Dec. 11, 1934. W. H. WILLIAMS 1,983,722

BOWLING ALLEY PIN AND METHOD OF MAKING SAME

Filed Jan. 22, 1934

Fig. 1.

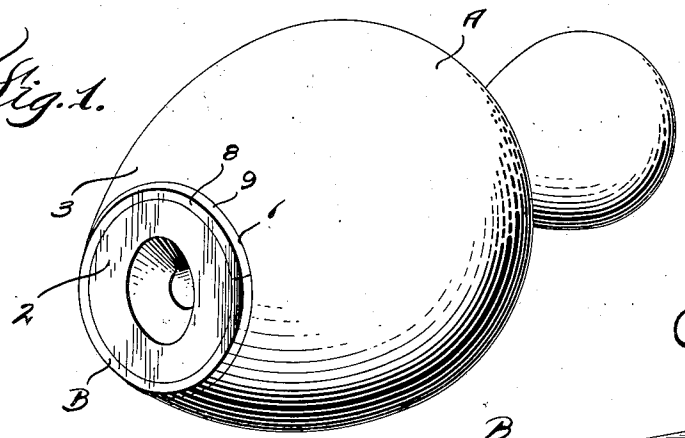


Fig. 3.

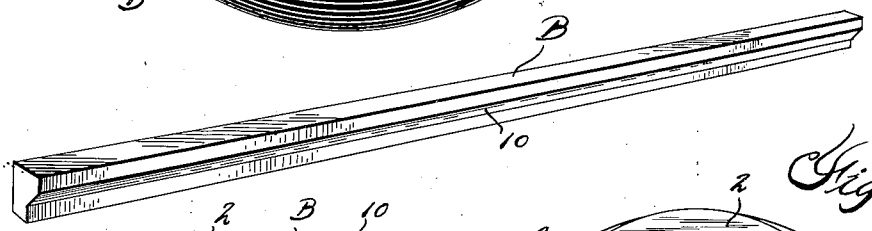


Fig. 2.

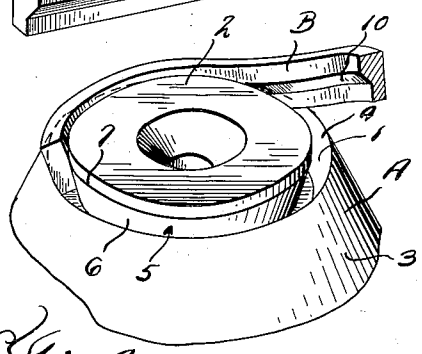
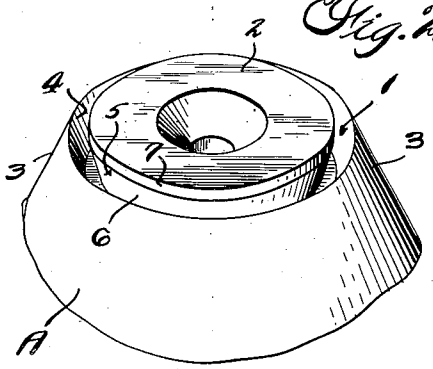


Fig. 4.



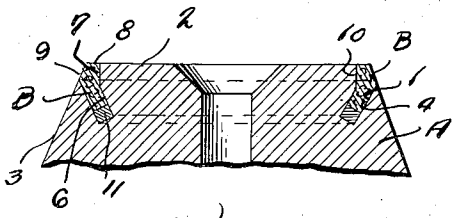


Fig. 6.

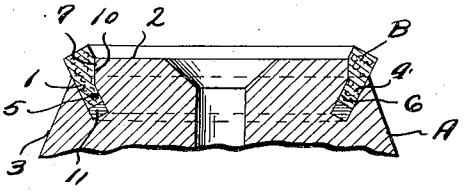


Fig. 5.

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BOWLING-ALLEY PIN AND METHOD OF MAKING SAME

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Application January 22, 1934, Serial No. 707,844

6 Claims. (Cl. 273—82)

This invention relates generally to bowling-alley pins such as tenpins and duckpins, and refers more particularly to the manufacture thereof.

One of the essential objects of the invention is to improve the construction of pins of the type mentioned so that they will withstand the hard usage to which they are subjected without being cut or battered out of shape and without interfering with the usual action of such pins while in play.

Another object is to provide a pin of the type mentioned that is so constructed that it will stand plumb and its equilibrium will be maintained without having to shave or cut off its lower end or bottom as heretofore.

Another object is to accomplish the foregoing without altering or changing the shape of the pin from the conventional and without employing inserts of elastic material that tend to adhere to the woodwork of the alley and to other pins while in use.

In other words, it is an object of the present invention to provide a pin that will move and fall just like a conventional pin formed throughout of hard wood, but without being damaged or damaging other pins or parts of the alley.

Other objects, advantages and novel details of construction of this invention will be made more apparent as this description proceeds, especially when considered in connection with the accompanying drawing, wherein:

Figure 1 is a perspective view of a bowling-alley pin embodying my invention;

Figure 2 is a fragmentary perspective view of the bottom of the pin showing the channel before the cement and cushioning strip are inserted;

Figure 3 is a perspective view of the cushioning strip before it is inserted into the channel in the body of the pin;

Figure 4 is a view similar to Figure 2, but showing the strip partially inserted in the channel;

Figure 5 is a fragmentary vertical sectional view through the pin, but before it has been ground down;

Figure 6 is a view similar to Figure 5, but showing the strip after it has been ground down and in its finished form.

