



US 20100056305A1

(19) **United States**

(12) **Patent Application Publication**  
**Hebert et al.**

(10) **Pub. No.: US 2010/0056305 A1**

(43) **Pub. Date: Mar. 4, 2010**

(54) **RECYCLABLE GOLF BALL AND METHOD THEREFOR**

(21) Appl. No.: 12/198,403

(22) Filed: Aug. 26, 2008

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**Publication Classification**

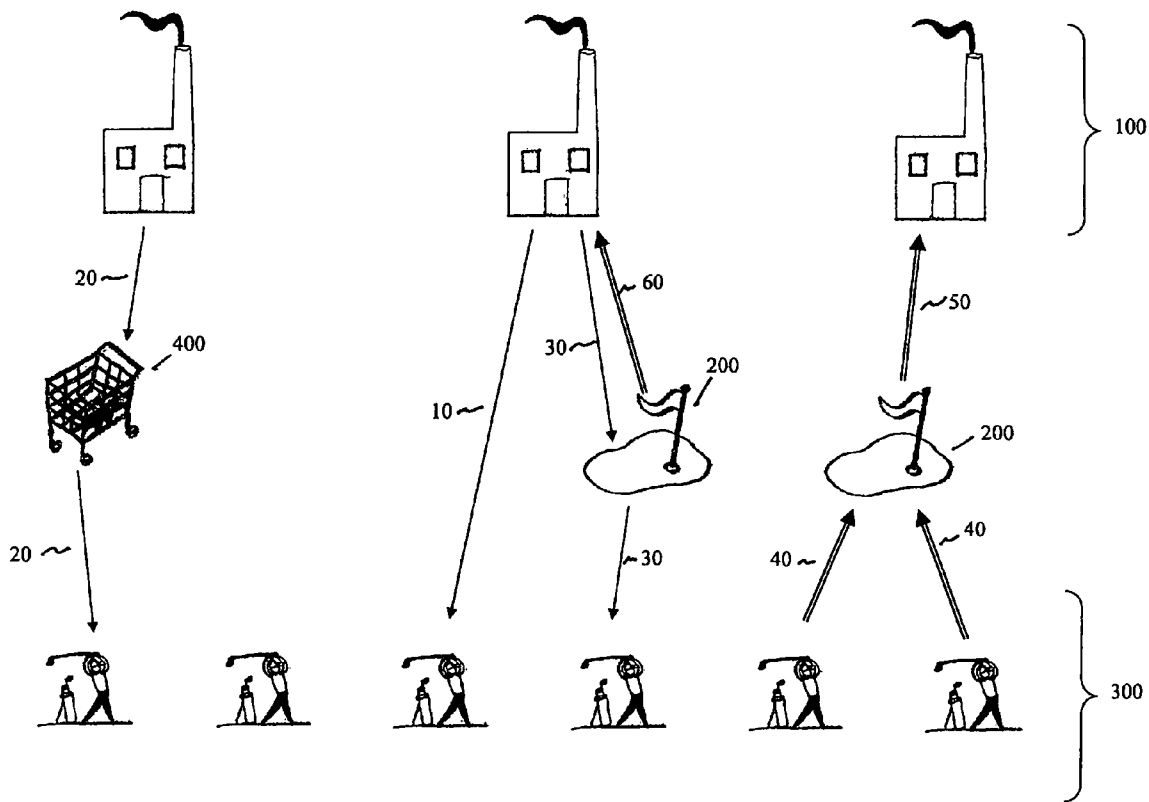
(51) **Int. Cl.**  
**A63B 57/00** (2006.01)

(52) **U.S. Cl.** ..... 473/409

(57) **ABSTRACT**

Distribution channels for returning used golf balls to the original manufacturers are disclosed. Incentives for golfers to return golf balls for recycling are also provided.

