

Nov. 1, 1955

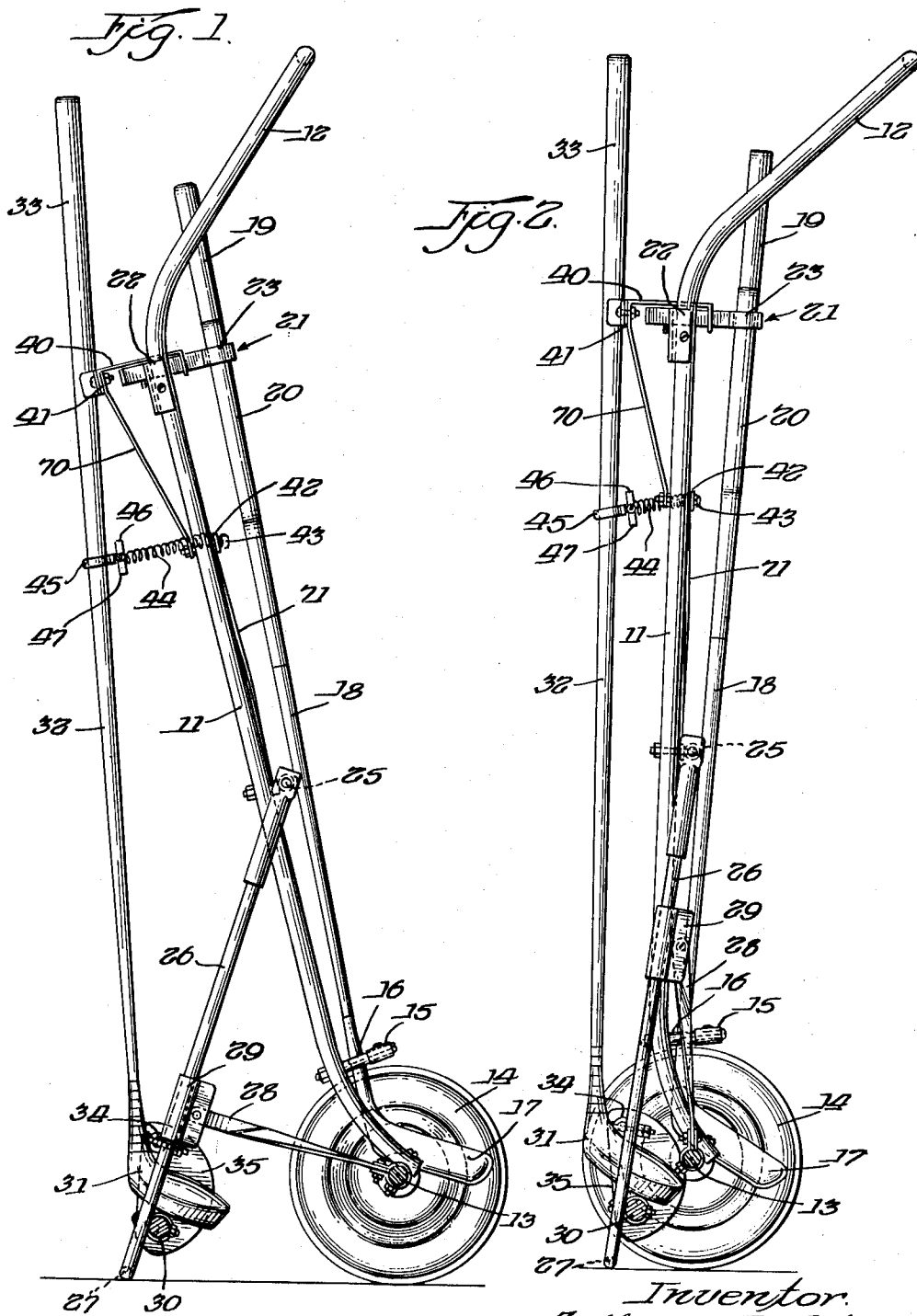
A. J. VICTOR

2,722,431

FOLDABLE GOLF CLUB CART

Filed Oct. 3, 1951

3 Sheets-Sheet 1



Inventor.
Anthony J. Victor.
By *[Signature]* Atty.

Nov. 1, 1955

A. J. VICTOR

2,722,431

FOLDABLE GOLF CLUB CART

Filed Oct. 3, 1951

3 Sheets-Sheet 2

Fig. 3.

