

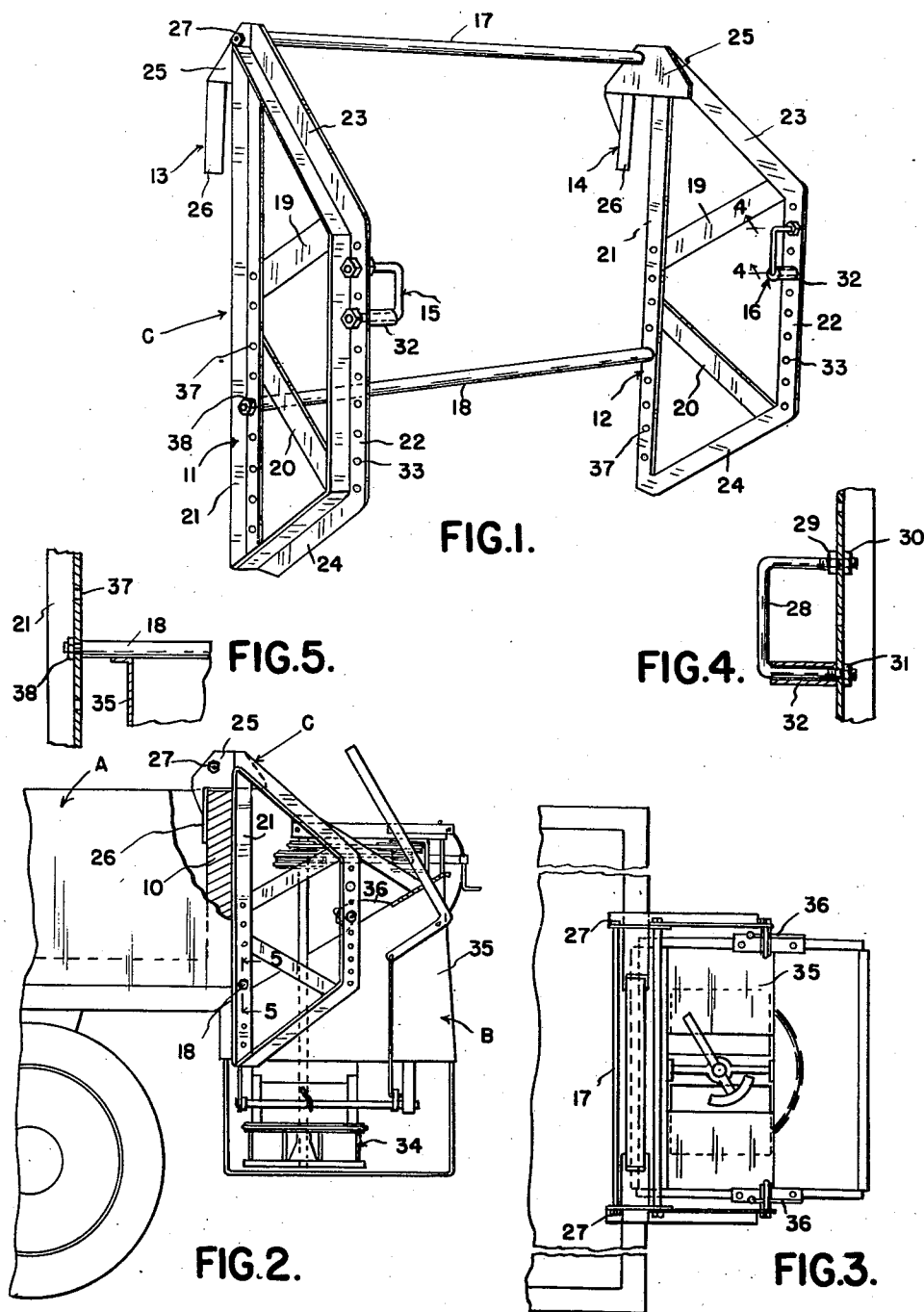
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MOUNTING FOR SAND SPREADERS

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MOUNTING FOR SAND SPREADERS

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This invention relates generally to mountings and refers more particularly to an improved means for mounting upon a supporting vehicle an apparatus having means for distributing material, such as sand, gravel, dirt, chloride, stone chips or other granular or loose material, over a predetermined surface such as the surface of a highway, road or street.

