

Feb. 8, 1955

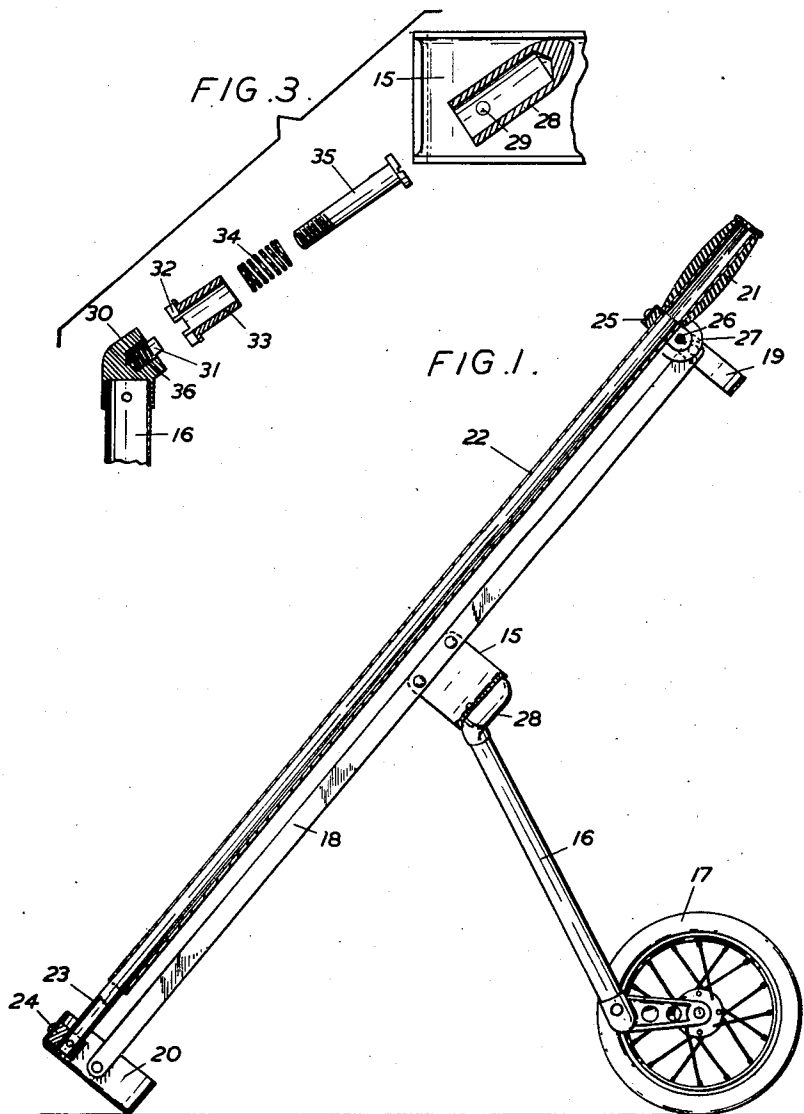
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2,701,725

