

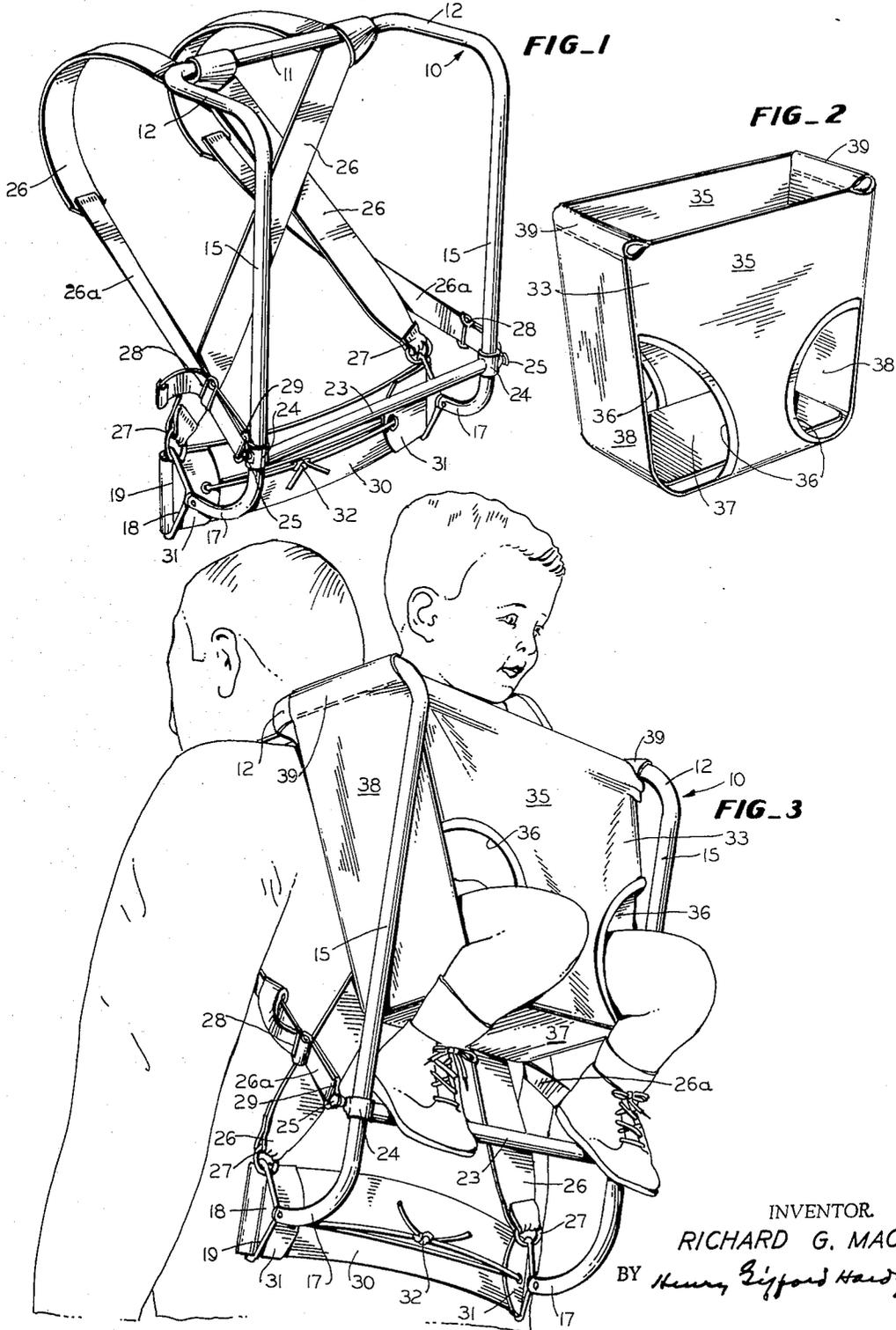
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BACK SUPPORTED CARRIER

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BACK SUPPORTED CARRIER

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4 Claims. (Cl. 224-6)

This invention relates to improvements in carriers for transporting a child and other types of loads on an individual's back, and particularly to a frame having a detachable harness, with an open sack-like seat within which the child is positioned and carried.

