Feb. 22, 1949. R. G. STEWART 2,462,436

CURLING STONE

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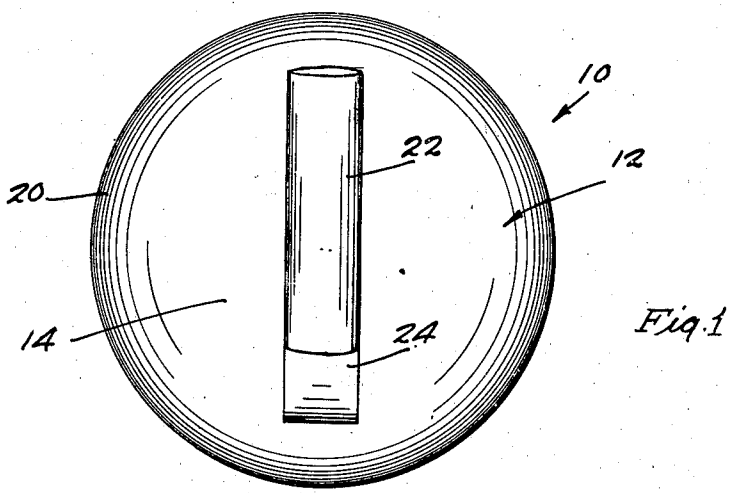


