E. E. COMBS.

RAILROAD GATE.

APPLICATION FILED SEPT. 17, 1912.

1,067,309. Patented July 15, 1913.

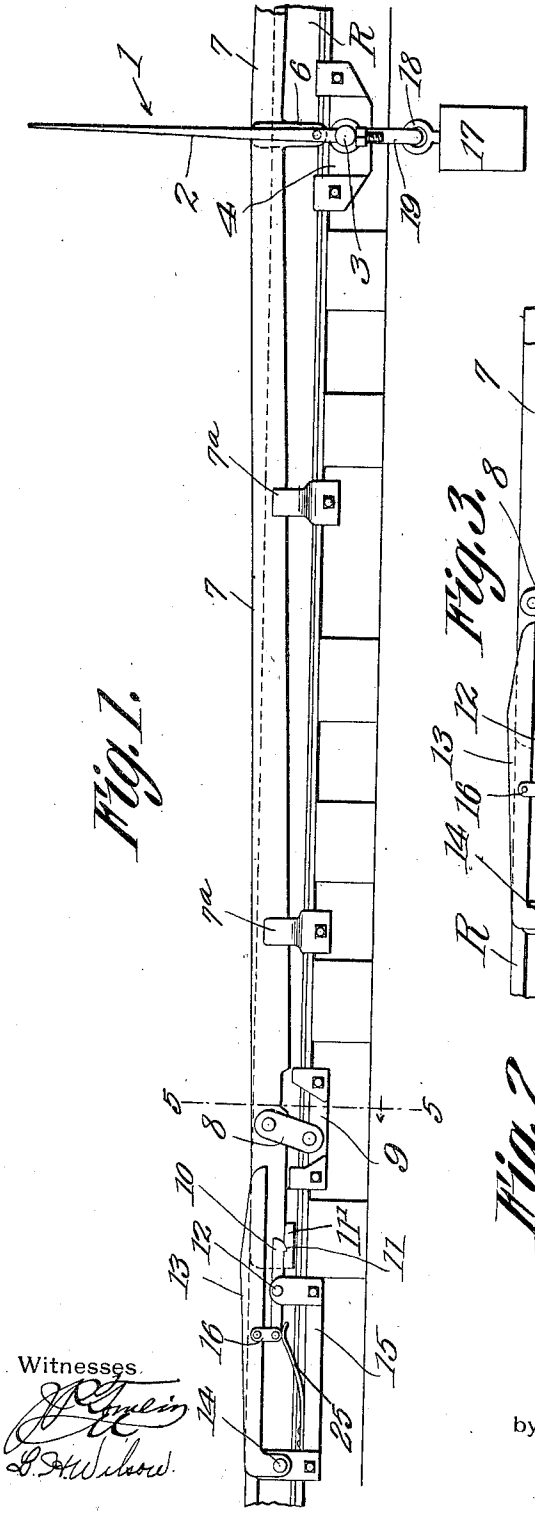


Fig. 1.

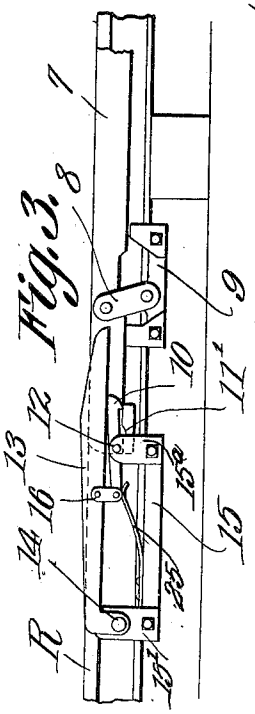


Fig. 3.

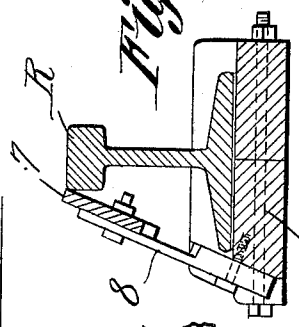


Fig. 5.

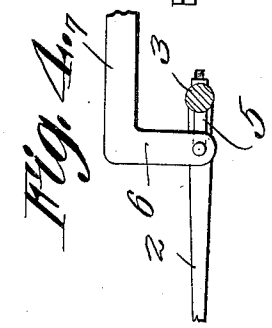


Fig. 4.

