G. H. FOX.

LATCH FOR THE CLOSING OF END GATES.

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929,641. Patented July 27, 1909.

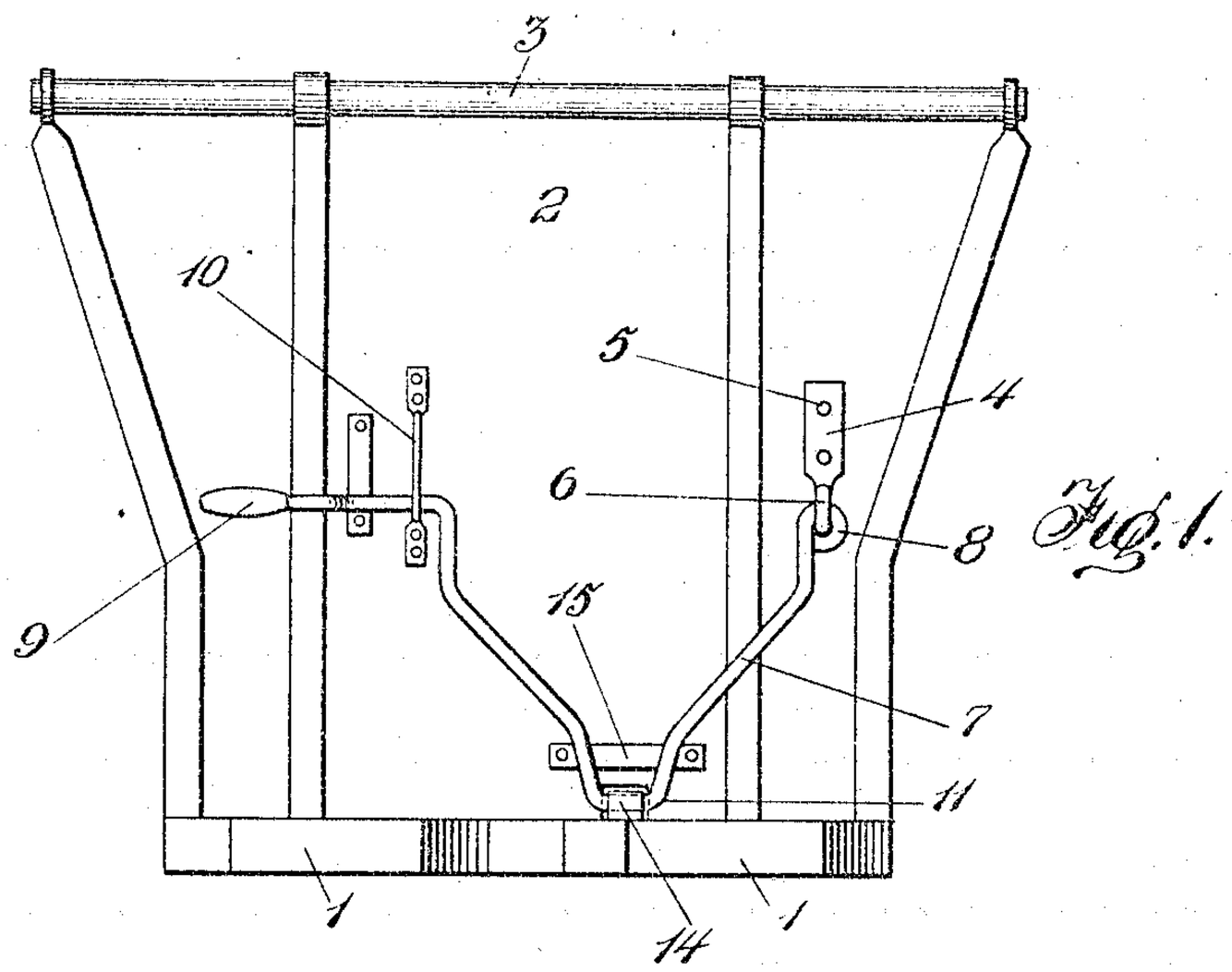

Fig. 1.

