

No. 614,758.

Patented Nov. 22, 1898.

L. PFEIFFER, JR.
END GATE LATCH FOR WAGONS.

(Application filed May 20, 1898.)

(No Model.)

Fig. 1.

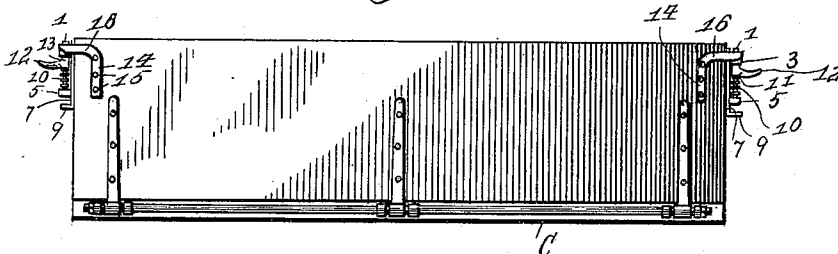


Fig. 2.

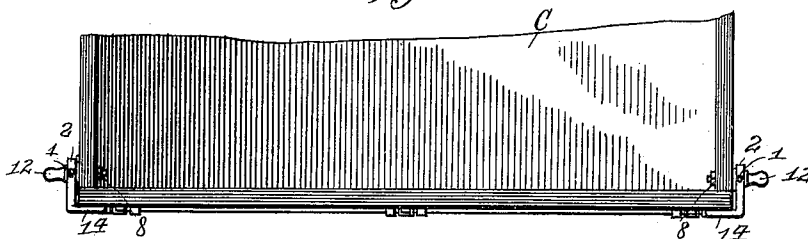


Fig. 3.

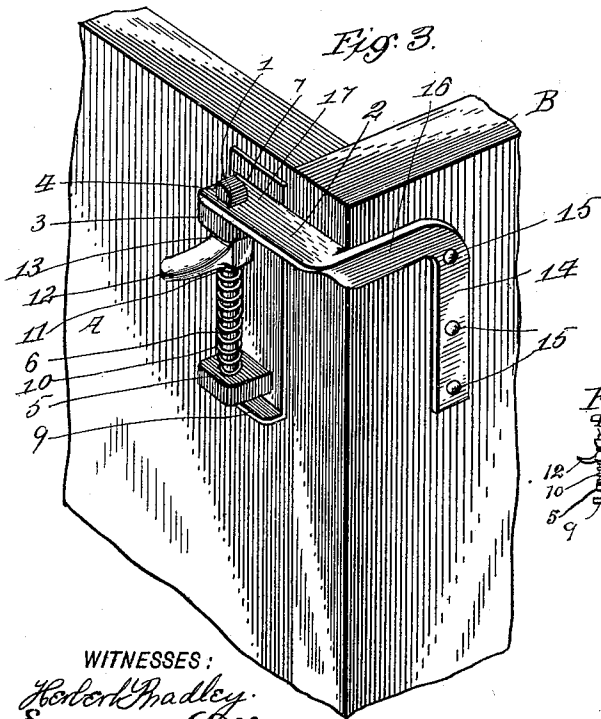


Fig. 4.

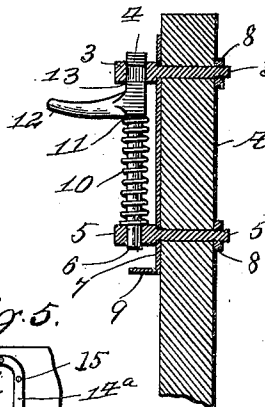
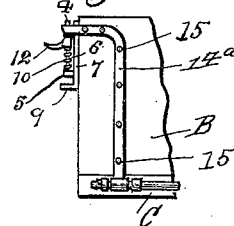


Fig. 5.



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END-GATE LATCH FOR WAGONS.

SPECIFICATION forming part of Letters Patent No. 614,758, dated November 22, 1898.

Application filed May 20, 1898. Serial No. 681,220. (No model.)

To all whom it may concern:

Be it known that I, LOUIS PFEIFFER, Jr., a citizen of the United States, and a resident of Bufkin, in the county of Posey and State of Indiana, have invented certain new and useful Improvements in End-Gate Latches for Wagons, of which the following is a full, clear, and exact specification.

My invention relates to latches for holding closed the end-gates of wagons and for other analogous purposes.

It has for its object to provide a vertically-sliding spring-pressed latch-bolt and a cooperating keeper which may be respectively attached to the side-board and end-gate of the body in such positions that the keeper will snap into engagement with the bolt as the gate is closed while the bolts may be conveniently withdrawn to release the keepers when the end-gate is to be lowered, there being one latch-bolt at each side of the wagon.

