

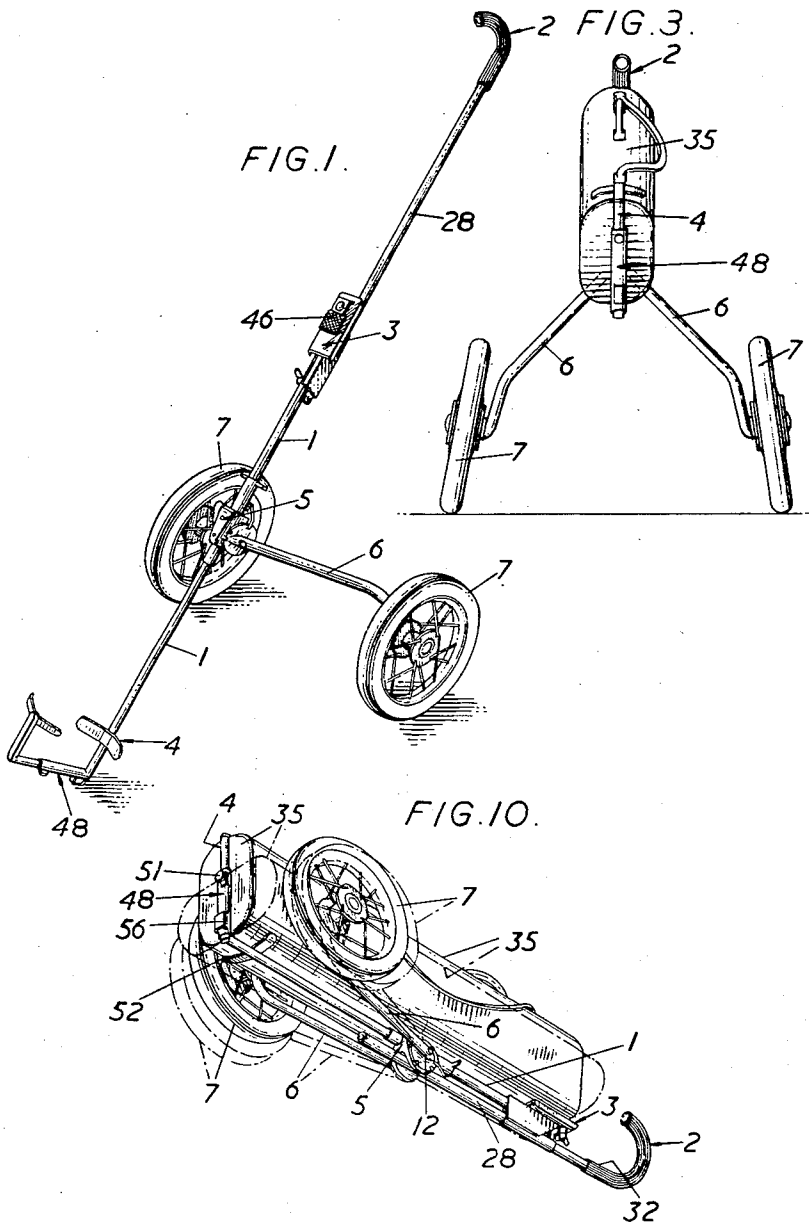
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J. L. STABLEFORD  
GOLF BAG CARRIAGE AND STAND

