July 25, 1967 V. CAFRA 3,332,698

HUNTER'S UTILITY DEVICE

Filed Oct. 5, 1964 3 Sheets-Sheet 1

Fig. 1

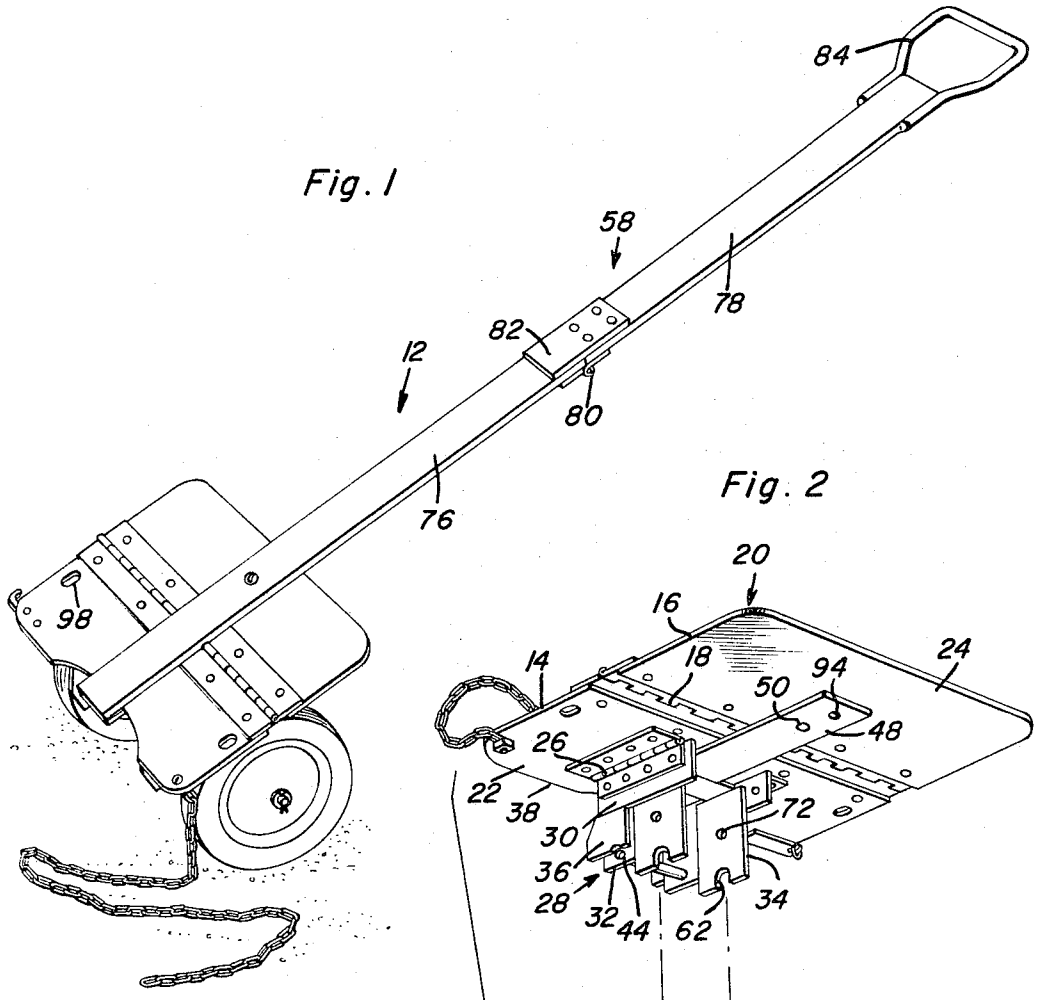
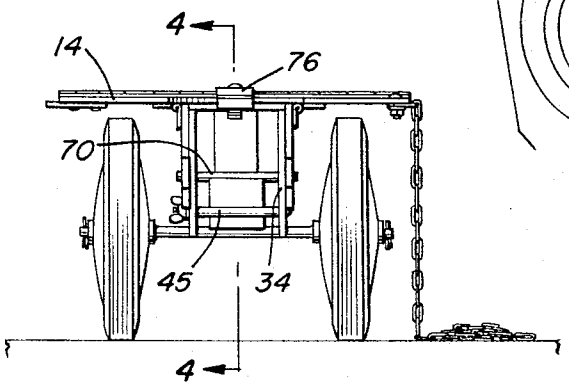