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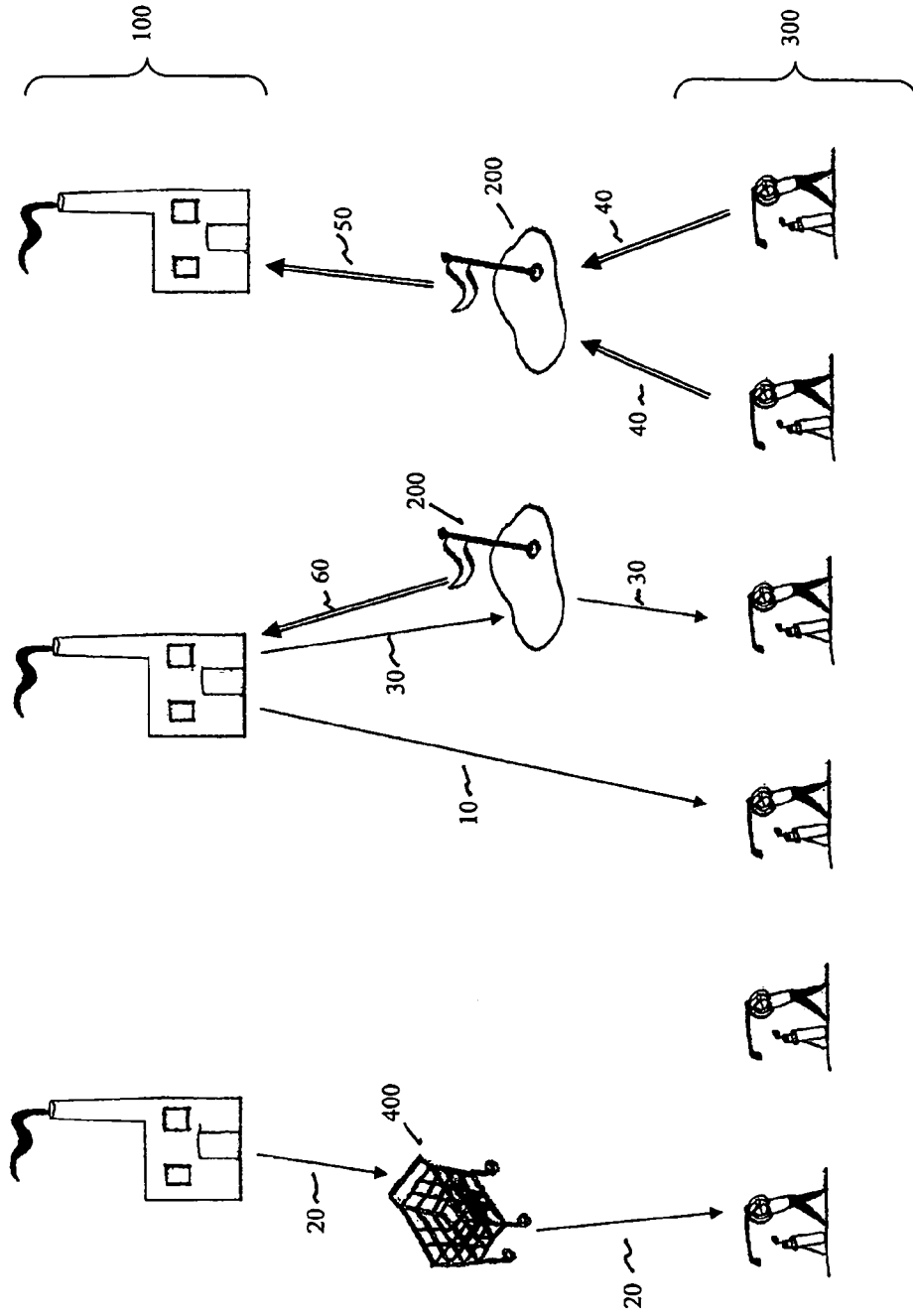