GOLF BAG TROLLEY

Filed June 16, 1953

5 Sheets-Sheet 1



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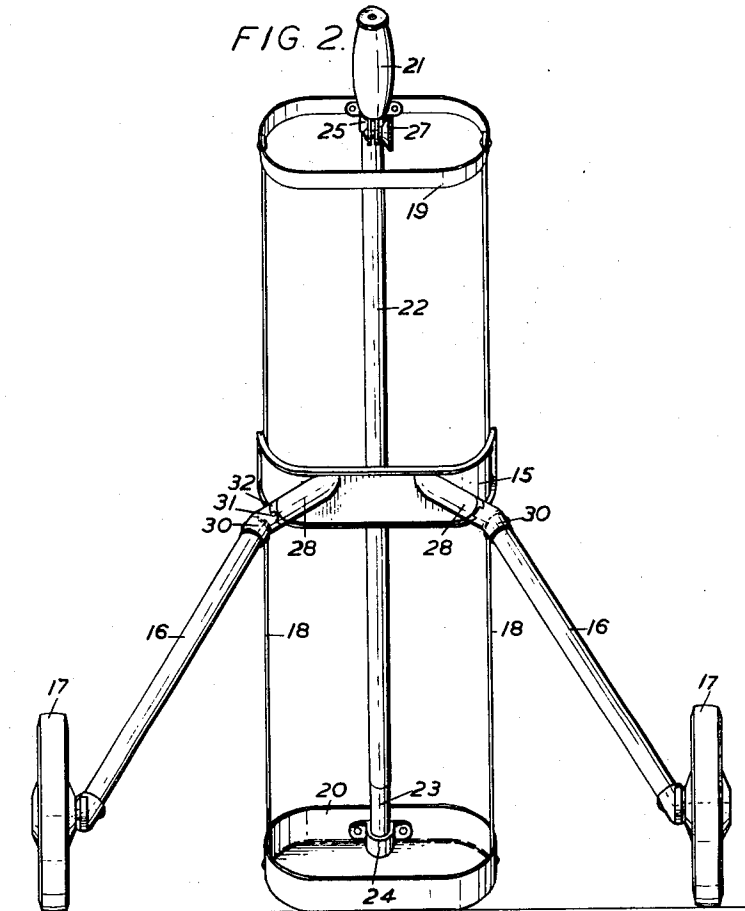
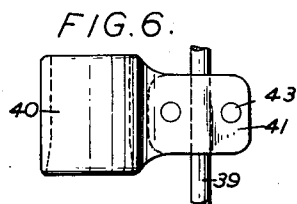
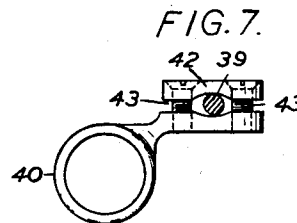
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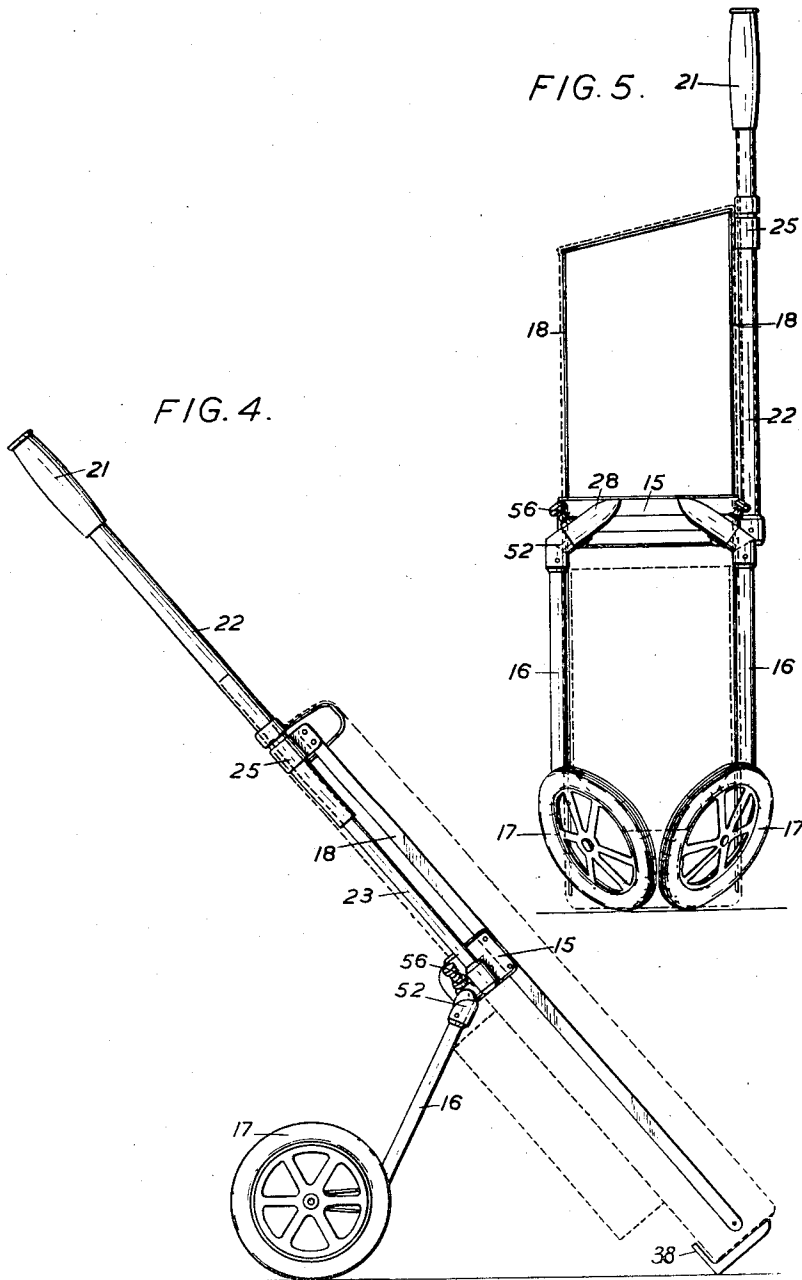
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5 Sheets-Sheet 3



