

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
16 February 2006 (16.02.2006)

PCT

(10) International Publication Number  
**WO 2006/015881 A2**

(51) International Patent Classification:  
**B62B 1/04** (2006.01)

(21) International Application Number:  
PCT/EP2005/008814

(22) International Filing Date: 12 August 2005 (12.08.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
S2004/0540 12 August 2004 (12.08.2004) IE

(71) Applicant and

(72) Inventor: DINAN, Brian, Michael [IE/IE]; 12 Station  
View, Ennis, County Clare (IE).

(74) Agent: EVANS, Huw, David, Duncan; Chapman  
Molony, Cardiff Business Technology Centre, Cathays,  
Cardiff CF24 4AY (US).

(81) Designated States (unless otherwise indicated, for every  
kind of national protection available): AE, AG, AL, AM,

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,  
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,  
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,  
KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA,  
MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ,  
OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL,  
SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC,  
VN, YU, ZA, ZM, ZW.

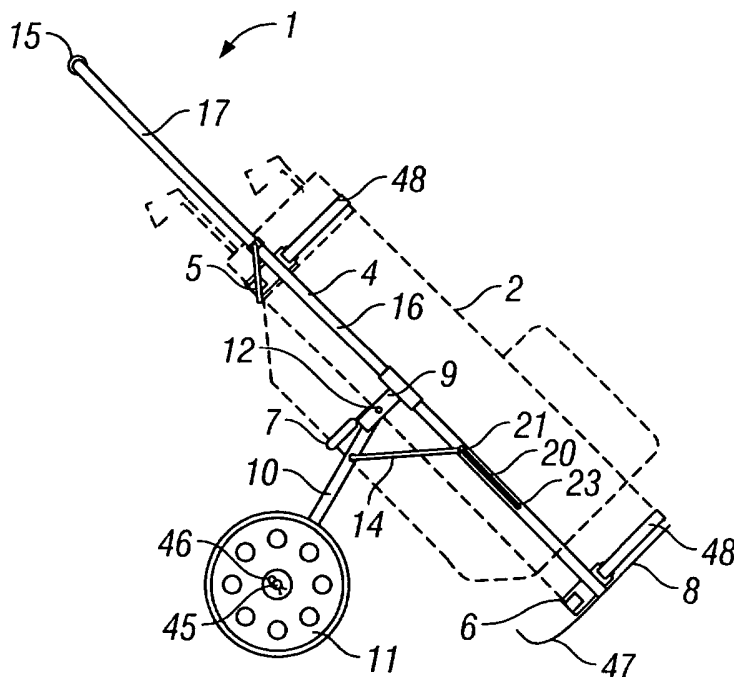
(84) Designated States (unless otherwise indicated, for every  
kind of regional protection available): ARIPO (BW, GH,  
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,  
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),  
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,  
FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT,  
RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA,  
GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**Published:**

— without international search report and to be republished  
upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guid-  
ance Notes on Codes and Abbreviations" appearing at the begin-  
ning of each regular issue of the PCT Gazette.

(54) Title: A GOLF CADDY CART



(57) Abstract: A golf caddy cart (1) comprises a pair of spaced apart elongated support members (4), and a plurality of cross members (5,7,8) extending between the support members (4) and defining with the support members (4) a cradle for receiving a golf bag (2), a pair of ground engaging wheels (11) rotatably carried on respective carrier arms (10), and each carrier arm (10) being pivotally coupled to a corresponding one of the support members (4) and being pivotal between a folded and an unfolded position, a pair of retaining struts (14) being provided for retaining the respective carrier arms (10) in the unfolded position, each retaining strut (14) being coupled between the corresponding carrier arm (10) and the corresponding support member (4), springs (23) being provided to bias the retaining struts (14) along their respective support members (4) from a second latched position, for retaining the corresponding carrier arm (10) in the folded state, and a first latched position, for retaining the corresponding carrier arm (10) in the unfolded state, the carrier arms (10) being retained in the folded state by

latches (29), and an actuator (42) being provided for single handedly releasing the latch (29) to allow the carrier arms (10) to move to the unfolded state under the applied bias of the spring (23).

## A GOLF CADDY CART

The present invention relates to a golf caddy cart.

5

According to the present invention there is provided a golf caddy cart for supporting a golf club bag, the caddy cart comprising a pair of spaced apart elongated main support members, and at least one cross member extending transversely between the main support members for retaining the main support members spaced apart, and defining with the main support members a cradle for receiving the golf club bag, a pair of ground engaging wheels for facilitating wheeling of the caddy cart, each ground engaging wheel being rotatably carried on a corresponding carrier arm, and each carrier arm being pivotally coupled to a corresponding one of the main support members, and being pivotal between an operative state with the carrier arm diverging from the corresponding main support member for facilitating wheeling of the caddy cart, and an inoperative state with the carrier arm lying substantially parallel to the corresponding main support member for facilitating storing of the caddy cart, a pair of retaining struts being provided for retaining the respective carrier arms in the operative state, each retaining strut being coupled between the corresponding carrier arm and the corresponding main support member and being moveable relative to the main support member between a first latched position for retaining the corresponding carrier arm in the operative state, and a second latched position for retaining the corresponding carrier arm in the inoperative state, and an operating means for urging the retaining struts from the second latched position to the first latched position.

