(No Model.)

C. BURNS.

MINING CAR.

No. 453,107. Patented May 26, 1891.

Fig. 1.

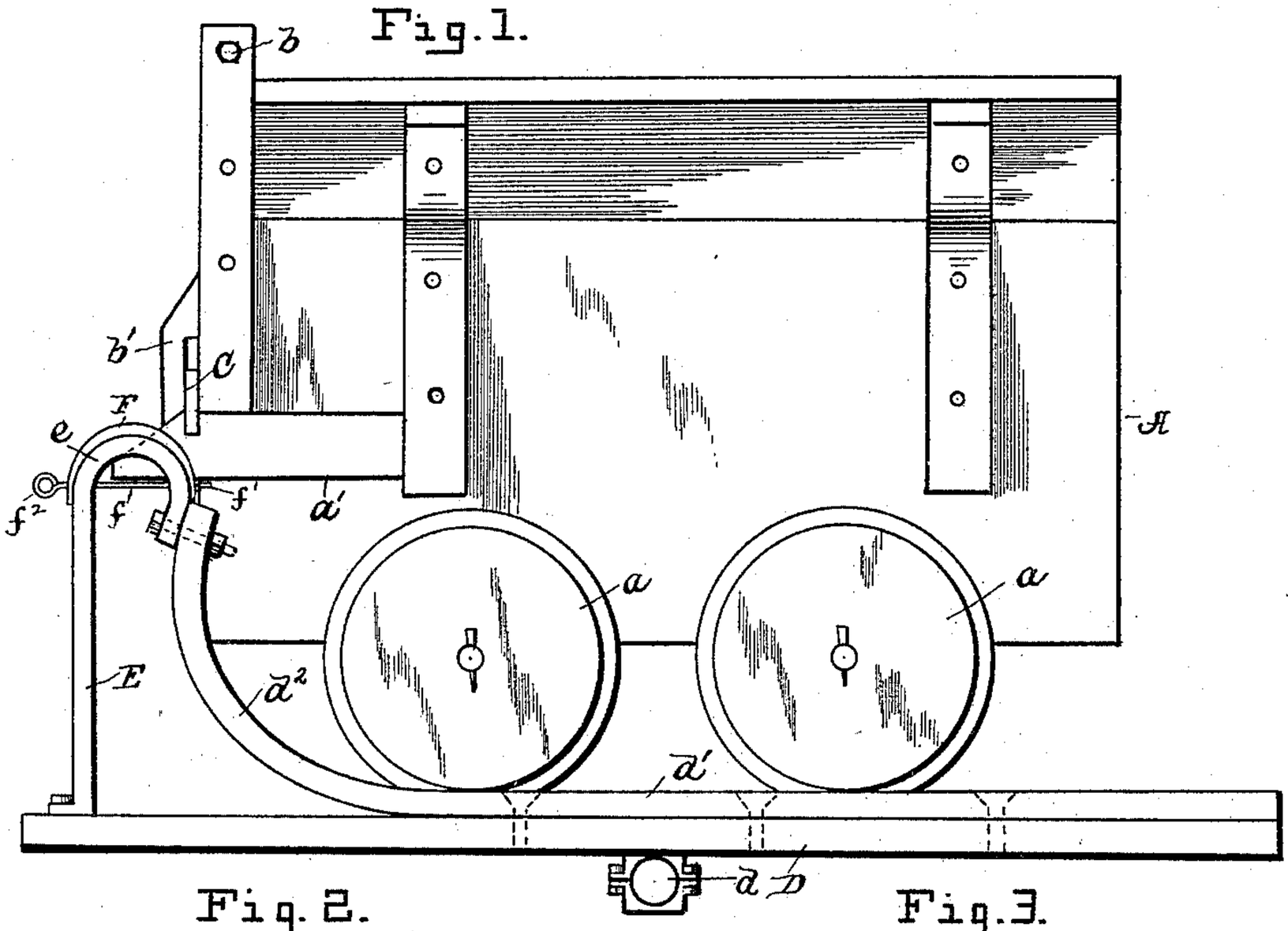


Fig. 2.

