

H. WOODWARD.
GOLF BALL CLEANING DEVICE.
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928,832.

Patented July 20, 1909.

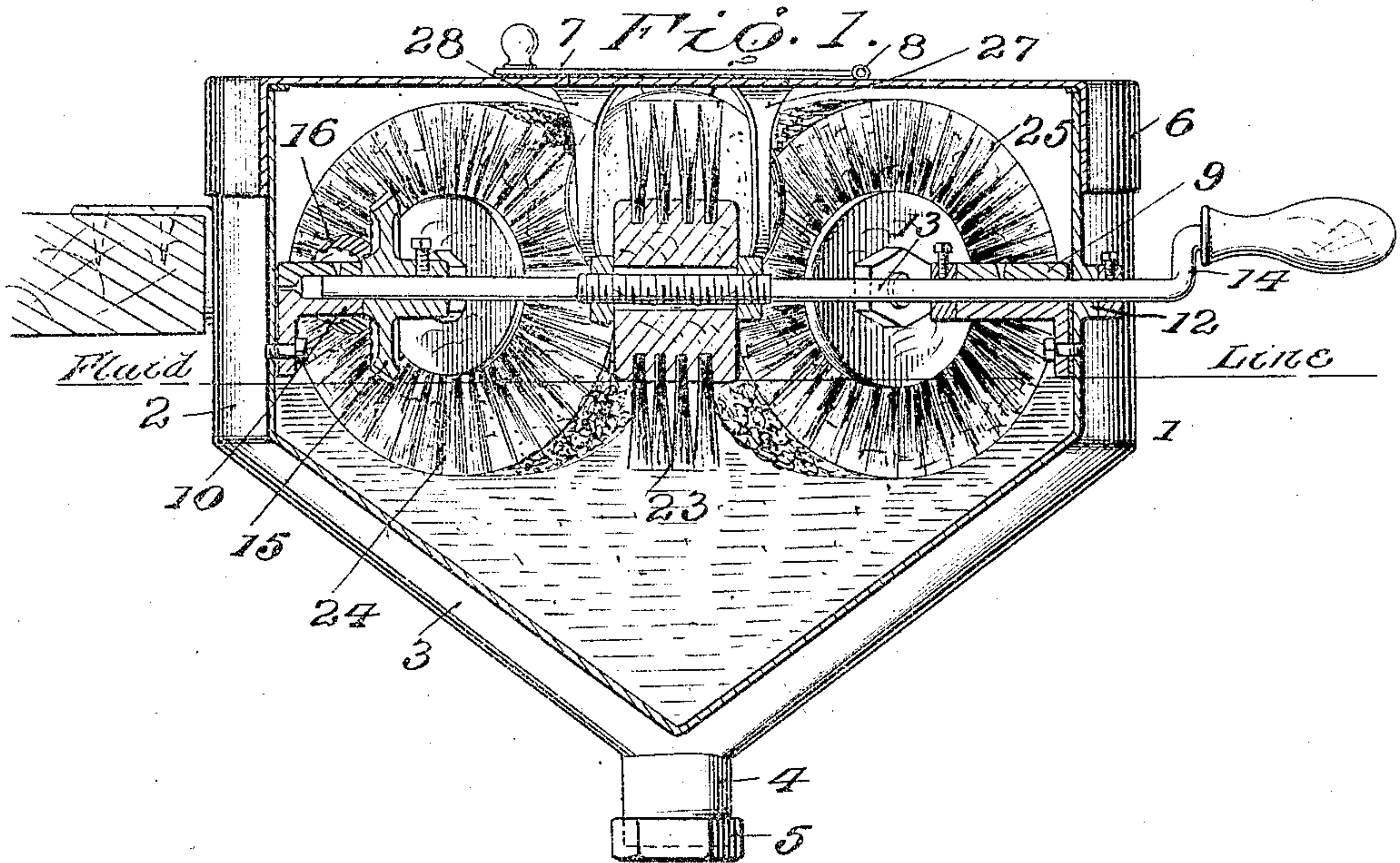
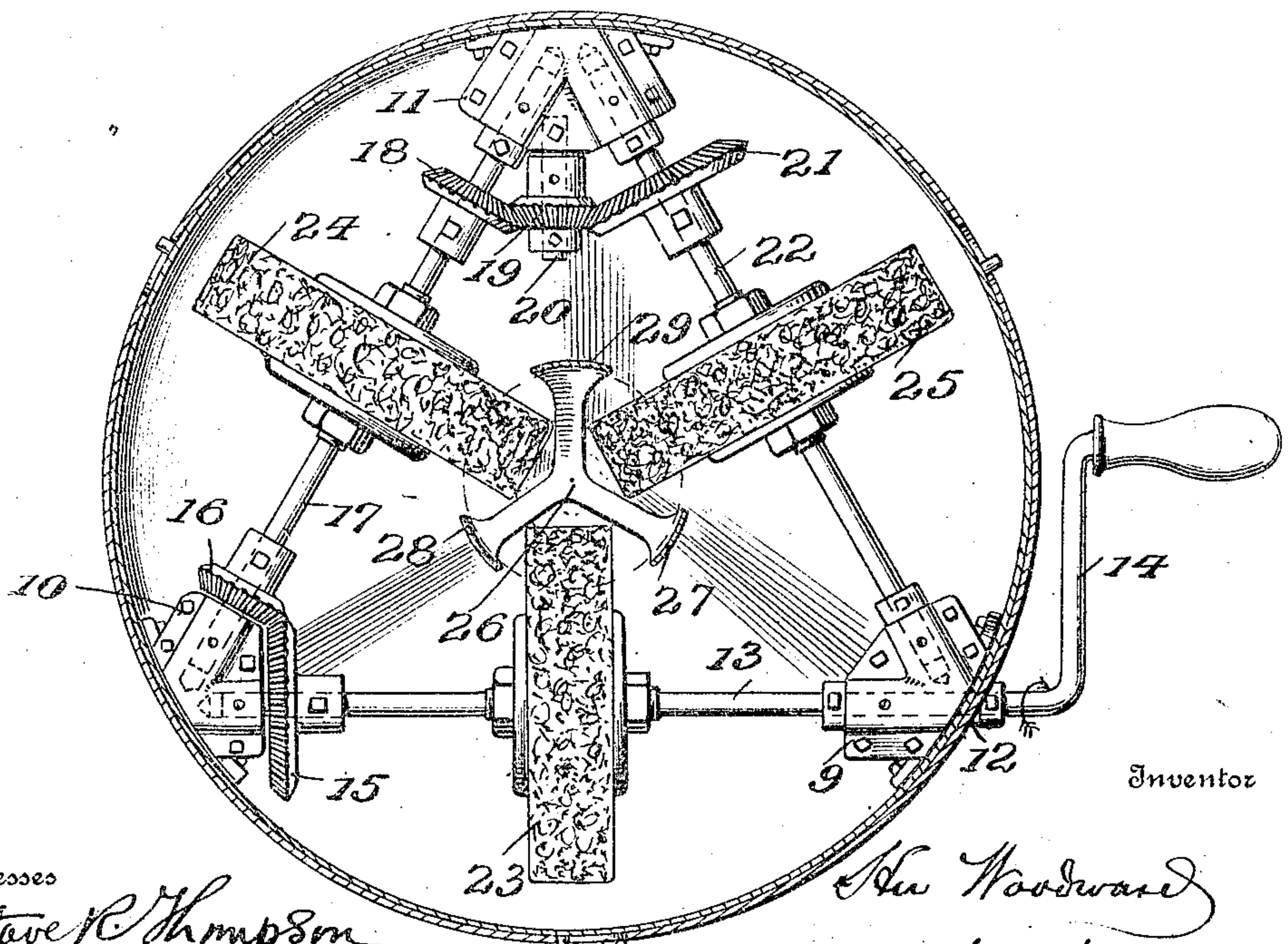


