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S. W. WINQUIST

3,180,644

GOLF COURSE FLAG PIN AND BALL RETRIEVER MEANS

Filed May 6, 1963

FIG. 1.

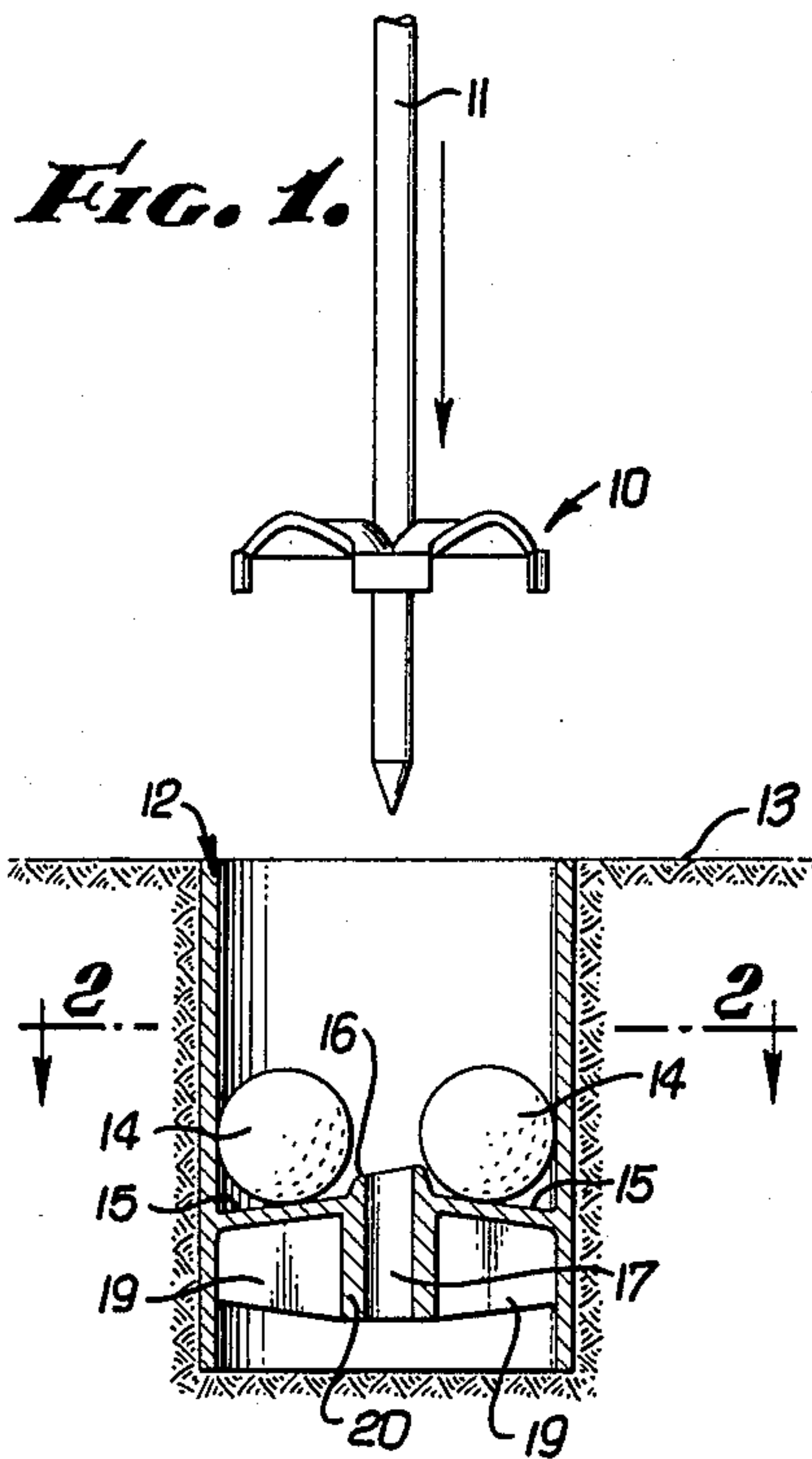


FIG. 2.