Usually apparatus of this type is carried at the rear end of a tiltable body of a dump truck and the material to be distributed is transferred to the hopper or receiver of the apparatus from the body of the truck when said body is tilted. Heretofore the apparatus was constructed and connected to the tiltable body in such a way that it would tilt also when the body was tilted unless it was adjusted by hand to a horizontal position. Thus, if the drive for the sand distributor or spreader of the apparatus was not cut off when the body was tilted, the sand was thrown upwardly at an angle and oftentimes when this occurred in traffic, bystanders were injured or property was damaged. Therefore, one of the important objects of the present invention is to provide a mounting that will enable an apparatus of the type mentioned to be carried at all times in a low, substantially horizontal or level position so that the road material may be distributed close to the ground without being thrown upwardly at an angle into traffic.

Another object is to provide a mounting that is sturdy in construction, economical to manufacture, and easy to apply to a supporting vehicle.

Another object is to provide a mounting that may be applied to high or low or large or small trucks as desired.

Another object is to provide a mounting wherein suitable portions, such as U-shaped brackets at opposite sides thereof, serve as a gravity hitch for the sanding apparatus and are preferably adjustable vertically to position the apparatus at the elevation desired relative to the ground.

Another object is to provide a mounting wherein a portion thereof, such as a spreader rod, is adjustable relative to the hopper of the sanding apparatus so that said rod will serve as an abutment for the hopper regardless of the elevation thereof relative to the ground and thereby will prevent the distributing wheel or spinner of the apparatus from striking against and being damaged by the drawbar or other part of the truck or supporting vehicle when, for example, the latter is stopped suddenly while traveling on a road.

Other objects, advantages and novel details

of construction of this invention will be made more apparent as this description proceeds, especially when considered in connection with the accompanying drawing, wherein:

5 Figure 1 is a perspective view of the mounting per se;

Figure 2 is a side elevation of the sanding apparatus, mounting and supporting truck, with parts of the latter broken away;

10 Figure 3 is a fragmentary top plan view of the structure shown in Figure 2 with parts broken away;

Figure 4 is a sectional view taken substantially on the line 4—4 of Figure 1;

15 Figure 5 is a sectional view taken substantially on the line 5—5 of Figure 2.

Referring now to the drawing, A is the body of a dump truck, B is a sanding apparatus, and C is a mounting embodying my invention for supporting the sanding apparatus upon the rear wall 10 of the truck body.

As shown, the mounting C comprises two laterally spaced upright frames 11 and 12, respectively, body engaging hooks 13 and 14, U-shaped gravity hitch brackets 15 and 16, respectively, and upper and lower spreader rods 17 and 18.

The frames 11 and 12 are alike and each is preferably formed from angle irons and has suitable diagonal braces 19 and 20, respectively. Such frames may be any shape desired but preferably each has a pair of substantially parallel uprights 21 and 22, the rear uprights 22 being shorter than the front uprights 21, and has inclined end bars 23 and 24 extending between and rigid with the uprights 21 and 22. If desired, the end bars 23 and 24 may be integral with the rear uprights 22 or may be formed separately and terminally secured thereto. Likewise, the front uprights 21 may be integral with or formed separately from and terminally secured to the end bars 23 and 24. The braces 19 and 20 may be any suitable construction and are rigid with the front uprights 21 and end bars 23 and 24.

The body engaging hooks 13 and 14 are inverted L-shaped members and are rigid with the frames 11 and 12 at their upper ends. Preferably the hooks have plate-like portions 25 disposed in surface-to-surface relation upon and welded or otherwise fixed to the inner sides of said frames and are provided in spaced substantially parallel relation to the adjacent front uprights 21 with depending arm portions 26. In this connection it will be noted that the plate-like portions 25 project forwardly beyond the uprights

21 and have aligned holes therein that receive the supporting ends of the upper spreader rod 17. Nuts 27 engage the supporting ends of said rod 17 upon the outer sides of the plates 25 and hold the parts together. Thus, the hooks 13 and 14 engage the upper edge of the rear wall 10 of the dump body and the upper spreader rod 17 is above and substantially in vertical alignment with said wall when the mounting is in place on the rear end of the truck.

