Sept. 1, 1936. J. SCHMOLLER 2,052,803

COLLAPSIBLE CARRIAGE

Filed Dec. 2, 1935

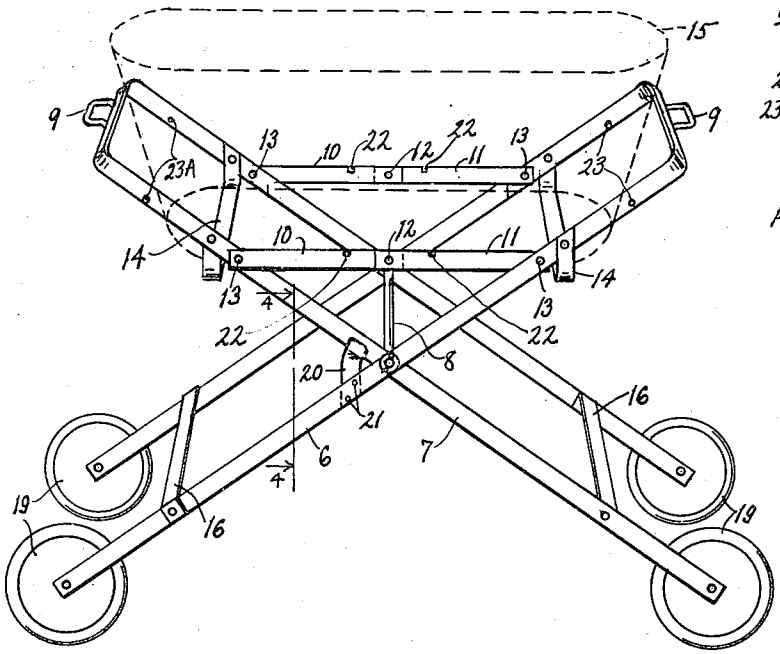


FIG. 1.

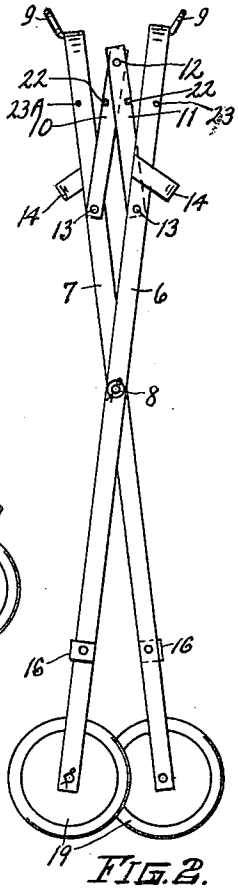


FIG. 2.

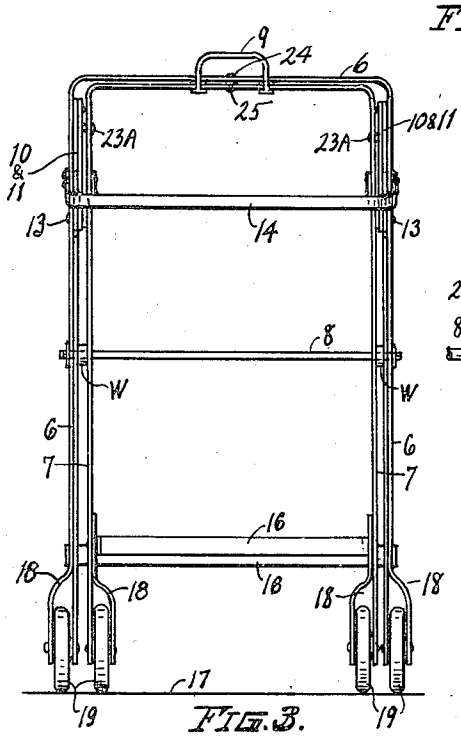


FIG. 3.

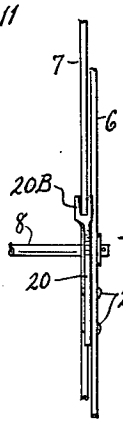


FIG. 4.

