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GOLF BALL DISPENSER

Filed Nov. 9, 1964

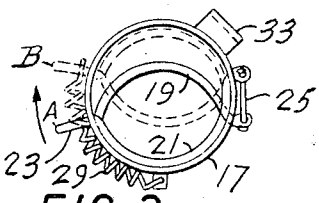


FIG. 2

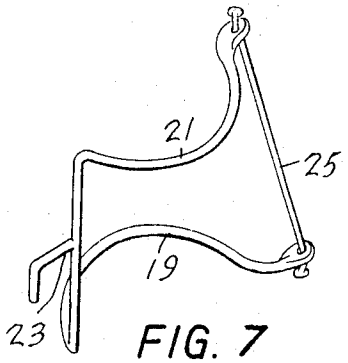


FIG. 7

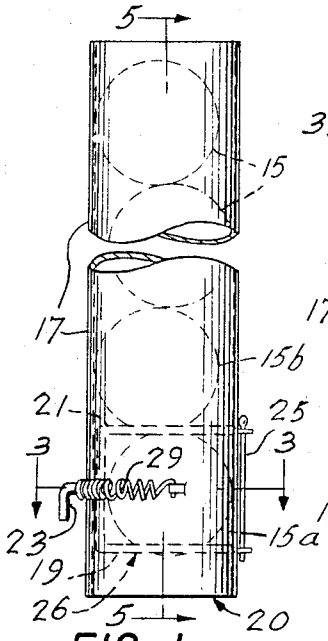


FIG. 1

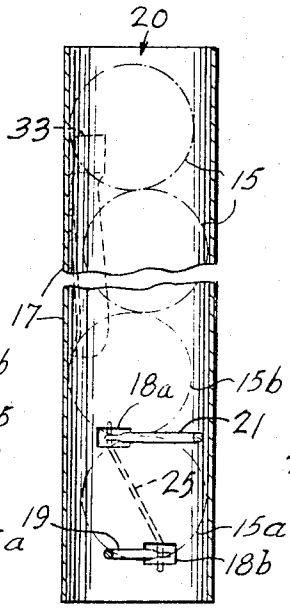


FIG. 5

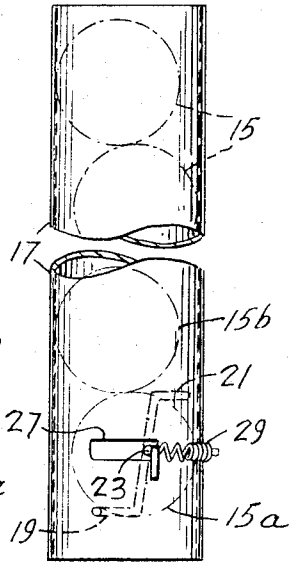


FIG. 4

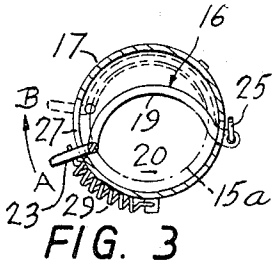


FIG. 3

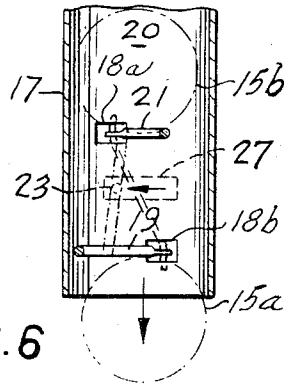


FIG. 6

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GOLF BALL DISPENSER

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The present invention relates to improvements in dispensing apparatus and particularly portable apparatus for dispensing spherical articles such as golf balls or the like, one at a time.

In a sport such as golf where balls are easily lost or damaged and must be replaced continuously, it would be convenient to have a dispenser adapted to contain a fresh supply of balls and to dispense the balls one by one.

The present invention provides an efficient dispenser which can be easily carried.

The present invention also provides a dispensing unit which will only dispense one spherical article at a time.

The invention consists of a magazine usually in the form of a hollow tubular portion open at both ends having substantially the diameter of the spherical articles to be dispensed and is provided with a dispensing unit at one end. The dispensing unit comprises two offset parallel arcuate gate members displaced axially and in such a way that when one of said members is moved transversely leaving the tube clear, the other obstructs the path therein. Both arcuate members are hingedly connected at one end to a shaft located on the wall of the tube and fixedly connected to a common handle at the other end for hingedly moving the members in unison transverse to the axis within the tube.

The two members comprising an inner member and an outer member relative to the tube are spaced apart axially of the tube a distance substantially equal to the diameter of the articles in order to contain an article between the inner and outer arcuate members when the unit is in a normal position.

