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2,629,601

SHUFFLEBOARD PIN

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Fig. 1

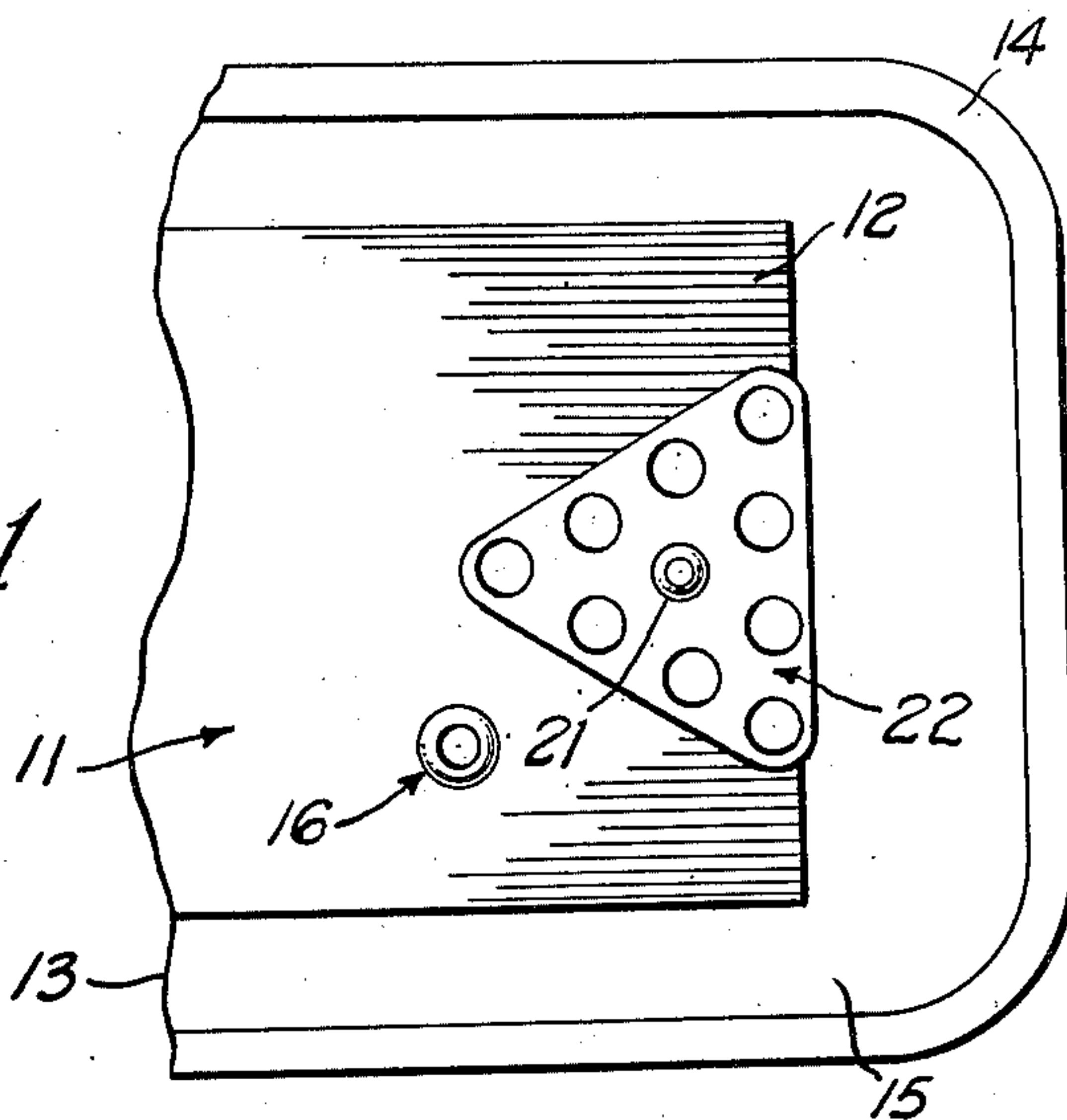