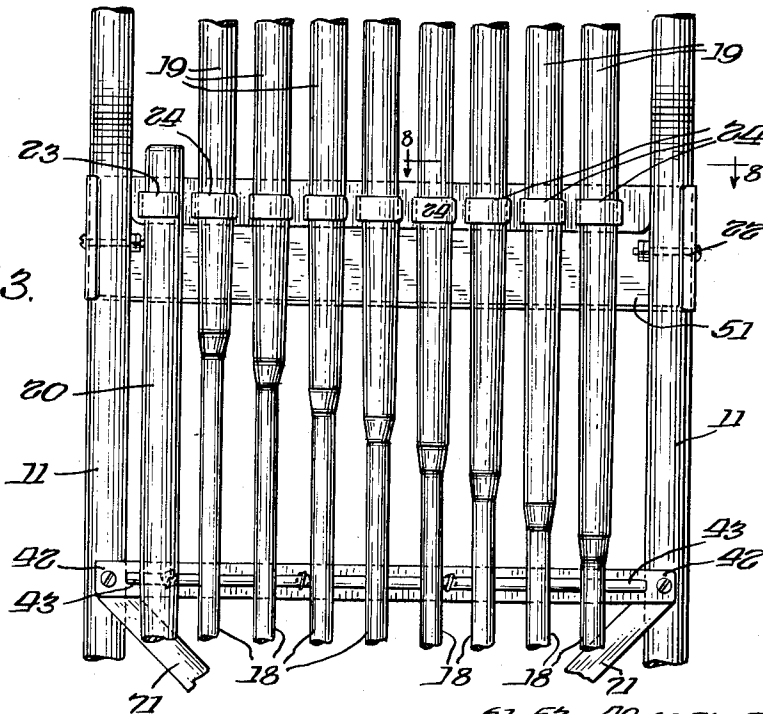


Fig. 8.

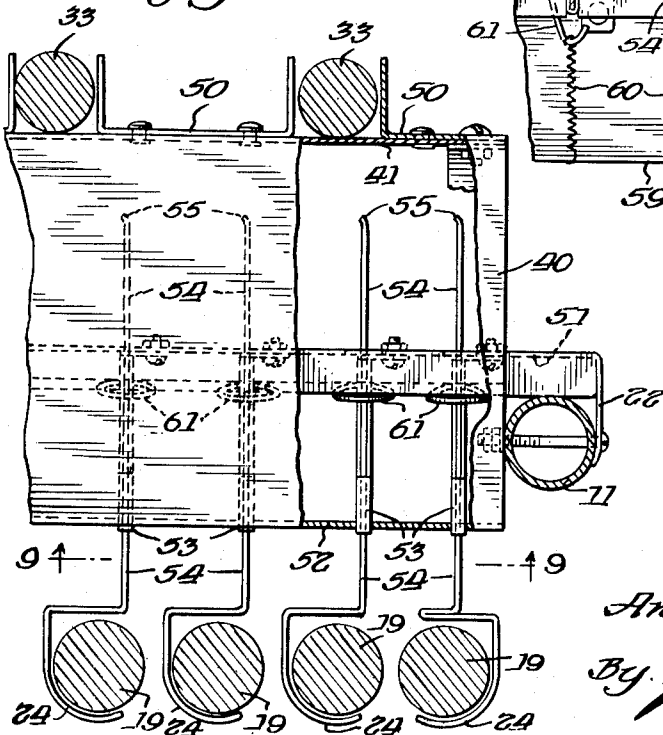
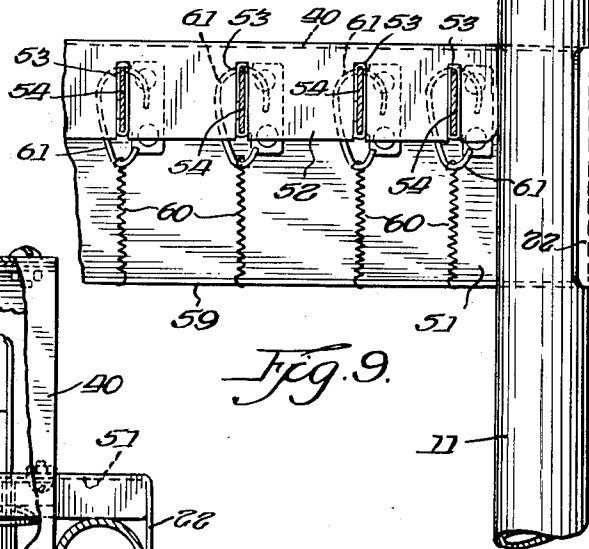


Fig. 9.



Inventor.
Anthony J. Victor.
By *[Signature]*
Att'y.

Nov. 1, 1955

A. J. VICTOR

2,722,431

FOLDABLE GOLF CLUB CART

Filed Oct. 3, 1951

3 Sheets-Sheet 3

Fig. 4.