FIG. 1

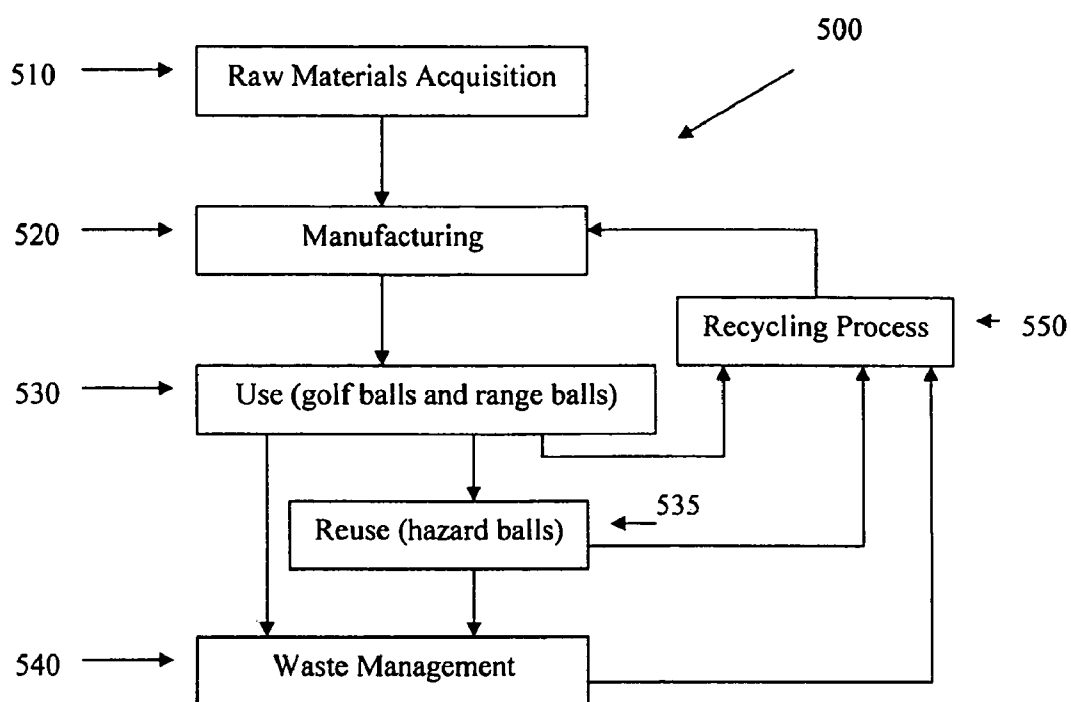


FIG. 2

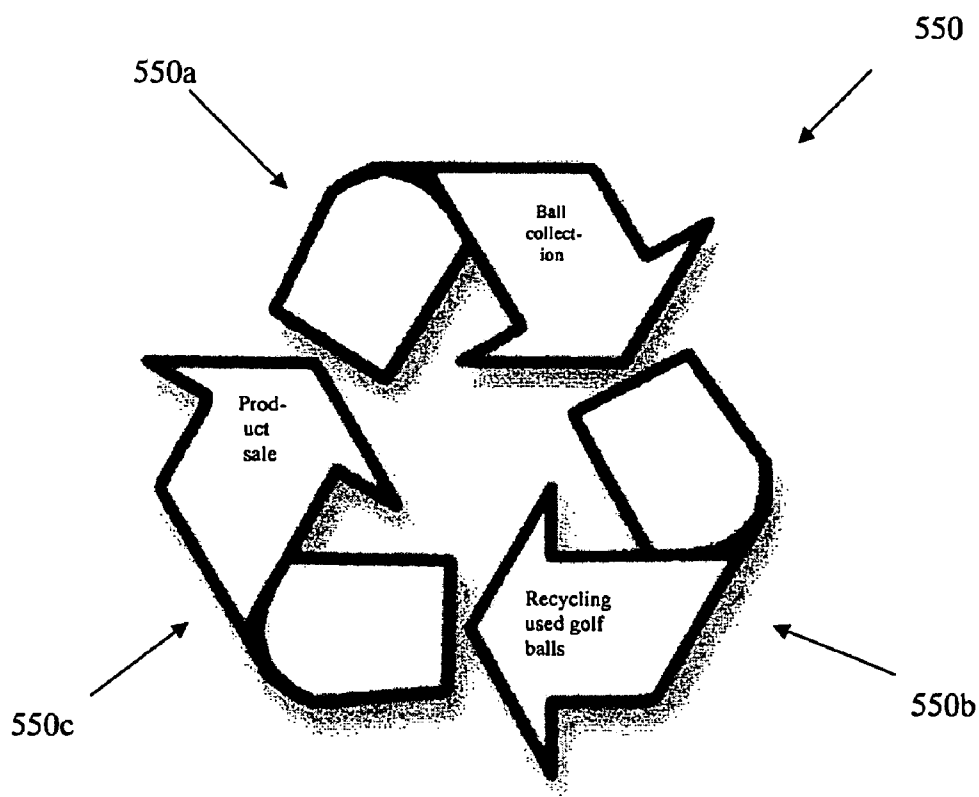


FIG. 3

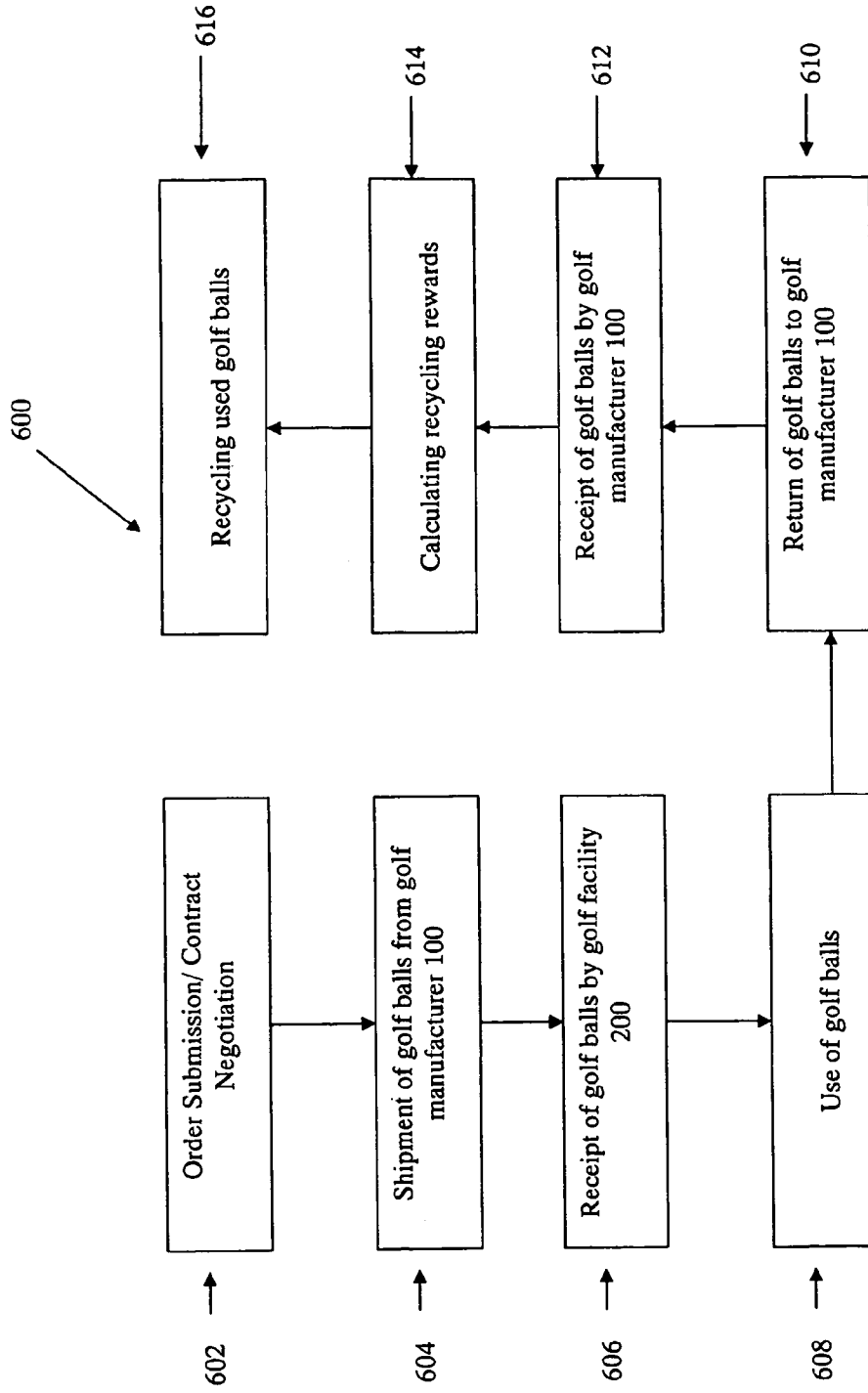


FIG. 4

**RECYCLABLE GOLF BALL AND METHOD THEREFOR**

**FIELD OF THE INVENTION**

[0001] The present invention is directed to a method for recycling golf balls.