Fig. 2

Fig. 3



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Filed Oct. 5, 1964 3 Sheets-Sheet 2

Fig. 4

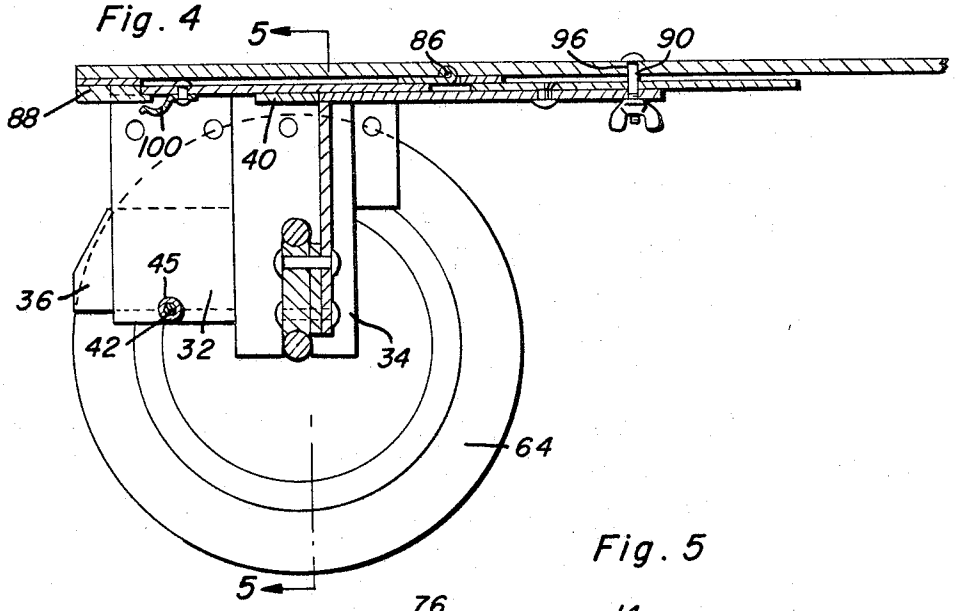


Fig. 5

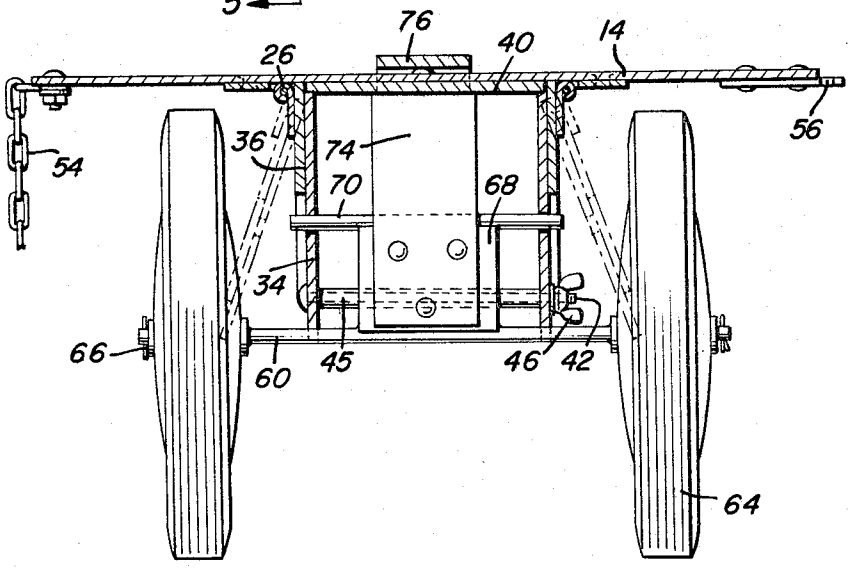
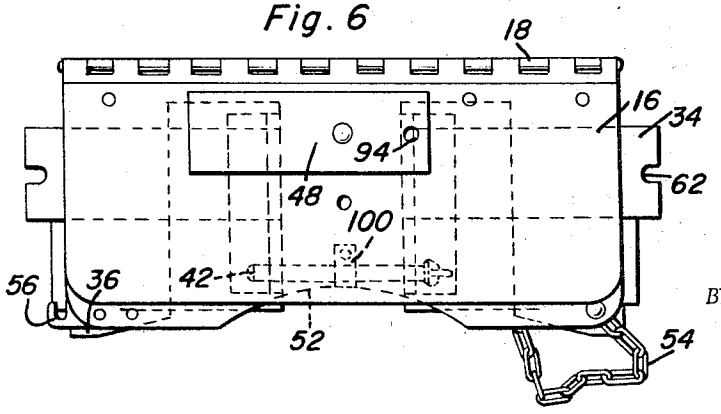


