

Oct. 20, 1942.

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2,299,403

GOLF BALL HOPPER AND DISPENSING DEVICE

Filed Dec. 18, 1940

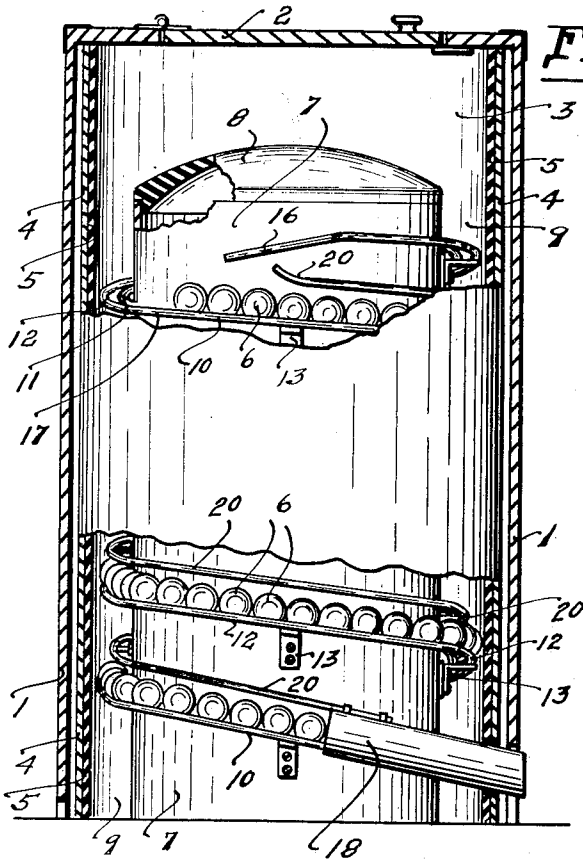


Fig. 2

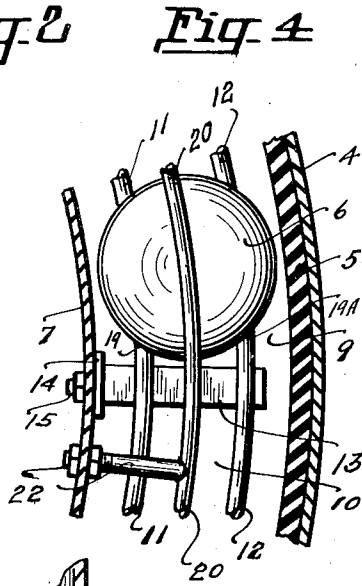


Fig. 4

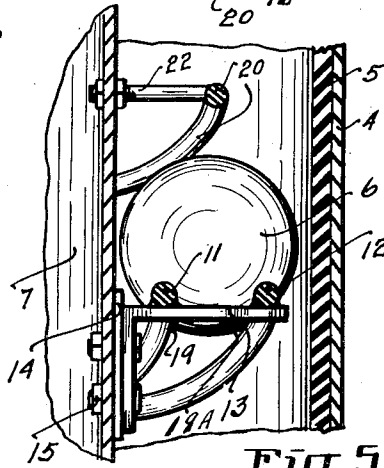


Fig. 5

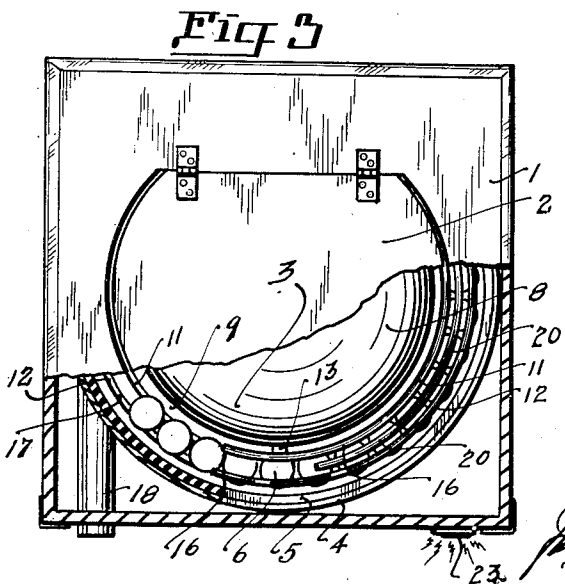


Fig. 3

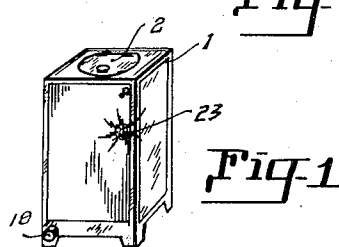


Fig. 1

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2,299,403

GOLF BALL HOPPER AND DISPENSING
DEVICE

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Application December 18, 1940, Serial No. 370,727

6 Claims. (Cl. 312-49)

This invention relates to a golf ball hopper and dispensing device and is particularly adapted to hold golf balls and dispense them in a single stream to any receiving device.

The primary object of my invention is to provide a hopper that golf balls can be poured into and as they flow down through the hopper they will be separated into single line before they reach the final discharge end of the hopper.

Another object of my invention is to provide an open track that will allow the balls to roll over the same with the least amount of resistance.

A further object of my invention is to provide a guiding rail above the balls preventing them from piling up or wedging while being formed into a single line of travel.

