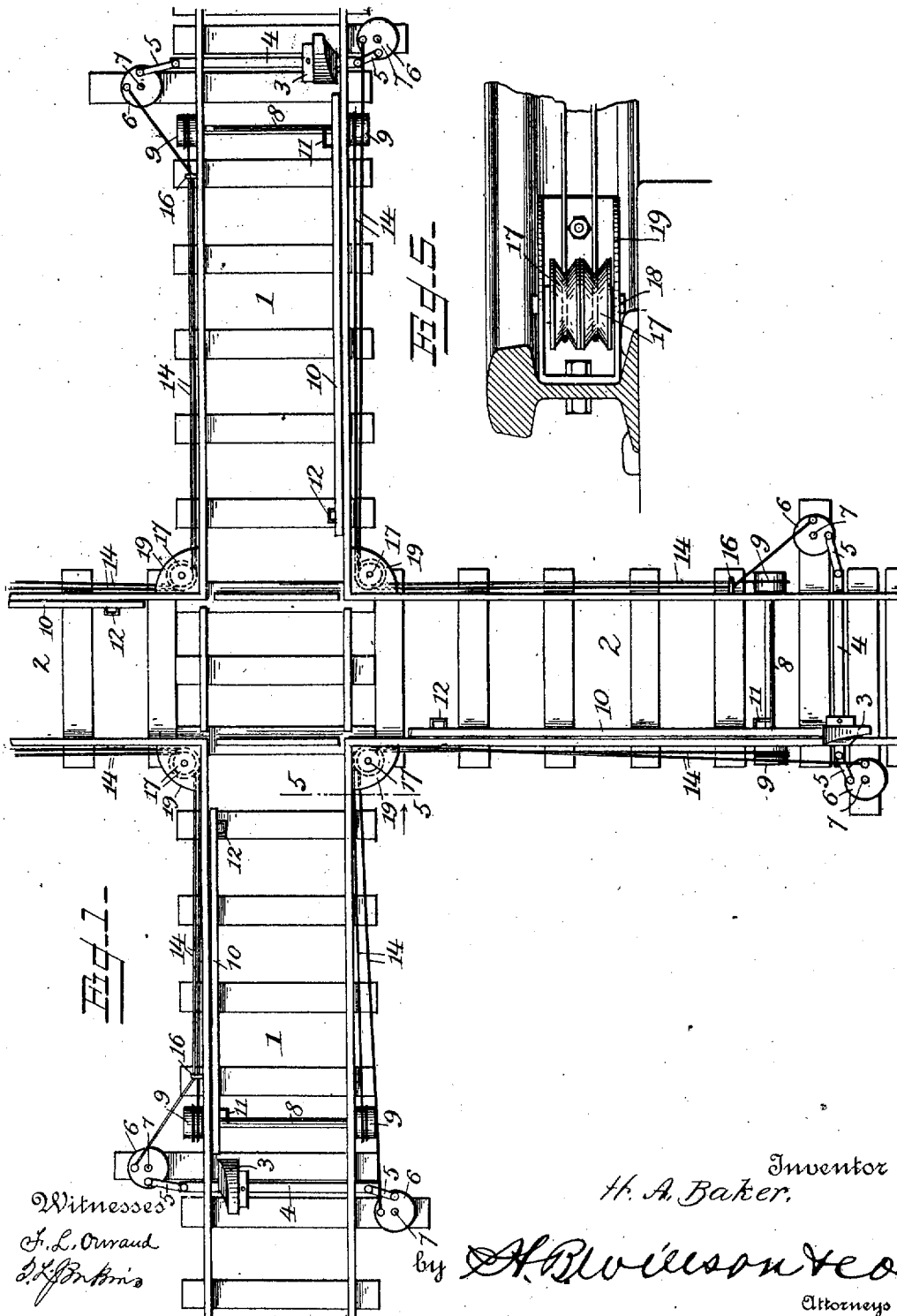


H. A. BAKER.  
RAILROAD CROSSING.  
APPLICATION FILED JUNE 7, 1906.

2 SHEETS—SHEET 1.



Witnesses  
F. L. Ormand  
J. P. Perkins

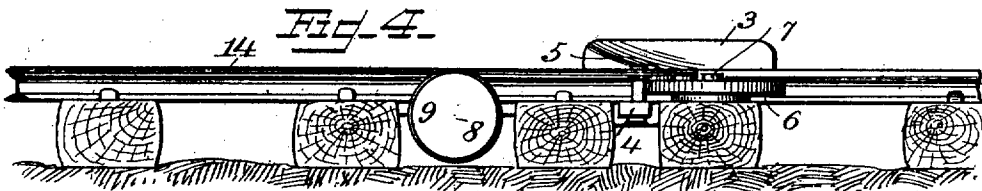
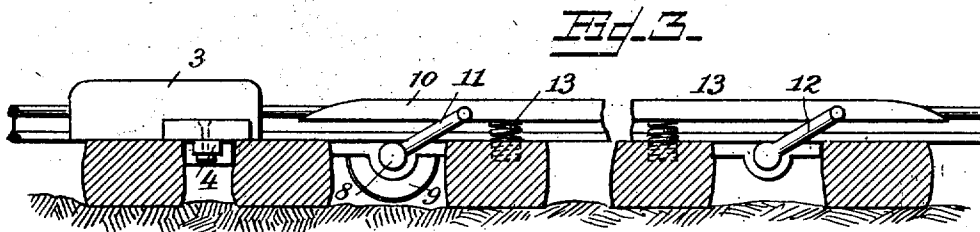
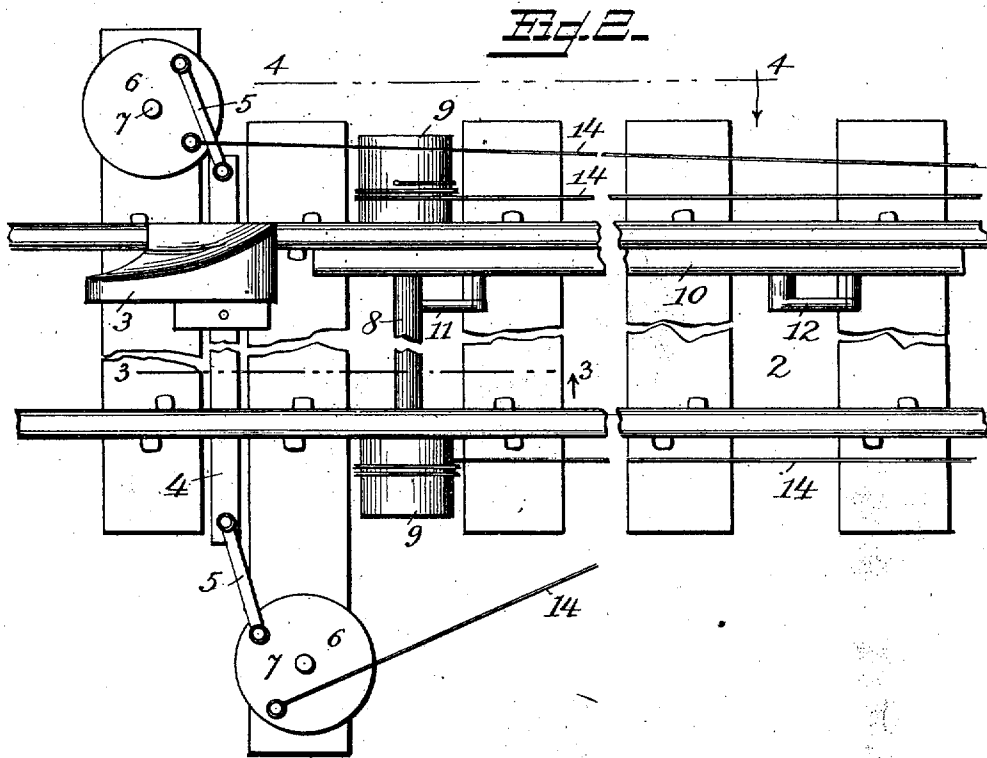
Inventor  
H. A. Baker.  
by *H. B. Wilson & Co.*  
Attorneys

No. 835,898.

PATENTED NOV. 13, 1906.

H. A. BAKER.  
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2 SHEETS—SHEET 2.



Witnesses  
J. L. Orvand  
D. J. Barber

Inventor  
H. A. Baker.

By *A. B. Wilson & Co.*  
Attorneys

# UNITED STATES PATENT OFFICE.

HORACE A. BAKER, OF PECAN GAP, TEXAS, ASSIGNOR OF ONE-HALF TO JNO. J. CROWSON AND RICHARD B. CROWSON, OF PECAN GAP, TEXAS.

## RAILROAD-CROSSING.

No. 835,898.

Specification of Letters Patent.

Patented Nov. 13, 1906.

Application filed June 7, 1906. Serial No. 320,596.

*To all whom it may concern:*

Be it known that I, HORACE A. BAKER, a citizen of the United States, residing at Pecan Gap, in the county of Delta and State of Texas, have invented certain new and useful Improvements in Railroad-Crossings; and I do 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 improvements in railroad-crossings, and more particularly to a derailing mechanism, by means of which liability of collision will be reduced to a minimum.

The object of the invention is to provide a derailing mechanism of this character which will be of simple and comparatively inexpensive construction and very effective in operation.

With the above and other objects in view the invention consists in the construction, combination, and arrangement of devices hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a plan view of a railway-crossing having my improved derailing mechanism applied thereto. Fig. 2 is a detail view, on an enlarged scale, of one of the derailing devices and its connected parts. Fig. 3 is a longitudinal sectional view taken on the plane indicated by the line 3 3 in Fig. 2. Fig. 4 is a detail sectional view taken on the plane indicated by the line 4 4 in Fig. 2, and Fig. 5 is a detail sectional view taken on the plane indicated by the line 5 5 in Fig. 1.

