United States Patent [19]

Molinaro

[11] **3,908,996**

[45] **Sept. 30, 1975**

[54] **GAME BALL RAMMER**

[76] Inventor: **John M. Molinaro,** 340 Nancy Ln., San Jose, Calif. 95127

[22] Filed: **Aug. 2, 1974**

[21] Appl. No.: **494,378**

[52] **U.S. Cl.** ..... **273/83;** 273/67 C; 273/168; 273/175; 273/167 C

[51] **Int. Cl.**[2] **A63B 59/10**

[58] **Field of Search** .... 273/67 R, 67 C, 77 R, 80 C, 273/81.3, 83, 164, 167–175, 193 R, 193 A, 194 R, 70; D34/5 CQ, 5 GC, 5 GH; 145/29 R

[56] **References Cited**

UNITED STATES PATENTS

1,177,266	3/1916	Pedersen	273/67 C
1,436,579	11/1922	Dayton	273/168 X
1,567,765	12/1925	Spaulding	273/83 X
1,654,916	1/1928	Boyce	273/168 X
2,665,909	1/1954	Wilson	273/168 X
3,103,359	9/1963	Gentile	273/70 X
3,260,525	7/1966	Ortel	273/77 R
3,394,937	7/1968	Allport	273/167 C UX
3,430,963	3/1969	Wozniak et al.	273/168 X
3,578,325	5/1971	Teas	273/83 X
3,637,218	1/1972	Carlino	273/167 CX
3,771,788	11/1973	Hurley et al.	273/83 X
3,825,258	7/1974	Frierman	273/168 X
D179,002	10/1956	Hoffmeister	D34/5 GH
D200,585	3/1965	Cefaly	D34/5 GH

FOREIGN PATENTS OR APPLICATIONS

706,285	3/1965	Canada	273/168

Primary Examiner—Richard J. Apley
Attorney, Agent, or Firm—Jack M. Wiseman

[57] **ABSTRACT**

A ball rammer includes a rammer head formed of a solid member of cold rolled steel, having an elongated cylindrical surface and flat ends which are joined to the cylindrical surface by the respective arcuate surfaces. A handle of the ball rammer is joined to the head approximately tangentially at a mid point of the cylindrical surface. One of the flat surfaces is smaller than the other and is somewhat pointed so that different effects are realized by using each end to strike a game ball.

