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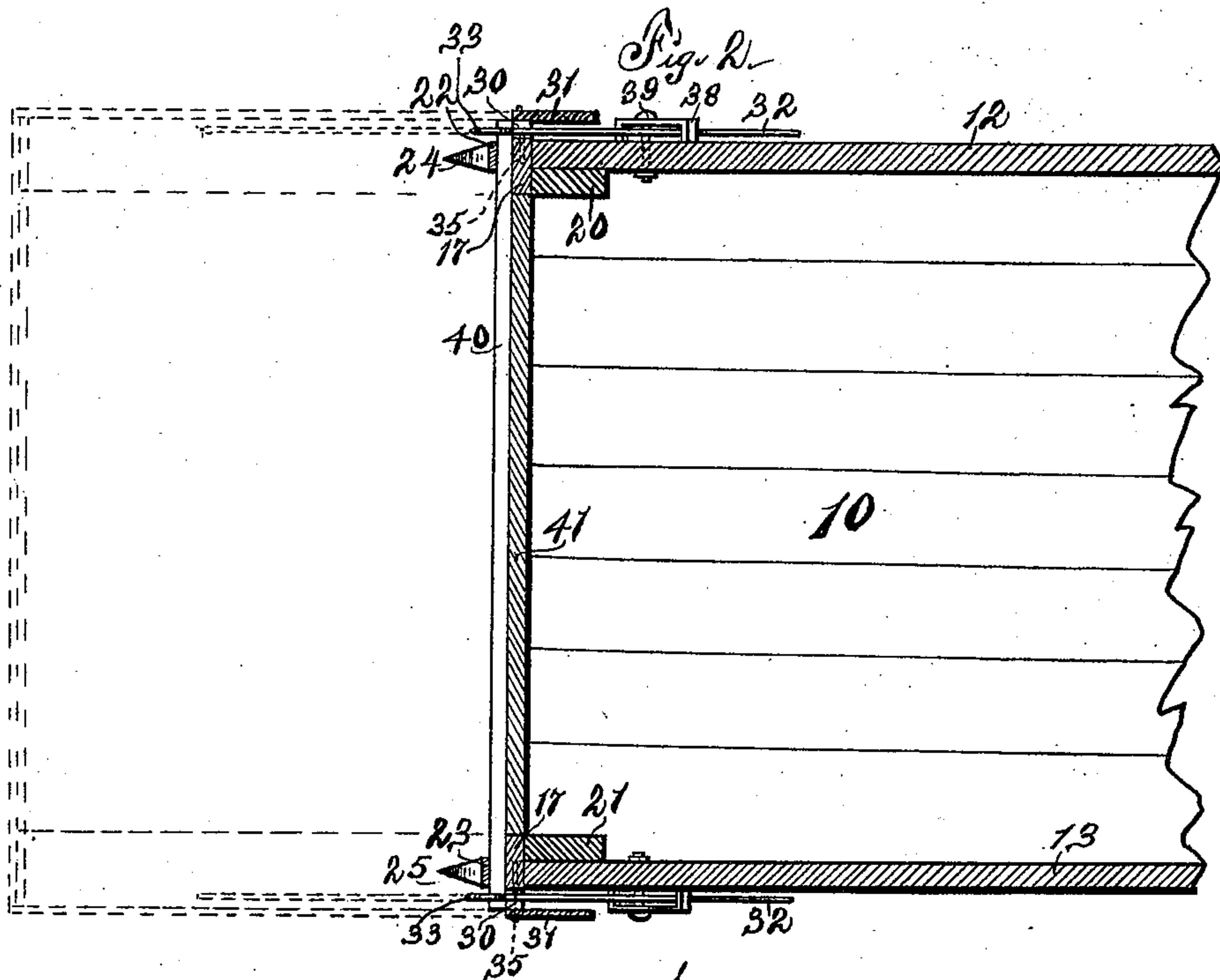
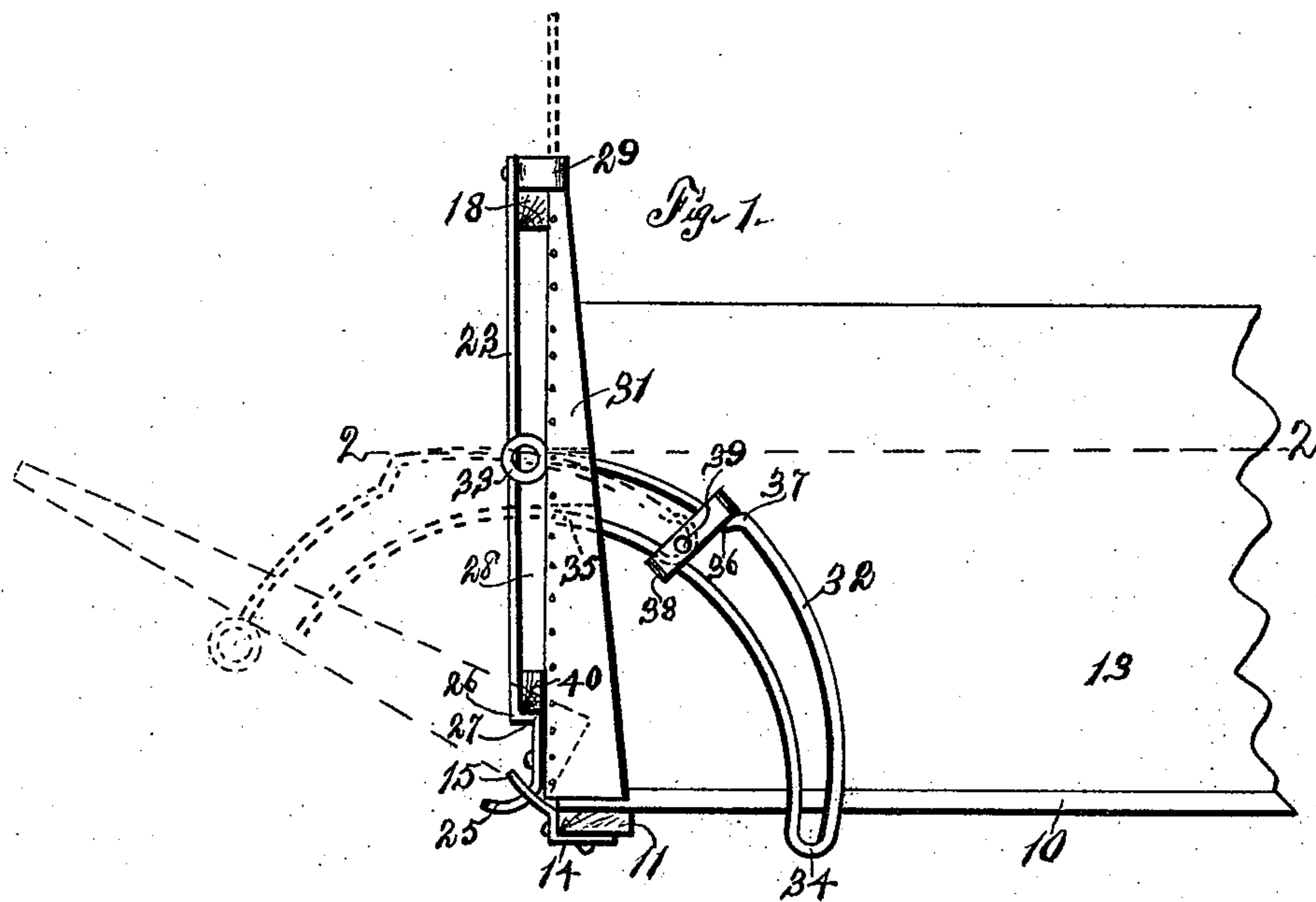
2 Sheets—Sheet 1.

