

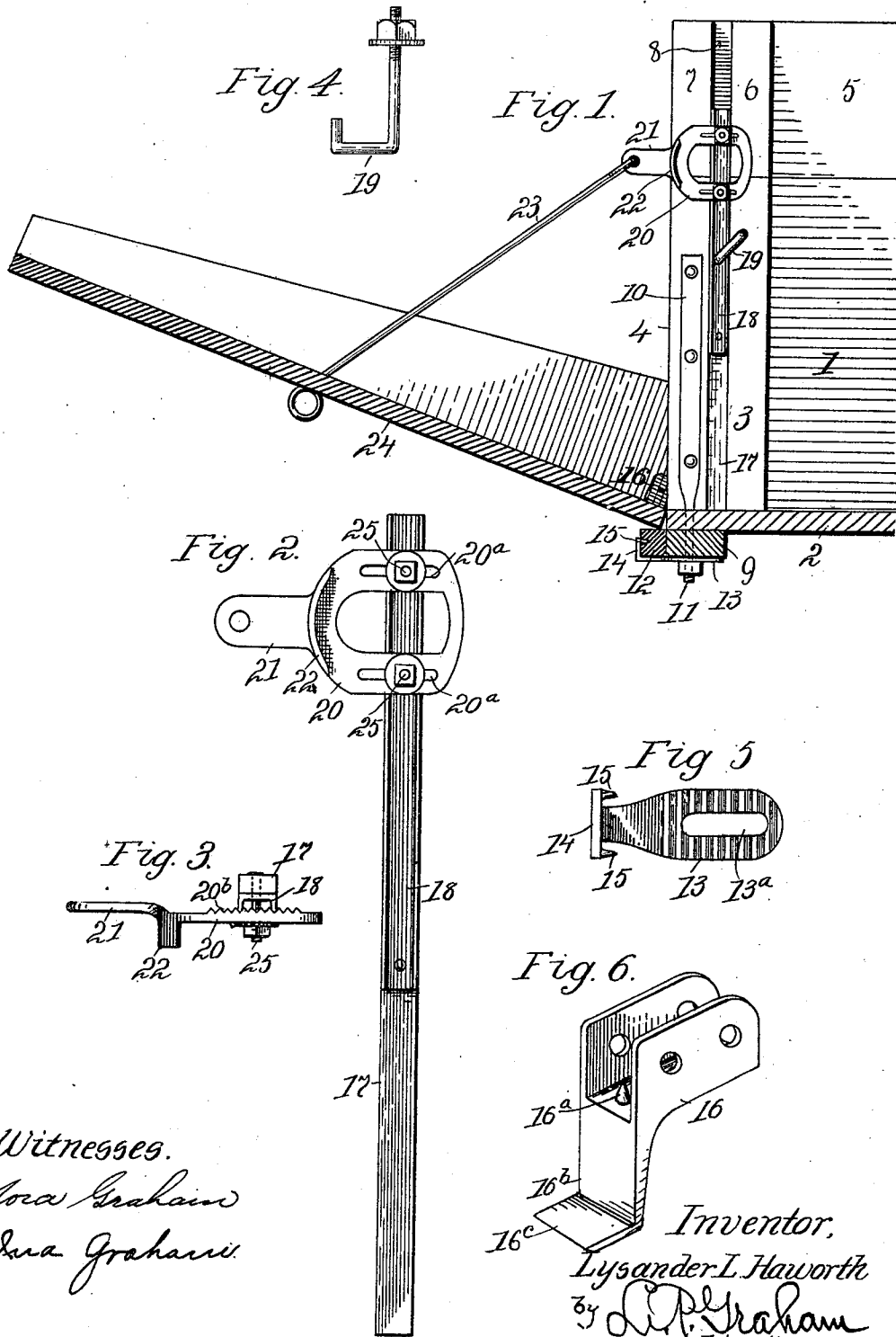
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Patented Aug. 27, 1901.

L. L. HAWORTH.
SCOOP BOARD FOR WAGON BEDS.

(Application filed June 8, 1901.)

(No Model.)



Witnesses.
Nora Graham
Sara Graham

Inventor,
Lysander L. Haworth
by *L. P. Graham*
his attorney

UNITED STATES PATENT OFFICE.

LYSANDER L. HAWORTH, OF DECATUR, ILLINOIS.

SCOOP-BOARD FOR WAGON-BEDS.

SPECIFICATION forming part of Letters Patent No. 681,480, dated August 27, 1901.