**BACKGROUND OF THE INVENTION**

[0002] Golf balls typically contain materials that are difficult to recycle. In particular, golf balls contain thermoset polymers which, like rubber in tires, do not degrade and pose serious threats to the environment. In 1844, Charles Goodyear obtained U.S. Pat. No. 3,633 directed to sulfur vulcanization and further stated that “[n]o degree of heat, without blaze can melt it . . . It resists the most powerful chemical reagents.” Although Goodyear’s sulfur vulcanization provided a significant breakthrough to the industrial revolution, he also created one of the most difficult materials to recycle.

[0003] There have been efforts to develop methods of recycling and reclaiming rubber, especially in view of the increasing amount of scrap rubber produced by used golf balls. For instance, commonly owned U.S. Pat. No. 5,609,535 to Morgan (herein “the Morgan patent”), which is incorporated herein by reference in its entirety, discloses a method for restoring used golf balls. In addition to the environmental benefits of reprocessing used golf balls, consumers benefit from the reprocessed balls’ reduced price, which results from lower manufacturing costs.

[0004] To date, known golf ball recycling efforts merely consist of refurbishing recovered golf balls from golf course hazards. These recovered balls are inspected, cleaned, possibly repackaged, and then resold usually by entities not affiliated with the original golf ball manufacturer. Some recovered balls received a new clear coat to resemble new golf balls. However, such practices can negatively affect the aerodynamic properties of the balls, because the new coat can flood the dimples.

[0005] It is difficult for golf ball manufacturers to collect old golf balls for recycling because most golfers lose their golf balls while playing and very few golf balls actually become unplayable. Furthermore, there are no known distribution channels for millions of players to return used unplayable golf balls to the manufacturers.

[0006] There is also no known method that creates financial incentives for golf ball users to recycle used golf balls. Thus, a need exists for a system that can recycle unplayable golf balls and to remove them from the environment.

**SUMMARY OF THE INVENTION**

[0007] The present invention is directed to a method for recycling golf balls. The method comprises the steps of:

[0008] (a) providing a plurality of new golf balls through at least one forward distribution channel for conveying golf balls to a purchaser;

[0009] (b) accepting a plurality of used golf balls for recycling through at least one reverse distribution channel or one dynamic distribution channel;

[0010] (c) sorting the plurality of used golf balls;

[0011] (d) calculating a recycling reward associated with the plurality of used golf balls;

[0012] (e) awarding a recycling reward to the at least one recycling entity; and

[0013] (f) reprocessing the used golf balls.

**BRIEF DESCRIPTION OF THE DRAWINGS**

[0014] In the accompanying drawings, which form a part of the specification and are to be read in conjunction therewith and in which like reference numerals are used to indicate like parts in the various views:

[0015] FIG. 1 is a diagram illustrating methods for returning used golf balls to manufacturers for recycling.

[0016] FIG. 2 is a diagram illustrating the life-cycle of a golf ball.

[0017] FIG. 3 is a diagram illustrating the recycling process for a golf ball.

[0018] FIG. 4 is a diagram illustrating a method for receiving and returning golf balls.

**DETAILED DESCRIPTION OF THE INVENTION**

[0019] The present invention is generally directed to a method for recycling golf balls. Forward distribution, or sale channels, from golf ball manufacturers to consumers are known. As illustrated in FIG. 1, golf ball manufacturers 100 use several forward distribution channels to convey golf balls to golfers, or other consumers, 300.

[0020] 141 In one example, golf ball manufacturers 100 can sell golf balls directly to golfers 300 through direct distribution channels 10, direct mail orders, catalog orders, Internet orders or phone orders. In another example, golf ball manufacturers 100 sell or convey golf balls to golf facilities 200, such as golf courses, pro-shops, driving ranges, or professional golf tournaments, and these golf facilities would then sell the golf balls to golfers 300. In another example, golf ball manufacturers 100 sell or convey golf balls to sporting goods stores, or department stores with a sporting goods department, other retail stores 400, and golfers 300 or other consumers would then purchase golf balls at the sporting goods stores and department stores.

[0021] In an embodiment of the present invention, reverse distribution channels 40 and 50 are provided to golfers 300 and golf facilities 200 to return used golf balls back to golf ball manufacturers 100. Alternatively, in this embodiment, golf manufacturers 100 can use dynamic distribution channel 60 to convey golf balls to golf facilities 200 under a lease, buy-back, or service agreement. Subsequently, golf facilities 200 use dynamic distribution channel 60 to return used golf balls back to original manufacturers 100 for recycling.

[0022] In another embodiment, golf balls comprising 100% thermoplastic polymers are either returned to their original manufacturers 100 or third-party recyclers for complete recycling.

[0023] In each embodiment, the golf facilities 200 or golfers 300 receive a reward for golf balls returned.

