Sept. 18, 1962 W. E. DAVIS ETAL 3,054,622

HANDCART FOR GAME

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Fig. 1

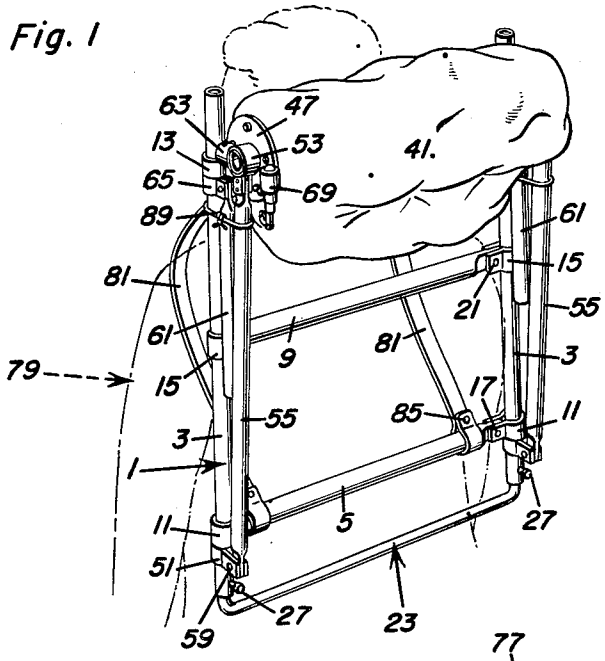


Fig. 8

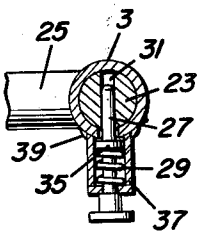
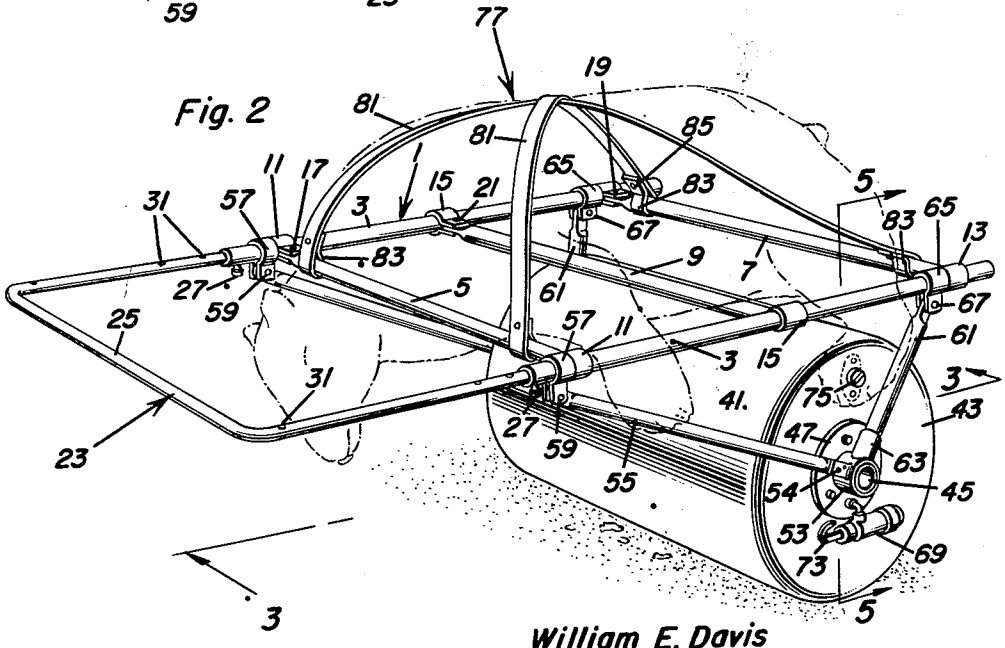