Fig. 2.



Witnesses
J. R. Thompson
Frederick A. Holton.

H. Woodward
Attorneys
Maurice Cameron Lewis Massie

UNITED STATES PATENT OFFICE.

HU WOODWARD, OF KNOXVILLE, TENNESSEE.

GOLF-BALL-CLEANING DEVICE.

No. 928,832.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, HU WOODWARD, of Knoxville, Tennessee, have invented a new and useful Golf-Ball-Cleaning Device, which invention is fully set forth in the following specification.

This invention relates to golf-ball cleaners, and more particularly to devices designed to wash golf-balls that have become soiled by use.

The object of the invention is to provide a device of this character which shall be strong and efficient in operation, which can be manufactured at minimum cost, and which can be readily operated not only by intelligent players, but by the less intelligent caddies and others employed about a golf-course.

With this object in view, the invention consists of a suitable receptacle for containing the cleaning fluid, such as water, combined with revolving means mounted in the receptacle so as to come in contact with the water, which means shall act automatically to grasp and clean the ball without any manipulation thereof by the operator.

The inventive idea involved is capable of receiving a variety of mechanical expressions, one of which for the purpose of illustrating the invention, is shown in the accompanying drawing; it is to be understood, however, that said drawings are for the purpose of illustration only, and not for the purpose of defining the limits of the invention, reference being had to the claims for that purpose.

In said drawings—Figure 1 is a transverse section taken on a plane just outside of the driving shaft, and Fig. 2 is a horizontal section taken on the plane just above the driving shaft, the cleaning devices proper being shown however in full lines.

Referring to the drawings, in which like numerals indicate corresponding parts, 1 is a suitable receptacle for retaining the cleaning fluid, preferably water, said receptacle having the vertical walls 2 and the downwardly inclined walls 3, preferably in the form of an inverted cone, constituting the bottom of the device, which, at its lower extremity, is provided with an opening, here shown as a neck or spout 4, with any suitable closure 5. The receptacle is also provided with a cover 6 for the entire receptacle, in which cover there is provided an opening (shown in dotted lines, Fig. 1), which opening is preferably in the center of the cover

portion and is provided with a door or closure 7, hinged as at 8, to the cover 6.

Mounted on the interior walls of the receptacle 1 are three bearing boxes 9, 10 and 11. Preferably these boxes are made in two parts, that is, a bottom portion and a cap or cover portion, as will be readily understood from an inspection of the drawings, to facilitate the ready assemblage and disassemblage of the parts. Preferably said boxes 9, 10 and 11 are equi-distant from each other and the box 9 has a portion 12 extending outward through the walls of the receptacle 1, which forms a part or continuation of the bearing in said box for the driving shaft 13 whose other end takes bearing in the bearing-box 10. The shaft is provided with any suitable means for supplying power thereto, as for example the crank-shaft and handle 14. Keyed to one end of the shaft 13 is a large bevel-gear 15 meshing with a smaller bevel-gear 16 on shaft 17, which has, near its other end, a small bevel-gear 18 meshing with a bevel-gear 19 carried on stub-shaft 20, which also takes bearing in the bearing-box 11. This bevel-gear 19 also meshes with a large bevel-gear 21 keyed to shaft 22 having bearing in the boxes 9 and 11.

Suitably fixed to shafts 13, 17 and 22 are the cleaning-devices proper, here shown as in the form of brushes 23, 24 and 25, though any other suitable form of revolving cleaning-devices may be substituted for the brushes.

There is suitably supported within the receptacle, and as here shown at the center of the triangle formed by the shafts 13, 17, 22, a ball-support or pocket 26. As here shown, this ball-support is carried by three arms 27, 28 and 29, depending from the cover 6 and meet at their central portions at a point approximately in the horizontal plane extending through the axes of the three brushes or cleaning devices. This support may be formed in other ways, if desired, but the construction above described is efficient and is readily provided by striking down portions of the metal from the cover 6.

By an inspection of the drawings it will be seen that when the crank-shaft 13 is turned in the direction indicated by the arrow, Fig. 2, the brushes or cleaning-devices 23, 24, will be caused to revolve inward and downward, while the brush or cleaning-device 25 will be caused to revolve upward and

outward, the brushes 23 and 25 moving slower than the brush 24.

