

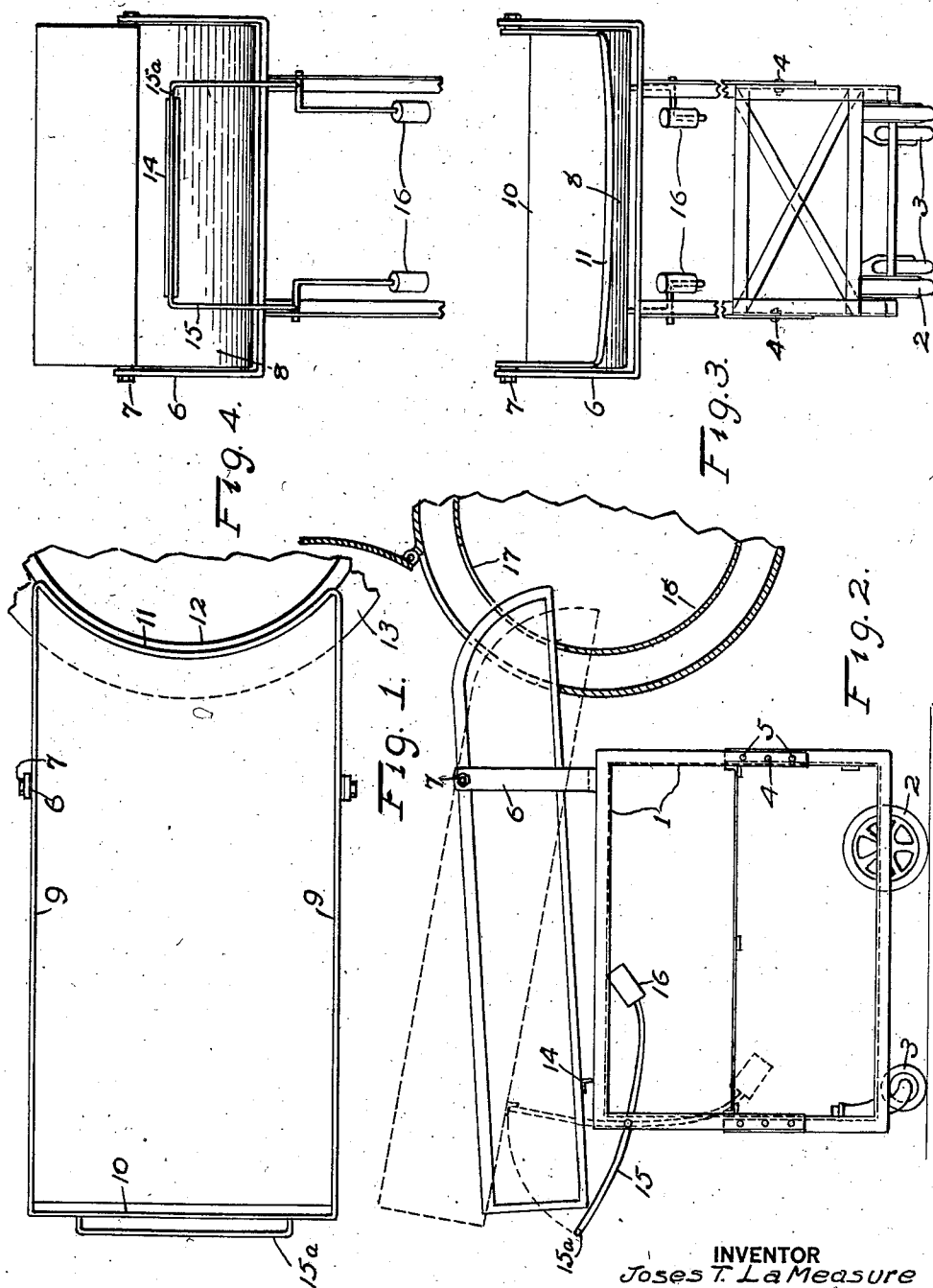
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HAND TRUCK

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HAND TRUCK

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This invention relates to hand trucks, and has a special utility in laundries and dry cleaning establishments.

An object of the invention is to provide a hand truck comprising a box surmounting a wheeled frame to receive laundry or other articles requiring transfer from one machine to another, said frame being vertically adjustable to accommodate said box to machines of different heights.

Another object is to pivot said box on the truck frame for adjustment between relatively angular loading and unloading positions.

A further object is to locate the pivotal axis of said box forwardly of its center of gravity, and to provide a pivotal member adapted in one position to hold the rear end of said box up-tilted, and to adapt said member to automatically swing to its effective position responsive to such up-tilting of the box.

A further object is to curve the forward edge of said box for convenient registration with the mouth of a laundry extractor.

