July 18, 1961 E. A. TIDWELL ET AL 2,992,834

GAME CART

Filed Jan. 13, 1958 2 Sheets-Sheet 1

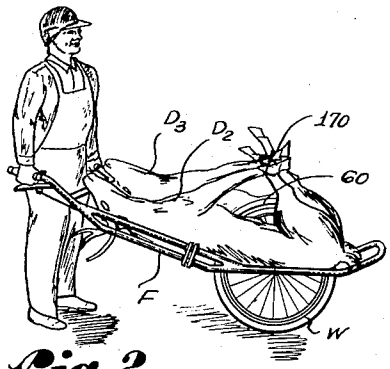


Fig. 2

Fig. 1

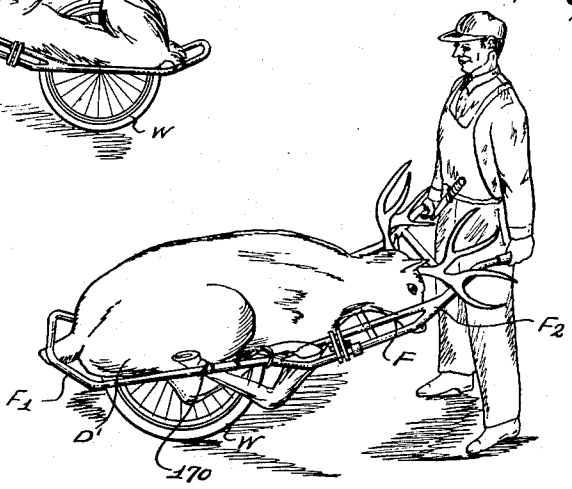
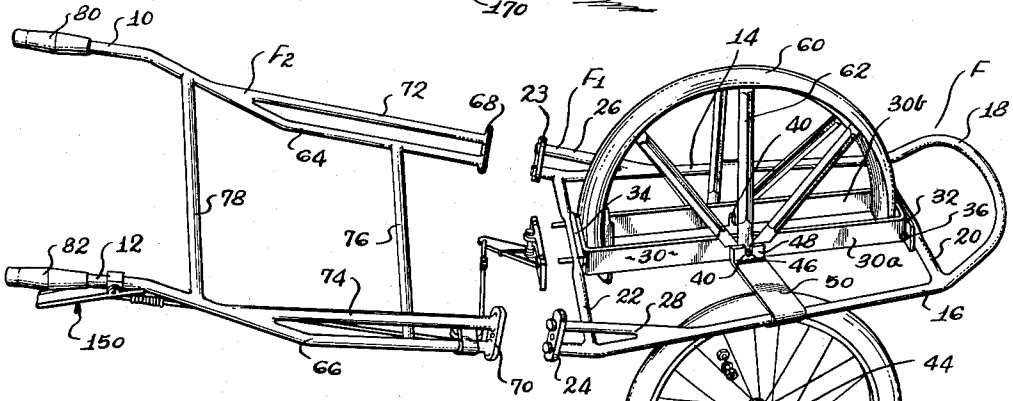


Fig. 3



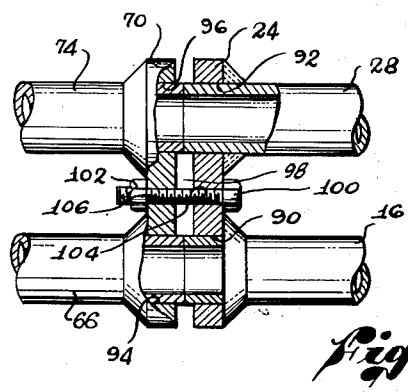


Fig. 4

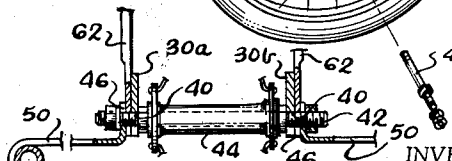


Fig. 3a

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July 18, 1961 E. A. TIDWELL ET AL 2,992,834

