

March 18, 1952

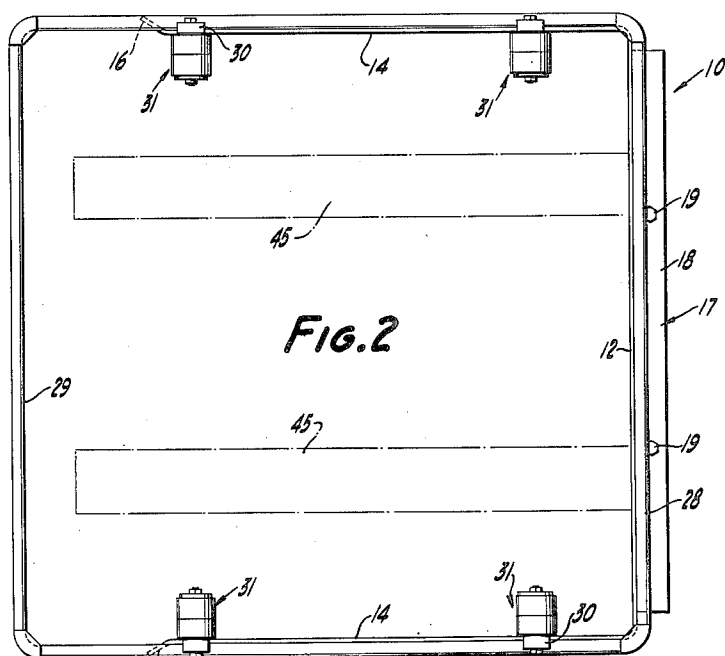
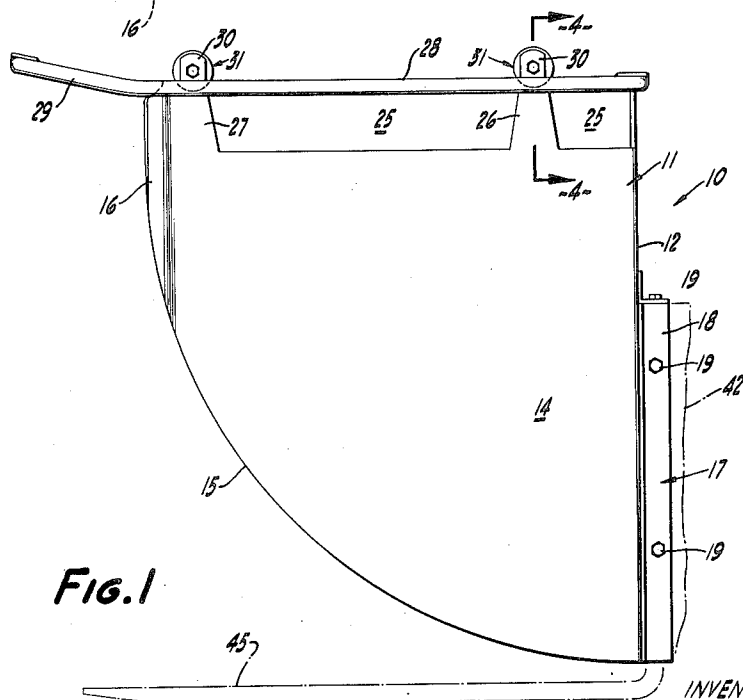
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2,589,342

