(No Model.)

D. L. MILLER.

CROSSING GUARD.

No. 353,368. Patented Nov. 30, 1886.

Fig. 1.

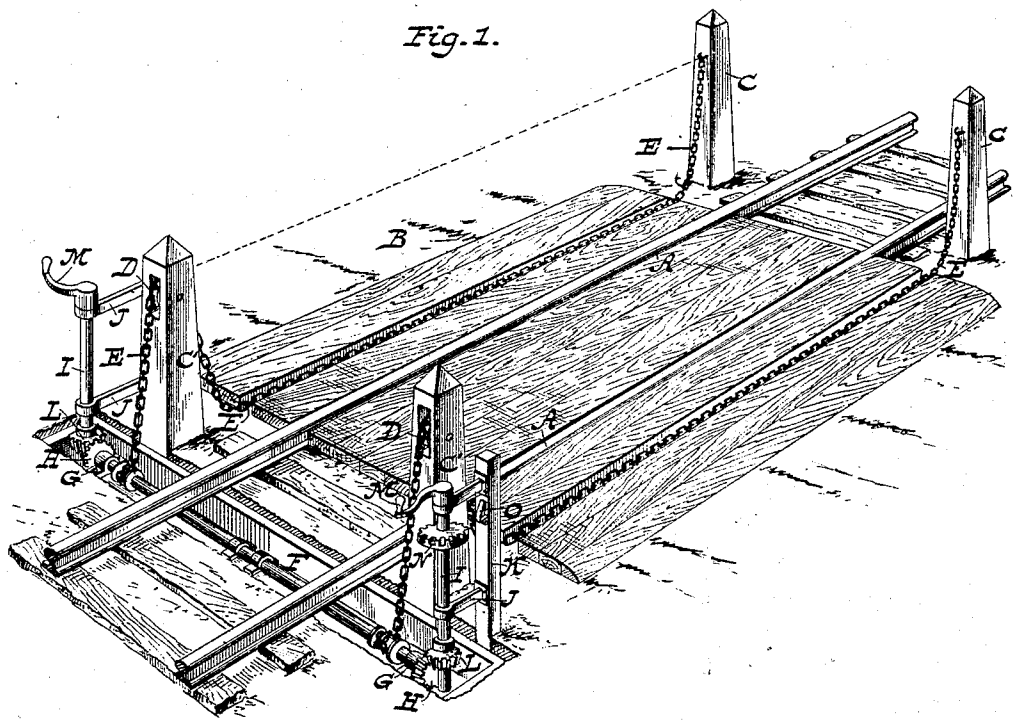
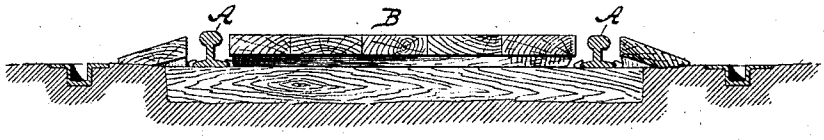


Fig. 2.



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UNITED STATES PATENT OFFICE.

DAVID L. MILLER, OF TRINIDAD, COLORADO, ASSIGNOR TO WILLIAM H. ELY, OF NEW YORK, N. Y.

CROSSING-GUARD.

SPECIFICATION forming part of Letters Patent No. 353,368, dated November 30, 1886.

Application filed November 16, 1885. Serial No. 183,001. (No model.)

To all whom it may concern:

Be it known that I, DAVID L. MILLER, of Trinidad, in the county of Las Animas and State of Colorado, have invented certain new and useful Improvements in Crossing-Guards, of which the following is a specification.

This invention relates to guards for railway-crossings, bridges, boats, and like places, and has for its object to simplify and cheapen the construction of the same.

In the drawings, Figure 1 is a perspective view of my improved device, and Fig. 2 a cross-section at right angles to the track.

The drawings illustrate my device applied to a railway-crossing.

A indicates a railway-track, and B a road crossing the same. At each side of the road B, and on each side of track A, are posts or uprights C C′, suitably braced or firmly set in the ground, said posts C C′ being made of wood, iron, stone, or of any desired material, and more or less ornamental in appearance, as desired. The posts or standards C′ are slotted at their upper ends and each provided with a grooved sheave or with a sprocket-wheel, D, over which passes the chain or rope E, as clearly shown. One end of the rope or chain E is securely fastened to the post C, near its upper end, while the other end of the chain or rope passes over the pulley D, down behind the post C′, and is secured to a shaft, F, as shown.

The shaft F runs underneath the bed of the railway from side to side, is carried and supported at suitable points by brackets or bearings G, and is provided at each end with a bevel gear-wheel, H, as shown in Fig. 1.

The shaft F is preferably incased in a box or casing, as shown, so as to form a firm support for the bearings G, and to permit ready access for repairs, &c.

As above stated, the chains or ropes E are each attached at one end to the shaft F, and, in order to cause or aid said chains to wind thereupon evenly, I prefer to provide the shaft with disks or collars, as shown. These may be omitted, if desired.

I indicates a vertical shaft carried by hangers or brackets J J, projecting from the post C′, as shown in Fig. 1, or from a separate post, K, the said shaft I being provided at its lower end with a bevel-gear, L, to mesh with gear H on shaft F, and its upper end with a hand-wheel or handle, M, by which it may be turned. The shaft I is also provided with a ratchet-wheel, N, with which engages a pivoted dog, O, (seen in Fig. 1,) which is adapted to hold said wheel, and consequently the shaft I, in any desired position.

The device, being thus constructed, operates as follows: Supposing that a train is about to pass, the operator takes hold of the hand-wheel or handle M and turns the same. The motion thus communicated to shaft I is transmitted through bevel-gears L H to shaft F, causing the latter to rotate in its bearings and wind up the chain E. The winding of the chain or rope E upon the shaft F causes the portion of the chain lying upon and across the road to rise and assume the position shown by dotted lines in Fig. 1, and when in this position the pivoted dog or catch O is caused to engage with wheel N and hold the shafts I F and the chain E stationary.

In some cases the chain or rope will lie upon the ground; but I prefer to make a small narrow trench, gutter, or box across the road, as shown in the drawings, in which the chain may lie, as it is then out of the way.

Two shafts, I, are provided, so that the gate or crossing-guard may be operated from either side.

It will be seen that instead of making the shaft F continuous, as shown in the drawings, it may be made in two sections, independent of each other, and each operated by its particular vertical shaft I.

Only one chain E need be used, instead of the two, when desired; but I prefer that two be employed, in order that the track may be effectually guarded from both sides.

It will be seen that that portion of the guard lying in the trench may be a rod, provided at each end with a chain or rope or other flexible connection.

I am aware that it has been proposed to use a chain to form a guard for crossings, and that it has also been proposed to provide the crossing with a trench or gutter in which the chain may rest when not in use, and to these features I make no broad claim.

Having thus described my invention, what I claim is—

1. In combination with posts C C C′ C′, chains E E, shaft F, provided with gear-wheels H, shaft I, provided with gear-wheel L, handle M, and pawl and ratchet N O, arranged substantially as herein described and shown.

2. In a crossing-guard, the combination of posts C C′, chain E, extending from post to post, a shaft, F, provided with a gear-wheel, H, and connected with one end of the chain, a shaft, I, provided with a gear-wheel, L, to mesh with gear H, and a hand-lever, M, all combined and arranged to operate substantially as shown and described.

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Witnesses:
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