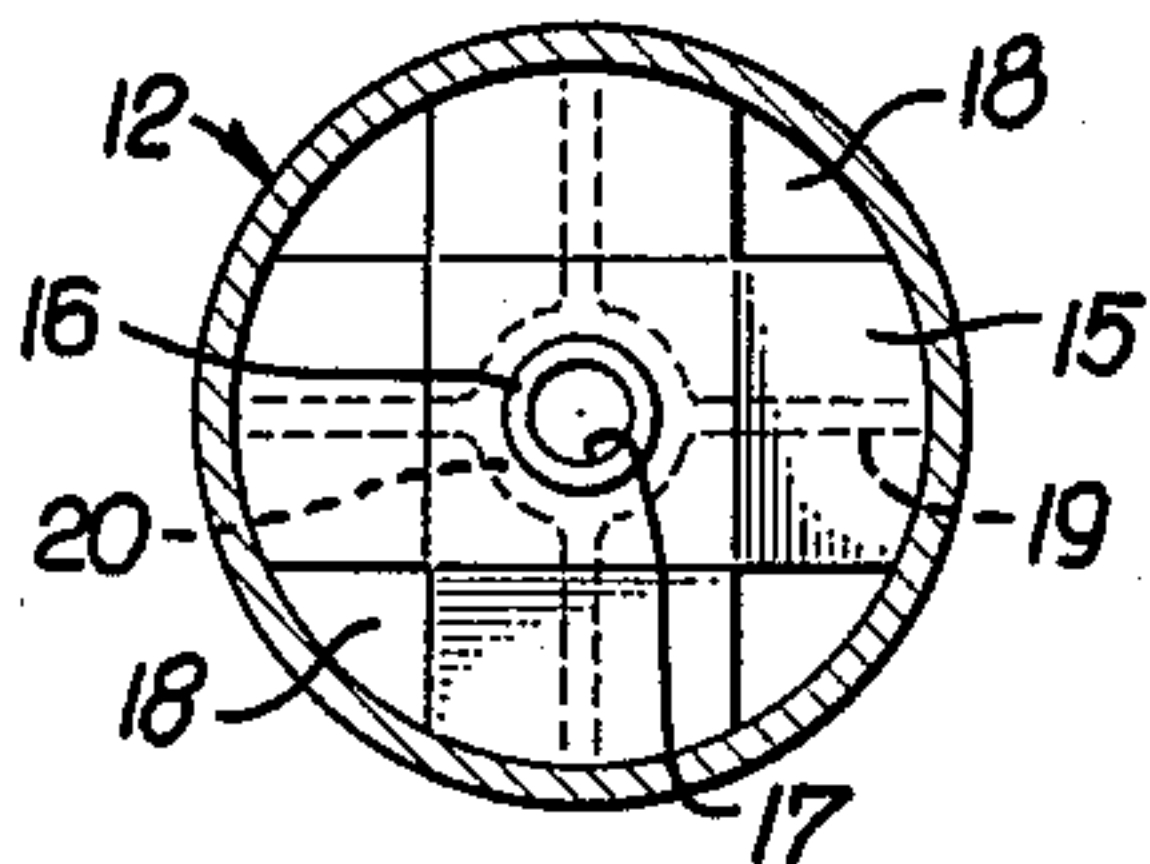


FIG. 6.

