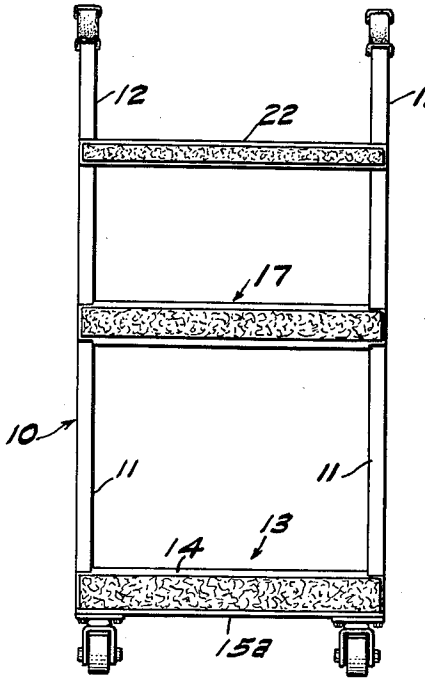
March 20, 1956 H. F. RAUTERBERG 2,739,007

DOUBLE DUTY DOLLY

Filed Feb. 18, 1952 2 Sheets-Sheet 1

FIG. 1.



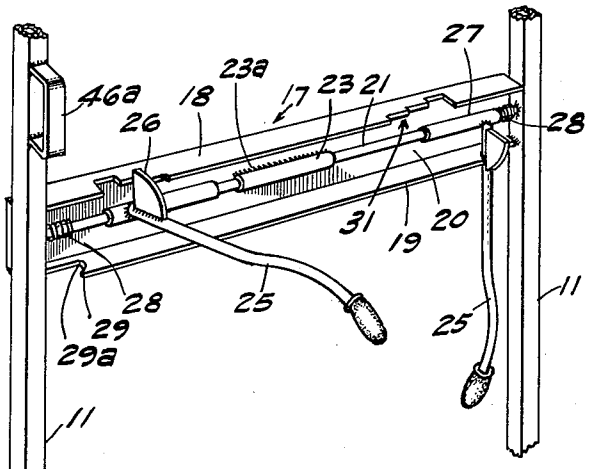
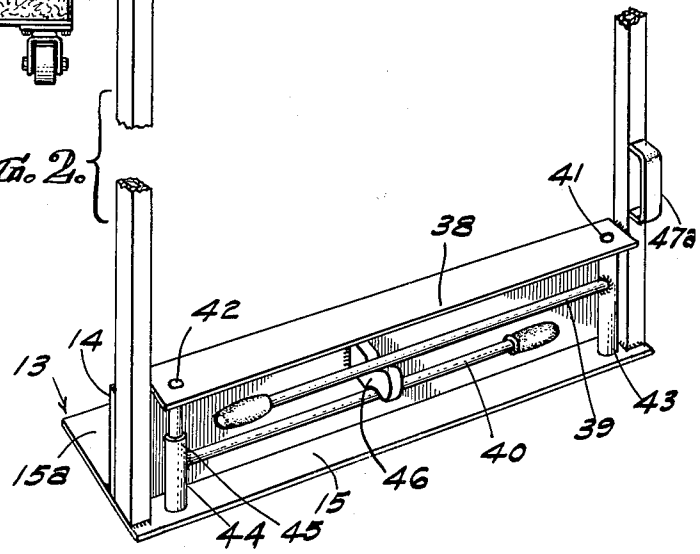


FIG. 2.



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March 20, 1956 H. F. RAUTERBERG 2,739,007