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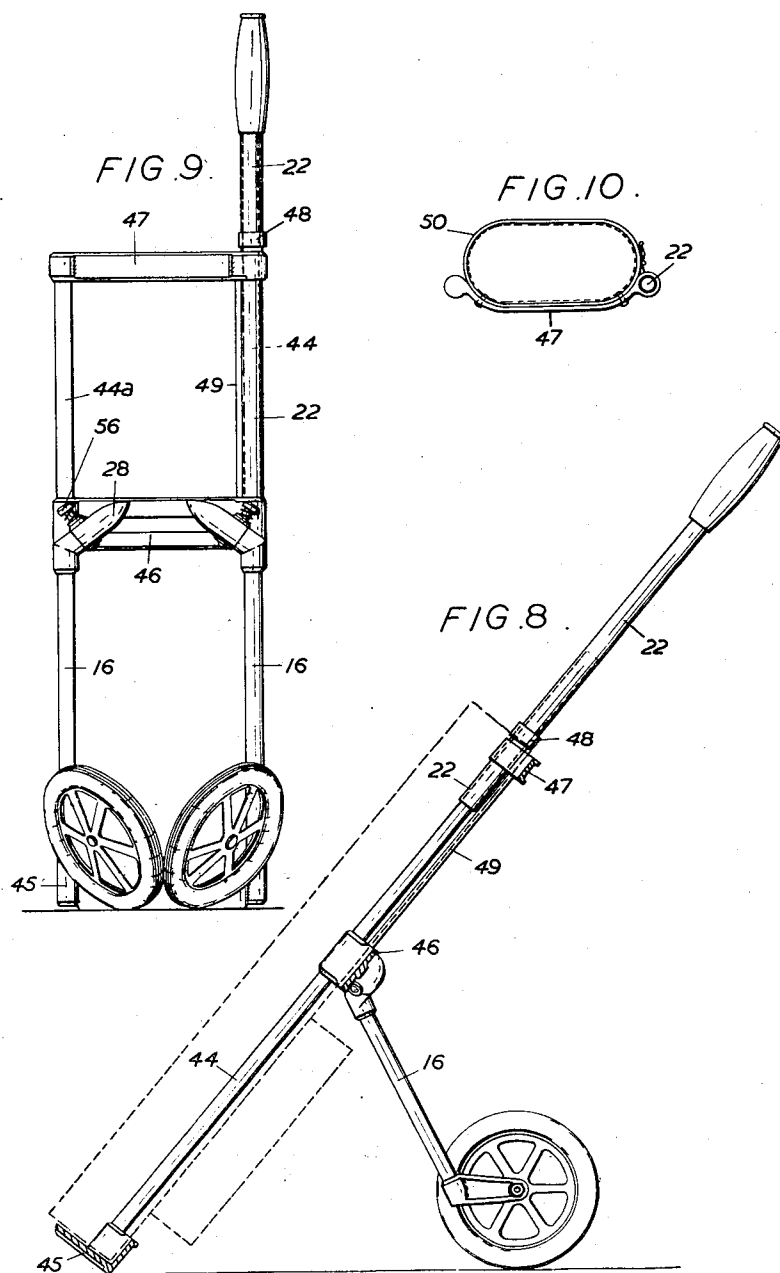
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GOLF BAG TROLLEY