LIFT TRUCK ACCESSORY

Filed Sept. 30, 1948

3 Sheets-Sheet 1



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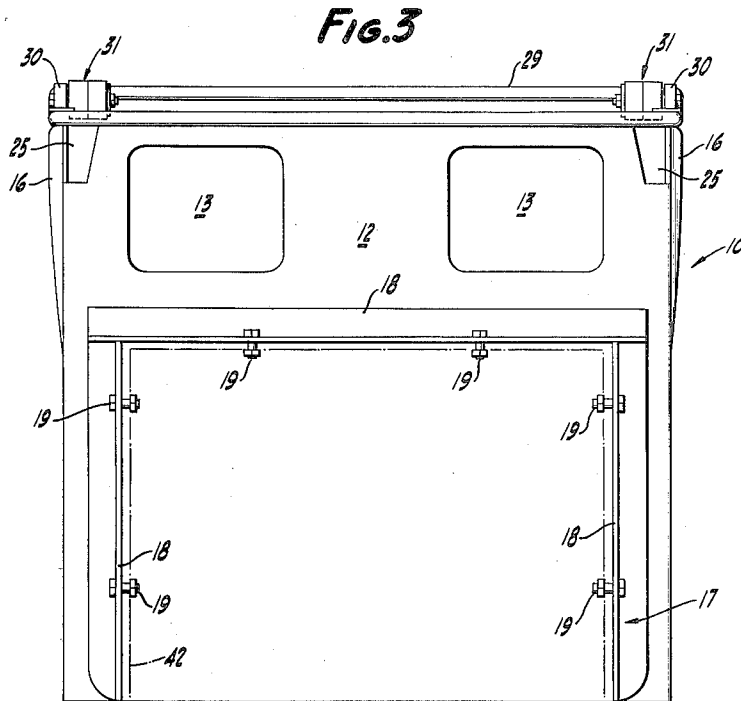
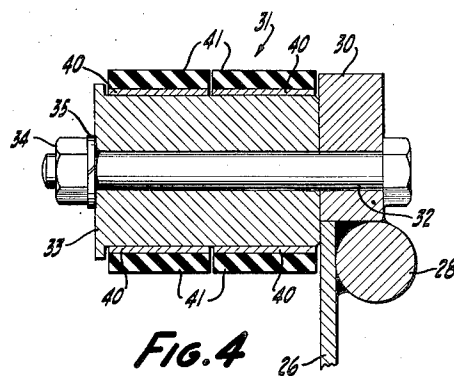
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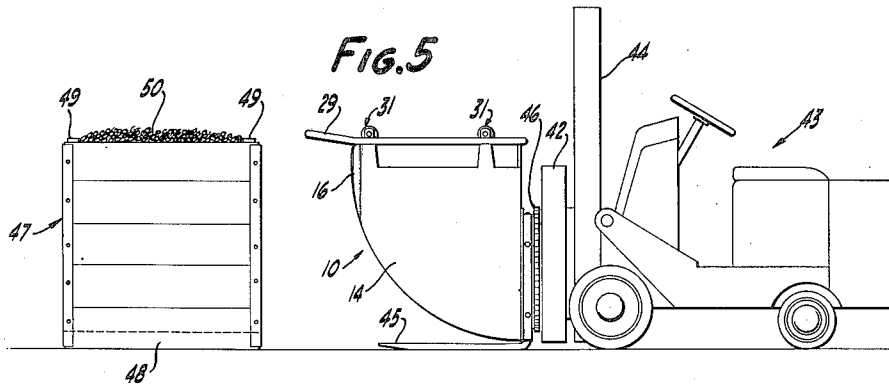
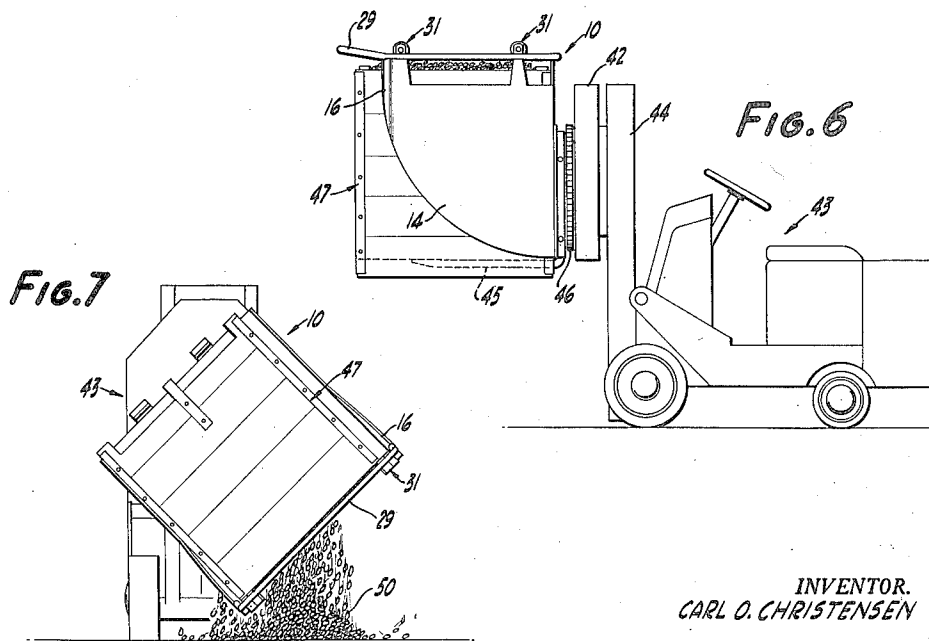
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UNITED STATES PATENT OFFICE

2,589,342

LIFT TRUCK ACCESSORY

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3 Claims. (Cl. 214-65)

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This invention relates to an accessory for a lift truck. More particularly, it relates to an accessory which is adapted to handle and dump the contents of large crates, such as prune crates.

In handling prunes in large quantities, it is customary to load the prunes in large, frame boxes or crates and to transport the crated prunes by means of lift trucks. Lift trucks having revoluble carriages are most commonly used, and it is common practice to unload a box of prunes by revolving the carriage. For this purpose, an accessory is required to support the box as the carriage is revolved.

Accessories provided for the purpose have been deficient. Thus, difficulty has been encountered in aligning the forks of the truck with the box, and in seating the box squarely and firmly.

It is an object of the present invention to provide an improved accessory of the character described.

It is a further object of the invention to provide an improved accessory for use with a lift truck having a revoluble carriage, such accessory being adapted to support a box on the forks of the truck while being revolved.

It is a particular object of the invention to provide an accessory of the character described which obviates the disadvantages noted above.

These and other objects of the invention will be apparent from the ensuing description and the appended claims.