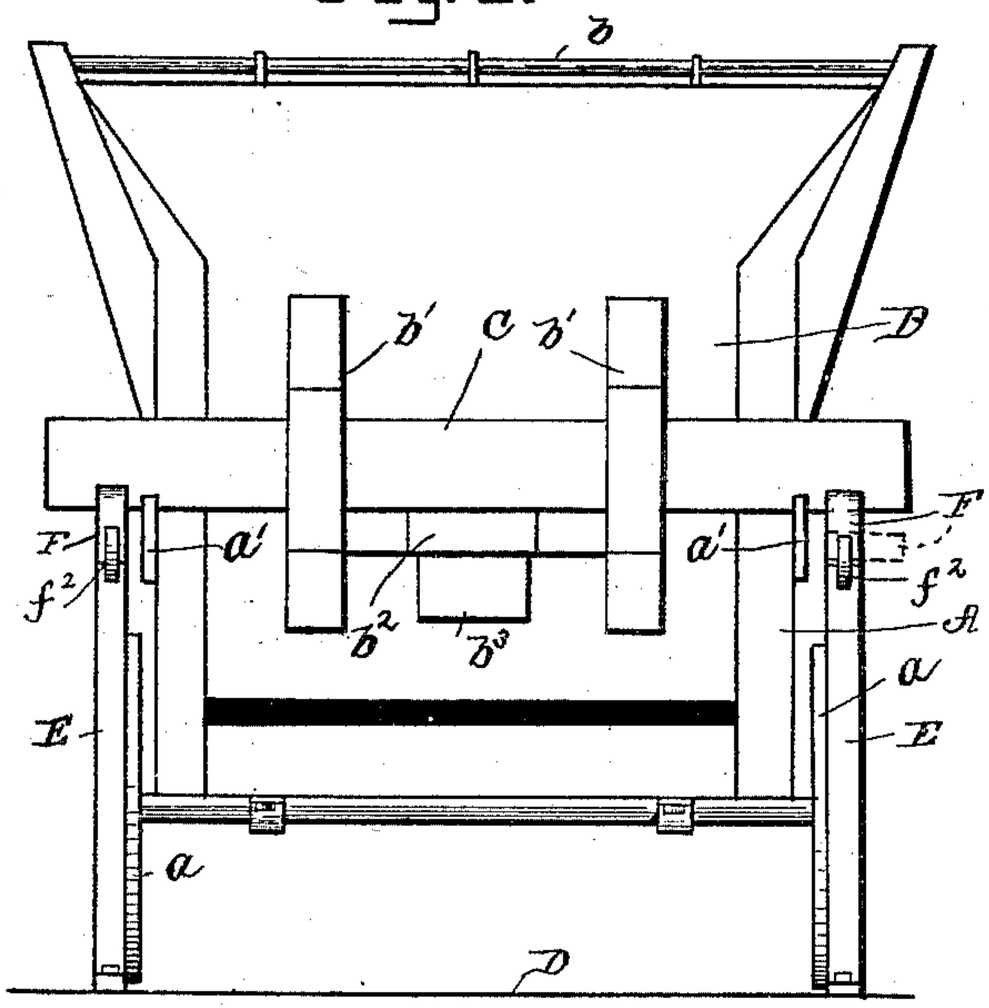
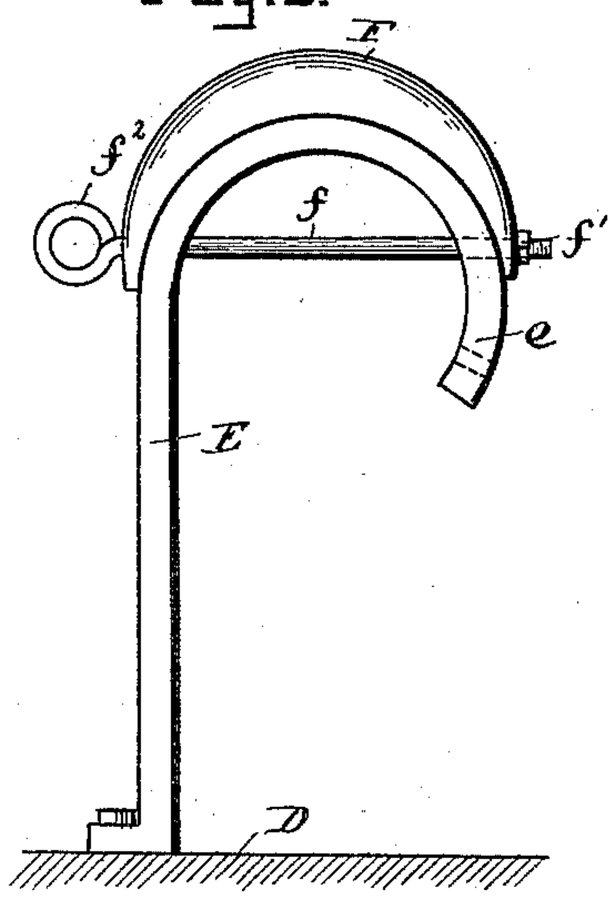


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

CORNELIUS BURNS, OF BURNSIDE, PENNSYLVANIA.