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5 Sheets-Sheet 4



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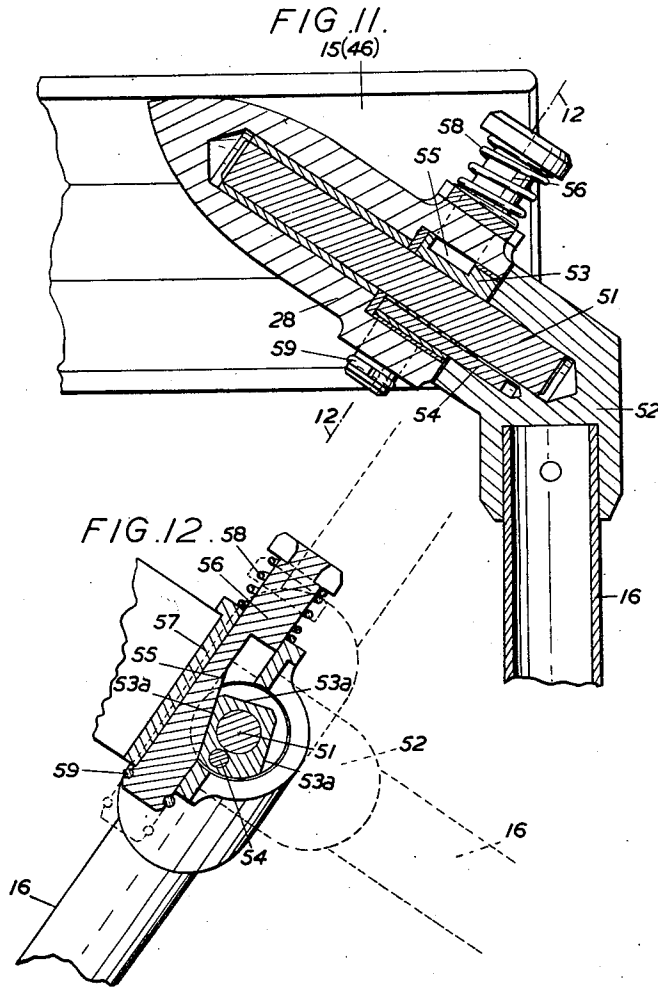
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GOLF BAG TROLLEY

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5 Sheets-Sheet 5



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2,701,725

GOLF BAG TROLLEY

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4 Claims. (Cl. 280—38)

This invention relates to an improved construction of golf bag trolley for attachment to a golf bag or golf bag frame or to a support for a golf bag for enabling a golf club carrier bag to be trundled over the ground, the trolley being capable of being folded against the bag when not in use, or it may be made detachable from the golf bag or golf bag frame. The invention also contemplates the provision of an extensible and collapsible handle for attachment to the golf bag or golf bag frame or to a support for a golf bag for facilitating the trundling of the bag.

The primary object of the present invention is to provide a golf bag trolley of such a construction that the legs of the trolley which are played outwards away from each other and away from the bag when trundling the bag over the ground, can be folded into a collapsed position in which the legs lie closely adjacent to and alongside the bag. The wheels on which the legs are mounted also tuck underneath the usual pocket of the golf bag when the trolley is collapsed against the bag and the arrangement may be such that the whole assembly of golf bag and trolley will stand upright and be self-supporting in the collapsed position of the trolley. The trolley may also be constructed to enable the legs to be bodily removed for convenience of storage.

According to the present invention the golf bag trolley comprises a member for attachment to the bag, a pair of legs, a wheel fitted to the outer end of each leg, pivotal means connecting the legs to said member, and releasable locking means for locking the legs in a collapsed position in which they lie alongside and adjacent the bag, in a position in which they are substantially parallel, and said locking means and pivotal means permitting the legs to be turned into and releasably locked in an extended position in which they are splayed outwards from each other and away from the bag in a position in which the wheels can be engaged with the ground when the bag is held in an inclined position.

In the collapsed position, the legs may hang downwards alongside the lower end of the bag, when the wheels automatically lie in an inclined position to each other and closely adjacent to each other and to the bag.

A detachable coupling device permitting the legs to be detached when turned out of the extended position is preferably incorporated in the locking and pivotal means connecting the legs to the bag attachment member.

The inner ends of the legs may be secured to elbows which are rotatably attached to the bag attachment member on axes inclined to each other and inclined downwardly towards the leg, said locking means releasably locking said elbows against rotation on their axes in the collapsed and extended positions of the legs.

