

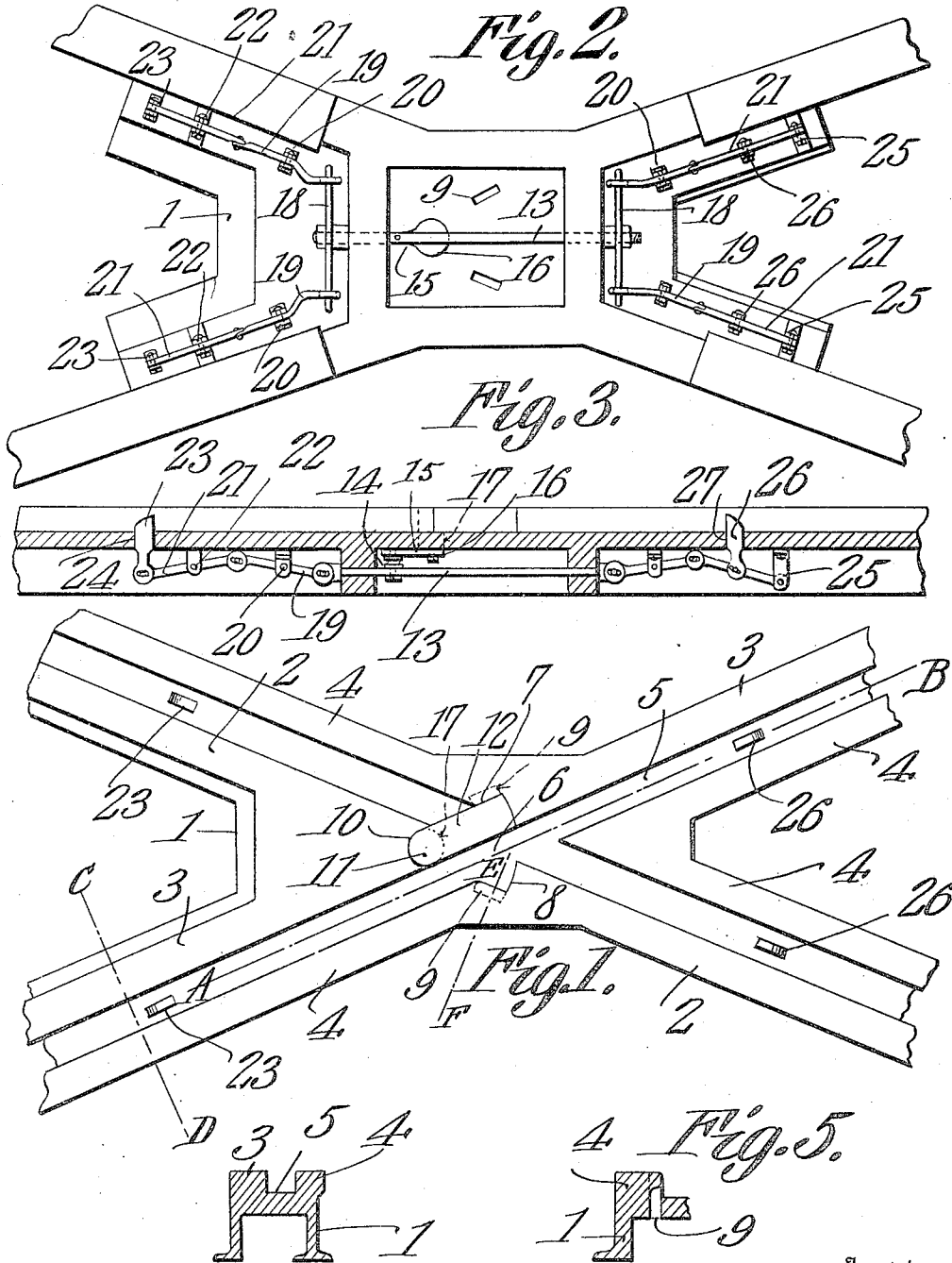
W. C. PETERS.  
RAILROAD CROSSING.