25

Preferably, the operating means latches the retaining struts in the second latched state, and advantageously, the retaining struts are resiliently urged into the first latched position by a resilient urging means.

Each retaining strut is preferably slidable along an elongated guide slot in the corresponding main support member between the second latched position and the first latched position. Preferably, each guide slot terminates in a corresponding retaining slot which acts to latch the corresponding retaining strut in the first latched position.

35

In another embodiment of the invention each retaining slot is located so that when the corresponding carrier arm is in the operative state, the retaining strut is urged into

the retaining slot, and preferably, the retaining struts are releasably retained in the retaining slot by the combined action of the corresponding resilient urging means and the weight of the caddy cart bearing on carrier arms when the carrier arms are in the operative state.

5

In another embodiment of the invention each main support member comprises an elongated tubular member defining an elongated bore extending therethrough, and preferably, the corresponding guide slot accommodates the corresponding retaining strut into the bore of the corresponding main support member.

10

Preferably, one of the resilient urging means is located in the bore of each main support member for urging the corresponding retaining strut into the first latched position, and ideally, each resilient urging means comprises a spring, which preferably, is a compression spring.

15

In another embodiment of the invention the operating means comprises a pair of elongated operating members, each operating member being telescopingly slidable within the bore of the corresponding main support member. Ideally, each operating member engages the corresponding retaining strut in the bore, for urging the retaining strut along the guide slot between the first latched position and the second latched position.

20

In a further embodiment of the invention a latching mechanism is provided on each operating member for latching the operating member in the corresponding main support member in a position corresponding to the second latched position of the corresponding retaining strut, for latching the corresponding retaining strut in the second latched position.

25

Ideally, the respective operating members extend upwardly out of the respective main support members, and terminate in a transversely extending handle which joins the operating members together, and the operating members are slidable within the main support members between an operative position corresponding to the first latched position of the retaining struts with a substantial portion of the operating members extending from the corresponding main support members for facilitating wheeling the caddy cart with the golf club bag thereon, and a collapsed position

30

35

corresponding to the second latched position of the retaining struts with a substantial portion of the operating members located within the corresponding main support members, for facilitating storing of the golf caddy cart.

- 5 The invention will be more clearly understood from the following description of an embodiment thereof, which is given by way of example only, with reference to the accompanying drawings, in which:

Fig. 1 is a side elevational view of a golf caddy cart according to the invention;

10

Fig. 2 is a side elevational view of the golf caddy cart of Fig. 1 in a different state and in a different position;

15

Fig. 3 is a front elevational view of the golf caddy cart of Fig. 1 in a state and a position similar to that of Fig. 2;

Fig. 4 is a partly cutaway side elevational view of the golf caddy cart of Fig. 1 in a similar position to that of Fig. 2;

- 20 Fig. 5 is a side elevational view of the golf caddy cart of Fig. 1 in a state similar to that of Fig. 1;

Figs. 6(a) to (c) are side elevational views of a detail of the golf caddy cart of Fig. 1 in respective different states;

25

Fig. 7 is a transverse cross-sectional end elevational view of another detail of the caddy cart of Fig. 1; and

30

Figs. 8(a) and (b) are enlarged transverse cross-sectional end views of a portion of the detail of Fig. 7 in respective different positions.

- Referring to the drawings, there is illustrated a golf caddy cart according to the invention, indicated generally by the reference numeral 1, for a golf club bag 2, which is illustrated in broken lines in some of the drawings. The golf caddy cart 1 is operable in two states, namely, an operative state illustrated in Fig. 1 for facilitating
- 35

wheeling thereof, and an inoperative state illustrated in Fig. 2 for facilitating storing of the golf caddy cart 1 when not in use. The operation of the golf caddy cart 1 between the operative and inoperative states will be described in more detail below.

5 The golf caddy cart 1 comprises a pair of spaced apart elongated main support members 4 which are joined by a top bag support cross member 5, a lower bag support cross member 6 and an intermediate bag support member 7. The cross members 5 to 7 co-operate with the main support members 4 for forming a cradle for receiving the golf club bag 2. A base support member 8 extending from the low cross  
10 member 6 engages the base of the golf club bag for retaining the golf club bag 2 in the cradle formed by the main support members 4 and the cross members 5, 6 and 7.

A pair of carrier brackets 9 extending from corresponding ones of the main support  
15 members 4 pivotally carry corresponding carrier arms 10, which in turn rotatably carry corresponding ground engaging wheels 11. Pivot pins 12 pivotally couple the carrier arms 10 on the corresponding carrier brackets 9. The carrier arms 10 are pivotal about the pivot pins 12 between an operative state diverging from the corresponding main support members 4 illustrated in Fig. 1, which corresponds to the  
20 operative state of the caddy cart 1, and an inoperative state extending substantially parallel to the corresponding main support members 4 which corresponds to the inoperative state of the caddy cart 1 illustrated in Fig. 2. Retaining struts 14 couple the corresponding carrier arm 10 to the corresponding main support member 4 for retaining the carrier arms 10 in the respective operative and inoperative states.  
25 Before describing the retaining struts 14 and the operation of the carrier arms 10 between the operative and inoperative states, the main support members 4 will first be described.