Fig. 2



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Fig. 3

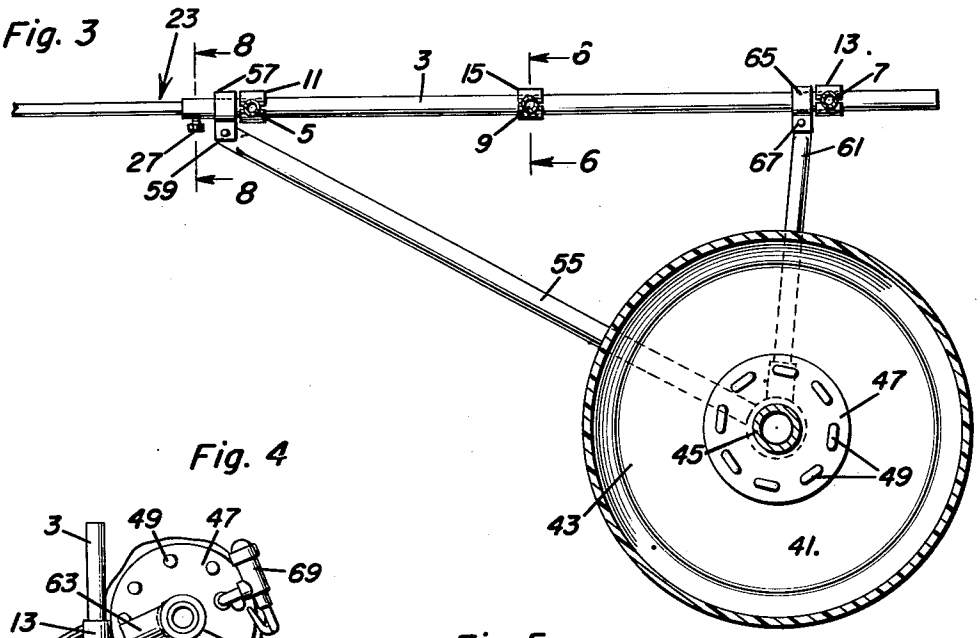


Fig. 4

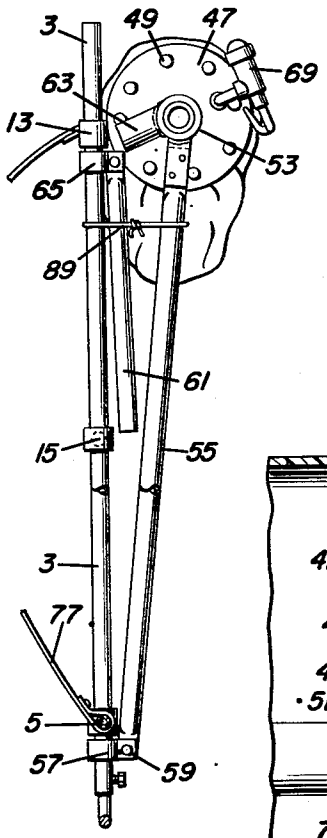


Fig. 5

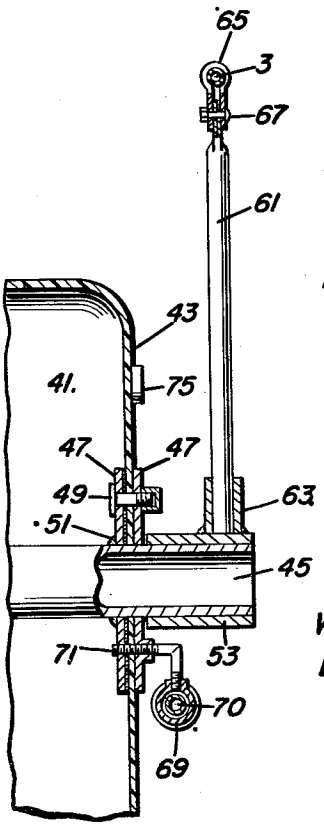


Fig. 6

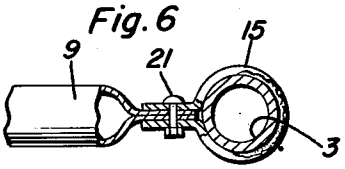
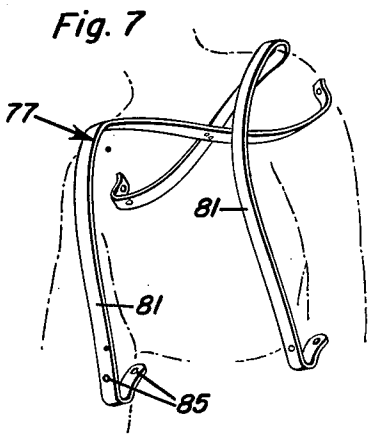


Fig. 7



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3,054,622

HANDCART FOR GAME

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8 Claims. (Cl. 280—41)

This invention relates to improvements in handcarts for use by hunters, and the like, in transporting big game out of woods and in fields.

The primary object of the invention is to provide a handcart for the above purpose which is foldable into compact form for carrying by a hunter, or the like, on the back when not in use.

Another object is to provide a handcart according to the foregoing which is easy to fold and unfold, light in weight and strong and durable and comparatively inexpensive to manufacture.