Fig. 6



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Filed Oct. 5, 1964 3 Sheets-Sheet 3

Fig. 7

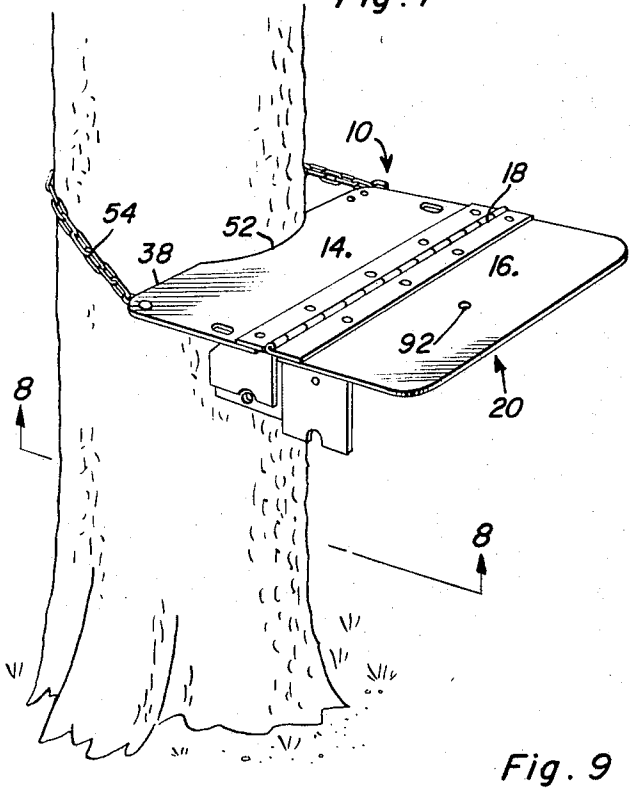


Fig. 8

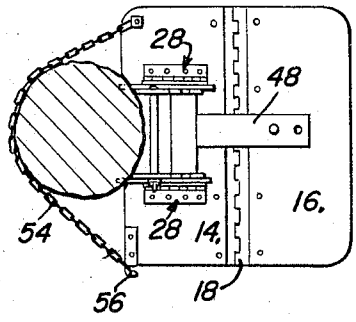
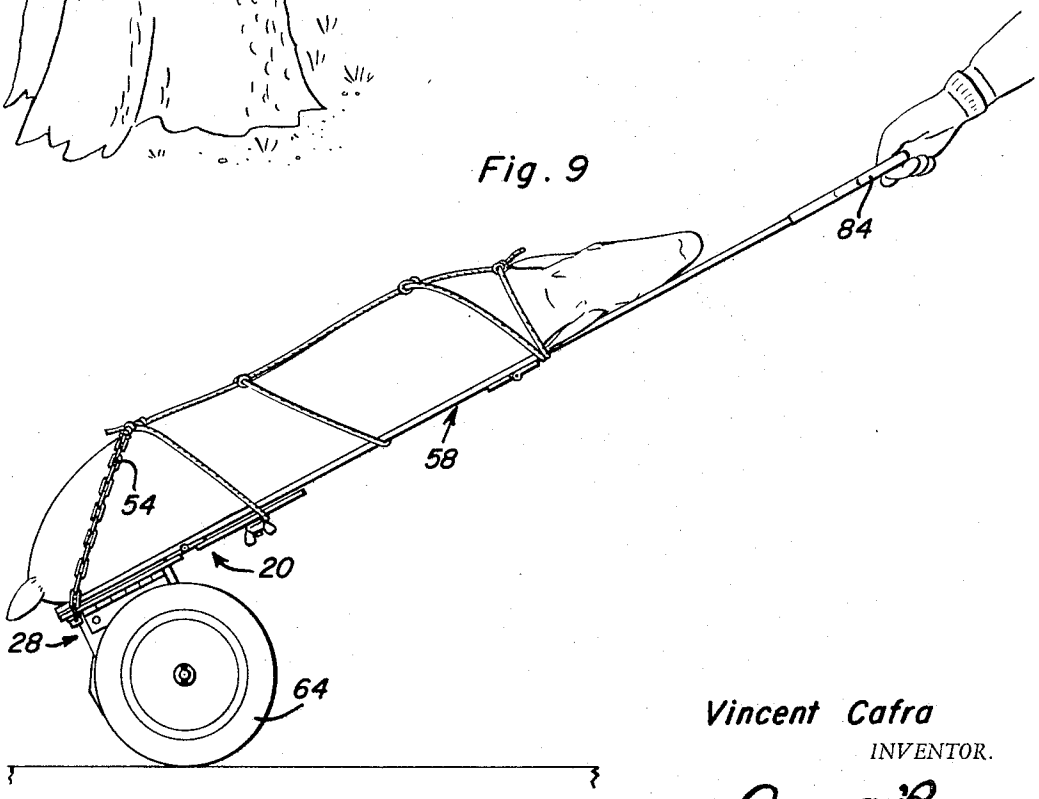


Fig. 9



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United States Patent Office 3,332,698 Patented July 25, 1967

3,332,698

HUNTER'S UTILITY DEVICE

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Filed Oct. 5, 1964, Ser. No. 401,465
9 Claims. (Cl. 280—36)

The present invention relates to a collapsible and convertible device which is uniquely adapted for use both as a tree mounted seat and a game carrying hand truck.

Accordingly, it is a primary object of the instant invention to provide a hunter's utility device which can be selectively used as either a tree supported seat, or a game transporting means as the circumstances might be.

In conjunction with the above object, it is also an object of the instant invention to provide a device wherein the conversion to one form from the other can be effected both quickly and simply.

Likewise, it is a highly significant object of the instant invention to provide a convertible utility device which can be completely collapsed so as to allow the device, when not in use, to be easily carried.

Furthermore, it is an object of the instant invention to provide a utility device which, in either of its erected forms, provides a highly rigid support.

In addition, it is an object of the instant invention to provide a device wherein a major portion of the elements thereof perform significant functions in both of its erected forms, thereby providing for a highly desirable economy of components.