DOUBLE DUTY DOLLY

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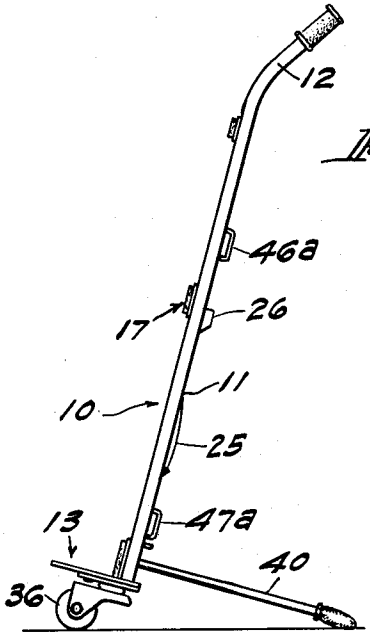
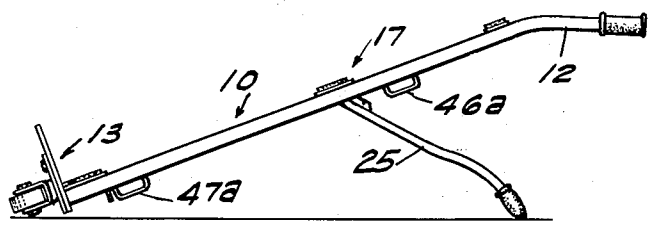


FIG. 3.

FIG. 4.



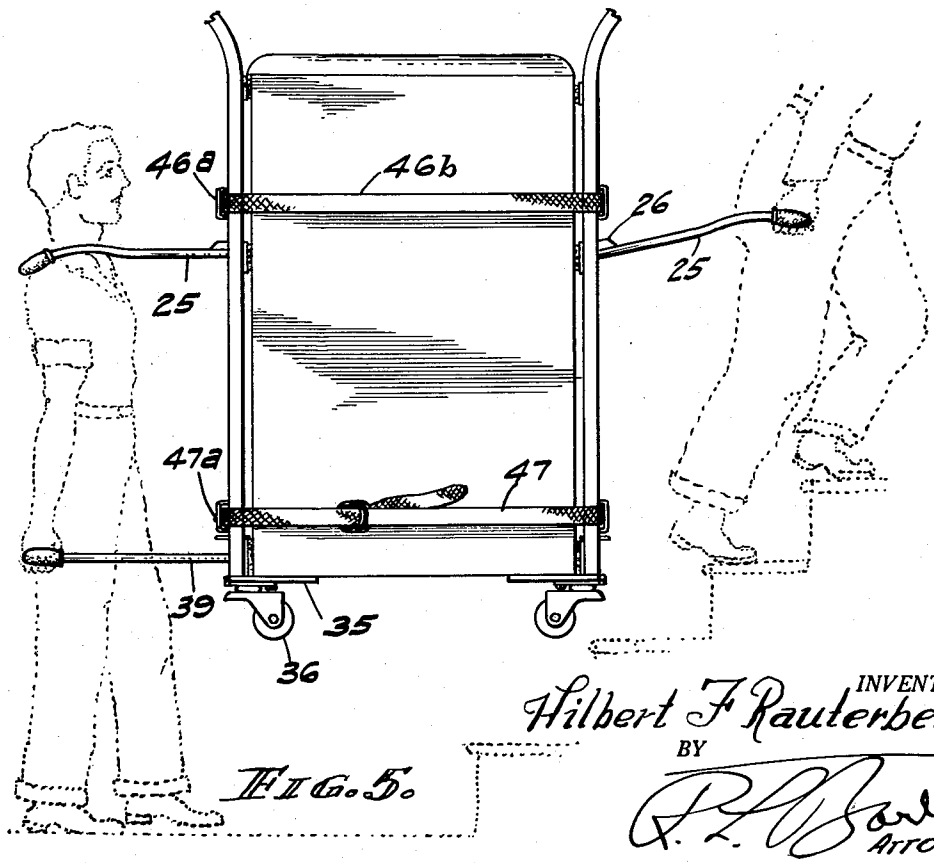


FIG. 5.

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2,739,007

DOUBLE DUTY DOLLY

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Application February 18, 1952, Serial No. 272,090

8 Claims. (Cl. 294—15)

This invention relates to a double duty dolly with adjustable handling appendages.

Although there have already been patented many types of trucks, dollies and hand barrows for handling baggage, furniture, etc., yet an investigation of the prior art has failed to disclose among these any barrow having a plurality of appendages capable of being adjusted either in retracted or extended positions and making it possible to use the device advantageously for so great a variety of load handling operations as is possible with the structure provided by this invention.