6 Claims, 4 Drawing Figures

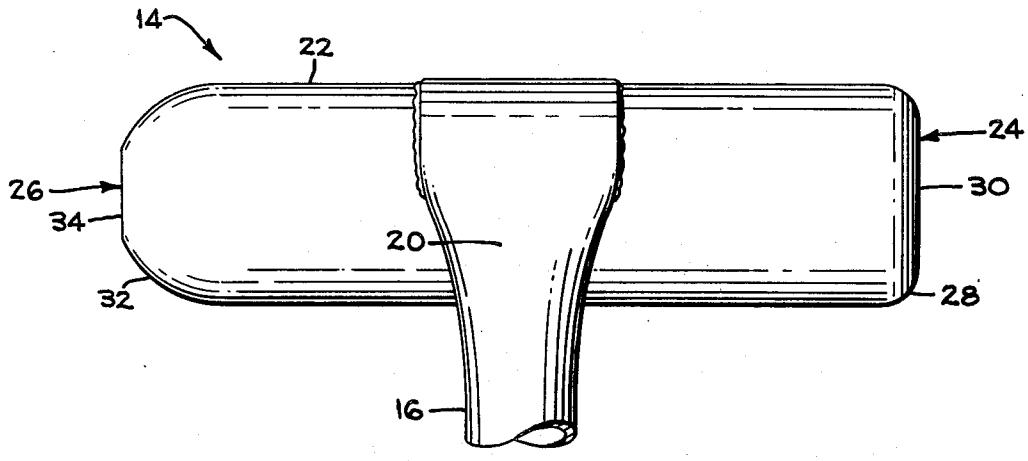


Fig-1

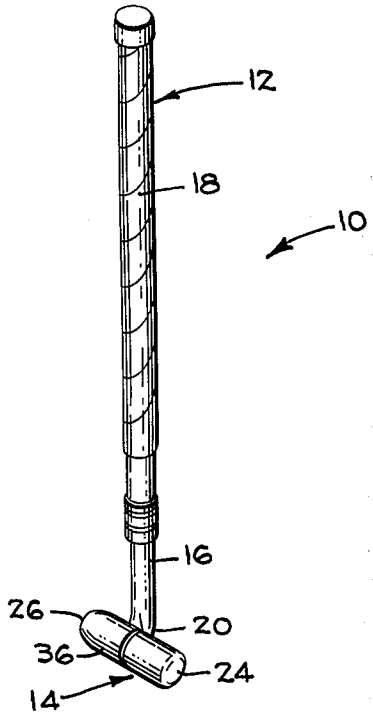
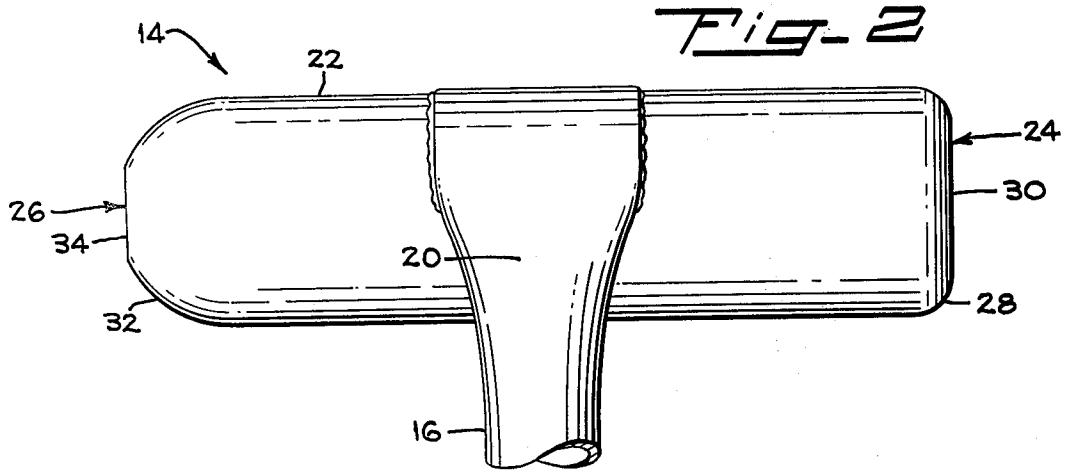


Fig-2



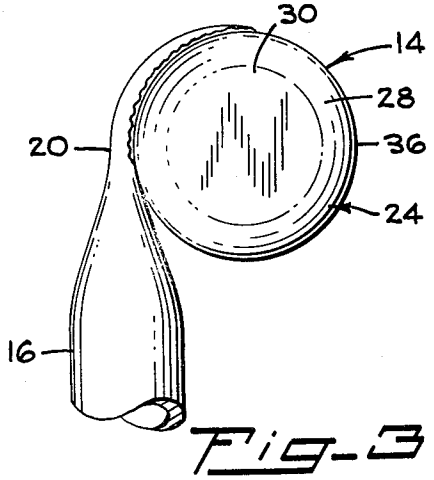


Fig-3

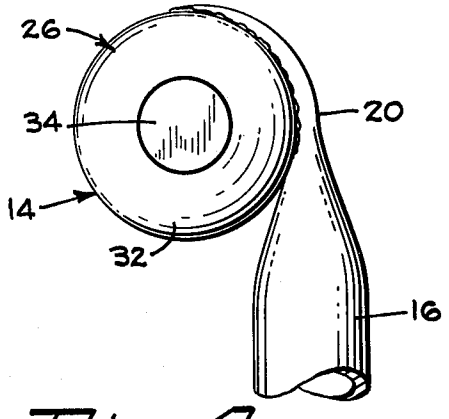


Fig-4

GAME BALL RAMMER

BACKGROUND OF THE INVENTION

1. Field of the Invention

This invention relates generally to an instrument for striking a game ball and more particularly, to a ball-impacting rammer having a plurality of ball-striking surfaces, each providing a different effect.

