Nov. 12, 1957 G. A. ADAMS 2,812,824

SELF-PROPELLING ATTACHMENT FOR GOLF-BAG CARTS

Filed July 22, 1955 2 Sheets-Sheet 1

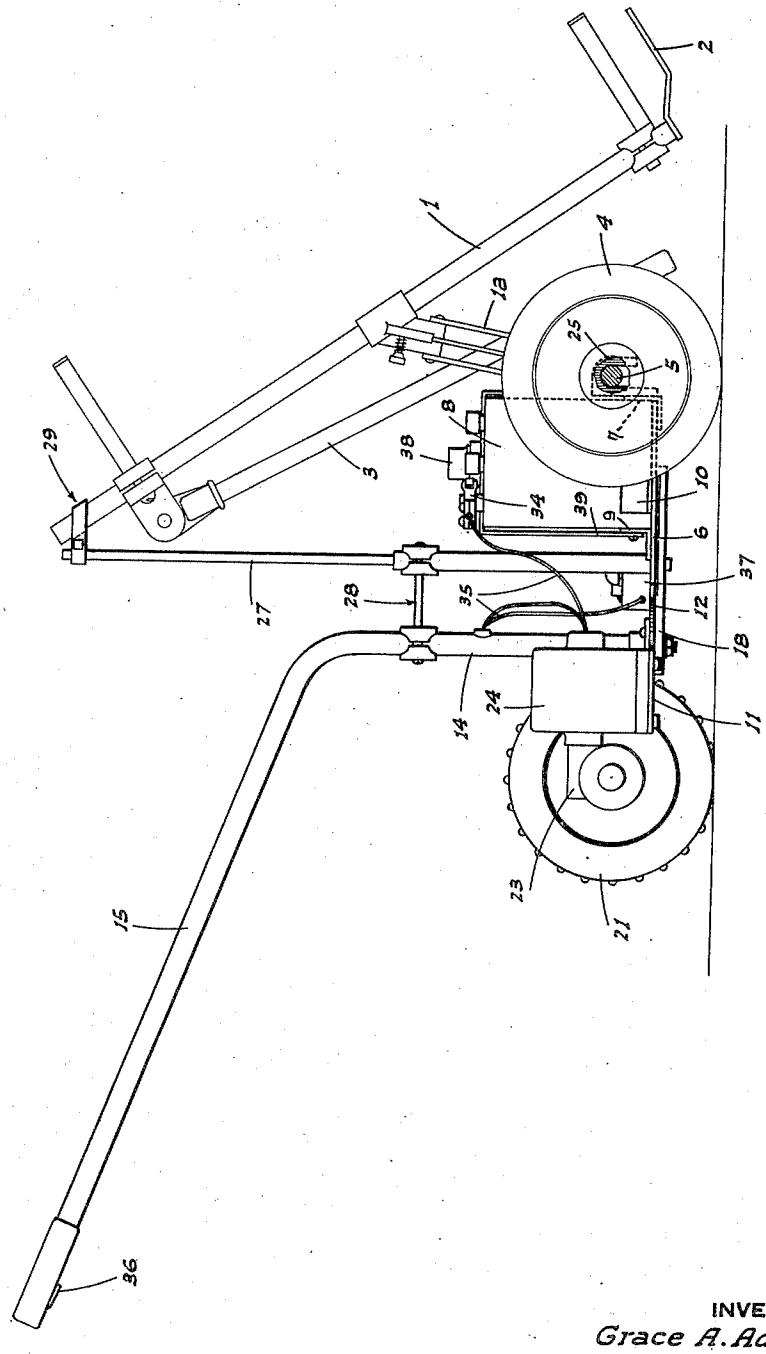


Fig. 1

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Fig. 2

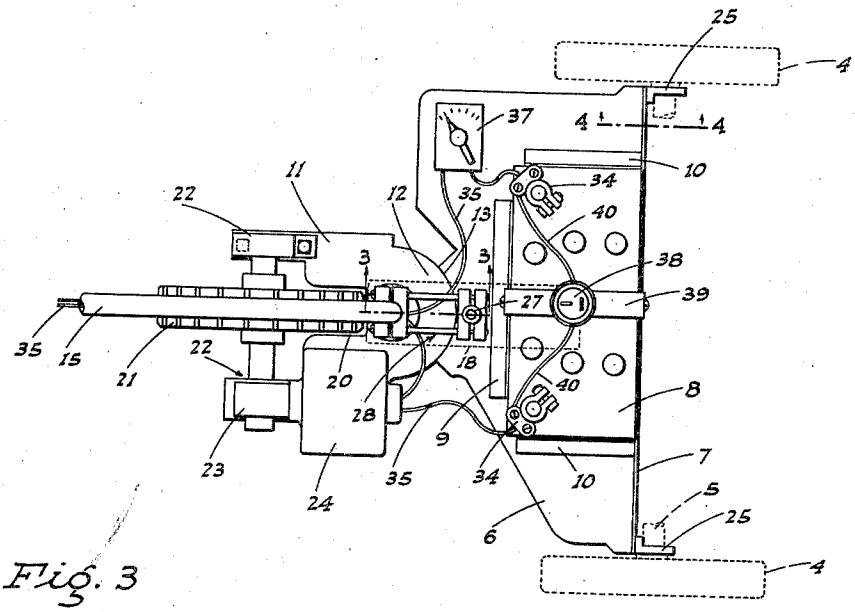


Fig. 3

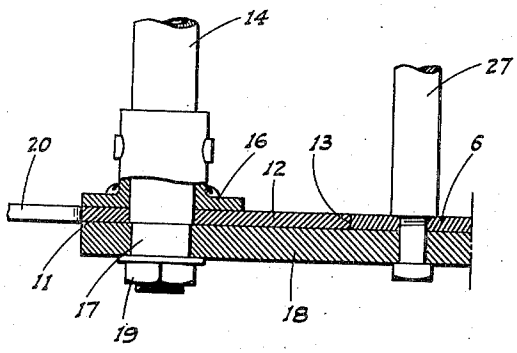


Fig. 4

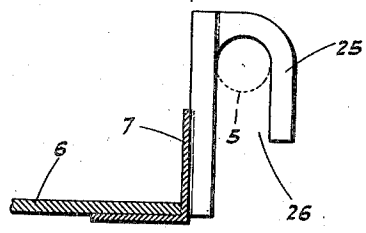
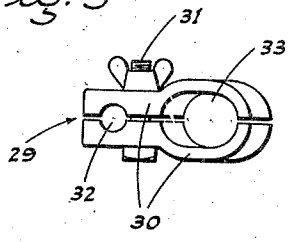


Fig. 5



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SELF-PROPELLING ATTACHMENT FOR GOLF-BAG CARTS

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Application July 22, 1955, Serial No. 523,651

2 Claims. (Cl. 180—19)

This invention relates to golf playing equipment, and particularly to an attachment for a two-wheel golf bag cart of the type now widely used to carry the bag of clubs of the player, and which is arranged to be manually pulled along by the player as he or she traverses the golf course. Pulling such a cart over a golf course oftimes has a very wearisome effect on some players before a game is completed.

It is, therefore, the major object of my invention to provide a self-propelling unit adapted to be connected to and support a golf-bag cart, and by means of which unit the cart may be maneuvered over the golf course simply by a steering effort on the part of the player, and no pulling of the cart by the player is necessary.

Another important object of the invention is to arrange the self-propelling unit as an attachment which may be applied to or detached from the cart in a matter of seconds. Thus, the cart may be used with or without the unit, as may be desired, and the wheels of the cart—when the latter is detached—may then be folded without interference, and for easy storage or transportation of said cart.

A further object of the invention is to construct the self-propelling unit in such a manner that no changes of any kind need be made to the golf cart, nor are any fastening or other elements permanently connected thereto.

Another object of the invention is to provide a self-propelling unit and attaching means, arranged so that when the unit is connected to the cart, the bag on the latter is held clear of the ground at all times.