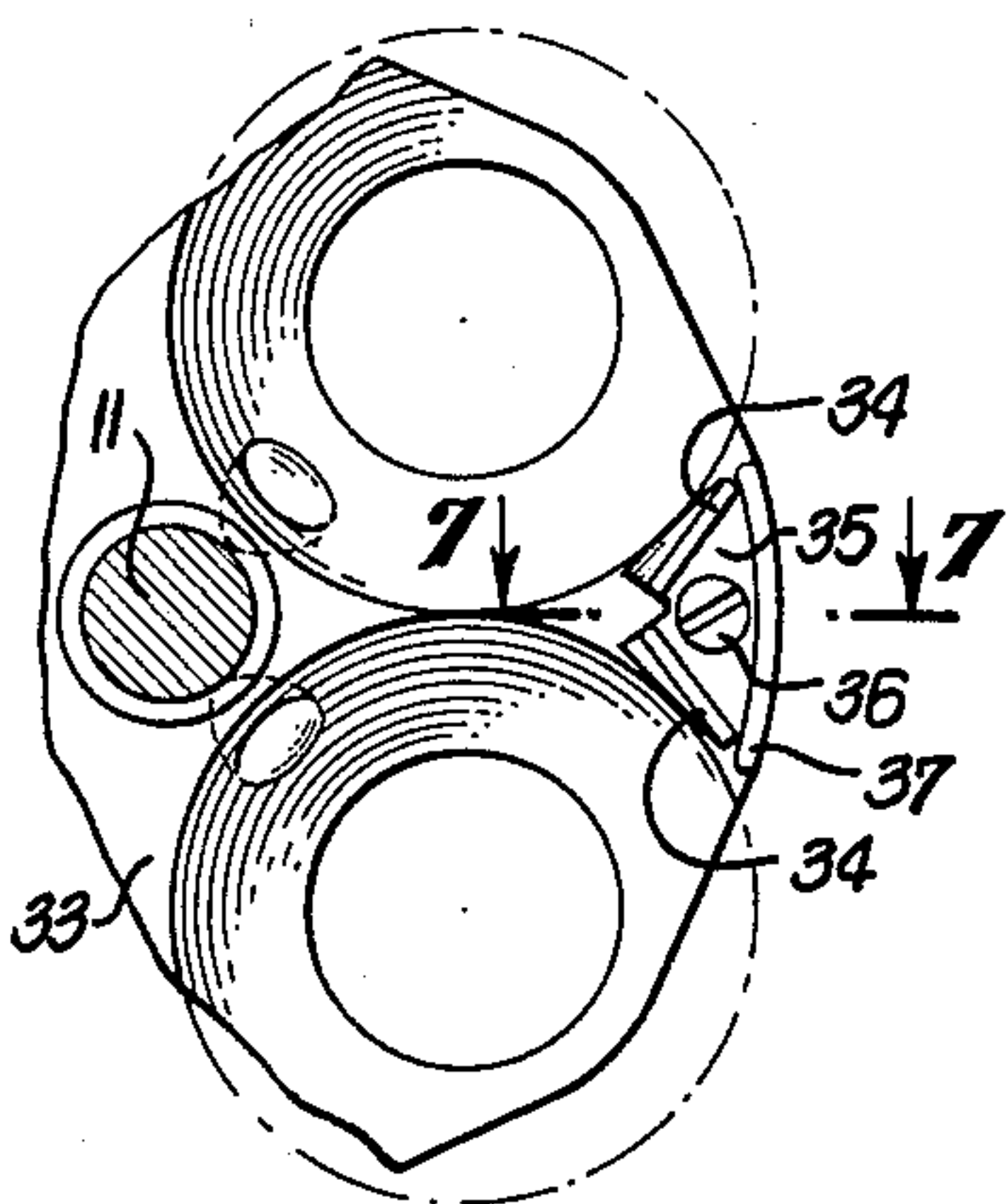


FIG. 3.

