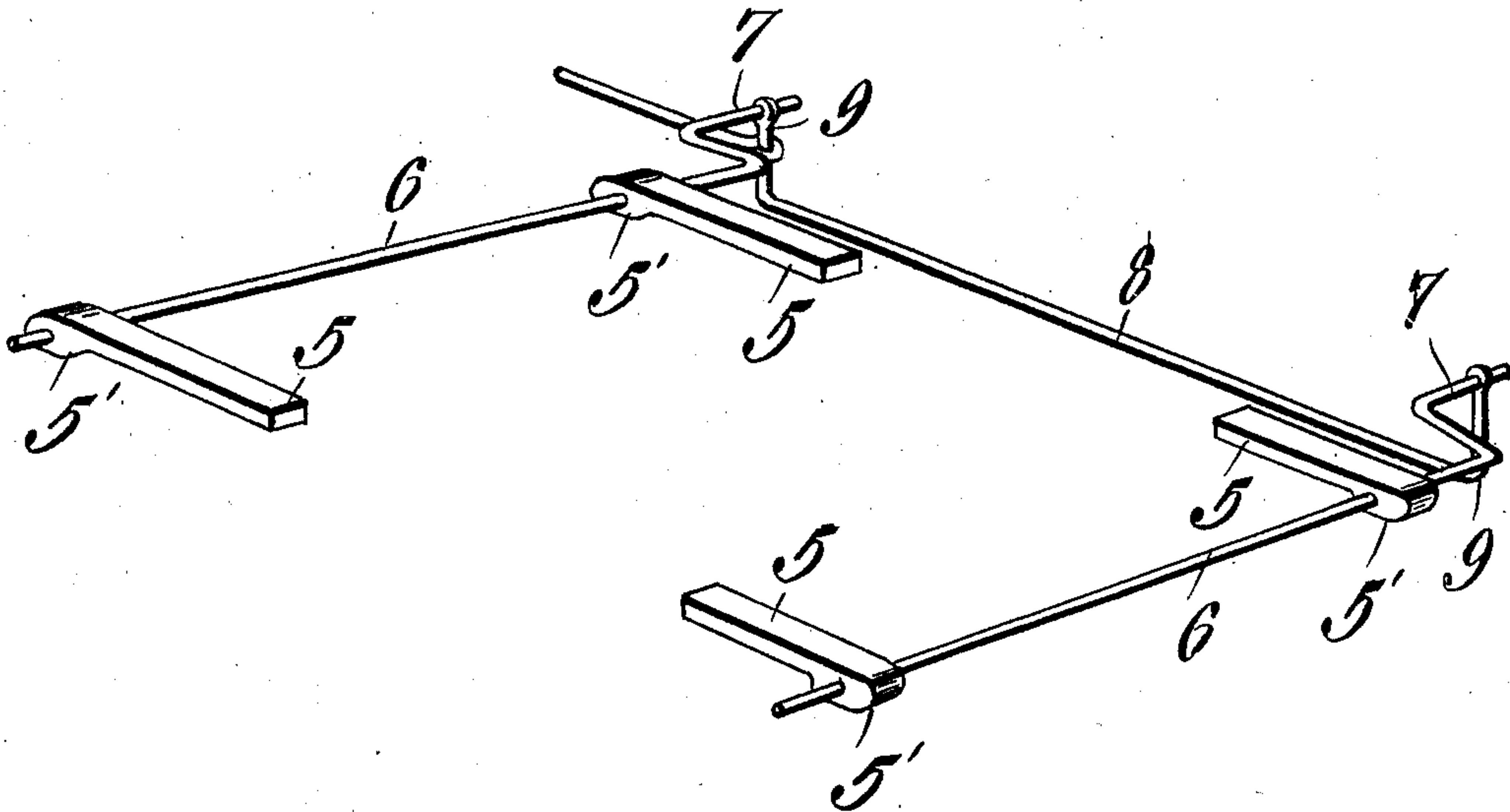
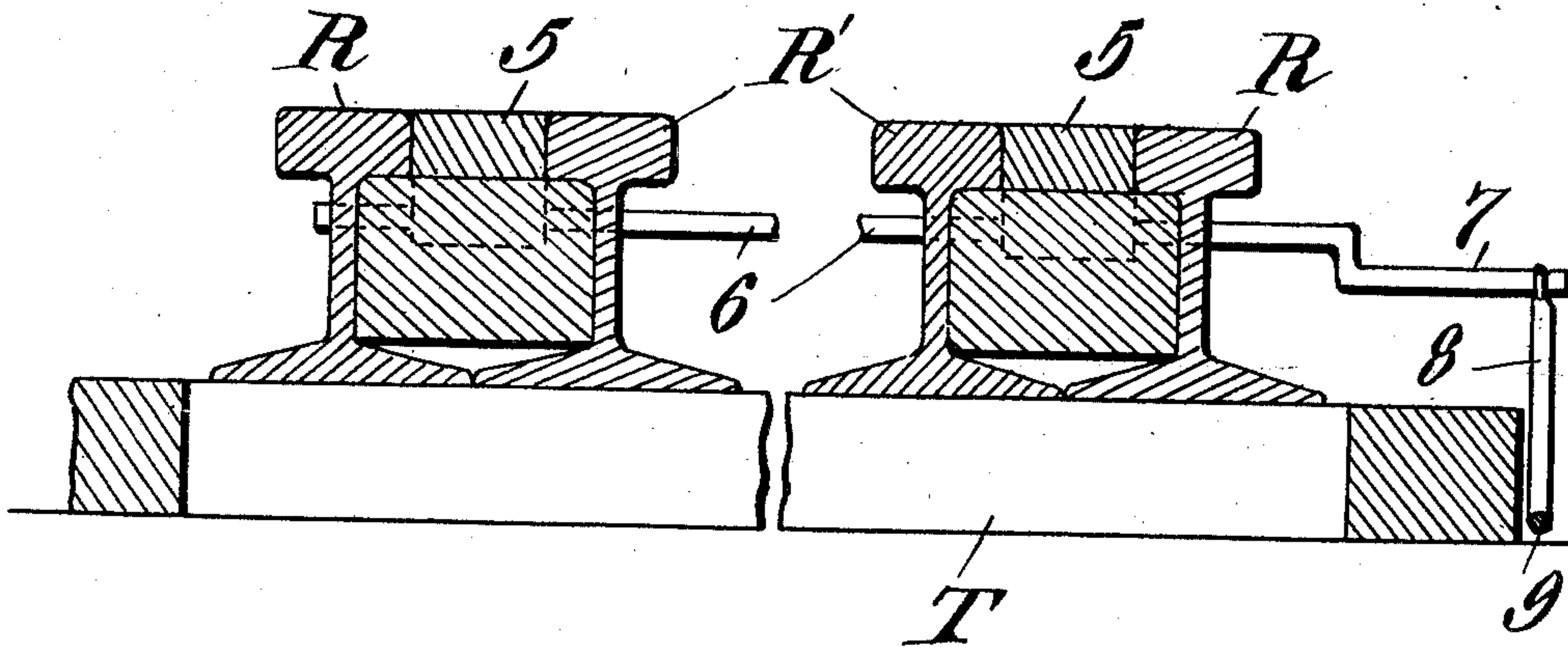


