(No Model.)

J. M. WESLEY.

LATCH FOR MINE CAR DOORS.

No. 587,412 Patented Aug. 3, 1897.

Fig. 1.

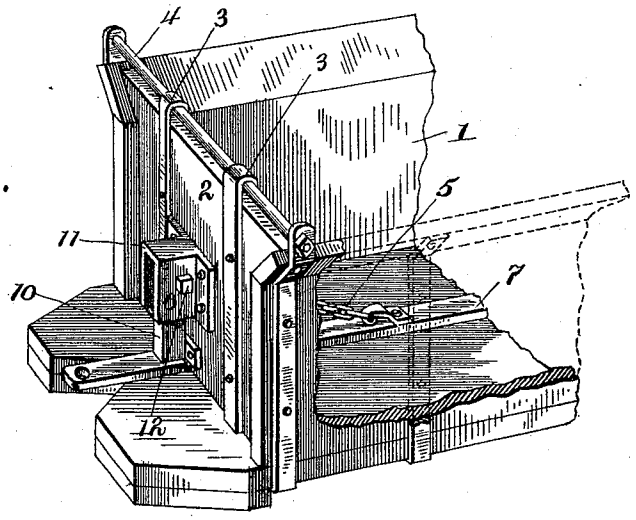


Fig. 2.

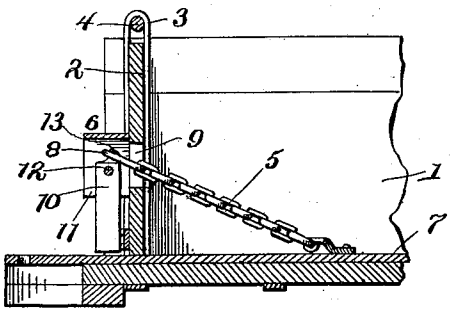


Fig. 3.

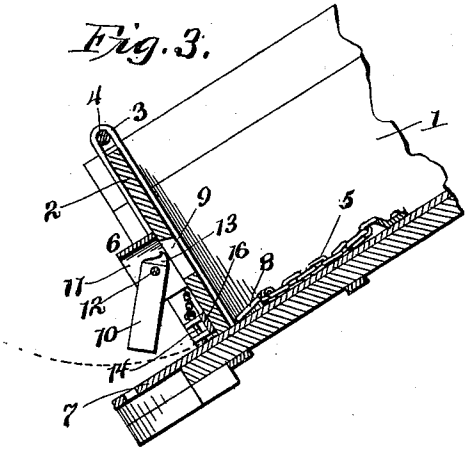


Fig. 4.

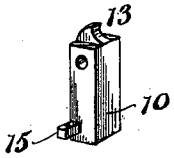
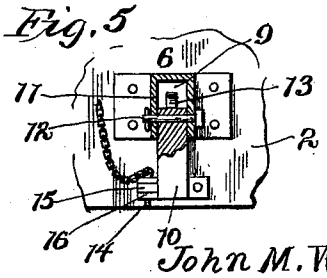


Fig. 5



Inventor
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UNITED STATES PATENT OFFICE.

JOHN M. WESLEY, OF PEALE, PENNSYLVANIA.

LATCH FOR MINE-CAR DOORS.

SPECIFICATION forming part of Letters Patent No. 587,412, dated August 3, 1897.

Application filed April 26, 1897. Serial No. 634,030. (No model.)

To all whom it may concern:

Be it known that I, JOHN M. WESLEY, a citizen of the United States, residing at Peale, in the county of Clearfield and State of Pennsylvania, have invented a new and useful Latch for Mine-Car Doors, of which the following is a specification.

The invention relates to improvements in latches for mine-car doors.

The object of the present invention is to improve the construction of latches for mine-car doors and to provide a simple, inexpensive, and efficient device capable of holding a mine-car door closed when the car is in a horizontal position and adapted to release the door automatically and enable the same to open when the car is being dumped.

The invention consists in the construction and novel combination and arrangement of parts, as hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a perspective view of a portion of a mine-car provided with a latch constructed in accordance with this invention. Fig. 2 is a longitudinal sectional view of the same, the car-body being in a horizontal position. Fig. 3 is a similar view, the car-body being in an inclined position. Fig. 4 is a detail perspective view of the latch-lever. Fig. 5 is a detail sectional view illustrating the manner of locking the latch-lever against outward movement.

Like numerals of reference designate corresponding parts in the several figures of the drawings.

1 designates a mine-car of the ordinary construction, provided with a hinged outwardly-opening door 2, which is provided at its upper edge with suitable eyes 3 to receive the transverse pintle-rod 4. The door 2, which is adapted to swing outward when the mine-car is dumped, is held in its closed position by a chain 5, connected with the car-body, and a latch 6, which is mounted on the car-door and engages the chain.

The inner end of the chain is secured to the draw-bar 7, and its outer end is provided with a link 8, which extends through an opening 9 of the door 2 and is engaged by a weighted latch-lever 10. The latch-lever 10 is fulcrumed at its upper end in a casing 11 by a transverse pin or bolt 12 and is provided at its top with a hook-shaped projection 13 for engaging the link 8. The casing 12, which is rectangular, is open at its bottom, front, and back, and is provided with laterally-extending flanges, which are perforated for the reception of suitable fastening devices for attaching the casing to the door.

The latch-lever 10 is sufficiently heavy to hold the door closed when the car-body is in a horizontal position, as illustrated in Fig. 2 of the accompanying drawings; but when the car-body is inclined in the act of dumping, as illustrated in Fig. 3, the lever 10 swings outward by gravity and permits the link 8 to slip off the hook-shaped projection under the pressure of the contents of the car, such pressure being much greater against the door when the car is in an inclined position than when it is arranged horizontally. By this construction the latch is rendered automatic in its operation and requires no attention while dumping the car.

When it is desired to lock the latch-lever against outward swinging, it is held by a removable pin 14, which engages a perforation of a lug 15 and perforations of a keeper 16. The lug 15 extends laterally from one side of the latch-lever, and the keeper, which is mounted on the car-door at a point below the casing 12, is provided with parallel sides or flanges to receive the lug 15. The removable pin 14 is connected with the car-door by a short chain to prevent it from being lost.

It will be seen that the car-door latch is simple and comparatively inexpensive in construction, that it is strong and durable, and that it is adapted to release the door automatically when the car is being dumped.

What I claim is—

1. The combination with a mine-car provided with a hinged door adapted to open outwardly, and a chain connected with the car-body, of a latch mounted on the door and provided with a gravity-lever engaging the chain and maintaining the door closed while the car-body is in a horizontal position, and adapted to swing outward and release the chain automatically when the car is dumped, substantially as described.

2. The combination with a mine-car provided with a hinged door, and a chain connected with the body of the car, of a latch comprising a casing mounted on the car-door, and a lever pivoted in the casing near its upper end and provided at its top with a hook-shaped projection engaging the chain, said lever having its lower portion weighted, substantially as and for the purpose described.

3. The combination with a mine-car having a hinged door, and a chain connected with the body of the car, of a latch comprising a casing, a weighted lever pivoted in the casing and engaging the chain, a lug projecting from the lever, a keeper mounted on the door and receiving the lug, and a fastening device locking the lug in the keeper, substantially as described.

4. The combination with a mine-car provided with a door adapted to open outwardly, and a gravity-latch maintaining the door closed while the car-body is in a horizontal position and adapted to swing outward and release the door when the car is dumped, substantially as and for the purpose described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JOHN M. WESLEY.

Witnesses:
L. B. LA PORTE,
WILLIAM KIRKMAN.