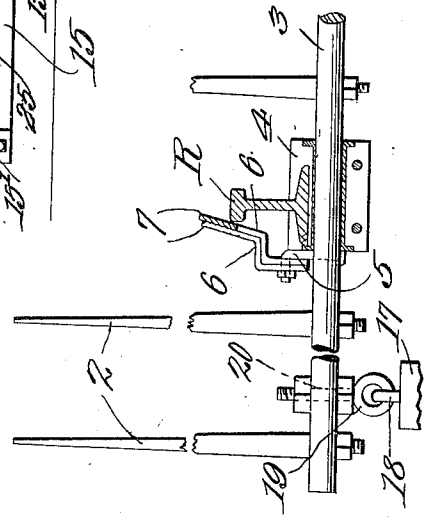


Fig. 2.

Witnesses.

J. Tomlin

G. F. Wilson

E. E. Combs

Inventor,

by C. A. Snow & Co.

Attorneys.

COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

EDGAR E. COMBS, OF LANDER, WYOMING.

RAILROAD-GATE.

1,067,309. Specification of Letters Patent. Patented July 15, 1913.

Application filed September 17, 1912. Serial No. 720,859.

To all whom it may concern:

Be it known that I, EDGAR E. COMBS, a citizen of the United States, residing at Lander, in the county of Fremont and State of Wyoming, have invented a new and useful Railroad-Gate, of which the following is a specification.

The present invention relates to improvements in gates, and more particularly to that form of gate adapted to be used upon railroads to prevent the trespassing of stock thereupon, the primary object of the invention being the provision of a gate yieldingly held in a vertical position and having means operable from either direction by an approaching vehicle or train for moving the gate from the vertical to a horizontal position so that the train or vehicle may pass thereover.

A further object of the present invention is the provision of means controlled by the train or vehicle for operating the gate to permit of the passage of the train or vehicle and for automatically permitting the gate to return to its normal vertical position.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed can be made within the scope of what is claimed without departing from the spirit of the invention.

In the drawings Figure 1 is a side elevation of a portion of a railroad with the present apparatus in operable relation thereto, the operating mechanism for the gate being in normal position with the gate held vertically. Fig. 2 is a detailed view showing a part of the gate and a portion of the structure connected therewith to illustrate the mounting of the gate relatively to the rail and tie. Fig. 3 is a detailed view of the portion of the operating mechanism first affected by the train for operating the gate. Fig. 4 is a detailed view of the gate in its lowermost position. Fig. 5 is a view taken on line 5—5 of Fig. 1.

Referring to the drawings, R designates the rail which has disposed therebelow a journaling sleeve 4 for the reception of the oscillatory tubular member or rod 3 which has connected thereto a plurality of prongs 2 which constitute the barricade member or gate. Connected to the outer end of this bar through the medium of the flexible connections 18 and 19 is a weight 17 which yieldingly holds the gate with the barricade member 2 in the vertical position, as clearly shown in Fig. 1.

As the construction of the devices for depressing the gate from either direction are identical, the description of one will suffice for both.

Keyed upon the rod 3 exterior of the rail R is a crank 5 whose upper out-turned end is pivotally connected to the hooked terminal 6 of the depressible plate 7, there being two of these plates at least and extending in opposite directions from the journaling point of the gate.

A plurality of guiding plate 7^a are disposed adjacent to the rail and provide a means between which the plate 7 is guided in its vertical and sliding movement as will presently appear.

Pivotally connected to the opposite end of the plate 7 is a short link 8, whose lower end is pivotally connected to the supporting plate 9 which as shown in Fig. 5 is properly clamped below and to the rail base to properly support the gate and consequently the plate 7 for the necessary swinging movement.

A frame 15 is properly supported from the rail base beyond the free end of the plate 7 and is provided with the two upstanding lugs 15′—15^a. The pivoting pin 12 is mounted in the lug 15^a and carries the trigger or latch 10, whose hooked end is disposed in the path to engage in the depression 11 of the offset lug 11′ carried at one side of the free end of the plate 7.