GAME CART

Filed Jan. 13, 1958 2 Sheets-Sheet 2

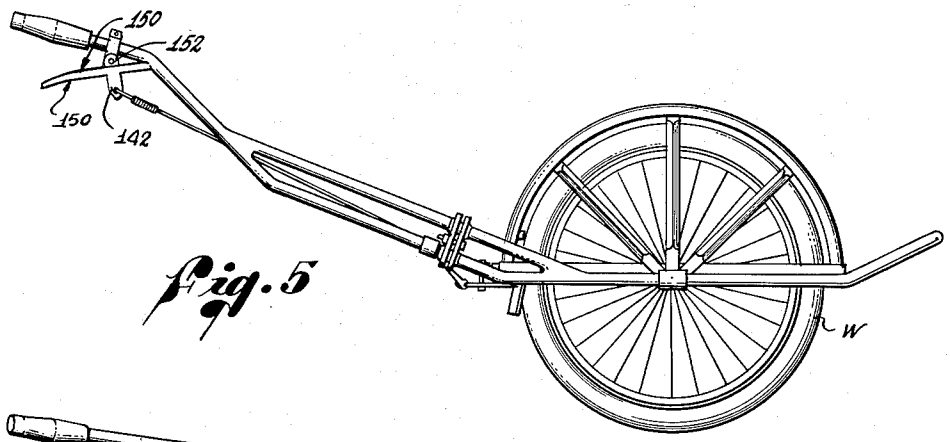


Fig. 5

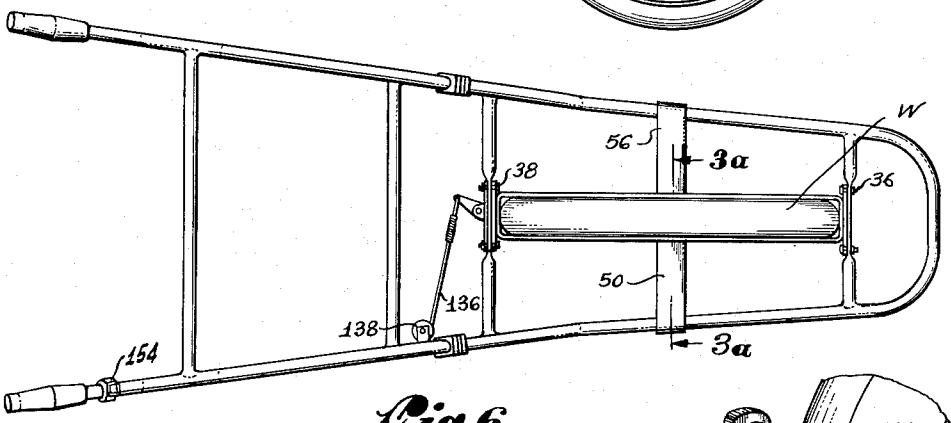


Fig. 6

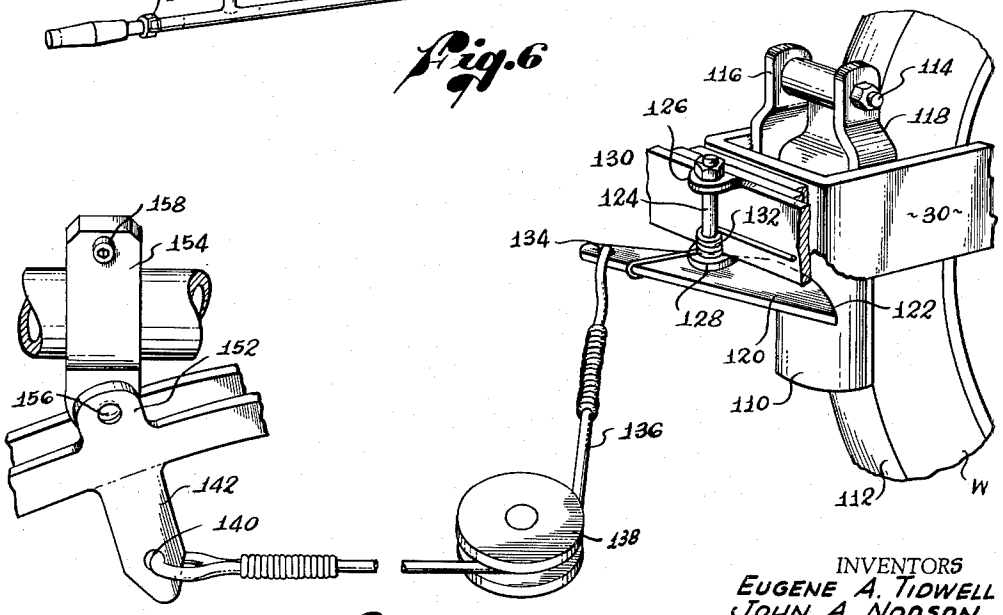


Fig. 7

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United States Patent Office 2,992,834 Patented July 18, 1961

2,992,834

GAME CART

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Filed Jan. 13, 1958, Ser. No. 708,713
2 Claims. (Cl. 280—47.3)

The present invention relates generally to the field of hunting and more particularly to a novel and improved game cart.

It is a major object of the invention to provide a game cart which may be employed by hunters of wild game in transporting bagged animals, such as deer, from more or less remote areas to camps or nearby base locations.

Another object of the invention is to provide a game cart having a frame which supports a single wheel in such a manner that when loaded the center of gravity of the load will be disposed near the wheel's axis of rotation so as to permit a single person to manipulate the cart. This object is facilitated by the provision of a readily operable brake.

Another object is to provide a game cart of the aforedescribed nature which may be readily disassembled so as to be easily packed-in to the hunting location as well as being readily storable when not in use.

Yet a further object of the invention is to provide a game cart that is rugged of construction but yet is light in weight as compared to its permissible load.

An additional object of the invention is to provide a game cart that is easily loaded and unloaded by a single person.

It is yet a further object of the invention to provide a game cart of the aforedescribed nature having a horizontal load-receiving platform through the mid-portion of which extends a single wheel. Where the game cart is employed to transport a single deer, this wheel encompasses the abdominal cavity of such deer. Alternately, where the game cart is employed to transport a pair of deer each of such deer abuts the sides of the single wheel.