APPLICATION FILED OCT. 19, 1909.

Patented Dec. 7, 1909.

2 SHEETS—SHEET 1.

942,740.



Witnesses

*E. J. Hewitt*  
*Herbert D. Lawson*

*Fig. 4.*

*William C. Peters.*

Inventor

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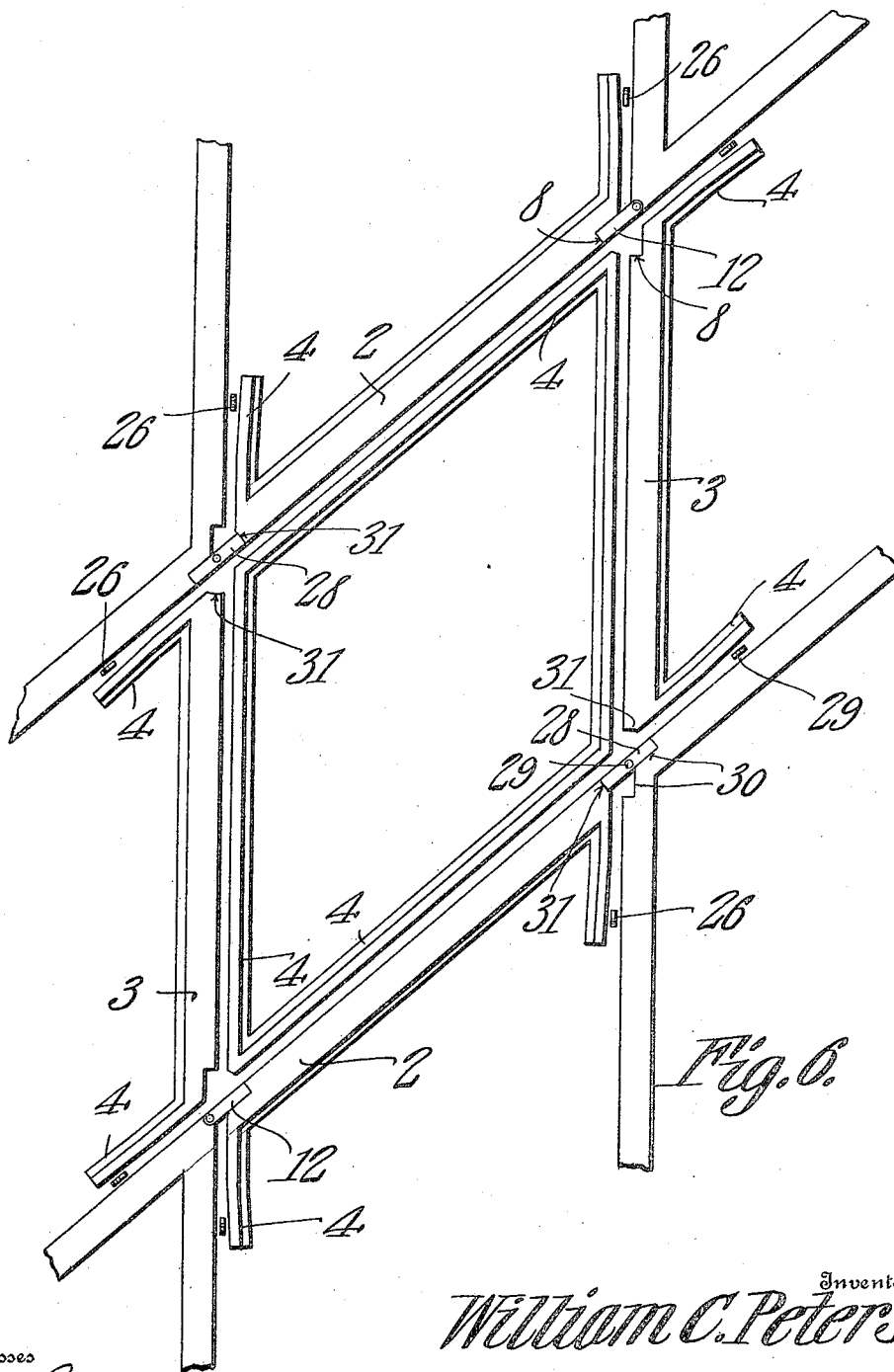


Fig. 6.