Still another object is to provide a handcart embodying a folding frame and a resilient ground roller for supporting the frame inflatable for use on the ground and adapted for deflation to assume a flattened form whereby to facilitate compact folding of the cart.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

FIGURE 1 is a perspective view, partly in broken lines, illustrating the cart of this invention folded, and the manner in which it is carried on the back of a hunter, or the like;

FIGURE 2 is an enlarged view in perspective of the cart unfolded and ready for use;

FIGURE 3 is an enlarged fragmentary view in vertical longitudinal section taken on the line 3—3 of FIGURE 2;

FIGURE 4 is an enlarged view in side elevation, partly broken away, and shown in section, of the cart folded;

FIGURE 5 is an enlarged fragmentary view in vertical cross-section taken on the line 5—5 of FIGURE 2;

FIGURE 6 is an enlarged fragmentary view in vertical section taken on the line 6—6 of FIGURE 3;

FIGURE 7 is a perspective view, partly in broken lines, illustrating a harness for carrying the cart on the back of a hunter, or the like, and

FIGURE 8 is an enlarged fragmentary view in vertical cross-section taken on the line 8—8 of FIGURE 3.

Referring to the drawings by numerals, according to this invention, a cart is provided comprising a substantially rectangular frame 1 of tubular side members 3 cross connected in laterally spaced, parallel relation by terminally flattened front, rear and intermediate transverse tubular members 5, 7, 9 respectively, secured to the side members 3 by pairs of terminal flat band U-clamps 11, 13, 15 bolted, as at 17, 19, 21 to said members 5, 7, 9 and surrounding and suitably secured to the side members 3.

The frame 1 further includes a U-shaped front extension section 23 of tubular stock slidably adjustable inwardly and outwardly of the front ends of the side members 3 to extend and/or contract the length of the frame 1, as desired.

The extension 23 comprises a transverse straight bight portion 25 forming a handle bar for grasping by a person to push or pull the cart.

Spring loaded latch bolts 27 at the front ends of the side members 3 are provided for engaging cross bores, as at 31, in the extension section 23 to latch said section 23 in adjusted position. The latch bolts 27 one of which is shown in FIGURE 8 in detail, are loaded by helical

springs 29 thereon interposed between a collar 35 on the bolt 27 and a cylindrical casing 37 enclosing the spring 29 and welded, as at 39, to the associated side member 3.

An elongated ground roller 41 with annular ends 43 is mounted by means, presently described, on the frame 1 transversely thereof and adjacent the rear end of said frame 1 to run beneath said frame on the ground and support said frame. The roller 41 is formed of a bag of resilient material, such as soft rubber, or rubberized fabric, so that it is inflatable into cylindrical form for use as a roller and collapsible for folding flatly close to said frame, when the frame is folded.

The means for mounting the roller 41 comprises a tubular axle 45 extending through said roller 41 out of its ends 43 and to which each end 43 of said roller 41, as shown in FIGURE 5 in connection with one end 43, is clamped between a pair of annular collars on the axle 45 having bolts 49 extending through the pair, one of said collars 47 being welded, as at 51, to the axle 45.

The axle 45 is journaled in sleeve bearings 53 bolted, as at 54, on the rear ends of a pair of tubular roller draft side arms 55 on the frame 1, pivotally connected at front ends thereof to the side members 3, adjacent the front ends of said side members for swinging away from and toward said frame 1 to swing the roller 41 into and from frame supporting position respectively when the frame is unfolded and folded. Flat band U-clamps 57 to which the front ends of the arms 55 are pivoted, as at 59, and which are suitably fixed on the side members 3 pivotally connect said arms 55 to said frame 1.

A pair of tubular, side, stop arms 61 on the frame 1 are pivotally connected at upper ends thereof to the side members 3 adjacent to the rear end of the frame 1 for removably seating at lower ends thereof in sockets 63 on the bearings 53 to prevent the arms 55 and the roller 41 from swinging toward the frame 1 and thus hold said roller 41 in frame supporting position. Flat band U-clamps 65 on the side members 3, like the clamps 57, and to which said stop arms 61 are pivoted, as at 67, swingably secure the stop arms 61 to the side members 3.

As will be seen, the draft arms 55 and stop arms 61 form pairs of arms on the side members 3 converging downwardly in each pair to space the roller 41 in frame supporting position from said frame and the stop arms 61 are displaceable out of the sockets 63 by lifting of the frame 1 upwardly, so that the stop arms 61 are freed and swingable toward the frame 1 and the draft arms are correspondingly swingable into overlapping relation to the stop arms 61 as shown in FIGURES 1 and 4 and whereby to fold the frame 1.

As a means for inflating the roller 41, a suitable cylinder 69 for a puncturable cartridge 70 of CO_2 gas is fixed by a discharge pipe 71 to one pair of the collars 47 eccentrically thereof in communication with the interior of the roller 41 and provided with the usual cartridge puncturing lever 73. For deflating the roller 41 a conventional discharge valve 75 is provided in one end 43 of the roller 14.

A harness 77 is provided on the frame 1 for carrying the cart, when folded, on the back of a hunter, or the like, 79. The harness 77 comprises a pair of crossed straps 81 terminally looped, as at 83, around the front and rear transverse members 5, 7 with the loops closed by snap fasteners represented at 85. The harness 77 may also be used to strap game shown by dotted line in FIGURE 2, on the frame 1 of the cart.