S. KERR & R. S. MOORE.

COMBINED END GATE AND SCOOP BOARD FOR WAGONS.

No. 539,060.

Patented May 14, 1895.



Witnesses:

S. C. Sweet

W. J. Tankey

Inventors Scott Kerr and Robert S. Moore,
By Thomas G. Orr and J. Ralph Orrig,
Attorneys.

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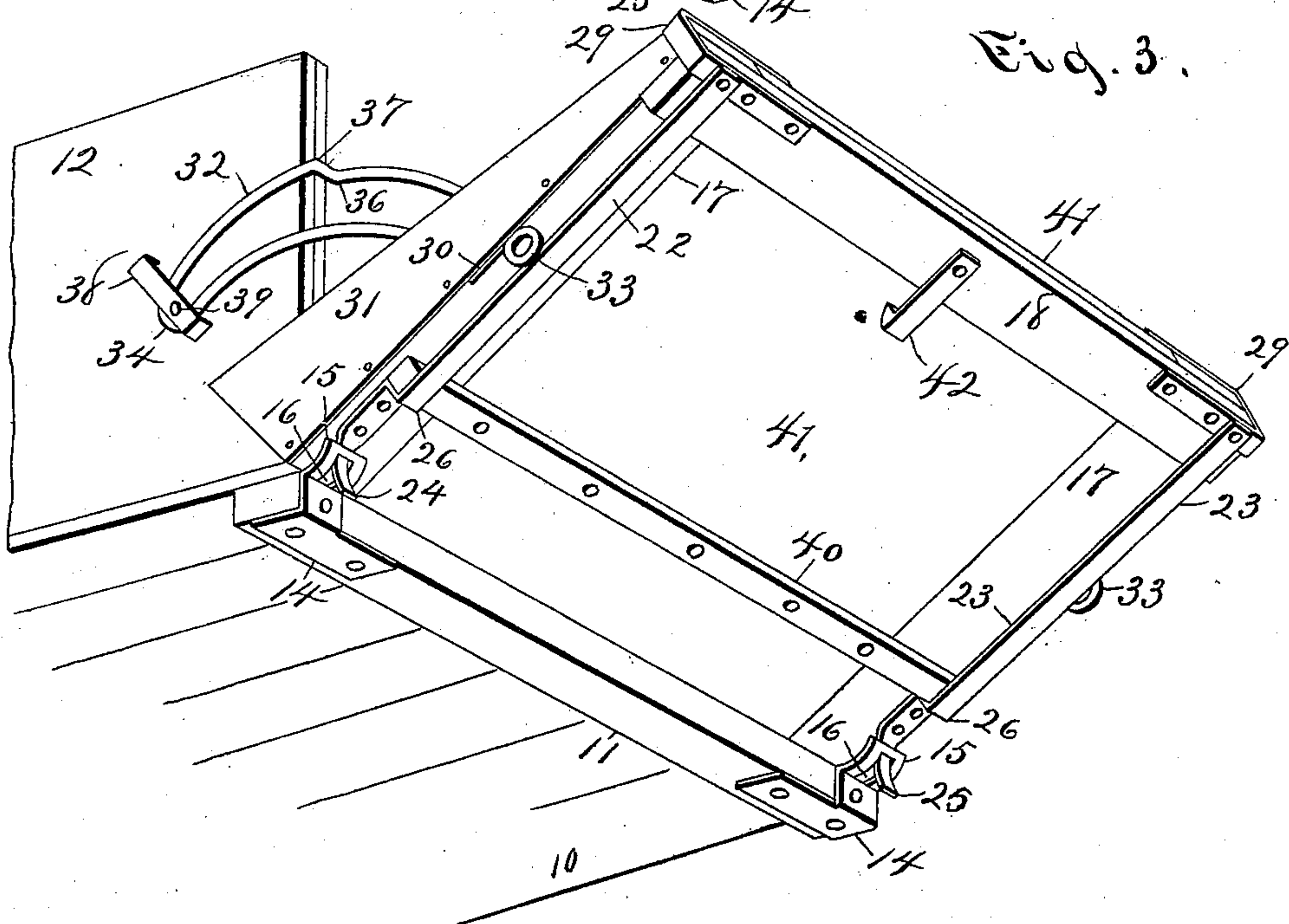
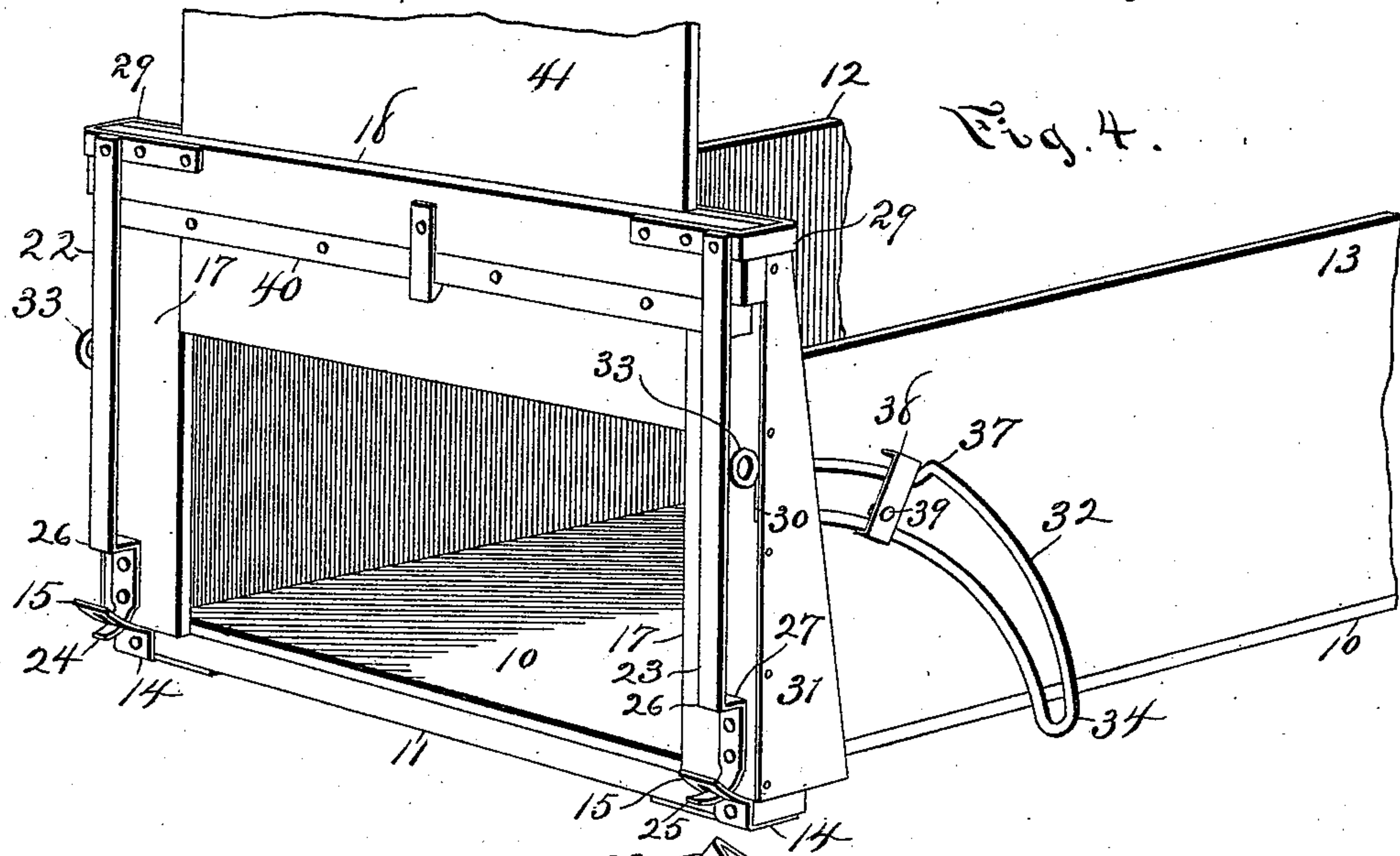
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UNITED STATES PATENT OFFICE.