Referring to the drawings by numerals, 1 and 2 denote two intersecting railroad-tracks upon which my improved derailing mechanism is mounted. This mechanism comprises four derailing-blocks or devices 3, located at suitable distances from the intersection of the track-rails, and one being provided for each of the four branches of the crossing. Each of the derailing blocks 3 is carried by a transversely-sliding bar 4, which has its opposite ends connected by links 5 to angle-levers, bell-cranks, or the like 6, which are mounted upon vertical pivots 7, located upon the opposite sides of the tracks. Mounted in suitable bearings adjacent to the sliding bar 4 upon each of the branches of the intersecting tracks 2 are transversely-extending shafts 8,

which have upon their projecting ends wheels or the like 9. Each of the shafts 8 is rocked or oscillated by means of a push-bar 10, located upon one side of one of the track-rails and adapted to be depressed by the flanges of the wheels of a car or train passing over the same. Each of these bars has one of its ends pivotally connected to a crank-arm 11 upon the adjacent shaft 8 and its other end pivotally connected to a similar crank-arm 12, suitably mounted upon one of the cross-ties or upon one of the track-rails. The crank-arms are equal in length, so that the bar 10 will be maintained in a horizontal plane as it swings vertically. Suitable springs 13 are provided for maintaining the bars 10 in their elevated positions, so that when the flanges of the car-wheels strike their rounded ends they will be forced downwardly against the tension of said springs to rock the shafts 8 and partially rotate the wheels 9. Each of the wheels 9 is connected by a cable or other flexible connection 14 to one of the rotary disks 6 upon the adjacent side of one of the branches of the intersecting track, so that when the shaft 8 upon one branch of one of the tracks is actuated its motion will be imparted through said connecting-cables to the two rotary disks upon the adjacent sides of the two branches of the other or intersecting track, in order that the two disks thus actuated will shift the derailing-blocks, which they control, from an inoperative to an operative position. Thus as a car or train approaches a crossing upon one of the tracks and actuates the bar 10 upon that branch of said track the two derailing-blocks upon the branches of the other or intersecting track will be moved from an inoperative to an operative position in order that trains approaching the crossing in either direction upon the last-mentioned or intersecting track will be derailed before they reach the crossing.

Each of the cables 14 has one of its ends secured to and wound upon one of the wheels 9 and its other end secured, as at 15, to one of the rotary disks 6, and it is provided with suitable guides 16, located along the tracks and also passed around one of two superposed pulleys 17, mounted upon a vertical pivot 18, located adjacent of the intersection of two track-rails. One of these groups or pairs of pulleys is mounted at each of the four corners of the crossing, and they are protect-

ed by guard-plates 19, disposed above them and suitably connected to the track-rails, as clearly shown in Fig. 5 of the drawings.

The construction, operation, and advantages of the invention will be readily understood from the foregoing description, taken in connection with the accompanying drawings. It will be seen that by means of this derailing mechanism when a train approaches the crossing in either direction and upon either of the tracks it will cause the two derailing-blocks upon the two branches of the intersecting track to be moved into an operative position, so that a train or trains upon said intersecting track will be derailed before reaching the crossing.

Any suitable electric or other signaling device may be used in connection with this derailing mechanism, so that engineers upon approaching trains will be warned of the danger ahead before they reach the derailing devices.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of the invention as defined by the appended claims.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination of intersecting tracks, a transversely-movable bar on one of said tracks at a distance from the crossing and having a derailing-block, a rotary element mounted near said bar and connected thereto, a rock-shaft mounted on the other track at a distance from the crossing and having a wheel and a crank-arm, an operating connecting element between said wheel and the said rotary

element to actuate the latter and the said bar and derailing-block, and a train-operated push-bar connected to the said crank to operate the same, for the purpose set forth.

2. The combination with intersecting tracks, of transversely-movable bars located upon the branches of said tracks, derailing-blocks carried by said bars and movable toward and from the rails of said tracks, rock-shafts located in the branches of said intersecting tracks, a train-operated device upon each branch of said intersecting tracks, each of said devices actuating the adjacent rock-shaft, rotary elements for actuating said derailing-block-carrying bars, and connections between said elements and said rock-shafts, substantially as described.

3. The combination with intersecting tracks, of transversely-slidable bars upon the branches of said tracks, derailing-blocks carried by said bars and movable toward and from the rails of said tracks, rotary elements for actuating said sliding-bars, rock-shafts located in the branches of said tracks, push-bars located adjacent to the rails of the branches of said tracks for operation by the car-wheels of passing trains, connections between said bars and said rock-shafts, guides, and flexible connections engaged with said guides and connected to said rock-shafts and said rotary elements, substantially as shown and described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

HORACE A. BAKER.

Witnesses:

E. D. HUMPHREY,  
J. J. CROWSON.