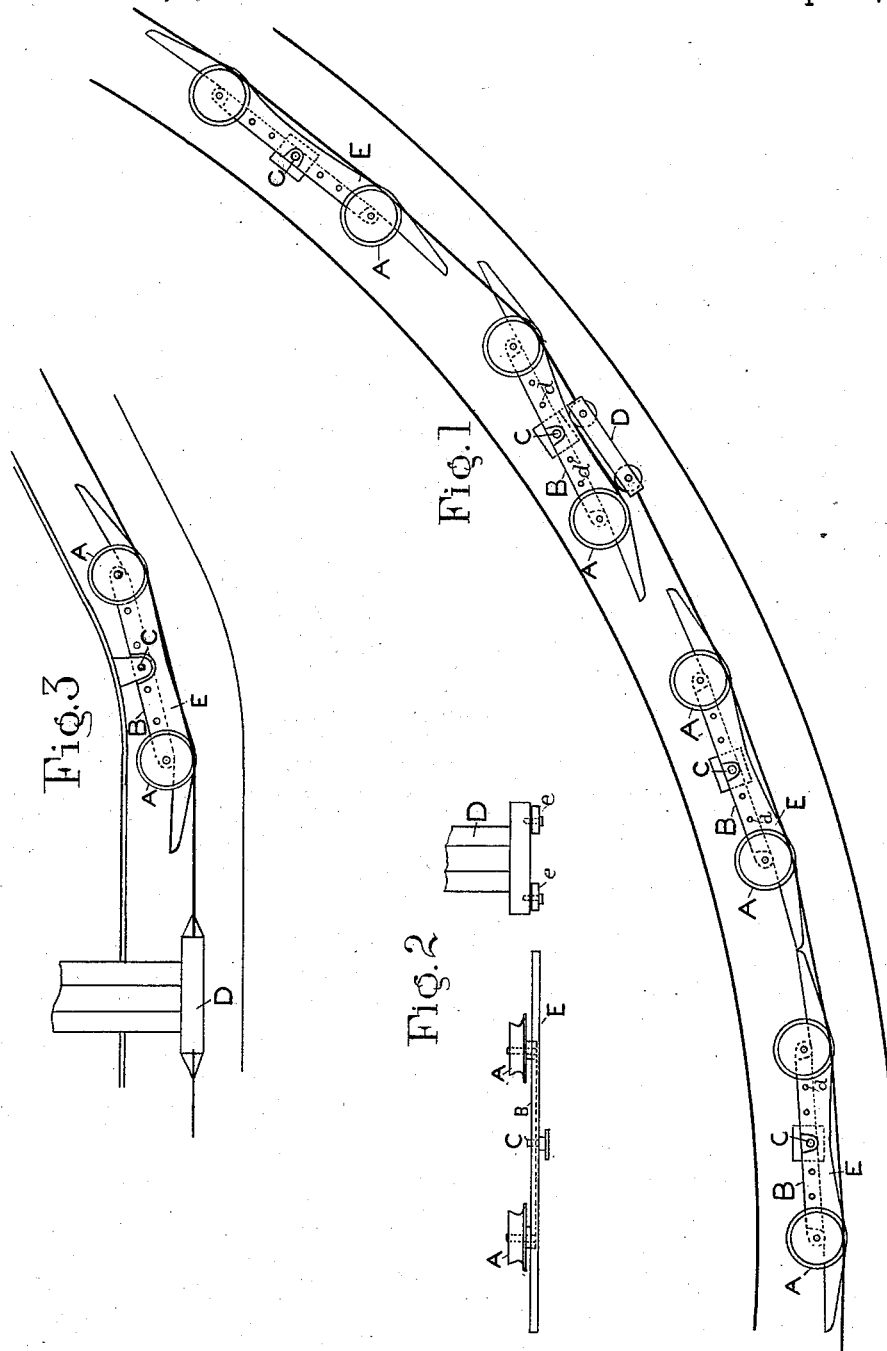


(No Model.)

J. B. LOW.
ROPE RAILWAY.

No. 264,041.

Patented Sept. 5, 1882.



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UNITED STATES PATENT OFFICE.

JOEL B. LOW, OF SAN FRANCISCO, CALIFORNIA.

ROPE RAILWAY.

SPECIFICATION forming part of Letters Patent No. 264,041, dated September 5, 1882.

Application filed March 23, 1882. (No model.)

To all whom it may concern:

Be it known that I, JOEL B. LOW, of San Francisco, State of California, have invented a new and useful Improvement in Rope Railways, of which the following is a specification.

My invention relates to an improvement upon the device patented to Low and Grim, August 30, 1881, No. 246,523, said patented device being for the purpose of guiding the rope around a curve in the road-bed without it being necessary to release the said rope from the gripping-jaws.

My invention consists in the application of a long bevel-ended shoe to the swinging levers of the above-named patented device, with which shoe the grip makes contact in displacing the guide-pulleys as it passes through the curve, and avoids the shock which was found to occur when the grip came in sudden direct contact with the guiding-pulleys themselves.

In the accompanying drawings, Figure 1 represents a plan of a set of guide-pulleys and swinging levers with my improvement applied thereto. Fig. 2 is a side view of the same with the grip shown in position. Fig. 3 illustrates the application of my invention in cases where the guide-pulleys are used as depression-pulleys at vertical curves, as where the road suddenly changes from a level to an up-grade.

In all the figures like letters of reference represent like parts.

A A are the rope-guiding pulleys; B B, the swinging levers, to the ends of which the pulleys A are attached.

C C are the fulcrum-pins for the levers B, which project from metal plates, which rest on any suitable foundation in the road-bed.

Dis the gripping device, of any suitable form.

E E are my new and improved bevel-ended shoes. These shoes are made of either iron or wood, and ordinarily are bolted by bolts *d d* to the levers B. It may be desirable, however, in some cases to make the shoe and lever in one solid piece. The ends of the shoes are beveled off, as shown, and extend beyond the guide-pulleys half the distance the guide-

pulleys are apart. The taper or bevel given each end of the shoes will represent half the width of the gripping device, because half the width of the grip represents the distance the guide-pulleys are set back when the grip passes through the curve.

The grip itself may be provided with the bevel-ended shoe, as described in the patent hereinbefore named; or, in lieu thereof, a couple of wheels, *e e*, may be fastened beneath the grip and placed in such a position as to roll along the edge of the shoe in the act of pushing aside the guide-pulleys.

As the rollers *e e* constantly maintain contact with one or other of the shoes as the grip passes through the curve, and as more or less pressure is thereby brought to bear upon the grip, tending to push it over to the other side from the guide-pulleys, a compensation of strains occurs, which has the effect of maintaining the grip in about the true line of the curve, independent of its being held there by the shank of the grip passing through the slot in the road-bed. This peculiar action has the effect of greatly relieving the friction of the shank of the grip upon the inner edge of the slot.

When the grip is in the center between a pair of guide-pulleys the grip is maintained at exactly the center of the slot in the road-bed, (when the rollers *e e* touch the shoe,) and there is absolutely no side strain. There is, however, a slight side strain as the grip passes by the ends of the shoes.

What I claim as my invention, and desire to secure by Letters Patent, is as follows:

As an improvement upon the herein-mentioned patented device for turning curves in rope railways, the bevel-ended shoes E E, when applied to the swinging levers B B, with which shoes the grip makes contact in setting aside the guide-pulleys A, substantially as set forth.

JOEL B. LOW.

Witnesses:

EDWARD P. COLE,
GEORGE PARDY.