Dec. 19, 1944. M. E. FONKEN 2,365,540

GOLF BALL RETRIEVER

Filed Sept. 26, 1944

Fig. 1

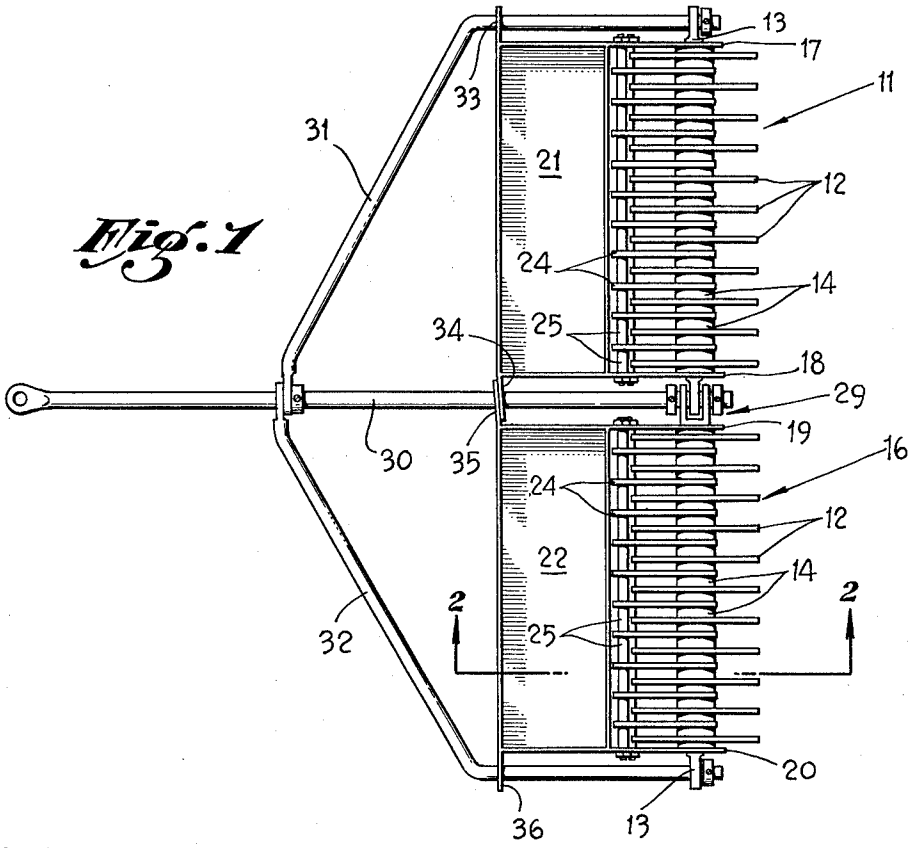


Fig. 3

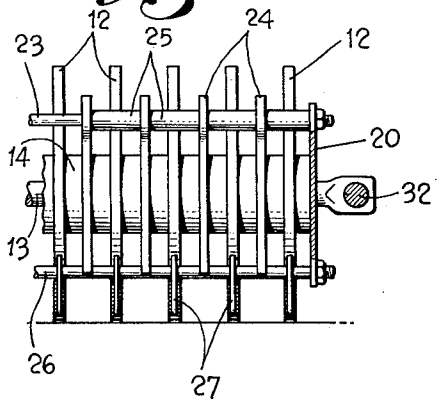
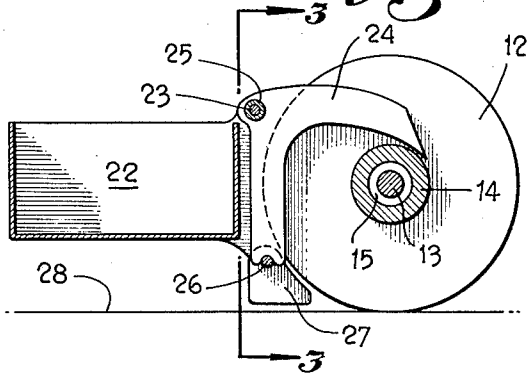


Fig. 2



Inventor:
MARTIN E. FONKEN.

By
John H. Rouse,
Attorney.

Patented Dec. 19, 1944

2,365,540

UNITED STATES PATENT OFFICE

2,365,540

GOLF-BALL RETRIEVER

Martin E. Fonken, Burbank, Calif.

Application September 26, 1944, Serial No. 555,772

7 Claims. (Cl. 214—65)

My present invention relates to means for retrieving golf balls or similar objects from the ground or other surfaces.

In places such as a driving range for golf practice numerous balls become scattered on the ground and it is customary to employ boys to pick them up by hand. This is obviously a tedious procedure. It is therefore a main object of this invention to facilitate retrieving of objects such as golf balls scattered on the ground by providing mechanical means which, when drawn over the ground, automatically retrieves the balls and deposits them in a receptacle.

Another object of the invention is to provide a device of the character described which is simple in construction, economical to manufacture, and which does not include parts which might be damaged by the dirt or other matter present on the ground.

Another object is to provide means for preventing the possibility of some balls being forced into soft ground in the operation of the device.

Another object is to provide a device which will accommodate itself to inequalities in the surface of the ground.

Other objects and advantages of the invention will be found in the description, the drawing, and the claims; and, for full understanding of the invention, reference is to be had to the following detailed description and accompanying drawing, wherein:

Figure 1 is a plan of a golf-ball retrieving device embodying this invention;

Figure 2 is an enlarged section taken along the line 2—2 of Fig. 1; and

Figure 3 is a fragmentary section taken along the line 3—3 of Fig. 2.