Fig. 1

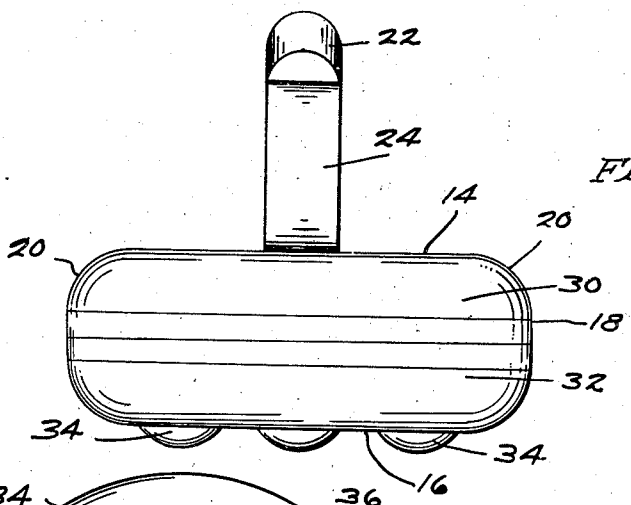


Fig. 2

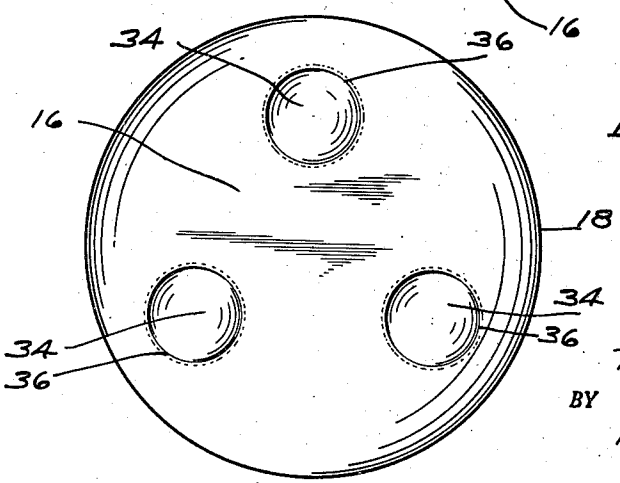


Fig. 3

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Fig. 4

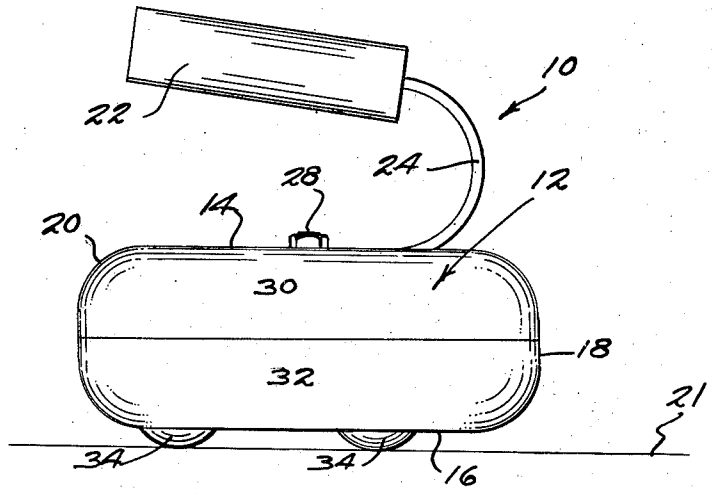


Fig. 5

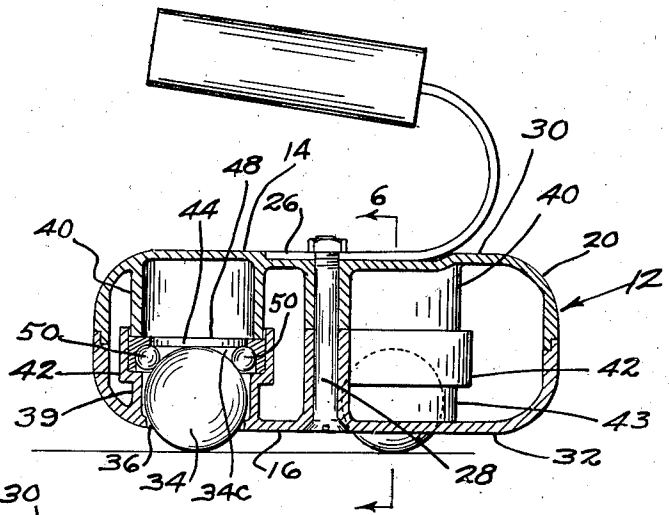
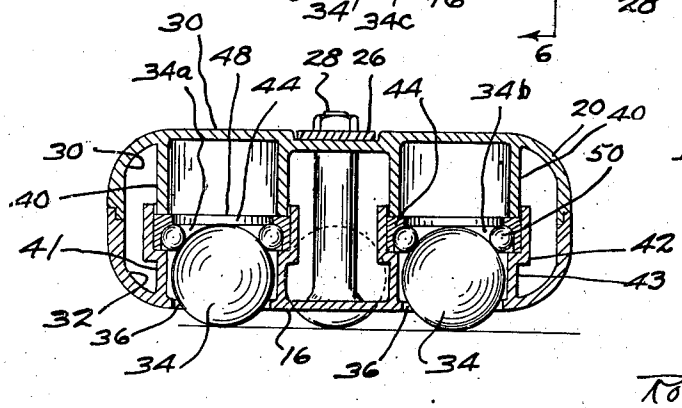


Fig. 6



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UNITED STATES PATENT OFFICE

2,462,436

CURLING STONE

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Application June 17, 1946, Serial No. 677,341

2 Claims. (Cl. 273—128)

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The present invention is directed to a playing piece or curling stone adapted to be used in the game "Curlette," a modification of the Scotch game curling, and which latter game is of uncertain origin, but which has been popular in Scotland for a great many years as a winter sport, a game which being subject to certain rules and regulations, essentially comprises casting and/or causing stones of considerable weight to slide across a surface of ice to a scoring place.

The Scotch game as played today, not only includes the use of curling stones which may weigh as much as 70 pounds, but also includes the use of curling irons, that is, a playing piece for the game curling, in which the playing pieces are formed of iron, and which are used upon a rink of smooth and hard ice, in the same manner that curling stones are used.

The playing piece or curling stone of the present invention is primarily adapted to be the playing piece used, as above stated, in the game "Curlette," in which it is proposed to form playing fields having exceedingly smooth surfaces of iron, over which the curling stone of the present invention may be caused to travel to or toward a scoring place; accordingly and in view thereof, it is a principal object of the invention to provide a playing piece or curling stone adapted to be used upon a surface other than ice.

A further object of the invention is to construct a curling stone which is adapted to move upon anti-friction means over a field of play.

A still further object of the invention is to provide a curling stone having anti-friction surfaces adapted to carry the curling stone in its movement toward a goal, and in which curling stone a degree of control in its movement toward a goal line or scoring place may be had by reason of freedom of movement afforded by said anti-friction means.

Another object of the invention is to construct a curling stone for fields of play based on land, and in which the playing piece has a low center of gravity to provide a great degree of inherent stability upon impact with other like playing pieces or curling stones.

A still further object of the invention is to provide a playing piece for the game "Curlette," in which the weight of the playing piece or curling stone is carried upon a plural number of deeply set and independently functioning steel balls resting up anti-friction means, and being so arranged with respect to the body of the curling stone that the steel balls cannot become dislodged therefrom upon impact.

