Aug. 11, 1925. 1,548,907.

W. F. E. SCHWEIM

END GATE LATCH

Filed March 12, 1923 2 Sheets-Sheet 1

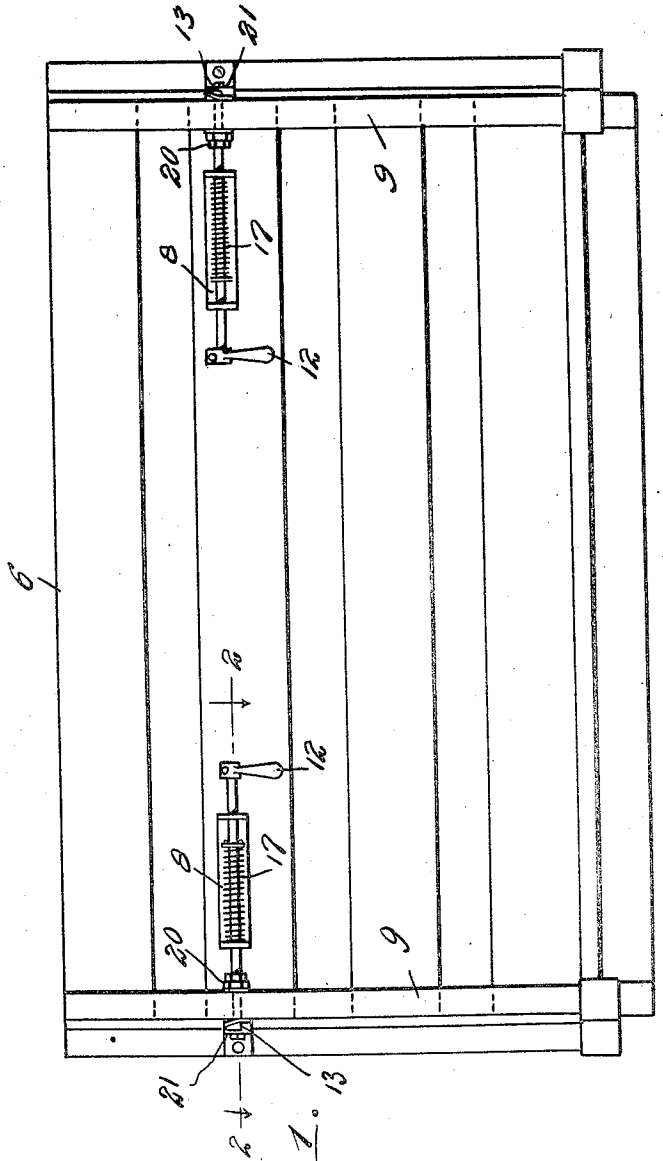


Fig. 1.

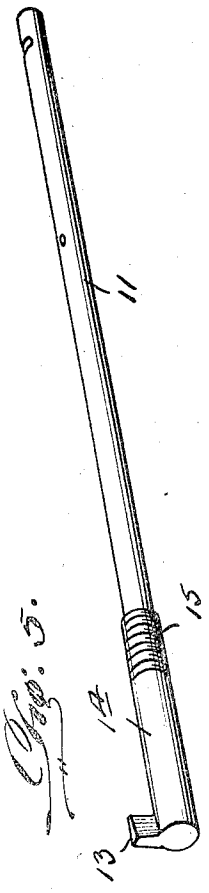


Fig. 5.

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END GATE LATCH

Filed March 12. 1923 2 Sheets-Sheet 2

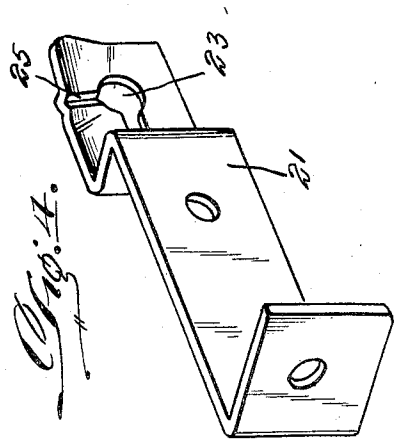


Fig. 4.

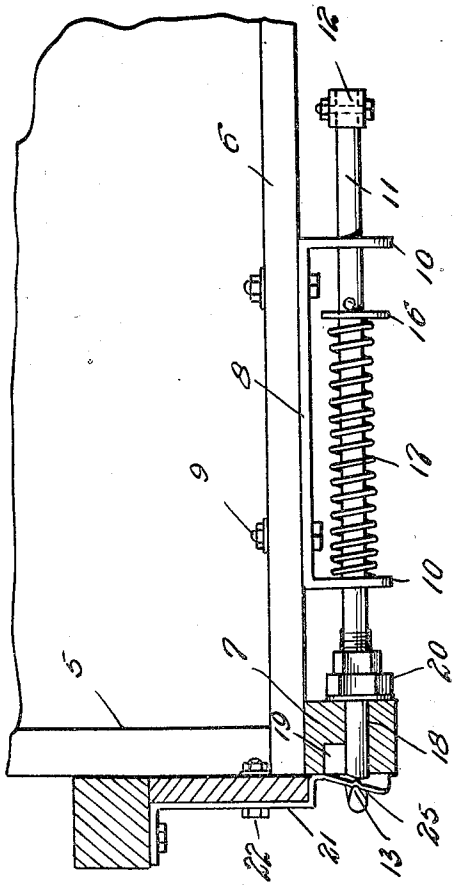


Fig. 2.