SCOTT KERR AND ROBERT S. MOORE, OF WASHINGTON, IOWA.

COMBINED END-GATE AND SCOOP-BOARD FOR WAGONS.

SPECIFICATION forming part of Letters Patent No. 539,060, dated May 14, 1895.

Application filed March 12, 1895. Serial No. 541,397. (No model.)

To all whom it may concern:

Be it known that we, SCOTT KERR and ROBERT S. MOORE, citizens of the United States of America, residing at Washington, in the county of Washington, State of Iowa, have invented a Combined End-Gate, Scoop-Board, and Dump for Wagons, of which the following is a specification.

The object of our invention is to provide improved means for retaining the contents of a wagon box and dumping the same when desired; and also to provide for convenience in removing said contents by scooping.

Our invention consists in the combination with a wagon box of an end gate hinged to said wagon box, which end gate comprises a frame, a scoop board mounted for vertical reciprocation in said frame, and means for securing said frame parallel with or at an angle to said wagon box as desired.

Our invention consists further in the combination with a wagon box of an end gate frame mounted for oscillation on said box, means for limiting the oscillation of said frame relative to said box, and an end gate or scoop board mounted for reciprocation in said frame.

Our invention consists further in the construction, arrangement and combination of elements, hereinafter set forth, pointed out in our claims, and illustrated by the accompanying drawings, in which—

Figure 1 is a side elevation of the complete device attached to a portion of a wagon-box, the dotted lines indicating the reciprocation of the board therein. Fig. 2 is a sectional plan on the indicated line 2 2 of Fig. 1. Fig. 3 is a perspective of the complete device in position to be employed as a scoop-board. Fig. 4 is a perspective of the complete device in position to dump the contents of the wagon-box.

In the construction of the device as shown, the numeral 10 designates the bottom of a wagon box, transversely of the rear end of which is mounted a cross bar 11; and side boards 12, 13, are fixed to the said bottom in a common manner.

Angle plates 14, 14, preferably made of metal, are fixed to the end portions of the cross bar 11 and to the corners of the bottom 10, which angle plates are provided with in-

tegral curved projections 15, 15, extending rearwardly and upwardly therefrom and formed with apertures 16, 16, approximately 55 in vertical planes.