[0024] FIG. 2 provides an overview of a golf ball’s life-cycle 500. In a first stage 510, the raw materials used to produce golf balls are acquired by manufacturers 100. The raw materials typically include but are not limited to thermoset polymers, thermoplastic polymers, and additives. Significant amounts of fossil fuel energy must be expended in order to extract, transport, and process such raw materials. Similarly, in a second stage 520, manufacturers 100 transform the raw materials into golf balls using manufacturing processes that further expend fossil fuel energy. Because fossil fuel energy is required for raw material acquisition as well as

manufacturing, both stage 510 and stage 520 emit greenhouse gases that adversely affect the environment.

[0025] In third stage 530, the golf balls are used by golfers 300, who directly or indirectly purchase the golf balls from golf manufacturer 100 as illustrated in FIG. 1, where golf ball manufacturers 100 use forward distribution channels 10-30 to convey golf balls to golf facilities 200 or golfers 300.

[0026] At the end of third stage 530, a golf ball can meet one of several fates. First, a golf ball can be discarded or become lost. A golf ball can become temporarily lost (e.g., within a golf course hazard), recovered, and re-used in life-cycle stage 535. However, a recovered hazard ball may exhibit poor performance due to its exposure to water, which can adversely affect the ball's compression, coefficient of restitution, weight, radius, and molecular structure. Moreover, hazard balls are also eventually discarded or lost. Such discarded or lost golf balls are handled, in a fourth stage 540, by a known waste management method such as depositing golf balls into a landfill. A golf ball's entry into fourth stage 540 can cause environmental concern because many golf balls contain thermoset polymers that do not degrade quickly. Moreover, for every discarded golf ball, golfers 300 or golf facilities 200 are likely to acquire a new golf ball produced by methods that deplete natural resources and emit greenhouse gases, as discussed above.

[0027] Alternatively, after the end of stage 530, stage 535 or stage 540, golf balls can advantageously enter into recycling stage 550. As illustrated in FIG. 3, which depicts the universal symbol of recycling, life-cycle stage 550 involves three distinct phases: collecting and processing the golf balls in phase 550a; recycling the golf balls in phase 550b; and selling recycled products in phase 550c. These phases 550a-550c generally use less natural resources and fossil fuel energy than stages 510 and 520, since in step 550b the core layer(s) and optionally at least some of the cover are saved and reused, as discussed in the Morgan patent. Phases 550a-550c produce balls that resemble newly manufactured golf balls.

[0028] Heretofore, there has been no effective method for the collection and processing of golf balls in phase 550a. More particularly, in phase 550a, there has been no effective channel for golfers 300 or golf facilities 200 to return worn or used golf balls back to manufacturers 100 for recycling. The present invention is advantageous because it provides reverse distribution channels 40-60 through which golf balls can be returned for recycling in phase 550b, wherein one recaptures as much of the used golf balls as possible. Thereby, golf facilities 200 and golfers 300 along with golf manufacturers 100 can effectively share in the environmental stewardship of golf balls. Because this shared environmental stewardship, also known as extended product responsibility, is facilitated by reverse distribution channels 40-60, the present invention represents a significant advance in the art of golf ball recycling.

[0029] In a first embodiment of the present invention, reverse distribution channels 40 and 50 are utilized by golfers 300 and golf facilities 200 to return used golf balls back to their original manufacturers 100. Generally, in reverse distribution channel 40, golfers 300 return used golf balls to golf facilities 200. Subsequently, as discussed in greater detail below, the golf facilities 200 sort the collected used golf balls according to the proper manufacturer 100. Next, in reverse distribution channel 50, golf facilities 200 return the sorted golf balls back to original manufacturers 100.

[0030] The sorting of golf balls, according to original manufacturer 100 and manufacturer brand illustrates the innovative nature of the present invention. Unlike the present invention, heretofore, entities not affiliated with original manufacturer 100 have recovered golf balls from golf course hazards and subjected the golf balls to standard processes of mechanical and chemical refurbishment (e.g., stripping and painting). Such standard processes do not effectively recycle a golf ball according to original manufacturer specifications. By contrast, the present invention takes cognizance of the fact that when golf manufacturers 100 develop different brands of golf balls (e.g., Titleist Pro V1®, Titleist NXT®, or Pinnacle®), each brand has a core and cover with unique chemical formulations. Each brand of ball has unique play characteristics, e.g., the Pro V1® balls are high performance balls that play well both off of the tees and in the short game and are designed for professionals and low handicap players. On the other hand, the Pinnacle® balls are designed for long flight off the tees and are favored by golfers of different levels. During a typical recycling process such as the one described in the Morgan patent, golf ball cores are re-used and recovered. In order for such a process to be effective, one should match the recyclable cores with covers belonging to the same brand of golf ball, so that the recycled balls of one brand should have the same play characteristics. Prior to making such a match, however, one should first sort the recyclable golf balls according to proper manufacturer 100 and that manufacturer's brands. Otherwise, if a proper match is not made, then the recycled golf balls will have unpredictable behavior during play.

[0031] The sorting of golf balls according to original manufacturer 100, in between their passage through reverse distribution channels 40 and 50, can be accomplished by a plurality of means. For instance, the golf balls can be manually sorted by humans who inspect a golf balls' indicia (e.g., labels, logos, or other markings) to sort the golf balls according to original manufacturers 100. Because manual sorting can be inefficient, in a preferred aspect of the present invention, golf balls are sorted according to original manufacturers 100 by an automated method including but not limited to the one described in commonly owned U.S. Pat. No. 7,170,592, which is incorporated herein by reference in its entirety. More specifically, the '592 patent describes an automated inspection system that utilizes digital scan cameras to discern the golf balls' indicia. In yet another aspect of the present invention, such automated methods systems can be used in conjunction with manual methods, which can be utilized in instances when automated methods cannot properly sort golf balls. The sorting can be done at individual golf facilities 200 or at central sorting/recycling stations that serve multiple golf facilities.

