

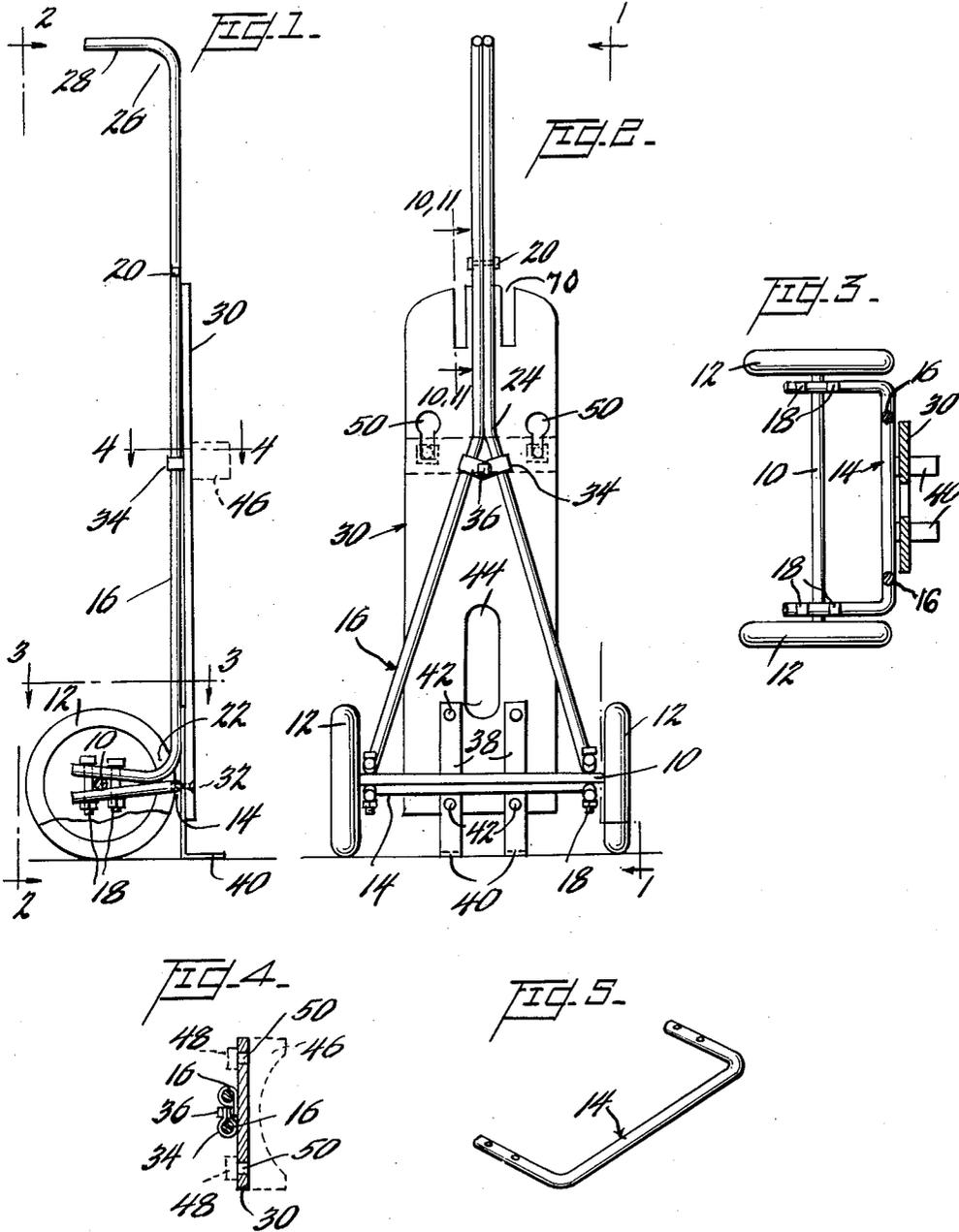
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UTILITY HAND TRUCK