Application filed June 3, 1901. Serial No. 62,823. (No model.)

To all whom it may concern:

Be it known that I, LYSANDER L. HAWORTH, of the city of Decatur, county of Macon, and State of Illinois, have invented certain new and useful Improvements in Scoop-Boards for Wagon-Beds, of which the following is a specification.

This invention has for its principal object to provide means for easily and speedily attaching scoop-boards to wagon-beds. It is exemplified in the structure hereinafter described, and it is defined in the appended claims.

In the drawings forming part of this specification, Figure 1 is a vertical section through the rear end of a wagon-bed and through a scoop-board attached thereto. Fig. 2 is an elevation of one of the brackets and the adjuncts thereof used to sustain the swinging end of the scoop-board. Fig. 3 is a plan of the bracket and accessories shown in Fig. 2. Fig. 4 is a detail of one of the bent bolts used to hold the brackets in position in the wagon-bed. Fig. 5 is a plan detail of one of a pair of castings used to connect a cleat with the wagon-bed. Fig. 6 is a detail of a clip attachable to the sides of the scoop-board for a purpose to be hereinafter explained.

A side of a wagon-bed is shown at 1, and at 2 is shown the bottom of the bed. Cleats 3 and 4 are attached to the inner surface of the rear end of the side of the bed in vertical positions and are separated sufficiently far to form a groove for the end-gate ordinarily used in the bed. A cleat 9 extends across the rear end of the bed underneath the same, and straps 10 are attached to the sides of the bed, are rounded and threaded at their lower ends, as shown at 11, and are extended through the cleat 9 and provided with nuts on their protruding ends. This describes the customary construction of the rear ends of the wagon-beds, and it is usual to provide such beds with additional or supplementary side-boards, as 5, which have vertical cleats, as 6 and 7, that coincide with cleats 3 and 4 of the bed proper.

There is nothing unusual about the wagon-bed and there is nothing novel about the

scoop-board 24 shown in the drawings. On the contrary, it is the purpose of my invention to enable scoop-boards as at present constructed to be readily applied to wagon-beds as commonly made without special fitting and without cutting or boring the bed. The space 8 between the cleats on the inside of the bed is always present. The straps always extend through the bottom cleat 9 and have nuts on their protruding ends, and a tie-rod always extends across the bed alongside the ordinary end-gate and holds the sides from separating. It is a part of my conception to avail myself of these permanent characteristics of wagon-bed structure and utilize them in attaching the scoop-boards to the beds. The difficulties encountered in carrying out my plan are largely dependent on the fact that while the leading characteristics of wagon-bed structure are practically invariable the proportion and form of the different elements vary to an extent to demand peculiar adaptability in the scoop-board attachments.

In constructing the brackets that sustain the swinging end of the scoop-board I provide a channel-iron bar, as 18, of a width to fit in the space 8 between cleats 3 and 4 and 6 and 7. This bar may be deep enough to fill the space 8 and project slightly beyond the same, and it may be long enough to rest on the bottom of the bed and rise above the bed proper; but I prefer to use a wooden backing-strip 17 to sustain a comparatively short and thin channel-iron bar and hold such bar with its edges projecting beyond the cleats 3 and 4. The use of the wood strips tends toward lightness and cheapness, but does not affect the principle of the invention. To hold the channel-iron bar in its groove and prevent it from rising therein, I use a bent bolt 19, which I extend from the inside of the bed outward through the hole made in the bed for the end-gate tie-rod. The head end of the bolt is turned at right angles with its body and then returned parallel with the body for a short distance. The sideways extension of the bolt is longer than the distance from the tie-rod hole across space 8, and

the short returned end is longer than the depth of the channel-iron. The bolt is set, as shown in Fig. 1, with the sidewise extension projected obliquely downward and the short extension resting in the channel of bar 18. When in this position, the inner end of the short extension of the bolt presses against the grooved surface of the channel-iron and holds it in a vertical position, while a side of the short arm bears against a side of the groove of the channel-iron, and the obliquity of the sidewise extension of the bolt constitutes a cam that resists upward movement of the channel-iron. A bracket 20 is made in the form of a flat plate cut away in its central part as a matter of economy, and such plate has on its inner surface a set of vertical corrugations 20^b, as seen only in Fig. 3. A pair of horizontal slots 20^a are formed in the sides of the bracket crosswise of the corrugations thereof, and bolts, as 25, extend through the channel-iron 18 and through the slots of the bracket. An arm 21 forms a diminished continuation of the plate and extends rearward therefrom, and a lateral extension 22 is formed on the inner surface of the plate at the conjunction of the arm therewith. In the extended end of the arm 21 is a hole, and in such hole is pivotally connected a rod 23, which is used to sustain the swinging end of the scoop-board 24. The scoop-board has a hole to receive rod 23, and this hole is large enough to permit the passage of arm 21 when the board is raised. The hole is circular, while the arm is flat, and when the board is raised the opening through the board alongside the arm is closed by the lateral extension 22.

