

E. J. SHERWOOD & G. L. COOKE.
RAILROAD CROSSING.
APPLICATION FILED AUG. 29, 1911.

1,059,775.

Patented Apr. 22, 1913

3 SHEETS—SHEET 1.

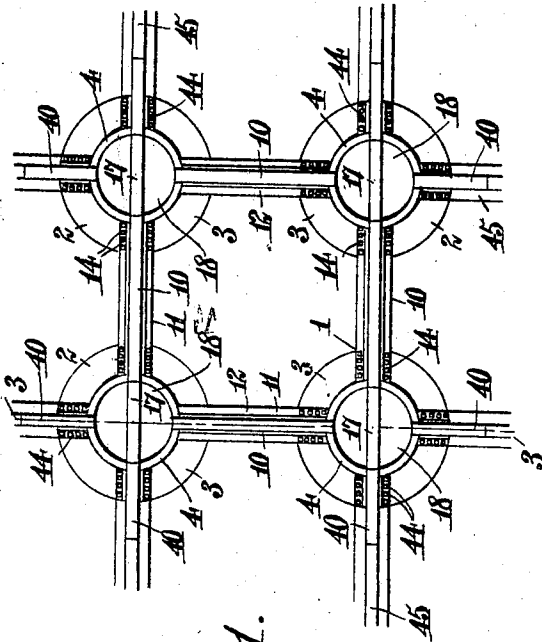


Fig. 1.

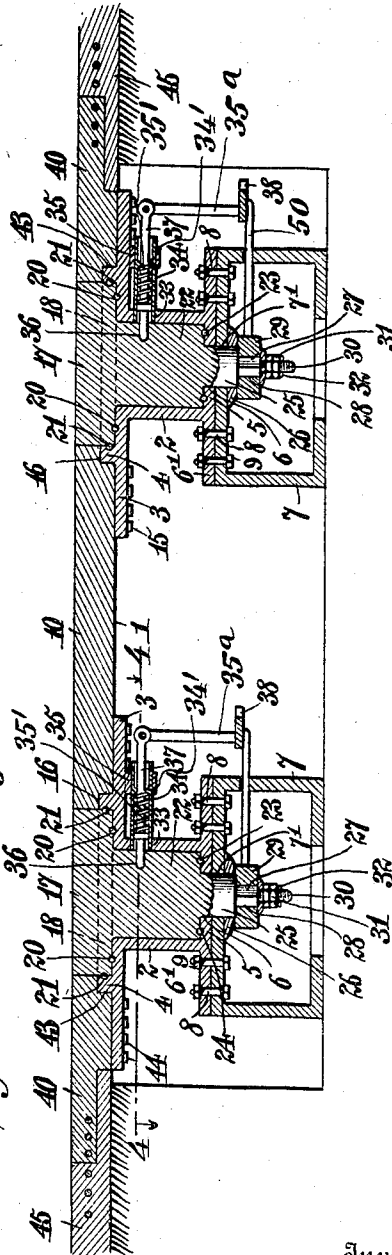


Fig. 2.

Witnesses: —

Christ Feinle, Jr.,
Wm. J. Roberts

Inventors,

Emery J. Sherwood,
George L. Cooke.

By Victor J. Evans,

Attorney.

E. J. SHERWOOD & G. L. COOKE.
RAILROAD CROSSING.

APPLICATION FILED AUG. 29, 1911.

1,059,775.

Patented Apr. 22, 1913.

3 SHEETS—SHEET 2.

Fig. 3.