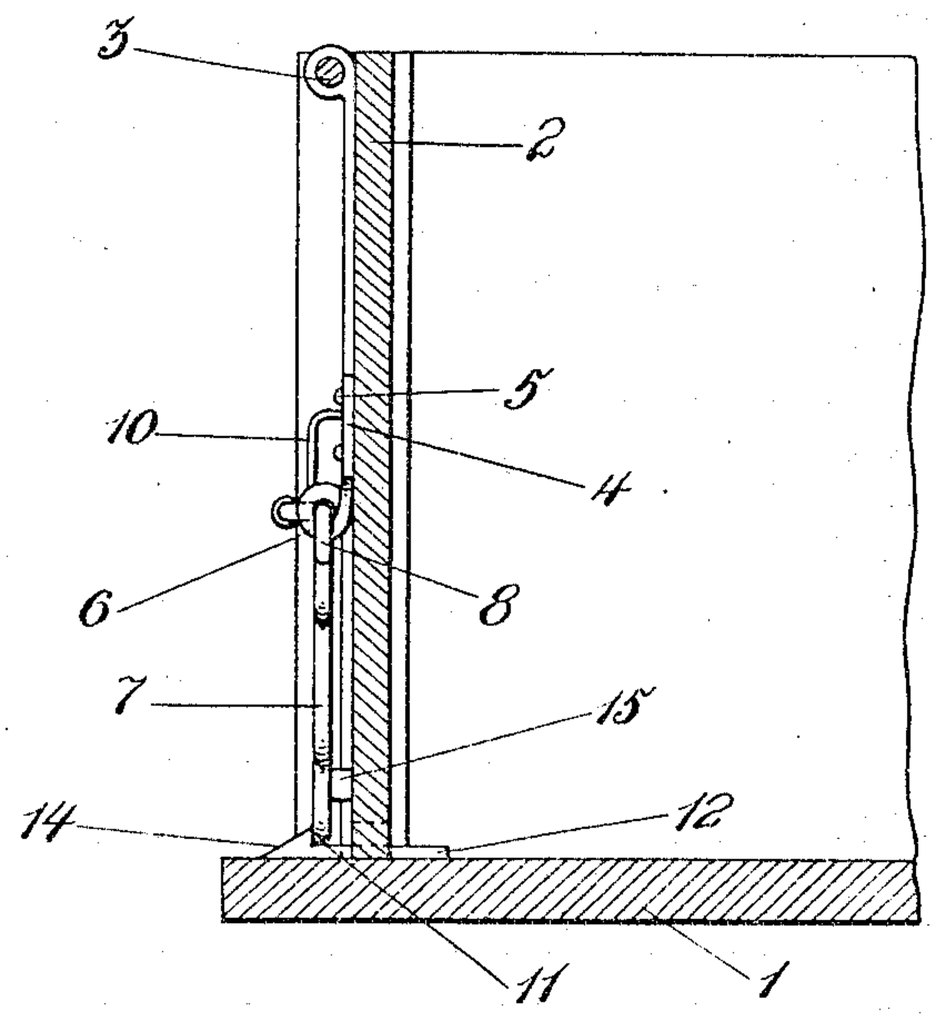

Fig. 2.

Witnesses

Samuel Payne.

R. S. Butler

Inventor

G. H. FOX.

By N. C. Evert & Co

Attorneys.

UNITED STATES PATENT OFFICE.

GEORGE H. FOX, OF LIGONIER, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO CHARLES FOX, OF LIGONIER, PENNSYLVANIA.

LATCH FOR THE CLOSING OF END-GATES.

No. 929,641. Specification of Letters Patent. Patented July 27, 1909.

Application filed September 25, 1908. Serial No. 454,790.

To all whom it may concern:

Be it known that I, GEORGE H. FOX, a citizen of the United States of America, residing at Ligonier, in the county of Westmoreland and State of Pennsylvania, have invented certain new and useful Improvements in Latches for the Closing of End-Gates, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to certain new and useful improvements in latches for the closing of end gates, and relates more particularly to a locking device of the above described character adapted to be used for the locking of end gates for mine cars, wagons and pit cars.

The present invention has for its object the provision of novel means whereby the end gate may be easily unlocked and the load of the wagon or car dumped, and when the car is again placed in its normal position, from a tilted position to a horizontal position, the latch will automatically operate and securely lock the end gate.

A still further object of my present invention is to provide a device of the above described character that will be extremely simple in construction, strong and durable, comparatively inexpensive to manufacture, and one that will not get out of order or deranged.

Many devices have been constructed for the locking of end gates, but in such devices springs have been arranged that are found to be an objectionable feature, and in the present device I have particularly eliminated the use of spring latches.

With the above and other objects in view, my invention consists in the novel construction, combination and arrangement of parts to be hereinafter more particularly described and claimed.

In describing the invention in detail reference is had to the accompanying drawings forming a part of this specification, wherein,

Figure 1 is an end elevation of the body portion of a mine or pit car having my improved latch arranged thereto, and Fig. 2 is a fragmentary vertical sectional view of the car body showing the latch in side elevation.

In these drawings, the reference numeral 1 represents the body of the car, which is of the ordinary and well known construction, and 2 represents the end gates, the latter swinging upon the rods 3. The end gate 2 is provided with a lug 4 which is rigidly attached by means of screws or nails 5, said lug 4 having formed at its lower extremity an eye 6, which is adapted to receive a latch 7, having formed at its one extremity a loop 8; said latch 7 is V-shaped in its general construction, and the other end of the latch carries a handle 9, the latter extending at right angles to the body portion of the latch. This latch portion 9 is adapted to pass and extend through a keeper 10, the latter being also rigidly secured to the end gate 2. The lower portion of the V-shaped latch 7 is designated by the reference numeral 11, and is adapted to pass over a catch 12, which is securely fastened to the bottom of the car, said catch having an inclined forward face 14, which permits the portion 11 of the latch 7 to ride over the same and drop by gravity, thereby locking the end gate. A pipe 15 is secured to the end gate and is adapted to retain the latch in proper position with relation to the catch 12.

The operation of my improved device is as follows: When it is desired to unload the car or wagon, the handle 9 of the latch is raised, thereby disengaging the portion 11 of the latch from the catch 12. The car or wagon is then dumped or tilted, and when the contents of the car have been unloaded and the car again placed in a horizontal position, the portion 11 of the latch will ride over the inclined portion 14 of the catch and drop by gravity into its proper position, as shown in Figs. 1 and 2 of the drawings.

The many advantages obtained by this extremely simple form of lock will be readily apparent from the foregoing description, when taken in connection with the accompanying drawings, and it will be noted that various changes may be made in the minor details of construction without departing from the general spirit of my invention.

Having now described my invention what I claim as new, is:—

1. In a mine or pit car, the combination of an end gate, a V-shaped latch movably secured to said end gate, a handle formed integral with said latch, a keeper extending over said handle, and a catch secured at the bot-

tom of the car and adapted to coöperate with said latch.

2. In a pit car end gate lock, the combination of a V-shaped latch, means to operate said latch, and means carried by said car to lock said latch automatically when a car is placed in a horizontal position.

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

GEORGE H. FOX.

Witnesses:
H. E. VANCE,
E. C. RAMSEY.