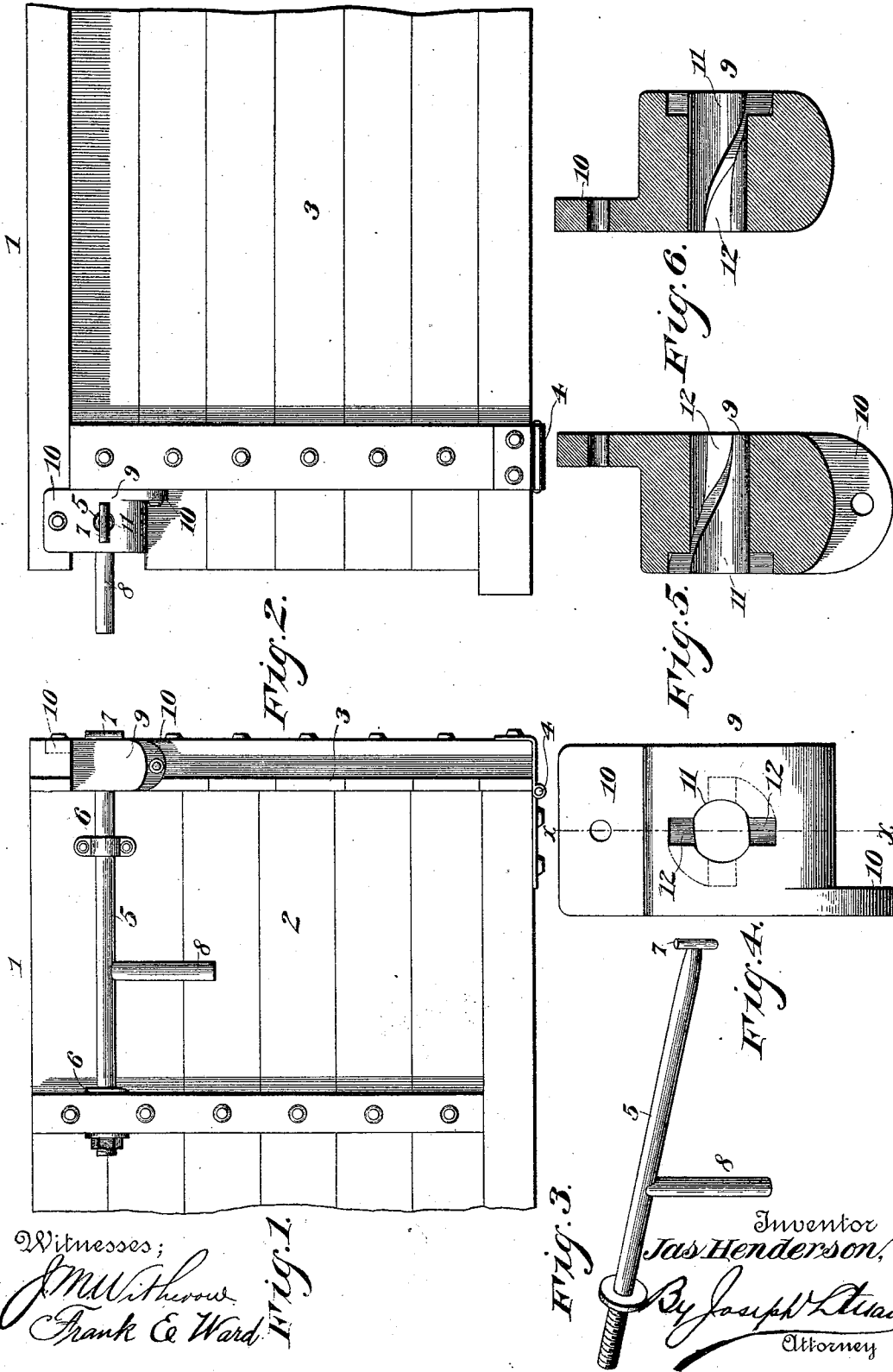


(No Model.)

J. HENDERSON.
LATCH.

No. 542,161.

Patented July 2, 1895.



UNITED STATES PATENT OFFICE.

