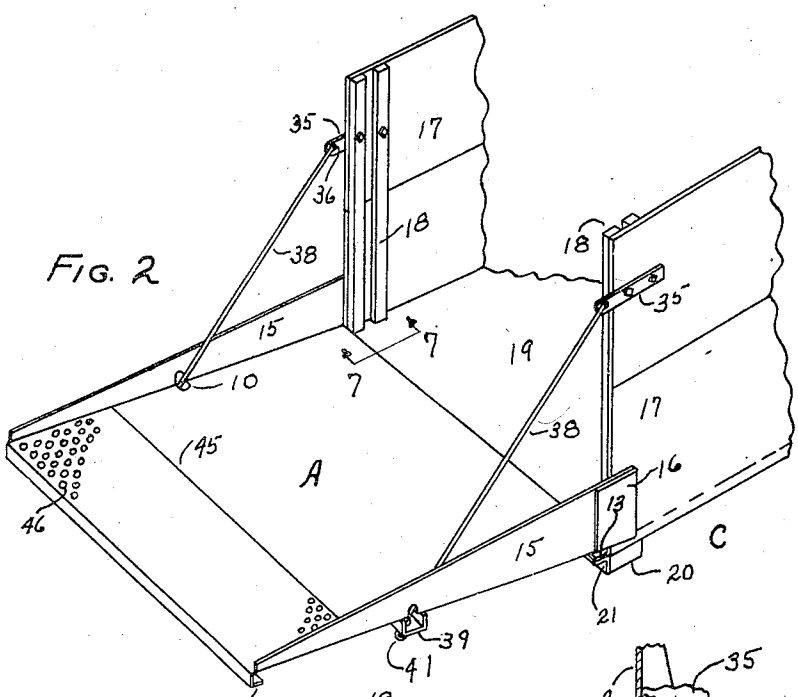
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SCOOP BOARD FOR VEHICLE BOXES

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FIG. 2



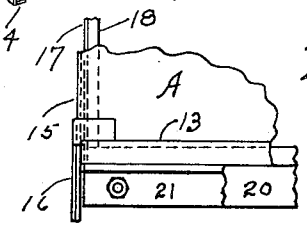


FIG. 8

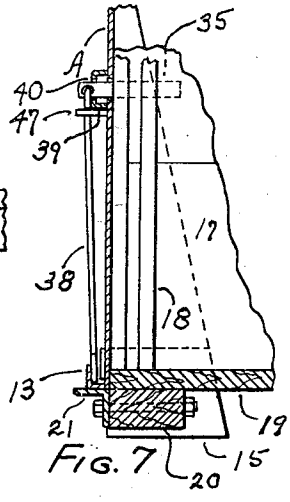


FIG. 7

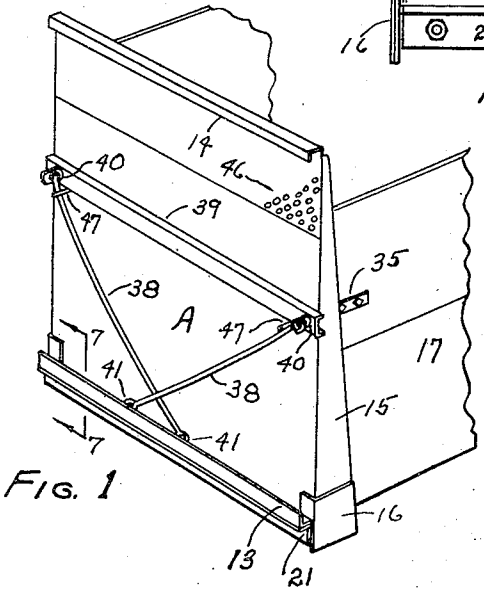


FIG. 1

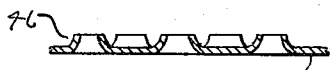


FIG. 9

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SCOOP BOARD FOR VEHICLE BOXES

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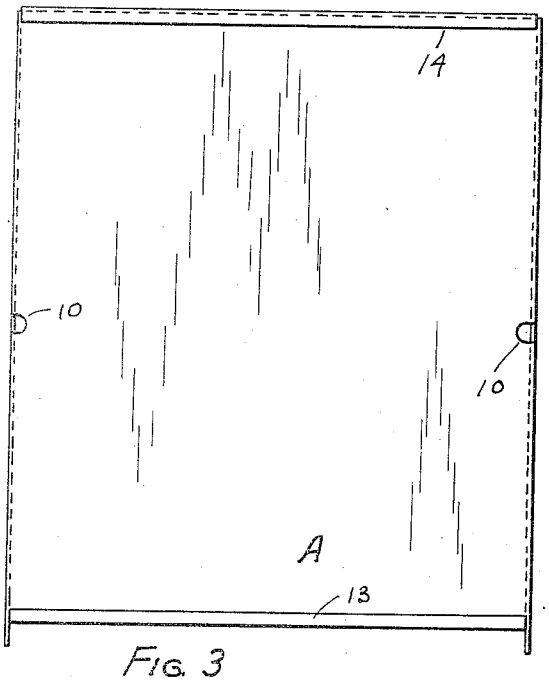