A lever 13 is pivoted to the lug 15 by means of the pin 14 and through the short link 16 is pivotally connected intermediate of its ends to the inner end of the trigger or latch 10, a spring 25 carried by the frame 15 having its free end engaging the inner end of the latch 10 and normally exerting a tension to elevate the said end and also the lever 13 to assume the position as shown in Fig. 1. When in this position, the hooked terminal of the latch 10 is held downwardly and into the depression 11 of the offset lug 11′.

When the parts are in their normal position, the lever 13, and the latch 10 assume the position, as shown in Fig. 1, with the

depressible plate 7 elevated, the gate 1 being in a vertical position. The approach of a train will first depress the lever 13 so as to release the latch 10 from the depression 11 and as the upper edge of the plate 7 is adjacent the tread of the rail R, the same will be engaged by the wheel and depressed, the depressed plate 7 causing the opposite plate 7 to be moved from the position as shown in Fig. 1 to that shown in Fig. 3, and also moving the hooked end 6 downwardly so as to cause the bar 3 to be moved from the position as shown in Fig. 1 to that shown in Fig. 4, thus retaining the gate in a horizontal position and moving the same in an opposite direction or away from the approaching train.

Inasmuch as the two plates 7 are held by the latch 10 upon both sides of the gate, the depression of either plate by the train disengages the latch of one plate so that such released plate will cause the movement of the other plate and also the depression of the gate, this being accomplished when the plate 7, first affected, moves the gate to a horizontal position and depresses the hooked terminal of the opposite plate 7 to release its member 10. The passage of the train from off the opposite plate 7, permits the weight 17 to move the gate to vertical (closed) position, and to elevate the two plates 7, which will have their lugs 11′ engaged by the spring actuated catch or triggers 10.

What is claimed is:

1. A gate and operating mechanism therefor including a barricade yieldingly held in a vertical position, a sliding plate disposed at one side of the barricade and operably connected thereto, a spring actuated latch for locking the plate against movement, and an arm operably connected with the latch to be depressed by a passing vehicle to release said latch to permit the sliding of the plate to move the barricade to a horizontal position.

2. The combination with a gate yieldingly held in a vertical position, of means for opening said gate, including a slidingly mounted depressible plate operably connected to the gate, a spring actuated latch for holding the plate against accidental displacement, and means disposed for depression by a vehicle for operating said latch to release the plate.

3. The combination with a gate yieldingly held in a vertical position, of mechanism for moving the gate to a horizontal position in either direction, including two oppositely disposed sliding plates both of which are operably connected to the gate, a spring actuated latch for locking each plate against accidental displacement, and latch actuating means disposed to be depressed by an approaching vehicle for releasing the latch.

4. The combination with a railroad gate yieldingly held in a vertical position, of an opening mechanism therefor, including two plates, each plate having one end operably connected to the gate with its body portion normally held above the level of the track, a latch engaging the opposite end of each plate to hold the same against accidental displacement, and a pivoted lever disposed to be engaged by a passing train to release the latch, either plate being depressed by a train approaching in the opposite direction through the plate primarily depressed and from the latch when depressed.

5. The combination with a railroad gate yieldingly held in a vertical closed position, of mechanism for opening the gate by a train approaching in either direction, said mechanism including two oppositely disposed plates, each one of which is operably connected to the gate and has its body portion disposed above the level of the track to be engaged by a passing train, spring actuated latches one to each plate, for locking the plates against accidental displacement, and two levers, one for each latch, for releasing the latches, said levers being disposed in the path of the train to be operated thereby and said latches being in locked position when the gate is in a vertical position.

6. The combination with a railroad gate yieldingly held in a closed vertical position, two oppositely disposed depressible plates operably connected to the gate and held elevated thereby above the level of the track, two spring actuated latches, one to each plate and operably engaging its respective plate to maintain the same against accidental displacement, two levers disposed in the path of a train approaching in either direction and having operable connection to the respective latches, whereby the depression of either lever will release its respective latch the approaching train engaging and depressing the plate.

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

EDGAR E. COMBS.

Witnesses:
C. F. Colburn,
Charles F. Patterson.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."