(No Model.)

C. R. TREW.

SAFETY CATCH FOR MINING CARS.

No. 475,639. Patented May 24, 1892.

Fig. 1.

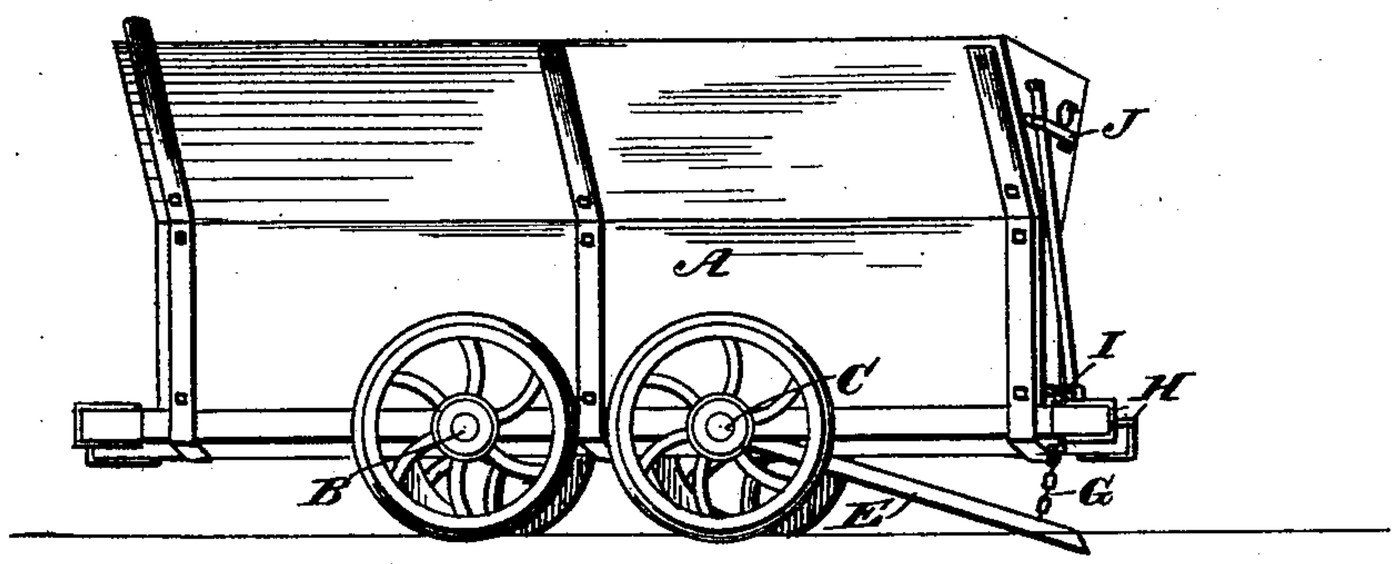


Fig. 2.

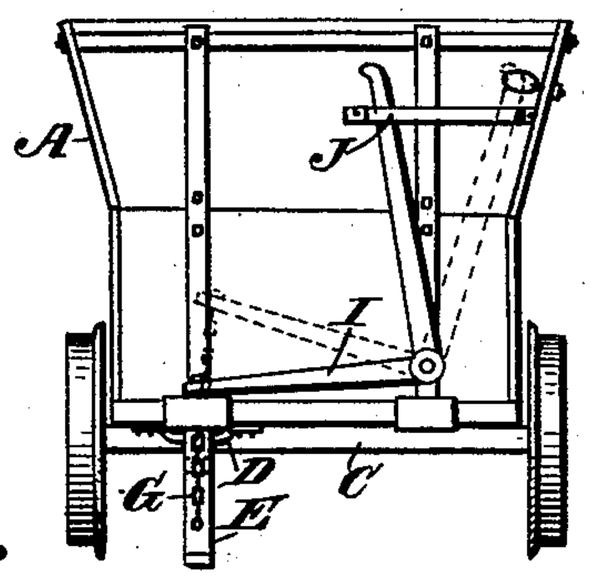


Fig. 3.

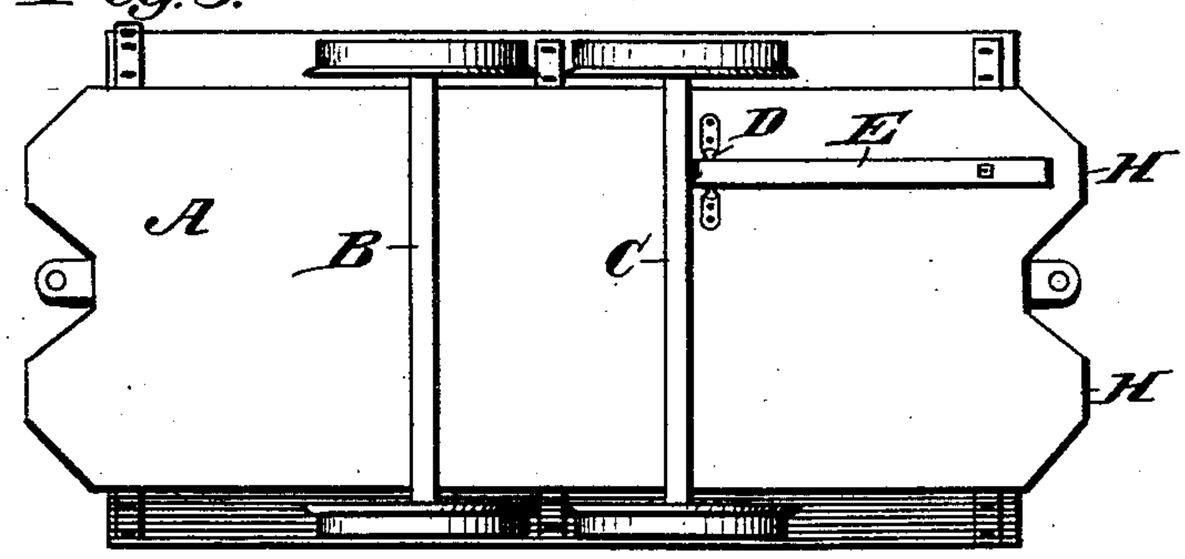
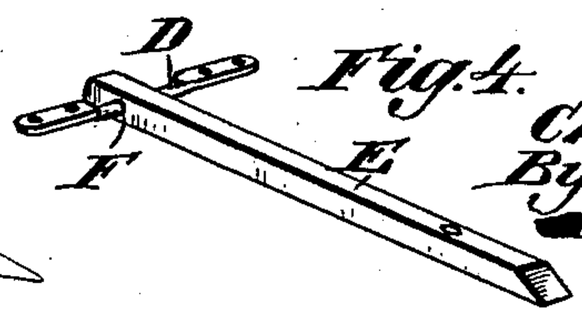