Basically, the device of the instant invention includes an enlarged flat platform consisting of a pair of hingedly interconnected sections capable of being orientated either coplanar with each other or in overlying or overlapping relationship. One of the sections includes a pair of spaced mounting units which are also hingedly mounted for movement between a first position overlying the section and a second position projecting perpendicularly therefrom. In their projecting position, the mounting members are usable either as a stabilizing support engageable with a tree trunk and providing, in conjunction with a tree encircling member, a support for a tree seat, or as a mounting means for a pair of wheels when utilizing the device as a game carrying means. Further, the utility device includes a pivotally mounted bar which prevents opening movement of the platform sections relative to each other beyond the coplanar position, and an elongated collapsible and removable handle. In addition, the various elements of the device are mounted so as to, in both erected forms, interlock and abut with each other so as to provide a highly stable construction.

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 of the instant invention erected as a game carrying device;

FIGURE 2 is an exploded perspective view of the embodiment of FIGURE 1 with the handle removed;

FIGURE 3 is an end elevational view of the hand truck as illustrated in FIGURE 1;

FIGURE 4 is an enlarged cross-sectional view taken substantially on a plane passing along line 4—4 in FIGURE 3;

FIGURE 5 is a transverse cross-sectional view taken substantially in a plane passing along line 5—5 in FIGURE 4;

FIGURE 6 is a view of a portion of the device in its collapsed position;

FIGURE 7 is a perspective view of the device assembled so as to form a tree seat;

FIGURE 8 is a cross-sectional view taken substantially on a plane passing along line 8—8 in FIGURE 7; and

FIGURE 9 is a view illustrating the game carrying form in use.