Each main support member 4 is formed by a pair of telescoping members, namely,  
30 an outer tubular member 16, and an inner tubular member 17. The inner tubular members 17 are formed from a singular tubular member which is bent into a U-shape to form a transversely extending handle 15. Each outer tubular member 16 defines a longitudinally extending bore 18, within which the corresponding inner tubular member 17 is slidable, see Fig. 7. The inner tubular members 17 are slidable  
35 inwardly into the outer tubular members 16 from an operative position with a

substantial portion of the inner tubular members 17 extending from outer tubular members 16, which corresponds to the operative position of the caddy cart 1 illustrated in Fig. 1, to a collapsed position with a substantial portion of the inner tubular members 17 located within the outer tubular members 16, which corresponds to the inoperative position of the caddy cart 1 illustrated in Fig. 2 as will be described in more detail below. The carrier brackets 9 are secured to the outer tubular members 16.

Returning now to the retaining struts 14, each retaining strut 14 is pivotally connected to the corresponding carrier arm 10 at 19, and is slidably engageable in a corresponding guide slot 20 extending longitudinally in the outer member 16 of the corresponding main support member 4 between a first latched position, see Fig. 6(a), corresponding to the operative state of the corresponding carrier arm 10 as illustrated in Fig. 1, and a second latched position, see Fig. 6(c), corresponding to the inoperative state of the corresponding carrier arm 10 illustrated in Fig. 2. A return 21 on the end of each retaining strut 14 slidably engages the corresponding guide slot 20, and extends into the bore 18 of the corresponding outer member 16.

Referring now in particular to Figs. 6(a) to (c), a resilient urging means provided by a compression spring 23 is located in the bore 18 of the outer member 16 of each main support member 4 and is engageable with the return 21 of the corresponding retaining strut 14 for urging the retaining strut 14 from the second latched position illustrated in Fig. 6(c) to the first latched position illustrated in Fig. 6(a). Each guide slot 20 terminates in a retaining slot 24 for latching the corresponding retaining strut 14 in the first latched position. The compression springs 23 by urging the retaining struts 14 into the first latched position cause the returns 21 of the retaining struts 14 to engage the return slots 24, and the weight of the caddy cart acting through the retaining struts 14 on the carrier arms 10, in use, co-operate with the compression springs 23 for urging and retaining the returns 21 of the retaining struts 14 in the return slots 24, thus latching the retaining struts 14 in the first latched position.

An operating means for urging the retaining struts 14 from the first latched position to the second latched position in this embodiment of the invention is provided by the inner tubular members 17 of the main support members 4. As shown in Figure 7, ends 25 of the inner tubular members 17 engage the returns 21 of the corresponding

retaining struts 14. By urging the inner tubular members 17 from the operative position, which corresponds to the first latched position (Fig. 6(a)) of the retaining members 14, into the outer tubular members 16 to the collapsed position, the inner members 17 by engaging the returns 21 urge the retaining struts 14 into the second latched position (Fig. 6(c)). Additionally, the inner tubular members 17 latch the retaining struts 14 in the second latched position of Fig. 6(c) as will now be described with reference to Figs. 7, 8(a) and 8(b).

A latching mechanism 28 is provided in a bore 2 in each inner tubular member 17 for latching the corresponding inner tubular member 17 to the corresponding outer tubular member 16 when the inner tubular members 17 have urged the retaining struts 14 into the second latched position. Each latching mechanism 28 comprises a pair of transversely extending latching pins 29 which are located within the corresponding inner tubular member 17, and are transversely slidable in corresponding bores 30 in the inner tubular member 17. The latching pins 29 are spring urged apart by a compression spring 32 for urging the latching pins 29 into corresponding latching bores 33 in the corresponding outer tubular member 16 when the respective latching pins 29 are aligned with the latching bores 33, for in turn latching the inner tubular member 17 to the corresponding outer tubular member 16.

20

Each latching mechanism 28 is provided with a release member 35, which is slidable in the bore 27 in the corresponding inner tubular member 17, for urging the latching pins 29 towards each other for disengaging the latching bores 33 in the corresponding outer tubular member 16. Each release member 35 comprises a pair of camming surfaces 36 which diverge downwardly from each other, and which are engageable with corresponding camming surfaces 37 on the respective latching pins 29. Slots 38 in each release member 35 accommodate the respective latching pins 29 for facilitating relative movement of the camming surfaces 36 of the release member 35 and the camming surfaces 37 of the latching pins 29 for urging the latching pins 29 towards each other for disengaging the latching bores 33 in the corresponding outer member 16 as the release members 35 are moved downwardly in the direction of the arrow A, see Figs. 8(a) and 8(b).