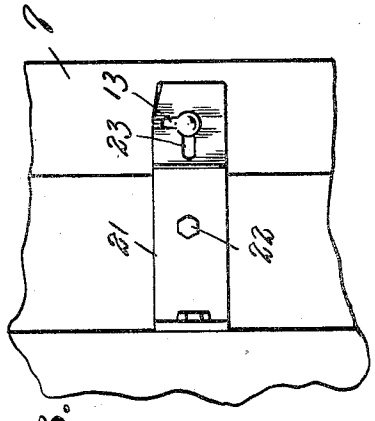


Fig. 3.

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Patented Aug. 11, 1925. 1,548,907

UNITED STATES PATENT OFFICE.

WILLIE F. E. SCHWEIM, OF MANKATO, MINNESOTA.

END-GATE LATCH.

Application filed March 12, 1923. Serial No. 624,412.

To all whom it may concern:

Be it known that I, WILLIE F. E. SCHWEIM, a citizen of the United States, residing at Mankato, in the county of Blue Earth and State of Minnesota, have invented certain new and useful Improvements in End-Gate Latches, of which the following is a specification.

The main purpose of my invention is the provision of an end gate latch that is a substantial improvement over similar devices, with which I am now familiar, my invention being characterized by its simplicity of construction, ease of application, and one that is well adapted to be used for purposes other than as a latch for end gates, such as barn door latches and the like.

The nature and advantages of the invention will be better understood when the following detailed description is read in connection with the accompanying drawings, the invention residing in the construction, combination, and arrangement of parts as claimed.

In the drawings forming part of this application, like numerals of reference indicate similar parts in the several views, and wherein:—

Figure 1—is an end elevational view of a wagon box, showing the end gate thereof equipped with my improved latch.

Figure 2—is a detail section upon the line 2—2 of Figure 1.

Figure 3—is a fragmentary side elevation of the said wagon box, more clearly disclosing the bolt keeper plate forming the component part of my invention.

Figure 4—is a perspective of the bolt keeper plate.

Figure 5—is a perspective of the sliding bolt.

Referring to the drawings in detail, and particularly to Figures 1 and 2, there is shown a wagon box designated at 5, with which is associated a removable end gate 6. As shown, the end gate comprises a plurality of longitudinal spaced slats secured at their opposite ends to the vertical posts 7.

It is desirable that these wagon boxes be equipped with a pair of latches upon opposite sides of the end gate, as shown in Figure 1, each of the same being of an exactly similar construction, a description of one therefore sufficing for both.

My improved end gate latch comprises a bracket plate 8 secured through the instrumentality of bolt fasteners 9 to the end gate 6, the ends of this bracket plate being formed with forwardly projecting ears 10. Rectilinearly movable within the said openings of the ears 10 is a relatively elongated latch bolt 11, one end of the same being provided with a removable handle 12, whilst the opposite end is formed with a right angularly extending head or lug 13. The end of the latch bolt 11 adjacent to this head or lug is enlarged as at 14, the end of this enlargement being screw threaded as at 15. Surrounding the latch bolt 11, and between the ear 10 of the bracket 8 adjacent the end gate standard 7 and a washer plate 16 detachably positioned upon said bolt is an expansion spring 17 for purposes hereinafter described.

The enlarged and headed end of the bolt 11 extends through an alined opening 18 in the end gate standard 7, the outer surface of the standard being formed at one side of the opening with a pocket 19, for the purpose of receiving the head or lug 13 of the bolt, when the same is forced rearwardly by the said spring 17. As a means for limiting the outward rectilinear movement of the bolt, there is provided upon the screw threaded portion 15 of the said bolt enlargement 11, a pair of binding nuts 20, the same having face to face contact with the standard 7 at the outward limit of movement of said bolt.

In conjunction with the elements just described, there is provided a bolt keeper plate more clearly shown in Figure 4, this keeper plate being bolted at the points 22 to certain of the parts included in the wagon box structure.

The front end of this keeper plate 21 is in face to face contact with the standard 7, the same being provided or formed with a key slot 23, for permitting the headed or lugged end of the bolt 11 to pass therethrough, when the bolt is slid forwardly, through the instrumentality of the handle 12.

This slotted end of the keeper plate 21 is formed with a vertical groove 25, directly above the larger end of the key slot 23, the same adapted for receiving the adjacent edge of the said head 13, for preventing a casual turning movement of the rod, and a consequent retraction of the same from the keeper plate, through the instrumentality of a spring 17.

In view of the above description, it will

at once be apparent that by raising upwardly on the handle 12, the bolt 11 may be slid forwardly for engaging through the key slot in the different keeper plates, the handle being then turned downwardly for engaging the edge of the head or lug within the notch of the keeper plate, which will effectively maintain the said latch bolt in its latched position.

Although I have herein shown and described the preferred embodiment of the present invention, it is nevertheless to be understood that minor changes may be made therein, without departing from the spirit and scope of the invention as claimed.

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

An end gate latch comprising a flexible strip having an end portion adapted to be disposed adjacent the path of movement of the end edge of the gate, the end portion of the strip being twisted laterally, a bolt carried by the gate and having at its end a laterally disposed lug, the said bolt adapted to move along the twisted portion of the strip as the gate moves with relation to the strip, the twisted portion of the strip being provided with a key hole slot located below the twist of the end portion of the strip, and the said twisted portion of the strip being provided, at its outer surface with a notch, which is radially disposed with respect to the larger end of the key hole slot, the said bolt being adapted to be projected through the slot and turned, whereby the lug of the bolt may be engaged in the notch, and means for drawing the lug of the bolt in close contact with the wall surface of the notch.

In testimony whereof I affix my signature.

WILLIE F. E. SCHWEIM.