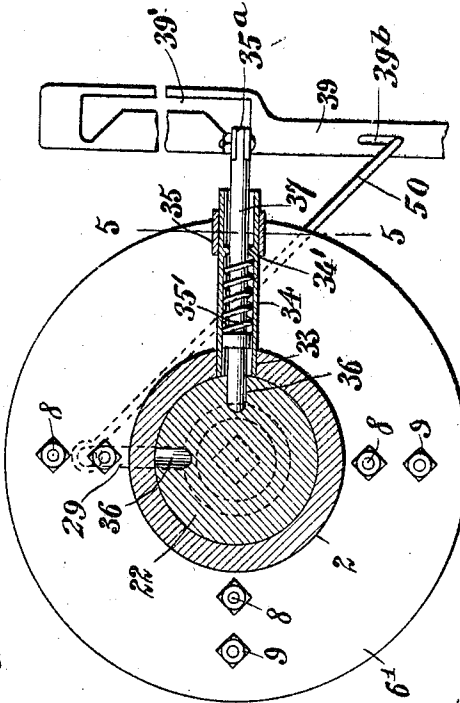
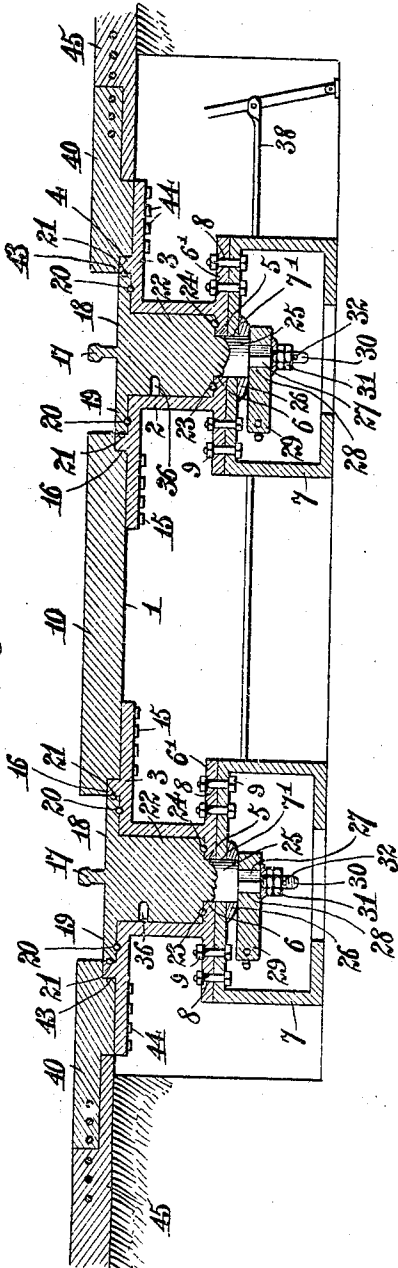


Fig. 4.

Witnesses: —

Christ Feinle, Jr.,
Wm. K. Kooch

Emery J. Sherwood
George L. Cooke.

By Victor J. Evans,

Attorney.

E. J. SHERWOOD & G. L. COOKE.
RAILROAD CROSSING.
APPLICATION FILED AUG. 29, 1911.

1,059,775.

Patented Apr. 22, 1913.

3 SHEETS—SHEET 3.

Fig. 5

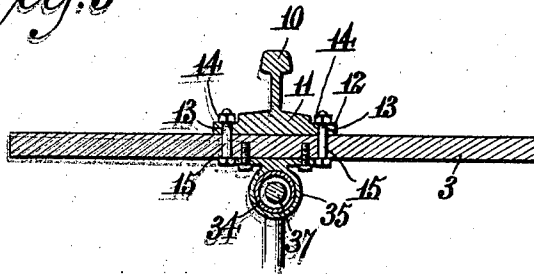


Fig. 6.

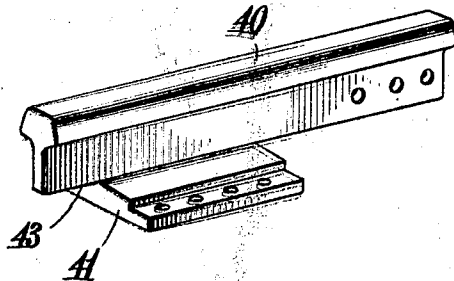
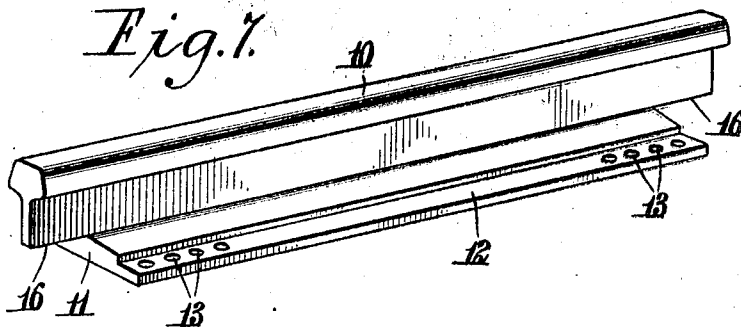


Fig. 7.