Fig. 4.



Witnesses.
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UNITED STATES PATENT OFFICE.

CHARLES R. TREW, OF DUNBAR, PENNSYLVANIA.

SAFETY-CATCH FOR MINING-CARS.

SPECIFICATION forming part of Letters Patent No. 475,639, dated May 24, 1892.

Application filed March 1, 1892. Serial No. 423,422. (No model.)

To all whom it may concern:

Be it known that I, CHARLES R. TREW, a citizen of the United States, residing at Dunbar, in the county of Fayette and State of Pennsylvania, have invented new and useful Improvements in Safety-Catches for Mine-Cars, of which the following is a specification.

My invention relates to safety-catches for mine-cars, and has for its object to provide a novel, simple, efficient, and economical safety-catch whereby the great loss and inconvenience heretofore experienced in the working of slope mines by the breaking of the ropes or chains by which the cars are drawn or the parting of the couplings between the cars and the consequent running away of the cars down the slope, causing destruction of the cars and endangering the lives of the employés, is avoided.

To this end my invention consists in the novel construction, combination, and arrangement of parts hereinafter described and claimed, reference being had to the accompanying drawings, in which—

Figure 1 is a side view of a mine-car with my invention applied thereto. Fig. 2 is a rear view of the same, showing the safety-catch in its lowered position and showing the mechanism for operating the same and illustrating by dotted lines the said catch and operating mechanism when the catch is in its raised position. Fig. 3 is a bottom plan of a car, showing the attachment of my safety-catch thereto; and Fig. 4 shows enlarged detail views of the safety-catch and the means for attaching the same to the car.

In the said drawings, the reference-letter A designates a mine-car of any ordinary or usual construction, and B and C the front and rear axles thereof, respectively, to which the wheels are attached.

Secured to the bottom of the car, at the rear of but adjacent to the hind axle C, is a pivot D.

The letter E indicates a safety-drag provided near one end with an eye F for engagement with the pivot D, whereby said safety-drag is pivotally secured to the bottom of the car-body. The extremity of the safety-drag E, which has pivotal attachment to the car-body, is extended past the pivot D and bears against the rear axle E. By thus extending the end of the safety-drag past the pivot to have bearing against the axle great strength is afforded the drag. The other or free end of the safety-drag E, which extends to the rear of the car, is adapted to engage the ground in case of the breakage of the car-drawing rope or chain or the couplings between the cars, and thus prevent the cars from running away down the slope. To this end of the drag is secured a chain G, which passes up through a hole provided in the car-bumper H and is secured to the horizontal arm of a lever I, which is pivoted at its center to the rear of the car-body. The vertical arm of this lever has lateral play between a confining-bar J and the car-body.

To the side of the car-body and a little above the confining-bar J is secured a ring, loop, or other suitable device to engage the end of the vertical arm of the lever I, and thus retain the safety-drag E normally out of engagement, in which position it lies up against the bottom of the car-body.

It will be obvious that by the construction and combination of parts described I have provided a strong, durable, and cheap safety-catch, which will operate effectually to prevent the running away of the cars down the slope in case of the breakage of the car-drawing rope or chain or the parting of the couplings between the cars when the operator throws the lever E in the proper direction to drive the end of the safety-drag into the ground.

By the particular manner of attachment of the drag to the car the end of said drag has a direct bearing against the rear axle of the car-body, whereby the strength of the axle is added to that of the pivotal attachment of the safety-drag, affording a very strong and simple safety-catch, which may be readily detached from the car-body by merely removing the pivot B.

In order to allow of the movement of the safety-drag, the end thereof near the axle C may be beveled off at the top, as shown in the drawings, or the bearing of the pivot D may be arranged at such a distance from the bottom of the car-body as to render this unnecessary.

In practicing my invention it is my inten-

tion to provide each car in the train with one of my safety-catches.

Having thus described my invention, what I claim is—

The combination, with a mining-car, of a safety-drag pivoted to the bottom wall of the car in rear of one of the axles thereof and having an extension beyond the pivot-point to bear against the axle, a lever pivoted to the rear of the car-body and having a horizontal and a vertical arm, a flexible connection between the horizontal arm and the safety-drag, and a device for engaging the vertical arm of the lever to hold the drag in an elevated position, substantially as described.

In testimony whereof I have hereunto set my hand and affixed my seal in presence of two subscribing witnesses.

CHARLES R. TREW. [L. S.]

Witnesses:

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