June 16, 1936. A. L. ABBEY 2,044,658

GATE

Filed March 7, 1935

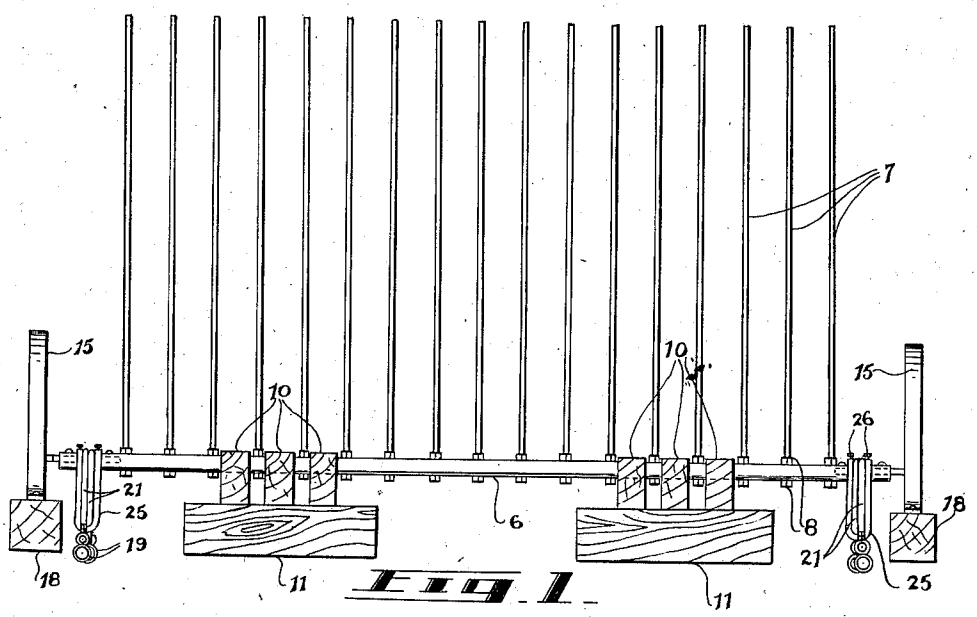


Fig. 1.

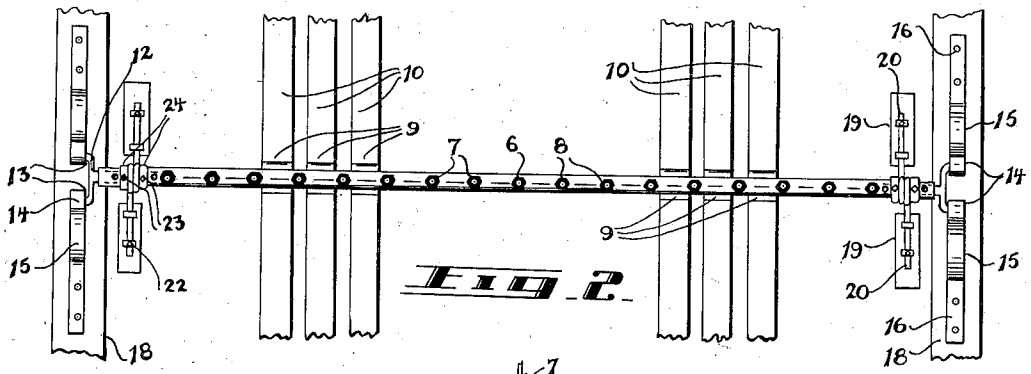


Fig. 2.

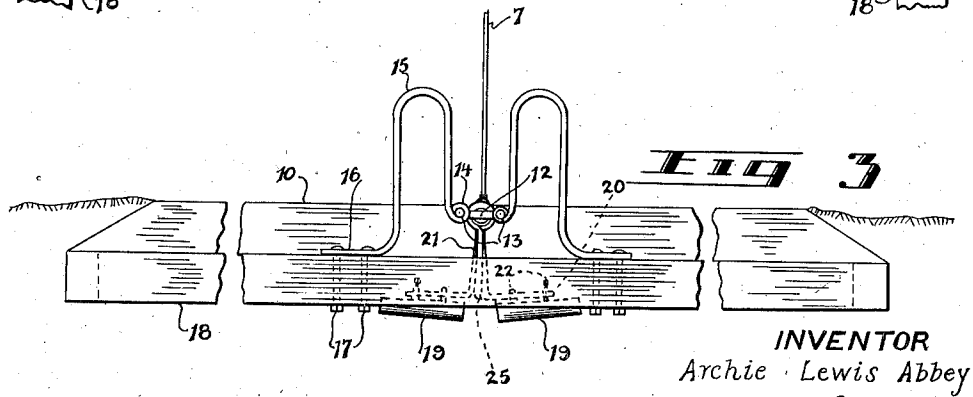


Fig. 3

INVENTOR
Archie Lewis Abbey

BY

ATTORNEY

Patented June 16, 1936 2,044,658

UNITED STATES PATENT OFFICE

2,044,658

GATE

Archie Lewis Abbey, Flagstone, British Columbia, Canada

Application March 7, 1935, Serial No. 10,688

1 Claim. (Cl. 39—5)

This present invention relates to certain new and useful improvements in a gate.

The primary object of the invention resides in the provision of a gate of generally improved and simplified construction and increased efficiency.