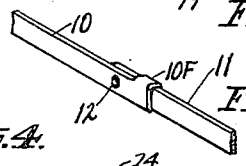


FIG. 5.

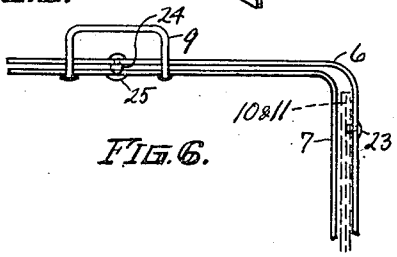


FIG. 6.

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COLLAPSIBLE CARRIAGE

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3 Claims. (Cl. 280—41)

My invention relates generally to wheeled carriers or trucks and more specifically to a collapsible carriage designed particularly for use in the household to hold and transport baskets, tubs, boxes and other containers, particularly baskets and tubs such as used by housewives on wash days at the tub, in the laundry and along the clotheslines.

The main object is to provide a highly efficient, light-weight, collapsible carriage for the purpose described particular stress being made on the novel construction and assembly providing for extremely simple but efficient means for supporting containers of various shapes and sizes, for example either tubs or baskets of the types commonly used in households.

Among the advantages of its use is its adaptability in holding a tub at or near a washing machine or laundry tubs and subsequently rolling the device with container to and along the clothes lines on which a washing is to be hung for drying.

In the accompanying drawing:

Fig. 1 is a slightly perspective side elevation of my improved carriage in operative position.

Fig. 2 is a side elevation of the carriage in almost completely collapsed condition.

Fig. 3 is an end elevation of the carriage completely collapsed or folded up, this figure being in reduced scale as compared to Figs. 1 and 2.

Fig. 4 is an enlarged sectional detail view as on line 4—4 in Fig. 1 revealing a certain desirable form of frame brace and stop device.

Fig. 5 is a perspective view of one of the knee braces 10—11, and Fig. 6 is a detail view of the upper right hand part of Fig. 3.

Referring to the drawing similar reference characters are used to indicate corresponding parts in the various views.

A preferred embodiment of my device is illustrated and comprises a pair of inverted U-shaped frames 6 and 7, crossed and pivotally connected intermediate their ends on a transverse shaft 8, frame 6 being slightly larger than frame 7 so that the two may be collapsed as in Fig. 3 and lie in a common plane. 9 is a rigid U-shaped handhold fixed to the upper central part of each upper frame cross-member, these handles made preferably of round bar stock and may extend angularly and outwardly so that when the frame is opened to operative position shown in Fig. 1 the hand-holds will be in approximately horizontal plane.

Above shaft 8 the two frames are connected by means of two knee-braces 10—11, each breakable upwardly only on pivot 12 and further pivotally retained at their outer ends as at 13 to the frame members 6—7. Various means may be used to allow the knee braces to be positioned with their two parts fixed in alinement, for example, as in Fig. 5 one arm, as 10, is extended slightly beyond its pivot 12 and formed with a transverse top flange or extension 10F to bear on the adjacent upper edge of arm 11 when the knee-brace is straightened.

Just outwardly of the ends of the knee braces I provide two rigid transverse support bars 14, one in each frame 6—7, preferably of flat bar stock bent in U-shape and so positioned that when the frame is fully open (Fig. 1) these support bars are in horizontally registering positions to simultaneously support a clothes-basket, as 15 (shown dotted in Fig. 1), a tub, box or other container.

16 designates a horizontal, transverse frame brace on each frame member 6—7, located intermediate the shaft 8 and the lower wheel retaining end of each frame and located at such height as to not interfere or be contacted by a person pushing or pulling the device on the ground or floor 17.

In Fig. 3 is clearly shown how the lower extremities of the frame are bifurcated as at 18, frame 7 offset inwardly and frame 6 offset outwardly, to rotatably retain in each such part a ground wheel, preferably rubber tired, as shown, to move silently on any surface.

