

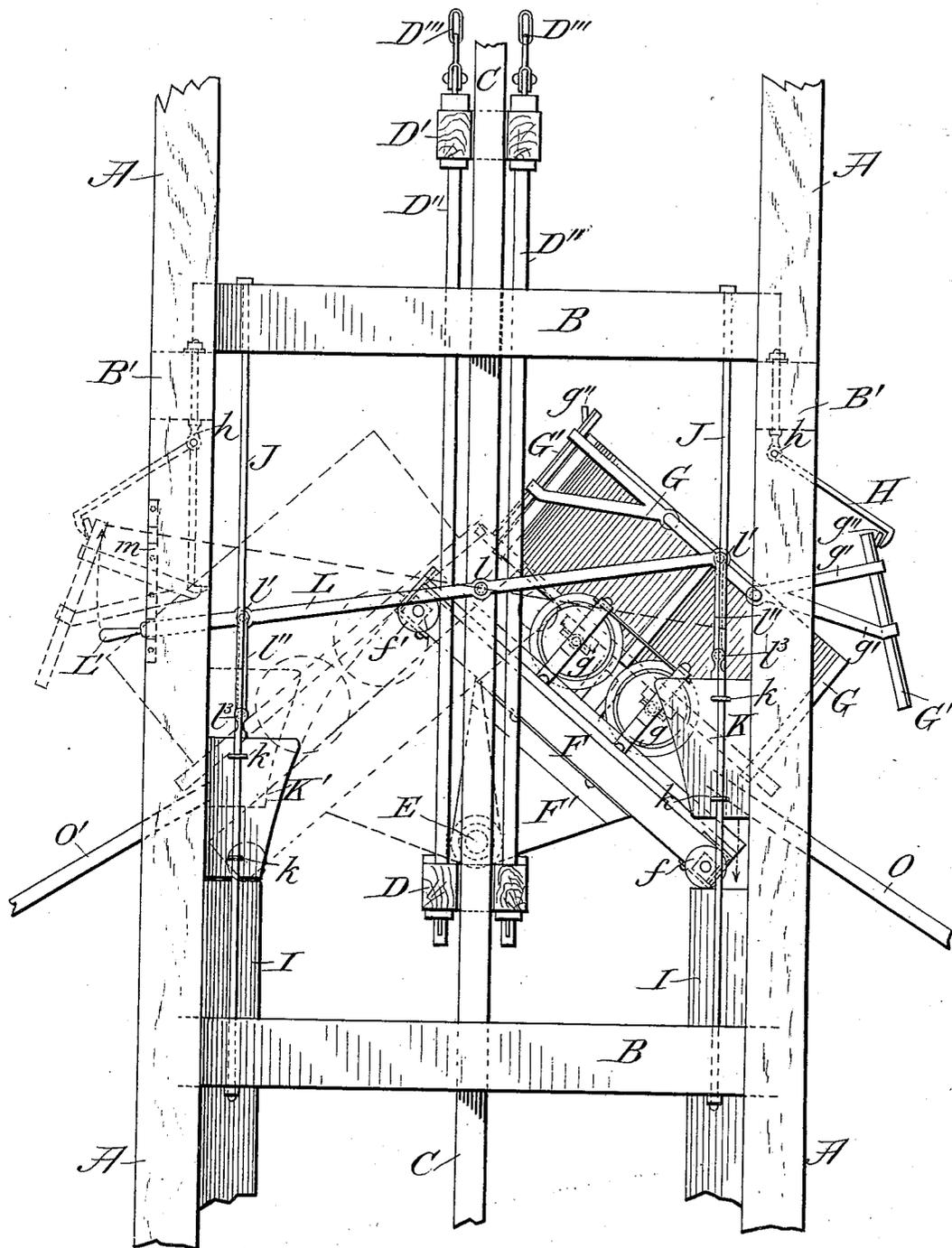
(No Model.)

W. S. CHERRY.

COAL HOIST.

No. 333,195.

Patented Dec. 29, 1885.



Attest:

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UNITED STATES PATENT OFFICE.

WILLIAM S. CHERRY; OF STREATOR, ILLINOIS.

COAL-HOIST.

SPECIFICATION forming part of Letters Patent No. 333,195, dated December 29, 1885.

Application filed August 15, 1885. Serial No. 174,498. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM S. CHERRY, a citizen of the United States, residing at Streator, in the county of La Salle and State of Illinois, have invented certain new and useful Improvements in Coal-Hoists, of which the following is a specification, reference being had therein to the accompanying drawing.

The object of this invention is to improve that patented to me May 2, 1876, and numbered 176,738, by which improvement the dumping coal-car can be made to dump its load of coals upon either side of the shaft into chutes to receive the coal; and it consists, especially, in the construction of the devices that cause the improved effect, a great saving of time and labor following, as will be fully hereinafter described.

In the drawing, which is a side view of the frame of the hoist, showing the hoisting devices and all devices for dumping the coal, A A represent the main posts or supports, B B the transverse girts that tie the frame together, and B' B' represent the side tie-girts, all of which together form the frame of the hoist.

C represents one of a pair of guides that guide the hoisting-cage in its perpendicular reciprocations.