One form which the invention may assume is exemplified in the following description and illustrated by way of example in the accompanying drawings, in which:

Fig. 1 is a side elevation of the accessory of the invention.

Fig. 2 is a top plan view of the same.

Fig. 3 is a rear elevation of the same.

Fig. 4 is a section taken along the line 4-4 of Fig. 1, showing in detail the structure of the rollers employed with the accessory.

Figs. 5, 6 and 7 illustrate three different stages in the operation of lifting and dumping of a loaded box or crate.

Referring now to the drawings, an accessory 10 is shown whose framework 11 consists of sheet metal bent and cut as shown to provide a rear portion or base 12 having windows 13 and side portions or aprons 14 having curved forward edges 15 and outwardly flared ears 16. Mounting means generally designated as 17 are provided, consisting of angle bars 18 welded or otherwise secured to the framework and being provided with nuts and bolts 19 for mounting on a standard lift truck as described hereinafter.

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The framework 11 is also recessed as shown to provide openings 25 and posts 26 and 27. A rim 28, conveniently fashioned from steel rod, is provided, being welded to the upper ends and outer surfaces of the posts 26 and 27 as shown most clearly in Fig. 4. The forward end of the rim 28 is bent upwardly as at 29.

Also welded to each of the posts 26 and 27 is a bearing block 30 mounting a roller 31. A shaft 32 is journaled in each block 30, such shaft being conveniently and satisfactorily in the form of a bolt. A flanged hub 33, rotatable on the shaft 32, is provided, being secured thereto by a nut 34 and lock washer 35. Rotatably mounted on the hub 33 is a bushing 40 and bonded thereto is a rubber lining 41.

The accessory 10 is readily mounted on the carriage 42 of a lift truck 43 by means of the aforesaid bolts 19, it being necessary to modify the carriage only to the extent of drilling holes to receive the bolts 19.

Referring now to Figs. 4, 5 and 6, the lift truck 43 may be of any suitable type, including a frame 44, the carriage 42 and forks 45. In the preferred embodiment of the invention, the truck is also provided with a revoluble member 46 by which means the forks 45 can be revolved. The truck and its various elements, including the revoluble member 46, are of known construction and require no further description here.

As will be seen, loading, lifting, transporting and dumping are accomplished in the usual manner, but with advantages detailed hereinafter. A prune box 47 is shown mounted on legs 48 to permit insertion of the forks. The box is provided with corner posts 49 and is shown loaded with prunes 50.

In approaching the box as shown in Fig. 5, the operator can see the box through the windows 13 and is thus able to center the forks properly. Also, the operator may, instead of attempting to gauge the exact height of the forks, merely approach the box with the forks resting on the ground or floor. In this event, the curved forward end 29 of the rim will serve as a guide and, upon contacting the edge of the box, will, if necessary, raise the accessory and carriage sufficiently for the rim to clear the box. The ears 16 also serve to guide the accessory and forks in the event they are not precisely aligned with the box.

In turning the box as shown in Fig. 7 to dump the contents, the rim of the box will rest upon the rubber lined rollers 31, thus providing resilient, revoluble supports for the box when in inverted position. Jarring is thus reduced

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greatly. Because the rollers are spaced from the body of the aprons 14 by the posts 26 and 27, tendency of the prunes or other contents to become wedged against the members supporting the inverted box, is greatly mitigated. Thus, dumping is made neater and less wasteful and there is less tendency for clogging to occur.

It will thus be seen that a simple, sturdy lift truck accessory has been provided which is easily fabricated, easily mounted and demounted, requires a minimum of modification of a standard lift truck and is efficient in operation.

Although the accessory thus described has been described with reference to the handling of prune crates, it will be apparent that it is also excellently adapted to handling other types of crates and large containers, and to handling a large variety of bulk commodities such as fruits and vegetables.

While I have shown the preferred form of my invention, it is to be understood that various changes may be made in its construction by those skilled in the art without departing from the spirit of the invention as defined in the appended claims.

Having thus described my invention, what I claim and desire to secure by Letters Patent is—

1. A lift truck accessory comprising a framework having side walls, vertical posts disposed along said side walls, a rim secured to the upper ends of said posts and a revoluble roller secured to each post and extending inwardly of the framework, said rim extending between the side walls.

2. A lift truck accessory comprising a framework having side walls, vertical posts disposed along said side walls, a rim secured to the upper ends of said posts and a revoluble resilient roller secured to each post and extending inwardly of

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the framework, said rim extending forwardly and upwardly from the forward end of said framework and extending between said side walls.

3. A lift truck accessory comprising a framework including rearwardly and downwardly curved side walls each having an outwardly flared forward portion, a rear wall having windows therein, means secured to the rear of said framework for mounting the same on the carriage of a lift truck, spaced, vertical posts disposed along the upper end of each side wall, a rim secured to the upper ends of said posts and extending along each side of and projecting forwardly of said framework, the projecting portion of said rim sloping upwardly and outwardly, and a rubber-lined, revoluble roller secured to and extending inwardly from each post.

CARL O. CHRISTENSEN.

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