The operation of the device is as follows: The receptacle being supplied with a suitable cleaning fluid, as water, and the cover 6 being in place, the operator raises the door 7 and lays the golf-ball on the three brushes immediately over the center of the support 23, and the crank-shaft being revolved in the direction indicated by the arrow in Fig. 2, the ball is acted upon the brushes 23, 24 in a direction to force the ball down onto the support 26, while the brush 25 has a tendency to lift the ball from said support. The combined action of the two brushes 23 and 24 being greater than that of the brush 25 the ball is carried down in the pocket or support and, by reason of the fact that the brushes are wet by the water or other cleaning-fluid, they all three have a scraping or cleaning action upon the surface of the ball. In addition to this, the brush 25 has a tendency to revolve and turn the ball, so that, after the crank-shaft has been revolved a number of times, the ball has been turned so as to present all points on its surface to the action of the cleaning-devices or brushes. This having been accomplished, the operator reverses the movement of the crank-shaft, when the brushes 23, 24 promptly act to eject the ball or lift it upward so that it may be removed by the operator.

When the water or cleaning-fluid in the receptacle has become foul or dirty, it may be readily emptied by removing the closure 5. Preferably the receptacle 1 will be constructed of some non-corrosive metal, as aluminum, though it may be constructed of any material suitable for this purpose, and, while, as here shown, the shafting and boxes for the same are mounted upon the walls of the receptacle, they may be mounted upon any suitable support, the essential feature being that there shall be a plurality of revolving cleaning-devices which act to retain and clean the ball by reason of differential action upon the ball during the cleaning operation. Dimensions of parts and materials of construction are not essential, as they may be varied within wide limits without departing from the invention.

Having thus described the invention, what is claimed is:

1. In a cleaning device for golf-balls, the combination of a receptacle adapted to contain a cleaning-fluid, a plurality of revolving ball-cleaners mounted to dip in said fluid, and a ball-support between said cleaners.

2. In a cleaning device for golf-balls, the combination of a receptacle adapted to contain a cleansing-fluid, a ball-support within said receptacle, and a plurality of ball-cleaners revolving in one direction and an-

other ball-cleaner revolving in the reverse direction.

3. In a cleaning device for golf-balls, the combination of a receptacle adapted to contain a cleansing-fluid, a cover or closure therefor, a ball-support within said receptacle, and a plurality of revoluble brushes symmetrically arranged around said support.

4. In a cleaning device for golf-balls, the combination of a receptacle adapted to contain a cleansing-fluid, a cover or closure therefor, a ball-support within said receptacle, an opening in said cover over said support, and a plurality of revoluble brushes symmetrically arranged around said support.

5. In a cleaning device for golf-balls, the combination of a receptacle adapted to contain a cleansing-fluid, bearings mounted on the inner walls of said receptacle, a plurality of shafts (one of which is a driving shaft) turning in said bearings, a ball-support within said receptacle, and a plurality of brushes carried by said shafts in proximity to said support.

6. In a cleaning device for golf-balls, the combination of a receptacle adapted to contain a cleansing-fluid, a plurality of shafts mounted to turn within the receptacle at different speeds, a ball-support, and ball-cleaners mounted on said shafts in proximity to said support.

7. In a cleaning-device for golf-balls, the combination of a receptacle adapted to contain a cleansing-fluid, a plurality of ball-cleaners mounted to revolve within said receptacle, a cover or closure for said receptacle, and a ball-support carried by said cover.

8. In a cleansing device for golf-balls, the combination of a receptacle adapted to contain a cleansing-fluid, a ball-support within said receptacle, and a plurality of ball-cleaners mounted in proximity to said support, and means revolving said cleaners in different directions and at different speeds.

9. In a cleaning device for golf-balls, the combination of a receptacle adapted to contain a cleansing-fluid, a ball-support, a revoluble ball-cleaner mounted in said receptacle, a second ball-cleaner mounted to revolve in said receptacle in the same direction as, but at a different speed from, said first cleaner, and a third ball-cleaner mounted to revolve in a different direction from said first two cleaners.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

HU WOODWARD.

Witnesses:

S. T. CAMERON,
R. P. FITZHUGH.