2,793,871

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3 Sheets-Sheet 1



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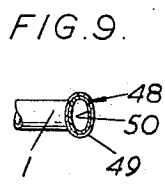
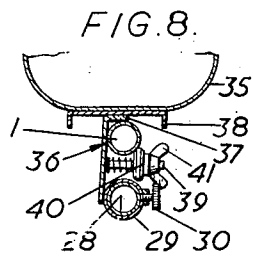
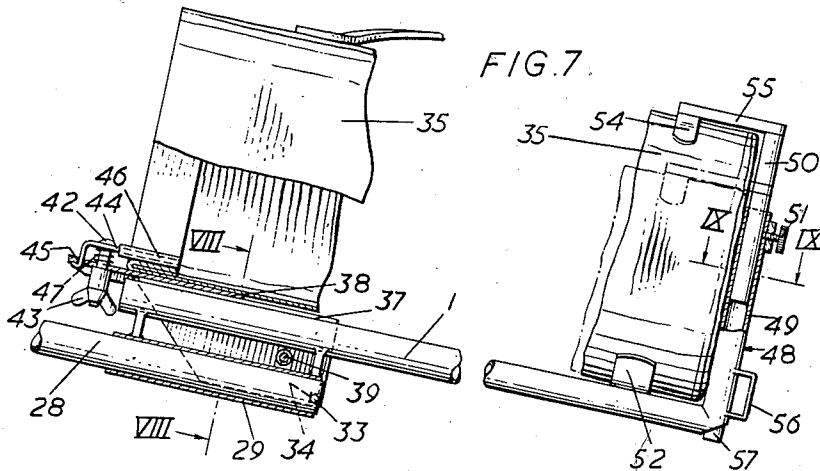
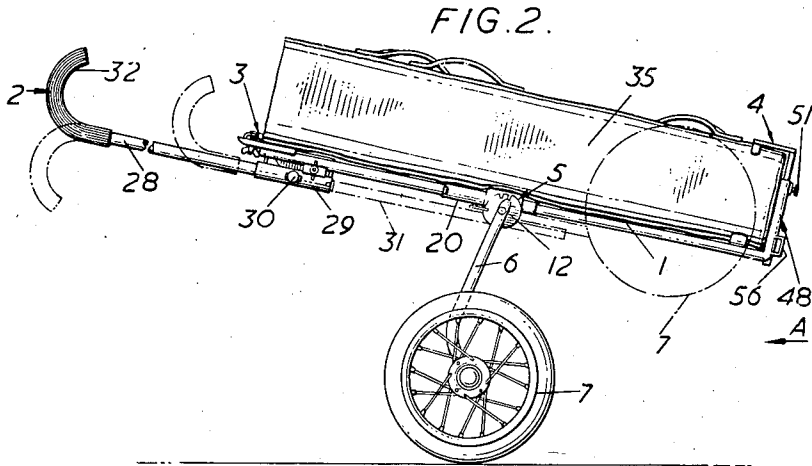
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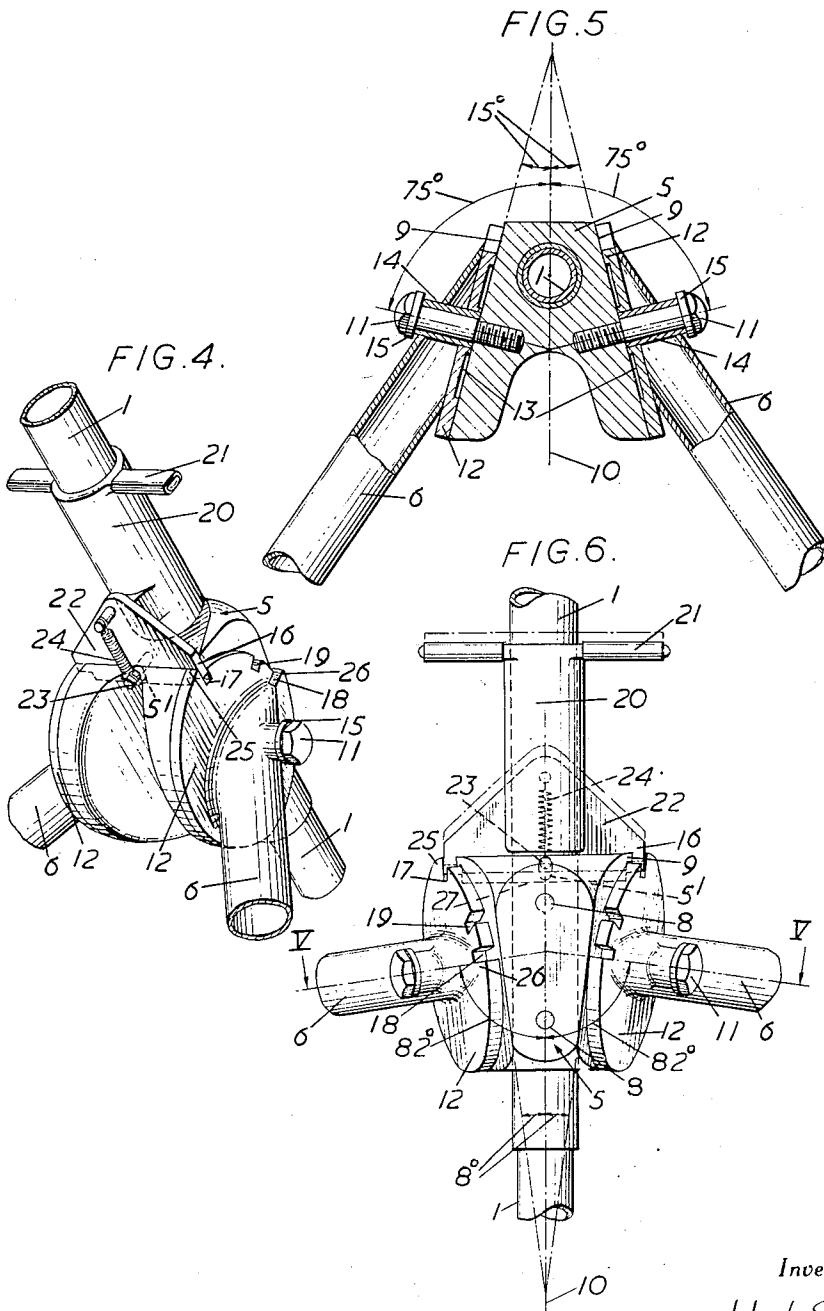
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3 Sheets-Sheet 3