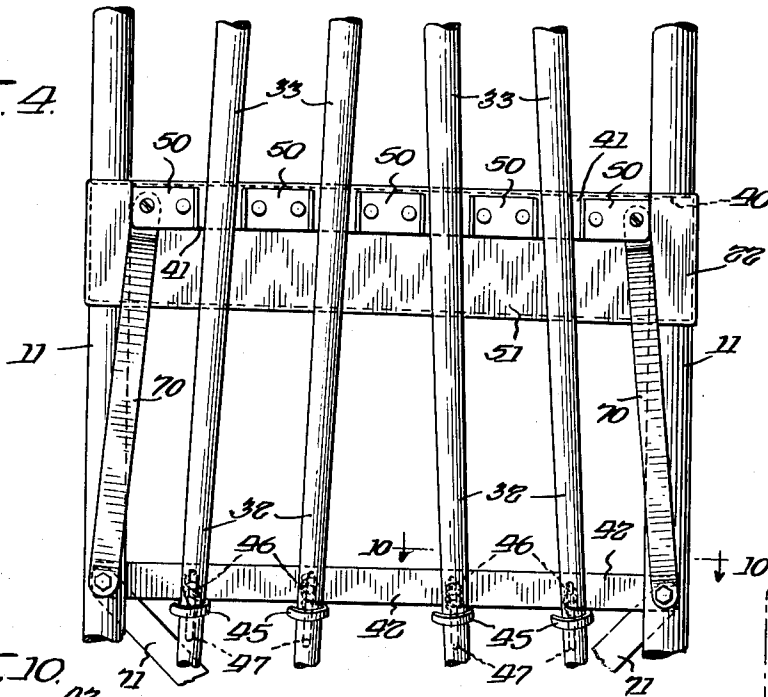


Fig. 10.

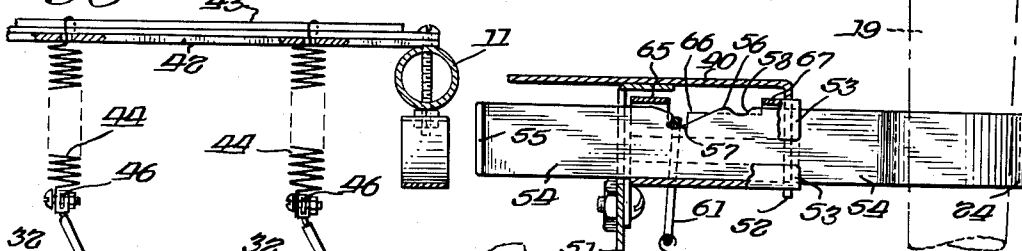


Fig. 5.

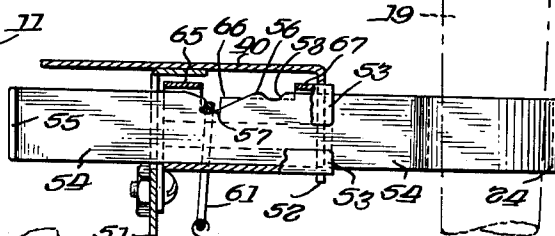
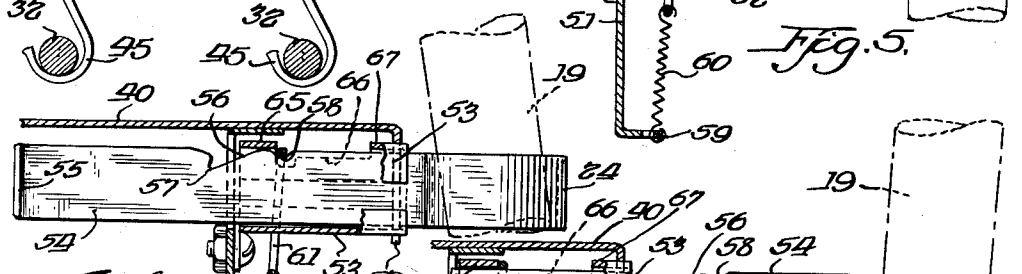


Fig. 6.

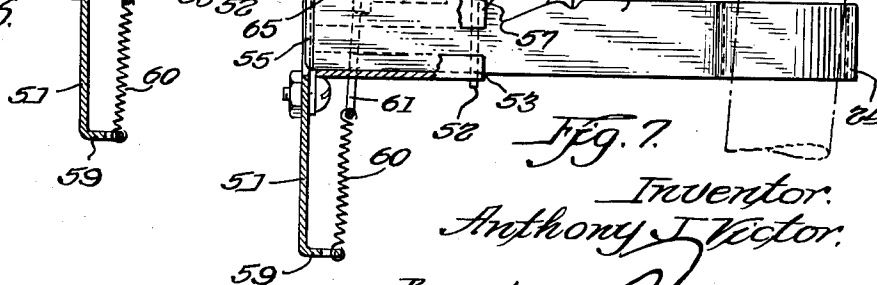


Fig. 7.