30

The release members 35 are carried on a U-shaped actuating member 39 which extends through the bore 27 of the inner tubular members 17, and across the handle 15 for urging the release members 35 downwardly in the direction of the arrow A.

- 5 The actuating member 39 is spring urged in the direction of the arrow B by a compression spring 40 located in the handle 15, see Fig. 7, which in turn spring urges the release members 35 into the position illustrated in Fig. 8(a) with the latching pins 39 biased outwardly for engaging the latching bores 33. A release button 42 in the handle 15 is provided for urging the actuating member 39, and in  
10 turn the release members 35 downwardly in the direction of the arrow A against the action of the compression spring 40 for in turn urging the latching pins 29 out of engagement with the latching bores 33 of the corresponding outer tubular member 16.
- 15 In this embodiment of the invention the ground engaging wheels 11 are rotatably carried on stub shafts 45 which extend from the corresponding carrier arms 10, and circlips 46 releasably retain the wheels 11 on the stub shafts 45. Accordingly, if desired, the wheels 11 may be detached from the stub shafts 45 for further reducing the size of the caddy cart 1 for storing the caddy cart 1 away when not in use. The  
20 base support member 8 terminates in a ground engaging member 47 for cooperating with the ground engaging wheels 11 for stabilising the caddy cart 1 on the ground when stationary and in the operative state.

- Straps 48 secured to the main support members 4 are provided for releasably  
25 securing the golf club bag 2 in the caddy cart 1.

- In use, with the caddy cart 1 in the inoperative state illustrated in Fig. 2, and with the inner tubular member 17 located in the outer tubular members 16 in the collapsed position, and the latching pins 29 of the latching mechanism 28 engaged in the  
30 latching bores 33 of the outer tubular members 16 of the main support members 4, retaining the inner tubular members 17 in the collapsed state, when it is desired to use the caddy cart 1, the caddy cart 1 is operated into the operative state as follows. Initially, the release button 42 is depressed into the handle 15 for in turn urging the actuating member 39 downwardly in the direction of the arrow A, for in turn urging the  
35 release members 35 downwardly relative to the latching pins 29 for urging the

latching pins 29 towards each other and out of engagement with the latching bores 33, thereby unlatching the inner tubular members 17 from the outer tubular members 16. On the inner tubular members 17 being unlatched from the outer tubular members 16, the action of the compression springs 23 in the bores 18 of the outer tubular members 16 urge the retaining struts 14 from the second latched position into the first latched position with the returns 21 of the retaining struts 14 engaged in the retaining slots 24. The action of the compression springs 23 in the bores 18 of the outer tubular members 16 on the returns 21 of the retaining struts 14, and in turn on the ends 25 of the inner tubular members 17 cause the inner tubular members 17 to be urged outwardly of the outer tubular members 16 into the operative position, and in turn also causes the retaining struts 14 to be urged from the second latched position to the first latched position. With the retaining struts 14 in the first latched position, the carrier arms 10 and in turn the ground engaging wheels 11 are in the operative state, the golf caddy cart 1 is likewise in the operative state.

15

The advantages of the invention are many. A particularly important advantage of the invention is that the caddy cart 1 can be operated single handedly between the operative and inoperative states without having to remove the golf club bag 2 from the caddy cart 1. Thus, the golf club bag 2 can be left secured to the caddy cart 1 when the caddy cart 1 is operated into the inoperative state, and thus the caddy cart 1 and the golf club bag 2 can be stored away together. As mentioned above, the size of the combined caddy cart 1 and bag 2 when the caddy cart 1 is in the inoperative state can be reduced further by removing the wheels 11 from the caddy cart 1.

20

**CLAIMS**

- 1) A golf caddy cart for supporting a golf club bag, the caddy cart comprising a pair of spaced apart elongated main support members, and at least one cross member extending transversely between the main support members for retaining the main support members spaced apart, and defining with the main support members a cradle for receiving the golf club bag, a pair of ground engaging wheels for facilitating wheeling of the caddy cart, each ground engaging wheel being rotatably carried on a corresponding carrier arm, and each carrier arm being pivotally coupled to a corresponding one of the main support members, and being pivotal between an operative state with the carrier arm diverging from the corresponding main support member for facilitating wheeling of the caddy cart, and an inoperative state with the carrier arm lying substantially parallel to the corresponding main support member for facilitating storing of the caddy cart, a pair of retaining struts being provided for retaining the respective carrier arms in the operative state, each retaining strut being coupled between the corresponding carrier arm and the corresponding main support member and being moveable relative to the main support member between a first latched position for retaining the corresponding carrier arm in the operative state, and a second latched position for retaining the corresponding carrier arm in the inoperative state, and an operating means for urging the retaining struts from the second latched position to the first latched position.
- 2) A golf caddy cart as claimed in claim 1, in which the operating means latches the retaining struts in the first latched position.
- 3) A golf caddy cart as claimed in claims 1 or 2, in which the retaining struts are resiliently urged into the first latched position by a resilient urging means.
- 4) A golf caddy cart as claimed in any preceding claim 1, in which each retaining strut is slidable along an elongated guide slot in the corresponding main

support member between the second latched position and the first latched position.