FIG. 3

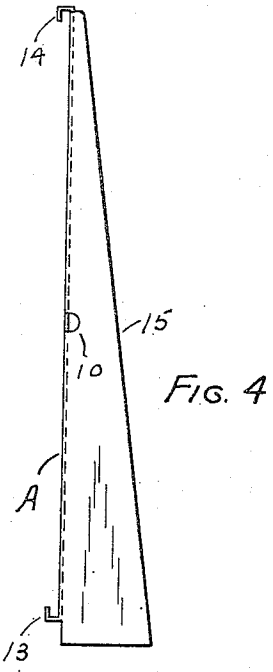


FIG. 4

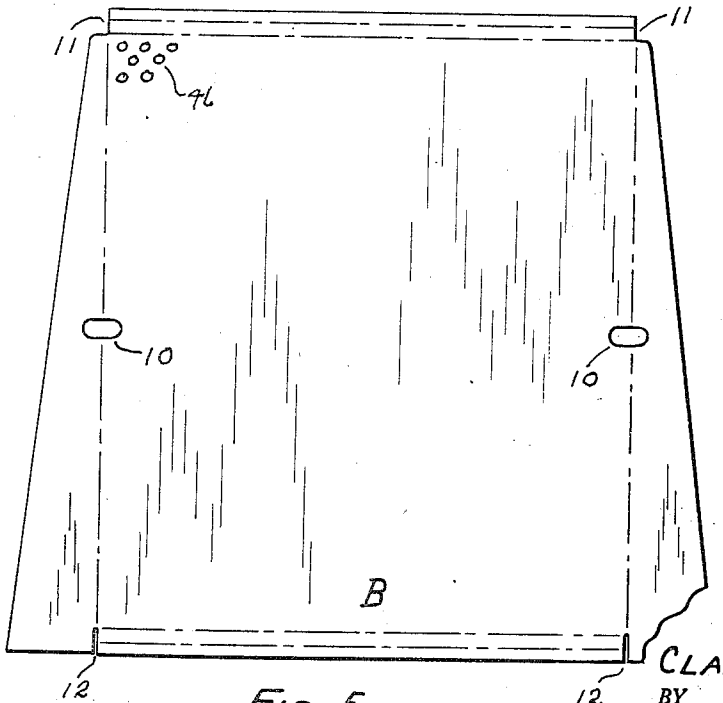


FIG. 5

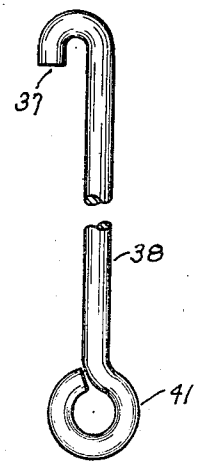


FIG. 6

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UNITED STATES PATENT OFFICE

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SCOOP BOARD FOR VEHICLE BOXES

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Application December 11, 1944, Serial No. 567,730

2 Claims. (Cl. 296—60)

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The present invention relates to what is commonly called scoop boards for the rear end of wagon or truck boxes and the like, the board having means whereby the operator may stand on its rear end for the initial operation of emptying the wagon box.

The principal objects of the present invention are to provide a scoop board, the major frame of which can be formed from a single piece of sheet metal with practically no wastage and so that the ordinary bracings and the like are not necessary.

An important object of the present invention is to hinge-like mount the board at the rear end of the wagon box and to supply rods, for holding the board in a locked or closed position, which also will act as braces for holding the board in its unloading position and without the use of tools, bolts or other means.

A further object of the present invention is to bend the upper and lower ends of the board into channels and bend the sides of the board so as to form stiffening flanges which will embrace the sides of the wagon box, whereby a single cross member only is necessary for cooperation with the rods for the purpose aforesaid.

A still further object of the present invention is to form a non-skid surface on the rear end of the board for about one third the length of the board to thereby form a safe standing surface for the operator.

To these and other useful ends my invention consists of parts, combinations of parts or their equivalents as hereinafter described and claimed and shown in the accompanying drawings in which:

Fig. 1 is an isometric view of my invention in its upward or closed position, a fraction only of the wagon box being shown.

Fig. 2 is an isometric view similar to Figure 1 with the scoop board in its down or unloading position.

Fig. 3 is a rear view of the board per se.

Fig. 4 is an end view of the board as shown in Figure 3.

Fig. 5 is a view of the board after being fabricated but before being formed.

Fig. 6 illustrates a fraction of one of the brace bars.

Fig. 7 is an enlarged fractional view of the rear end of a wagon box, and illustrating a fraction of the board in its closed position and its support which cooperates with the end of the box so the board can be raised and lowered hinge-like.

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Fig. 8 is a fractional rear view with the board in position as shown in Figure 7.

Fig. 9 is a fractional section of the board taken through three of the non-skid projections.