An additional object of the invention is to provide a game cart that is characterized by easy portability in a dismantled condition and is adapted for quick assembly in the field. To achieve such results, this game cart is constructed from a plurality of light-weight parts which are easily carried and simply secured together in the field.

Yet another object of the invention is to provide a game cart that is simple of design and rugged of construction whereby it may afford a long and useful service life.

These and other objects and advantages of the present invention will become apparent from the following detailed description of a preferred embodiment thereof when taken in conjunction with the appended drawings wherein:

FIGURE 1 is a perspective view showing how the game cart embodying the present invention may be employed to transport a single animal;

FIGURE 2 is a perspective view of said cart as employed to carry a pair of animals;

FIGURE 3 is an exploded perspective view of said game cart;

FIGURE 3ª is a broken vertical sectional view taken on line 3ª—3ª of FIGURE 6;

FIGURE 4 is an enlarged fragmentary side view, taken partly in central vertical section, showing how the front and rear portions of the cart's frame are detachably interconnected;

FIGURE 5 is a side elevational view of said game cart;

FIGURE 6 is a top plan view of said game cart; and

FIGURE 7 is a fragmentary perspective view showing a brake employed with said game cart.

Referring to the drawings, the preferred form of game cart embodying the present invention broadly comprises a skeleton-like frame F formed at its rear end with a pair of handle bars 10 and 12 and supporting a single bicycle-type wheel W at its front portion. This cart may be utilized to carry a single animal, such as a deer D1, in the manner shown in FIGURE 1 or alternately a pair of animals D2 and D3 as shown in FIGURE 2. Referring to FIGURE 3, the frame F is formed of front part F1 and a rear part F2 which are detachably secured together rearwardly of the wheel W. Additionally, the wheel W is detachable from the frame F. With this arrangement, the game cart may be readily broken down for transportation or storage.

