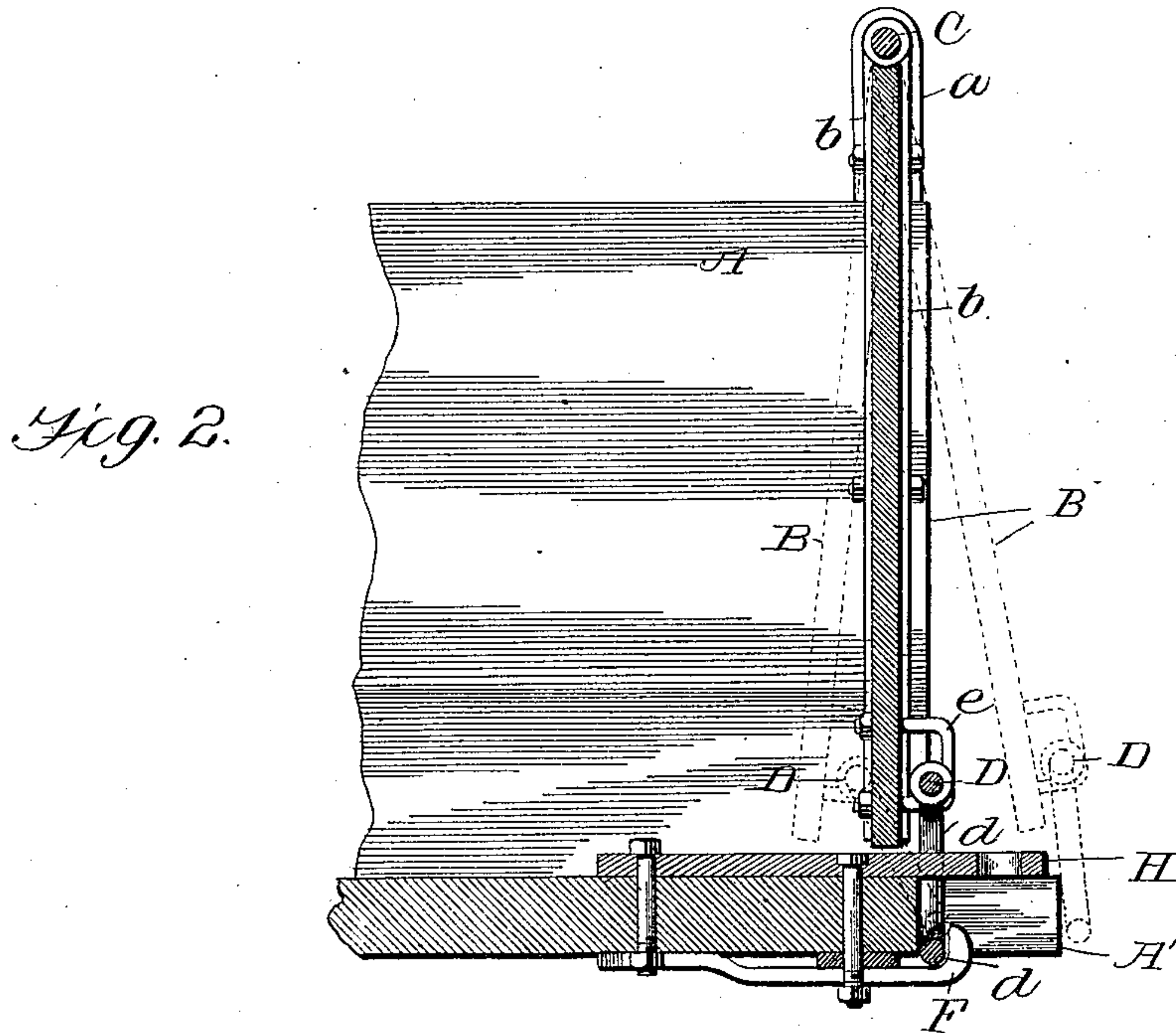
