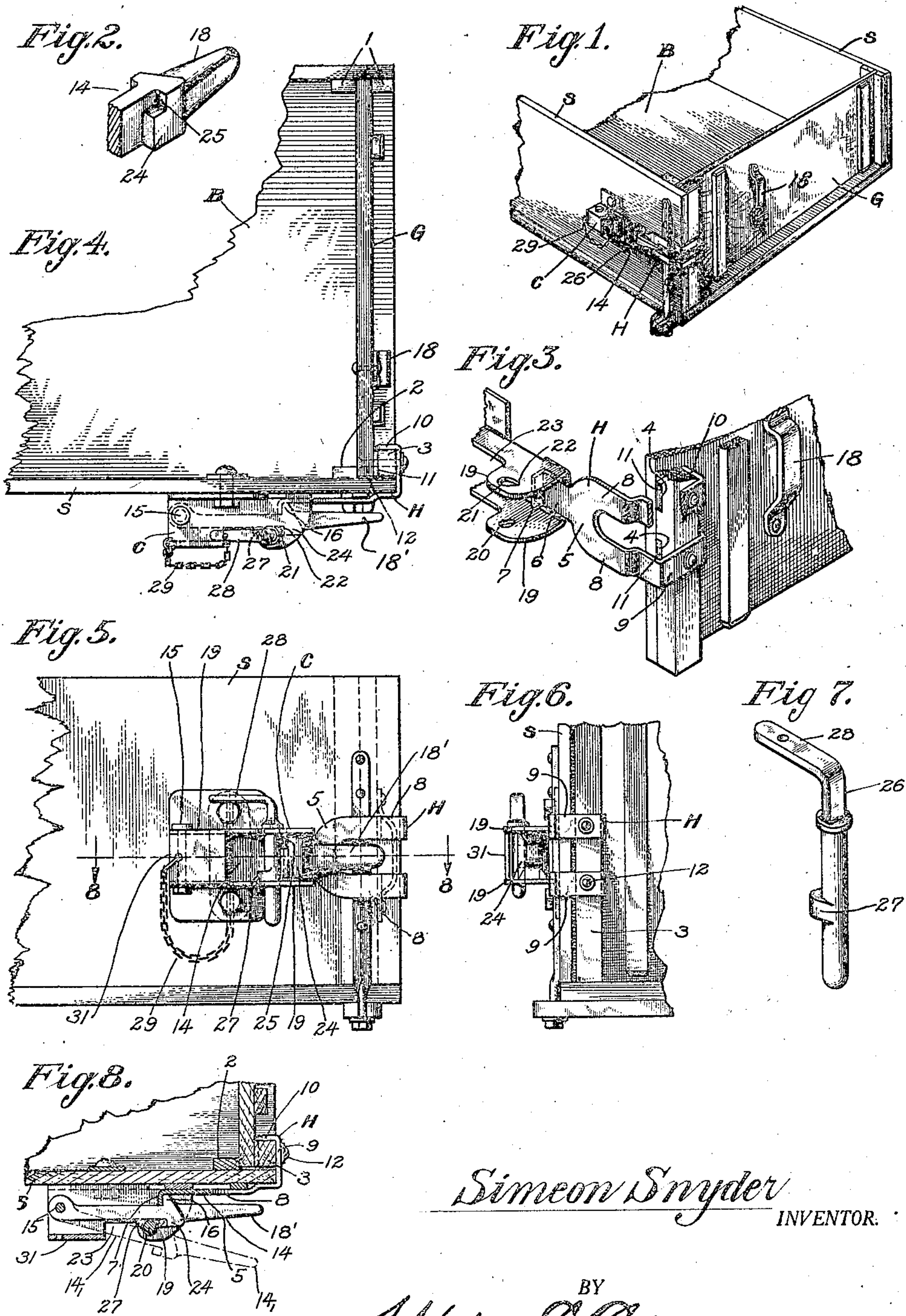


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S. SNYDER.  
END GATE.  
FILED APR. 18, 1922.