Referring now to the drawing, A is the body and B is the strip insert of a bowling-alley pin embodying my invention. As shown, the body A is formed of relatively hard wood and is conventional in configuration. The insert B is formed of non-elastic material such as sole leather and is preferably cemented within an annular channel 1 in the body A at the bottom or lower end thereof. Preferably the channel 1 is inclined relative to the axis of the body A and opens outwardly at the juncture of the bottom and side faces 2 and 3 respectively thereof. As shown, the outer side 4 of the channel is flat and extends to the side face 3 of the body, while the inner side 5 of the channel has a flat portion 6 substantially parallel to the flat outer side 4 and has a flaring portion 7 that extends to the bottom face 2 of the body. The strip insert B fits snugly in the channel 1 and has flat faces 8 and 9 respectively flush with the bottom and side faces 2 and 3 respectively of the body.

In the process of construction the channel 1 may be formed in the body A by any suitable means (not shown). The insert B is initially cut in strip form with a longitudinally extending beveled face 10, as illustrated in Figure 3 so that it may readily be inserted into the channel 1 and conform to the inner side 5 thereof. If cement such as 11 of any suitable character is placed in the channel 1, the strip B may be assembled with the body A by inserting one end of the strip into the channel and then curving and pressing the remainder of the strip portion-by-portion lengthwise thereof into the channel, as illustrated in Figure 4 until the free end thereof meets the fixed end in the channel. The strip B is then ground down to provide the flat faces 8 and 9 flush with the faces 2 and 3 respectively of the body.

In use the strip insert B forms the corner for the body A at the bottom or lower end thereof and being softer than the hard wood of which the body is formed will not damage the bodies of other pins or the woodwork of the alley or the balls used in bowling. Being non-elastic, the insert B will not adhere to the woodwork of the alley or to the body of other pins. Such insert B is flush with the bottom and sides of the body, hence the pin is of conventional shape and devoid of objectionable protuberances. As a result, such pin will function exactly like the conventional pin formed entirely of hard wood but without damage as heretofore.

What I claim as my invention is:

1. The method of making a bowling-alley pin including the steps for forming a hard wood body of predetermined configuration with bottom and side faces, forming in the body at the juncture of said faces an annular channel with opposite

sides thereof extending respectively to the bottom and side faces of the body, placing an adhesive substance in the channel, inserting one end of a strip of non-elastic material into the channel, then inserting the remainder of said strip portion-by-portion lengthwise thereof into the channel until the free end of the strip meets the end in the channel, and finally grinding down the strip to provide meeting flat surfaces respectively flush with the bottom and side faces of the body.

2. The method of making a bowling-alley pin including the steps of forming a hard wood body with bottom and side faces, forming in the body at the juncture of said faces inclined relative to the axis of the body an annular channel with opposite sides thereof extending respectively to the bottom and side faces of the body, inserting one end of a strip of non-elastic material into the channel, then inserting the remainder of said strip portion-by-portion lengthwise thereof into the channel until the free end of the strip meets the end thereof in the channel, and finally grinding down the strip to provide meeting flat faces respectively flush with the bottom and side faces of the body.

3. A bowling alley pin comprising a body of relatively hard wood having a flat bottom and curved sides, said body being provided at the juncture of said flat bottom and curved sides with an outwardly opening channel, opposite sides of said channel being substantially parallel and inclining inwardly relative to the axis of said body, and a strip insert of softener non-elastic material in said angularly disposed channel substantially filling and conforming to the shape of the said channel, the exposed faces of said insert being flush with the bottom and sides respectively of the body.

4. A bowling alley pin comprising a body of relatively hard wood having a flat bottom and curved sides, said body being provided at the juncture of said flat bottom and curved sides with an outwardly opening channel, the outer side of said channel being flat and inclined relative to the axis of the body and extending to said curved sides, the inner side of the channel having a flat portion substantially parallel to the said outer side and having a flaring portion that extends to the bottom of said body, and a strip insert of softer non-elastic material in said angularly disposed channel substantially filling and conforming to the shape of said channel, the exposed faces of said insert being flush with the bottom and sides respectively of the body.

5. The method of making a bowling alley pin including the steps of forming a hard wood body with bottom and side faces, forming in the body at the juncture of said faces an annular channel with substantially parallel sides inclined relative to the axis of the body and extending to the bottom and side faces respectively of the body, inserting a strip of non-elastic softer material into the channel, and finally grinding down the strip to provide meeting flat faces respectively flush with the bottom and side faces of the body.

6. The method of making a bowling alley pin including the steps of forming a hard wood body with bottom and side faces, forming in the body at the juncture of said faces an annular channel with opposite sides thereof extending to the bottom and side faces respectively of the body, inserting one end of a strip of non-elastic softer material into the channel, then inserting the remainder of said strip portion by portion lengthwise thereof into the channel until the free end of the strip meets the end thereof in the channel, and finally grinding down the strip to provide meeting flat faces respectively flush with the bottom and side faces of the body.

WILLIAM H. WILLIAMS.