These and various other objects the invention attains by the construction hereinafter described, and illustrated in the accompanying drawing, wherein:

Fig. 1 is a top plan view of the improved truck, indicating in dash lines a laundry extractor position to receive a load from said truck.

Fig. 2 is a side elevational view of the truck, showing a fragmentary portion of a laundry washing machine in load-transferring relation to the truck.

Fig. 3 is a front end view of the truck.

Fig. 4 is a rear view of the same.

In these views, the reference character 1 designates a rectangular open frame formed preferably of angle bars and equipped with front and rear pairs of wheels 2 and 3, the latter preferably of a caster type. The uprights of said frame preferably each comprise two members bolted together as indicated at 4, the upper thereof being each formed with a plurality of bolt holes 5, to selectively receive said bolts whereby the frame is adjustable in height.

Surmounting the frame 1 at its front end is a standard 6, approximately U-shaped and extending transversely of the frame, preferably projecting at each end beyond the latter. Pivoted on said standard, between the uprights thereof, by bolts 7 or the like, is an open-topped sheet metal box 8, elongated lengthwise of the frame 1 and projecting forwardly and rearwardly beyond the latter. Said box comprises side walls 9 and a

rear wall 10 and has its front end open. The forward edge 11 of said box is arcuately curved, adapting it for approximate registration with the mouth 12 of an ordinary laundry extractor 13, partially shown in Fig. 1. The side walls 9 preferably are curved downwardly in an arc approximating ninety degrees at their forward ends, as best appears in Fig. 2. Attached to the rear portion of said box, therebeneath, is a cross bar 14, adapted to seat on the frame 1 in the loading position of the box, as shown in full lines in Fig. 1.

Pivoted upon and between the vertically adjustable upper members of the rear uprights of the frame 1 is a U-shaped metallic member 15, comprising parallel side arms and a cross bar 15a connecting corresponding ends of said arms, the other ends of said arms being weighted as indicated at 16, whereby said member is urged to the upright position shown in dash lines in Fig. 2. In such position the cross bar 15a seats the rear portion of the box 8, maintaining said portion up-tilted as shown in dash lines in Fig. 2, the cross bar 14 forming an abutment engageable by the cross bar 15a, thus determining the position of engagement of the member 15 and box. Thus, when an operator manually elevates the rear end of said box, the member 15, 15a, 16 automatically maintains the box so elevated. When the box is in lowered or loading position, its rear end engages the member 15, maintaining the latter substantially horizontal. It is evident that the portion of the member 15 extending from the pivots thereof to the cross bar 15a and including said cross bar forms a strut serving to hold the box 8 in unloading position, the remaining portion of said member forming counter balance arms.

An important utility of the described truck consists in the transfer of the wash from a washing machine cylinder to an extractor. To load the truck, the same is advanced, with its box 8 in lowered position, to insert the open forward end of said box in the mouth 17 of a washing machine cylinder 18. The operator may then readily transfer the contents of such cylinder to the box without drippage to the floor or exterior of the machine. The rearward declination of the box 8 in loading position permits any liquid exuding from the wash to accumulate in the rear portion of the box, thus insuring against overflow at the open front end.

The truck, when loaded, is wheeled to an extractor, the open front end of the box being established in approximate vertical registration

with the extractor mouth, as best shown in Fig. 1. The operator now raises the rear end of the box to establish the unloading position shown in dash lines in Fig. 2, and the weights 16 automatically tilt the member 15 to maintain such position. The unloading inclination of the box reduces the effort requisite to slide the washed garments forwardly and over the arcuate edge 11 into the extractor.

It will be noted that the cross bar 15a serves as a handle member for pushing the truck, when the box is loaded, the side arms 15 being then maintained in a rearwardly projecting position such as to expose said cross bar rearwardly of the box.

The described truck maintains the articles removed from the washing machine at an elevation permitting their introduction into an extractor with a minimum of effort. Furthermore, it adapts the transfer receptacle for the washed articles to so overlap the washing machine and extractor during loading and unloading of said receptacle as to practically eliminate drippage to the floor or exterior of the washing machine or extractor, and avoids appreciable transfer of moisture from the washed articles to the clothing or person of employees. These conditions are particularly important in dry cleaning establishments where articles are washed in a combustible liquid, drippage of which to a floor or the exterior of machinery would add to the fire risk, and the presence of which on the clothing or person of workmen would be both unhealthy and dangerous.

It is, however, to be understood that the described truck is by no means limited to laundry use.

While it is apparent that the illustrated embodiment of my invention is well calculated to adequately fulfill the objects and advantages primarily stated, it is to be understood that the invention is susceptible to variation, modification and change within the spirit and scope of the subjoined claims.

