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W. H. SOUDER

1,821,037

BOWLING PIN

Filed June 20, 1929

Fig. 1.

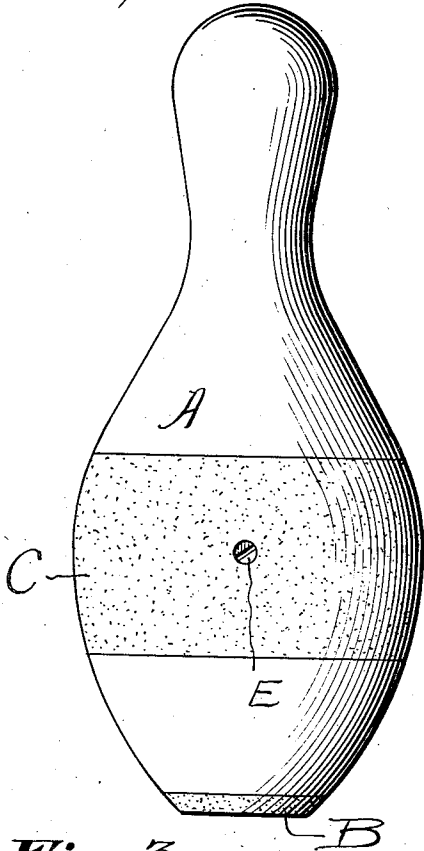


Fig. 2.

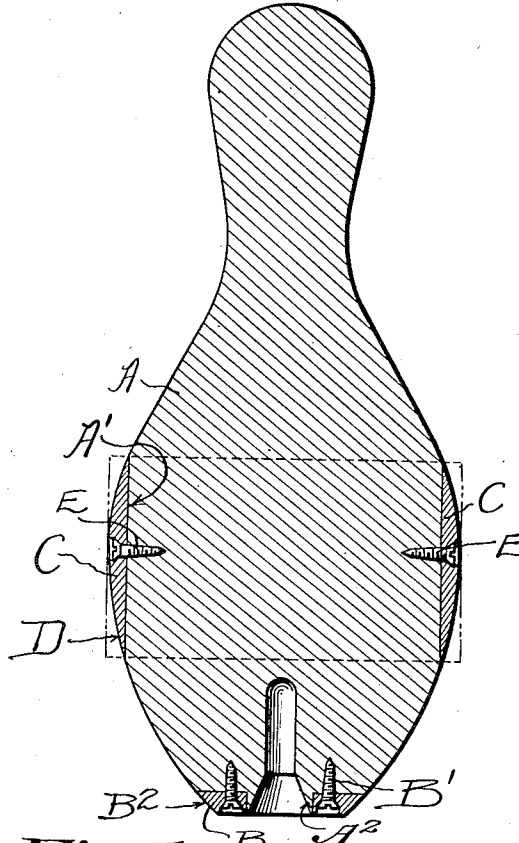


Fig. 3.

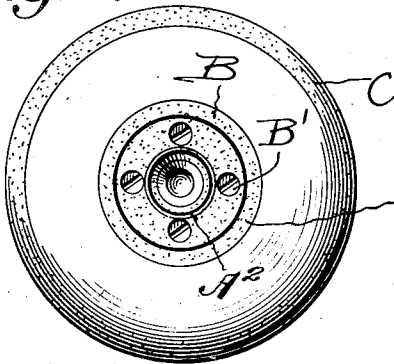
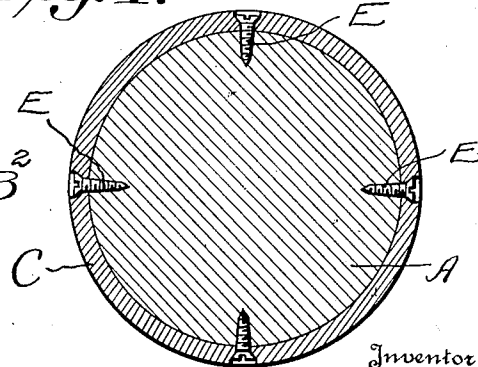


Fig. 4.



WITNESSES:-

Chas. L. Griesbauer

Emory R. Hoff

W.H. Souder,

By S. F. Walchamper

Attorney

UNITED STATES PATENT OFFICE

WILLIAM HOWARD SOUDER, OF WASHINGTON, DISTRICT OF COLUMBIA

BOWLING PIN

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This invention relates to bowling pins, and has particular reference to a novel improvement therein which not only increases the life of the pin; preserves the sound of the pins when struck, but also renders them safer to handle and less liable to injure the pin boys or other pins.