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Other objects of the invention and features and advantages inherent therein, may be noted from the accompanying drawing, the specification, and sub-joined claims.

In the drawing, of which there are two sheets:

Figure 1 is a plan view of the playing piece or curling stone of this invention; and,

Figure 2 is a front elevational view thereof; while,

Figure 3 is a bottom-plan view of the curling stone.

Figure 4 is a side elevational view of the curling stone.

Figure 5 is a longitudinal view in section showing interior construction and arrangement with respect to the steel balls upon which the curling stone moves, and with respect to the anti-friction means therefore.

Figure 6 is a transverse sectional view taken substantially on line 6—6, in Figure 5, showing detailed construction not otherwise notable.

The article of this invention, as indicated by the title, comprises a playing piece or curling stone 10 for a game, and is formed as shown in the drawing, with a body portion 12, having in preferable form, substantialy flat and equi-spaced horizontal upper and lower surfaces 14 and 16, bounded by circular sides 18 which merge with the top and bottom in a radius 20, while a handle 22 is fixedly secured upon the back-sweep of a metal strap 24, the end 26 of which is fixedly secured to the top surface 14 of the body portion 12 by means of a bolt and nut 28, the former of which extends transversely of the body 12 and in the medial vertical center thereof.

The body portion 12 as shown, is formed in matched half-portions 30 and 32, the abutting edges or faces of which are of stepped configuration whereby upon being drawn together by means of the bolt 28, the half-portions are in fixed relationship with respect to one another so that relative movement therebetwen is quite impossible.

As shown in the several figures of the drawing, the playing piece is adapted to move, over a playfield indicated by the line 21, upon a plural number of steel balls 34, a segment only of which extends below the bottom surface 16 through openings 36 formed therein, and which openings are of smaller diameter than the diameter of the balls 34 so that after installation, the balls cannot become disengaged from the curling stone with which they are individually associated, being in fact, imprisoned within the annular spaces 34a, 34b and 34c as defined by the upwardly extend-

ing protrusions 39, 41 and 43, formed as integral elements of the half-portion 32, and the steel balls 50 of the bearing races 44 which rest upon annular steps 42 formed in the elements 39, 41, and 43.

The upper surfaces 48 of the bearing races are in flush contact with the lower faces of the cylindrical protrusions 40, formed integrally with and downwardly extending from the half-portion 30, so that when the elements 30 and 32 are drawn down tightly by the bolt 28, the bearing races 44 are fixedly secured in functional position and carry the weight of the whole of the assembly, for the bearings 50 ride upon the upper surface of the balls 34, which of course resist downward movement of the whole of the assembly, and hence support it in functional position upon a play-field 21, and in this connection it should be mentioned, that the extent of protrusion of the balls 34 from the body of the curling stone is the measure of clearance thereof with respect to the play-surface and hence controls the stability when in action.

The preceding description is believed to be inclusive of essential construction involved in the play-piece or curling stone of this invention, and that it will appear therefrom that I have conceived a novel construction in a play-piece or curling stone for the game "Curlette," for use on play-fields for this game which are especially laid out and arranged so that the curling stone may be controllably advanced from a starting point to a scoring place.

The curling stone of the present invention is intentionally provided or made with considerable weight so that momentum imparted thereto will carry it to its scoring place with ease and rapidity, although the curling stone is susceptible of a great degree of controlled movement by imparting a twist thereto during the casting movement, while at the same time it possesses a great degree of inherent stability upon impact with other like playing-pieces because of the low point of the center of gravity established therein.

Having thus described my invention, what I claim and desire to secure by Letters Patent is:

I claim:

1. In a curling stone: a body comprising upper and lower mating sections; the lower section having a plurality of recesses therein, each recess being bounded by an upwardly facing shoulder on said lower section; a ball in each of said recesses projecting from the undersurface of said lower section; a removably mounted bearing race separate from said sections engaging each shoulder; bearing balls within said race and engageable with said race and ball; and means on said upper body section engaging the upper ends of said races for clamping and holding them downwardly against said shoulders.

2. In a curling stone: a body comprising upper and lower mating sections; the lower section having a plurality of upwardly extending hollow projections, each projection having an upwardly facing shoulder therein; a ball in each projection extending from the undersurface of said lower section; a bearing race in each projection and resting upon each shoulder; bearing balls between and engageable with each race and ball; and depending projections on said upper section piloted within said upwardly extending projections for holding said races against said shoulders.

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