As thus illustrated the board after being formed is designated by reference character A. The fabricated sheet from which member A is formed and while in a flat state, is designated by reference character B and the wagon box and its entirety is designated by reference character C. Member B is provided with openings 10—10 and cut away corners 11—11 and slits 12—12. After member B is thus fabricated U-shaped channels 13 are formed (see Figures 3 and 4). U-shaped inverted channels 14 are also formed between cut away portions 11, and side flanges 15 are formed as shown (see Figures 2 and 4). These flanges are reinforced at their lower ends as at 16 (see Figures 1 and 2). Flanges 15 are spaced apart as shown in Figures 1 and 2 and are close to the outer surfaces of the side panels 17 of the wagon box. Side panels 17 are provided with spaced strips 18 for the reception of the usual slidably inserted end-gates. Thus member C may be a standard wagon box, the regular end gate not being shown. The floor of the wagon box is designated by numeral 19. On the rear bottom side of member 19 I provide a sill 20.

On the rear side of member 20 I secure an angle iron 21 the top of this iron being about the same distance from the top of member 19 as the width of channel 13 so when the board is in an unloading position as shown in Figure 2 the top of the board will be about on the same plane as the top of member 19 (see Figure 2).

Thus it will be seen that member 21 and the rear end of the box will act as a support for the board when open or closed and form a seat so the board may be moved as a lid, hinge like.

I provide means for holding member A in its closed and opened positions as follows: straps 35 are secured to members 17, about as shown in Figures 1 and 2, so when member A is closed the rear ends of these straps will protrude loosely through openings 10. The straps have openings as at 36 into which the upper ends 37 of links 38 are booked for a free swinging movement.

A channel 39 having openings 40 through which straps 35 freely extend, is secured to member A as shown in Figure 1, openings 10 and 40 register and are large enough so when rods 38 are free, member A may be moved to the position shown in Figure 2. Members 38 are provided with loops 41 which are too large to pass through openings 40, rods 38 being of the proper length so member A

may rest on loops 41 when the board is in its unloading position as shown in Figure 2.

It will be seen that member A will have a firm support at its front end and will be firmly held in the position shown in Figure 2 so the operator may stand on the rear end of member A and begin the operation of unloading the wagon box. Members 13, 14, 15 and 39 clearly will stiffen the board and make it suitable for holding any required weight or pressure when closed or open.

In order to make it possible for the operator to safely stand on member A while unloading, I provide non-skid means at the rear of the board for a width preferably defined by its rear end and a point as at 45 as follows: closely spaced openings are punched in the board preferably in staggered relation and projections as at 46 are formed concentric with the openings.

I secure member A in its closed position as follows: pins 47 are located so rods 38 which have spring characteristics cannot be positioned as shown in Figure 1 without being deflected considerably. Holes 40—40 in members 35 are positioned so when rods 38 are in the position shown in Figure 1, board A will be held snugly against the ends of the box; thus when they are deflected far enough, loops 41 may be permitted to yieldingly enter within the U-shaped member 13 as shown in Figure 1. Clearly members 41 cannot be accidentally disengaged, therefore member A cannot be moved without lifting loops 41 out of the U-shaped channel 13. One of the reasons why this device is safe and effective is because of the design as shown and that the strains against 37 are in the nature of a shearing strain so that very little forward pressure at the bottom of rods 38 will effectively hold member A into position against load pressure.

It will be seen that applicant's scoop board is light, strong, easily manufactured at low cost, and efficient.

Having thus shown and described my invention, I claim:

1. In combination with an open rear end vehicle box, a scoop board having forwardly extending flanges on the sides adapted to lie adjacent the outside of the side panels of the box, a support for the lower end of said board adjacent the rear lower corner of the box, said board on its bottom having formed thereon a rearwardly extending U-shaped trench adapted to lie on said rearwardly extending support and against the rear lower corner of the box when the board is open or closed, rods anchored to the side panels of the box a distance above said support and adapted to hold the scoop board in its upper or closed and opened or unloading position, the upper rear surface of said board for a distance from the rear end thereof having a multiplicity of closely spaced flanged openings forming a non-skid surface.

2. In combination with an open rear end vehicle box, a scoop board having forwardly and downwardly extending flanges on its sides, adapted to lie adjacent the outside of the side panels of the box when the board is open or closed, a rearwardly extending support for the lower end of said board and positioned a short distance below the floor of the box, said board on its bottom, having formed thereon, a rearwardly extending U-shaped trench, adapted to lie on said rearwardly extending support when the board is closed or open, and having a width about equal to the distance between the floor of the box and the top surface of the support, a transverse bar secured to the rear side of the board a distance from said support, openings in the ends of said bar and registering openings in said board, anchor members secured to the side panels of the box, adapted to extend through said openings when the board is closed, rods having spring characteristics hingedly connected to the protruding ends of said anchors, means on the free ends of said rods adapted to support the board when in its open position, projections on said board positioned to thereby limit the inward swing of the rods when the board is closed, said rods having a length whereby they may be deflected transversely inwardly and their lower ends dropped into said trench for holding the board snugly against the rear end of the box.

CLARENCE B. RICHEY.

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