MINING-CAR.

SPECIFICATION forming part of Letters Patent No. 453,107, dated May 26, 1891.

Application filed November 29, 1890. Serial No. 373,043. (No model.)

To all whom it may concern:

Be it known that I, CORNELIUS BURNS, a citizen of the United States of America, residing at Burnside, in the county of Clearfield and State of Pennsylvania, have invented certain new and useful Improvements in Mining-Cars, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to mining-cars, having for its object the production of a simple, cheap, and highly-efficient means whereby the swinging door or gate of a coal-car can be automatically opened to effect the dumping of its contents into a chute, and also means by which said door will be opened at one side only when only one-half the load is to be emptied.

To these ends the invention comprises a tilting platform, a "tipple" having posts or "horns" at its outer end, with which the latch of a car door or gate is designed to engage when the wheels of the car run on the inclined track, whereby said latch is disengaged, and also top caps secured to said posts or horns, by removing one of which the latch will be disengaged on one side only, substantially as hereinafter fully set forth, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in side elevation. Fig. 2 is a rear end view. Fig. 3 is an enlarged view of one of the posts or horns with its removable top cap.

Referring to the drawings, A designates the coal-car, *a* the wheels thereof, and *a'* parallel hooked arms secured to the sides of the car at its rear end.

B is the door or gate, pivotally secured at its upper end on a transverse rod *b*, and to its outer face are secured parallel guide-blocks *b'*, vertically disposed, and an intermediate horizontal guide-block b^2. The latch C is of approximately T shape, and is held by the guide-blocks *b'*, its central tongue or arm b^3 being guided by the block b^2. The projecting ends of the latch are designed to engage and be held by hooked arms *a'*.

D is the tilting platform or tipple, which is mounted upon an axle or shaft *d* at or near its center. This platform or tipple is provided with two rails *d'* for wheels *a*, which rails at their outer ends d^2 are upwardly curved, as shown. To the outer end of this platform or tipple are secured two vertically-disposed posts or horns E, having upper curved or goose-neck ends *e*, which are bolted to the curved ends of rails *d'*. To the upper ends of these posts or horns are preferably secured top caps F, which are thickened at their center and conform to the curvature of said ends. These caps are held in place by rods *f*, which at their forward ends have nuts *f'*, while their rear ends have hand-loops f^2, by which the rods can be readily tightened or loosened or lowered to one side or entirely removed. These top caps are of service when it is desired that one end of the latch will not be disengaged, to effect which one of said caps is removed or lowered to one side.

In practice a car when loaded is run from the scales onto the platform or tipple and its rear wheels will run up onto the curved ends of the rails and the latch will strike against the curved or goose-neck ends of posts or horns E, causing its disengagement from the hooked arms and permitting the door to readily swing open and empty its load down the chute into a car at the end thereof. As the car is run onto the platform or tipple, as mentioned, the latter assumes an angle of about forty-five degrees. The rear wheels of the car are also on about the same angle, and the car is also at the same angle with relation to the platform or tipple, and after the coal is discharged the empty car will come down of its own weight, and as the latch strikes the posts or horns it will carry the door or gate back to such a distance that as it swings forward independent of the posts or horns it will close itself. It is sometimes necessary to dump only one-half the car's load in order to complete the load of the railroad-car. Hence one of the top caps can be loosened and dropped to one side sufficient that the opposite end of the latch will remain in engagement with its hooked arm, and, the door being prevented from opening, the upper half of the car-load will go over the top of the car into the chute. When only half the load is dumped from the car, the latter, together with the tipple or platform, is returned to a horizontal position by any suitable means, as by a hooked bar in the hands of an operator.

The advantages of my invention will be

apparent to those skilled in the art, and it will be particularly observed that by means thereof I am enabled to dispense with the services of an attendant to open the door or gate, and at the same time I avoid the damage that results to the car in so providing for the discharge of its load or contents.

I claim as my invention—

1. The herein-described improved platform or tipple for mining-cars, having posts or horns at its rear end provided with upper curved or goose-neck ends, and the removable top caps therefor, substantially as set forth.

2. The herein-described improved platform or tipple for mining-cars, having posts or horns at its rear end, the curved top caps therefor, and the nutted handled rods for holding the same, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

CORNELIUS BURNS.

Witnesses:
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