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2 Sheets-Sheet 1



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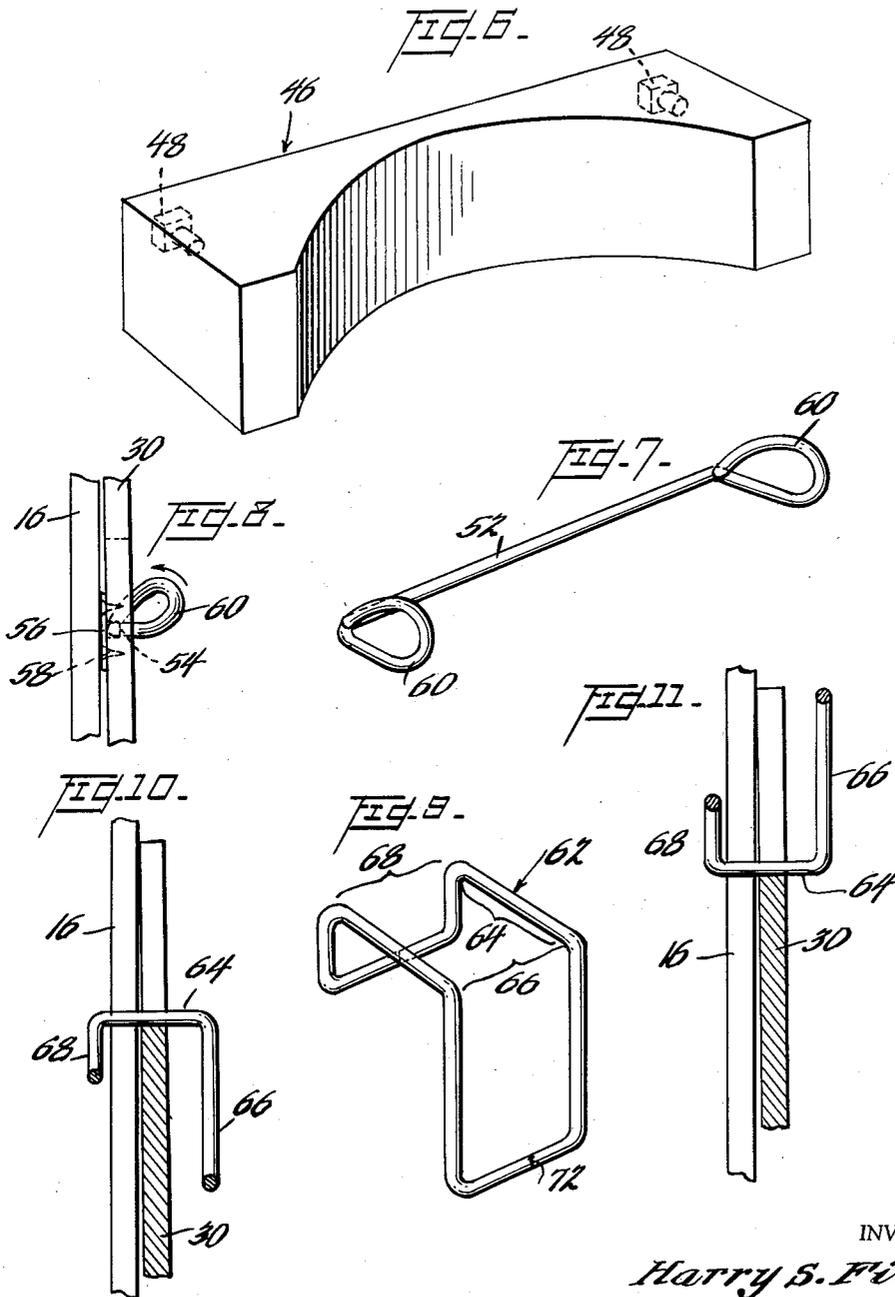
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UTILITY HAND TRUCK

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6 Claims. (Cl. 214-372)

This invention relates to a general utility hand truck. More particularly it relates to a hand truck especially adapted to be used generally about schools, office buildings and apartment buildings as distinguished from industrial use. Most hand trucks are specifically designed for use in factories and shipping rooms. In some instances the design of hand trucks has been specialized for particular industrial uses such as the trucking of cylindrical objects such as drums and barrels, etc.

It is the purpose of this invention to provide a hand truck of general utility for use in moving lighter articles of office furniture, maintenance and operating supplies and trash containers. The device is also well suited for holding and moving cleaning supplies used in building maintenance so that persons engaged in cleaning may be assisted in transporting the supplies from point to point as they carry on the cleaning operations.