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**GOLF BAG CARRIAGE AND STAND**

**John Leslie Stableford, London, England**

Application May 4, 1954, Serial No. 427,495

Claims priority, application Great Britain May 6, 1953

6 Claims. (Cl. 280—42)

This invention concerns a new or improved golf bag carriage and stand and has particular reference to that kind of carriage in which a pair of wheels are carried by legs pivotally connected to the longitudinal member or backbone of the carriage and which legs can be folded to a stowed position alongside a golf bag mounted on the carriage along said backbone, or moved to a downwardly extended operative position in which the legs project transversely downwards from the carriage and bag to support the latter above the ground, the carriage being furnished with a handle or draw bar by which it may be manoeuvred with the bag more or less horizontally disposed, and the carriage being capable, when at rest with its legs extended, of serving as a stand for the bag and of holding the latter in an upwardly inclined position with its foot at or near ground level and with its head or mouth conveniently disposed for removing clubs from the bag and for re-inserting them into the latter.

More particularly the invention is concerned with a golf bag carriage of the kind hereinbefore referred to and constructed in accordance with my United States Patent No. 2,599,354, which discloses a golf bag carriage comprising a backbone adapted to support a golf bag therealong, a handle associated with the said backbone for manoeuvring the carriage, a pair of similar independent legs each carrying a wheel at its lower part and each connected, at its upper part, to the said backbone for pivoting about an independent axis located between the ends of the backbone, the said pivoting axis of each leg being the sole connection between the leg and the backbone and being arranged transversely of the longitudinal vertical medial plane of the said backbone and also inclining upwardly and outwardly from the latter whereby, when the said legs are swung from their stowed to their operative positions, each leg moves in a plane which is downwardly divergent from the said longitudinal vertical medial plane of the backbone of the carriage so that the lateral spacing of the wheels on the said pair of legs increases as the legs move from their stowed positions towards their operative positions.

In the golf bag carriage particularly described in my said earlier patent, the pivoted ends of the legs of the carriage were attached to the ends of a cross piece extending laterally a substantial distance on each side of the backbone of the carriage, and the upper ends of the legs were guided between parallel side cheeks located at the ends of the said cross piece in order to relieve the pivots of some of the lateral stresses which would otherwise have been applied thereto by the tendency of the wheels of the carriage to spread when under load.

It is one object of this invention to provide a more compact and neater arrangement for attaching the pivoted ends of the legs to the backbone of the carriage whilst still ensuring that the legs will be adequately supported at their pivoted ends.

It is an object of the present invention to provide a golf bag carriage comprising a backbone and a pivot block mounted on said backbone intermediate its ends, wherein

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the pivot block is so constructed that a pair of legs pivotally mounted thereon may be swung alternatively into an operative position in which they serve to support the said carriage so that the same may be maneuvered, or into an in-operative position in which the wheels carried by said legs are locked closely adjacent to a golf bag supported by the said carriage.

It is a further object of the invention to so construct the said pivot block that the wheels are widely spaced when the legs are in their operative positions thereby to impart stability to the golf bag carriage, whereas, in their inoperative positions, they are spaced only at a sufficient distance to accommodate a golf bag therebetween.