Inventor:
Anthony J. Victor.

By *[Signature]*
Att'y.

1

2,722,431

FOLDABLE GOLF CLUB CART

Anthony J. Victor, Chicago, Ill.

Application October 3, 1951, Serial No. 249,454

11 Claims. (Cl. 280—36)

This invention relates to a collapsible golf cart, and is particularly concerned with a cart comprising novel means for removably holding the individual clubs in predetermined positions on the cart.

One of the particular objects of the invention is to provide on one side of the frame of a stand holding means, one for each of a plurality of predetermined clubs, for example, the "irons," comprising a slide member carrying a hook which engages the grip of the associated club near its free end, to hold the club in its assigned position, with the shank of its head nestled in a strip member at the bottom of the cart, spaced from adjacent clubs, and the shaft of the club resting with slight pressure against a crossbar of the cart frame. The slide member is provided with means for camming and locking coaction with a floating spring-biased control member which holds it, and therewith the club, securely locked in assigned position, but permits ready displacement for the release and removal of the club.

Another object is to provide on the other side of the frame of the stand holding means, one for each of a plurality of predetermined clubs, for example, the "woods," comprising a spring-biased padded hook which engages the shaft portion of the associated club for holding it in assigned position, with its head nestled spaced from adjacent heads in a compartment formed in a pivotally mounted collapsible stand at the bottom of the cart, and its grip resting in a channel formed on a crossplate of the frame near the top thereof. The pressure exerted by the spring-biased padded hooks, on the shafts of the corresponding clubs, is propagated to the pivotally mounted stand, placing pressure thereon for the triple purpose, namely, (1) of holding the stand in collapsed condition against the cart frame; (2) of facilitating the collapsing of the stand; and (3) of holding the associated clubs securely in assigned positions in extended as well as in collapsed condition of the stand.

The foregoing objects and additional objects and features of the invention will appear from the detailed description of an embodiment which will presently be rendered with reference to the accompanying drawings. In these drawings,

Fig. 1 is a side view of the new cart with the stand in extended position relative to the frame and with the clubs in place, the "irons" being on the right and the "woods" on the left of the frame, some parts being indicated in section to expose underlying details;

Fig. 2 illustrates the cart of Fig. 1, with the stand collapsed against the frame;

Fig. 3 represents a partial view of one face of the cart, showing the "irons" in assigned positions;

Fig. 4 is a partial view of the opposite face of the cart, showing the "woods" in assigned positions;

Figs. 5, 6 and 7 are detailed views of the slidable holding and locking device for the "irons" in three operating positions thereof;

Fig. 8 is a fractional sectional view taken approximately along line 8—8 of Fig. 3, to illustrate the slidable

2

holding and locking means for the "irons" and the manner in which the grips of the "irons" are held by the hooks of the associated holding devices;

Fig. 9 shows some of the slidable holding and locking members for the "irons" in section, as seen when looking in the direction of the arrows along the line 9—9 of Fig. 8; and

Fig. 10 is a transverse sectional view taken approximately along line 10—10 of Fig. 4 to show some of the padded spring-biased holding hooks for the shanks of the "woods."

Referring now particularly to Figs. 1—4, the cart comprises a tubular frame having uprights 11 terminating on top in an angularly extending handle portion 12. The two uprights carry at the bottom thereof an axle or shaft 13 on which are journaled two rubber-tired wheels. One of these wheels is indicated in Figs. 1 and 2 at 14. The two uprights are interconnected by a bottom cross-strip or holder 15 which is secured thereto in any suitable manner, for example, by studs 16 fastened to the two uprights by suitable bolts. The cross-strip 15 may be a reinforced fiber strip provided with notches for holding in transverse spaced relation the shanks of the heads 17 of the various clubs having the shafts 18 and the grips 19. Several such clubs are provided, as shown in Fig. 3. These clubs may be the "irons." As shown in Fig. 3, there may also be a "putter" having the grip 20.

On top of the frame, where the handle portion 12 branches angularly from the uprights 11, there are provided holding and locking devices, one for each "iron," and a similar holding and locking device for the putter. These holding devices are generally indicated in Figs. 1 and 2 by the numeral 21. They will presently be described in detail with reference to Figs. 5—7 and 8—9. These holding and locking devices are mounted on a crosspiece 22 which interconnects the two uprights 11 at the top thereof. Each holding and locking device comprises a slidable member forming a hook such as 23, 24 (see also Fig. 3) for engagement with the grip of the associated club, to hold the grip inwardly, thus placing slight pressure thereon, the shaft 18 of each club resting resiliently against a crossbar 25 which interconnects the two uprights 11 at an intermediate point. This crossbar may be secured to the uprights in any desirable manner and may be padded or rubber-lined for resilient engagement with the shafts of the corresponding clubs.