Referring now more specifically to the drawings, the tree seat erected form of the device is generally referred to by reference numeral **10** while the hand truck or game carrying assemblage is generally referred to by reference numeral **12**.

Basically, the device includes a pair of flat sections **14** and **16** pivotally interconnected along adjacent edges by an elongated piano hinge **18** for movement between a first position wherein the sections **14** and **16** are substantially coplanar so as to form a flat platform **20** and a second position wherein the substantially equal side sections **14** and **16** are overlapped or overlie each other. The sections **14** and **16**, in their folded position, include outer surfaces **22** and **24** which form, upon a coplanar orientation of the sections **14** and **16**, the bottom faces.

Hingedly mounted, by a pair of elongated hinges **26**, on the outer surface **22** of the section **14** are a pair of mounting units **28** movable between a first collapsed oppositely extending position overlying the outer surface **22** and a second position wherein the mounting units **28** project laterally from the surface **22** in parallel spaced relation to each other. Each of the mounting units **28** includes a first elongated panel **30** fixed to and paralleling the free leaf of the hinge **26**, a pair of coplanar panels **32** and **34** welded to the panel **30** and projecting laterally therefrom, the panel **34** extending beyond the panel **32**, and a smaller panel **36** welded to the outer face of the panel **32** and projecting therefrom beyond the free edge **38** of the section **14**, the projecting portion of the panel **36** including a beveled outer edge. With particular reference to FIGURE 5, it will be noted that the inner edges of the panels **32** and **34** terminate short of the inner edge of the corresponding mounting panel **30** so as to provide, in effect, stepped portions or recesses which receive the opposite ends of a plate **40** welded to the outer surface or bottom face **22**. Sufficient clearance will, of course, be provided so as to allow for an outward pivotal movement of the two mounting units **28** with the plate **40** being specifically provided so as to reinforce the section **14** and stabilize the units **28** in their laterally projected position.

The mounting units **28** are locked in their parallel laterally projecting position by an elongated headed bolt **42** projecting through a pair of aligned apertures or holes **44** in the plates **32** below the lower edge of the plates **36**. The bolt **42** includes an elongated sleeve **45** thereon orientated between the inner faces of the plates **32** so as to maintain the proper spacing between the units **28**, and a nut **46**, preferably in the form of an enlarged wing nut so as to facilitate assembly and disassembly without tools, threaded on the projecting end of the bolt **42** so as to, in conjunction with the enlarged head, locks the units **28** in their erected position.

Pivotally mounted in sliding engagement with the outer surface or bottom face **24** of the section **16** is an elongated flat bar **48**, the bar **48** including a first portion projecting a relatively short distance beyond the pivot pin **50** and a second portion projecting a substantially greater distance beyond the pivot pin **50**. The bar **48** is movable between a first position solely overlying the outer surface **24** of the section **16**, and a second position extending transversely across the hinge **18** and having the longer portion thereof overlying the outer surface **22** of the section **14** with the forward end of this longer portion abutting against the edge of the plate **40**. In this last-mentioned position, it will be appreciated that the bar **48** acts

in the manner of a stop so as to prevent the pivotal movement of one section relative to the other beyond the coplanar platform forming orientation illustrated in the drawings. It will also be recognized that an appreciable bracing of the sections **14** and **16** is achieved while at the same time in no way interfering with a folding of the sections **14** and **16** upwardly relative to each other.

Affixed to the free edge **38**, this edge **38** having a centrally located arcuate recess **52** therein is an elongated flexible and adjustable tree encircling strap or chain **54**, this chain **54** having one end thereof fixed to the edge **38** adjacent one end of this edge **38** and the other end being releasably engaged with a laterally projecting lug **56** on the other end of the edge **38**. The length of the flexible member **58** is to be adjustable so as to accommodate different diameter trees, this being accomplished, when utilizing a link chain, by selectively engaging different ones of the links with the hooked lug **56**.