It is another object of this invention to provide a thrust-plate carried by the upper end of each leg and coaxially mounted upon a pivot element secured at right angles to the pivot faces of the mounting block, said thrust-plate being designed to relieve the pivot elements of undue stress when the legs are in their operative position and under load.

It is yet another object of this invention to provide detent means positioned selectively to lock the legs of the golf bag carriage in their operative and inoperative positions, such detent means desirably being carried by the said backbone and being selectively engageable in notches provided in the periphery of the thrust-plate of each leg.

It is also an object of this invention to provide alternative inoperative positions of the legs such that the golf bag may, if desired, be secured upon the backbone on its side instead of on its edge, the spacing in the alternative inoperative position of the wheels being somewhat greater so as to accommodate the greater width of bag.

Further features of the invention will become apparent from the following specific description of one embodiment of the invention, and from the appended claims.

Figure 1 is a perspective view of an erected golf bag carriage constructed in accordance with this invention and in its "at rest" or "stand-forming" position with its rear end resting upon the ground;

Figure 2 is a side elevation of the golf bag carriage shown in Figure 1, but in this case carrying a golf bag and in its "mobile" position;

Figure 3 is a rear elevation taken in the direction of arrow A, Figure 2;

Figure 4 is an enlarged perspective view of the leg-mounting block and leg-locking mechanism of the golf bag carriage shown in Figures 1 to 3;

Figure 5 is a section on line V—V, Figure 6;

Figure 6 is a plan view of the mounting block and parts shown in Figure 4;

Figure 7 is a part fragmentary longitudinal sectional elevation of the golf bag carriage shown in Figures 1 to 3;

Figure 8 is a section on line VIII—VIII, Figure 7;

Figure 9 is a section on line IX—IX, Figure 7; and

Figure 10 is an underneath perspective view of the carriage collapsed or stowed with a bag thereon, the figure illustrating in dot-and-pick lines alternative positions for the wheels when stowed and when the golf bag is placed on the carriage on its side instead of on its edge.

Referring to the drawings, and firstly particularly to Figures 1 and 2, it will be seen that the golf bag carriage there illustrated comprises a backbone 1 which consists of a front tube and a rear tube both made of metal and partially telescoped one into the other, the front tube being of slightly greater diameter than the inner tube. This arrangement facilitates the manufacture of the carriage but the backbone could, if desired, consist of any other suitable arrangement. An endwise adjustable han-

dle 2 is provided at the front end of the backbone 1, whilst bag gripping and holding means 3 and 4 are provided respectively at the front and rear ends of the backbone on the upper side thereof.

Substantially midway between the ends of the backbone 1 is provided a mounting block 5 on which are pivotally mounted the upper ends of a pair of similar independent legs 6 each carrying a wheel 7 at its lower end and each connected at its upper part to the mounting block 5 for pivoting about an independent axis, all as more fully explained hereinafter.

The mounting block 5 is, see particularly Figures 4, 5 and 6, of a relatively squat form and of approximately inverted truncated V-shaped cross-sectional form, the block being secured to the overlapping inner end portions of the telescoped tubes forming the backbone 1 by grub screws 8, so that the oblique side surfaces 9 of the block are arranged symmetrically one on each side of the longitudinal vertical medial plane 10 (Figure 5) of the said backbone, these side surfaces diverging downwardly and outwardly from this medial plane preferably at an angle of about 15°. Thus the two surfaces 9, 9 diverge with respect to one another at an included angle of 30°.

The two side surfaces 9, 9 of the mounting block also each lies in a plane intersecting, as seen in plan, the said longitudinal vertical medial plane 10 at an angle of about 8° as is clearly shown in Figure 6, the two side surfaces 9, 9 of the block thus converging rearwardly towards one another symmetrically with respect to the longitudinal vertical medial plane 10 of the backbone.

The lower parts of the side limbs of the mounting block 5 are of approximately semi-circular shape as shown clearly in Figure 4 of the drawings, and a leg pivot element or screw 11 is screwed approximately centrally into the outer side of each of these limbs so as to have its axis at right angles to the outer face 9 of the limb; there is thus an independent pivot screw 11 for each of the two legs 6, 6.