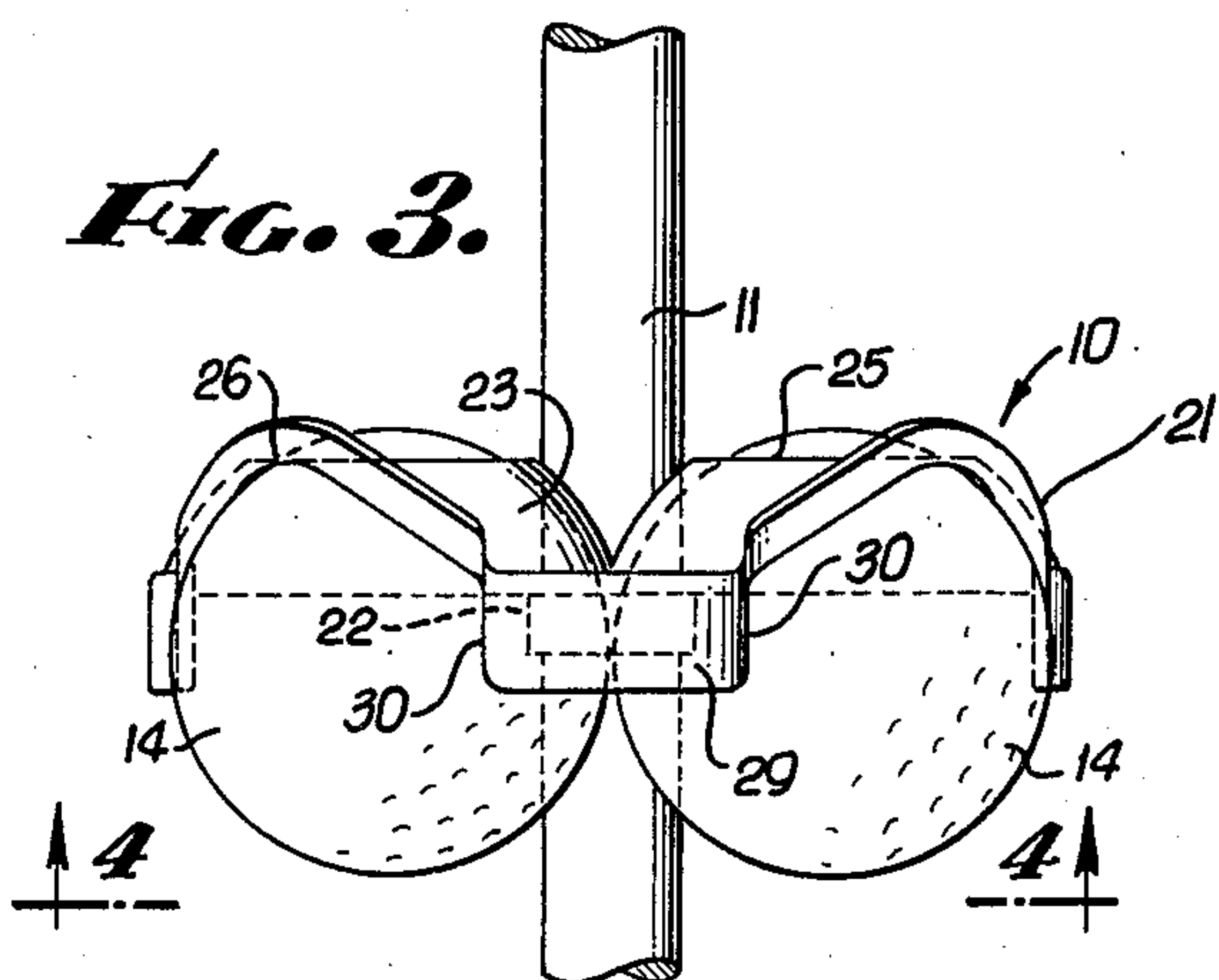


FIG. 4.

