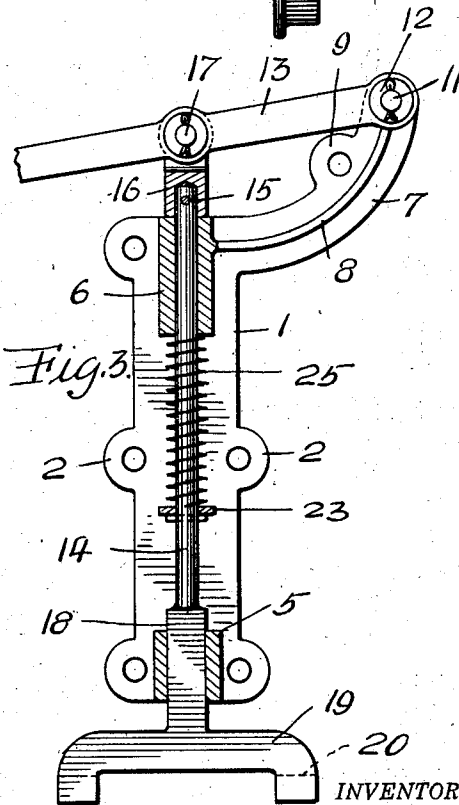
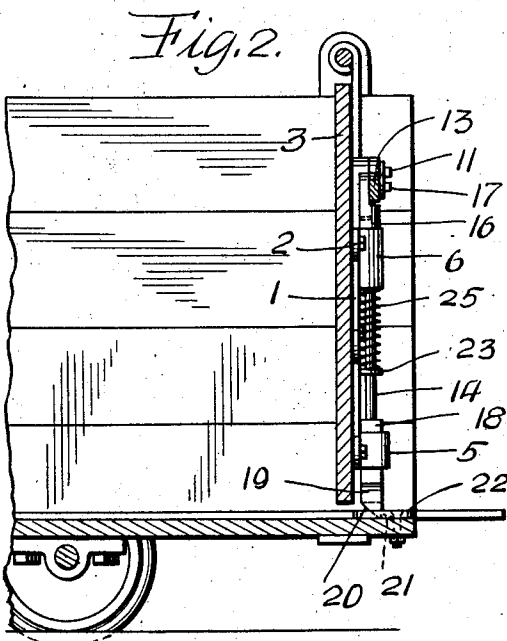
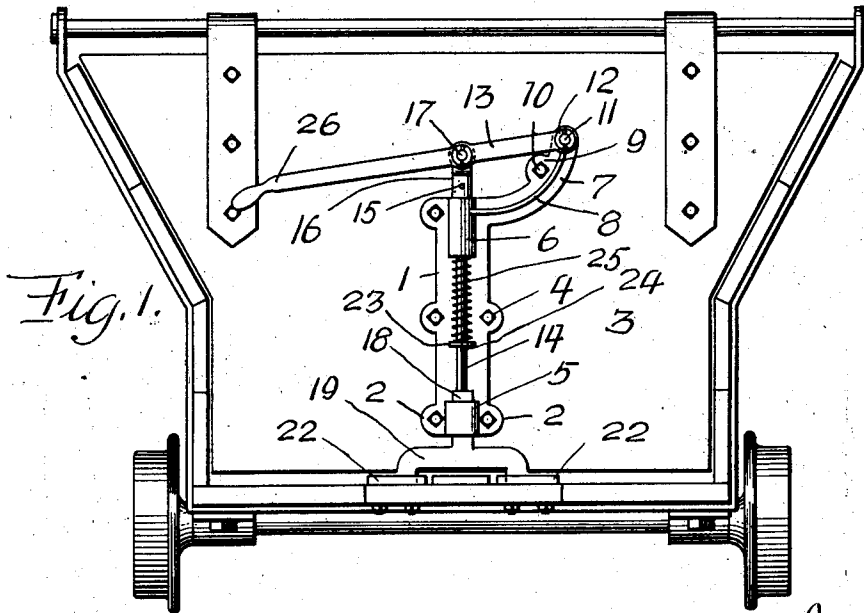


S. DUCSAY.
LATCH.

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1,022,831.

Patented Apr. 9, 1912.