2. Prior Art

A large number of games are known in which a ball is propelled along a course by means of an implement, such as a mallet. Croquet is typical of such games. In the well-known game of croquet, for example, wooden balls and mallets are employed. It is often the practice to provide the striking ends of the mallet with a cushion of rubber or similar material to absorb the shock which results upon impact. In croquet, as well as in other similar games, it is generally the practice to employ a mallet which does not weigh significantly more than the weight of the game ball. Because of this weight relationship, the mallet will tend to bounce back from the game ball upon impact therewith. This reaction reduces the effectiveness of the impact and does not contribute to an effective and desirable follow-through in the mallet swing.

In such games, it is often necessary to propel the game ball a considerable distance with little regard for accuracy and also to propel the game ball relatively short distances with a great degree of accuracy. The mallet employed in the croquet, for example, is provided with only one type of ball-impacting surface. Accordingly, different ball-striking effects cannot be achieved with such a mallet.

An example of a croquet mallet is disclosed in U.S. Pat. No. **3,079,153,** in which the mallet head is constructed of solid maple wood which is provided with firm rubber or plastic tips at each end thereof. It can be appreciated that the weight of such a mallet does not contribute efficiently to its inertia to reduce sufficiently deflection thereof to a minimum amount when striking a game ball.

U.S. Pat. No. **1,625,265,** discloses a mallet having a relatively heavy metal spherical head provided with a pair of sockets for receiving wooden wedge plugs. The plugs project from the body of the head member and are provided with leather ball-engaging pads thereon. These pads absorb some of the forces which result when striking the game ball. U.S. Pat. Nos. **1,567,765** and **3,578,325** disclose mallets having different ball-engaging or striking surfaces at opposite ends thereof.

SUMMARY OF THE INVENTION

It is, therefore, an object of the present invention to provide an implement for striking a game ball having a ball rammer head which has a weight which is substantially greater than the weight of such a game ball and has a relatively hard and unyielding ball-striking surface.

Another object of the present invention is to provide an implement for striking a game ball having a ball rammer head with a plurality of ball-impacting surfaces of different configurations.

These and other objects of the present invention are attained by the provision of a ball rammer head which is constructed of a relatively heavy material, such as cold rolled steel, such that it weighs considerably more than an associated game ball, and which is provided with relatively hard and unyielding ball-striking surfaces. A feature of the present invention resides in the use of a relatively hard and unyielding material, such as steel, to form the ball-striking surfaces.

Another feature of the present invention resides in the provision of a plurality of ball-striking surfaces which are of different configurations to provide different ball-impacting effects.

Still another feature of the present invention resides in the provision of a handle member which is mounted substantially tangentially onto the ball rammer head, such that a corresponding game ball can be struck with the portion of the rammer head between its ends.

These and other objects, features and advantages of the present invention will be more fully realized and understood from the following detailed description, when taken in conjunction with the accompanying drawings, wherein:

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** is a view in perspective of a game ball-impacting rammer constructed in accordance with the principles of the present invention.

FIG. **2** is a plan view, partially broken away, of the rammer head of the implement illustrated in FIG. **1.**

FIG. **3** is an end view, partially broken away, of the rammer head illustrated in FIG. **2.**

FIG. **4** is another end view of the rammer head illustrated in FIG. **2.**

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

With reference to FIG. **1,** there is shown a ball rammer generally designated with the reference number **10,** which is constructed in accordance with the principles of the present invention. The rammer **10** includes a handle **12** and a ball rammer head **14.** The handle **12** is preferably formed of a tubular steel shaft **16,** having a hand-gripping material **18** mounted thereon. The shaft **16** is connected to the head **14** substantially tangential at a mid-point of the cylindrical surface and is preferably welded thereto in a wrap-around manner. The shaft **16** is provided with a bend **20** at one end thereof and adjacent its point of attachment to the rammer head **14.**