FIG. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

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RAILROAD-CROSSING.

990,799.

Specification of Letters Patent.

Patented Apr. 25, 1911.

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To all whom it may concern:

Be it known that we, WILLIAM A. BLANKINSHIP and WILLIAM COPELAND, citizens of the United States, residing at Corsicana, in the county of Navarro and State of Texas, have invented certain new and useful Improvements in Railroad-Crossings, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to improvements in railroad crossings, and more particularly to that class of devices which are arranged in combination with the crossing to reduce to a minimum degree the noise which is caused by the wheels of a train passing over the rails at their intersecting points.

The primary object of our invention resides in the provision of a device of the above character which is of extremely simple construction and may be installed in the present system of railroad trackage without requiring any change whatever in the arrangement or construction of the crossing.

A further object of the invention is to provide a plurality of movable arms adapted to be arranged between the inner and outer rails, said arms lying flush with the tread of the rails so as to provide a continuous surface for the wheels in the passage of a train over the crossing.

With these and other objects in view, the invention consists of the novel features of construction, combination and arrangement of parts hereinafter fully described and claimed, and illustrated in the accompanying drawings, in which,—

Figure 1 is a plan view of a railroad crossing of the common construction showing our device coöperatively associated therewith. Fig. 2 is a section taken on the line 2—2 of Fig. 1. Fig. 3 is a section taken on the line 3—3 of Fig. 1, and Fig. 4 is a detail perspective view of the invention removed from the crossing.