The bag attachment member may be transversely secured to and between a pair of spaced longitudinal supports for the bag and the said supports may be separate from or incorporated in the bag structure or in a bag frame.

The invention provides a simple device which incorporates a pair of legs capable of being either collapsed against the bag or opened out to form a trolley for the bag.

The bag attachment member may wholly or partially encircle the bag and may be made of metal or other suitable material either permanently fixed to the bag, as by means of rivets, bolts or screws, or detachably or adjustably fitted or clamped to the bag, bag frame or bag supports.

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Any suitable means may be provided for pivotally attaching the legs to the bag attachment member in such a manner that the legs can be releasably locked in the collapsed and extended positions.

A telescopic handle may be fitted to the bag or bag frame and be secured in extended or collapsed position by a thumb screw or other adjustable clamping means.

The invention will be more readily understood by reference to the accompanying drawings in which:

Fig. 1 is a longitudinal sectional view of one form of golf bag trolley according to the invention, showing the legs in extended position for trundling the bag, but with the handle in collapsed condition. The bag is omitted for greater clarity.

Fig. 2 is a front view of the trolley shown in Fig. 1.

Fig. 3 is an exploded part sectional view showing the locking mechanism provided for each of the legs.

Fig. 4 is a side view of a modified form of my invention showing the legs and handle in the extended position, and the outline of the bag in broken lines.

Fig. 5 is a front view of the trolley shown in Fig. 4, but with the legs and handle in the collapsed condition.

Figs. 6 and 7 are side and plan views respectively of an alternative form of clamp for attaching the handle to the golf bag.

Fig. 8 is a longitudinal sectional view of a still further form of trolley according to the invention. In this form, the trolley is separate from the bag, which is detachably fitted to the trolley. The view shows the legs and handle in extended position.

Fig. 9 is a front view of the trolley seen in Fig. 8, but showing the legs and handle collapsed.

Fig. 10 is a detail plan view of the bag.

Fig. 11 is a sectional view of an alternative form of locking mechanism for the legs.

Fig. 12 is a sectional view on the line 12—12 of Fig. 11. Figs. 13 and 14 are end and side views of a detailed part of the locking mechanism of Figs. 11 and 12.

Referring firstly to Figs. 1 to 3, the trolley comprises a U-shaped member 15 to which a pair of legs 16 are articulated in a manner hereinafter described. Each leg 16 is fitted with a wheel 17. The member 15 is secured, as by rivets, screws or bolts, to a pair of metal bag frame stiffener members or longitudinal bars 18 which are incorporated in the bag structure (not shown) and are secured at their ends to an upper ring 19 and a base 20 which form the top and bottom respectively of the bag. Attached to the structure is a collapsible and extensible handle 21 fitted to the end of a tube 22 which telescopes over an inner tube 23 secured at its lower end to a bracket 24 in the base 20. The upper end of the outer tube 22 is adjustably slidable through a clamp 25 adjustable by means of a clamping screw 26, the clamp 25 being secured within the upper ring 19, and the screw 26 being fitted with a knurled operating knob 27.

The U-shaped member 15 forms a strap or band which partially encircles the bag, and fitted to the outside of the member 15 is a pair of sockets 28, one of which is shown in Fig. 3. Each of these sockets is secured to the member 15 and is connected to the associated leg 16 by a form of dog clutch comprising an elbow 30 secured to the upper end of the leg and having claw teeth 31 engageable between the claws 32 of a clutch element 33 which is secured in the socket 28 against a spring 34 in compression between the clutch element 33 and the head of a screw 35 which is screwed into a threaded recess 36 in the elbow 30, the element 33 being held in the socket against rotation as e. g. by means of a screw 29 engaging the clutch element 33. The claw teeth 31 and 32 are preferably tapered to avoid any play in clutch engagement and to allow for wear.