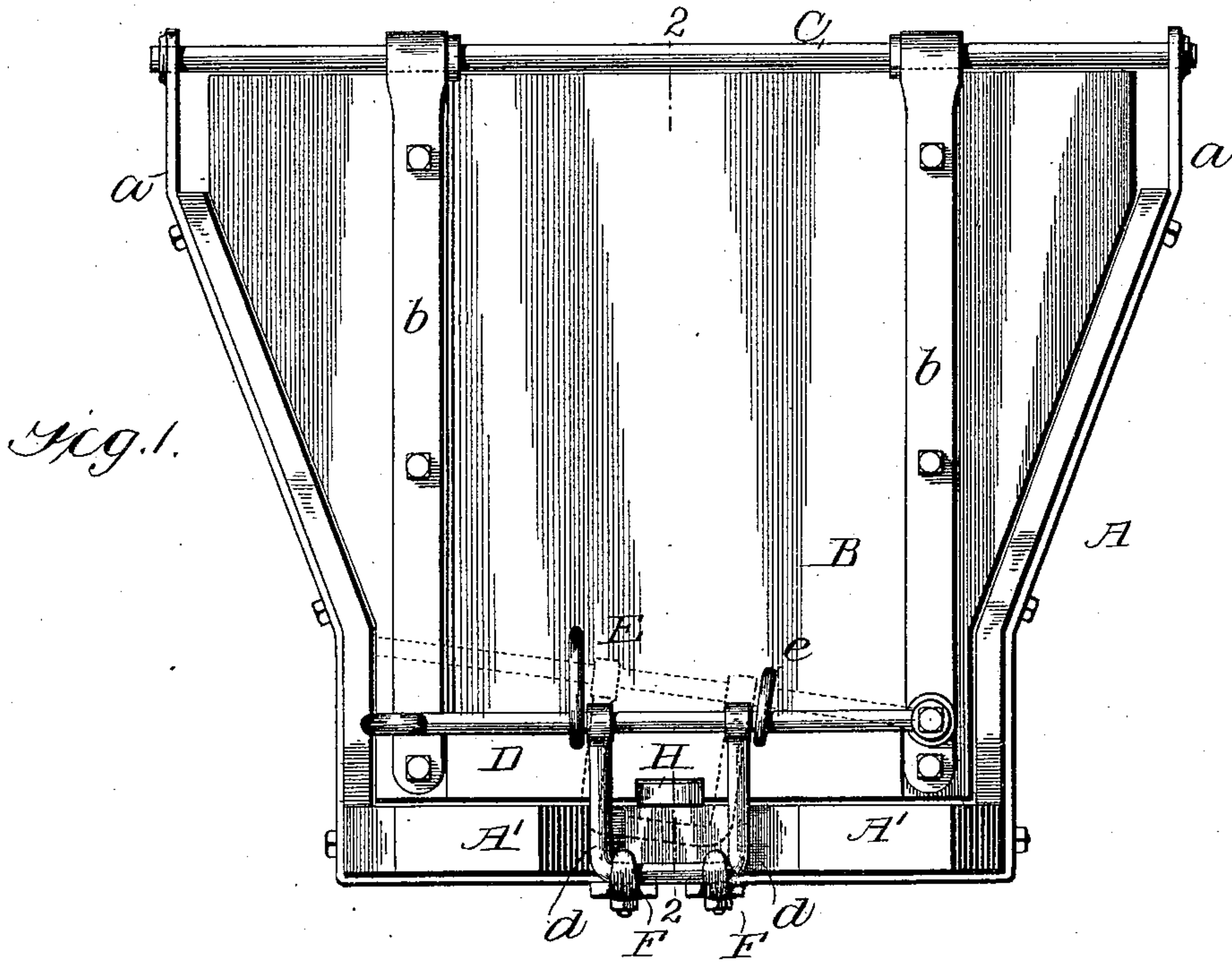