More particularly, the front frame portion F1 includes a pair of laterally spaced, generally horizontally extending tubular side elements 14 and 16. These side elements 14 and 16 are forwardly converging and integrally merge into a curved auxiliary handle bar 18. A tubular front cross-piece 20 rigidly interconnects the frame elements 14 and 16 at the point where they merge into the auxiliary handle bar 18. A tubular rear cross-piece 22 rigidly interconnects these frame elements 14 and 16 at their rear portions. The rear end of these side elements 14 and 16 are rigidly affixed as by welding, to the lower part of a pair of vertically extending connector plates, designated 23 and 24, respectively. The upper portion of these connector plates 23 and 24 are rigidly affixed to the rear end of a pair of downwardly and forwardly extending reinforcing tubes 26 and 28, respectively. The front end of these reinforcing tubes 26 and 28 integrally merge into the rear portion of the side elements 14 and 16 forwardly of the rear cross-piece 22.

An axle carrier that is generally rectangular in outline extends longitudinally relative to the frame F between the mid-poritons of the front and rear crosspieces 20 and 22. The front and rear ends of this axle carrier 30 are rigidly affixed as by welding to a pair of laterally extending mounting plates 32 and 34, respectively. These mounting plates 32 and 34 are affixed to the front and rear cross-pieces 20 and 22 by bolt and nut combinations 36 and 38, respectively. As shown particularly in FIGURES 3 and 3ª, the mid-portion of the side elements 30ª and 30ᵇ of the axle carrier 30 are formed with a pair of laterally aligned slots 40 adapted to receive an axle bolt 42. This axle bolt 42 is inserted between the aligned slots 40 and the hub 44 of the wheel W so as to rotatably support the wheel within the confines of the axle carrier 30. The axle bolt 42 likewise extends through a downwardly extending recess 46 formed in the vertical leg 48 of a laterally extending stiffener element 50 interposed between one side of the axle carrier 30 and the approximate mid-portion of the frame element 16, as shown in FIGURE 3. The outer portion of this stiffener 50 is curved downwardly, as indicated at 54 in FIGURE 3, so as to removably engage the frame element 16. An identical stiffener 56 extends between the other frame element 14 and the proximate side of the axle carrier 30. An arcuate guard 60 of metallic construction extends longitudinally between the front and rear ends of the axle carrier 30. A plurality of radially extending arms 62 are interposed between circumferentially spaced points on either side of the guard 60 and the mid-portion of the axle carrier 30.

The rear frame portion F2 includes a pair of frame side elements 64 and 66 that constitute rearward extensions of the frame side elements 14 and 16, respectively. The front end of these frame side elements 64 and 66 are rigidly affixed as by welding to the lower part of a pair of connector plates 68 and 70, respectively, com-

plementary to the connector plates 23 and 24 of the front frame portion F1. The upper portion of these connector plates 68 and 70 are rigidly affixed as by welding to the front end of a pair of reinforcing tubes 72 and 74 that extend parallel to the frame elements 64 and 66 and have their rear ends integrally merging with these frame elements at the approximate mid-portion of the latter. A first cross-piece 76 rigidly interconnects the front portion of the frame elements 64 and 66, while a second cross-piece 78 rigidly interconnects the rear of these frame elements just rearwardly of the point of intersection of the latter with the reinforcing tubes 72 and 74. Referring to FIGURES 4 and 5, it will be observed that just forwardly of this point of intersection, the frame elements 64 and 66 assume an upward inclination. These frame elements are then inclined at a lesser angle so as to define the handle bars 10 and 12. A pair of rubber or plastic hand grips 80 and 82 are affixed to the handle bars 10 and 12.