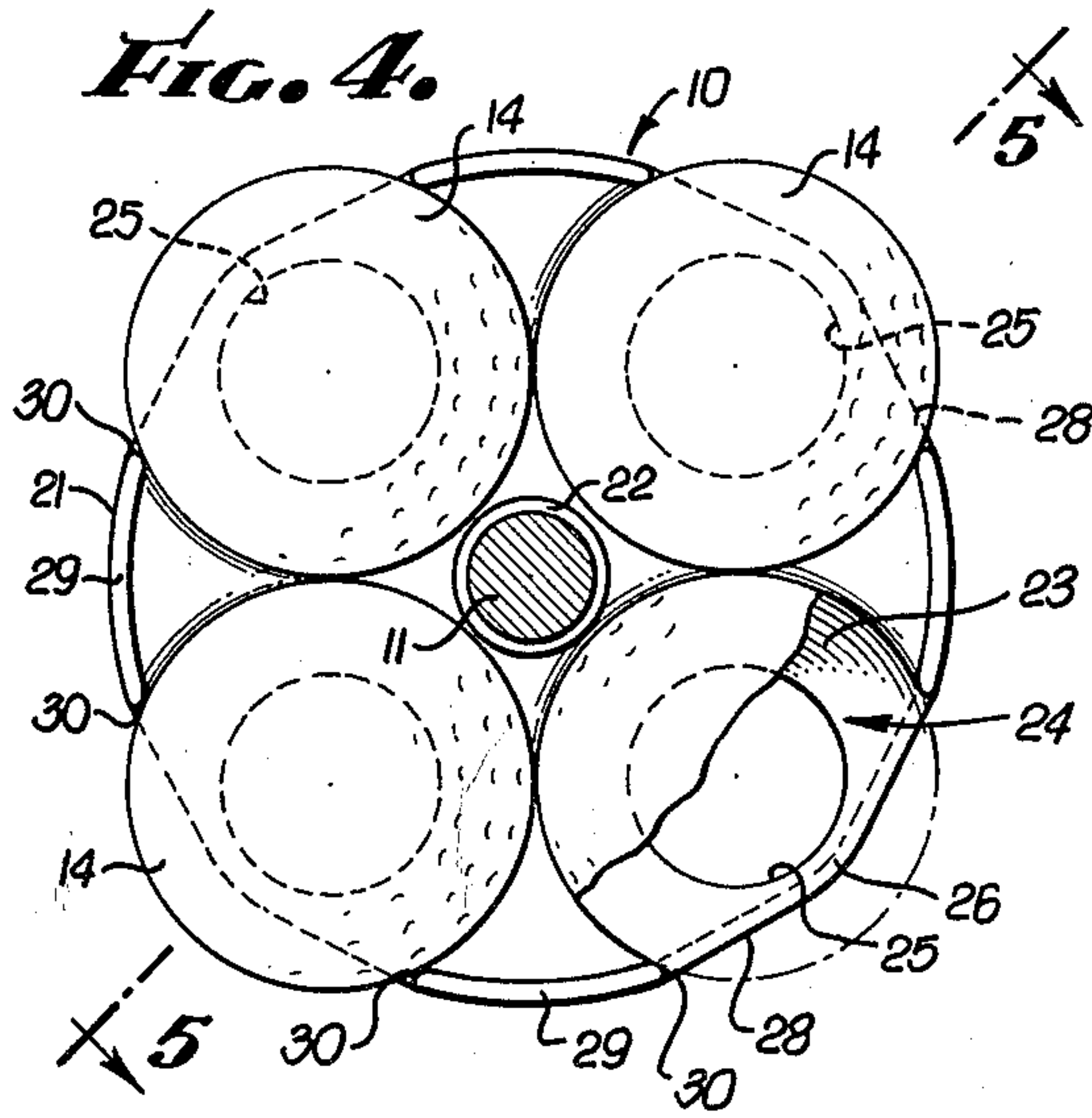


FIG. 5.