As shown more clearly in FIGS. **2–4,** the rammer head **14** includes an elongated cylindrical surface **22** which terminates with partially rounded ends **24** and **26.** End **24,** as shown in FIGS. **2** and **4,** includes a truncated substantially hemispherical surface **28** which is joined tangentially with the cylindrical surface **22** and, at its inner edge, tangentially with a flat surface **30.** End **26,** as shown in FIGS. **2** and **3,** includes a truncated substantially hemispherical surface **32** which joins tangentially with the cylindrical surface **22.** A flat surface **34** of lesser area than the flat surface **30** is formed by the truncated substantially hemispherical surface **32.** The surfaces **30** and **34** form ball-impacting surfaces which are relatively hard and unyielding. A portion of the cylindrical surface **22,** which is generally designated with the reference numeral **36,** also forms a ball-impacting surface, since the handle **18** is mounted substantially tangentially to the cylindrical surface **22.**

In a constructed or preferred embodiment of the present invention, the rammer head **14** was constructed of cold rolled steel, weighing approximately **3½** to **4**

pounds, and was used with a game ball of relatively hard plastic composition material, weighing approximately 1 pound 12 ounces. The rammer head 14 had an overall length of 5½ inches and a diameter of 1½ inches. The substantially hemispherical surface 32 had a radius of ¾ inch, and the substantially hemispherical surface 28 had a radius of ¼ inch. The flat surface 30 had a diameter of 1 inch, and the flat surface 34 had a diameter of ⅝ inch. The game ball employed with the implement of the present invention had a diameter of 4 inches.

It can be appreciated that the surfaces 30 and 34 can be employed for striking a game ball by swinging the implement 10 across one's body, such as in an abbreviated golf swing. The surface 36 can be employed to strike a game ball by swinging the implement 10 between one's legs, such as the familiar method of swinging a croquet mallet. The surfaces 30 and 36 are employed to strike the game ball when it is desired to propel it a considerable distance. However, when accuracy and control are needed, the surface 34 is employed for striking the game ball. If it is desired to provide a small amount of lift to the game ball, such a lift can be accomplished by appropriately striking the game ball with the surface 36. The relatively hard and unyielding surfaces 30, 34 and 36, and the relative weight of the head 14 to the weight of the game ball permit the game ball to be struck without substantially deflecting the head 14 from its path of travel.

I claim:

1. An instrument for striking a relatively hard plastic ball, comprising:

a. an elongated cylindrical head of hard and relatively unyielding metal having a first striking surface comprising the cylindrical surface of said rammer head, said rammer head having adjacent one end thereof a first arcuate surface curved toward the axis of said cylindrical surface for a predetermined first arcuate distance and joined tangentially with said cylindrical surface at one edge and with said rammer head terminating in a second striking surface at said one end, said second striking surface having a planar ball striking surface perpendicular to said axis and being tangent to said first arcuate surface at its other edge, said rammer head having adjacent the other end thereof a second arcuate surface curved toward said axis for a predetermined second arcuate distance and joined tangentially with said cylindrical surface at one edge and with said rammer head terminating in a third striking surface at said other end, said third striking surface having a planar ball striking surface perpendicular to said axis and being tangent to said second arcuate surface at its other edge, said first arcuate distance being different than said second arcuate distance and said third striking surface having a greater area than said second striking surface; and

b. a shaft; said shaft having a handle at one end and head attachment means at its other end for securing said shaft to said rammer head perpendicularly thereto.

2. An instrument as claimed in claim 1 wherein said rammer head is of a solid steel material.

3. An instrument as claimed in claim 1 wherein said attachment means comprises the lower part of said shaft being flattened into a curvilinear surface of substantially the same curvature as said cylindrical surface, said curvilinear surface being secured to said rammer head at the cylindrical surface thereof and substantially tangentially thereto in a wrap-around manner.

4. An instrument as claimed in claim 3 wherein said rammer head is of a solid steel material.

5. An instrument as claimed in claim 4 wherein said shaft is secured to said rammer head midway between the ends of said cylindrical surface.

6. An instrument as claimed in claim 1 wherein both said arcuate surfaces have a truncated hemispherical configuration.

* * * * *