In the embodiment of our invention illustrated in the accompanying drawings, for convenience in description, the characters N., S., E., and W. are applied to the north, south, east and west ends of the intersecting track sections.

The outer and inner track rails R and R', respectively, are arranged upon the ties T and spiked thereto in the usual manner, said ties being arranged upon a suitable foundation structure. The rails running north and south extend between the rails running east

and west, said rails, at their intersecting points being arranged in sections, the ends of the sections of the north and south rails being disposed in the same plane as the inner opposed edges of the rails running east and west so as to afford an unobstructed passage for the wheels.

Between the inner and outer rails and upon each side of the rails running at right angles thereto, our device is arranged. The same comprises the arms 5 which are enlarged at one end, as clearly shown at 5' in Fig. 4, and are rigidly secured upon a rod 6 which is mounted to rotate in the webs of the outer rails R. These arms are disposed for movement into and out of the space between the opposed longitudinal edges of the inner and outer rails. One end of each of the rods 6 upon which the arms 5 are fixed, is formed with a crank 7, and these cranks are connected by a rod 8 which extends beneath the rails which are disposed in parallel relation to the rods 6 to which said connecting rod is connected. The ends of the rod 8 are bent upwardly at right angles, as shown at 9, and are provided with eyes through which the ends of the cranks 7 extend.

From reference to Fig. 1, it will be noted that the arms 5 are of sufficient length so that when in their operative positions between the inner and outer rails which run north and south, the ends of said arms will be flush with the ends of the rail sections and with the inner longitudinal edges of the outer rails running east and west. The other pairs of arms which are arranged between the rails running east and west extend inwardly to the inner longitudinal edges of the north and south rails when in their operative positions. Thus it will be seen that a continuous supporting surface for the tread of the wheels is provided between the spaced inner and outer rails of the crossing. In this manner the noise commonly heard by the passage of a train over a railroad crossing is to a great extent eliminated. To one end of each of the connecting rods, a rod 10 or other actuating element is secured. Any desired means, such as electricity or compressed air may be provided for operating the rod 10 to rotate the rods 6, and move the arms 5 to their operative and inoperative positions.

In Fig. 1 of the drawings the arms are shown arranged for the passage of a train over the rails running east and west, the

arms which are arranged in the east and west track being in their inoperative positions and below the tread of the rails so that they are disposed entirely out of contact
5 with the wheels, said latter arms resting upon the foundation structure which supports the crossing.

From the foregoing it is believed that the construction and operation of our improved railroad crossing device will be readily understood. It is apparent that the device may be constructed at a very low cost and requires no change whatever in the ordinary construction of crossing in its
10 installation. The device is moreover extremely efficient in operation, and owing to the few elements employed in its construction, the cost of repairs is rendered very small.

While we have shown and described the required construction and arrangement of the various parts, it will be understood that the device is susceptible of a great many
15 minor modifications without departing from the essential features or sacrificing any of the advantages thereof.

Having thus described our invention, what we claim is:—

30 1. The combination with a railroad crossing comprising spaced inner and outer intersecting rails, of arms arranged in the space between the inner and outer rails running in each direction, rods rotatably journaled
35 in the webs of the outer rails, said arms being rigidly secured on said rods, connect-

ing rods between the ends of the rotatable rods arranged in each pair of rails, and an actuating element connected to said connecting rod to rotate the first named rods and
40 position the arms between the spaced inner and outer rails, the inner ends of said arms being flush with the inner longitudinal edges of the outer rails running at right angles thereto, substantially as and for the pur- 45
pose set forth.

2. The combination with a railroad crossing comprising spaced outer and inner intersecting rails, of rods rotatably journaled in the outer rails, arms fixed upon said rods
50 adapted to lie in the space between the inner and outer rails and flush with the tread surface thereof, the inner ends of said arms being disposed in the same plane as the inner edges of the outer rails running at
55 right angles thereto, cranks formed on the ends of said rods, connecting rods between the cranks of the rods journaled in the rails, and actuating elements connected to
60 said connecting rods to rotate the said first named rods and move the arms to their operative and inoperative positions substantially as and for the purpose set forth.

In testimony whereof we hereunto affix
our signatures in the presence of two wit- 65
nesses.

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WILLIAM COPELAND.

Witnesses:

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