WITNESSES:

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UNITED STATES PATENT OFFICE.

STEVE DUCSAY, OF CANNONSBURG, PENNSYLVANIA.

LATCH.

1,022,831.

Specification of Letters Patent.

Patented Apr. 9, 1912.

Application filed July 8, 1911. Serial No. 637,458.

To all whom it may concern:

Be it known that I, STEVE DUCSAY, a subject of the King of Hungary, residing at Cannonsburg, in the county of Washington and State of Pennsylvania, have invented certain new and useful Improvements in Latches, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to a latch for the doors or gates of pit cars, and the objects of my invention are to provide a simple and durable latch for retaining the door or gate of a mine car in a closed position, and to provide a latch that can be easily and quickly operated to release the door or gate.

A further object of my invention is to provide a latch consisting of comparatively few parts easily assembled and maintained in an operable condition.

I attain the above objects by a mechanical construction that will be hereinafter specifically described and then claimed, and reference will now be had to the drawing, wherein:—

Figure 1 is an end view of a car provided with the latch, Fig. 2 is a longitudinal sectional view of a portion of the car, and Fig. 3 is an enlarged elevation of the latch, partly broken away and partly in section.

A latch in accordance with this invention comprises a plate 1 having the side edges thereof provided with apertured ears 2 whereby said plate can be secured to the outer side of a door or gate 3 by screw bolts 4 or other fastening means. The plate 1 is located centrally of the door 3 with the lower end of the plate in proximity to the lower edge of the door, and the lower end of the plate has a vertical guide 5, which is rectangular in cross section. The upper end of the plate 1 has a cylindrical vertical guide 6 and formed integral with the upper end of said plate is a laterally and upwardly extending curved arm 7 reinforced by a web 8. The arm 7 has an apertured ear 9 which is secured to the door 3 by a screw bolt 10 and the upper end of the arm has a pivot pin 11 for a bushing 12, carried by the inner end of an operating lever 13.

Slidably mounted in the guide 6 is a rod

14 and mounted upon the upper end of the rod by a transverse pin 15 is a head 16 which is pivotally connected by a pin 17 to the lever 13. The lower end of the rod 14 has an inverted T-shaped latch 18 which is preferably formed integral with the rod, said latch being rectangular in cross section to slide within the guide 5. The ends of the cross head 19 of the latch are beveled, as at 20 to easily ride into openings 21 provided therefor in keeper plates 22 secured to the bottom of the car, adjacent to the lower edge of the door or gate 3.

Mounted upon the rod 14 is a washer 23 that is held a prescribed distance from the latch 18 by a transverse pin 24. Encircling the rod 14, between the washer 23 and the guide 6, is a coiled compression spring 25 adapted to normally maintain the rod 14 and the latch in a lowered position, with the head 16 resting upon the upper end of the guide 6.

The door or gate 3 is of a conventional form arranged at the end of the car to swing outwardly and release the load contained within the car, when said car is tilted at a tippie. When the handled end 26 of the lever 13 is elevated, the rod 14 is moved vertically and the beveled ends of the latch raised above the keeper plates 22, thereby releasing the door. When the lever 13 is released and the door swings open, the tension of the spring 25 is released and the latch is lowered, but the lower end of the latch can readily ride into engagement with the keeper plates, when the door swings shut, by virtue of the beveled ends.

What I claim is:—

In a mine car door latch, the combination with the door, of an elongated plate secured in vertical position to the outer face of the door and provided on its outer face at the upper and lower ends thereof with guides, a laterally and upwardly-projecting arm carried by the upper end of said plate, a lever pivoted at its inner end to the free end of said arm, a rod mounted for vertical movement in said guides, a key-shaped latch carried by the lower end of said rod and having beveled lugs adapted for engagement with a latch plate, a head connected at one end to

said rod above the upper guide and at its
other end pivotally-connected to said lever
intermediate the ends of the latter; a washer
carried by the rod intermediate the guides of
said plate, and a spring arranged on the rod
5 between said washer and the upper guide of
the plate, as and for the purpose described.

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

STEVE DUCSAY.

Witnesses:

B. PRILECZ,

W. J. GOWERN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."