The leg 16 can be turned through an angle about the axis of the socket 28 and locked by the clutch element 33 when the elbow 30 is drawn outwards against the action of the spring 34 and turned through an angle of say 90 degrees, depending upon the positioning of the claw teeth 31 and 32. On releasing the elbow 30, the spring 34 again draws the clutch teeth into engagement in the new position. As seen in Figs. 2 and 3, the sockets 28 are so inclined to the horizontal and are so posi-

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tioned that the legs 16 can lie close to the side of the bag when the legs are turned inwards towards the bag and the wheels lie in an inclined position to each other and closely adjacent to each other and to the bag. When the legs are turned outwards into the trundling position, they splay outwards away from each other, as seen in Fig. 2 and the wheels 17 take up a parallel position.

The member 15 and legs 16 are preferably placed at the side of the golf bag which carries the ball or boot pocket, so that the wheels tend to tuck underneath the pocket when the trolley is collapsed against the bag.

The member 15 is positioned at such a distance from the top of the bag that, in the trundling position of the trolley, the centre of gravity of the bag and its contents is vertically or nearly vertically above the central axis of the wheels 17.

The handle 21 can be extended or pushed inwards to suit the requirements of different individuals and varying numbers of clubs or other bag contents.

Figs. 4 and 5 illustrate a modified construction showing an alternative position for the handle, and alternative leg locking mechanism shown in detail in Figs. 11 to 14. In the construction shown in Figs. 4 and 5 the inner handle tube 23 is attached at its lower end to the strap or member 15 and the clamp 25 for the outer handle tube 22 is secured, as by rivets, bolts or screws, to one of the longitudinal bag stiffening members 18, which are connected together by the member 15. In this construction there is shown a base 38 for the reception of the base of the bag which may be made as usual of leather, and the base 38 is preferably made of metal. The outline of the bag is shown in broken lines in Figs. 4 and 5.

In the collapsed position of the legs 16, as seen in Fig. 5, the wheels 17 are arranged so that their lower rims and the base 38 lie in the same plane so that the whole assembly will stand upright and be self-supporting on reasonably level ground.

If the longitudinal stiffening members of the bag are of round or oval section and of small cross-sectional area, the handle clamp 25 and the member 15 cannot readily be riveted to the stiffening members. In such case, the construction shown in Figs. 6 and 7 may be adapted wherein a longitudinal bag stiffening member 39 is a circular cross-section bar having a clamping sleeve 40 for a handle tube such as 22 in Figs. 1 to 5 clamped to the bar 39 by means of a fixed lug 41 on the sleeve 40 and a detachable clamping plate 42 secured to the lug 41 by screws 43. To enable the member 15 to be secured to a pair of longitudinal bag stiffening bars such as 39, the member 15 is provided at its ends with lugs such as 41. The material of which the bag is composed is not shown in Figs. 6 and 7, but would be apertured for the passage therethrough of the screws 43, and the clamping plate 42 would be fitted inside the bag and fabric-covered to prevent damage to clubs within the bag.

Figs. 8 to 10 illustrate a form of the invention in which the bag is removable from the trolley. In this construction the trolley comprises a pair of longitudinal tubes or bars 44 and 44a secured at their lower ends to a base plate 45 and having a cross member 46 secured to the tubes or bars 44, 44a at a point intermediate their length. The bars or tubes 44, 44a are also spanned at their upper ends by an additional cross member 47. One end of the cross member 47 is constructed to support a clamp 48 for the telescopic handle tube 22 which is slidable over the bar or tube 44 at that side of the trolley structure. The cross member 47 is attached adjacent the bar or tube 44 to the lower cross member 46 by a subsidiary tube 49 parallel with and close to that part of the bar or tube 44 over which the handle tube 22 is slidable.

The cross members 46 and 47 are curved at their ends to support the bag as shown in Fig. 10 and the upper cross member 47 has straps 50 attached thereto for fastening around the upper part of the bag. The base plate 45 may similarly be provided with straps for securing the base of the bag thereto. A clip or clips may be adjustably attached to the upper cross member 47 for engaging over the mouth of the bag.