Pivotally mounted on the crossbar 25 are two downwardly depending arms 26 which are interconnected at the bottom by an integral crosspiece 27, thus forming a stand for supporting the cart in upright position, as shown in Fig. 1. Associated with each arm 26 is a brace 28 extending from a bracket 29 which is slidable on the corresponding arm 26 and is pivotally mounted on the wheel axle 13. The crossbar 25 thus has the twofold purpose, first, of supplying a rest or backing for the shafts of the associated clubs (the "irons") in their positions assembled on the cart; and second, forming a pivot point and a mounting for the arms 26 of the collapsible stand of the cart.

The two arms 26 of the collapsible stand are near the bottom thereof interconnected by a crossbar 30 which may be rubber-lined to form a bottom rest for the heads 31 of the associated clubs ("woods") having the shafts 32 and the grips 33. A crosspiece 34 is also provided which interconnects the arms 26 of the stand spaced from the crossbar 30, furnishing a stop for the bracket 29 in open position of the stand, as shown in Fig. 1. The crosspiece 34 also may be rubber-lined, forming with the crossbar 30 the space for accommodating the heads 31 of the "woods." Mounted on the crossbars 34 and 30 may be spacer members 35, thus forming transversely successive compartments for receiving the heads 31 of

the "woods" spaced one from the other. From the cross-piece 22 on top of the structure extends an angular member 40 forming a face plate 41, the purpose of which is to form a rest or backing for the grip portions of the "woods" in their assembled position on the cart. Downwardly spaced from the crosspiece 22 is provided a cross-strip 42 which is attached to the uprights in any suitable and desired manner. In back of this strip is a rod 43 from which extend a number of springs 44, each carrying a padded hook 45 for resiliently engaging the shaft 32 of the associated club. Each hook carries extensions 46, 47 for facilitating the manipulation thereof.

It will be seen from the above general description of the cart that a plurality of predetermined clubs, for example, the "irons," together with the putter, are disposed on one side of the frame of the cart; that the head of each club is securely held at the bottom by a cross-strip 15 in which it nestles, spaced from adjacent clubs; and that the grip of each club is held inwardly by a holding and locking device, placing slight pressure on the shaft to hold it resiliently against the crossbar 25 carried on the frame. It will also be seen that another plurality of predetermined clubs, for example, the "woods," are disposed on the other side of the frame of the cart, each nestling at the bottom with its head in a special compartment, spaced from the heads of adjacent clubs; and that the shaft of each such club is resiliently held inwardly by a spring-biased hook, with the grip resting in a channel on a crossplate of the frame.

The stand is collapsed against the frame to assume the position shown in Fig. 2, thus forming a compact structure for transport of the cart, for example, in a motor vehicle, to and from the golf course.

The pressure exerted by the spring-biased padded hooks 45 (see Figs. 1 and 2) on the shanks 32 of the "woods" holds the grips 33 in engagement with their channels on the crosspiece 41 and also holds the heads 31 of these "woods" in their respective compartments at the bottom of the stand. This inward pressure on the shanks 32 of the various "woods" is propagated to the crossbars 30, 34 of the stand, pressing the stand in its collapsed position (Fig. 2) inwardly against the bottom of the cart frame, thus securing the structure in collapsed position for transport.

The stand is extended or opened into the position shown in Fig. 1 by pulling outwardly the bottom cross-piece 27, which connects the arms 26 of the stand. The brackets 29 slide downwardly on their arms 26 and come to rest against the opposite ends of the crossbar 34 where it is secured to the arms 26. The arms 26 of the stand rotate incident to the opening operation clockwise about their pivots on the crossbar 25, as shown in Figs. 1 and 2, and the brace members 28 extending from the brackets 29 rotate about the axle 13.

The structure is now in extended or open position, shown in Fig. 1, ready for use on the golf course. It may easily be wheeled about from place to place as desired, and may be put in upright position whenever necessary or desired by the player.

The pressure exerted by the spring-biased padded hooks 45 on the shanks 32 of the "woods" is, in the previously described manner, also effective on the stand in its open position, as shown in Fig. 1, being somewhat increased by the extension of the springs 44 from the position shown in Fig. 2 to that shown in Fig. 1; and such increased pressure is effective to the brace members 28, longitudinally thereof, against the axle 13, thus securing the stand in its open position.