The device as described supra constitutes the tree seat **10** and is mounted, at any desired height, by locating the recess **52** against a suitable tree and encircling the tree with the chain **54** while the rearwardly projecting plates or panels **36** engage the tree below the platform **20**. These panels **36**, upon the introduction of a weight on the platform **20**, will embed within the tree trunk and, in conjunction with the chain **54**, provide a highly stable and stationary seat or support.

The game carrying unit or embodiment **12** is formed by the addition of a wheel assembly **56** and a handle unit **58** to the erected unit utilized as a tree seat. The wheel assembly **56** includes and elongated axle **60** which spans and extends beyond the mounting units **28** and is received within a pair of inwardly extending notches **62** in the outer ends of the opposing plates **34**. A wheel **64** is rotatably mounted, as by pin **66**, on each end of the axle **60**. A flat mounting plate **68** is rigidly welded to the axle **60** and projects laterally therefrom between the mounting units **28**, this plate **68** having a rod **70** welded thereto and projecting beyond both sides thereof so as to extend in parallel relation to the axle **60**. The opposite ends of this rod **70** are releasably received within the apertures **72** in the panels **34** with the rod ends being introduced into the apertures **72** as the mounting units **28** are moved from their collapsed to their erected position as suggested by the phantom lines in FIGURE 5. In this manner, it will be appreciated that, the rods **70** being received in the apertures **72**, and the axle **60** being received in the notches **62**, a stable mounting of the wheel assembly **56** is effected, the mounting units, of course, being locked into position by the bolt **42** and its associated elements. Finally, the wheel assembly **56** includes a bracing plate **74** fixed to the member **68** and projecting vertically thereabove for abutting engagement against the ends of the longer portion of the bar **48** so as to prevent any tendency for the sections **14** and **16** to move to their collapsed or closed position during use of the device as a carrying means.

The handle unit **58** includes two elongated portions **76** and **78** interconnected by a barrel hinge **80** positioned on the lower or inner faces thereof. The handle portion **78** includes a stop bar **82** fixed thereto and projecting from the hinged end thereof so as to overlie the hinged end of the portion **76** when the portions **76** and **78** are aligned thereby maintaining this alignment during use of the device **12** while still allowing a simple collapsing of the handle unit. The outer or free end of the portion **78** includes a hand receiving loop **84** welded thereto. The portion **76** is, when assembled to the wheel supported platform **20**, orientated transversely across the upper surfaces of the sections **14** and **16**, this portion **76** including a transverse slot **86** thereacross for receiving the knuckle portions of the hinge **18**. The handle portion **76** is fixed to the platform **20** both by the provision of a notched block **88** fixed to the free end thereof and receiving the rear edge **38** of the section **14** therein, and by an elongated bolt and nut combination **90** extending through an aperture **92** in the section **16** and an aperture **94** in the forwardly projecting portion of the bar **48** as well as through an aperture **96** in the handle portion **76**.

When using the embodiment just described, attention being directed to FIGURE 9, the game, or for that matter any load, is positioned on the platform **20**, and if necessary, also on a portion of the elongated handle unit **58**, and strapped thereto, in most instances utilizing the elongated flexible chain **54**. It will, of course, be appreciated that additional strap receiving apertures **98** can be provided as needed.

From the foregoing it will be appreciated that a particularly useful and highly novel hunter's utility device has been defined. This device, because of the unique components incorporated therein, being capable of erection, from a completely collapsed position, so as to form either a tree seat of a highly sturdy and adaptable nature, or a wheeled game carrying device wherein the various components are in bracing engagement with each other so as to form a rugged unit enabling a removal of game from even the remotest areas in a highly simplified manner.

Incidentally, while not detailed super, various spring clips **100** may be provided on the lower faces of the platform sections **14** and **16** for retaining, for example, the bolt **42** when the device is collapsed, this being clearly shown in FIGURES 4 and 6.