What I claim is:

1. A truck comprising a wheeled frame, an open-topped box surmounting said frame and projecting forwardly beyond said frame, said box being open at its front end, means pivoting said box upon said frame forwardly of the center of gravity of the box, an elongated member pivoted upon the rear portion of said frame and counter-weighted adjacent to one of its ends to elevate its other end into supporting engagement with the rear portion of the box, when said portion is raised.

2. A truck comprising a wheeled frame, an open-topped elongated box surmounting said frame and projecting beyond its front end, said box being open at its front end, means engaging the box forwardly of its center of gravity and pivoting the box to turn about an axis transverse to its length, a U-shaped member pivoted on the rear portion of said frame, and means acting on the free ends of said member, tending to elevate the connected ends of said member into supporting engagement with said box when its rear end is up-tilted.

3. A truck comprising a wheeled frame, an open-topped box surmounting said frame and projecting beyond its front end, the front end of said box being open, means carried by said frame pivoting the box to turn about an axis located forwardly of the center of gravity of the box, a member carried by the rear portion of said frame

pivotaly movable to a substantially upright position and providing in such position a support for the rear portion of the box when such portion is raised, means urging the last named member to said supporting position, and an element secured to the bottom of the box having positioning engagement with said pivoted supporting member in the supporting position of the latter, and engageable with the frame to seat the rear portion of the box when the front portion of the latter is raised.

4. A truck comprising a wheeled frame, an open-topped box surmounting said frame and projecting beyond the front end thereof, the front end of said box being open, means pivoting said box on said frame to turn about an axis transverse to the truck and between the front end of the box and its center of gravity, a strut pivoted upon the frame beneath the rear portion of said box, to turn about an axis substantially parallel to pivot axis of said box, said strut being engageable by the rear end of the box in a lowered position of the box to maintain the strut rearward of its pivotal axis, and means yieldably imposing a rotative effort on said strut to establish it and in a supporting relation to said box upon elevating said box to a predetermined declination from rear to front.

5. In a truck as set forth by claim 4, an abutment carried by said box, therebeneath, engageable by the strut to limit angular forward travel of said strut.

6. A truck comprising a wheeled frame, a box surmounting said frame and projecting forwardly beyond the frame, said box being open-topped and also open at its front end, means pivoting the box upon the frame to swing about an axis substantially parallel to its ends and between its front end and its center of gravity, the box normally seating on the frame, rearwardly of said pivotal axis, and being upwardly inclined toward its front end, and a supporting member carried by the rear portion of the frame, freely engageable with the box and normally maintained by the box in a non-supporting position, and upwardly actuatable upon the frame to rigidly support the box at a downward inclination toward its front end, upon actuation of the box to a position establishing such downward inclination.

7. In a truck as set forth by claim 6, means yieldably urging the last mentioned member upwardly.

8. A truck comprising a wheeled frame, a box surmounting said frame and projecting forwardly beyond the frame, said box being open at its front end, means pivoting the box on the frame, forwardly of the center of gravity of the box, the box normally resting on the frame rearwardly of said pivot means, a supporting member pivoted upon the rear portion of the frame, occupying a non-supporting position in the normal position of the box, and upwardly angularly movable on the frame to a substantially upright position of supporting engagement with the rear portion of the box, when said portion is elevated, and means yieldably urging the last mentioned member upwardly.

9. A truck comprising a wheeled frame, an open-topped box surmounting and forwardly projecting beyond the frame, said box being open at its front end, means pivoting said box upon the frame forwardly of the center of gravity of the box, the rear portion of the box normally resting upon the rear portion of the frame, a member pivoted upon one of said rear portions,

normally occupying a position affording said portions free engagement, and pivotally actuatable to an approximately vertical position, between said portions for supporting the rear portion of the box above its normal position, and means yieldably urging the last mentioned member to said approximately vertical position.

10. A hand truck comprising a wheeled frame, a box surmounting said frame, and forwardly projecting beyond the frame, and open at its top and front end, and tiltable on the frame to discharge its contents and a member pivoted upon the rear portion of said frame having a cross bar exposed rearwardly of the box in the normal position of the box to form a handle for pushing the truck, and engageable beneath said box in its tilted position to maintain such position.

11. A vehicle comprising a frame, a container having an outlet at one end, and pivoted on said frame to permit elevation of its other end to facil-

itate the discharge of its contents, and a member associated with said frame and container, having alternative positions, in one of which said member holds the last-mentioned end of said container in its elevated, discharge position and in the other of which it forms a handle for propelling the vehicle.

12. A vehicle comprising a frame, a container having an outlet at one end and pivoted on said frame to permit elevating its other end to facilitate the discharge of its contents, and a member pivoted on said frame beneath the other end of said container, and projecting upwardly in one position to form a brace between the frame and container to hold the latter in its elevated discharge position, and projecting beyond the closed end of the container in another position to form a handle for propelling the vehicle.

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