For a fuller understanding of the invention, reference should be made to the accompanying drawings, wherein:

Figure 1 is a side view of the hand truck of my invention, one of the wheels being partly removed to better show the construction;

Figure 2 is a rear elevation of the hand truck;

Figure 3 is a plan section taken along the lines 3-3 of Figure 1;

Figure 4 is another plan section taken along the lines 4-4 of Figure 1;

Figure 5 is a perspective view of the lower frame member;

Figure 6 is a perspective view of a cradle block for use with the invention;

Figure 7 is a perspective view of another type of cradle member;

Figure 8 is a side elevation of the cradle member of Figure 7, installed on the hand truck;

Figure 9 is a perspective view of a load retaining device for use on the hand truck;

Figure 10 is a side elevation partly in section of the device of Figure 9 in one position; and

Figure 11 is a view similar to Figure 10 with the retaining device in another position.

As shown in Figures 1 to 3, the hand truck employs an axle 10 and a pair of wheels 12. The frame is made up of three members, a lower U-shaped member 14 and two side frame members 16 that are mirror images of each other. The two side frame members 16 are secured to the lower frame member 14 by two pairs of bolts 18 in such manner that the axle 10 is clamped between the pairs of bolts.

The two lower ends of the side frame members 16 are bent at 22 at approximately right angles to bring the main portion of the side frame members into the same vertical plane as the outer bow of the lower frame member 14. The side frame members are also bent at 24 so that the lower portions converge from point 22 to the bend at 24. The upper portions of the members 16 are arranged in parallel juxta-position to form an upward portion of the frame and at 26 they are bent back-

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wardly to form a handle 28. The two side frame members are held together by means of bolt 20.

An elongated panel member 30 is placed in front of the frame members 14 and 16 to support the loads. A pair of machine screws 32 pass through the lower portion of the panel to engage lower frame member 14 while a pair of pipe straps 34 engage the side frame members just below the bend 24. Both may be conveniently secured by a single bolt 36. To prevent damage to the loads, it is desirable to sink the heads of screws 32 slightly below the surface of the panel 30.

Two toe members 38 having outwardly turned portions 40 are secured to the lower portion of the panel 30 to support the underside of loads carried on the face of panel 30. To accommodate certain classes of furniture, it is desirable to provide hole 44 in the lower portion of the panel 30.

It is frequently necessary to carry cylindrical objects such as trash cans and barrels upon hand trucks and to support such objects firmly, I have provided a cradle block 46 for removable attachment to the face of panel 30. At the rear of the block 46, there are two carriage screws 48 adapted to pass through the upper, enlarged portion of key holes 50 and to slide down into the lower slots thereof. The carriage screws are advanced into the block a sufficient distance so that the heads thereof fit snugly against the rear of the panel, permitting the block to be firmly held in place by only a slight additional tightening of the screws.

Alternatively, the construction shown in Figures 7 and 8 may be used. An elongated shaft 52, formed of rod stock is arranged for limited rotational movement in rabbeted slot 54. It is held in place by plates 56 fastened by screws 58 into the back of panel 30. The ends of shaft 52 are bent forwardly at right angles and further in to eye-shaped loops 60. For supporting a load, the loops 60 are projected forward as shown in Figure 8. If it is desired to carry a load against the flat face of the panel, the loops are moved upwardly and rearwardly through the slots 50 where they will be out of the way. While this construction is not quite so rugged as that afforded by that shown in Figure 6, it is to be preferred for its versatility and its convenience, being always available upon the hand truck.

It is frequently desirable to provide a means for preventing the load from tipping forward as it is being moved on the hand truck. To assist in retaining the load at the upper portion thereof. I employ the device shown in Figure 9. Advantageously, this device is formed of a closed loop 62 of heavy wire or rod welded at the point 72 to form a continuous loop. The loop is made up of a central portion 64 and two side portions 66 and 68 bent at right angles to the central portion. If desired, one of the side portions 66 is slightly longer than the other portion 68. This hook member 62 is employed in conjunction with two slots 70 formed in the panel 30 at its upper end, on each side of the upper portions of frame members 16.