Referring now to FIGURE 4, the details of one of the pairs of connector plates 24 and 70 are disclosed. It should be understood that the construction of the other pair of connector plates 23 and 68 is identical. The lower part of the front connector plate 24 is formed with a bore 90 that receives the rear portion of the frame element 16. The upper part of this connector plate 24 is formed with a similar bore 92 that receives the rear portion of the reinforcing tube 28. Similarly, the lower part of the connector plate 70 is formed with a bore 94 that receives the front portion of the frame element 66, while the upper part of this connector plate is formed with a bore 96 that receives the front portion of the reinforcing tube 74. The rear ends of the frame element 16 and reinforcing tube 28 extends rearwardly a short distance past the rear surface of the connector plate 24, while the front ends of the frame element 66 and reinforcing tube 74 extend through the connector plate 70 a short distance beyond its front surface so a to define a space 98 between the front and rear connector plates. The connector plates 24 and 70 are detachably interconnected by means of a bolt 100 and a nut 102. The bolt 100 extends through aligned bores 104 and 106 formed through the mid-portions of the connector plates 24 and 70, respectively.

Preferably, the wheel W is provided with a brake shoe 110. As indicated in FIGURE 7, this brake shoe 110 is of curved configuration conforming generally to the curvature of the tire 112 of the wheel W. The upper end of the brake shoe 110 is pivotally supported by a horizontal pivot bolt 114 between a pair of upstanding bifurcations 116 and 118 having their lower portions rigidly affixed within the confines of the rear portion of the axle carrier 30. The brake shoe 110 is adapted to be urged forwardly into frictional engagement with the tire 112 by means of a cam plate 120, the forward portion of which is formed with a uitable curvature 122. The intermediate portion of the cam plate 120 is rigidly affixed to an upstanding bolt 124 that is disposed between a pair of rearwardly extending bifurcations 126 and 128. These bifurcations 126 and 128 are integrally formed upon a support plate 130. As indicated in FIGURE 6, the support plate 130 is held against the mid-portion of the cross-piece 112 by means of the aforedescribed bolt and nut combinations 38. The rear end of the cam plate 120 is normally biased away from the brake shoe 110 by means of a conventional torsion spring 132, the mid-portion of which is carried by the bolt 124. The rear portion of the cam plate 120 is formed with an aperture 134 that receives the front end of a cable 136. This cable 136 extends rearwardly about a sheave 138 that is carried by the inner front portion of the frame element 66 rearwardly of the connector plate 70, as will be clear by reference to FIGURE 6. After passing about this sheave 138, the cable 136 extends rearwardly to a point located forwardly and below the handle bar 12. At this point the rear end of the cable 136 extends through a bore 140 formed in the lower portion of a tongue 142 that is integrally formed on the intermediate portion of a hand grip, generally designated 150. This hand grip 150 is integrally formed above the tongue 142 with a pair of bifurcations 152. These bifurcations 152 are pivotally secured to the lower portion of a clamp 154 by means of a pivot pin 156. The clamp 154 is secured to the front portion of the handle bar 12 by means of a suitable bolt and nut combination 158.

From the foregoing description it will be apparent that the preferred form of game cart embodying the present invention may be readily disassembled so as to be packed-in to the hunting location. In this regard, the front frame portion F1 may be detached from the rear frame portion F2 by removing the bolt 100 from the aligned bores 104 and 106 formed in the front and rear connector plates 24 and 70, respectively. To effect such disengagement of the frame portions it is also necessary to remove the brake shoe support plate 130 from the cross-piece 22 by means of the bolt and nut combinations 38. If the front bolt and nut combinations 36 are likewise removed at this time, it is possible to detach the axle carrier 30 from the front frame portion F1. The wheel W and the stiffeners 50 and 56 may be detached from this axle carrier 30 by simply removing the axle bolt 42. When it is desired to employe the game cart for carrying a load, its parts may be readily assembled by a reversal of the above procedure.