The invention has for another object the provision of a gate of the character stated which is resiliently maintained in upstanding or closed position and may be readily rocked forward to horizontal or open position by the motor vehicle or the like passing through the gate opening.

The invention has for a further object the provision of a gate of the character stated which may be readily opened by being forced forwardly and downwardly by a vehicle passing through the gateway and over the gate, the gate automatically returning to its upstanding closed position.

The invention has for a still further object the provision of a gate of the character stated which may be readily forced to open position by a vehicle or the like passing through the gateway and over the gate without injury to the latter.

The invention has for a still further object the provision of a gate of the character stated which may be employed as a fence gate, a railway crossing gate, a cattle guard gate or for any purpose for which a gate of this character is adapted without the necessity of an occupant of a vehicle, a trainman or the like being compelled to stop and open the gate before passing through the gateway or over the gate.

The invention has for a still further object the provision of a gate of the character stated which is of extremely simple construction and operation, composed of the minimum number of parts, may be manufactured and installed at small cost and maintained at small expense, thus providing a commercially attractive proposition.

To the accomplishment of these and related objects as shall become apparent as the description proceeds, the invention resides in the construction, combination and arrangement of parts as shall be hereinafter more fully described, illustrated in the accompanying drawing and pointed out in the claim hereunto appended.

The invention will be best understood and can be more clearly described when reference is had to the drawings forming a part of this disclosure, wherein like characters indicate like parts throughout the several views.

In the drawing:—

Figure 1 is an elevation of the improved gate, showing the same in its normal upstanding or closed position;

Figure 2 is a plan view thereof; and

Figure 3 is an end elevation thereof with the upper portion of the gate broken away.

Referring more in detail to the drawing, it is to be noted that the gate includes a bottom horizontal rock rod 6 from which extend upwardly a plurality of spaced pickets 7 with their lower ends secured through the rock rod 6 and maintained in proper position by stop nuts 8 thereon above and below the rock rod 6 or by other appropriate means. The rock rod 6 rocks in recesses 9 provided therefor in bearing members 10 carried on stationary supporting blocks 11 beneath the rock rod 6. Fastened in the ends of the rock rod 6 and extending therefrom are the short rods 12 which have their outer ends bifurcated with the branches 13 thereof secured in looped inner ends 14 of substantially inverted U-shaped springs 15, the outer ends 16 of which are extended downwardly further than the ends 14 and then directed outwardly in opposite directions and secured by bolts 17 or other appropriate means on gate end base members 18. Thus, the springs 15 serve to resiliently support the gate in its normal upstanding closed position. At each end of the gate a pair of co-operating weights 19 are also employed and are suspended from the out-turned lower ends 20 of suspending rods 21 by appropriate securing members 22. These suspending rods 21 have looped upper ends 23 which are loosely engaged around the rock rod 6, a short distance inwardly of the ends of the latter and between the looped upper ends 24 of the U-shaped weight swinging member 25, the bight portion of which depends between the suspending rods 21. The looped upper ends 24 of the U-shaped weight swinging member 25 are securely fastened on the rock rod 6 by set screws 26 or the like, thereby causing the U-shaped weight swinging member 25 to swing with the rock rod 6 as the gate swings in either direction, thus acting on the weights 19 on one side of the gate only.

As the construction of the device has thus been described in detail, brief reference is now had to its use and modus operandi: The gate is normally maintained in its upstanding closed position and may be readily swung downwardly in either direction to its horizontal or open position by pressure of the bumper of the motor vehicle, the pilot of the railway engine or other member against the pickets 7, forcing the rock rod 6 to rock on the bearing members 10 and thus placing the springs 15 under tension and also swinging upwardly one pair of the weights 19. When the gate is constructed and mounted as illustrated, for actuation by a motor vehicle or the like, the wheels

of the motor vehicle will ride over the bearing members 10 and on the pickets 7 extended between said bearing members, thus holding the picket members down until the vehicle has passed completely over the gate and the last wheels left the pickets 7. As soon as this downward pressure on the pickets 7 is relieved, the springs 15 will react to automatically return the gate to its normal upstanding closed position, the actuated weights 19 also co-operating with the springs 15 to return the gate to its normal position. For use as a cattle guard gate across a railway track, the construction and mounting of the gate may be altered from the showing in the drawing, if desired or if found to be advisable.

From the foregoing description taken in connection with the accompanying drawing, it will be manifest that a gate is provided that will fulfill all the necessary requirements of such a device but as many changes could be made in the above description and many apparently widely different embodiments of the invention may be constructed within the scope of the appended claim without departing from the spirit or scope thereof, it is intended that all matters contained in the said accompanying specification and drawing, shall be interpreted as illustrative and not in a limitative or restrictive sense.

Having thus described the invention, what is claimed is:—

A gate including a longitudinal rock rod resting in a horizontal plane; spaced pickets carried by said rock rod and directed upwardly therefrom; vehicle wheel runways extended beneath said rock rod with the latter resting therein for rocking movement with the pickets operating therebetween and in slots of the said runways; said rock rod having bifurcated end extensions; pairs of inverted spring members mounted on the bifurcated end extensions of said rock rod to resiliently suspend said rock rod in normal position with the pickets directed upwardly therefrom; balancing weights suspended from the end portions of said rock rod in pairs; and rigid members depending from said rock rod between said balancing weights to actuate the latter in pairs as the gate is opened from either side by a vehicle with the wheels of the vehicle riding over said runways.

ARCHIE LEWIS ABBEY.