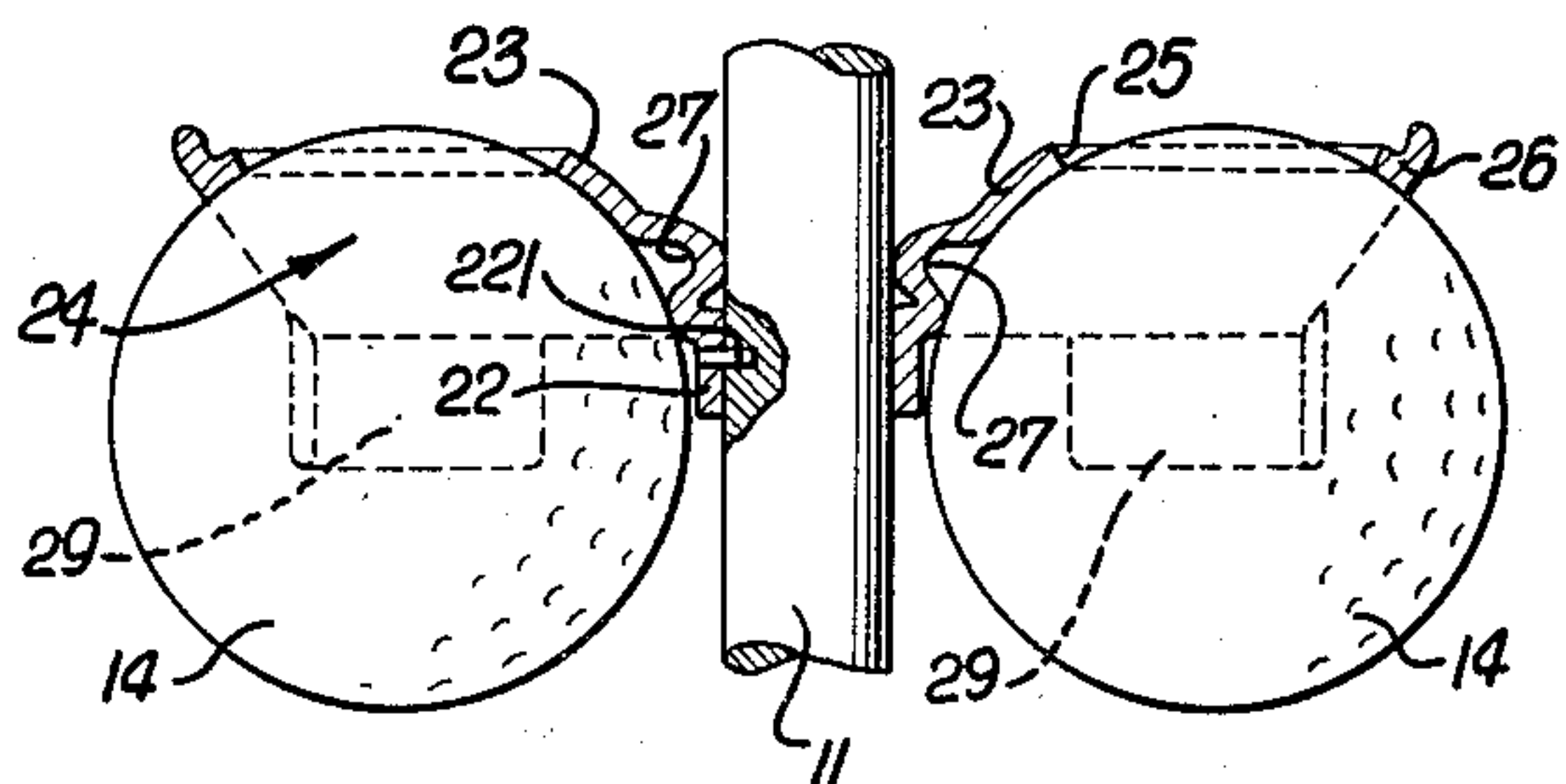
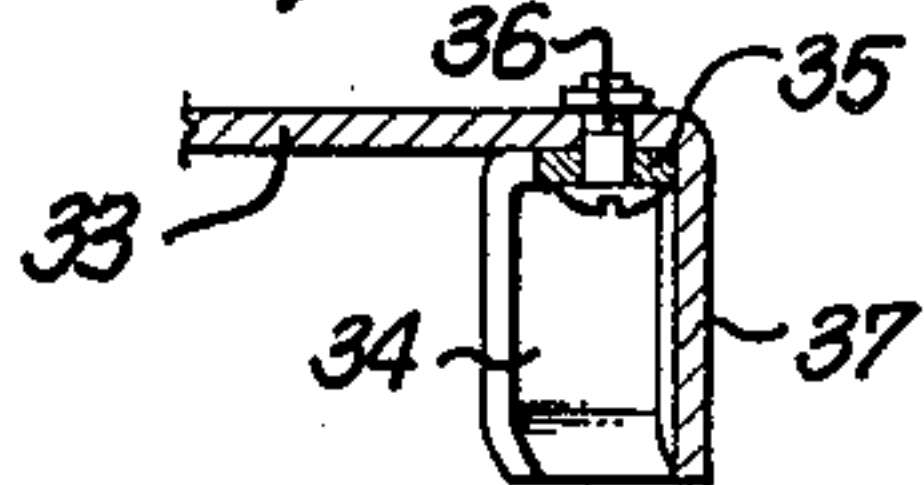


FIG. 7.



INVENTOR.

SVEN WILLIAM WINQUIST

BY

White & Haefliger
ATTORNEYS.

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3,180,644

GOLF COURSE FLAG PIN AND BALL RETRIEVER MEANS

Sven William Winquist, 18400 Malden St., Apt. 22,
Northridge, Calif.