One object of this invention is to provide a type of barrow or truck so constructed that a pair of them can have a trunk or like article strapped into place between them, so that, when carried up or down stairs by two persons in tandem fashion, the uppermost person can grasp the handle means of one barrow and the person in the rear can support with both shoulders and hands, the handle means of the other barrow, and thus conveniently transport a trunk or other large article, for example a refrigerator, up or down a flight of stairs.

A more specific object is to provide an improved latching means for maintaining the aforesaid shoulder supportable handles in a retracted position when not in use; and to provide for adjusting the latter handles at various distances apart to accommodate, between them, the different sized necks of persons using the device.

Still another object is to provide improved combined mounting and latching means for swingably attaching and holding retracted certain of the handle members of the barrow and at the same time enhancing the accessibility thereof.

Yet a further object of the invention is to provide means for adjusting the shoulder supportable handles at various inclinations with regard to the hand graspable handles to accommodate the stature of different individuals wherein the weight of the article being carried can be more evenly distributed between the shoulders and the hands of the person carrying the greater portion of the load.

This application is a continuation in part of my copending application filed December 14, 1951, Serial No. 261,700, now abandoned.

Other objects, advantages and features of invention will hereinafter appear.

Referring to the accompanying drawings, illustrative of a preferred, reduced to practice embodiment of the invention,

Fig. 1 is a front elevation of the device.

Fig. 2 is a fragmentary, rear perspective view on a larger scale of the twin handle carrying and locking means.

Fig. 3 is a side elevation of the device with its upper pair of handles in a folded or retracted condition, and its lower pair of handles in their outswung, extended position, in which position they are in use to maintain the device in an upstanding position, ready to be loaded.

Fig. 4 is a side elevation of the device similar to Fig. 3, but with the upper pair of handles in their outswung, extended position and resting upon a floor.

Fig. 5 is a side elevation showing a pair of barrows being used by two men in the transportation of merchandise up a stairway.

Referring in detail to the drawings, the improved barrow therein shown comprises an elongated, substantially rectangular open frame **10** made up of twin side pieces **11** which at one end of the frame have deflected end portions which afford wheelbarrow-like handle members **12**. Said twin side pieces **11** are shown in Fig. 2 as tubes, square in cross section. At the end thereof opposite to said wheelbarrow-like handle members said frame is provided with a horizontal basal member **13** which is of an inverted T in cross section, thus providing it with an attaching flange **14** and shelf flanges **15** and **15***a*, the latter flange affording a baggage support.

In its midlength portion the frame **10** carries a channel shaped crosspiece **17** which unites and braces its side pieces **11**. This crosspiece, viewing the barrow in its operative position, has its flange portions **18** and **19** directed rearwardly from its web **20**. A shaft **21** (see Fig. 2), located between and extending parallel to said flange portions, bridges the space between the aforesaid tubular side pieces **11**. The midlength portion of said shaft **21** is contained friction tight within a sleeve **23** which is secured to the web **20** by a weld **23***a*. The general structure of the frame **10** is completed by a transverse brace bar **22** which is located between the aforesaid crosspiece **17** and the handle carrying end of the frame.

A medial handle forming bar **25** is slidably and swingably connected with each end portion of the aforesaid shaft **21**, said handle forming bars swinging between two positions, in one of which they are directed toward the basal end of the barrow and in the other of which they project at substantially a right angle to the length of the barrow. The swing of said handles **25** toward the basal end of the barrow is limited by the inner end portions of said handles coming into contact with the web **20** of the crosspiece **17**, said handles are furnished with stop lugs **26** which engage the outer edge of the flange **18** to limit the swing of said handles away from their basal directed position.

The preferred way of swingably and slidably mounting said handles **25** is well shown in Fig. 2 where each handle is shown carried by the outer end of a sleeve **27** slidably and turnably carried by the shaft **21**. A spring **28**, coiled around each end portion of said shaft, opposes outward movement of the adjacent sleeve whenever the adjacent handle **25** is moved outwardly far enough to be swung beyond an arcuate locking shoulder **29** (see Fig. 2), provided for it in the adjacent, coped out, end portion of the flange **19**, said spring therefore functioning yieldably to hold said handle in its inswung position, there being an arcuate seat **29***a* inwardly of said shoulder, in which said handle **25** seats when in its inswung position.