As the screws 11 are perpendicular to the side surfaces 9 of the block 5, these screws (i. e., the pivoting axes of the legs 6, 6) diverge upwardly from the said vertical medial plane 10 at about 75° and diverge rearwardly from said medial plane at about 82°.

Each leg 6 is formed from a length of metal tube bent, approximately to the form shown in Figures 2 and 3 so that the upper part of each leg inclines rectilinearly downwardly and outwardly from the mounting block 5, and then bends downwardly and rearwardly so as to lie, at the lower end thereof, on a plane which is very slightly inwardly and downwardly inclined from the vertical. At its lower end each leg carries a stub axle on which is mounted on one of the wheels 7, this stub axle having its axis inclined slightly upwardly and outwardly when the legs are in their fully extended positions, the wheels 7 thus being located in slightly upwardly and inwardly convergent planes when in their operative positions.

The upper end of the tube forming each leg 6 is mitred and secured approximately centrally to the outside surface of a thrust plate 12 of generally circular form and of substantial area, this thrust plate being as shown, of considerably larger diameter than the tube forming the legs 6 and being adapted to bear on its inner surface against the corresponding side surface 9 of the mounting block 5. The inner surface of the thrust plate 12 is annularly recessed as shown at 13, Figure 5, so as to reduce the area of contact between the thrust plate and the block 5 which is engaged annularly by the thrust plate.

A bearing tube 14 is welded or otherwise suitably rigidly fixed into the upper part of each leg 6 transversely thereof and perpendicular to the corresponding thrust plate 12 so as to act as a journal for the appropriate pivot screw 11, the bearing sleeve 14 and consequently the leg and thrust plate 12 being pivotally retained on the screw 11 by means of a washer 15 engaging the inside of the head of the screw.

It will be appreciated that, because of the forwardly and rearwardly inclined positions of the screws 11, the legs 6 will close rapidly inwardly as they pass from their fully extended to their fully stowed positions, the legs moving in planes which are downwardly and outwardly convergent with respect to the said longitudinal vertical medial plane 10.

Means are provided for locking the legs 6 selectively in their alternative positions and these means comprise a locking detent 16, see Figure 4, adjustable along the backbone 1 and selectively engageable with alternative radial notches provided in the peripheries of the generally circular thrust plates 12 of the legs 6, there being in each thrust plate a radial notch 17 for co-operation with the detent 16 in order to lock the corresponding leg 6 in its fully extended position, a further notch 18 for engagement with the detent 16 to lock the leg in its fully stowed position, and, if desired, a still further notch 19 for co-operation with the detent 16 to lock the leg in a partially stowed position where the golf bag is laid upon the backbone 1 on its side or where, for other reasons, it is desired that the wheels 7 should, when stowed, be slightly further apart than is the case when they are in their fully stowed positions.

The detents 16 are conveniently formed by the rear edge of a detent plate 22 guided for rearward and forward sliding movement in a transverse groove 27 in the front end of the block 5, and by a screw 23 on the mounting block and passing through a central longitudinal slot 5' in the detent plate.

The detent plate 22 is fixed to the underside of a sleeve 20 slidable to a limited extent along the front part of the backbone and furnished, at its front end, with a cross bar 21 to facilitate the drawing of the sleeve forwardly on the backbone. The detent plate 22 is located at the rear of the sleeve 20 and in a plane perpendicular to the said medial plane 10, and a tension spring 24, anchored at one end to the screw 23 and at the other end to the detent plate 22, pulls this plate rearwardly towards the block 5 and against the peripheries of the thrust plates 12 and, when in register therewith, into the notches 17, 18 or 19.

Stop shoulders 25 and 26 are respectively provided adjacent the notches 17 and 18 in the thrust plates 12 in order more positively to achieve the registration and engagement of the detent 16 in these notches as the legs swing downwardly and forwardly to their fully extended positions, and rearwardly to their fully stowed positions.

It will thus be appreciated that legs 6 are capable of being locked selectively in any one of two or more alternative positions according to whether the legs are to be stowed, partially stowed, or erected for use, and that a common locking detent plate 22 serves to retain the two legs in the chosen positions, it only being necessary to draw the sleeve 20 forwardly along the backbone 1 in order to release the legs for adjustment from one position to another, and to release the sleeve, when the legs have been freed, whereafter the detents 16 will snap automatically into those notches in the thrust plates 12 which have been brought into register therewith.

