

(No Model.)

W. K. WAGNER.
END GATE.

No. 491,617.

Patented Feb. 14, 1893.

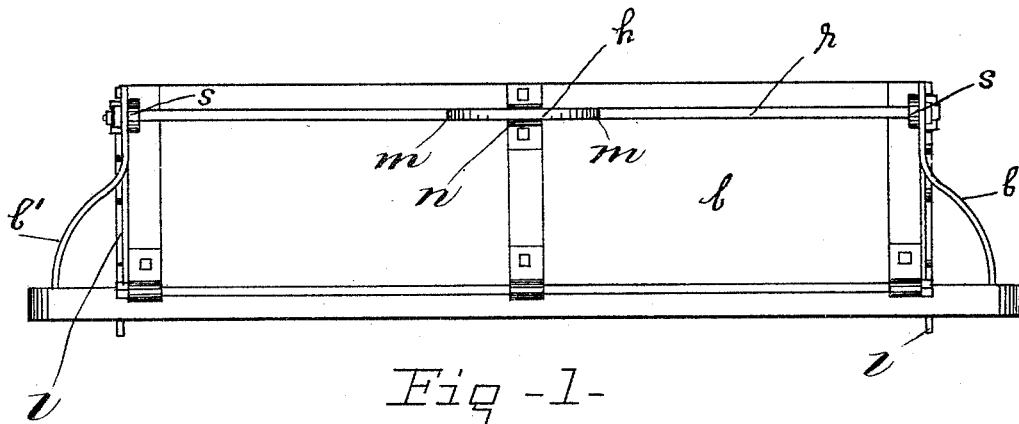


Fig - 1-

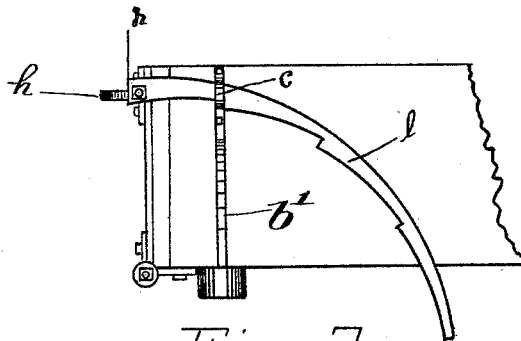


Fig - 2-

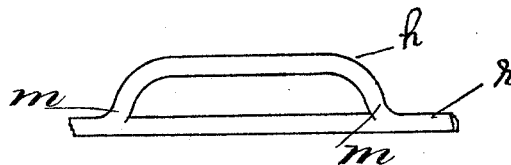


Fig - 3 -

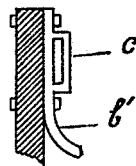


Fig - 4-

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END-GATE.

SPECIFICATION forming part of Letters Patent No. 491,617, dated February 14, 1893.

Application filed November 24, 1891. Serial No. 412,969. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM K. WAGNER, a citizen of the United States, residing at Youngstown, in the county of Mahoning and State of Ohio, have invented certain new and useful Improvements in Wagon-Bed End-Gate Fasteners; and I do hereby declare the following to be a full, clear, and exact description of my invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to fasteners for wagon bed end gates of that class in which the end board is hinged to the cross-bar of the bed bottom for vertical swing, and its object is a means whereby the gate can be more conveniently operated than by existing devices, and that automatically locks the gate in closed and other positions, in one of which it is a rigid platform of great utility in loading and unloading the wagon. I accomplish this object by the mechanism hereinafter described, and illustrated in the drawings, in which

Figure 1 is a view of the rear end of a wagon bed, exhibiting my fastener as the same is seen in that view; Fig. 2 is a side elevational view of a section of the same, showing the parts of my mechanism that appear upon the sides of the wagon, each side being similarly equipped; Fig. 3 is a side view of a section from the longitudinally central part of the latch rod *r*, showing the handle *h*; and Fig. 4 is an edge view of the upper part of the side brace *b'*, carrying the latch-catch *c*, and attached to a vertical section of the side board of the wagon bed.