A further object of the invention is to provide a self-propelling attachment for golf-bag carts which is designed for ease and economy of manufacture.

A still further object of the invention is to provide a practical, reliable, and durable self-propelling attachment for golf-bag carts, and one which is exceedingly effective for the purpose for which it is designed.

These objects are accomplished by means of such structure and relative arrangement of parts as will fully appear by a perusal of the following specifiaction and claims.

In the drawings:

Fig. 1 is a side elevation of the self-propelling unit, as attached to a golf cart.

Fig. 2 is a plan view of the unit, detached.

Fig. 3 is an enlarged fragmentary sectional elevation on line 3—3 of Fig. 2.

Fig. 4 is an enlarged fragmentary sectional elevation on line 4—4 of Fig. 2.

Fig. 5 is an enlarged plan view of the attaching clamp used to connect the unit and the golf cart adjacent the upper end of the latter.

Referring now more particularly to the drawings and to the characters of reference marked thereon, the golf cart shown, and to which the self-propelling unit is adapted to be attached, comprises essentially a rigid upstanding post 1 having a forwardly projecting bag supporting bracket 2 at its lower end, and a foldable handle 3 at the back. The post 1 is supported by a pair of transversely spaced wheels 4 mounted on stub spindles 5 projecting from leg units 1*a* depending from the post at a rearward angle; the wheels being disposed so that when the post 1 is set at a predetermined rearward slope to its upper end, the bracket 2 will be clear of the ground.

The self-propelling unit, which is the subject of this invention and which is adapted for connection to a cart as above described, comprises a base platform 6 substantially the width of the space between wheels 4 and having an upstanding rearwardly facing angle member 7 secured thereto across its forward end. Such angle member 7 not only serves as a stiffener for the platform 6 but also as the locator for the forward edge of a storage battery 8 seated on said platform; similar locators 9 and 10 for the back and sides, respectively, of the battery being also secured on the platform.

A swivel platform 11 extends rearwardly from the platform 6 and includes a fifth wheel portion 12 at the front turnable in a circular recess 13 in said platform 6 and curved concentric with an upstanding post 14 which is bent rearwardly at certain level above the platform 11 to form a steering handle 15; the latter projecting rearwardly behind the platform 11 some distaance as shown.

The post 14 is held rigid with platform 11 by means of a connecting collar and flange member 16, while the lower end portion 17 of the post projects below flange member 16 and turns in a relatively heavy bar 18 which underlies fifth wheel portion 12 and is rigidly secured to platform 6 on the underside.

The fifth wheel portion 12 and bar 18 are held from vertical separation by a nut 19 on the lower end of post portion 17.

The platform 11 is slotted from the back, as at 20, to receive a single traction wheel 21 whose tread surface is preferably transversely ribbed to give the maximum traction. This wheel is disposed so that when parallel to the cart wheels 4, it lies in a longitudinal plane extending centrally between said wheels 4, as is the center of the fifth wheel portion 12 and post 14.

The traction wheel 21 is supported upon platform 11 by bearings 22, one of which includes a reduction gear unit 23 of conventional form driven from an electric motor 24 mounted on said platform to one side of the wheel.

At its forward end, platform 6 is provided with rigid upstanding and downwardly opening hooks 25 forming parallel-sided openings 26 adapted to slip over spindles 5 of the cart; the hooks being spaced apart so that they engage the spindles 5 adjacent the wheels 4, and between the latter and the upstanding wheel-mounting leg units 1*a*.

In order to rigidly connect the cart at its upper end to platform 6 and hold the cart against vertical swivel movement relative thereto, a post 27 upstands from platform 6 a short distance ahead of post 14 and to a height substantially that of cart post 1. Post 27 is braced from post 14 intermediate its ends by a longitudinal unit 28 engaging and extending between said posts, and which does not interfere with rotation of post 14. A clamping unit 29 releasably connects the upper end of the post 1 and 27, and comprises a pair of laterally separate jaws 30 coupled by a hand-actuated clamping screw 31. The jaws are formed with a straight bore 32 to slide onto and clampingly engage post 27, and with an angular downwardly sloping bore 33 to slide onto and clampingly engage the upper end of post 1. The unit 29, when thus engaged with both posts, maintains said post 1 against forward tilting movement and holds bracket 2 clear of the ground.