Each of the "irons" and also the putter (shown on the right of the frame as illustrated in Figs. 1 and 2 and also as indicated in Fig. 3) is released for use by pressing the hook 23 or 24, respectively, of the associated locking and holding device 21 (Figs. 1 and 2) inwardly to release its lock, and thereafter pulling it and therewith the grip of the desired club outwardly, whereupon the corre-

sponding club is removed by manipulating its head from engagement with the notched cross-strip 15. The insertion of each club proceeds by first placing its head with the shank thereof in back of the cross-strip 15 in its assigned notch and then reinserting the grip in engagement with the hook on its associated locking and holding device 21, whereupon the slide of such device extending from the hook is pushed inwardly in locking position. The "iron" is then again in its assigned position on the cart, as shown.

Each of the "woods" (shown at the left of the frame as illustrated in Figs. 1 and 2) is released for use by gripping the extensions 46, 47 of its associated padded spring-biased hook 45, pulling the hook off the shank 32 of the corresponding club and simply removing the club by manipulating it to withdraw its head 31 from its compartment at the bottom of the stand. The re-insertion is just as simple. The head 31 of the club is merely placed in its compartment at the bottom of the stand, and its grip is positioned in its assigned channel on the cross-piece 41 on top of the structure, whereupon the spring-biased padded hook 45 is pulled out and placed over the club shank 32.

The channels for the grips 33 of the various "woods" are formed on the angular member 40, or rather on its wall 41, by angular pieces 50, as shown particularly in Fig. 4.

The "irons" with the putter have been shown in a group on one side of the frame of the cart, and the "woods" have been shown in a group on the other side, merely for convenience. The grouping may of course be different.

The particular structure of the holding and locking device, generally designated in Figs. 1 and 2 by the numeral 21, will now be described with reference to Figs. 5-7 and 8-9.

Referring now to Figs. 5-7 and 8-9, the cross member 22, which connects the uprights 11 near the top thereof, is a plate-like member forming a shelf 40 and a downwardly extending angular bracket member 51. The shelf 40 extends to the left, as shown in Figs. 1 and 2, forming at its free end the angular wall 41 to which are secured the angle member 50 which form the channels for the grips of the "woods" (see also Fig. 4). At the other end the shelf 40 extends toward the right side where the "irons" are disposed, and forms a downwardly depending wall 52, as shown in Figs. 5-7, which is notched as indicated in Fig. 9, for accommodating guideways 53. Each guideway is suitably secured to the downwardly depending wall 51, and slidably disposed in each guideway is a slide 54. At its outer free end each slide forms a hook (hook 23 for the putter shown in Fig. 3 and corresponding hooks 24, one for each grip 19 of the "irons"), and at its inner end each slide is angularly bent to form a stop 55 which limits its outward displacement. Each slide 54 is provided on one of its edges with a cut-out forming a cam 56. This cam forms two indentations or notches 57, 58. The wall 51 forms at its lower end an angular extension 59 which is provided with holes for holding one end of each of a number of springs 60, to the other end of which is secured a hook-like member 61 for coaction with the cam 56 and its notches 57-58 of its associated slide 54. The hooklike member 61, with its spring 60, constitutes the floating locking and holding control member for its associated slide 54.

Referring now particularly to Fig. 5, it is assumed that the grip 19 of the club ("iron") is in locked position on the cart, holding the shaft 18 of the club in pressure engagement with the crossbar 25 of the frame and the head 17 of the club with its shank disposed in the assigned notch in the cross-strip 15 at the bottom of the frame. In this locked position the floating spring-biased control member 61 is in engagement with the notch 57, as shown in Fig. 5, placing downward pressure on the slide 54. A forward pull on the grip 19 of the club will have no

5

effect, except pressing the slide 54 at its notch 57 against the floating hook 61. The club is thus securely locked in its assigned position on the cart.

At the time when release and removal of the club is desired, the club grip is pushed slightly inwardly, into the position shown in Fig. 6, whereby the slide, with its hook portion 24, is moved inwardly, the floating hook 61 riding up on the cam 56 and finally falling into the notch 58. This completes the rearward motion preceding the release of the club, which is terminated when the floating hook 61 assumes the position shown in Fig. 6, any further attempt to press the slide and the club inwardly being stopped by engagement of the floating hook 61 with the edge of the portion 65 of the guideway 53 which is cut out in its upper edge, as shown in Figs. 5-7. The club is now moved outwardly again, to the right as shown in Figs. 6 and 7, to the position shown in Fig. 7. Incident to this outward movement the floating hook 61 is carried outward by engagement with the notch 58 of the slide over the edge 66 of the cutout on the guide until it hits the edge of the forward portion 67 of the guideway 53, the notch 57 formed by the cam 56 being now underneath the edge 66 of the cutout of the guideway. Further outward motion of the slide 54 will cause the floating spring-biased hook 61 to snap back, freeing the slide 54 so that it can be pulled out into the position shown in Fig. 7. The outward motion of the slide is terminated by its stop 55. The grip 19 of the corresponding club is now outwardly displaced with respect to the remaining clubs and can be moved from engagement with its slide hook 24 by a sideways motion. The club is then manipulated to remove the shank of its head 17 from engagement with the assigned notch in the cross-strip 15, and the club is free for use. The slide may be pushed back again inwardly into the position shown in Fig. 5 or may be left in outwardly extended position as may be desired.