The latch-rod *r*, provided with the handle *h* the ratchet-latch *l*, and the catch *c*, combined with any wagon bed end gate that is hinged for vertical swing, both sides of the wagon bed being similarly equipped, form my invention, which I will now describe. The latch-rod *r* extends longitudinally along the rear, or outer side, of the end board *b*, from end to end, and a little higher than its breadth center, having bearings in the staples *s s*, and midway between the ends is provided with the handle *h*, by which the gate is opened, and which may be a simple curvature of the rod, or a curved handle attached to the rod, as

shown in the drawings. At the ends the rod *r*, which project beyond the ends of the gate board *b* just far enough to freely permit the same, are rigidly and similarly attached the ratchet-latches *l l*, so that they are held at right angles with said rod *r* and along the side, pointing rearward, of the wagon bed and concave thereto as shown at Fig. 2 of the drawings. The ratchet-latch *l* is a flat piece of iron or steel, of suitable breadth and thickness, curved, preferably to represent in form a quarter circle segment coincident with that described in the movement of the end gate board *b* in its quarter circular swing from a closed position to the position in which its upper surface is on a plane with the bottom of the wagon bed and having cut in its lower edge ratchet preferably three equidistant teeth, which from the foot of one to the crown of the next is an incline. The teeth are so located that the rear one, when engaged by the latch-catch *c*, holds the gate closed, the second one holds it partially open, and the third forms of it a rigid platform on the plane of the wagon bed bottom. It will be seen that a larger number of teeth than three is not only unnecessary but disadvantageous in the use of the end gate, as in movement each tooth will catch if not maintained in a raised position until the end gate reaches the position desired.

Upon each side of the wagon bed near the upper edges of the side boards, and as near to their rear ends as practicable are placed the similar latch-catches *c c*, which are suitably sized, rectangular openings in lugs or ears that appear on the outer side of the upper part of the side braces *b, b'* as shown in the drawings, or, if preferred, they may be formed by rectangular staples driven into, or otherwise attached to the side boards. The ratchet-latches *l l* pass through the openings in the latch-catches *c c*, the space being sufficient to permit the lift of the latch high enough for the escape of the teeth, which lift is effected by downward pressure upon the handle *h*. The handle *h* abandoned and the end gate by the gravity of the ratchet latches *l l*, will be caught and held by the ratchet tooth next forward of the one last engaged, so that the automatic action stated is secured.

I am aware that end gate fasteners have been constructed employing curved ratchet latches

upon both sides of the wagon bed that have
common axis in a rod which passes from side
to side of the wagon bed, or box, in rear of the
end gate and which latches are provided with
5 teeth to engage in catches that appear upon
the wagon braces, or upon the side of the
wagon bed, but I am not aware that any such
end gate fasteners are provided with a con-
venient means of operating the same as is
10 supplied by the handle *h* appearing upon the
rod *r*, which is an important matter in wagon
end gates as a considerable saving of time and
labor is thereby secured, and which is the
novel feature of my invention combined with
15 the other parts of the fastener formed and co-
operating as described.

In order to steady the rods *r* at the center
thereof, where the handle *h* is located, and
also to prevent it from being bent and thus
20 rendering the device inoperative, I have pro-
vided the end gate with a clip or staple *n* mid-
way of its rear face, said clip embracing the
latch rod *r* between the ends *m, m*, of the han-
dle *h*, thereof, and forming a central bearing

therefor, the advantages whereof will be read- 25
ily perceived.

What I claim is

The combination with a wagon bed having
a catch secured thereto at each side and an
end gate hinged to the rear end, of a latch rod 30
secured to the end gate, each end of which is
provided with a toothed latch which passes
through the latch upon its respective side, and
is provided with teeth upon its under edge,
which engage with the catch, holding the end 35
gate in the desired position, said rod being
provided at its central portion with a clip
forming a handle for rotating the rod and op-
erating the latches, and a central bearing for
the rod intermediate the ends of the clip, sub- 40
stantially as set forth.

In testimony whereof I hereunto affix my
signature in the presence of two witnesses.

WILLIAM K. WAGNER.

Witnesses:

L. D. WOODWORTH,
J. J. SHEETS.