As well shown in Fig. 5, the aforesaid handle members **25** are at times shoulder supportable. In order better to adapt them for thus functioning the aforesaid crosspiece flange **18** is provided with a series of rectangular cut outs or recesses **31** which are progressively cut varying depths into the outer edge of said flange, one series near each side of the barrow frame **10**. These recesses are sufficiently deep to allow the handle forming bars **25** to swing outwardly to a completely right-angular position, as well as varying inclinations therebeyond, when their lugs **26** contact the bottom of said recesses. The aforesaid sleeve **23** limits the sliding movements of the sleeves **27** toward the midwidth of the frame **10**.

The already mentioned basal member 13 of the frame carries, in an underlying, attached relation to each end portion of its shelf flanges 15, 15*a*, a mounting plate 35 which swingably carries a conventional castor wheel 36.

Describing in further detail the horizontal basal member 13, the attaching flange 14 is coped out adjacent its top edge at each corner to provide for rearwardly bending between the side pieces 11 a flange 38 to co-operate with the shelf flange 15 to provide an enclosure in which to retractedly mount the hand grippable handles 39 and 40.

For the purpose of swingably mounting said handles 39 and 40, widely spaced apart pivot pins 41 and 42 are respectively provided each having one end secured to the flange 38 and the other end secured to the shelf flange 15, so that said pins bridge the space between said flanges. Handle 39 is attached to a sleeve 43 surrounding the pin 41 with a working fit and filling in the vertical distance between the flange 38 and the flange 15. Handle 40 also is attached to a sleeve 44 but does not completely fill in the vertical distance between the flange 38 and the flange 15. The portion of the sleeve 44 between the upper side of the handle 40 and flange 38 is reduced to form a stub sleeve portion 45 in order that when said handle 40 is extended its entire sleeved portion may be slid upwardly until the top of the stub sleeve portion 45 abuts the under side of the flange 38. When this is done the pair of handles 39 and 40 lie in the same horizontal plane.

A latching means 46 is welded to the attaching flange 14 and extends rearwardly therefrom at a right angle, said latching means having depressions in its upper and lower side edges into which said handles are nested when in their inswung positions, there being sufficient clearance between the sleeves of the handles and the pins on which they are pivotally mounted to provide for a slight rocking so that each handle can override the locking shoulders carried by the outer end of the latch 46 incident to their seating in the aforesaid depressions.

Fig. 5 illustrates the use of two of the barrow frames 10 as a means for enabling two persons conveniently to carry a heavy piece of baggage up a stairway. This baggage is shown interposed between the front sides of two of the barrow frames with cushioned sides of said frames clamped thereagainst by an upper cinch strap 46*b* and a lower cinch strap 47, the outswung shoulder supportable handle of each barrow being directed outwardly with those in the left hand portion of the view resting upon the shoulders of the person at the rear and the outswung handles of the other barrow grasped by the hands of the foremost of the two persons shown. The frame 10 is shown provided with upper loops 46*a* for said strap 46*b*, and the lower loops 47*a* for the strap 47.

I claim:

1. In a device of the kind described, an elongated frame comprising intermediate its length a channel shaped crosspiece, the flanges of said crosspiece projecting right-angularly in relation to the length of said frame, a pair of adjustable handle members, a rod positioned between and extending parallel to said flanges whereon said handle members are slidable transversely of said frame and are swingable outwardly and inwardly in relation thereto, stop lugs carried by and projecting laterally from said handle members limiting their outswing by engagement with one of said flanges, springs coiled about said rod in positions wherein they oppose the sliding movements of said handle members toward the sides of said frame, latching shoulders carried by said crosspiece in engagement with which said springs at times yieldingly hold said handle members in inswung positions, accessory handle means carried by each end portion of said frame, and load carrying means secured to the lower extremity of said frame.