The U-shaped gravity hitch brackets 15 and 16 are alike and each preferably consists of a U-bolt 28, nuts 29, 30 and 31, respectively, and a tubular sleeve 32 for the lower arm of the U-bolt. Preferably these brackets are carried by and adjustable vertically of the rear uprights 22 and project laterally inward therefrom. To permit the adjustment just mentioned, the rear uprights 22 have vertically spaced substantially horizontally aligned holes 33 therein for receiving the arms of the U-bolts 28. Thus, with this construction the brackets 15 and 16 may be raised or lowered depending upon the elevation desired for the distributor wheel or spinner 34 of the sanding apparatus relative to the ground. In this connection it is desirable to have the distributing wheel 34 of the apparatus as close as possible to the ground and to have such wheel as well as the hopper 35 in a constant position relative to the ground, hence the tubular sleeves 32 of the brackets serve as pivot bearings for suitable supporting hooks 36 of the sanding apparatus and thereby permit the apparatus to always assume by gravity a vertical position regardless of whether the body A of the dump truck is tilted or not. For example, it is customary to tilt the dump body A so sand or other loose road material may slide or fall from a suitable discharge opening (not shown) in the rear wall 10 of the body into the hopper 35 of the sanding apparatus. With my construction, the gravity hitch provided between the supporting hooks 36 of the sanding apparatus and the tubular sleeves 32 of the U-bolt brackets 15 and 16 is such that the sanding apparatus will remain upright in a true vertical position and thus will be unaffected when the body A of the dump truck is tilted as aforesaid.

The lower spreader rod 18 extends between the front uprights 21 of the frames 11 and 12 and is preferably adjustable vertically thereon so as to serve as an abutment or stop for the hopper 35 of the sanding apparatus and thereby prevent the distributing wheel or spinner 34 of the apparatus from striking against and being damaged by the drawbar (not shown) or other rearward projection of the dump truck when the latter is stopped suddenly while traveling on a road. Preferably the front uprights 21 have vertically spaced substantially horizontally aligned holes 37 therein for receiving the supporting ends of the lowermost spreader rod 18 to accomplish the adjustment just mentioned.

The upper and lower spreader rods 17 and 18 may be any suitable construction. For example, each may be one solid piece of metal having reduced threaded ends for insertion through suitable holes in the plates 25 and front uprights 21, respectively, and engageable by the nuts 27 and 33, respectively, or each may consist of a long bolt extending through the plates 25 and uprights 21, nuts thereon at the outer sides of said frames, and tubular sleeves upon the bolts between the frames.

In use, the mounting C may be supported upon the body A of the truck by simply slipping the hooks 13 and 14 over the upper edge of the rear wall 10 of said body. Likewise, the sanding apparatus B may be supported from the mounting by slipping the hooks 36 of said apparatus over the sleeves 32 on the lower arms of the U-bolts 28 after the latter have been adjusted vertically to the desired position on the rear uprights 22. The lower spreader bar 18 is, of course, adjusted vertically on the front uprights 21 in proportion to the adjustment of the brackets 15 and 16 on the rear uprights so as to be in position as an abutment for the hopper 35 when the sanding apparatus is placed upon the mounting as aforesaid. The construction and operation of the sanding apparatus other than that set forth above is outside the present invention relating to the mounting, therefore such features have been embodied in a separate application. Any loose material may be carried by the apparatus B supported by the mounting C upon the dump truck or other suitable vehicle.

What I claim as my invention is:

1. The combination with a vehicle having a tiltable body, of a support hooked upon a wall of said body, and an apparatus for handling loose material hanging freely on said support, a part of said support being an abutment to limit the swinging movement of said apparatus.
2. The combination with a dump truck having a tiltable body, of a support hooked upon a wall of said body and having vertically adjustable members, and a sanding apparatus mounted to swing upon two of said members and engageable with another of said members constituting an abutment or stop therefor.
3. The combination with a dump truck having a tiltable body, and an apparatus having a rotary element disposed in a horizontal position for distributing loose material over a road, of means for mounting the apparatus upon the tiltable body including a frame attachable to the truck body, and supporting means for said apparatus adjustable vertically of said frame to locate said rotary element close to the road, said supporting means permitting the rotary distributing element to remain in a horizontal position when the body aforesaid is tilted.
4. A mounting of the class described comprising a pair of laterally spaced upright frames, supporting hooks carried by said frames, one to each frame, gravity hitch brackets carried by said frames, one to each frame, and upper and lower spreader rods extending between and secured to said frames.
5. A mounting of the class described comprising a pair of laterally spaced upright frames, supporting hooks carried by said frames, one to each frame, vertically adjustable gravity hitch brackets carried by said frames, one to each frame, and upper and lower spreader rods extending between and secured to said frames, the lower rod being adjustable vertically on said frames relative to said gravity hitch brackets.
6. The combination with a vehicle having a tiltable body, of an apparatus adapted to receive loose material from said body and to spread the same over the ground, said apparatus being provided with supporting hooks, and a mounting for said apparatus comprising two laterally spaced upright frames attached to and projecting rearwardly from said body, gravity hitch brackets for said apparatus carried by said frames and forming fulcrums for the supporting hooks so that the

apparatus may remain in an operative position regardless of the tilted position of the vehicle body, and upper and lower spreader rods extending between said frames, one being an abutment for the apparatus to prevent it striking a part of the vehicle.