Witnesses

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# UNITED STATES PATENT OFFICE.

WILLIAM C. PETERS, OF HARRISBURG, PENNSYLVANIA.

## RAILROAD-CROSSING.

942,740.

Specification of Letters Patent.

Patented Dec. 7, 1909.

Application filed October 19, 1909. Serial No. 523,394.

*To all whom it may concern:*

Be it known that I, WILLIAM C. PETERS, a citizen of the United States, residing at Harrisburg, in the county of Dauphin and State of Pennsylvania, have invented a new and useful Railroad-Crossing, of which the following is a specification.

This invention relates to crossing frogs for railways and one of its objects is to provide a device of this type having a shiftable bridging piece or point mounted to close the gap between the rails along which a car or cars are moving, simple means being utilized whereby this bridging piece or point can be shifted automatically by the wheels of the cars approaching the frog, or by interlocking.

A further object is to provide a crossing of this type which is simple in construction, formed of but few parts and which will not readily get out of order.

With these and other objects in view the invention consists of certain novel details of construction and combinations of parts hereinafter more fully described and pointed out in the claims.

In the accompanying drawings the preferred form of the invention has been shown.

In said drawings, Figure 1 is a plan view of a crossing embodying the present improvement. Fig. 2 is a bottom plan view thereof. Fig. 3 is a section on line A—B of Fig. 1. Fig. 4 is a section on line C—D of Fig. 1. Fig. 5 is a section on line E—F of Fig. 1. Fig. 6 is a plan view of a complete crossing having a modified form of bridging element.

Referring to the figures by characters of reference 1 designates the base casting of a crossing frog, the same being provided with treads 2 and 3 respectively arranged along intersecting lines and each being parallel with a guard flange or rail 4, the said treads and guards being separated by channels 5 which intersect as shown at 6. Recesses 7 and 8 are formed within the said portions 3 and 2 respectively at the points where they merge into the guards 4, these recesses being of the same depth as the channels 5 and opening into them. A drain opening 9 extends through the base casting from each of the recesses 7 and 8 and by utilizing this opening any moisture, dust or the like accumulating within the recesses, can be readily drained or pushed therefrom.

One of the meeting points of the tread

portions 2 and 3 has a substantially semi-circular recess 10 therein and within which sits the rounded end 11 of the bridging element or frog point 12 which is substantially rectangular in outline and is so proportioned that its free end will fit snugly within either of the recesses 7 and 8. When the member 12 is seated within one of the recesses 7 and 8 it will intersect one of the channels 5, and in view of the fact that the upper face of said member is in the same plane as the upper faces of the treads 2 and 3, it will be apparent that this member thus forms a continuation of the tread with which it aligns and it becomes possible therefore for car wheels to travel over the crossing without pounding. The loose end of the member 12 can be provided with any suitable means for keeping it in position within the recess 8.

In order that the bridging member 12 may be automatically shifted by a car approaching the crossing, mechanism of a simple and durable nature has been provided. This mechanism includes a rock bar 13 journaled within the bottom portion of the base casting and having a finger 14 extending upwardly therefrom, the upper end of the finger being movably mounted within an arm 15 which extends radially from a disk 16. This disk is fixedly secured in any suitable manner, the lower end of a cylindrical stud 17 projecting downward from the rounded end of the bridging member 12, said stud being mounted for rotation within an opening provided for it within the base casting. It will be apparent therefore that when the bar 13 is rocked in one direction the finger 14 thereon will shift arm 15 and disk 16 so as to cause the bridging member 12 to swing laterally into one of the recesses 7 and 8, whereas, when the rock bar is moved in the opposite direction the said bridging member will be shifted into the other recess.