Referring now to FIGURE 1 where the game cart is to be employed in transporting a single animal D1, the abdominal cavity of this animal is slit open longitudinally. Thereafter, the animal is placed upon the cart in an upright position with the wheel guard 60 and the arms 62 thereof extending upwardly into its abdominal cavity. The side elements 14 and 16, the front cross-piece 20 and the rear cross-piece 22 define a generally horizontal load-supporting platform that receives the major portion of the weight of the animal. The animal's four feet may then be bound together as with cord 170 and if desired, its antlers may also be secured to the rear frame portion F2 with suitable cord. Some of the animal's weight will then be supported by the frame side elements 64 and 66 and cross-piece 76. At this time the center of gravity of the load will be disposed near the axis of rotation of the wheel W. For this reason it is possible for a single person grasping the handle bars 10 and 12 to manipulate the cart. This is also the case when a pair of animals are disposed upon the cart in the manner depicted in FIGURE 2. Referring to the latter figure, it will be observed that the pair of animals D2 and D3 are arranged with their main body portions abutting either set of arms 62 of the guard 60. The animals' feet may be tied together in an inverted position with their bodies facing rearwardly. If desired, the heads and bodies of the animals may be retained in the desired position by cord. With this arrangement, the center of gravity of the load will again be disposed near the axis of rotation of the wheel W. Accordingly, a single person may readily manipulate the game cart. This will be the case even though the cart must be moved over rough terrain. In this regard, the diameter of the wheel W should be sufficiently large that it may readily pass over ruts and bumps. When it is necessary to manipulate the cart down a hill or other inclination, the aforedescribed brake prevents the game cart from running away from its operator. It should be especially noted that the auxiliary handle bar 18 may be grasped by one or two other persons should it become necessary to apply more force to the game cart, as for example, where it may be moved up a hill or other inclination.

While there has been shown and described hereinbefore what is presently considered to be the preferred embodiment of the present invention, it will be apparent that various modifications and changes may be made

thereto without departing from the spirit of the invention or the scope of the following claims.

We claim:

1. A game cart, comprising: a frame having a pair of longitudinally extending side elements interconnected by lateral cross-pieces so as to define a substantially horizontal load-supporting platform at the front portion of said frame with the rear ends of said side elements being inclined upwardly; a pair of handle bars formed at the rear end of said side elements; a forwardly extending auxiliary handle bar connecting the front ends of said side elements and curved forwardly and inwardly relative thereto; a longitudinally extending axle carrier secured between certain of said cross-pieces so as to extend across the lateral midportion of said platform; a wheel; an axle in approximate horizontal alignment with said platform supporting said wheel vertically upon said axle carrier; guard means extending from the front to the rear of said axle carrier and encompassing the upper half of said wheel, with said guard means and the upper half of said wheel being the only upstanding projections disposed directly above said platform; brake means interposed between said frame and said wheel; a hand grip secured to said handle bar means; and a tension element interconnecting said brake means and said handle grip.

2. A game cart, comprising: a frame having a pair of longitudinally extending side elements rigidly interconnected by a plurality of lateral cross-pieces so as to define a substantially horizontal load-supporting platform at the front portion of said frame, with the rear ends of said side elements being inclined upwardly; a pair of handle bars formed at the rear end of said side elements; means detachably interconnecting said side elements rearwardly of said platform; a forwardly extending auxiliary handle bar connecting the front ends of said side elements and curved forwardly and inwardly relative thereto; a longitudinally extending axle carrier secured between certain of said cross-pieces so as to extend across the lateral midportion of said platform; a wheel; an axle in approximate horizontal alignment with said platform supporting said wheel vertically upon said axle carrier, said axle being removable from said axle carrier so as to permit said wheel to be detached from said axle carrier; guard means extending from the front to the rear of said axle carrier and encompassing the upper half of said wheel, with said guard means and the upper half of said wheel being the only upstanding projections disposed directly above said platform; brake means interposed between said frame and said wheel; a hand grip carried by one of said handle bars; and a cable interconnecting said brake means and said hand grip.

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