Fig. 2

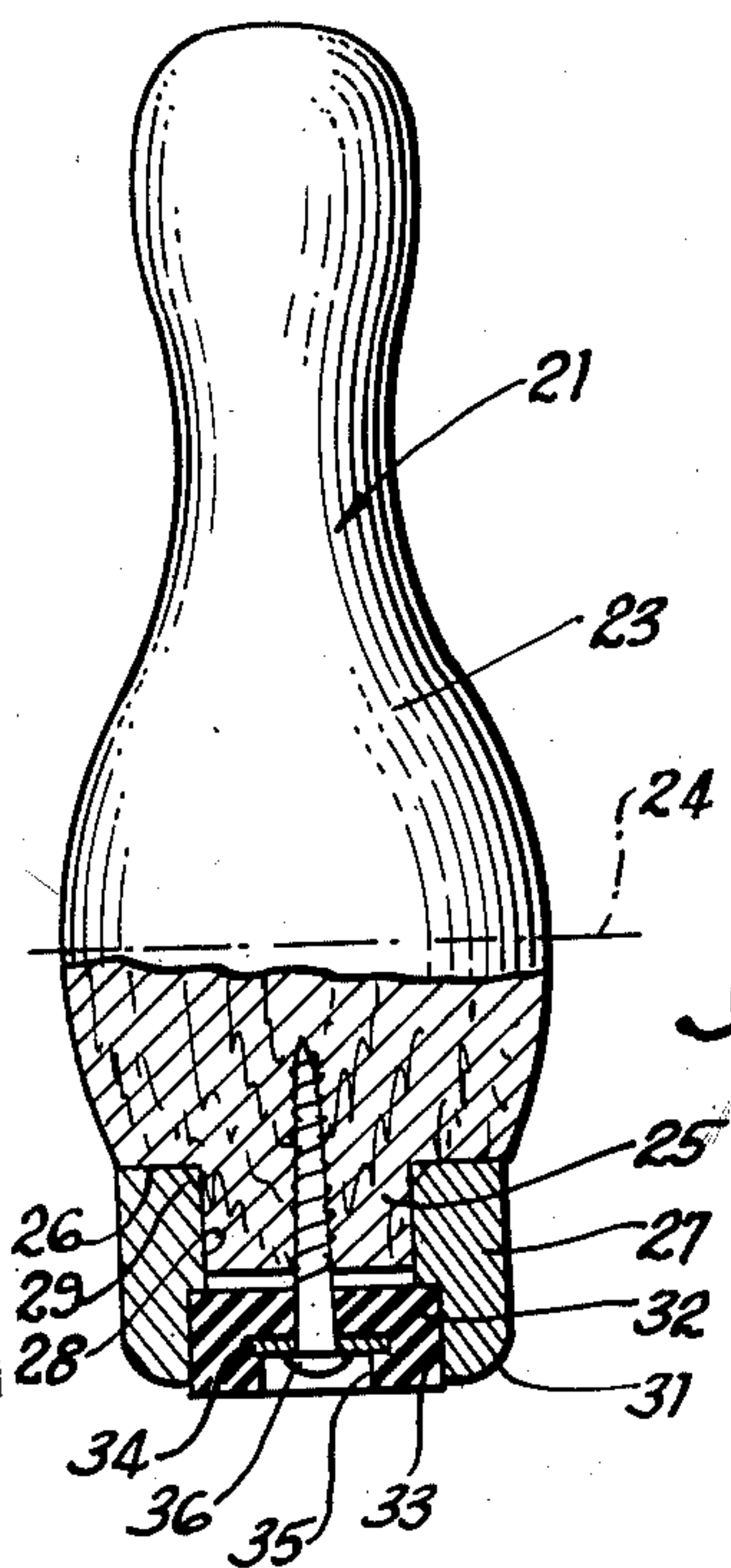
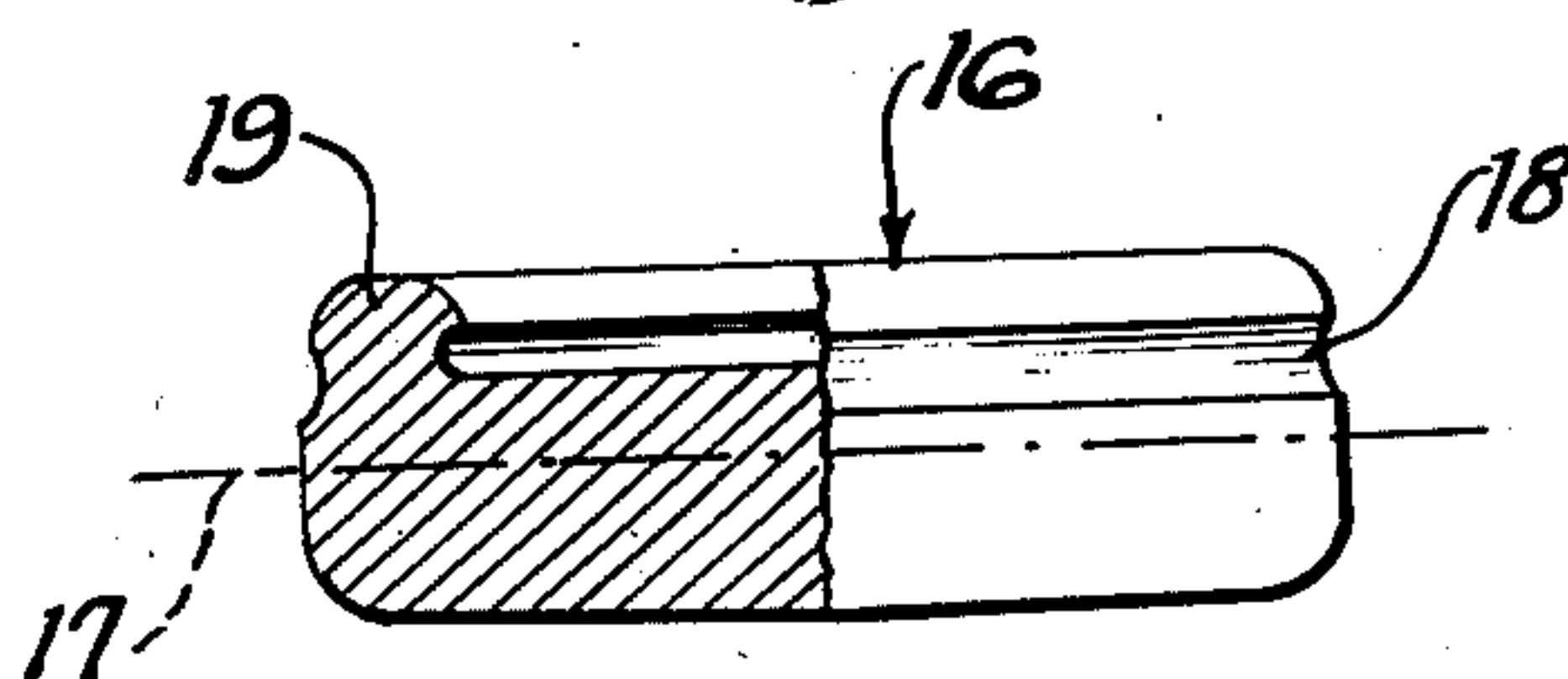