The present invention provides a back pack which is safe and comfortable both for the child and the user. The child is effectively seated in a container and the frame itself provides positive protection to the body of the child when the carrier is being used.

The present invention also provides a carrier which has the comfort of both the child and the user as paramount considerations and further provides such comfort with quickly made adjustments which make it adaptable to all types of persons and children.

It is believed that all previous child back pack carriers permit the child to face in one direction only. In this apparatus the user may face the child in either direction at his discretion and without any change of or adjustment in the apparatus.

The present invention provides and makes use of a second-class lever to aid the lift with its mechanical advantage, in the transport of a child.

Further objects are to provide a construction of maximum simplicity, economy and ease of assembly and disassembly, also such further objects, advantages and capabilities as will fully appear and as are inherently possessed by the device and invention described herein.

The invention further resides in the combination, construction and arrangement of parts illustrated in the accompanying drawings, and while there is shown therein a preferred embodiment thereof, it is to be understood that the same is illustrative of the invention and that the invention is capable of modification and change and comprehends other details of construction without departing from the spirit thereof or the scope of the appended claims.

In the drawing:

FIGURE 1 is a perspective view of the carrier frame with the sack portion removed;

FIGURE 2 is a perspective view of the sack portion separated from the frame; and

FIGURE 3 is a perspective view of the entire assemblage in use, with the child facing outwardly.

Referring now more particularly to the drawings in which like reference numerals indicate like parts in the several views, the pack frame 10 is preferably a single piece of tubular lightweight metal such as aluminum bent to form a horizontal transverse top section 11, then bent rearward in a horizontal plane at each side at substantially 90° to form top sections 12. Frame 10 continues downwardly and inwardly at either side forming substantially parallel side section 15. The ends of the frame 10 are bent forwardly to form the short end sections 17. A pair of spreader brackets 18 each having a vertical slot 19 are secured in the terminating ends of sections 17.

The frame 10 is made firm and secure by an adjustable transverse spacer brace 23. Brace 23 is secured at each end by an adjustable collar 24 provided with integral posts 25 or other means for lacing, binding or attaching. Collars 24 are slidably and adjustably mounted on the side sections 15 so that brace 23 may provide a foot rest if desired, at the appropriate height. The ends 31 of resilient webbing 30 pass through the slots 19 in the brackets 18 at either side and are secured together on the outside by a drawstring 32. Since the webbing engages the small of

the back of a wearer just above the hips, the adjustment of the pressure or resilience of the webbing can be made by tightening or loosening the drawstring 32.

Frame 10 is provided with a detachable harness, having a pair of wide straps 26 continuing and secured to narrow straps 26a. Straps 26 each have their lower ends 27 secured to frame 10 on the spacer brackets 18 at each side. These may be permanently secured or releasably secured by means of safety snap hooks. Straps 26 across diagonally over each other toward the opposite left and right ends of top section 11 of frame 10 where the straps 26 loop over and around section 11 of the frame from the inner side. This permits limited movement from side to side making automatic weight and terrain adjustments without any sacrifice in the secure holding. Straps 26 then continue forwardly and under the frame section 11 and over the shoulders of the wearer. The narrow portions 26a pass under the arms of the wearer and at his sides. The ends are removably attached by a pair of safety clips 29 to the studs 25 adjacent the spacer bar 23.

It is observed that a second class leverage results when the harness narrow ends are attached to the frame 10 in this manner. The fulcrum of the leverage is at the brackets 18 and the attachment of the narrow ends of the harness on the studs 25 is outwardly or rearwardly thereof and provides the lift. Thus there is a true mechanical advantage provided. The straps 26a pull the downward loading on the frame with an upward and forward movement against the fulcrum. The ease and comfort of wearing the pack and carrying a load is greatly improved.

Open container-like seat 33 is preferably of a durable fabric such as canvas, duck and the like. However, it may be made of other materials which do not detract from the safety and comfort of the child while in the container. The container seat 33 is open at the top with front and back panels 35 and side panels 38. Each of the front panels 35 is provided with openings 36 at the lower corners thereof for leg holes. Bottom 37 may be made integral with either the side panels 38 or the front and rear panels 35 or both. It is preferably stiffened and reinforced and padded by suitable conventional means. The side panels 38 are formed with loops 39 along their top edges. During the assembly of the carrier 10, the legs 17 of the frame are slipped through loops 39 of the container-seat 33 and moved along the frame until it is suspended on the frame and between the side sections of the horizontal U-portion of the frame, from sections 12 thereof (see FIGURE 3).