When the hook 62 is passed over the handle 28 with the end members downward, the portion 66 is well adapted to be hooked over the upper rim of a trash can to prevent its slipping off the hand truck. This arrangement is shown in Figure 10. By slipping the loop 62 over the handle 28 of the truck in the opposite manner, as shown in Figure 11, the hook 66 is adapted to support the handle of a pail or the like. Thus, the single device, when used in connection with the handle 28 and the slots 70 is capable of supporting and retaining a great variety of loads upon the hand truck.

Obviously, the frame of my hand truck need not be constructed in precisely the manner shown in order to fulfill the requirements of my invention.

As will be apparent from an inspection of my invention, it is capable of an unusually wide variety of uses, particularly, for light, general purpose movement. Location of the panel face beyond the outer diameter of the wheels coupled with the clear upper surface of the panel enables the handling of objects with large flat faces. Drums and barrels may also be handled efficiently and with the aid of hook member 62, many other devices may also be handled effectively.

I claim:

1. In a hand truck including an axle and a pair of wheels adjacent the ends thereof, a pair of frame members each secured to the axle inwardly of one each of the wheels, said frame members extending forwardly of the axle, thence upwardly, while converging toward each other to form a load support, thence continuing parallel from the point of convergence to form an upper extension of the support and extending parallel rearwardly to terminate in a handle portion, a load supporting panel on the face of the load support, spaced load engaging toes secured to the lower margin of the panel, a cradle member intermediate the length of the panel for restricting the sidewise movement of the articles, said cradle member being movable away from the panel to leave it clear, an elongated hole in the panel intermediate the cradle and the toe members, a pair of slots in the upper margin of the panel parallel to and on each side of the upper extension and a cooperative load engaging member including an apertured web member, the aperture being sufficiently large to permit the web member to pass over the handle and slide freely along the upper portion of the support member, and a pair of extensions for opposite sides of the web member, said extensions being bent toward each other, each at substantially right angles to the web member.

2. In a hand truck including an axle and a pair of wheels adjacent the ends thereof, a pair of frame members each secured to the axle inwardly of one each of the wheels, said frame members extending forwardly of the axle, thence upwardly, while converging toward each other to form a load support, thence continuing parallel from the point of convergence to form an upper extension of the support and extending parallel rearwardly to terminate in a handle portion, a load supporting panel on the face of the load support extending upwardly from the vicinity of the axle, a pair of slots into the panel from the upper margin thereof parallel to and on each side of the upper extension and a cooperative load engaging member including a pair of parallel rod members lying in the same plane, said rod members having a cross-section and being spaced apart to enable the load engaging member to pass freely over the handle and into the slots, said rod members being of such length as to freely embrace the handle, the panel and a narrow por-

tion of the load to be carried, each said rod, on each end thereof, being extended at substantially right angles to the common plane of said rods and means on each complementary pair of extensions for holding said pair in fixed relation to each other, whereby, when the load engaging member is dropped into the slots with the rod extensions facing upwardly along said handle, said member acts as a hook for suspending a load such as a pail and whereby when the load engaging member is dropped into the slots with the rod extensions facing downwardly along said handle, said member acts as a claw to hold a narrow rimmed container against the load supporting panel.

3. In a hand truck provided with an axle, a pair of wheels therefor, a frame connected to the axle and terminating in a handle and a load engaging toe remote from the handle, the improvement that includes a load supporting panel overlying the frame, a pair of horizontally-spaced, vertically-arranged slots intermediate the ends of said panel and a rod member arranged upon the back of the panel between said slots, for limited rotation about its axis, said rod being provided with a pair of ears, one at each end, at right angles to the main axis thereof, the ears being adapted to be projected through the slots of the panel to restrain sidewise movement of the load on the truck, in one position and, by rotation of the rod, being adapted to be swung out of load restraining position, through said slots to leave a flat, uninterrupted surface on the panel.

4. The structure of claim 3, wherein the ear portions of the rod are bent to form loops.

5. The structure of claim 3, wherein the rod is housed in a rabbet formed in the rear of the panel.

6. The hand truck of claim 2 including a foot member extending forwardly of said load supporting panel, below said axle.

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