Sept. 15, 1925. 1,553,533

J. R. HOWARD

RAILROAD CROSSING GATE

Filed March 17, 1923

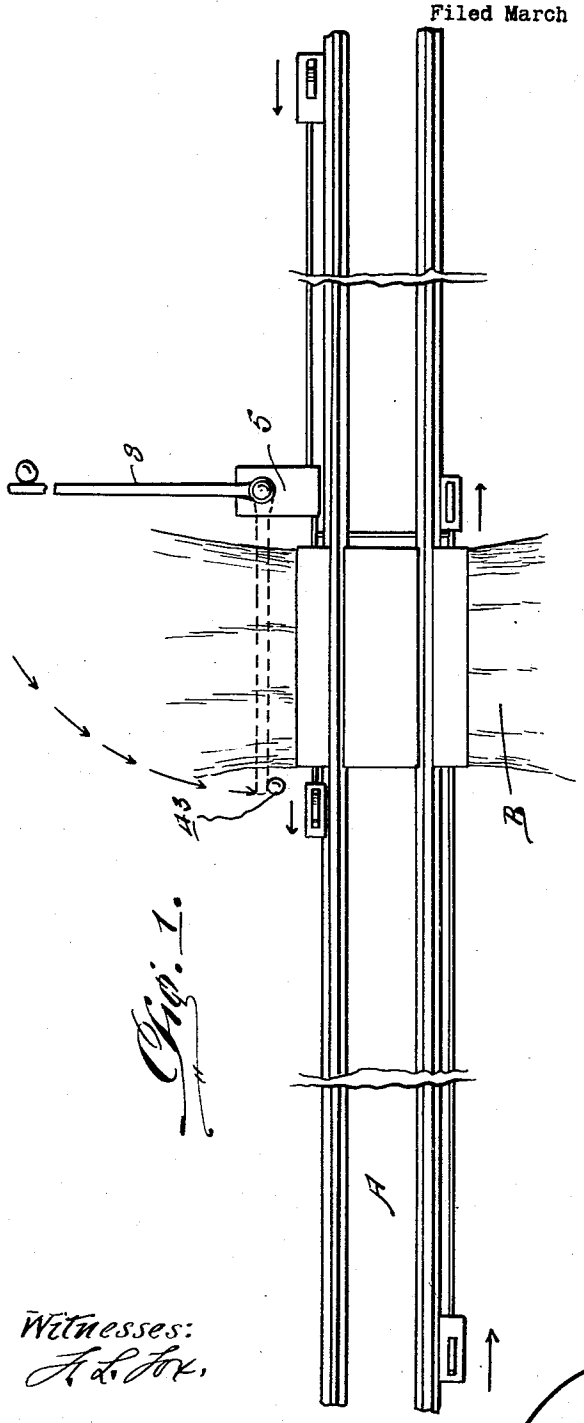


Fig. 1.

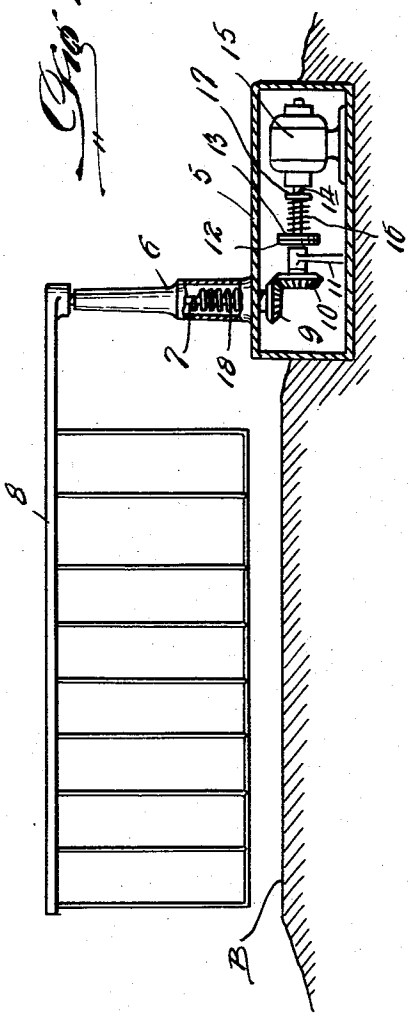


Fig. 2.

Witnesses:
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UNITED STATES PATENT OFFICE.

JAMES R. HOWARD, OF HOLLINS, ALABAMA.

RAILROAD-CROSSING GATE.

Application filed March 17, 1923. Serial No. 625,700.

To all whom it may concern:

Be it known that JAMES R. HOWARD, a citizen of the United States, residing at Hollins, in the county of Clay and State of Alabama, has invented certain new and useful Improvements in Railroad-Crossing Gates, of which the following is a specification.

The present invention relates to railway crossing gates, and aims to provide a simple, efficient, and reliable operating mechanism therefor.

The nature and advantages of the invention will be better understood when the following detailed description is read in connection with the accompanying drawings, the invention residing in the construction, combination, and arrangement of parts as claimed.

In the drawings forming part of this application, wherein like numerals of reference indicate similar parts in the several views:

Figure 1 is a top plan of a track section and highway crossing showing my improved gate and operating mechanism associated therewith;

Figure 2 is an elevation of the gate per se.

Referring to the drawings in detail, A designates the track section and B the highway. Upon one side of the highway and adjacent one of the rails of the track section is a motor casing 5, the top wall thereof being formed with a vertical hollow supporting standard 6 within which is a rotatably mounted shaft 7 supporting gate 8. The lower end of this post within the casing 5 has keyed thereto a bevel gear 9, which bevel gear is in mesh with a similar gear 10 upon one end of a stub shaft supported within the casing at 11. The opposite end of this stub shaft carries a friction disk 12 and engaging with this disk 12 is another disk 13 slidable upon one end of a shaft 14, which shaft constitutes the armature shaft of an electric motor 15. The said disk 13 of the armature shaft is maintained in engagement with the disk 12 through the instrumentality of a coil spring 16 surrounding the shaft between the disk 13 and an abutment 17.

Secured at one end to the said gate post 7 and at its opposite end to the supporting standard 6 is a coil spring 18, the same being adapted for normally swinging the gate 8 to open position, as shown in full lines in Figure 1.

In swinging to its open and closed positions, the gate is limited by posts 43, and even though the motor 15 continues to operate after the gate has reached either of these two positions, the friction discs 12 and 13 are free to slip in relation to each other.

Although I have herein shown and described the preferred embodiment of the present invention, it is nevertheless to be understood that minor changes may be made therein, without departing from the spirit and scope of the invention as claimed.

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

In a crossing gate structure, a casing, a standard mounted upon the casing, a shaft journaled in the standard and having an end portion extending into the casing, a gate panel carried by the shaft, a spring housed within the standard and connected with the shaft and being under tension with a tendency to hold the shaft and gate panel at a normal position, a stub shaft journaled in the casing, intermeshing gears operatively connecting the stub shaft with the first mentioned shaft, a friction disc carried by the stub shaft, a shaft in alignment with the stub shaft and having a projection, a friction disc mounted upon the last mentioned shaft, the last mentioned friction disc being adapted to move longitudinally of the last mentioned shaft, a spring coiled about the last mentioned shaft and attached to the last mentioned friction disc and to said projection and being under compression with a tendency to hold the last mentioned friction disc toward the first mentioned friction disc, and means for rotating the last mentioned shaft.

In testimony whereof I affix my signature.

JAMES R. HOWARD.