(No Model.)

A. MAXWELL.  
MINE CAR DOOR FASTENING.

No. 565,289.

Patented Aug. 4, 1896.



WITNESSES

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# UNITED STATES PATENT OFFICE.

ANDERSON MAXWELL, OF BARNESVILLE, OHIO, ASSIGNOR TO THE WATT MINING CAR WHEEL COMPANY, OF SAME PLACE.

## MINE-CAR-DOOR FASTENING.

SPECIFICATION forming part of Letters Patent No. 565,289, dated August 4, 1896.

Application filed November 29, 1895. Serial No. 570,529. (No model.)

*To all whom it may concern:*

Be it known that I, ANDERSON MAXWELL, of Barnesville, in the county of Belmont and State of Ohio, have invented certain new and useful Improvements in Mine-Car-Door Fastenings; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

This invention is an improved fastening for vertically-swinging doors or gates, and especially designed for use on mine-cars; and its object is to make a fastening which will be perfectly reliable and will not be liable to injury by blows or knocks to which the ordinary fastenings of mine-car doors are liable.

The invention therefore consists in the novel construction of the latch-locking devices hereinafter described and claimed.

Referring to the drawings, Figure 1 is an end view of a mine-car, showing the door-fastening devices in closed position in full lines and in unlocked position by dotted lines. Fig. 2 is a vertical section on line 2 2, Fig. 1, showing the latch closed in dotted lines and indicating various positions thereof by dotted lines.

I have illustrated the latch as applied to mine-cars having permanent sides and swinging ends, which are ordinarily called "doors;" but the invention is applicable to other forms of cars and other construction or arrangements of doors. But one end of a car is illustrated in the drawings. The body A is constructed as usual. The end door B is suspended by hangers *b* from a transverse bar C, which is supported in uprights *a* on the sides of the car. The door can thus swing vertically out and in.

A horizontal latch D is pivoted at one end to the lower and outer side of door B and is guided in its movements by loops E *e*, as shown. From this latch is suspended a U-shaped bail *d*, the ends of the bail loosely embracing the latch, so that the bail can swing freely beneath the latch and against the door. The bail depends below the lower edge of the door sufficiently to pass below the draft-bar H of the car and between the bumper or buffer projections A' on the end of car. Below

the draft-bar, secured rigidly to the bottom of the car and projecting between, but protected by, the bumpers A', are two catches F, which are adapted to engage and retain the lower part of bail *d* when the latch is in normal position.

By lifting the free end of latch D the bail is raised clear of catches F and the door can be swung out or in; but if the latch is dropped after the door swings open the bail will drop into position to engage with the catches. The bail, however, will not lock as the door swings inward, but tilts back over the catches, as indicated in dotted lines, Fig. 2, but as the door vibrates outward again the bail engages the catches and effectively locks the door. The bail gives a double bearing of the fastening against the door, as is evident from the drawings, and thus is more secure and strong than a single bolt or latch would be.

Having thus described my invention, what I therefore claim as new, and desire to secure by Letters Patent thereon, is—

1. A vertically-movable latch-fastening consisting of a pivoted latch-bar, provided with a swinging locking-bail movable with, and also at right angles to, the latch-bar; and a fixed catch adapted to be engaged by said bail, substantially as described.

2. In a fastening, the combination of a horizontal vertically-movable pivoted latch-bar; and a U-shaped bail loosely suspended from said latch-bar and swinging at right angles thereto; with fixed catches adapted to engage said bail, substantially as and for the purpose described.

3. In a mine-car, the combination of the car-body, and its vertically-swinging door; with the latch pivoted to the lower end of door; the bail loosely suspended from and depending below said latch; and the catches fastened to the bottom of the car and adapted to engage the swinging bail, substantially as and for the purpose set forth.

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

ANDERSON MAXWELL.

Witnesses:

T. S. FRASIER,

B. F. STEWART.