[0032] Although, in the aforementioned discussion, the golf balls are simply sorted according to original manufacturer 100, in another aspect of the present invention, the golf balls can be subjected to additional types of sorting. For example, after the golf balls are sorted according to original manufacturer 100, they can be further sorted according to manufacturer brand (e.g., Titleist Pro V1®, Titleist NXT®, or Pinnacle®) and quality of the used golf balls (e.g., excellent, fair, poor). These additional types of sorting can help manufacturers 100 to make informed business decisions about whether to recycle the returned balls.

[0033] Reverse distribution channels 40 and 50 are not limited to the structure or membership levels depicted in FIG.

1 or the general discussion above. Alternate structures or membership levels are possible. For example, in one aspect of the invention, reverse distribution channel 40 can be structured so that golfers 300 can return golf balls directly to the manufacturers 100 as discussed below. In another aspect of the invention, channels 40 and 50 can have multiple levels of membership. For instance, reverse distribution channel 40 can have three-levels of membership: (i) golfers 300 can return golf balls to (ii) golf facilities 200, who can periodically ship golf balls to (iii) a central hub for recycling management. Before shipping the golf balls to golf manufacturers 100 through channel 50, the central hub can perform a number of recycling management functions including but not limited to sorting the golf balls according to the proper manufacturer 100, inspecting the quality of the used golf balls, and determining if they are suitable for recycling. The central hub can be an independent entity, an affiliate of golf manufacturers 100 or golf facilities 200, or a pooled resource set up by various golf manufacturers 100 or golf facilities 200.

[0034] In order to incentivize golf facilities 200 or golfers 300 to return used golf balls for recycling through reverse distribution channels 40 and 50, the facilities 200 and golfers 300 are given a “recycling reward” from the manufacturers receiving the used golf balls. For example, golf facilities 200 would receive a recycling reward from golf manufacturers 100, and golfers 300 would receive a recycling reward from either golf facilities 200 or golf manufacturers 100. The recycling reward can be one of a plurality of types including but not limited to cash back, coupons, discounts, rewards points, contest entries, charitable donations, and equivalents thereof. Table 1 below provides illustrative examples of how recycling rewards can be earned by both golf facilities 200 and golf manufacturers 100.

would have an automatic sorter, such as the ones discussed above and described in the '592 patent. After the balls are sorted by original manufacturer and brands, and un-recyclable balls or balls belonging to other manufacturers may be rejected, the kiosks can provide the recyclers a receipt for the balls returned or a recycling credit. The amount of credit would depend on the quality of the brand and the quantity of balls returned. The kiosks may also provide the credit through emails or other electronic means. Alternatively, the kiosks may also carry newly manufactured or newly recycled balls and may exchange new balls for recycled balls. The kiosks may also represent points-of-sale for new golf balls with or without recycling.

[0036] In addition to reverse distribution channels 40 and 50, a golf facility 200 may use dynamic distribution channel 60 for recycling used golf balls under the terms of a lease, buy-back, or service agreement with a golf manufacturer 100. Dynamic distribution channel 60 provides a single conduit that not only allows golf facilities 200 to receive new golf balls, preferably range balls, from golf manufacturers 100, but it also allows golf facilities 200 to return used range golf balls back to golf manufacturers 100 for recycling. Range balls are preferred because driving ranges use many thousands of these balls per year, and most of these balls remain at the golf facilities and can be readily collected and returned to golf ball manufacturers at the end of their useful life.

[0037] The dynamic nature of channel 60 is illustrated in FIG. 4 as a method 600 having steps 602-616. In step 602, golf facility 200 submits an order for golf balls from golf manufacturer 100. The order may be submitted using any appropriate means of communication, including the Internet,

TABLE 1

Type of Recycling Reward	Example
Cash Back	A percentage of the original sales price of the golf balls can be refunded to golfers 300, e.g., 5-10% of the original sales price (if golf balls directly returned to manufacturers 100) or 3-8% of the original sales price (if golf balls returned to golf facilities 200).
Coupons	Upon recycling a certain quantity of used golf balls (e.g., 100), golfers 100 can receive a coupon for a free round of golf from golf facilities 200.
Discounts	Upon recycling a certain quantity of used golf balls (e.g., 1000), golf facilities 200 can receive a discount (e.g. 15-25%) on the purchase of more golf balls from manufacturers 100.
Rewards Points	Golfers 300 can enroll in a frequent recycling program, wherein they can earn points redeemable for products from golf manufacturers 100 (e.g. golf balls, golf clubs, etc.), golf facilities 200 (e.g., discounted tickets for professional tour events), or affiliated partners (e.g., discounts offered by mobile phone companies, golf magazine publishers, and the like). Such points may include PayPal ® or other virtual currencies including, but not limited to, mobile phone currencies.
Contest Entry	Golfers 300 can earn entries into contests for returning a certain quantity of golf balls. For example, for every 12 balls returned, a golfer can earn one entry into a contest to win a prize (e.g., a trip to a destination golf resort).
Charitable Donation	Golfers 300 can have the option of designating a recycling reward to a charity. For example, in lieu of cash back to golfers 300, golf manufacturers 100 or golf facilities 200 can promise to donate the cash back amount to charities such as urban golf access programs.