The foregoing is considered as illustrative only of the principles of the invention. Further, 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 and operation 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 collapsible hunter's utility device comprising a pair of substantially equal size flat sections hingedly interconnected along one edge for movement between a first coplanar platform forming position and a second overlapped position, each section, in the second position, having an outer surface which in the first position will constitute a portion of the bottom face of the platform, and an inner surface which in the first position will constitute a portion of the top face of the platform, a pair of spaced mounting units hingedly fixed to the outer surface of a first one of said sections, said mounting units being movable between a first collapsed position parallel to and overlying the outer surface of said first section and a second position projecting laterally outward from this outer surface generally parallel to each other, means for releasably fixing said mounting units in their second position, said mounting units each having an edge thereof, in its second position, generally in the plane of the free edge of said first section opposite from the hingedly connected edge, an elongated bar fixed to the outer surface of one of the sections and projecting therefrom into overlying relation to the outer surface of the other section when said sections are in the first coplanar position, said bar constituting a stop to prevent movement of the sections beyond their first coplanar position while allowing movement to their second overlapped position, an elongated flexible member having one end fixed to the first section adjacent one end of the free edge thereof and the other end adjustably engageable with the first section adjacent the other end of the free edge thereof, and wheel means releasably mounted on said pair of mounting units and projecting therefrom for rolling engagement with the ground, said wheel means including an elongated axle, said axle spanning and extending beyond both mounting units in their second or projecting position, said mounting units each having a recess in the outer edge thereof for receiving said axle and preventing lateral movement thereof relative to the mounting units,

a member fixed to a central portion of the axle and projecting laterally therefrom between the mounting units, an elongated rod fixed to said member and projecting from both sides thereof parallel to and spaced from the axle, each mounting unit having an aperture therethrough aligned with and receiving one end of the rod, and a wheel rotatably mounted on each end of the axle.

2. The device of claim 1 including an elongated handle fixed to and extending transversely across the top face of the platform formed by the coplanar sections, and across the hingedly interconnected edges so as to preclude a folding of the sections, said handle projecting a substantial distance beyond one edge of the platform.

3. The device of claim 2 wherein said handle includes a portion engaged over and interlocked with the edge of the platform opposite from the edge beyond which the handle projects.

4. The device of claim 3 wherein said handle includes a pair of hingedly interconnected portions so as to allow for a collapsing of the handle.

5. A collapsible hunter's utility device comprising a pair of substantially equal size flat sections hingedly interconnected along one edge for movement between a first coplanar platform forming position and a second overlapped position, each section, in the second position, having an outer surface which in the first position will constitute a portion of the bottom face of the platform, and an inner surface which in the first position will constitute a portion of the top face of the platform, a pair of spaced mounting units hingedly fixed to the outer surface of a first one of said sections, said mounting units being movable between a first collapsed position parallel to and overlying the outer surface of said first section and a second position projecting laterally outward from this outer surface generally parallel to each other, means for releasably fixing said mounting units in their second position, said mounting units each having an edge thereof, in its second position, generally in the plane of the free edge of said first section opposite from the hingedly connected edge, an elongated bar fixed to the outer surface of one of the sections and projecting therefrom into overlying relation to the outer surface of the other section when said sections are in the first coplanar position, said bar constituting a stop to prevent movement of the sections beyond their first coplanar position while allowing movement to their second overlapped position, and wheel means releasably mounted on said pair of mounting units and projecting therefrom for rolling engagement with the ground, said wheel means including an elongated axle, said axle spanning and extending beyond both mounting units in their second or projecting position, said mounting units each having a recess in the outer edge thereof for receiving said axle and preventing lateral movement thereof relative to the mounting units, a member fixed to a central portion of the axle and projecting laterally therefrom between the mounting units, an elongated rod fixed to said member and projecting from both sides thereof parallel to and spaced from the axle, each mounting unit having an aperture therethrough aligned with and receiving one end of the rod, and a wheel rotatably mounted on each end of the axle.