2. An elongated, horizontal frame having spaced apart side pieces each provided with wheelbarrow-like handle gripping means at one end, a load bearing shelf member bridging the space between said side pieces to which they are fastened at their lower ends, a transverse channel shaped member having its end portions secured to said side pieces intermediate the ends of said frame with its web abutting the front sides of said side pieces and its flange portions bridging the space between them, a rod mounted in and extending longitudinally along the channel of said channel shaped member in a spaced relation to its web and flanges with the ends thereof secured to the side pieces of said frame, a pair of handle members adapted to rest upon the shoulders of an operator and having sleeved end portions slidably and turnably mounted on said rod, a pair of swingable hand grippable handle members, and pivots attaching the latter members to said shelf member, both of said pairs of handle members projecting right-angularly from the same side of said frame when in their operative positions.

3. The structure set forth in claim 2 and stop means consisting of laterally projecting lugs carried by said first recited handle members and co-operating with one of the flanges of said channel shaped member to limit the swing of said first recited handle members in the direction toward said wheelbarrow-like handle gripping means.

4. The structure set forth in claim 2 and means carried by said rod yieldingly to releasably lock said first recited handle members in a retracted relation with said side pieces, the flange of said channel shaped member nearest said shelf being cut away a short distance at each end by a cut out which affords an arcuate seat, and said first recited handle members consisting of rounded rods side portions of which are nestable in said seats when the latter members are swung to their retracted position against the opposition of said yielding means.

5. In a barrow of the kind described, an elongated frame having a pair of fixed handle portions at one end and an elongated transversely extending load carrying basal member at its opposite end, said basal member comprising a web and opposed parallel side flanges carried by said web, a pair of vertically extending pins spaced widely apart and each bridging the space between said flanges, and a pair of elongated handles one having an end portion pivotally carried by one of said pins and the other having an end portion pivotally carried by the other of said pins, said handles having a limited swing from a nested relation to the space between said flange to a point where they project right-angularly from said space, said handles when inswung being vertically offset from each other, one of said handles being vertically adjustable on its pivot pin in relation to the other handle when each handle is horizontally extended to its aforesaid right-angularly projecting position, so as to bring them on a common level.

6. In a device of the kind described, an elongated frame provided at one end with a pair of wheelbarrow like handles, and provided at its opposite end with an elongated transversely oriented, load bearing basal member, said frame comprising two side pieces and intermediate its length a channel shaped crosspiece uniting said side pieces, the flange portions of said crosspiece being directed rearwardly, a shaft bridging the space between said side pieces and occupying the space between said flange portions, a sleeve slidably and turnably mounted upon each end portion of said shaft, a pair of elongated handles one of which has an end portion radially secured to one of said sleeves and the other of which has an end portion radially secured to the other of said sleeves, stop lugs carried by and extending laterally from the latter handles in a co-operative relation to said frame to limit their outswing at a position wherein they are usable for being borne upon the shoulders of an operator carrying baggage supported by said frame, and a pair of hand grippable handles swingably attached to said basal member and adjustable between two positions in one of which

they project outwardly from said frame and in the other of which they overlie said basal member.

7. The subject matter of claim 6 and that flange of said channel shaped crosspiece which is nearest to the base of the frame being coped out adjacent to each end, thus providing arcuate recesses in its edge, and springs coiled loosely around said shaft and positioned to act laterally against the first recited handles as the latter are manually inswung to latch them in their inswung positions, the edge portion of said flange where it joins each of said recesses having a rounded shoulder over which the adjacent handle rides when approaching and receding from its inswung position.

8. The subject matter of claim 6 and that flange of said channel shaped member which is farthest from the base of the frame having in its edge adjacent each side piece a series of progressively deepening recesses the bottoms of

which form stops for the aforesaid lugs to accommodate additional outswinging of each shoulder borne handle.

References Cited in the file of this patent

UNITED STATES PATENTS

363,940	Ash	May 31, 1887
369,215	Tanner	Aug. 30, 1887
933,616	Bilger	Sept. 7, 1909
1,035,471	Rockwell	Aug. 13, 1912
1,793,637	Rockwell	Feb. 24, 1931
2,108,477	De Gheselle	Feb. 15, 1938
2,274,918	Chenette	Mar. 3, 1942

FOREIGN PATENTS

1,495 of 1910	Great Britain	June 30, 1910