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11 Claims. (Cl. 273—34)

This invention has to do generally with improvements in golf playing equipment, and has to do particularly with novel means for accomplishing the retrieval of golf balls from playing cups and with inter-related features of cup structures and retrieval devices for removing the balls therefrom.

A general and important object of the invention is to provide for retrieval from the cups of any number of golf balls from 1 to 4, in a manner that will permit protection of the green area immediately surrounding the cup, by obviating any necessity for such close approach to the cup as might otherwise cause, as has been common experience, players' cleat or spike disturbances of the turf that would destroy its necessary smoothness for accurate putting. As a corollary, the invention aims to obviate much of the turf upkeep usually required about the cup, resulting from stepping close to the cup edge.

In terms of the devices contemplated, the invention has for its object to provide a retrieval means in association with the conventional flag stick, which will permit a player standing away from the cup, to retrieve by simple manipulation up to four balls which the cup may contain. For this purpose the invention provides for the application to the usual flag stick of a circular arrangement of individual ball retrievers so designed as to be capable of fastening upon and holding the balls for elevation out of the cup.

According to preferred embodiments of the invention, the retrieval assembly is made in generally circular or disc form with associated parts essentially in the nature of depending fingers engageable at different locations about the balls and having such spacings as to be capable of fitting about and retaining the balls. As will appear, the ball gripping effect may result primarily from the finger spacings or by the added influence of resilient flexibility given the fingers if desired. Constructed in the manner later explained, the retrieval device has the capacity upon rotation from any initial misalignment with the balls, to cause the latter to seek and become individually retained within the holding configurations of the device.

The invention further contemplates departures from the conventional cup constructions whereby balls entering the cup will be required to assume positions outwardly from its center, compatible with alignability with the retrieving device. In this respect, while providing for centering retention of the flag stick in the cup, the ball-supporting floor in the latter is so designed that in the absence of the stick the balls will assume proper retrievable positions away from the cup center.

The foregoing as well as additional features and objects of the invention as well as the details of all illustrative embodiments thereof, will be understood more fully from the following detailed description of the accompanying drawing in which:

FIG. 1 is a view showing the composite retriever and flag stick elevated above the cup placed in a playing green;

FIG. 2 is a sectional plan view of the cup bottom, taken on line 2—2 of FIG. 1;

FIG. 3 is an enlarged showing of the four ball retriever;

FIG. 4 is a bottom view of FIG. 3 taken on line 4—4 thereof;

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FIG. 5 is a cross sectional on line 5—5 of FIG. 4;

FIG. 6 is a fragmentary bottom view showing a variational form of the invention; and

FIG. 7 is a fragmentary section on line 7—7 of FIG. 6.

Referring first to FIG. 1, the retriever generally indicated at 10 is shown to be attached to the conventional flag stick 11 at a location sufficiently above its lower end to permit accommodation in the later described centered relation, within the cylindrical cup 12 shown to be set down within the playing green 13.

Referring first to the cup structure, the latter is shown to be specially made to assure proper positioning of the balls 14 for reception in the retriever 10, by constructing the cup with an internal ball supporting floor 15 which presents an essentially flat (or somewhat outwardly sloping) surface at the outside of an annular top sloping boss 16 about the central stick-receiving opening 17. The cup may be formed in any desired manner but preferably, though typically, as a unitary casting which provides for water drain openings at 18 with radial reinforcing webs 19 extending from the apertured hub 20 to the cylindrical wall of the cup. By reason of the raised configuration at 16, and the essentially flat extent of the floor 15 surface, balls dropping into the cup will remain outwardly away from the center opening 17 and in proper position for retrieval.

Referring now to FIGS. 3 to 5, the retriever 10 is shown to comprise a generally circular or deflected disc-like body 21 which may be made of any suitable material and by any appropriate forming process. Desirably the retriever body may be made simply and economically as a metallic sheet stamping, die formed to have a central hub 22, see FIG. 5, which receives the flag stick 11 in sufficiently tight engagement therewith, or otherwise as by pin 221, as to assure retention of proper location of the retriever on the stick. Outwardly from the hub 22, the metal is deflected upwardly and concavely at 23 to form four circularly and equi-angularly arranged receptacles generally indicated at 24 for the balls 14. The tops of the receptacle areas have circular openings 25 which receive the top surfaces of the balls in their illustrated retained positions. The body metal, so formed, has relatively narrow portions 26 radially at the outsides of the openings 25, which progressively increase to the full radial extent of the body between the concave indentations 23. As illustrated in FIG. 5, these concave ball receiving indentations may be coined at 27 until they fit against stick 11 and to add stiffness immediately about the stick engaging hub portion 22.