In order to attach the described self-propelling unit to the cart, it is only necessary to first fold the handle 3, and then engage the hooks 25 over the spindles 5 from above. The post 1 is then tilted back toward the post

27, with which it is transversely alined, so that the bores of the clamping unit 29 may simultaneously slip onto the respective posts. The clamping screw 31 is then tightened. It will, therefore, be seen that the cart is rigid with the forward portion of the self-propelling unit, and while being then propelled by the traction wheel 21, may be steered and manipulated by the handle 15.

The terminal clamps 34 of battery 8 are connected to the motor 24 by a circuit which includes wires 35, and in which circuit a normally open hand switch 36 of the press-in type is interposed. The switch 36 is preferably mounted in the handle 15 adjacent its outer end where said handle is grasped by the person manipulating the self-propelling unit and attached cart. The handle 15 and the post 14 are tubular, and the wiring to and from the switch is concealed in these parts from adjacent the motor. To conserve weight and reduce manufacturing expense, no mechanical speed-change transmission is provided on the unit, and hence a hand-controlled rheostat 37 is interposed in the circuit. Such rheostat is mounted on the unit at a convenient point, such as on the platform 6, as shown. In this manner, the speed of the motor 24 may be controlled so that the unit and cart attached thereto will travel at a speed to suit the pace of any particular player.

The battery 8 must obviously be recharged at intervals, and to facilitate such recharging, a socket 38 for connection to an extension cord, is mounted in connection with the battery on top of the same on a supporting strap 39 depending and detachably connected to the opposed battery locating members 7 and 9. Wires 40 from socket 38 are connected to terminal clamps 34.

While the self-propelling unit above described is designed for attachment to a specific one of the various foldable golf-bag carts which are at present on the market, it will be obvious that said unit may be readily adapted, by relatively slight changes in dimensions, for attachment to most, if not all, of other existing types of carts.

From the foregoing description it will be readily seen that there has been produced such a device as substantially fulfills the objects of the invention, as set forth herein.

While this specification sets forth in detail the present and preferred construction of the device, still in practice such deviations from such detail may be resorted to as do not form a departure from the spirit of the invention, as defined by the appended claims.

Having thus described the invention, the following is claimed as new and useful and upon which Letters Patent is desired:

1. A self-propelled attachment for a golf-bag cart, said cart comprising a bag-supporting structure and a pair of spaced wheels supporting the structure, and said attachment comprising front and rear platforms, means connecting the platforms for relative swivel movement in a horizontal plane while maintaining them rigid in a vertical plane, instrumentalities on the front platform arranged for detachable engagement with the cart to maintain the cart and said platform in rigid relationship, a single traction wheel mounted on the rear platform, a self-contained power plant mounted on the attachment and driving said traction wheel, and a handle member rigidly connected to and projecting rearwardly from the rear platform to steer the attachment, said handle member including a vertical portion depending to and rigid with the rear platform; the platform connecting means including an extension of said portion below the rear platform, and a bar rigid with the front platform projecting under the front portion of the rear platform and through which said extension turnably projects to form the axis of rotation between the platforms.

2. A self-propelled attachment adapted for use with and detachable connection to a golf-bag cart having an upstanding post at the back and a pair of transversely spaced supporting wheels about which the post may swivel vertically; the attachment comprising a platform unit, means on the platform unit at its forward end for detachable connection to the cart adjacent and between the wheels, a steerable traction wheel on and supporting the platform unit from the ground, a self-contained power plant on the unit to drive the traction wheel, and means on the attachment for detachable connection to the cart post to maintain the latter against forward swivel movement from a predetermined rearwardly angled position; said last named means comprising a rigid upstanding post on the platform unit alined in a longitudinal plane with the cart post, and a detachable connecting and clamping member having post engaging bores to fit over the upper end of both posts when the cart post is disposed in said predetermined rearwardly angled position.

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