The handle 2 of the golf bag carriage includes a stem 28 which is arranged parallel to the backbone 1 of the carriage and is located below this backbone but in the same plane. The stem 28 of the handle is adapted for axial forward and rearward adjustment in a guide tube 29, see particularly Figures 7 and 8, suspended rigidly from the front end portion of the backbone 1 in spaced parallel relationship therewith. A transverse locking screw 30 is provided in said guide tube 29 to lock the stem 28 in an axially adjusted position therein, and the handle is capable of being withdrawn to a fully extended position as shown in Figures 1 and 2 in full lines, or of being pushed into a stowed position as indicated in dot and dash lines at 31 in Figure 2, the handle stem lying

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(in the latter position) mainly within the length of the backbone 1.

Conveniently the grip of the handle 2 is formed by a hooked portion at the front end of the stem 28 but it could be of other forms. Moreover, the said hooked grip is preferably covered with a length of knurled, or similarly configured, rubber tubing or the like 32 slipped on to the handle.

Means are also provided for preventing the rotation of the stem 28 of the handle 2 about its own axis in its guide tube 29 when the handle is fully extended, such means comprising a diametrically arranged cross pin 33, Figure 7, fixed in the rear stem of the handle 28 and adapted to engage in diametrically oppositely located notches 34 in the rear end of the guide tube 29.

By making the mounting block 5 of the inverted V-shape above described, room is provided in the lower part of the block, between the divergent limbs thereof, to accommodate the rear end of the stem 28 of the handle 2 when the latter is moved to its stowed position.

The bag gripping means at the front end of the carriage are adapted to engage within the open mouth of a golf bag, such as the bag 35 diagrammatically illustrated in certain of the figures of the drawings, in order to retain the front end of the bag on the carriage. These means comprise a carrier plate 36 (see Figures 1, 2, 7 and 8 particularly) of inverted L-shaped cross-section which engages by its upper transversely extending flange 37 upon the upper surface of the backbone 1 of the carriage and has its other flange depending perpendicularly downwardly so as to bear at its upper part against the side of the backbone 1 and at its lower part against the guide tube 29 in which is mounted the stem 28 of the adjustable handle 2 of the carriage, this guide tube being, as stated, parallel to the backbone 1 and spaced somewhat below such backbone.

On the upper flange 37 of the said carrier plate is fixed, as by welding, a bearing plate 38 which is parallel to the said upper flange and extends outwardly on both sides of such flange and forwardly of the latter, this bearing plate being provided with longitudinal downturned outer edges.

The dependent flange of the said carrier plate 36 is provided with a horizontal screw 39 which projects perpendicularly from the flange and has mounted on it a pressure plate 40 which is adapted to extend into the gap between the backbone 1 and the said handle guide tube 29, the pressure plate being located on the opposite sides of these members to the dependent flange of the carrier plate 36. On the free end of the screw 39 is mounted a wing nut 41 by which the pressure plate 40 can be tightened against the backbone 1 so as to clamp the carrier plate 36 in a selected longitudinally adjusted position on the backbone within predetermined limits and to draw the upper flange 37 of the carrier plate downwardly on to the backbone 1 so as firmly to hold the carrier on such backbone.

At the front end of the said bearing plate 38 is located a bolt 42 which passes perpendicularly through the bearing plate with its head uppermost, and on the lower end of this screw is provided a wing nut 43 located below the bearing plate 38. The shank of the bolt 42 passes through the front end portion of a gripping finger 44 and the head of this bolt engages the upper surface of such finger which is of approximately L-shape, the longer arm of the finger being arranged substantially parallel to the bearing plate and centrally of the width of the latter, whilst the shorter arm of the finger is furnished with a short tongue which passes downwardly through a slot 45 in the front end of the bearing plate 38 and is then turned over on the under side of the latter plate, whereby the gripping finger is pivotally connected at its front end to the bearing plate.

Around the rear part of the gripping finger is mounted a knurled or ribbed rubber or like resilient sleeve 46 to

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prevent the finger from damaging the inside of the mouth of the bag 35 when it engages the latter and presses the wall of the bag on to the bearing plate 38.