Witnesses: —

Christ Feinb. Jr.
Wm. H. H. H.

Inventors,
Emery J. Sherwood
George L. Cooke.
By *Victor J. Evans,*
Attorney.

UNITED STATES PATENT OFFICE.

EMERY J. SHERWOOD AND GEORGE L. COOKE, OF HOBART, INDIANA.

RAILROAD-CROSSING.

1,059,775.

Specification of Letters Patent.

Patented Apr. 22, 1913.

Application filed August 28, 1911. Serial No. 646,670.

To all whom it may concern:

Be it known that we, EMERY J. SHERWOOD and GEORGE L. COOKE, citizens of the United States, residing at Hobart, in the county of Lake and State of Indiana, have invented new and useful Improvements in Railroad-Crossings, of which the following is a specification.

This invention relates to certain novel improvements in crossings for railway cars.

In carrying out our invention it is our purpose to provide a rail road crossing embodying turnable members having track sections with means for rotating the sections so as to direct a car previously arranged upon the sections from a track running in one direction to a track running in an opposite direction.

We also aim to provide novel and effective means for sustaining the rotatable members in a proper position so that the track segments, carried thereby will be retained in proper register with the main tracks.

A further object of the invention is to provide a device of this character embodying comparatively few parts, each being interchangeable, which may be constructed at a comparatively cheap cost, which may be readily installed, and which will perform the functions for which it is devised with accuracy and with surety.

With the above recited objects, and others of a similar nature in view, the invention resides in the construction, arrangement and combination of parts set forth in and falling within the scope of the appended claims.

In the drawings,—Figure 1 is a top plan view of the railway crossing constructed in accordance with the present invention. Fig. 2 is a longitudinal sectional view. Fig. 3 is a transverse sectional view upon the line 3—3 of Fig. 1. Fig. 4 is an enlarged sectional view taken upon the line 4—4 of Fig. 2. Fig. 5 is a sectional view taken upon the line 5—5 of Fig. 1. Fig. 6 is a perspective view of one of the outer rail sections for the crossing. Fig. 7 is a similar view of one of the inner rail sections for the crossing.

The improved crossing is arranged directly upon the bed of the railway, and does not necessitate superstructures which not only add to the cost of the installation of the apparatus, but which also form obstructions for vehicles or the like while passing

over the said crossing. The improvement contemplates a plurality of what may be termed turn-tables, preferably four in number, the said tables being provided each with a single rail section, and the said rail section is adapted to register with angularly arranged rail sections.

When a car is to be directed from one track to another the car is moved until its wheels are arranged upon the track sections of the turn-tables, and the said tables are rotated in unison.

Referring to the drawings in detail, the numeral 1 designates a crossing for railway cars. The crossing, illustrated in the figures of the drawings contemplates a plurality of casings 2, the same being four in number and having their bodies arranged within a suitable pit or opening provided in the road bed. The casings 2 have their upper extremities formed with plates 3, the same being each preferably of a circular formation, and each of the said off-set plates is provided upon its upper face with an annular ring or flange 4. The casing 2 is also preferably annular in cross section and has its lower wall 5 formed with a reduced opening 6, while the said lower wall extends a suitable distance beyond the casing proper to provide what may be termed a flange 6'. This flange 6' is adapted to rest upon a suitable boxing 7, the said boxing having its upper wall provided with an opening 7' which registers with the opening 6 in the bottom wall of the casing 2. The flange 6' of the casing 2 as well as the top of the boxing 7 is provided with registering openings, the said openings adapted to receive securing elements such as bolts 8 and nuts 9, whereby the flange as well as the casing is securely connected to the boxing 7. The oppositely disposed casings are connected through the medium of track sections 10. These track sections are each formed with enlarged webs 11, the upper faces of which, adjacent their longitudinal edges, being formed with a recess or channel 12, and the portion of the flange providing the said channels 12 are formed with a plurality of openings 13, the said openings registering with similar openings provided in the plates 3 beyond the annular flange 4, and the registering openings are adapted to receive securing elements such as nuts 14 and bolts 15. The opposite ends of the rail sections 10 have their flanges formed with transversely arranged recesses