A cross arm 18 is secured at its center to each end of the rock bar 13, both ends of each cross arm being movably engaged by one end of a lever 19 which is centrally fulcrumed as at 20. Each lever 19 is movably engaged by one end of another lever 21. The levers 21 connected to one of the cross arms 18 are centrally fulcrumed as indicated at 22 and each has a plunger 23 pivotally connected to it and slidably mounted within an opening 24 in the bottom of the channel 5. The levers 21 connected to the other cross arm 18 are fulcrumed at their

outer ends as indicated at 25, each of these levers being pivotally connected to a plunger 26 which is mounted upon the middle portion thereof and slidable within an opening 27 in the bottom of channel 5.

Should the bridging device be in the position indicated in Fig. 1 and a car approach the crossing along the tread 2, the flange of one of the car wheels would ride onto either the plunger 23 or the plunger 26, according to the direction in which the car is moving and the depression of either of these plungers will result in the actuation of the levers so as to cause the bar 13 to rock and shift the bridging device into the recess 8. A continuous tread is thus produced and the car wheels may pass over the crossing without pounding. Should a car approach the crossing along the tread 3, the operation will be the same, the mechanism at all times serving to shift the bridging device out of the path of the flanges of the car wheels into alinement with the tread on which the wheels are mounted.

During the swinging operation of the bridging device the same will operate to scrape from the recesses 7 and 8 any accumulations of dust or the like and the same will be discharged through the openings 9. The recesses will therefore be kept clear under all conditions.

It will be understood of course that the operating plungers 23 and 26 can be located at any desired distance from the frog so as to insure the shifting of the bridging device before the wheels reach the same. If preferred, and as shown in Fig. 6, the bridging member, 28 can be pivotally mounted at its center as indicated at 29, one end portion of the bridging member swinging into a recess 30 as in the form of device heretofore described, while the other end thereof assumes a position against the opposed points 31 which are so shaped as to form a snug fit against the end of the bridging member.

Various other changes can of course be made in the construction and arrangement of the parts without departing from the spirit or sacrificing any of the advantages of the invention.

What is claimed is:—

1. A device of the class described including a base casting having diverging channels, there being tread portions spaced by the channels, said channels being provided in opposed portions with recesses located adjacent the point of communication of the channels, a bridging device movably mounted within the intersecting portion of the channels, a plunger, and means actuated by the depression of the plunger for shifting the bridging device into one of the recesses.

2. A device of the class described includ-

ing a base casting having communicating channels, there being diverging tread portions separated by the channels, a bridging device movably mounted within the communicating portions of the channels, there being recesses in opposed portions of said channels at their point of communication, plungers movably mounted adjacent the said portions, a rock bar, a connection between said rock bar and the bridging device, and means actuated by each plunger for shifting the rock bar.

3. A railroad crossing including a base casting having intersecting channels, there being crossed tread portions spaced by the intersecting portion of the channels, said channels being provided in opposed portions with recesses located adjacent the point of intersection of the channels each recess being provided with an outlet, a bridging device movably mounted within the intersecting portion of the channels, a plunger projecting into each channel, and means actuated by the depression of the plunger for shifting the bridging device into one of the recesses.

4. A railroad crossing including a base casting having intersecting channels, there being crossed tread portions separated by the channels at the points of intersection, a bridging device movably mounted within the intersecting portions of the channels, there being recesses in opposed portions of said channels at their point of intersection, a plunger movably mounted within each channel, a rock bar, a connection between said rock bar and the bridging device and means actuated by each plunger for shifting the rock bar.

5. A railroad crossing including a base casting having intersecting channels, there being crossed tread portions spaced by said channels at their point of intersection, a bridging device movably mounted within the intersecting portions of the channels, there being recesses within the tread portions at opposite sides of the intersecting portions of the channels, said bridging device being shiftable into either of said recesses and into alinement with either of the tread portions, a rock bar, a connection between the rock bar and bridging device, cross arms connected to the rock bar, plungers movably mounted within the channels, and lever connections between the plunger and one of the cross arms.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

WILLIAM C. PETERS.

Witnesses:

JOSEPH A. SPOWKE,  
HERMAN F. HAHN.