[0035] One way that individual golfers 300 can return used golf balls to original manufacturer 100 is through retail collecting stations, such as kiosks at golf facilities 200 or shopping malls or at selected locations in cities. Such kiosks

manufacturer 100’s extranet, or paper purchase orders. In addition to placing orders, the Internet or extranet can be used to check the status of orders and manage various other transactional matters.



**[0038]** When placing an order in step **602**, golf facility **200** selects the quantity, type, and brand of golf balls that it wants to order. For example, golf facility **200** can order range balls for use on driving ranges. More importantly, in step **602**, golf facility **200** and golf manufacturer **100** negotiate the terms and conditions of a lease, buy-back, or service agreement including schedules detailing incentives for recycling used golf balls. As discussed above, recycling rewards (i.e., the negotiated incentives) can include but are not limited to cash back, coupons, discounts, rewards points, contest entries, charitable donations, and equivalents thereof. Table 2 below presents a synopsis of lease, buy-back, and service agreements as well as illustrative examples of recycling rewards that can be incorporated into such agreements.

this invention. For instance, in order to incentivize waste management facilities to return golf balls, a manufacturer can provide said waste management facilities with incentives.

**[0042]** After golf balls are received by golf manufacturers **100** through channels **40-60**, the used golf balls are at least partially recycled, preferably substantially recycled or fully recycled so that every component of the golf ball can be used again in the same ball or another ball. Upon recycling, a golf manufacturer **100** can certify that the recycled golf ball or golf ball component meets the manufacturer's quality assurance criteria (e.g., satisfactory aerodynamic properties such as coefficient of restitution). For instance, a golf manufacturer **100** can affix the label "manufacturer certified product," or the like, to give notice about the product's quality.

TABLE 2

Agreement Type	Definition	Examples of Recycling Reward
Lease	A contract whereby manufacturers 100 lease the possession and use of a given quantity of golf balls to golf facilities 200 in exchange for consideration. The lease term can be for any period of time, including but not limited to a fixed period or an indefinite period, terminable at will. The used balls are returned to the manufacturers after a set period of time.	Discount: Golf manufacturers 100 agree to give golf facilities 200 a discount on future or current lease payments if golf facilities 200 recycle used golf balls. For instance, if golf facilities 200 return 50-100% of leased golf balls for recycling, then they may receive a 5-10% discount on lease payments.
Buy-Back	A contract whereby manufacturers 100 sell a given quantity of golf balls to golf facilities 200, and manufacturers 100 agree to repurchase, or have the option to repurchase, the golf balls upon the occurrence of specified conditions, such as passage of a set period of time.	Cash Back: Golf manufacturers 100 agree to give golf facilities 200 cash back in order to repurchase used golf balls. For instance, for every 1000 balls returned to manufacturer 100 for recycling, golf facilities 200 may receive 5-10% of each golf ball's original sales price.
Service	A contract whereby manufacturers 100 periodically supply a given quantity of golf balls through dynamic distribution channel 60 to golf facilities 200. For instance, golf manufacturers 100 may agree to supply a number, q, of new golf balls every month, quarter, etc., and take away an agreed number of used golf balls.	Additional Balls: If golf facilities 200 recycle a certain number of golf balls, golf manufacturers 100 agree to provide an additional quantity of golf balls. For instance, for every 1000 balls returned to manufacturer 100 for recycling, golf facilities 200 may receive 25% more balls every month, quarter, etc.

**[0039]** After an agreement is negotiated, in step **604**, golf manufacturer **100** sends the ordered golf balls to golf facility **200** with one or more shipping containers and labels, in or with which used golf balls may be shipped back to golf manufacturer **100** after use. In step **606**, golf facility **200** receives the golf balls from the golf manufacturer **100**. In step **608**, golf facility **200** uses the golf balls for a given period of time as specified in the agreement negotiated in step **602**.

**[0040]** In step **610**, the used golf balls are packaged in a labeled shipping container and sent back to golf manufacturer **100** for recycling. There is no need for sorting golf balls because a golf facility **200** needs to send used golf balls back only to manufacturer **100** with whom it negotiated an agreement in step **602**. In step **612**, the used golf balls are received by golf manufacturer **100**. In step **614**, the golf manufacturer **100** gives a recycling reward to golf facility **200** for recycling golf balls. As discussed in above, the recycling reward is calculated according to the terms of the agreement negotiated in step **602**. Finally, in step **616**, the golf manufacturer **100** recycles the used golf balls.

**[0041]** In addition to channels **40-60**, other reverse or dynamic distribution channels also fall within the scope of

**[0043]** Used golf balls, or components thereof, can be recycled by various methods including refurbishment and recovery processes. In one aspect of the present invention, the used golf balls are refurbished by a process that comprises the steps of sand blasting and refinishing the used golf balls. In another aspect of the present invention, the used golf balls are recovered according to the restoration method discussed in the Morgan patent, which discloses a method in which a small portion of a used golf ball's cover is removed and a new layer of material is added. In another aspect of the present invention, the cores can be reconditioned, e.g. nicked or imperfect cores can be grind to smaller sizes and cores from pond balls can be dried by heating. The reduced sized cores can be used as the inner cores in dual core golf balls. Other restoration methods suitable restoration methods include repelletizing, grinding, and peeling. Still other restoration methods are discussed in U.S. Pat. Nos. 5,390,932, 5,427,377, and 5,976,430. Any other refurbishment and recovery process known to one of ordinary skill in the art can also be used to recycle the used golf balls received by manufacturers **100**.