16, the same providing shoulders which are adapted to snugly engage both the top and the outer faces of the annular flanges 4. It is of course to be understood that the spaced intermediate rail sections 10 are arranged in pairs, and each of the said pairs of rail sections are arranged at an angle to the opposite pairs so that when the track sections 17 provided upon the turn-tables 18 are rotated through the medium of the said turn-tables, the coacting rail sections 17 will be brought into proper register with either pairs of the intermediate rail sections 10, whereby the independently pivoted car wheels, which are adapted to be positioned upon the rail sections 17 will be directed to the tracks over which the car is to pass.

The turn-tables 18 each have their upper portions comprising a flattened annular member 19 which is adapted to rest upon the plate 3 of the casing 2 within the annular flange 4 thereof. If desired, and in some instances it has been found preferable, the annular member 19 may have its under face formed with a suitable raceway within which may be positioned antifrictional balls or rollers 20, and the periphery of the said annular member 19 may be also formed with a similar raceway within which is arranged the antifrictional balls 21 which contact with the inner face of the annular flange 4. The numeral 22 designates the cylindrical body of each of the turn-tables, the same being received within the annular casing 2, and the said body may have its lower face formed with a raceway 23 which receives antifrictional ball bearings 24, the latter bearing upon the bottom or lower face of the said casing 2.

The numeral 25 designates a reduced cylindrical extension for the body 22, the said extension projecting through the openings 6 and 7' and within the boxing 7. Surrounding the extension 25 and secured thereto in any desired manner is a washer 26, the latter bearing upon the under face of the top of the said boxing, and the extension 25 is provided with an angular stem 27, the same adapted to receive the annular opening 28 provided in the turning pieces 29. The stem 27 may be, and preferably is provided with a threaded extension 30, the same receiving suitable securing nuts 31, and if desired the said extension may be further provided with an opening through which passes a cotter pin 32, the same serving as a means for preventing the accidental removal of the nuts 31.

Each of the casings 2 is provided with an opening 33, and secured within the said opening is a short pipe section 34, which is sustained at its outer end by a yoke hanger 35 which is connected to the under face of the plate 3. The member 22 is provided with a pair of spaced depressions 36 either of which

being adapted to be brought into register with the openings 33 and the pipe member 34 when the said member 22 is rotated in the manner presently to be described. The numerals 37 designate locking pins which are arranged within the pipe sections 34. Each of these pins is provided with a collar or enlargement and each of the pipe sections 34 is provided upon its inner portion with a bead 34', while arranged between the said bead and collar is a helical spring 35'. The locking pin is adapted to engage with either of the depressed portions 36 of the member 22. The locking pin is provided with a downturned arm 35^a, and the said arm has its lower extremity playing within a slot 39' which is provided with an operating bar 39. The slot 39' is substantially U-shaped, that is the opposite ends are arranged at angles to the main portion of the said slot, and these angular portions are adapted to provide means whereby the pin 37 may be retracted through one of the depressions 36 before the member 22 is revolved. The bar 39 is further provided with an elongated slot 39^b, the said slot being adapted to receive the offset ends of a rod 50. This rod 50 connects with the arm 29, and by providing the bar with the said slot 39^b it will be noted that the bar may be moved a sufficient distance to permit of the pin 37 being withdrawn from one of the recesses 36 by the said bar 39 actuating the rod 50. The straightened portion of the slot 39' is of a length equaling the distance of travel of the member 22, or that of one fourth of the revolution of the said member, and when the second slot 36 is brought into register with the opening 33 the arm 35^a of the pin 37 will have reached the second inclined portion provided by the slot 39' which permits of the expansion of the spring 35' which forces the pin 37 within the said second depression 36.