The legs 16 of the trolley are attached to the cross member 46 in a manner similar to that of the construction according to Figs. 4 and 5 and shown in detail in Figs. 11 to 14 wherein a centre spindle 51 is rotatable in a bush in the socket 28 which is fixed in an inclined posi-

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tion to the cross member 15 (or 46) as already described with reference to Figs. 1 to 3. The spindle 51 is a tight fit or fixed in an elbow 52 to which the upper end of the leg 16 is secured. Mounted on the spindle 51 is a collar 53 which has flat surfaces 53a on three sides between end flanges 53b and 53c. A dowel pin 54 passed through the collar 53 and into the elbow 52 also locates the collar in position. Any one of the flat surfaces 53a can be engaged with a corresponding flat surface 55 on a plunger 56 which is of square section and is mounted in a bush 57 (preferably of resilient material) of correspondingly square internal bore to prevent rotation of the plunger 56. The surface 55 of the plunger 56 is inclined so that downward pressure on the plunger disengages it from the flat surface on the collar 53 when the leg 16 and elbow 52 can be turned into any one of three positions in which one of the flat surfaces 53a can be engaged with the flat surface 55 of the plunger 56 on releasing the pressure on the plunger, when a spring 58 in compression between the bush 57 and the head of the plunger 56 retracts the latter, thus positively locking the leg 16 in the position to which it has been turned. In the position of the parts shown in Figs. 11 and 12, the leg will lie close to the side of the bag. The leg 16 can be turned through say 90 degrees into a trundling position, or it can be turned through 180 degrees into an upright position when the elbow 52, leg 16 and attached wheel 17 can be withdrawn with the spindle 51 and collar 53 as a unit for storage, the end flange 53b having a part removed therefrom for this purpose as shown at 53d in Figs. 13 and 14. When the spindle 51 with the collar 53, elbow 52 and attached leg has been removed, a spring ring 59 fitted around the lower end of the plunger 56 prevents the latter from being completely drawn out by the spring 58.

I claim:

1. A golf bag trolley comprising a bag attachment member, a pair of socket elements secured to said member and inclined downwards and away from each other, a pair of elbows each comprising two arms obtusely inclined to each other, a leg attached at its upper end to one arm of each elbow, a ground wheel mounted on the lower end of each leg, a pin projecting from the other arm of each elbow and inserted axially into one of said socket elements, said pins being rotatable in said socket elements, and releasable spring-controlled locking means for releasably locking said pins in one position in said socket elements in which the legs are substantially parallel and lie alongside and adjacent the bag and in another position in which the legs are inclined downwards and away from each other and away from the bag.

2. A trolley as specified in claim 1 in which the releasable locking means comprises clutch teeth projecting from each elbow arm, a co-operating clutch element secured in each of said socket elements, said pins being axially movable through said clutch elements, and a spring on each of said pins, said springs urging said clutch elements into resilient engagement with the clutch teeth of the elbows, and outward axial manual displacement of said elbows against the action of said springs permitting the elbows to be turned with said pins in said socket elements, return axial movement of said elbows and pins on releasing the elbows causing the clutch elements to re-engage the clutch teeth of the elbows in the angularly adjusted position thereof.

3. A trolley as specified in claim 1 in which the releasable locking means comprises a collar fixed on each of said pins, each of said collars having flat surfaces thereon inclined to each other, a spring-controlled axially movable locking plunger mounted in each of said socket elements at right angles to the axis of the socket therein, an inclined face on each of said plungers engaging one of the flat surfaces of said collar and being disengageable therefrom by displacement of said plunger to enable said collar to be turned with the pin in the socket element for engagement of any selected flat surface of said collar with the plunger, means preventing axial displacement of said collar and pin relatively to the socket element in a first position in which the legs are inclined downwards and away from each other and from the bag, and means permitting axial removal of said collar and pin with the associated elbow and leg when the leg is turned through an angle to said first position.

4. A trolley as specified in claim 1 in which the releasable locking means comprises a collar fixed on each

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of said pins, each of said collars having flat surfaces thereon inclined to each other, a spring-controlled axially movable locking plunger mounted in each of said socket elements at right angles to the axis of the socket therein, an inclined face on each of said plungers engaging one of the flat surfaces of said collar and being disengageable therefrom by displacement of said plunger to enable said collar to be turned with the pin in the socket element for engagement of any selected flat surface of said collar with the plunger, means preventing axial displacement of said collar and pin relatively to the socket element in a first position in which the legs are inclined downwards and away from each other and from the bag, and in a second position in which the legs are parallel and lie along-

side and adjacent the bag, and means permitting axial removal of said collar and pin with the associated elbow and leg when the leg is turned through an angle to said first and second positions.

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