The construction and use of my device have been fully disclosed simultaneously in the foregoing description. The device is made in such proportions that a basket or tub, designated 15 in Fig. 1, will be rigidly supported in such elevation that its top corresponds to the top of the usual laundry tubs, or thereabouts. This height is of course most convenient for a housewife while laundering. Washings, either from a laundry tub or a washing machine, are readily placed in the container 15 then transported to the clothesline in the laundry or out in the open. The carriage and washing are thus readily transported to any desired location and the device is easily moved along the clotheslines, either during the hanging up or taking down of clothes. Washed articles are of course accessible at an elevation requiring no stooping. The carriage, with container on it may also be readily placed in a position near an ironing board.

The collapsed device, as in Fig. 3, may be hung up on a wall or stood up against a wall and occupies a minimum of space.

In Figs. 1 and 4, 20 designates a flat metal brace and stop member fixed as at 21 to frame 6, below shaft 8 and projecting upwardly preferably in bifurcated form, as at 20B in Fig. 4, to contact and frictionally engage the edge portion of the adjacent side bar of the frame 7. This brace and stop connects and braces the entire frame when the latter is in open, operative position (see Fig. 1). Obviously more than one of these braces may be used.

In Fig. 1 it is clearly shown that the outer ends of the knee brace members 11 are interiorly of frame 6 and the corresponding opposite ends of members 10 are exteriorly of frame 7. 22 is a notch in the upper edge of each member 10—11 near their joints 12. 23 are inwardly projecting pegs in the upper part of frame 6 and 23A are like pegs projecting outwardly in upper part of frame 7, all said pegs located so as to be engaged frictionally and simultaneously by the notched parts 22 when the frame is folded up, thus holding the entire device from accidentally opening up. For the same purpose I provide further in the central part of the upper cross bar of frame 6 a downwardly projecting button or peg 24, preferably rounded, to frictionally engage in a corresponding depression or indentation 25 in the adjacent upper bar of frame 7 (see Figs. 3 and 5). Obviously these means for holding the device closed will hold it thus under all normal conditions, but the frame is easily opened by merely using a little initial force to disengage the notch and peg means described.

Suitable spacing washers W must be used at 13, and on shaft 8 between the adjacent frame bars, to provide clearances for parts which otherwise would not permit folding up of the frame.

Variations in details of structure and assembly of parts may be made, within the scope of the following claims, without departing from the scope and spirit of the invention as herein described.

I claim:

1. A portable, collapsible carrier comprising a pair of inverted U-shape frame members, a transverse shaft intermediate the ends of said frames and on which the latter are pivotally mounted and adapted to be swung apart to a predetermined open position or collapsed to a position both in common plane, a ground wheel in each of the lower extremities of each member, container support means mounted transversely in each frame member and both arranged to be positioned in a common horizontal plane, dual frame bracing means simultaneously limiting the spreading of the frame members, one comprising a pair of knee braces, each brace connecting the side bars of the frame members at one side of the device, said frame members being one larger than the other, said knee braces arranged to be folded upwardly between the adjacent side bars of the frame, said knee brace members provided with notch means, and a fixed peg in each of the frame bars arranged each in the path of one of said notches of the knee braces said parts to engage frictionally but removably when the device is collapsed.

2. The structure specified in claim 1, and a fixed friction peg fixed in one of the upper cross members of the frame and projecting toward and into the path of the other frame member, the latter member provided with a notch or the like to be frictionally but removably engaged by the said peg when the device is folded up.

3. In a collapsible carriage, a pair of inverted U-shaped main frames, a transverse shaft intermediate the ends of said frames and pivotally connecting them, one main frame smaller than the other and both arranged to swing on said shaft into a common plane, a ground wheel rotatably mounted in each lower extremity of the said frames, the frames adapted to be spread apart and all said wheels to contact the ground simultaneously, means limiting the spread of said frames, and further means above said shaft in the frames for supporting a receptacle, said latter means comprising in each frame a rigid, transverse U-shaped cross member of flat stock, fixed above said shaft in angular relation to the side bars of the frame, said members positioned with their bottom parts alined in a common horizontal plane when the frame members are spread apart to their maximum open position.

JOHN SCHMOLLER.