An end gate frame is provided, which comprises bars 17, 17, designed for vertical positioning, when the box is closed, in engagement with the rear ends of the side boards 12, 13, and a horizontal head piece 18, fixed to and connecting the upper ends of said bars. The side bars 17, 17, are of greater width than the thickness of the side boards 12, 13, and are positioned with the adjacent edges flush with the inner surfaces of cleats 20, 21, vertically positioned on the inner faces of the said side boards.

Angle bars 22, 23, preferably made of metal, are mounted on the rear faces of the bars 17, 17, the lower ends of which bars 22, 23, are formed as hooks 24, 25, engaging in the apertures 16, 16, in the projections 15, 15. The upper ends of the angle bars 22, 23, are fixed to the rear faces of the head piece 18 near the ends of said head piece, and said bars are bent at 26, 27, near their lower ends, thus forming slots 28 between the said bars and the bars 17, 17. Metallic corner plates 29, 29, are mounted on and connect the upper ends of the bars 17, 17, and the ends of the head piece 18. Notches 30, 30, are formed in the outer edges of the bars 17, 17, of the frame and plates 31, 31, are fixed to the outer edges of said bars covering said notches and embracing the side boards 12, 13.

Locking bars 32, 32, are provided, which bars are preferably made of round bar metal having an eye 33 on one end. The locking bars are each looped at 34 and extend through the notches 30, 30, the ends 35 of the bar opposite to the eyes 33 being bent at right angles and seated in the bars 17, 17. The locking bars 32, 32, are formed with bends 36, 37, and clips, 38, 38, are fixed to the side boards 12, 13, at a distance from the rear ends thereof corresponding with the distance between the bends 36, 37, and the ends 35. The clips are secured by bolts 39, 39, and the locking bars embrace the said bolts.

A bar 40 is mounted transversely of the end gate frame, and the ends of said bar are confined in the slots 28, 28, by the angle bars 22, 23.

An end gate, or scoop board, 41, is mounted

on the bar 40, between the bars 17, 17, which is of such height as to extend the full length of said bars 17, 17, and overlap the rear end of the bottom 10 of the wagon box. The upper end of the board 41 is confined, by the overlapping ends of the corner plates 29, 29, in engagement with the head piece 18.

A spring latch 42, is fixed to the head piece 18, and engages the bar 40, when the board 41 is elevated.

In practical use the end gate frame is hinged, by the engagement of the hooks 24, 25, with the projections 15, 15, of the angle plates 14, 14, and is held normally in contact with the ends of the wagon box by the engagement of the bends 36, 37, of the locking bars with the upper end portions of the clips 38, 38.

When it is desired to employ the device as a scoop board manual force is applied to the eyes 33 to depress the upper portions of the locking bars and release the bends 36, 37, thereof from the clips 38, 38, at which time the device is positioned, as shown in Figs. 1 and 3, the closed or looped portions of the locking bars engaging the bolts 39, 39, and supporting the same.

When it is desired to dump the contents of the wagon box the end board 41 and cross bar 40 are elevated manually and retained elevated by the engagement with the said bar of the spring latch 42, as shown in Fig. 4.

What we claim is—

1. In a wagon end gate the combination of a frame comprising side bars 17, 17, and a head piece 18, angle bars 22, 23, mounted on the said bars and head pieces, hinge connections between said angle bars and the wagon box,

a cross bar 40, mounted between the angle bars and said side bars, an end board fixed to said cross bar, a spring latch fixed to said head piece and so shaped as to engage the said cross bar, clips on the wagon box, and locking bars of looped form fixed to the side bars 17, 17 and traversing said clips, which locking bars are provided with bends 36, 37, to engage said clips as set forth.

2. In a wagon end gate the combination of a frame, a wagon box, a pair of clips mounted on said wagon box and secured by bolts, looped locking bars traversing said clips and provided with bends 36, 37, intermediate of the ends thereof so shaped as to engage the same in two positions, and eyes formed on the ends of said locking bars for manual engagement and connections between said locking bars and the said frame, as set forth.

3. A wagon end gate comprising a frame, hinges on the lower end of said frame, a board mounted for reciprocation in said frame, a pair of side plates on said frame inclosing notches formed therein, locking bars of looped form traversing said notches, one portion of each locking bar being fixed to the frame, the other portion of each bar having an eye thereon and bends 36, 37, between said eye and the looped portion, and clips on the wagon box to engage said locking bars, as set forth.

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