One may observe that a child may be positioned in the container-seat 33 facing forwardly toward the wearer or outwardly back to back with the wearer as desired, with his legs passing through the respective openings 36. When he faces forwardly, he can conveniently rest his feet on the bottom sections 17 of frame 10. If he faces outwardly, the adjustable brace 23 may be moved so as to form a comfortable foot rest. It will be observed that the container-seat 33 comfortably confines a child for his safety, and that the side sections 15 provide protective rails effectively shielding the body of the child from inadvertent bumps and snags.

The carrier 10 with the child in it weighs very little more than the child alone and is easily placed in position and taken off by the wearer. To put on the carrier with the child in place, it is only necessary to undo one of the safety fastenings 29. The appropriate arm of the wearer is slipped through the closed loop of the harness and the carrier goes immediately into position on the back of the wearer.

The open loop of the harness is then passed under the free arm and fastened to the appropriate stud 25. The carrier may be raised or lowered on the back of the wear-

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er merely by adjusting the narrow straps 26a with the standard adjusting means 28.

The fitting 24 with its attached stud 25 and the manner of mounting the brace 23 and adjusting the vertical position thereof are each fully disclosed and explained in my co-pending application Serial No. 340,999, filed January 29, 1964, now Patent No. 3,219,243.

I claim:

1. A frame for a back pack for carrying a child, in combination a frame formed of a continuous piece of lightweight material bent at the middle to form a transverse U shape, the continuation of the legs of the U being bent downwardly, inwardly and parallel to each other to form the side portions of said frame, the said legs terminating in parallel inwardly bent sections, spreader brackets secured at said terminating leg ends, a spacer brace bar adjustably secured along and between said side frame portions, and a yielding webbing adjustably mounted between said spreader brackets to bear against and space said frame from the small of the back of the wearer and above the hips.

2. A frame for a back pack for carrying a child, in combination a frame formed of a continuous piece of lightweight material bent at the middle to form a transverse U shape, the continuation of the legs of the U being bent downwardly, inwardly and substantially parallel to each other to form the side portions of said frame, the said legs terminating in parallel inwardly bent sections, spreader brackets secured at said terminating leg ends, a spacer brace bar secured between said frame side portions, mountings for adjustably securing said spacer brace bar vertically along said side frames, a yielding webbing adjustably mounted between said spreader brackets, and a detachable harness with straps secured at one end to said spreader brackets and to the said mountings for the spacer bar at the other or lift end.

3. A back pack for carrying a child, in combination a frame formed of a continuous piece of lightweight material bent at the middle to form a transverse U shape, the continuation of the legs of the U being bent downwardly, inwardly and parallel to each other to form the side portions of said frame, said legs terminating in parallel in-

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wardly bent sections, spreader brackets secured at said terminating leg ends, a spacer brace bar secured between said frame portions, mountings adjustably positioning the spacer brace bar along said side leg portions, a yielding webbing adjustably mounted between said spreader brackets, a detachable and adjustable harness secured at its beginning ends to the said spreader brackets and removably attached at its terminating ends at either side of said frame to the mountings for said spacer brace bar, and a container-seat having leg holes front and rear suspended between the side portions of the transverse U at the top of said frame.

4. A back pack for carrying a child, in combination, a frame formed of a continuous piece of lightweight material bent at the middle to form a transverse U shape, the continuation of the legs of the U being bent downwardly, inwardly and parallel to each other to form the side portions of said frame, said legs terminating in parallel inwardly bent sections, spreader brackets secured at each of said terminating leg ends, a slidably adjustable fitting on each of said frame side portions having a radial outwardly extending stud and an inward boss, a transverse brace member mounted between said side portions on said bosses, a harness secured at its beginning ends to said spreader brackets and detachably secured at the terminating ends to said studs and a container-seat of flexible material having front, rear and side panels with leg holes in the front and rear panels mounted on and suspended between the side portions of the said transverse U of said frame.

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