D. W. SHAW.

END GATE.

APPLICATION FILED AUG. 17, 1911.

1,037,341. Patented Sept. 3, 1912.

Fig. 1.

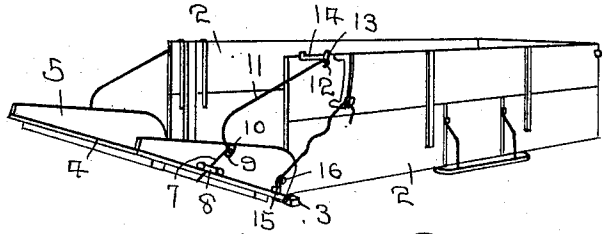


Fig. 2.

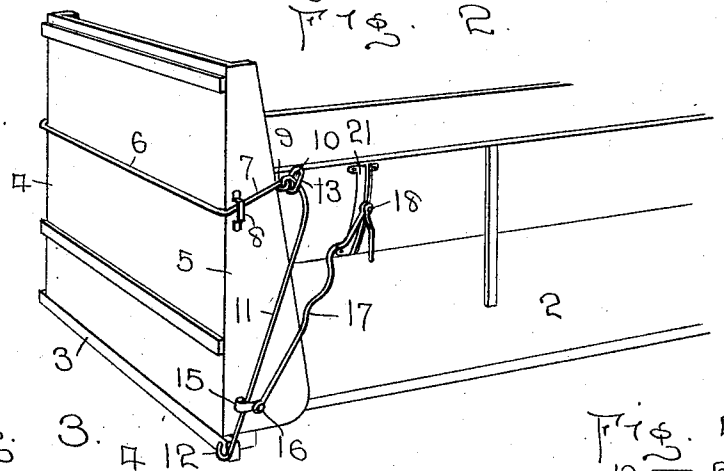


Fig. 3.

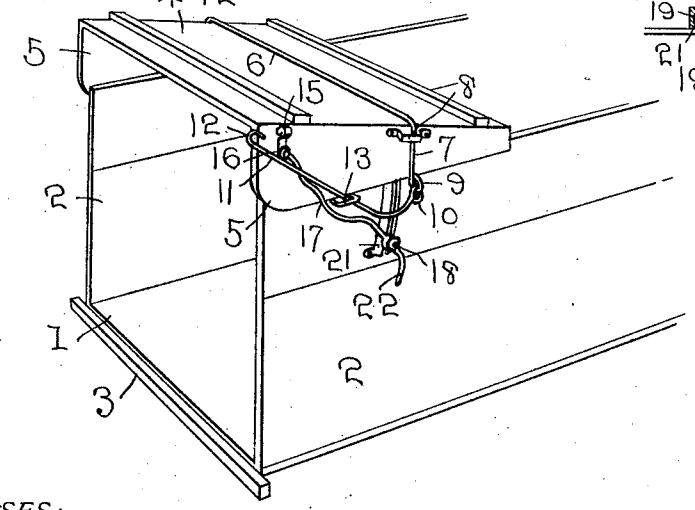
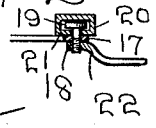


Fig. 4.



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END-GATE.

1,037,341. Specification of Letters Patent. Patented Sept. 3, 1912.

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To all whom it may concern:

Be it known that I, DANIEL W. SHAW, a citizen of the United States, residing at Fostoria, in the county of Pottawatomie and State of Kansas, have invented certain new and useful Improvements in End-Gates; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to end gates and more particularly to that class which may serve as scoop boards or dump gates.

An object of the invention is to provide an end gate of this character, which may also be swung, when desired, upon the top of a wagon sides without being detached from the wagon, for the purpose of loading and unloading hogs, etc.

Another object is to provide a wagon end gate of this character and means for pivoting the gate to the wagon to be swung to the various positions for the different uses.

Another object is to provide mechanism of this character, which will also effectively serve to hold the gate in proper position against the end of the wagon when it is to serve simply as an end gate.

Another object is to provide an end gate of the above stated nature, which may be applied to the ordinary construction of wagon now in general use, at an extremely small cost, and, another object is to produce a device of this character, which may be applied to wagons having sides of various heights and which may be so connected or applied to the wagon as to allow the height of the sides thereof to be varied as occasion may require.

Other objects and advantages will be hereinafter set forth and pointed out in the specification and claim.

In the accompanying drawings which are made a part of this application, Figure 1 is a perspective view of a wagon body, showing my gate held in position upon the rear end thereof for use as a scoop board, the gate being supported in this position by the improved mechanism. Fig. 2 is a similar view of the rear end of the wagon, showing my improved gate supported against the end of the wagon by means of the improved supporting and suspending mechanism. Fig. 3 is a like view, illustrating the gate swung to its resting position upon the upper edges of the sides of the wagon, at the rear end thereof, and, Fig. 4 is a fragmentary sectional view through the slide casting.