Edge portions 26 continue downwardly at 28 to depending fingers 29 each of which is positioned between and in such proximity to the concave recesses 23, as to present edges 30 which are brought into engagement with the sides of the balls. The effective spacings of the fingers 29, or more strictly the spacing of their edges 30 applying to any single ball, are such that as the fingers are pressed down about the balls the finger edges will grip them with sufficient tightness to assure retention of the balls within the body cavities, for elevation out of the cup. If desired, the fingers 29 may be cold metal worked to give them added strength.

Considering the invention in use, the cup 12 may be assumed to contain four balls, although the retriever will operate to engage and retain any lesser number. While standing away from the cup, the player may lower the bottom extent of the flag stick into the cup opening 17 to rest the retriever 10 on the ball surfaces. Initial alignment of the balls with the retriever recesses is of no consequence, because slight rotation of the flag stick will bring the fingers 29 into retaining positions about the balls as shown in FIG. 4, following which the retriever

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may be pushed down to bring the fingers into retaining engagement with the sides of the balls.

FIGS. 6 and 7 illustrate a variational form of the invention employing a four concave cavity retriever body 33 as described, but in which the ball engaging fingers are shown to have been separately formed and attached to the body for resiliently deflective engagement with the balls. Here the fingers 34 are shown to be integrally formed with and to depend from flat interconnecting portions 35 of the same stampings, secured to the underside of the body by fasteners 36 or in any other suitable manner. To prevent injury to the flexible fingers, the body may be formed with segmental flange guards 37 depending at the outsides of the fingers to protect them against damaging encounters.

I claim:

1. A device for retrieving golf balls from a playing cup having an internal lower surface receptive of as many as four balls about the cup axis, comprising the combination of a flag stick insertable centrally through said surface of the cup, and a retainer attached centrally to the stick and presenting equi-angularly about the stick plural ball receptacles each defined by spaced downwardly extending fingers adapted to be pressed downwardly against and in holding engagement with the sides of plural balls.

2. The combination of claim 1, in which said retainer has spaces for accommodating the top portions of the balls above the locations of ball engagement by said fingers.

3. The combination of claim 2, in which said spaces are formed by openings extending through the retainer.

4. The combination of claim 1, in which the body of said retainer is of essentially circular sheet material from which said fingers depend near the periphery thereof.

5. The combination of claim 4, in which said fingers are downwardly bent portions of said sheet material and are adapted to retain four balls between them.

6. The combination of claim 5, in which said fingers are attached to and depend from said body and are resiliently spreadable to receive the balls.

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7. The combination of claim 4, in which said body contains openings for accommodation of the top portions of the balls above and at the inside of the locations of ball engagement by said fingers.

8. The combination of claim 4, in which said fingers are downwardly bent portions of said sheet material which contains ball receiving openings defined by annular concavely curved under surfaces of the sheet material.

9. The combination of claim 1, in which balls initially misaligned with said receptacles are registerable to retainable positions between the fingers by rotation of the retainer upon the balls.

10. The combination of claim 9, in which said retainer is positioned above the lower end of the flag stick to permit rotation of the retainer with the stick received in a bottom aperture in the cup.

11. The combination of the device of claim 1, with a playing cup of cylindrical open top form containing spaced above the bottom of the cup a transverse floor having a ball receiving surface centrally apertured to pass downwardly the lower end of the flag stick to the bottom of the cup, said surface being generally flat but centrally raised about its aperture to assure displacement of balls outwardly from the aperture when the stick is removed and to positions of accessibility by said retrieving device.

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DELBERT B. LOWE, *Primary Examiner*.

ERNEST A. FALLER, *Examiner*.