In the drawing, the numeral 11 generally indicates a rotatable member, adapted to roll on the ground, comprising a plurality of thin disks 12 supported on a shaft 13 and separated from each other by spacers 14. In the space 15 (Fig. 2) between the shaft and the spacers are ball-bearings (not shown). The disks 12 are conveniently of ply-wood or may be of some other material which is relatively stiff and has a surface to which dirt or other matter does not readily adhere. In devices as now constructed, the distance between each of the adjacent disks is 1.625 inch, which is slightly less than the diameter of a golf ball; the present standard size of a golf ball being 1.675 inch. Generally indicated at 16 is another member which is identical in construction with the member 11. Each of these members is rotatably mounted on a frame which, in the structure illustrated, comprises the extended end walls 17—18 and 19—20 of rectangular receptacles 21 and 22, respectively.

Secured at its ends to the walls 17 and 18 is a rod 23 (Figs. 2 and 3) upon which is mounted a plurality of ejector members 24 (shown in elevation in Fig. 2). These members are separated by spacers 25 so that they extend equidistantly between the disks 12, and their notched lower ends rest on another rod 26 arranged parallel to rod 23 and secured to the end walls 17—18. Mounted on the lower rod 26 is a plurality of diverging plates 27 which are so arranged that each is aligned with and directly ahead of a disk 12, the plates conveniently being secured in position by welding. The bottom ends of plates 27 extend close to, but preferably out of engagement with, the ground surface 28, as shown in Fig. 2. Mounted on rods secured to the end walls 19 and 20 of the other receptacle 22 are ejector members and diverting plates identical with those just described and cooperating in the same manner with the rotatable member 16; these parts having therefore been assigned the same reference numerals.

The adjacent ends of the rotatable members 11 and 16 are coupled together by a flexible connection 29 threaded to the shafts 13, part of this connection being formed by the right-hand end of a draw-bar 30. Rockably connected to the draw-bar and attached to the flattened outer extremities of the shafts 13 are side arms 31 and 32. The receptacles 21 and 22 are supported on the draw-bar and on the side arms by means of ears 33—34 and 35—36 extending from the left-hand or front walls of the receptacles and having openings freely fitting the supporting parts.

In operation the device is drawn over the ground, conveniently by a light motor vehicle, such as a three-wheeled motorcycle, connected to the draw-bar; the sections or rotatable members of the device, because of the flexible or rockable connections between them, being capable of conforming generally to uneven ground. When a relatively large area is to be traversed, the number of sections may advantageously be increased to three or more.

As the device passes over the balls, any of them that happen to be directly in line with the disks 12 are diverted to either side by the plates 27 so that they can be received between the disks; the possibility of balls being forced into soft ground by the disks thus being avoided. As the balls are received between the disks they are gripped thereby and carried around until they

engage the ejector members 24 upon which they ride until they are ejected and fall into the receptacles. The general construction and arrangement of the disks permit each pair of them to hold several balls simultaneously so that substantially all the balls traversed are retrieved.

The embodiment of my invention herein shown and described is obviously susceptible of modification without departing from the spirit of the invention, and I intend therefore to be limited only by the scope of the appended claims.

I claim as my invention:

1. In a device for retrieving golf balls scattered on the ground, a frame adapted to be moved across the ground, a plurality of elements mounted on said frame and spaced apart by a distance slightly less than the diameter of a standard golf ball, said elements being so constructed and arranged that the balls are gripped between them as the frame is moved, a receptacle mounted on said frame, means for ejecting the balls from between the elements and into said receptacle, and means mounted on said frame ahead of each of said elements for so diverting the balls that they pass between the elements.

2. In a device for retrieving golf balls scattered on the ground: a frame, a member rotatably mounted on said frame and adapted to roll on the ground, said member comprising a plurality of disks spaced apart by a distance slightly less than the diameter of a standard golf ball and so arranged that as the member rolls over the balls they are gripped between the disks, a receptacle mounted on said frame, and means for ejecting the balls from between the disks and into said receptacle.

3. In a device for retrieving golf balls scattered on the ground: a frame, a member rotatably mounted on said frame and adapted to roll on the ground, said member comprising a plurality of spaced disks adapted to grip the balls as the member rolls thereover, and means mounted on said frame ahead of each of said disks for so diverting the balls that they pass between the disks.

4. In a device for retrieving golf balls scattered on the ground: a frame, a member mounted on said frame and comprising a plurality of relatively stiff disks adapted to roll on the ground and spaced apart by a distance slightly less than the diameter of a standard golf ball so as to grip the balls and carry them, a receptacle mounted on said frame, and means mounted on the frame and projecting between the disks for ejecting into said receptacle the balls carried by the disks.

5. In a device for retrieving golf balls scattered on the ground: a frame, a member mounted on said frame and comprising a plurality of relatively stiff disks adapted to roll on the ground and spaced apart by a distance slightly less than the diameter of a standard golf ball so as to grip the balls and carry them, a receptacle mounted on said frame, means for ejecting the balls from between the disks and into said receptacle, and means mounted on said frame ahead of each of the disks for so diverting the balls that they pass between the disks.

6. In a device for retrieving golf balls scattered on the ground: a plurality of elongated frames arranged on a generally-common longitudinal axis and adapted to be moved across the ground in a direction generally at right-angles to said axis, means on each of said frames for gripping the balls traversed thereby, and means interconnecting the frames and permitting such relative movement thereof that the device can conform to uneven ground.

7. In a device for retrieving golf balls scattered on the ground: a plurality of elongated frames each comprising a plurality of disks adapted to roll on the ground and spaced apart to grippingly receive the balls between them, said frames being so arranged that the axes of rotation of all the disks are generally common, and means interconnecting the frames and permitting such relative movement thereof that the device can conform to uneven ground.

MARTIN E. FONKEN.