- 5      5)    A golf caddy cart as claimed in claim 4, in which each guide slot terminates in a corresponding retaining slot which acts to latch the corresponding retaining strut in the first latched position.
- 10     6)    A golf caddy cart as claimed in claim 5, in which each retaining slot is located so that when the corresponding carrier arm is in the operative state, the retaining strut is urged into the retaining slot.
- 15     7)    A golf caddy cart as claimed in claim 6, in which the retaining struts are releasably retained in the retaining slot by the combined action of the corresponding resilient urging means and the weight of the caddy cart bearing on carrier arms when the carrier arms are in the operative state.
- 20     8)    A golf caddy cart as claimed in any preceding claim, in which each main support member comprises an elongated tubular member defining an elongated bore extending therethrough.
- 25     9)    A golf caddy cart as claimed in claim 8 as appended to claim 4, in which the corresponding guide slot accommodates the corresponding retaining strut into the bore of the corresponding main support member.
- 30     10)   A golf caddy cart as claimed in claim 8 or 9 as appended to claim 3, in which one of the resilient urging means is located in the bore of each main support member for urging the corresponding retaining strut into the first latched position.

- 11) A golf caddy cart as claimed in claim 10, in which each resilient urging means comprises a spring.
- 5 12) A golf caddy cart as claimed in claim 10, in which each resilient urging means comprises a compression spring.
- 10 13) A golf caddy cart as claimed in any preceding claim, in which the operating means comprises a pair of elongated operating members, each operating member being telescopingly slidable within the bore of the corresponding main support member.
- 15 14) A golf caddy cart as claimed in claim 13, in which each operating member engages the corresponding retaining strut in the bore, for urging the retaining strut along the guide slot between the first latched position and the second latched position.
- 20 15) A golf caddy cart as claimed in claims 13 or 14, in which a latching mechanism is provided on each operating member for latching the operating member in the corresponding main support member in a position corresponding to the second latched position of the corresponding retaining strut, for latching the corresponding retaining strut in the second latched position.
- 25 16) A golf caddy cart as claimed in any of claims 13 to 15, in which the respective operating members extend upwardly out of the respective main support members, and terminate in a transversely extending handle which joins the operating members together, and the operating members are slidable within the main support members between an operative position corresponding to the first latched position of the retaining struts with a substantial portion of the operating members extending from the corresponding main support members for facilitating wheeling the caddy cart with the golf club bag thereon, and a collapsed position corresponding to the second latched position of the retaining struts with a substantial portion of the operating members located within the corresponding main support members, for facilitating storing of the
- 30
- 35 golf caddy cart.