A primary object of the invention is to provide a duck pin or the like having a seamless band of hard vulcanized fiber surrounding the body of the pin and also a hard vulcanized fiber base, both of which are secured or anchored directly to the body of the pin in such a way that the constant battering or force of the ball striking against the pin will not loosen or remove the same, and will also preserve the standard diameter of the pin indefinitely.

With the above and other objects in view the invention consists in the novel features of construction, combination and arrangement of parts hereinafter more fully described, illustrated in the accompanying drawings and defined in the appended claims.

A preferred and practical form of the invention is shown in the accompanying drawings, in which:

Figure 1 is a front elevation of a pin embodying the present improvements.

Figure 2 is a vertical sectional view thereof.

Figure 3 is a bottom plan view; and

Figure 4 is a horizontal cross sectional view.

Similar reference characters designate corresponding parts throughout the several figures of the drawings.

While various expedients have heretofore been used for preserving the life of bowling pins, nevertheless up to the present time the standard wood bowling pin is generally used by preference. The standard pin is made of solid wood and is more or less expensive not only because of the necessity of frequent replacements due to splits and cracks but also because expert bowlers will not roll with pins which have been reduced in diameter by constant impact with each other and with the bowling balls.

Metal bands, rubber bands and metal bottoms as well as composition elements have

been used, but these expedients all have their objections. Pins of the rubber band type are too lively for good bowlers and furthermore they do not provide the "click" or noise that bowlers like when they are struck by the ball. Bowlers frequently demand rubber band pins to be taken from the alley because they sound "dead".

Where metal pins or metal bottoms have been used it has been observed that pins so equipped will present rough or sharp edges which cut the pin boys' hands and furthermore when the pins are struck by the ball, the metal plate or cuff on the bottom of the pin will frequently strike the side of another pin and either make a deep gash, dent or chip therein or in some cases split the pin apart.

It has also been proposed to provide a pin with a hard fibrous sheet or coating which is joined together by a vertical joint and also by a screw or interlocking type of joint transversely of the pin. In that instance, however, the object was more or less to provide a removable casing or cover rather than to provide a permanent part of the pin as is proposed in the present invention.

In providing a bowling pin of the type shown in the present case it is intended to provide a pin which may be made and at all times maintain the standard pin width or diameter and which will be the same weight as the standard pin thereby preserving indefinitely the full regulation characteristics of the pin. Furthermore, the present invention aims to prevent splitting of the pin while at the same time preserving resiliency, and when the pins are struck by the ball they will have the same sound as when standard wood pins are struck thereby not destroying the sport and science of the game for the bowler.

By reference to the accompanying drawings it will be observed that the pin designated generally as A is provided on its bottom face with a disk B of hard vulcanized fiber which is centered on the collar A² and held in place by a series of screws or fastenings B'. The edge B² of the bottom is made to conform to the standard shape of a wood

pin and the entire disk formation conforms in every way to the standard wood base.

The body of the pin is provided with a flattened wall A' to which is fitted a ring of hard fiber C. This ring is provided with an outer face D which is rounded or skived at both edges to conform with the shape of the wood body of the pin thereby giving the pin the standard contour. For the purpose of securing the ring C of hard fiber in place suitable fastenings E are used. These fastenings may be screws or their equivalent properly countersunk from the face D of the ring so that the heads of the fastenings will not injure the ball. In practice I use a tube of hard vulcanized fiber preferably having the same color as the wood and of the proper diameter, and cut the tube into rings which have no seam. The tube from which the rings are made being seamless and jointless there is no possibility of the ring yielding or separating under the battering impact of the balls. This ring is then secured in place and aside from the advantages heretofore explained it maintains the standard life of the pin indefinitely. Standard wood pins have been found to be reduced in diameter as much as one-half inch after three or four games. Pins made in accordance with the present invention are as good for use after one-hundred games as they were at the start.

Without further description it is thought that the features and advantages of the invention will be readily apparent to those skilled in the art, and it will of course be understood that changes in the form, proportion and minor details of construction may be resorted to, without departing from the spirit of the invention and scope of the appended claims.

I claim:

1. A bowling pin comprising in combination, a wood body and an integral one piece seamless reinforcing ring of hard vulcanized fiber embracing the medial portion only of said body at the zone of the ball impact, and means for securing said ring to the body to prevent separation therefrom in the direction of the longitudinal axis of the pin under ball impact.

2. A bowling pin comprising in combination, a wood body and an integral one piece seamless reinforcing ring of hard fiber embracing the medial portion only of said body at the zone of the ball impact, and means for securing said ring to the body to prevent separation therefrom in the direction of the longitudinal axis of the pin under ball impact.

In testimony whereof I hereunto affix my signature.

WILLIAM HOWARD SOUDER.