*Simeon Snyder*

INVENTOR.

BY

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# UNITED STATES PATENT OFFICE.

SIMEON SNYDER, OF FILLEY, NEBRASKA.

END GATE.

Application filed April 18, 1922. Serial No. 554,536.

*To all whom it may concern:*

Be it known that I, SIMEON SNYDER, a citizen of the United States, residing at Filley, in the county of Gage and State of Nebraska, have invented certain new and useful Improvements in End Gates, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to certain improvements in end gates and it is an object of the invention to provide novel and improved means whereby the gate is effectively maintained in applied position and in a manner to prevent leakage past the gate and particularly in connection with a load of grain or other material of a comminuted character.

Another object of the invention is to provide novel and improved means carried by a side board of a wagon body and co-acting with an end portion of an end gate to effectively maintain said gate in applied position and at the same time permitting ready and convenient removal of the gate when required.

The invention consists in the details of construction and in the combination and arrangement of the several parts of my improved end gate whereby certain important advantages are attained and the device rendered simpler, less expensive and otherwise more convenient and advantageous for use, as will be hereinafter more fully set forth.

The novel features of my invention will hereinafter be definitely claimed.

In order that my invention may be the better understood, I will now proceed to describe the same with reference to the accompanying drawings, wherein:

Figure 1 is a fragmentary view in perspective showing an embodiment of my invention in applied position,

Figure 2 is a fragmentary view in perspective of the operating end of the coupling lever,

Figure 3 is an enlarged fragmentary view in perspective of the invention as herein disclosed,

Figure 4 is a fragmentary view in plan illustrating the structure as herein set forth,

Figure 5 is a view in side elevation of the structure herein embodied,

Figure 6 is a fragmentary view in end elevation of the structure,

Figure 7 is a view in perspective of the locking bolt, and

Figure 8 is a fragmentary sectional view taken on line 8—8 of Figure 5.

As disclosed in the accompanying drawings, B denotes the tail portion of a wagon body provided with the side boards S. The rear end portion of one of the side members S is provided with the conventional spaced cleats 1 adapted to receive therebetween an end portion of the end gate G. The opposite end portion of the gate G, when applied, abuts against a single cleat 2 carried by the opposite side board S. This second end portion of the gate has disposed across its outer face and riveted or otherwise secured thereto a cleat 3 provided in its inner face with recesses 4.

H denotes a holding member substantially in the form of a U, the base portion 5 thereof at the central portion being provided with an arm 6 coplanar therewith and terminating in an outstanding lug or flange 7. The side members or arms 8 of the member H are provided with laterally directed extensions 9 which extend over the outer face of the cleat 3 and rivetted or otherwise secured thereto. The extensions 9 are continued by the inwardly disposed arms 10 terminating in the lugs or feet 11 having within the recesses 4, the rivets 12 connecting extensions 9 with the cleat 3 also passing through the feet or lugs 11.

The extensions 9 are of such a length to permit the holder H proper to overly the outer face of the adjacent side board S when the gate G is applied and in close proximity thereto. When the gate G is in closed position the arm 6 within the open end portion of a casing or housing C is bolted or otherwise secured to the outer face of the adjacent side board S.

14 denotes an elongated coupling lever extending within the housing C and pivotally engaged as at 15 with the outer end portion of the casing whereby the lever 14 may be readily and conveniently swung into locking or inoperative position. The lever 14 is provided with a shoulder 16 which, upon inward swinging movement of the lever 14



overlies the outstanding lug or flange 7 whereby the gate G is effectively maintained in closed position upon the application of means to hold the lever 14 against outward swinging movement. The lever 14 is of a length to extend a material distance outwardly of the housing C when the lever is in locked position, the portion 18' of the lever 14 outwardly of the shoulder 6 providing a hand grasp to facilitate the requisite swinging of the lever 14.