6. A collapsible hunter's utility device comprising a pair of substantially flat sections hingedly interconnected along one edge for movement between a first coplanar platform forming position and a second overlapped position, each section, in the second position, having a first surface which in the first position will constitute a portion of the bottom face of the platform, and a second surface which in the first position will constitute a portion of the top face of the platform, mounting unit means hingedly fixed to the first surface of a first one of said sections, said mounting unit means being movable between a first collapsed position parallel to and overlying the first surface of said first section and a second position projecting laterally outward from this first surface, means for releasably fixing said mounting unit means in its second position, wheel means releasably mounted on said mounting unit means and projecting therefrom for rolling engagement with the ground, and an elongated handle fixed to and extending transversely across the top face of the platform formed by the coplanar sections, and across the hingedly interconnected edges so as to preclude a folding of the sections, said handle projecting a substantial distance beyond one edge of the platform, said handle including a portion engaged over and interlocked with the edge of the platform opposite from the edge beyond which the handle projects.

7. A collapsible hunter's utility device comprising a pair of substantially flat sections hingedly interconnected along one edge for movement between a first coplanar platform forming position and a second overlapped position, each section, in the second position, having a first surface which in the first position will constitute a portion of the bottom face of the platform, and a second surface which in the first position will constitute a portion of the top face of the platform, a pair of spaced mounting units hingedly fixed to the first surface of a first one of said sections, said mounting units being movable between a first collapsed position parallel to and overlying the first surface of said first section and a second position projecting laterally outward from this first surface generally parallel to each other, means for releasably fixing said mounting units in their second position, and wheel means releasably mounted on said pair of mounting units and projecting therefrom for rolling engagement with the ground, said wheel means including an elongated axle, said axle spanning and extending beyond both mounting units in their second or projecting position, said mounting units each having a recess in the outer edge thereof for receiving said axle and preventing lateral movement thereof relative to the mounting units, a member fixed to a central portion of the axle and projecting laterally therefrom between the mounting units, an elongated rod fixed to said member and projecting from both sides thereof parallel to and spaced from the axle, each mounting unit having an aperture therethrough aligned with and receiving one end of the rod, and a wheel rotatably mounted on each end of the axle.

8. A collapsible hunter's utility device comprising a pair of substantially flat sections hingedly interconnected along one edge for movement between a first coplanar platform forming position and a second overlapped position, each section, in the second position, having a first surface which in the first position will constitute a portion of the bottom face of the platform, and a second surface which in the first position will constitute a portion of the top face of the platform, mounting unit means fixed to the first surface of a first one of said sections, said mounting unit means projecting laterally outward from the corresponding first surface when this first surface constitutes a portion of the bottom face of the platform, wheel means mounted on said mounting unit means and projecting therefrom for rolling engagement with the ground, and an elongated handle fixed to and extending transversely across the top face of the platform formed by the coplanar sections, and across the hingedly interconnected edges so as to preclude a folding of the sections, said handle projecting a substantial distance beyond one edge of the platform, said handle including a portion engaged over and interlocked with the edge of the platform opposite from the edge beyond which the handle projects.

9. A collapsible hunter's tree seat comprising a pair of substantially flat sections hingedly interconnected along one edge for movement between a first coplanar platform forming position and a second overlapped position, each section, in the second position, having a first surface which in the first position will constitute a portion of the

bottom face of the platform, and a second surface which in the first position will constitute a portion of the top face of the platform, a pair of mounting units hingedly fixed to the first surface of a first one of said sections, said mounting units being movable between a first collapsed position parallel to and overlying the first surface of said first section and a second position projecting laterally outward from the first surface, means for releasably fixing said mounting units in their second position, said mounting units, in their second position, being laterally aligned with each unit having an edge thereof located generally in the plane of the free edge of the first section opposite from the hingedly connected edge, an elongated bar, and means fixing one end of said bar to the first surface of the second of said sections for pivotal movement solely in a plane parallel to this first surface of the second section for projection of the bar therefrom into overlying relation to the first surface of the first section when said sections are in the first coplanar position, said bar constituting a stop to prevent movement of the sections beyond their first coplanar position while allowing movement to their second overlapped position, said elongated bar constituting the sole means secured to the first surface of the second section, and an elongated flexible member mounted on the free edge of said first section for selective positioning about a supporting tree.

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