The numerals 40 designate the outer rail sections of the turn-tables. These rail sections are arranged in pairs and aline with the right angularly arranged intermediate rail sections 10. The rail sections 40 have their base flanges enlarged as at 41, and their extremities formed with transversely arranged recesses 43, and the recessed portions 43 are adapted to engage with the annular flanges 4 of the casings 2, while the enlarged portions of the rails 40 lie flatly upon the outer extremities of the plates 3. The enlarged flanges 41 are provided with openings, the said openings registering with similar openings formed in the outer extending portions of the plates 3, and the said openings are adapted to receive suitable securing elements 44.

Each of the main tracks 45 have their inner extremities cut away or otherwise formed with depressions, the said depressed

portions adapted to engage with the extending portion of the rail sections 40, and the main rails 45 may be secured to the rail sections 40 through the medium of the usual fish plates or analogous devices. It will be noted that the base flanges of the main rails 45 underlie the base flanges of the reduced portions of the rail extensions 40, and when the fish plates are in position a tight and effective joint is provided.

Having thus fully described the invention, what we claim is:—

1. In a railroad crossing, a plurality of angularly arranged casings, each having its upper face formed with extending plates which have an annular flange that surrounds the annular body of the casing, intermediate rail sections having enlarged base flanges secured to the oppositely arranged casings and having their ends depressed to engage the flanges of the oppositely arranged casings, outer rail sections also provided with enlarged base flanges and having their inner faces depressed and overlying the annular flanges and also having their base flanges connected with the plates of the casing, main rails having flanged projections which underlie the rail sections and which are connected therewith, a turntable for each of the casings, each of the turntables having a rail section, and means for rotating and locking the turntables to bring their rail sections into register with either of the angularly arranged main rails and the intermediate rails.

2. In a crossing, a cylindrical casing, main rails and intermediate rails connected with the casing, a turntable mounted for rotation upon the casing and being provided with a rail which is adapted to register with either of the angularly arranged main rails and their intermediate rails, said turntable having its body provided with a pair of spaced openings, the casing being provided with a pipe member, a spring actuated locking pin within the sleeve and adapted to engage with one of the depressions in the body of the turntable, an operating bar, a link connected with the turntable and arranged within the slot in the operating bar, the locking pin having a

downturned arm, the locking bar having an elongated longitudinally extending slot which has its ends arranged or disposed at opposite angles to the edges of the said slot, and the locking pin being provided with a depending member which is adapted to be arranged within the offset portions of the slots, and to ride upon the walls thereof to withdraw the pin from its engagement with the turntable before the bar has been moved to exert an influence upon the link.

3. The herein described construction of railroad crossings comprising a plurality of casings arranged at right angles with each other, intermediate rail sections connecting the angularly arranged casings, main rail sections also connected with the casings, a turntable for each of the casings, a rail section upon each of the turntables, draw levers for the turntables, means for limiting the movement of the levers in two directions, the body of the tables being provided with angularly arranged openings, the casing being provided with extending pipe members which communicate with the openings, a spring-actuated locking pin within each of the pipe sections and adapted to co-act with one of the openings in one of the turntables, an offset arm connected with each of the pins and co-acting with the lever and the connections between the arm and the lever and the rod and the turntable being so arranged as to permit of the withdrawal of the pin from the opening in the turntable before the rod is acted upon by the lever for rotating the turntables, and the said connections being also arranged to permit of the actuation of the spring upon the pin to force the pin into locking position with the second opening of the turntable which is now disposed opposite the pipe member.

In testimony whereof we affix our signatures in presence of two witnesses.

EMERY J. SHERWOOD.
GEORGE L. COOKE.

Witnesses:

WILLIAM H. McCLARAN,
FRANK H. DAVIS.