The use and operation of the cart will be readily understood. By swinging the draft arms 55 away from the frame 1, correspondingly swinging the stop arms 61 and inserting the stop arms 61 into the sockets 63, the roller 41 is swung away from the frame 1 into frame supporting position, as shown in FIGURES 2 and 3, for inflation into

cylindrical form for use as a frame supporting ground roller. The cart may be pulled or pushed by means of the extension section **23**, which may be extended or retracted in the side members **3** to extend or contract the overall length of the frame **1** as may be desired. Thus the cart is unfolded for use. To fold the cart, the roller **43** is deflated so that the same may be collapsed into flattened condition, as shown in FIGURES 1 and 4. The frame **1** is lifted to displace the stop arms **61** from the sockets **63**, the extension section is retracted inwardly of the side members **3** and latched in retracted position by the latch bolts **27**, the stop arms **61** are swung toward the frame **1** to fold the same close to the side members **3**, the draft arms **55** are then swung toward the frame **1** close to the frame to overlap the stop arms **61** and position the deflated flattened roller **41** close to the frame **1**. Then the side members **3**, draft arms **55** and stop arms **61** are tied together by cords, or the like, **89** as shown in FIGURES 1 and 4. The cart, thus folded and secured in folded position, is carried upright on the back of a hunter **79**, or the like, by the harness **77**. As will be seen, the cart when folded as described, forms a compact lightweight pack which may be easily carried by a hunter, or the like.

From the foregoing, the construction and operation of the device will be readily understood and further explanation is believed to be unnecessary. However, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

1. A folding cart comprising a substantially rectangular frame including a pair of tubular side members, a pair of side arms terminally pivotally connected at one end to said side members for swinging toward and from the same into and from folded position, a ground roller extending between the side arms having ends, means journaling said roller in the other ends of said side arms for swinging thereby toward and from the frame from and into frame supporting position, sockets on said side arms, a pair of stop arms terminally pivotally connected to said side members for swinging toward and from the frame into and from folding position and terminally displaceably seating in said sockets when in folded position to prevent swinging of said side arm into folded position, and a shoulder harness on said frame for carrying the cart when said arms are folded, said ground roller comprising a closed end bag of resilient flexible material inflatable into cylindrical form to support said frame and deflatable into collapsed form for swinging close to said frame, pressure discharge means on one end of the bag exterior thereto for inflating the same under pressure, and a pressure discharge valve on said bag for deflating the bag.

2. The combination of claim 1, and a U-shaped handle forming extension section on said frame slidable inwardly of said side members to contract the length of the frame to facilitate carrying of the cart by said harness.

3. The combination of claim 1, said means journaling said roller comprising an axle extending through the same and out of the ends thereof, and terminal sleeve bearings on said side arms in which said axle is journaled and having said sockets thereon.

4. The combination of claim 1, including a U-shaped handle forming extension section on said frame slidable inwardly of said side members to contract the length of the frame to facilitate carrying of the frame by said harness, and coacting latching devices on said side members and extension section for latching said section to said side members at will.

5. A foldable handcart for game or the like comprising, extensible frame means, spaced journal means, lever means fixedly secured to said journal means, socket means fixedly secured to said journal means in angularly fixed relation to said lever means, pivot means secured to said frame means adjacent to a first end thereof and pivotally connected to said lever means, spacer means pivotally connected to said frame means adjacent a second end thereof and removably received within said socket means for fixedly spacing the journal means a predetermined distance from the frame means, axle means journaled between said journal means, wheel means fixed to said axle means adjacent said spaced journal means and extending therebetween, said axle means including spaced end plate means, said wheel means comprising deflatable cylindrical means attached at axial ends thereof to said end plate means, and removable inflation pressure supply means mounted on one end plate means exterior to the wheel means.

6. The combination of claim 5, including harness means attachable to the frame means adjacent to said first and second ends.

7. A foldable handcart for game or the like comprising extensible frame means, spaced journal means, lever means fixedly secured to said journal means, socket means fixedly secured to said journal means in angularly fixed relation to said lever means, pivot means secured to said frame means adjacent to a first end thereof and pivotally connected to said lever means, spacer means pivotally connected to said frame means adjacent a second end thereof and removably received within said socket means for fixedly spacing the journal means a predetermined distance from the frame means, axle means journaled between said journal means, inflatable wheel means fixed to said axle means adjacent said spaced journal means and extending therebetween, and removable inflation pressure supply means mounted on said axle means exterior to the wheel means for inflation of the wheel means.

8. The combination of claim 7, including harness means attachable to the frame means adjacent to said first and second ends.

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