JAMES HENDERSON, OF THREE RIVERS, MICHIGAN, ASSIGNOR TO THE
SHEFFIELD CAR COMPANY, OF SAME PLACE.

LATCH.

SPECIFICATION forming part of Letters Patent No. 542,161, dated July 2, 1895.

Application filed May 28, 1894. Serial No. 512,706. (No model.)

To all whom it may concern:

Be it known that I, JAMES HENDERSON, of Three Rivers, county of St. Joseph, State of Michigan, have invented certain new and useful Improvements in Locks or Latches, of which the following is a specification, reference being had to the accompanying drawings.

The object of my invention is to produce an automatic device for securing a door or gate by the mere act of closing the same. It is especially adapted for use upon car-bodies in which the sides are hinged to the platform and are lowered upon their hinges for dumping, the purpose being to facilitate the fastening of the sides, when elevated in place, after the cars are emptied; but it is adapted for various other uses—as, for example, upon the end-gates of wagon-bodies or the like.

In the accompanying drawings, Figure 1 is an end view of a section of car-body with my device attached, showing the lock in the fastened position. Fig. 2 is a side view of the same, showing the bolt as operated upon by the actuating-pocket previous to latching. Fig. 3 is a detail perspective of the bolt detached. Fig. 4 is a rear elevation of the actuating-pocket. Fig. 5 is a vertical section on the line *xx* of Fig. 4. Fig. 6 is a similar view looking in the opposite direction.

Referring to the figures on the drawings, 1 indicates a car-body, which may be taken as an example of a connection in which my lock may be employed.

2 indicates the end of the car-body, which is supposed to be stationary.

3 indicates a side, which is supposed to be hinged, as indicated at 4.

5 indicates a bolt revolvably secured in suitable bearings 6 in the end of the car-body, by which also it is secured against endwise motion. The outer end of the bolt which projects beyond the extremity of the end piece is lugged, being provided, for example, with a T-shaped head 7.

8 indicates a weighted handle, by raising which the bolt may be rotated in one direction and by the weight of which it may be actuated in the opposite direction.

9 indicates an actuating catch or pocket which may be made of any suitable construction with suitable contrivances for securing it in position—as, for example, lugs 10. It is preferably cast with a bore 11, within which is a spiral groove 12, fitted to loosely receive and guide the T-head of the bolt. From one end to the other of the pocket the groove makes a quarter-turn, so that if it is firmly held and thrust against the end bolt, the T-head thereof, following the turn of the groove, will rotate the bolt through a quarter of a revolution. As illustrated, the pocket is firmly secured to the side of the car-body, so that when the side is raised the groove 12 will come directly opposite and will receive the T-head of the bolt. The length of the bolt is such that when the side is entirely elevated the T-head of the bolt will pass through the pocket and clear the bore. From this explanation it will appear that when the pocket strikes the head of the bolt it will rotate the bolt until the handle is raised approximately at right angles to the end of the car-body. Afterward the head of the bolt, clearing the bore of the pocket and being thereby released, will permit the bolt to be rotated by the gravity of the handle. Thus the lugged head of the bolt will be turned across the bore of the pocket and will securely hold the side of the car in the elevated position.

In releasing the side of the car-body the handle is raised until the head of the bolt can re-enter and retrace its passage through the groove in the pocket.

The simplicity of construction of my device is an advantage not only in point of economy in manufacture, but also because it renders the device available for use where strength, together with facility of operation, are required.

What I claim is—

1. The combination with a bolt and lugged securing head, of a pocket provided with a spirally grooved bore adapted to receive and actuate the same, substantially in the manner and for the purpose specified.

2. The combination with a rotatory bolt

provided with a weighted handle and with a T-shaped head, of a pocket provided with a bore and with internal diametrically opposite spiral grooves, the ends of said grooves being in the same horizontal plane at one end of the pocket and in the same vertical plane at the other whereby the T-shaped head will automatically return to its initial position af-

ter having passed through the pocket, substantially as specified. 10

In testimony of all which I have hereunto subscribed my name.

JAMES HENDERSON.

Witnesses:

M. J. HUSS,

E. H. HENDERSON.