A still further object of my invention is to provide a spiral track for aligning the balls in single line, said track permitting dirt and foreign matter passing through the same without clogging the line of travel.

These and other incidental objects will be apparent in the drawing, specification and claims to follow:

Referring to the drawing:

Figure 1 is a perspective front elevation of my new and improved golf ball hopper and dispenser device.

Figure 2 is a sectional view of the device, parts broken away for convenience of illustration.

Figure 3 is a plan view of the device, parts broken away for convenience of illustration.

Figure 4 is a detail fragmentary plan sectional view of a section of the spiral track upon which the balls are separated and delivered to their designation.

Figure 5 is an end sectional view of Figure 4, taken on line 5-5, looking in the direction indicated.

In the drawing:

My new and improved golf ball hopper and dispensing device is enclosed within a cabinet 1. The golf balls are dumped into the hopper through the hinged door 2 into the cylindrical container 3. The container 3 is preferably made of sheet metal or the like, and is indicated by numeral 4, in the form of a vertical cylindrical drum. A resilient material 5 forms an inner liner within the sheet metal drum 4, and is for the purpose of reducing noise developed within the hopper by the rolling of the balls 6 there-through.

An inner cylindrical drum 7 is centrally located within the drum or container 3, having a

resilient top 8, preferably made of rubber, upon which the golf balls are dumped through the opening or door 2. Between the container 3 and the inner drum 7 is formed an annular space 9, slightly wider than the golf balls. Within the space 9 and around the drum 7 is a spiral 10, this runway consists of two tracks 11 and 12, which are supported on brackets 13, said brackets are mounted to the drum 7 upon insulating blocks 14, and are secured thereto by any suitable fastening means, as bolts 15.

The spiral 10 has a downward bend 16, which is for the purpose of gradually allowing the golf balls to reach the second spiral at 17, preventing too great a drop of the ball to the second spiral. The spiral 10 terminates at its lower end within the delivery chute 18. The delivery chute 18 delivers the balls to another chute, not here shown, which may have a stop control means therein, as is usually the case within automatic golf teeing devices, to which the chute 18 delivers the balls 6. By the provision of two tracks 11 and 12 mounted upon supporting brackets 13, the golf ball will roll very easily therebetween at points 19 and 19A, offering the least resistance to the progress of the ball on its downward travel over the tracks. The bracket 13 being sufficiently low as to clear the ball.

One of the primary features of my invention is the provision of a guide 20 running spirally around the drum 7 just above the golf balls 6. The object of this guide is to prevent the balls from piling up in their course downward over the spiral tracks 11 and 12. If this guide were not provided a machine of this type would not operate, therefore, the provision of this guide is of the greatest importance to the operation of the hopper. The guide 20 is secured to the drum 7 by supports 22 and the guide itself may consist of an ordinary wire, as illustrated in the drawing.

In the operation of my new and improved golf ball hopper and dispensing device, the balls are dumped into the hopper through the door or opening 2, landing on the resilient top 8, which absorbs the shock of the balls landing thereon. The balls then adjust themselves upon the tracks 11 and 12 rolling therearound in a single line until they reach the chute 18, being guided there along by the guide wire 20, until the balls have reached the chute 18.

I do not wish to be limited to the particular mechanical construction illustrated, as other forms of mechanical embodiment may be employed still coming within the scope of the claims.

What is claimed as new is:

1. A golf ball dispensing device including a cylindrical container, a drum within and spaced from the container and a spiral track secured to the external surface of the drum, said track including parallel supporting rods spaced apart a distance at least equal to the radius of the ball to be supported to receive and support a rolling golf ball, and a retaining rod arranged above and substantially centrally of the spaced rods to prevent undue vertical separation of the golf ball from the spaced rods, the retaining rod being disposed above the ball supported on the supporting rods a distance substantially equal to the radius of the supported ball.

2. A golf ball dispensing device including a cylindrical container formed with an entrance opening at the top, and a golf ball outlet opening at the bottom, a drum arranged in and spaced from the container, a spiral trackway secured to the drum and including spaced parallel supporting rods and an upper centrally disposed retaining rod, a chute connected to the bottom end of the trackway and leading through the outlet opening of the container, and means on the drum for delivering balls introduced through the inlet of the container onto the trackway, the retaining rod being spaced above the supporting rods a distance exceeding the diam-

eter of the ball to be supported by at least the radius of that ball.

3. A construction as defined in claim 2 wherein the means for delivering the balls entering through the container inlet to the trackway includes an element forming part of the trackway and inclined downwardly with respect thereto in a direction opposite the travel of the balls, whereby the balls delivered on such section are directed onto the trackway below the upper end of said trackway.

4. A construction as defined in claim 2 wherein the upper end of the drum is provided with a rounded resilient head to cushion the ball impact and direct the balls toward the trackway.

5. A construction as defined in claim 2 wherein a container is provided with an inner resilient cushion surrounding the trackway.

6. A construction as defined in claim 2 wherein the container is housed within a cylindrical cabinet having a door closing an opening at the upper end to close the ball inlet opening to the container, and wherein the drum has a round resilient upper end of a diameter exceeding that of the opening in the cabinet whereby all balls delivered through said opening will fall on to resilient end of the drum.

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