**[0044]** When golf balls comprising 100% thermoplastic polymers are used, they can be completely recycled after

being returned to original manufacturers 100 or any third-party recyclers, including non-golf recyclers such as community recycling centers. Because such 100% thermoplastic golf balls do not contain any thermoset polymers, they can be completely recycled by grinding and reforming into any product, including more golf balls, plastic containers, and other useful objects. One example of a golf ball comprising 100% thermoplastic polymers is a golf ball comprising highly neutralized acid polymers, which is discussed in commonly owned U.S. Pat. No. 6,939,907, incorporated herein by reference in its entirety. Thermoplastic golf balls can also be recycled by municipal recycling authorities. Because such 100% thermoplastic golf balls can be completely recycled, they leave a minimal environmental footprint.

[0045] Golf facilities 200 and golfers 300 can use reverse or dynamic distribution channels 40-60, from above, to return 100% thermoplastic golf balls to their original manufacturers 100 or third-party recyclers. For instance, golfers 300 can directly return 100% thermoplastic golf balls back to original manufacturers 100 or third-party recyclers through reverse distribution channel 40. Alternatively, golfers 300 can use reverse distribution channel 40 to return 100% thermoplastic golf balls to golf facilities 200, who then return the 100% thermoplastic golf balls through reverse distribution channel 50 to manufacturers 100 or third party-recyclers. Golf facilities 200 can also use channel 60 for recycling 100% thermoplastic golf balls received under the terms of a lease, buy-back, or service agreement with a golf manufacturer 100. Also, when golfers 300 or golf facilities 200 recycle 100% thermoplastic golf balls, they are given a recycling reward such as cash back, coupons, discounts, rewards points, contest entries, and charitable donations, and equivalents thereof. The recycling reward can be given by any entity including third-party recyclers.

[0046] While it is apparent that the illustrative embodiments of the invention disclosed herein fulfill the objectives of the present invention, it is appreciated that numerous modifications and other embodiments may be devised by those skilled in the art. Additionally, feature(s) and/or element(s) from any embodiment may be used singly or in combination with feature(s) and/or element(s) from other embodiment(s). Therefore, it will be understood that the appended claims are intended to cover all such modifications and embodiments, which would come within the spirit and scope of the present invention.

1. A method for recycling golf balls comprising the steps of:

- (a) providing a plurality of new golf balls through at least one forward distribution channel for conveying golf balls to a purchaser;
- (b) accepting a plurality of used golf balls for recycling through at least one reverse distribution channel or one dynamic distribution channel;
- (c) sorting the plurality of used golf balls;
- (d) calculating a recycling reward associated with the plurality of used golf balls;
- (e) awarding a recycling reward to the at least one recycling entity; and
- (f) reprocessing the used golf balls.

2. The method of claim 1, wherein step (a) comprises a first forward distribution channel for conveying golf balls from a manufacturer to a first purchaser.

3. The method of claim 2, wherein step (a) comprises a second forward distribution channel for conveying golf balls from the first purchaser to a second purchaser.

4. The method of claim 2, wherein the first purchaser is selected from the group consisting of golf facilities, consumers, retail stores, and combinations thereof.

5. The method of claim 3, wherein the second purchaser is a consumer.

6. The method of claim 1, wherein step (b) comprises a first reverse distribution channel for conveying used golf balls from a first recycling entity to a first acceptor.

7. The method of claim 6, wherein step (b) comprises a second reverse distribution channel for conveying used golf balls from the first acceptor to a second acceptor.

8. The method of claim 6, wherein the first recycling entity is a selected from the group consisting of a consumers, golf facilities, waste management facilities, and combinations thereof.

9. The method of claim 6, wherein the first acceptor is selected from a the group consisting of a second recycling entities, manufacturers, third-party entities, and combinations thereof.

10. The method of claim 7, wherein the second acceptor is selected from the group consisting of manufacturers and third-party entities.

11. The method of claim 1 comprising the dynamic distribution channel comprises a lease, a buy-back or a service agreement from a manufacturer of new golf balls to golf facility.

12. The method of claim 1, wherein step (c) comprises a sorting method selected from the group consisting of a manual methods, automated methods, methods to sort used golf balls according to manufacturer, methods to sort used golf balls according to quality, and combinations thereof.

13. The method of claim 1, wherein the recycling reward is selected from the group consisting of cash, coupons, discounts, rewards points, contest entries, charitable donations, and combinations thereof.

14. The method of claim 13, wherein the rewards points are selected from the group consisting of virtual currencies, PayPal, mobile phone currencies, and combinations thereof.

15. The method of claim 11, wherein the recycling reward is calculated under the terms of a contract.

16. The method of claim 15, wherein the contract is selected from the group consisting of leases, buy-back contracts, service contracts, and combinations thereof.

17. The method of claim 1, wherein step (f) comprises substantially recycling each component of each used golf ball.

18. The method of claim 1, wherein step (f) comprises a reprocessing method selected from the group consisting of reconditioning the core, forming smaller cores from the cores of the used golf balls, repelletizing, grinding, peeling, sand-blasting, refinishing, restoring the cover, and combinations thereof.

19. The method of claim 1, wherein step (f) comprises reprocessing 100% thermoplastic used golf balls.

20. The method of claim 1 further comprising a step (g) of certifying quality of reprocessed used golf balls or components thereof.