Fig. 3



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SHUFFLEBOARD PIN

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2 Claims. (Cl. 273—127)

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This invention relates in general to games, and more particularly to novel apparatus for use in tenpin types of games.

A principal object of the invention is to enable ready replacement of the wood portion of composite pins for table-type tenpin games, which employ a combined metal and rubber base for the pins, so as to materially reduce the upkeep cost of such games.

Tenpins for use in these types of games originally were made wholly from wood. With the advent of increased popularity of table shuffleboard, it was discovered that an extremely interesting form of tenpins could be played using a shuffleboard table as the "alley" and the regular metal shuffleboard weights or "pucks" instead of balls.

Another important object of the invention, therefore, is to render wood pins suitable for such use in a tenpin game, employing a shuffleboard table and metal weights, by providing the same with a metal base portion for receiving the impact of a weight slid along the surface of the table, and a bottom insert of rubber or other suitable resilient material to prevent marring scratching or other injury of the highly polished table surface by such metal base portion.

A further object is to so dispose such a resilient insert within the metal base portion of the pin that it extends only a very short distance below the bottom surface of the metal base and is otherwise wholly confined within the base a substantial radial distance from the outer periphery thereof, and to round off the adjacent annular bottom surface of the metal base portion, whereby the puck or metal weight will contact only the metal base portion of the pin and the latter will not damage the playing surface either when it is bowled over from its normal upright position or when it is dropped vertically onto the playing surface when being placed in such normal position.

Another object of the invention is the provision of novel means for removably attaching such metal base portion to a wooden tenpin, which includes counterboring the metal base to receive the resilient insert so that the insert retains the metal base on the pin, and forming the insert with an interiorly and horizontally disposed metal washer for contact by the head of a wood screw screwed axially into the base of the pin, so that the resilient insert also functions to maintain axial tension on such retaining screw to prevent accidental loosening thereof.

Numerous other objects and advantages of the

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invention will be apparent as it is better understood from the following description, which, when taken in connection with the accompanying drawings, discloses a preferred embodiment thereof.

In the drawings:

Figure 1 is a top plan view of one end of a table-type shuffleboard, showing a tenpin embodying the features of the instant invention disposed thereon in operative position in a setting rack and a shuffleboard weight at one side thereof;

Fig. 2 is a full size elevational view of the tenpin of Fig. 1, with the lower portion thereof in vertical section; and

Fig. 3 is a full size elevational view of a shuffleboard weight, with the left half thereof shown in vertical section.

Referring more particularly to the drawings, reference numeral 11 indicates in general a table-type shuffleboard, which includes a laminated playboard 12 mounted upon and supported by a table structure 13 having an upstanding marginal rail 14 spaced laterally and longitudinally from the playboard 12 to provide an intervening gutter space 15. The game of shuffleboard, as played with such a table 11, customarily employs a metal weight or "puck" 16 (Fig. 1), the details of construction of which are better illustrated in Fig. 3. It will be understood that this shuffleboard weight 16 may be of any desired construction, such as those disclosed in U. S. Letters Patent No. 2,425,966, issued August 19, 1947, to E. H. Tjomsland, and No. 2,467,043, issued April 12, 1949, to Paul Kotler, and that all such weights of different manufacture currently in use employ substantially standard dimensions of diameter and thickness or vertical height. The weight illustrated in detail in Fig. 3 comprises an outer peripheral surface of maximum diameter in the horizontal plane passing through its center of gravity, as represented by the broken line 17. Above this line, the weight 16 is provided with an annular groove 18 and a top portion 19 having a lesser peripheral diameter than that of the main part of the weight. Consequently, when one weight 16 is resting upon the playing surface of the shuffleboard 12 as illustrated in Fig. 1, and another such weight is slid along this surface in the direction of or toward the first weight, the resulting contact between these weights will be substantially in the plane of the center of gravity of each of them, as represented by the line 17 in Fig. 3. The purpose of such arrangement is to prevent tipping and flipping over of one weight by another forceably striking the same. Since the shuffleboard 11 and weight 16 are well known

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in the art, no further description thereof is thought to be necessary.