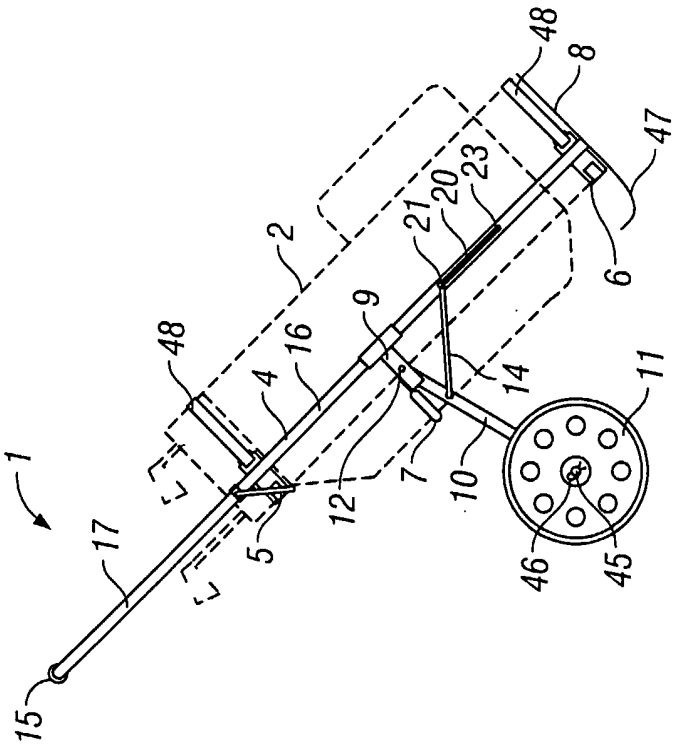


FIG. 1

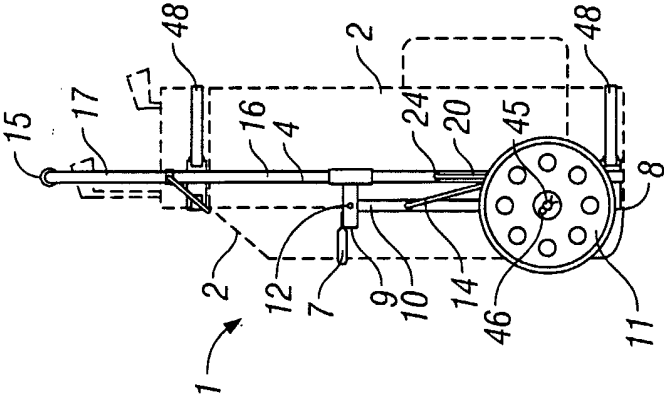


FIG. 2

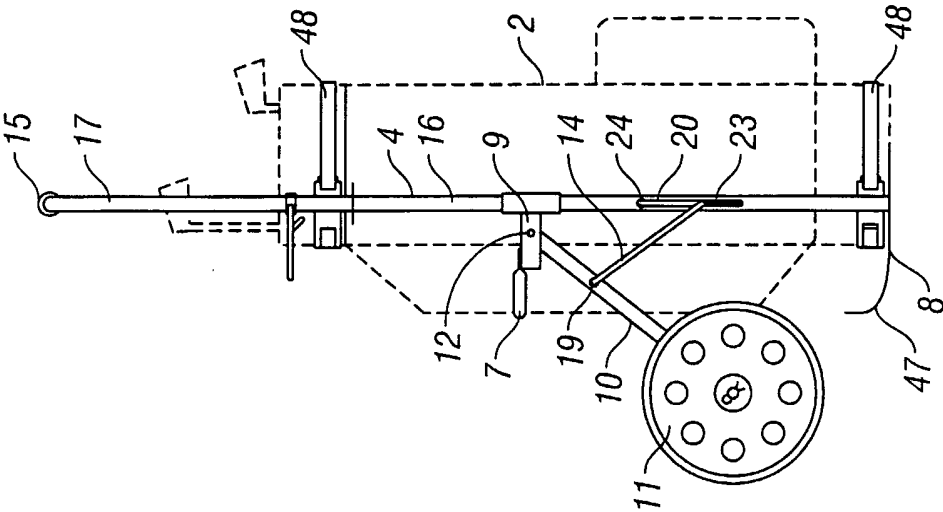