Referring to the drawings in which similar reference numerals designate corresponding parts throughout the several views, 1 represents the wagon bed and 2 the side boards of the wagon. Secured upon the end of the wagon bed is the stop strip 3, which stops the downward movement of the end gate 4, said gate resting upon the strip 3 when acting as an end gate or as a scoop board. The sides 2 may be formed of any number of boards placed edge to edge and positioned one above the other, as will be clearly understood. The end gate 4 may be either solid, as shown, or composed of any number of sections, as desired. Rigid with the end gate 4 are the side pieces or arms 5 positioned parallel to one another and extending toward the front of the wagon when the gate is in position upon the rear end of said wagon. Extending across the back side of the end gate 4 is a substantially U-shaped cradle rod 6 having its ends bent at right angles and parallel with one another, as shown at 7, and passed through the straps 8 secured upon the arms 5. The extremities of the ends 7 are formed into loops 9 to receive the similarly shaped extremities 10 of the latch bars 11, the adjacent ends of which are turned while the opposite ends thereof are formed into hooks 12 and the main portion of the bars 11 are straight, as will be clearly seen by referring to the drawings. The latch bars 11 are passed through eyes 13 which are swiveled to the detachable supporting brackets or clamps 14, which clamp over the upper edges of the top boards forming the sides 2 of the wagon body. The latch bars 11 are adapted for slidable movement through the eyes 13 and when it is desired to employ the end gate 4 as a scoop board the bars 11 are allowed to slide through the eyes 13 until their hook ends 12 are engaged therewith and the gate 4 is in the position shown in Fig. 1.

When it is desired to lock the gate 4 against the rear end of the wagon to serve as an end gate, the latch bars 11 are drawn in the opposite direction and swung downwardly and their free ends (adjacent the hooks 12) are caught beneath the turned ends of the spring latches 15, which latches 15 are secured to the arms 5 by means of the

bolts 16. When the bars 11 are in this position their opposite or turned ends are engaged through the eyes 13 of the clamps or brackets 14. Fastened to the bolts 16 are the lower ends of the suspending rods 17 which may, if desired, be twisted, as shown. The opposite ends of the suspending rods 17 are secured upon pins or bolts 18, which have the heads 19 for engagement in the channels formed by the jaws 20 of the castings 21, which are each rigidly secured upon one of the boards of one of the sides 2. Working upon the threads of the pins or bolts 18, outwardly of the ends of the suspending rods 17, are the tightening nuts 22, which are provided with suitable handles extending therethrough and serve to tighten and hold the pins 18 at the desired points along the channels of the castings 21, as will be later more clearly understood. It will thus be seen that the end gate 4 is at all times suspended by the suspending rods 17. The end gate 4 may be suspended entirely by the suspending rods 17, when it is desired to allow the gate to swing freely from the rear end of the wagon, by lifting the latch bars 11, after freeing their ends from the spring latches 15, to permit the hook ends 12 of said bars to pass through the eyes 13, thus freeing the outer end of the end gate 4.

When it is desired to load or unload hogs and the like, the end gate 4 may be swung upon the upper end of the wagon, to the position shown in Fig. 3. It is first necessary, however, to release the free ends of the latch bars 11 from the spring latches 15, thus allowing the latch bars 11 to slide through the eyes 13 and also permitting the eyes 13 to swing or turn to the proper positions. In this instance the pins 18 should be placed at the lower ends of the channel castings 21 and the nuts 22 tightened to hold the pins at this point. Should an extra board be placed upon each side 2, however, the pins 8 should be moved to the upper ends of the channels in the castings 21 and the nuts 22 tightened thereupon, to allow the end gates 4 to swing to a higher position and rest upon the upper boards of the sides 2, as will be clearly understood. When the end gate 4 is in position upon the upper edges of the sides 2 of the wagon body it will be entirely out of the way for such purposes as loading or unloading hogs, etc. Thus it will be seen that I have provided an end gate and supporting and suspending means therefor of such form as to allow the gate to be readily positioned and held upon the rear end of the wagon for use either as a scoop board, dump gate, or end gate, or to be swung above the wagon and rested upon the upper rear edges of the sides 2 of the wagon body, when desired.

It will be evident that the supporting and suspending mechanism is of such simple form and composed of such small number of parts that the operation thereof will be readily apparent and that the gate may be securely and positively supported or suspended in any position desired. It will also be clearly seen that this supporting and suspending mechanism may be employed upon wagons of the ordinary type and that no change whatever will be required in the construction of the end gate commonly employed upon this type of wagon. Further, this mechanism may be applied at an extremely small cost.

What I claim is:

The combination with a wagon end, of an end gate having side arms, straps secured to the side arms near the upper ends thereof, a cradle bar having looped ends movably positioned about the gate and side arms and under said straps, latch bars having one end looped and the opposite end hooked, a portion of said latch bars adjacent the looped ends being curved and disposed at right angles to the remainder thereof, the looped ends of said cradle bar and latch bars being connected, eyelets carried by said wagon end for receiving said latch bars, and adjustable lever connections between the lower ends of said end gate and said wagon body.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

DANIEL W. SHAW.

Witnesses:
WM. PRINZ,
FRED MANTHE.