In attaching the bracket to the bed the strip 17 is made long enough to raise the bracket to the proper height and the bracket is adjusted in or out on the channel-iron to conform to the width of cleats 4 and 7 and bring lateral extension 22 flush with the outer edges thereof. The bolt 19 is placed as shown and tightened, and the rod 23 is attached to the arm and to the scoop-board.

The customary permanent cleat 9 under the rear end of the wagon-bed does not extend beyond the rear end of the bed. It is desirable to have a support for the lower edge of the scoop-board, and a cleat, as 12, extending along the rear end of the bed, with its upper surface approximately flush with the lower surface of the bed-bottom, makes a very desirable support. To attach cleat 12 to the bed, I provide a pair of straps, as 13, having upturned ends 14, which are provided with inward-extending points 15. The upper surfaces of the straps are preferably corrugated, as shown in Fig. 5, and the slots, as 13^a, extend lengthwise of the straps. To attach cleat 12, the nuts and washers are removed from the threaded ends 11 of straps 10, the straps 13 are set onto the threaded ends 11, with the extensions 14 projecting up-

ward, and the nuts are partially retightened. Then the cleat 12 is laid onto the rearward-extending ends of straps 13, the points 15 are forced into the cleat, the cleat is pressed into close contact with the rear end of the bed, and the nuts are set up tight on the threaded extensions 11. When this is done, the cleat 12 forms a support for the lower end of the scoop-board, as shown in Fig. 1.

To hold the lower end of the scoop-board from swinging away from the bed, I make a pair of clips, as 16, which are adapted to fit over the lower edges of the sides of the scoop-board and provide the clips with downward-extending fingers, as 16^b. The clips have points, as 16^a, projecting upward from their bottom walls, so as to be driven into the sides of the scoop-board, and their side walls are made to embrace the sides of the board. When the ends of the permanent cleat 9 extend beyond the sides of the bed, the clips 16 may be set so that the stop-fingers 16^b will fit behind the cleat when the scoop-board is raised. When the permanent cleat is flush with the sides of the bed, the attached cleat may be made to extend beyond the bed and the clips may be set to engage the attached clip, as shown in Fig. 1.

But one bracket 20 is shown in the drawings; but two are to be used, one on each side of the bed.

I claim—

1. A fastening to connect scoop-boards with wagon-beds, comprising a channel-iron adapted to fit in the end-gate groove of the bed, a bracket having corrugations conforming to the ribs of the channel-iron, means for adjusting the bracket crosswise of the channel-iron and an arm on the bracket forming a bearing for a board-supporting rod.

2. A fastening to connect scoop-boards with wagon-beds, comprising a bar adapted to fit in the end-gate groove of the bed, an arm extending downward and sidewise against a side of the bar, means for tightening the arm against the bar, and a bracket on the bar to sustain the scoop-board.

3. A fastening to connect scoop-boards with wagon-beds, comprising a channel-iron bar adapted to fit in the end-gate groove of the bed, a bolt set through the bed and having a cam extension adapted to bear downward and sidewise against a wall of the channel-iron, and a bracket on the channel-iron to sustain the scoop-board.

4. The combination with a wagon-bed and with a scoop-board therefor, of bolts extending from the sides of the bed through the bottom thereof, supports held by the bolts underneath the bed and extended rearward beyond the bed, and a cross-cleat held by the supports in the rear of the bottom of the bed, substantially as described.

5. The combination with a scoop-board and with a cross-cleat projecting beyond the sides of the bed, of clips attachable to the sides of

the scoop-board and having stop-fingers to engage the cleat, substantially as described.

6. The combination with a scoop-board and with a cross-cleat projecting beyond the sides
5 of the bed, of extensions on the sides of the scoop-board adapted to engage the extended ends of the cleat.

In testimony whereof I sign my name in the presence of two subscribing witnesses.

LYSANDER L. HAWORTH.

Witnesses:

CLARENCE A. PATTISON,
THEO. B. PATTISON.