For the re-insertion of the club, all that is necessary is to manipulate the slide 54, if it had been placed in the position shown in Fig. 5, pushing it first inwardly into the position shown in Fig. 6 and then pulling it out entirely into the position shown in Fig. 7, whereupon the head of the club is placed in back of the notched cross-strip 15 at the bottom of the cart and the shank inserted in its assigned notch, while the grip of the club is from the side re-inserted into the associated hook 24. The slide, with the club engaged by the hook 24, is now again pushed back into the locking position shown in Fig. 5. If the slide is in the extended position, all that is necessary is to reinsert the club as described and to push the slide back into its locking position.

The above described locking and holding device for the club may of course be used in different fields aside from its use in connection with the golf cart, for removably locking a desired element in place and for easy removal thereof whenever desired.

The holding device for the "woods," each comprising the grip 33, the shank 32 and the head 31 as shown in Figs. 1 and 2, may be more fully explained with reference to Figs. 1, 2, 4 and 10. As shown in these figures, there is a crossbar or strip 42 which is suitably secured to the uprights 11, interconnecting them, and in back of this cross-strip 42 is the holding bar 43. The cross-strip is provided with holes for the insertion of the ends of springs 44 which hook over the bar 43, as is particularly apparent from Fig. 10. The springs extend forwardly, and at the end of each spring 44 is secured the padded hook 45 for engagement with the shank 32 of its associated club, as already described. Each hook is provided with extensions 46, 47 to permit easy gripping and manipulating of the hook. The springs 44 have a diameter sufficiently large so that each spring, after it is freed from engagement with the shank of its associated club, does not collapse downwardly, but by engagement with the rearmost windings of its coil with the bar 42 stays in

6

easily available position. The springs may coact with suitable washers.

In addition to the structure described in the foregoing, there may be brace members and reinforcing members, as shown in Figs. 1, 2 and 4 at 70 and 71. The purpose and function of these reinforcing and bracing members is believed to be apparent from the drawings.

Further advantages of the cart structure result from the positioning of the heavy ends of the clubs at the bottom, the center of gravity being very low, thereby making the cart extremely stable with a minimum of weight at the handle 12 when pulling the cart. The lowered center of gravity allows use of a narrow wheel tread which is easier to roll over bridges, between trees and the like. The wheel tread being very narrow, the wheels need not be collapsed for transport to and from the golf course. Each club is held individually in the cart and can quickly be removed or inserted, as described, with very simple operations, without interfering with or loosening any other club. The individual manipulation of the clubs prevents clashing of the clubs into each other, thus avoiding nicking of the clubs and making the cart practically silent in operation. The clubs may be arranged in proper order, according to their numbers, thereby facilitating the selection of the required clubs at a glance. The selection may be further simplified for the "irons," of which there may be many, by providing number markings on the hooks 24 which hold them in place. No bag is necessary to hold the clubs, and the extra weight and expense otherwise added are thereby eliminated. Hoods for protecting the club heads are likewise unnecessary. A separate bag or pouch with a suitable opening, for example, an opening provided with a slide fastener, may be disposed on the cart on top of the cross-structure 22, for accommodating golf balls, tees and similar equipment, as well as wearing apparel, as may be desired.

Changes may be made within the scope and spirit of the appended claims.

I claim:

1. A golf club cart comprising a frame, backing means supported by said frame near the bottom on one side thereof for receiving the heads of clubs in transversely spaced engagement therewith, intermediate shank-holding means for engagement with the shanks of said clubs, and individual grip-holding means on top of said frame at the identical side thereof, one for each club, for individually holding the grip of the associated club, each of said grip-holding means comprising a slidably mounted movable member, and locking means cooperating with said movable member for locking it in position to hold the grip of the associated club inwardly of said frame with its shank in inward pressure engagement with said intermediate shank-holding means and with part of its head in outward pressure engagement with said backing means.

2. The structure defined in claim 1, wherein said backing means comprises a strip carried by said frame near the bottom thereof, notches being formed in said strip, one for receiving a portion of the head of each club spaced from the head of the adjacent club.