FIG. 5

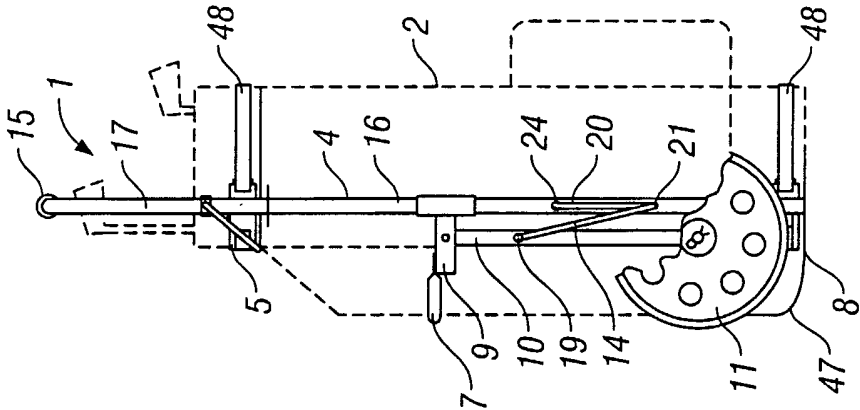


FIG. 4

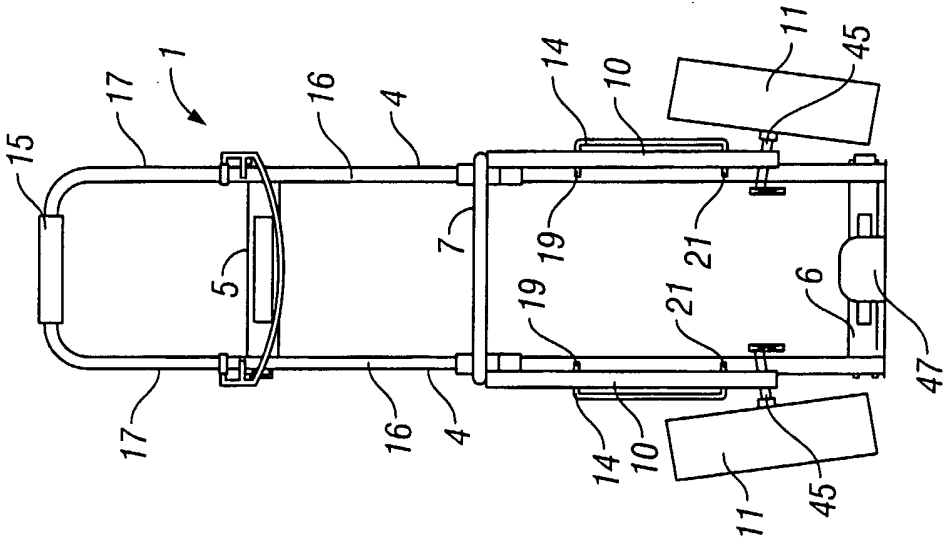
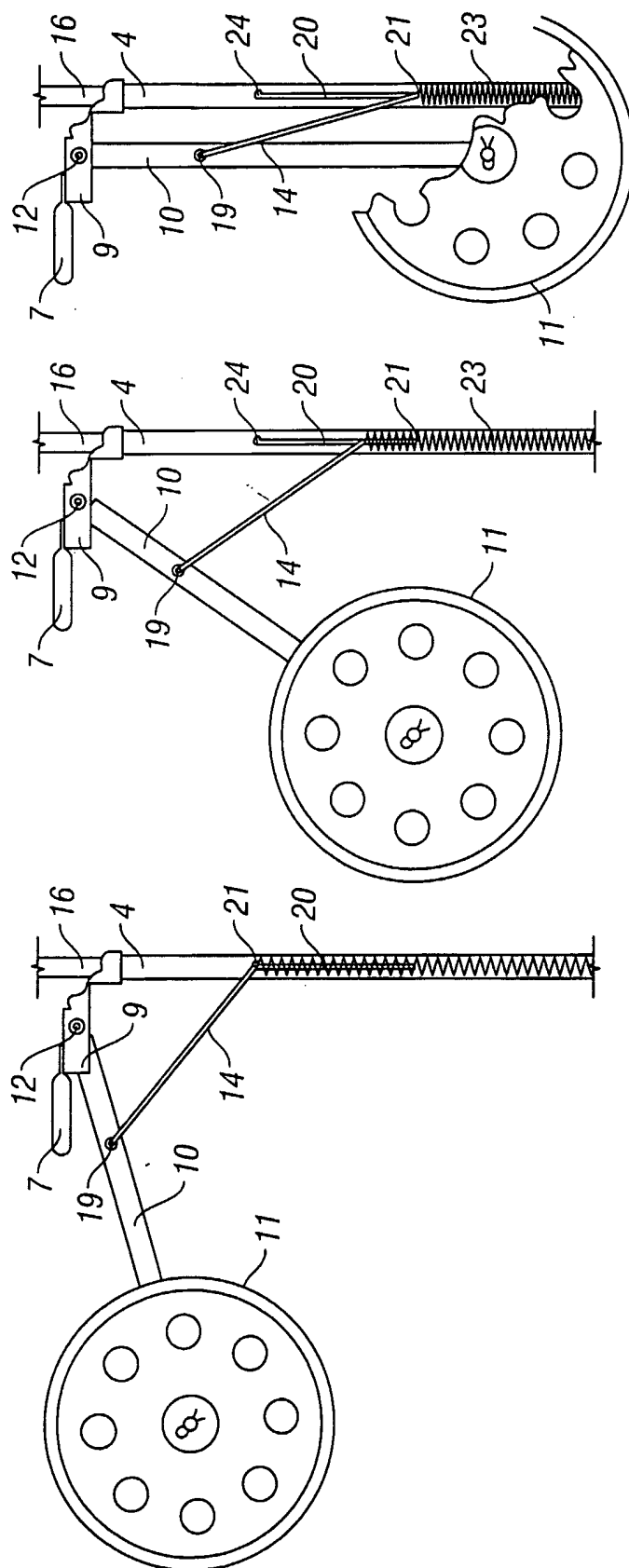