A spring is attached to the handle resiliently holding the dispensing unit relative to the tube portion and normally retaining it so that the outer arcuate member obstructs the passage in the tubular portion and the inner member is adjacent the inner wall of the tubular portion. In this manner, the articles are retained since the first article abuts the outer member.

As the dispensing unit is moved against the action of the spring, the outer member clears the passage to allow the article which was contained between the two members to be released. Simultaneously, the next article in line is being held by the inner member which is now obstructing the passage. As the handle is released, the dispensing unit returns to its normal position and the articles are displaced outwardly so that the next article in position abuts the outer member.

Having thus generally described the nature of the invention, particular reference will be made to the accompanying drawings showing by way of illustration preferred embodiments thereof, and in which:

FIGURE 1 is a vertical side view of a dispenser of the invention,

FIGURE 2 is a horizontal top view of the dispenser shown in FIGURE 1 and illustrating the two operating positions of the dispensing unit,

FIGURE 3 is a cross-sectional view taken along line 3—3 of FIGURE 1,

FIGURE 4 is a front vertical view of a dispenser of the invention,

FIGURE 5 is a vertical cross-section of a dispenser taken along line 5—5 in FIGURE 1 showing the dispensing unit in its normal position relative to the tubular portion,

FIGURE 6 is a fragmentary view of the invention taken alone line 5—5 in FIGURE 1 showing the dispensing unit in its releasing position, and

FIGURE 7 is a detailed perspective view showing a dispensing unit of the invention.

Referring particularly to FIGURES 1 to 4, a series of golf balls **15** are shown vertically disposed in a tube **17**. The lowest ball **15***a* abuts against an arcuate elongated gate **19** which obstructs the passage **20**.

Spaced apart and above the elongated gate **19** is a second arcuate elongated gate **21** connected to the handle **23**. The gates **19** and **21** are set in parallel planes transverse to the axis opposite each other in such a way that when one of the gate members is centrally located, obstructing the passage, the other is adjacent the inner wall of the tube **17**, clearing the path **20**. The elongated gate members are hingedly connected to a transverse shaft **25** located outside the wall **17**, through suitable openings **18***a* and **18***b* in the wall **17**.

The handle **23** protrudes through a slot **27** in the wall **17** and is limited by the size of the slot. A spring **29** is attached to the handle **23** and is fixed to the tube **17** at **30**. The spring **29** retains the dispensing unit **16** in a normal position as shown in FIGURES 3 and 4. In this position, the elongated gate **19** obstructs the passage **20** while the gate **21** remains clear of the passage **20**.

A clip **33** may also be provided on tube **17** adapting the dispenser to be carried on a golf bag or on any vertical edge.

Operation

A plurality of balls **15** are fed in the tube **17** at the top end. The balls immediately take up the aligned position in FIGURE 1 including ball **15***a* which abuts gate **19**. The gate **19** is centrally located thus obstructing the passage **20**, therefore it prevents the balls **15** from dropping out.

If dispenser unit **16** is moved from position A to B by means of handle **23** against spring **29**, then the gate **19** clears passage **20**. Ball **15***a* is therefore free to drop out as shown in FIGURE 6. However, gate **21** which is integral to gate **19** has now moved into a centrally located position between ball **15***a* and ball **15***b*, obstructing the path **20** and retaining ball **15***b*. By releasing handle **23**, the spring **29** draws the dispenser unit **16** back to its normal position. Ball **15***b* is now allowed to drop to gate **19** since gate **21** is now clear of the path **20**. The cycle is therefore completed and a new ball **15***b* can now be released by repeating the operation.

I claim:

1. A dispenser for dispensing spherical articles comprising a magazine defining a passage for stacking said spherical articles, said magazine having the form of an open-ended cylinder, a bifurcate dispensing means located at one end of said passage comprising an inner elongated gate member and an outer gate member spaced apart axially relative to said passage a distance substantially equal to the diameter of said spherical articles, said dispensing means being hingedly connected to the wall of said cylinder for movement transverse to said passage, and having a handle mounted at an end opposite to said wall connection, a slot arranged in said wall opposite said connection for receiving said handle and adapted to limit said movement from a normal position to a release position, said outer gate member obstructing said passage while said inner member remains clear of said passage when said dispensing means is in said normal position, and said outer gate member being clear of said passage and said inner member obstructing said passage

when said dispensing means is in said release position whereby one of said articles is released on each oscillation of the dispensing means.

2. A dispenser defined in claim 1, wherein said bifurcate dispensing means is characterized in that said elongated gate members are hingedly connected to said wall, and a retaining rod is located exteriorly of said wall adapted to maintain said wall connection.

3. A dispenser as defined in claim 1 wherein said elongated gate members of said dispensing means lie in separate parallel planes extending radially relative to the axis of said cylinder, and said elongated gate members are curved in shape, and the curves lie on opposite sides of said axis.

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