My invention relates to novel features of construction hereinafter fully described, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is an end elevation of a wagon-body having my invention applied thereto. Fig. 2 is a plan of the rear end of said wagon-body. Fig. 3 is a perspective view of a rear corner of the wagon-body, illustrating one of the spring-latches. Fig. 4 is a vertical section in the plane of the latch-bolt, illustrating the manner of attaching it to the side-board of the wagon. Fig. 5 is a detail corner view showing a modified form of keeper in which a keeper and hinge-strap are formed in one piece.

It will be understood that one of my improved latches is to be attached to each side of the body, the bolts and the keeper being for this purpose made right and left handed. As one of my latches is the counterpart of the other, I will make known my invention by describing and illustrating the left-hand latch.

The latch comprises a vertically-sliding latch-bolt 1 and a keeper 2. The latch-bolt is mounted to reciprocate vertically in an upper eyebolt 3, having a square opening which provides a bearing for the upper beveled end or head 4 of the bolt and a lower eyebolt 5, which has a round bearing for the lower end or shank 6 of the latch-bolt. A

base-plate 7 is perforated to receive the bearing-bolts 3 and 5, said bolts being passed through said plate and then through the said wagon-body A and secured by nuts 8 or other equivalent means on the inner ends of said bolts. The base-plate 7 has its lower end turned outwardly to form a laterally-extending stop 9 to arrest the downward movement of the latch-bolt 1. Said latch-bolt is provided with a projecting spring 10, surrounding the shank 6 of the bolt and confined between the lower eyebolt 5 and the shoulder 11. To overcome the spring 10 and retract the bolt, the latter is provided with a laterally-projecting horn or thumb-piece 12, preferably extending outward to bring it within convenient reach. The latch-bolt 1 is provided with an additional shoulder 13 above the thumb-piece 12 for limiting the projection of the bolt by its spring.

The keeper consists, preferably, of an iron bent to form an attaching-plate 14, by which the keeper is secured to the end-gate B through the medium of bolts 15, an outwardly-extending arm 16, extending to the edge of the gate, and a forwardly-extending strike 17, which has an opening to receive the head 4 of the latch-bolt and is beveled on its forward end to cause it to depress the latch-bolt 1 through the act of closing the end-gate. The advantages arising from the particular form of keeper described are that it permits the location of the latch-bolt on the side-board of the wagon so that its eyebolts 3 and 5 may extend through the side-board and be suitably nutted or riveted on their inner ends, an advantage which is not obtained by locating the latch or keeper upon the upper edge of the wagon-body, and at the same time the attaching end of said keeper lies flat upon the face of the end-gate and permits its attaching-bolts 15 to pass through the end-gate and be properly nutted or secured at their inner ends.

From the foregoing description it will be seen that the latch-bolt is formed in an integral structure with an upper beveled head 4 of angular section, which performs the function of preventing turning of the bolt and presents its bevel in the proper direction, a laterally-projecting horn or thumb-piece beneath the head and forming at its intersec-

tion with said head a shoulder which serves the purpose of limiting the projection of the bolt, and a tail or shank of reduced section which leaves a shoulder where it is joined
5 onto the horn or thumb-piece, thus forming a mounting for the spring and a shoulder for engagement of the spring with the bolt and at the same time providing a guide to define the longitudinal movement of the latch-bolt.
10 The keeper is of an integral structure made from flat metal bent so as to provide the attaching-plate 14, the extension 16 projecting outward at right angles to the attaching-plate but lying in the same plane with said attaching-plate, and the forwardly-extending strike
15 17, which is likewise bent longitudinally at right angles to the extension 16, as well as to the plane in which the parts 16 and 14 lie—that is to say, the strike 17 is twisted into a
20 plane at right angles to that of the other two parts of the keeper. In Fig. 5 I show the keeper 14^a extended down to the floor C of the body and formed with an eye 14^c to provide a combined keeper and hinge-strap ex-
25 tending from the latch-bolt to the hinge-rod of the end-gate.

The advantages arising from the latch as a whole are obvious in that it is of very cheap and durable construction and is made up of
30 parts which are assembled at the time of applying the latch in use and which will not re-

quire to be secured together by expensive labor beforehand.

Having thus described my invention, the following is what I claim as new therein and
35 desire to secure by Letters Patent:

1. The combination of the keeper having a laterally-extending strike projecting at right angles thereto and adapted to be secured to the end-gate of a wagon-body, the upper and
40 lower superposed eyebolts adapted to be secured to the side of a wagon-body, beneath the strike, the vertical bolt having a lateral thumb-piece and adapted to slide in the eyes of the eyebolts and to engage the strike, and
45 the spring surrounding the vertical bolt between the thumb-piece and the lower bolt; substantially as described.

2. The combination of the keeper having a laterally-extending strike, the base-plate hav-
50 ing an outturned lower end providing a stop, the upper and lower superposed eyebolts extending through the supporting-plate, the vertical bolt having a lateral thumb-piece, and the spring surrounding the vertical bolt be-
55 tween the thumb-piece and the lower bolt; substantially as described.

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Witnesses:

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