The present invention concerns a game of tenpins which is particularly adapted for play on such a shuffleboard of the table type and employing one or more of such standard shuffleboard weights. The apparatus comprising the embodiment of the instant invention herein illustrated for playing such a tenpin game, in addition to the shuffleboard table 11 and the weights 16, consist of a plurality of tenpins, indicated generally by reference numeral 21 (Figs. 1 and 2). As will be well understood, the game itself is substantially identical to the well-known game of bowling, ten such pins 21 being disposed in substantially equidistant relationship relative to each other in a triangle-forming group at one end of the playboard 12 as by means of a suitable setting rack 22 (Fig. 1), and a shuffleboard weight 16 being slid along the playing surface of the board from the other end thereof by the player (after removal of rack 22) with the object of striking the pins and knocking the same over or out of their set vertical positions. As in bowling, knocking all ten of the pins over with the first weight so slid along the playboard constitutes a "strike" and scores 10 in any given one of ten "frames" comprising a complete game, plus the number of pins subsequently knocked down with the next two weights delivered immediately thereafter and after the pins have been reset. Similarly, knocking down of all ten of the pins with two weights successively delivered in the same frame constitutes a "spare" and scores 10 in that particular frame plus the number of pins subsequently knocked down by the first weight delivered immediately thereafter and after the pins have been reset for the next frame. If less than 10 of the pins are knocked down in the delivery of two weights in any particular frame, the score of that frame comprises the total number of pins so knocked down by the two weights. It will be understood, of course, that any other desired manner of playing a game with the apparatus herein disclosed may be employed, the above-outlined scoring constituting merely a preferred or standard manner of playing such a game.

The tenpin 21 herein illustrated comprises a main body portion 23 of suitable material, preferably being constructed from seasoned maple wood with the grain running axially of the pin. This pin is given a configuration generally similar to standard bowling tenpins, as best illustrated in Fig. 2, having its maximum diameter in a horizontal plane represented by the broken line 24. The pin shown in this figure is drawn to scale for accurate relative comparison with the standard shuffleboard weight 16, also drawn to scale in Fig. 3. As will be seen from these figures, the point of maximum diameter of the tenpin 21, as represented by the broken line 24, is disposed at a distance above the base or bottom of the composite pin which is substantially twice the vertical overall dimension of the puck or weight 16. The lower end of the body portion 23 of the pin is turned down or reduced in cross-section to define a reduced lower end portion 25 terminating at its upper end in a horizontally disposed, annular shoulder 26. In use, this main body portion 23 of the tenpin is that most susceptible to wear, splintering and breakage and a metal base portion 27 is provided at the lower end of the pin to directly receive the impact of the puck or weight 16 to increase the useful life

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of the pin, and this base portion is so designed as to be removably attachable to the main body portion to enable ready replacement of the latter. The metal base portion 27 is formed as a ring or annular member having a main bore 28 of substantially the same diameter as that of the lower end portion 25 of the pin body 23. To insure that contact by a weight 16 will be had only with this metal base portion 27 during play, the vertical dimension of the base portion 27 is made substantially the same as that of the weight. The upper edge of the bore 28 may be countersunk, as indicated in Fig. 2 at 29, to facilitate mounting of the base ring 27 on the end portion 25, and the lower outer edge or corner of this metal base portion is rounded off, as indicated at 31, to prevent cutting, scarring or other damage to the playing surface of the board 12 by the pin.

A resilient insert 32 of rubber, or other suitable material, is mounted in the bottom portion of this base ring 27 to prevent similar damage to the playing surface of the board 12 in the setting up of the pins thereon. This insert 32 comprises a ring or annular member having an outer diameter greater than the diameter of the bore 28 of the metal base 27. The lower end of the bore 28 is counterbored to provide an enlarged portion 33 of a diameter substantially equal to the outer diameter of the insert 32. This counterbore 33, however, extends upwardly into the metal base 27 for a distance slightly less than the vertical dimension of the resilient insert 32. Consequently, when the insert is mounted in the base portion in the manner illustrated in Fig. 2, its lower end protrudes beyond the bottom surface of the metal base. A metal washer 34 is molded into the center portion of the resilient insert 32, that is, the latter is molded around the metal washer, and the lower end of the resilient insert has an enlarged aperture 35 to provide clearance for, and access to, the head of a retaining member, in the form of a wood screw 36, which passes through the insert 32 and washer 34 and is screwed into the main body portion 23 of the tenpin 21. If desired, the reduced lower end 25 of the body 23 may be provided with a suitable axially extending aperture to facilitate entry of the wood screw 36.