3. A structure as defined in claim 1, comprising holding means disposed near the top of said frame on the other side thereof for receiving the grips of other clubs, positioning means at the bottom of the identical other side of said frame for disposing the heads of said other clubs, and spring biased hooks, one for each of said other clubs, for removably holding each such other club in position with its grip in inward pressure engagement with said holding means and its head in inward pressure engagement with said positioning means.

4. A structure as defined in claim 3, wherein said positioning means comprises a pair of spaced members, and a plurality of spacers thereon to form compartments, one for receiving the head of each club.

5. A structure as defined in claim 3, comprising means forming at the bottom of said frame a collapsible stand,

said positioning means being carried by said stand, the pressure exerted by said spring biased hooks being effective to hold said other clubs in assigned position with the grips thereof in engagement with said holding means and with the heads thereof in engagement with said positioning means.

6. A structure as defined in claim 3, comprising means forming at the bottom of said frame a collapsible stand, said positioning means being carried by said stand, the pressure exerted by said spring biased hooks being effective for the twofold purpose, namely, first, to hold said other clubs in assigned position with the grips thereof in engagement with said holding means and with the heads thereof in engagement with said positioning means, and second, for exerting pressure on said stand to secure it in its open and also in its collapsed position.

7. A golf club cart comprising a pair of members extending in parallel relationship and forming a frame, carrier means on either side of said frame for removably assembling thereon two groups of clubs, one of said carrier means on one side of said frame comprising, first, individual individually movable grip-holding and locking means disposed at the top of said frame for the grips of the clubs of the associated group, second, common intermediate shank-holding means for the shanks of the clubs of said group, and third, common backing means at the bottom of said frame for holding the heads of the clubs of the associated group; and the other carrier means on the other side of said frame comprising, first, stationary grip-holding means at the top of said frame for individually holding the grips of the clubs of the associated group in transversely spaced relationship, second, individual movable spring-biased intermediate shank-holding means, one for each club, and third, backing means forming at the bottom of said frame individual compartments, one for the head of each club in the associated group.

8. The structure defined in claim 7, together with means forming a collapsible stand at the bottom of said frame, said stand comprising arms pivotally journaled on said common intermediate shank-holding means for the first group of clubs, and means for mounting on the arms of said stand said backing means forming at the bottom of the frame said compartments for the heads of the clubs of said second group.

9. The structure defined in claim 7, together with means forming a collapsible stand at the bottom of said frame, said stand comprising arms pivotally journaled on said common intermediate shank-holding means for the first group of clubs, and means for mounting on the arms of said stand said backing means forming at the bottom of the frame said compartments for the heads of the clubs of said second group, the pressure exerted by said spring-biased intermediate shank-holding means being effective

to hold the clubs of the associated group on said frame and to secure said stand in its alternate positions relative to said frame.

10. A golf club cart comprising two spaced substantially parallel members forming a frame, a pair of arms pivotally mounted relative to said frame members intermediate the opposite ends thereof and extending therefrom, said arms forming parts of a collapsible stand for supporting said frame in substantially upright position when said arms are extended outwardly relative to said frame members, pivotally mounted brace means cooperating with said arms of said stand tending to hold it in outwardly extended position, positioning means carried by said stand for receiving the head of a first club, first holding means near the top of said frame on one side thereof for receiving the grip of said first club, and a spring biased hook for engaging the shaft of said first club intermediate the opposite ends thereof to hold said club removably on said cart with the grip thereof in inward pressure engagement with said first holding means and the head thereof in inward pressure engagement with said positioning means carried by said stand thereby exerting inward pressure on said stand which is propagated to said brace means to secure said stand in outwardly extended position, said inward pressure exerted on said stand being also effective to secure it in inward collapsed position.

11. A golf club cart as defined in claim 10, comprising a cross bar which interconnects said frame members intermediate the opposite ends thereof, second holding means near the top of said frame on the other side thereof for engagement with the grip of a second club, backing means at the bottom of said frame for engagement with the head of said second club, and locking means for releasably holding the grip of said second club in engagement with said second holding means, said locking means holding the grip of said second club with inward pressure exerted thereon thereby holding the shank of such club in inward pressure engagement with said cross bar and the head thereof in outward pressure engagement with said backing means.

References Cited in the file of this patent

UNITED STATES PATENTS

1,486,655	Gourley	Mar. 11, 1924
2,246,081	Van Nattan	June 17, 1941
2,406,183	Allen	Aug. 20, 1946
2,425,688	Schulte	Aug. 12, 1947
2,480,597	Nelson	Aug. 30, 1949
2,488,664	Gruber	Nov. 22, 1949
2,513,020	Haney	June 27, 1950
2,547,829	Mills	Apr. 3, 1951