D D' are the top and bottom frames of the cage, having the rods D'' D''' to connect them, and upon which the strain comes in hoisting a car.

D''' D'''' are the hoisting-chains attached to the top of the frame of the cage, thence go up and over a pulley to the power that operates the hoist, as is usual in all hoists of this kind.

E represents a rock or tumble shaft running horizontally across the frame, and is supported in proper bearings on the bottom frame, D', of the cage, and is raised or lowered with the hoisting or lowering of the cage.

F is the platform, secured at the center of its length and upon each side thereof to the rock or tumble shaft E by the triangular supports F', in such manner that it can freely rock or be tilted on the shaft E.

f represents one of a pair of wheels at one end of the platform, and f' represents one of another pair of wheels at the opposite end of the platform.

G is a coal-car of the usual construction,

and resting upon a truck having four wheels, g g, revolving in suitable bearings on the truck, and so constructed that they can be run upon suitable rails that form a track on the platform. The coal-car G is rectangular in form, and has at each of its ends a removable end-board, G', which board is secured to the body of the car by pivoted pairs of bifurcated or braced bars g' g', and at the upper end or side of the end-board is an angular projecting stud, g''.

H is a pendent hook, pivoted at its upper end to an eyebolt, h, that is fast through girt B'.

I I are guides made fast to the framing of the hoist, and against which the wheels f and f' of the platform bear in hoisting the car in the shaft or in lowering it, and are made horizontal on their top ends and of the same height.

J J are guide-rods secured to the upper and lower girts, B' B'.

K K' are adjustable or movable curved guides, to be raised and lowered and loosely attached to the guide-rods J by eyes or staples k, to freely slide thereon, their lower ends of the same size or inward projection that the guides I have, and their inner surfaces curve to correspond with a circle the center of which is the center of the shaft E, and its radius the distance from the center of that shaft to the lower end of the curved guide when at or on a horizontal line from the center of said shaft.

L is a hand-lever, pivoted centrally at l to the frame or some permanent part thereof, and extending horizontally to be pivoted at l' l' to links l'' l'', which links are at their lower ends pivoted to the top of the curved guide by the eyebolts l''' or other secure means. This hand-lever extends on one side or on the side the operator stands far enough beyond its connection to the link l'' to have a hand-hold, L', to reciprocate or raise and lower the lever, and therewith the curves.

O and O' represent inclined chutes on opposite sides of the hoist, to receive the coal from the car G, as the platform and car are in such relation thereto that the coal will be discharged upon the chute O or O', as the operator may determine.

Heretofore self-dumping cars have dumped only on one side of the hoist and shaft upon a single chute; but by my improvement they are now constructed that coals can be dumped

upon opposite sides at the will of the operator, which is of great value in properly disposing of a large body of coal at the top of a shaft.

When a loaded car is being hoisted and the coal is to be dumped upon the right-hand chute, the attendant pulls the hand-hold of pivoted lever L down, which raises the curve K on the right side high enough to allow the wheels *f* to pass under it, while the curve K' on the opposite side rests upon the top of guide I of that side, and forms a continuation of that guide upon a circle, so that as the platform and car upon the shaft E is still rising it tips the platform, and by its specific gravity is forced to the right as soon as the wheels *f* rise above the guide on that side, and the wheels *f* will rest upon the top of the guide I on that side, and at the same time in tipping the car the pendent hook H has caught hold of the projecting stud *g*' and removed the end-board, so that the coal is successfully dumped upon the chute, when by reversing the motion of the hoist the platform and car are lowered and all parts resume their normal position, to be again acted upon when another car is hoisted, when by reversing the lever L by raising it the curve K' on the left side is raised, and the coal will then be dumped on the chute on the left side of the hoist. By this construction and arrangements of parts the coal can be dumped upon either side of the shaft at will.

In order to secure the lever L in position for such a disposition of the curves, a plate, *m*, having notches in its edge, or simple pins in the post, may be used to hold the lever in its proper position while the car is being hoisted.

I am aware of Patent No. 305,600, and disclaim the construction therein shown and described.

Having thus fully described my invention, 40 what I claim, and desire to secure by Letters Patent, is—

1. In a coal-hoist, the combination of the pivoted lever L, the movable curved guides K K', and guides I with the platform F, having 45 wheels *f* and car G, constructed and operating substantially as described.

2. In a coal-hoist, the combination of the pivoted lever L with the curved guides K and K', constructed and operating substantially as and 50 for the purposes described.

3. In a coal-hoist, the combination of the rock or tumble shaft E, the platform F, having wheels *f*, with coal-car G supported thereon, the guides I I, curved guides K K', operating-lever L, with the pendent hook H and 55 lug *g*' and end-board G', substantially as described.

4. In a coal-hoist operating in a coal-shaft, the combination of the hoisting-cage, the rock-shaft supporting a tilting platform, and a coal-car thereon, with lever L and the devices connected therewith to cause the car to dump its coal upon either chute O or O', substantially 60 as shown and described.

In testimony whereof I affix my signature in presence of two witnesses. 65

WILLIAM S. CHERRY.

Witnesses:

R. D. FLETCHER,
JAS. ANDERSON.