7. The combination with a dump truck having a tiltable body, of an attachment for said dump truck comprising a frame structure mounted upon and held against movement relative to the tiltable body, gravity hitch brackets carried by said frame structure, a sanding apparatus pivoted upon said brackets, and an abutment for said sanding apparatus carried by the frame structure between the sanding apparatus and dump truck.

8. A mounting of the class described comprising two laterally spaced upright frames, each having front and rear uprights, gravity hitch brackets mounted for vertical adjustment upon the rear uprights, and spreader rods extending between and secured to said frames, one being mounted for vertical adjustment upon the front uprights of said frames.

9. A mounting of the class described comprising two laterally spaced upright frames, each having front and rear uprights, hooks for attachment to a suitable support having plate-like members rigid with the front uprights, and gravity hitch brackets for swingingly supporting suitable apparatus mounted upon the rear uprights.

10. A mounting of the class described comprising two laterally spaced upright frames, each having front and rear uprights, hooks for attachment to a suitable support having plate-like members rigid with the front uprights, gravity hitch brackets for swingingly supporting suitable apparatus mounted upon the rear uprights, and spreader rods extending between and secured to said frames, one being terminally connected to said plate-like members.

11. A mounting of the class described comprising two laterally spaced upright frames, each having front and rear uprights, hooks for attachment to a suitable support having plate-like members rigid with the front uprights, gravity hitch brackets for swingingly supporting suitable apparatus mounted upon the rear uprights, and spreader rods extending between and secured to said frames, one being adjustable vertically upon the front uprights beneath said hooks so as to be an abutment for said apparatus swingingly mounted on the hitch brackets.

12. A mounting of the class described comprising two laterally spaced upright frames, each being provided with a hook for attachment to a suitable support, gravity hitch brackets for swingingly supporting suitable apparatus carried by said frames, and two vertically spaced spreader rods extending between and secured to said frames, one being in a position to serve as an

abutment for the apparatus swingingly supported from said gravity hitch brackets.

13. A mounting of the class described comprising two laterally spaced upright frames, each being provided with means for attachment to a suitable support, gravity hitch brackets for swingingly supporting suitable apparatus adjustable vertically upon said frames to position said apparatus at the elevation desired relative to the ground, and two vertically spaced spreader rods extending between and secured to said frames, one being adjustable vertically upon said frames so as to be in a position to serve as an abutment for the apparatus swingingly supported from said gravity hitch brackets.

14. A mounting of the class described comprising two laterally spaced upright elongated frames, each being provided with means for attachment to a suitable support, gravity hitch brackets for swingingly supporting suitable apparatus carried by said frames near one upright edge thereof, and two vertically spaced spreader rods extending between and secured to said frames near another upright edge thereof.

15. A mounting of the class described comprising two laterally spaced upright frames, each being provided with a hook for attachment to a suitable support, a portion of each hook being a plate-like member rigid with each frame, and two vertically spaced spreader rods extending between and secured to said frames, one being terminally secured to the plate-like members aforesaid.

16. A mounting of the class described comprising two substantially parallel upright substantially rectangular frames, each being provided at one upright edge thereof with means for attachment to a suitable support, a portion of each attaching means being a plate-like member rigid with each frame, and two vertically spaced spreader rods extending between and secured to said frames, one being terminally secured to the plate-like members aforesaid.

17. The combination with a vehicle having a tiltable body, of an attachment for said vehicle comprising a frame structure hooked upon a wall of said body, brackets mounted for vertical adjustment upon said frame structure, an apparatus for handling loose material loosely pivoted upon said brackets, and an abutment for said apparatus carried by the frame structure at a point between the apparatus and tiltable body of the vehicle.

18. The combination with a dump truck having a tiltable body, of a support hooked upon said tiltable body, a sanding apparatus hooked upon said support, and an abutment for the sanding apparatus carried by the support at a point intermediate the sanding apparatus and tiltable body of the dump truck.

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