As will best be appreciated from Fig. 2, this arrangement of the several component parts of the tenpin 21 results in the resilient insert 32 having the additional function of maintaining the wood screw 36 in axial tension, after the parts have been so assembled, to prevent the metal base member 27 from becoming accidentally removed from the main body of the pin during use. To insure such functioning of these parts the reduced lower end portion 25 of the pin body is made slightly shorter from its bottom surface to the shoulder 26 than the distance from the upper surface of the metal base 27 to the upper edge of the counterbore 33 therein. From the above, it will be understood that a weight or puck 16 will have striking contact only with the metal base portion 27 of a tenpin 21 during play, since the pins will be disposed in a vertical or upright position on the playing surface of the board 12 when the weight is propelled thereon against the pins. As in bowling, the proper procedure after delivery of a weight is to remove from the playing surface those pins 21 which have been knocked over from such upright position. Depending upon the speed with which the weight 16 is delivered against a pin 21, the latter will be either thrown clear of

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the playing surface into the gutter space 15 or marginal rail 14, or it will merely be upset by the weight or thrown into contact with an adjacent pin or pins. In the event the weight strikes exactly in the center of a pin, the latter may have its upper end tilted forwardly, or in a direction opposite that of the travel of the weight, and come to rest on the upper surface of the moving or then stationary weight. Because the maximum diameter of the pin 21 is disposed at the broken line 24 of Fig. 2 and the outer surface of the body portion 23 therebelow curves inwardly, and in view of the rounded character of the upper marginal edge or top portion 19 of the weight, such action will not damage the wood body portion of the pin. However, repeated striking of the body portions of the several pins against each other and against the marginal rail 14 in time will result in the body portions 23 becoming so worn, chipped and splintered as no longer to be of any use. The present invention enables replacement of a worn body portion 23 without requiring the substitution of a completely new tenpin, since the composite base comprising the metal portion 27 and resilient insert 32 may readily be removed therefrom and similarly attached to a new body portion. Obviously this materially reduces the upkeep expense of the instant apparatus.

It is thought that the invention and many of its attendant advantages will be understood from the foregoing description, and it will be apparent that various changes may be made in the form, construction and arrangement of the parts without departing from the spirit and scope of the invention or sacrificing all of its material advantages, the form hereinbefore described being merely a preferred embodiment thereof.

I claim:

1. A tenpin, comprising a main body portion of wood terminating at its lower end in a diametrically reduced portion, a metal base ring having a bore of substantially the same diameter as the outer diameter of said reduced portion so as to be slidably mounted thereon, the lower end of said bore being enlarged to a point spaced from the lower end of said reduced portion when the ring is mounted thereon, a rubber insert having an outer diameter substantially the same as that of the enlarged lower end of said bore and a height slightly greater than the vertical dimension of

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the latter, so that the lower end of the insert extends below the lower edge of the ring when mounted therein, a wood screw extending upwardly through said insert into said body portion, and a metal washer embedded in said rubber insert for contact by the head of said screw, whereby tightening of said screw will displace a portion of said rubber insert into that portion of the bore of said ring disposed below the diametrically reduced end of said body portion to thereafter maintain the screw under axial tension to prevent accidental removal of the base ring from the wood body portion.

2. A tenpin adapted to be set in a vertical position on a horizontal playing surface as a target for a metal puck slid along said playing surface, comprising a main body portion of wood having a lower end of reduced diameter, a metal base ring having a bore of substantially the same diameter as that of said reduced lower end and a height substantially the same as that of the metal puck so as to receive the striking force of the latter, and means for removably securing said base ring to said body portion, comprising an insert of resilient material disposed in the bore of said ring, a wood screw extending through said insert into said body portion, said metal base ring being counter-bored to receive said insert and cause the lower end of the latter to extend a short distance below the bottom edge of said ring, and a metal washer embedded in said insert for contact by the head of said wood screw to cause the resilient insert to maintain the screw in axial tension to prevent accidental loosening thereof during playing use.

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The following references are of record in the file of this patent:

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