FIG. 3



**FIG. 6C**

**FIG. 6b**

**FIG. 6a**

4/5

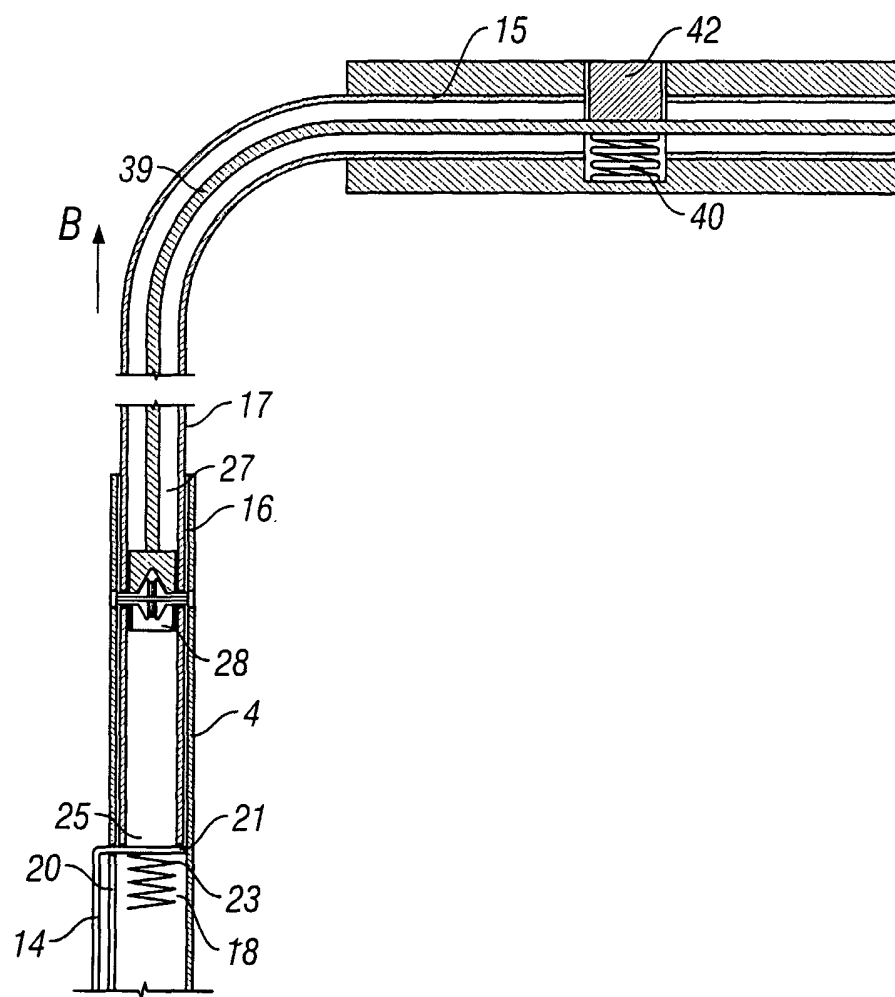


FIG. 7

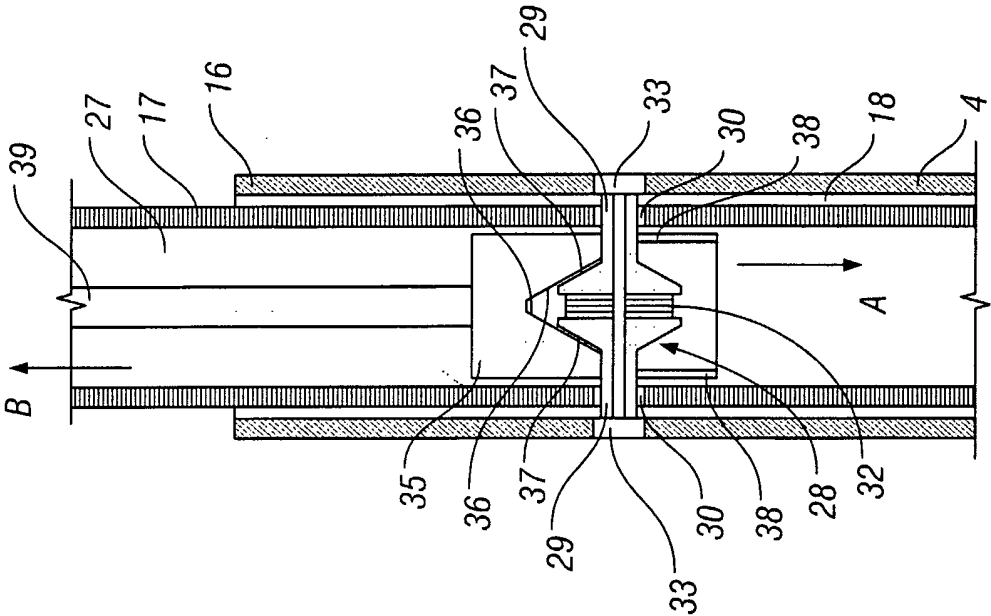


FIG. 8a

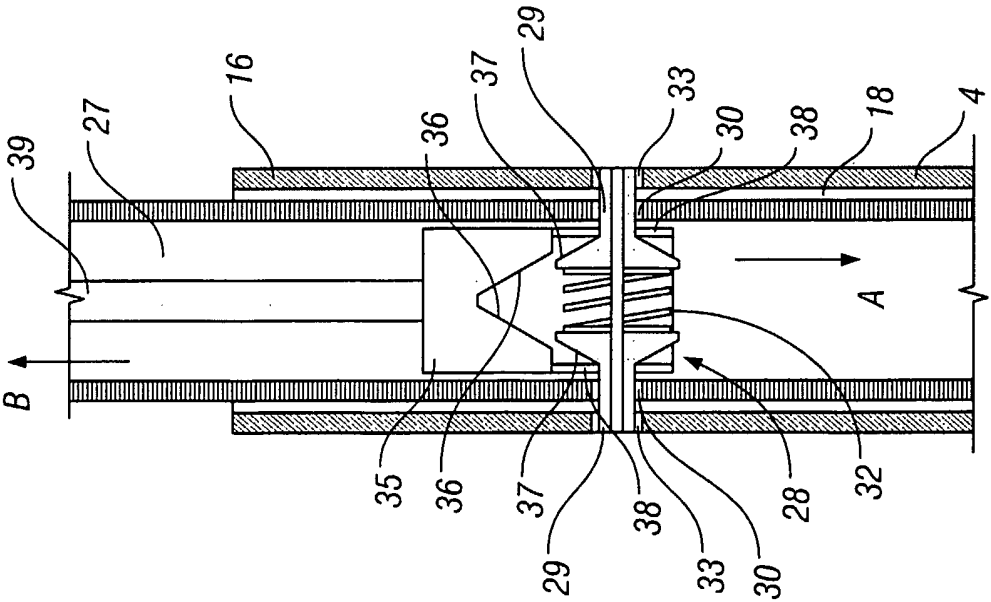


FIG. 8b