The gripping of the open end or mouth of the bag is effected by adjusting the carrier plate 38 longitudinally on the backbone 1 to engage the bag wall between the gripping finger 44 and bearing plate 38, and by then pulling the gripping finger 44 downwards towards the bearing plate 38 by means of the wing nut 43 on the lower end of the said bolt 42. To return the gripping finger to its released position when the said wing nut is unscrewed, a compression spring 47 is provided around the said bolt 42 between the gripping finger 44 and bearing plate 38.

The means 4 provided at the rear end of the backbone 15 for holding the foot of a golf bag are preferably of such a character as to be able to embrace and grip bags of varying cross-sectional dimensions, and preferably also to hold a bag whether placed on the carriage on edge or on its side. As will be seen from Figures 1, 2, 7 and 9 in particular, these holding means comprise a longitudinally extensible or telescopic pillar 48 comprising (see Figures 7 and 9) a lower length of tube 49 of oval cross-section welded, at its lower end, to the rear end of the backbone 1, and projecting upwardly from the latter at right angles thereto and having its longitudinal axis lying in the said longitudinal vertical medial plane 10. Into the lower length of tube 49 extends an upper length of tube 50 of the same cross-sectional form as the lower length of tube and slidable axially up and down in the latter, this upper length of tube 50 being capable of being locked in any of its longitudinally adjusted positions with respect to the lower length of tube 49 by means of a radial screw 51 carried in the wall of the tube 49.

A pair of arms 52 with slightly upturned ends project laterally outwardly one on each side of the backbone 1 at a short distance in front of the pillar 48 and form a cradle which serves to support the foot of a golf bag on the carriage, and a similar pair of arms 54, lying above and opposite the arms 52, project laterally from a supporting member 55 carried by the upper end of the length of tube 50 which forms the upper part of the pillar 48, said arms 54 serving to engage the upper side of the foot of the bag. Thus the foot of a golf bag can be gripped between the arms 52 and 54 by appropriately adjusting the height of the pillar 48.

By making the pillar 48 of oval or other non-circular cross-sectional form, relative rotation of the tube 50 about its own longitudinal axis with respect to the tube 49 is avoided and the upper transverse arms 54 are maintained at right angles to the longitudinal vertical medial plane of the backbone 1 and in alignment with the arms 52 on the backbone irrespective of the longitudinal adjustment of the pillar 48. It will also be appreciated that the pillar 48 serves to support the base or rear end of the bag and to prevent it slipping endwise rearwardly along the backbone.

A foot bracket 56 is welded to the lower part of the pillar 48 and serves to co-operate with the head of the screw 51 to support the carriage when stood vertically on end with the handle 2 uppermost. A rubber or other pad 57 or a wheel or roller may be provided at the junction of the backbone 1 and pillar 48, if desired.

Figure 10 illustrates the carriage shown in the other figures of the drawings, in a stowed condition and illustrates the alternative stowed positions of the wheels 7 and legs 6 that may be adapted when a bag is placed in the carriage on its side or where the bag is of exceptional transverse dimensions. However a golf bag carriage constructed according to this invention will suit most golf bags, whether placed on edge or sideways on the carriage, without it being necessary to provide the said intermediate leg stowing position.

It will be seen by looking at Figure 2 of the drawings that, if the foot of the rear end of the golf bag carriage is rested upon the ground, the handle 2 is raised to lift

the wheels off the ground, and the detent 16 pulled forwardly to release the legs 6, these legs will swing backwardly towards their stowed positions and that, if the carriage is then rocked into a substantially vertical position, the legs 6 will automatically swing to, and lock in, their fully stowed positions.

If the wheels are fully stowed then, if the carriage is picked up by its rear end and raised while simultaneously operating the detent to release the legs, these will automatically swing towards, and eventually lock in, their fully extended positions.

I claim:

1. A golf bag carriage comprising a backbone; means for securing a golf bag to said backbone; handle means connected to said backbone; a mounting block on said backbone intermediate its ends; a pair of pivot faces one on each side of said mounting block, said pivot faces lying in inclined planes which define an included angle of about 30° as measured in a plane at right angles to said backbone and a rearward included angle of about 16° as measured parallel to the backbone; a pivot element projecting at right angles from each said pivot face; a thrust plate rotatably journaled on each said pivot element; a leg rigidly secured at one end to each said thrust plate; detent means on said backbone for selective engagement with three peripheral notches on each of said thrust plates to lock each said leg selectively in a fully-extended position, in a partially-stowed intermediate position, and in a fully-stowed position, said detent means including a sleeve slidable on said backbone; spring means urging said sleeve in a leg-locking direction; and a wheel rotatably mounted at the end of each said leg remote from said thrust plate.