The inner portion of the casing or housing C has its outer face 23 cut away or open a distance inwardly of said housing or casing sufficient to permit the lever 14 being swung outwardly to the extent requisite to disengage the shoulder 16 from the lug or flange 7 to permit removal of the gate G. In order to facilitate the desired manipulation of the gate G the outer face thereof is provided with a hand grasp 18.

The upper and lower walls 19 of the casing or housing C are provided with alined openings 20 and 21, the lower opening 20 being herein disclosed as circular in form with the upper opening 21 having a notch or recess 22 in communication therewith. 24 denotes an outstanding portion carried by the lever 14 and underlying the recess 22 but affording no obstruction to the openings 20 and 21. The upper portion of the shoulder 24 directly below the recess 22 is notched as at 25.

26 denotes a locking bolt adapted to be inserted through the openings 20 and 21 after the lever 14 has been moved inwardly to operatively engage the member H. This bolt 26 is provided with an outstanding lug 27 adapted to pass through the recess 22 and into the notch 25. With the lug 27 within the notch 25 the bolt 26 upon slight rotation may be properly inserted through the openings 20 and 21 to effectively lock the lever 14 in its working position. With the bolt in this position the lug 27 provides means to prevent accidental displacement of the locking bolt 26 and which would otherwise occur as a result of the jarring or vibration incident to the travel of the wagon body. The removal of the bolt 26 is believed to be obvious.

The upper end option of the bolt 26 is provided with a lateral arm 28 to facilitate the handling thereof and secured to this arm or extension 28 is the extremity of a chain 29 or other flexible member, the opposite end portion of said chain being anchored to the outer face or wall 31 of the casing or housing seat. This chain or flexible member 29 prevents the loss of the pin 26, particularly after the same has been removed from working position.

I claim:

1. The combination with a side board of a wagon body and a removable end gate, a

member carried by the end gate and overlying the outer face of the side board when the end gate is applied, a casing carried by the outer face of the side board, a lever having an end portion extending within the casing and pivotally engaged therewith, said lever and the member of the tail gate having co-acting means to hold the end gate in position when the lever is moved in one direction, said lever being of a length to have its free end portion extend beyond the casing when the lever is in locking position, said extended portion of the lever providing means to facilitate the manipulation thereof, opposite walls of the casing being provided with openings, one of said walls having a recess in communication with the opening therein, a pin insertible through said openings and positioned outwardly of the lever when in locking position to hold said lever against swinging movement, said pin having an outstanding lug passed through the recess in the wall of the casing when the pin is turned in one position, said lug when the pin is in a second position holding the pin against displacement.

2. The combination with a side board of a wagon body and a removable end gate, a member carried by the end gate and overlying the outer face of the side board when the end gate is applied, a casing carried by the outer face of the side board, a lever having an end portion extending within the casing and pivotally engaged therewith, said lever and the member of the tail gate having co-acting means to hold the end gate in position when the lever is moved in one direction, opposite walls of the casing being provided with openings, one of said walls having a recess in communication with the opening therein, a pin insertible through said openings and positioned outwardly of the lever when in locking position to hold said lever against swinging movement, said pin having an outstanding lug passed through the recess in the wall of the casing when the pin is turned in one position, said lug when the pin is in a second position holding the pin against displacement.

3. The combination with a side board of a wagon body and a removable end gate, a member carried by the end gate and overlying the outer face of the side board when the end gate is applied, a casing carried by the outer face of the side board, a lever having an end portion extending within a casing and pivotally engaged therewith, said lever and the member of the tail gate having co-acting means to hold the end gate in position when the lever is moved in one direction, opposite walls of the casing being provided with openings, one of said walls having a recess in communication with the opening therein, a pin insertible through said openings and positioned outwardly of



the lever when in locking position to hold  
said lever against swinging movement, said  
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holding the pin against displacement, said

lever when in locking position having a re-  
cess registering with the recess in the wall  
of the casing, the lug of the pin being ini- 10  
tially received within the recess of the lever.

In testimony whereof I hereunto affix my  
signature.

SIMEON SNYDER