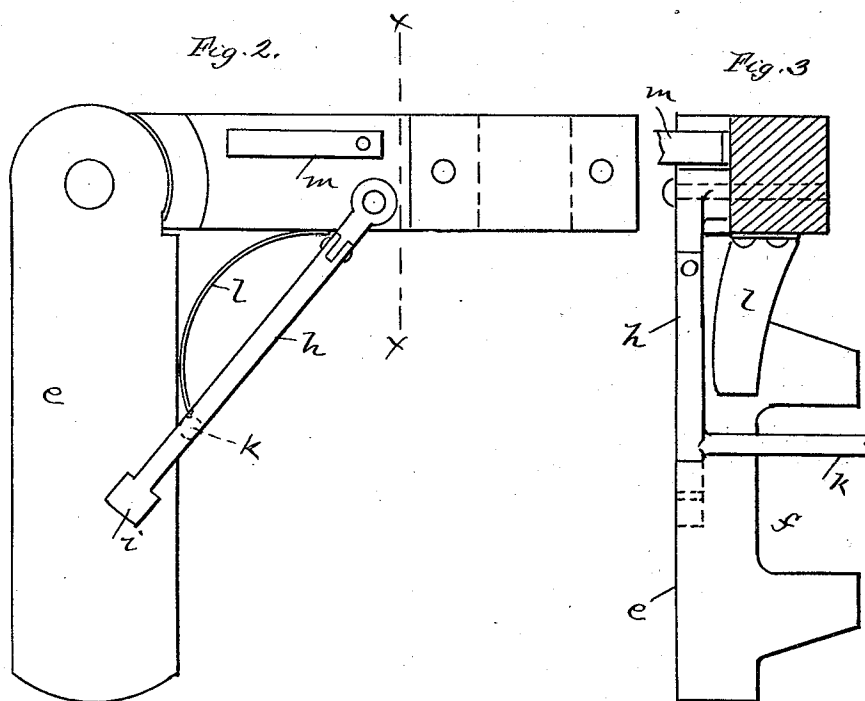
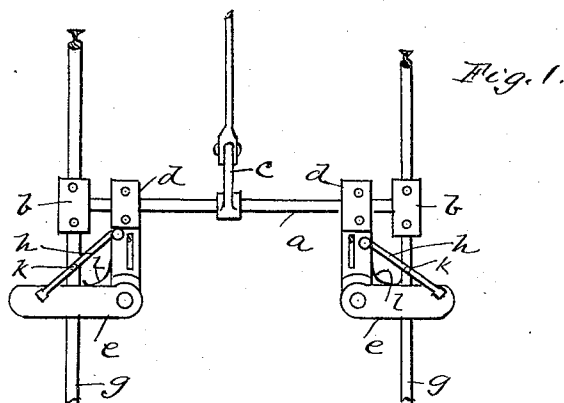


(No Model.)

J. W. C. McCURDY.
SAFETY RAIL BRAKE.

No. 461,486.

Patented Oct. 20, 1891.



Witnesses:
H. E. Harrison.
J. A. Herrou

Inventor.
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Att'y.

UNITED STATES PATENT OFFICE.

JOHN W. C. McCURDY, OF MANSFIELD, PENNSYLVANIA.

SAFETY RAIL-BRAKE.

SPECIFICATION forming part of Letters Patent No. 461,486, dated October 20, 1891.

Application filed February 9, 1891. Serial No. 380,850. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. C. McCURDY, a citizen of the United States, residing at Mansfield, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Safety Devices for Incline-Cars; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to an improved safety device for incline-cars; and it consists in a means for gripping the rails of the track should the cable break, as will be hereinafter described.

In the accompanying drawings, Figure 1 is a plan view of my device, showing the arrangement of parts beneath the car. Fig. 2 is an enlarged detailed plan view of one of the means for gripping the rail. Fig. 3 is a sectional side elevation of the same on the line *x x*.

To provide an incline-car with my improvement, I place a shaft *a* in suitable bearings *b* beneath the car. This shaft *a* is free to oscillate and is provided with a short crank *c* to connect the same to the rope used for moving the car. Attached rigidly to this shaft are two bars *d*, each of which have a pivoted portion *e*, fixed to its outer extremity. These portions *e* are each provided on their under side with a deep groove *f*, the walls of which are at right angles to the length of the portions *e*, and the said grooves *f* are adapted to be held suspended above each rail *g* of the track by means of a diagonal pivoted brace *h*. This brace is formed in two parts hinged together and the outer extremity provided with an enlarged head *i*, which, when entered into a slot formed in each of the pieces *e*, holds the

two pieces *d c* at right angles to each other. These braces *h* are each provided with a downward extension *k*, which occupies a position directly above the rails *g*. Suitable springs *l* serve to straighten the two connected pieces *d c* when released from the braces *h*, and the other, bearing against the bottom of the car, will tend to force the device downward.

In operation the rope for operating the car is attached to the crank *c*, and the strain will keep the locking devices above the rails *g*. Should this rope break and the strain be removed from the crank, the springs *l* will force the locking devices downward, thereby releasing the braces *h* by the downward extensions *k* coming in contact with the rails *g*. Before these braces *h* are released the grooves *f* have dropped over the head of the rails. The spring *l*, forcing the pieces *e* outward, places the same diagonally across the rails *g*, thereby presenting the sharp edges or angles in close contact with the same, which form as a lock and stops the speed of the car.

I claim—

The herein-described safety-lock for inclined railways, consisting of the pivoted bars *d*, suspended above the track by means of the cable for operating the said car, the lock-bars *e*, pivoted to said pivoted bars and having a grooved portion *f* in each suspended above the rails of the track, and a locking device for holding the lock-bars *d e* in their normal position and provided with a means for releasing the lock-bars when the apparatus falls by means of the cable breaking, substantially as and for the purpose set forth.

In testimony that I claim the foregoing I hereunto affix my signature this 9th day of September, A. D. 1890.

JOHN W. C. McCURDY. [L. S.]

In presence of—

M. E. HARRISON,
CHARLES LARGE.