2. A golf bag carriage according to claim 1, wherein the said detent means form part of a detent plate carried by the said sleeve and serving to lock both of the independently pivotal legs of the carriage in their alternative positions.

3. A golf bag carriage comprising a backbone; means for securing a golf bag to said backbone, including gripping means adjustable along the backbone for engaging the open ends of golf bags of differing lengths; handle means including a stem arranged parallel to said backbone; a guideway on said backbone co-operating with said stem and providing for endwise relative adjustment of the stem and backbone; a cross pin on said stem for engagement with cross notches on said guideway when said stem is in a fully withdrawn position to lock the stem against rotation in said guideway; a mounting block on said backbone intermediate its ends; a pair of pivot faces one on each side of said mounting block, said pivot faces lying in inclined planes which define an included angle of about 30° as measured in a plane at right angles to said backbone and a rearward included angle of about 16° as measured parallel to the backbone; a pivot element projecting at right angles from each said pivot face; a thrust plate rotatably journaled on each said pivot element; a leg rigidly secured at one end to each said thrust plate; and a wheel rotatably mounted on the end of each said leg remote from said thrust plate.

4. A golf bag carriage according to claim 3, wherein the said gripping means comprise a bearing plate adjustable along the backbone of the carriage and having pivotally anchored thereto, cantilever fashion, one end of an adjustable gripping finger adapted to project into the mouth of a golf bag placed on the carriage, tightening means for drawing the free end portion of said finger towards the said bearing plate thereby to grip the wall of the golf bag between these parts, and spring means for urging

the said gripping finger away from the bearing plate when released by said tightening means.

5. A golf bag carriage according to claim 4, wherein means are provided at the rear end of the said backbone for holding the foot of a golf bag placed on the latter, said holding means comprising a lower bag supporting cradle projecting laterally from the said backbone one on each side thereof, a telescopically adjustable pillar of non-circular cross-section projecting upwardly from said backbone centrally between the said lower arms, and a pair of upper bag holding arms projecting laterally on opposite sides of the upper end of said pillar, and means for locking the telescoping sections of the said telescopic pillar in any relatively adjusted position to which they may be adjusted in an endwise direction.

6. A golf bag carriage comprising a backbone adapted to support a golf bag therealong; a handle for manoeuvring the carriage; means at the front end of said backbone positioned to engage within the mouth of a golf bag placed on the carriage and for clamping the bag to said backbone; means at the rear end of said backbone positioned to embrace and hold the foot of a golf bag carriage thereon; a mounting block fixed on said backbone intermediate the ends thereof, said mounting block being of truncated inverted V-shaped cross-sectional form and having its lateral side surfaces diverging symmetrically downwardly and outwardly from the vertical longitudinal medial plane of said backbone and also converging rearwardly symmetrically with respect to said medial plane; a pair of similar independent legs; a wheel at the lower part of each of the said legs; a thrust plate of generally circular form rigidly secured to the upper end of each of said legs; a pivot element projecting outwardly from each of the oblique side surfaces of said mounting block and at right angles thereto, each of said pivot elements passing substantially centrally through one of the said thrust plates to form a pivot for the leg carried by such thrust plate, and the latter bearing at its inner surface against the adjacent oblique side surface of the said mounting block thereby to transfer stress applied to the leg to said mounting block, each of said legs being adapted to swing independently of the other leg about its own pivot element from a stowed position in which the leg lies alongside the said backbone to a fully extended position in which it projects transversely downwardly from such backbone, and vice versa; spring urged detent means on said backbone positioned for engagement with the peripheries of said thrust plates; a peripheral notch for each of the alternative positions to which the leg on the thrust plate is adapted to be adjusted and retained, said detent means being adapted selectively to engage in such notches releasably to lock the leg selectively in its alternative positions; and stop means on each of said thrust plates adjoining the notches thereof respectively corresponding to the fully extended and fully stowed positions of the leg carried by the thrust plate, said stop means being adapted to co-operate with said detent means to guide the latter into the adjacent notch when the latter is registered with the detent means.

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