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1,702,556

P. F. WILHEM

BOWLING PIN

Filed Oct. 17, 1927

Fig 1

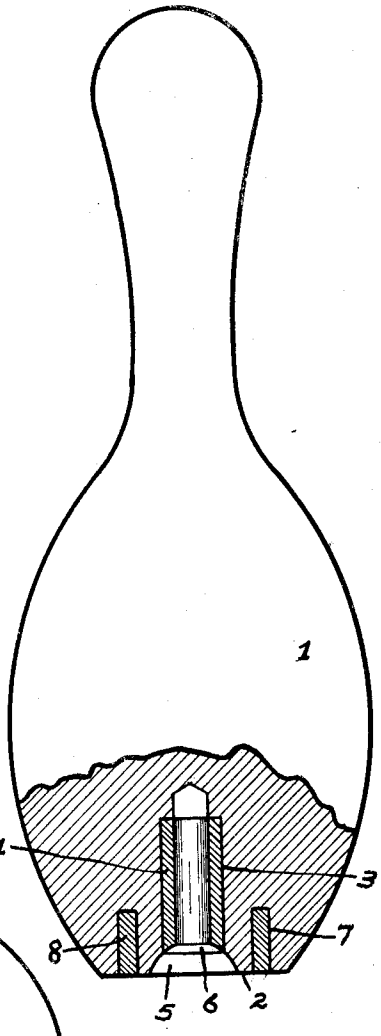
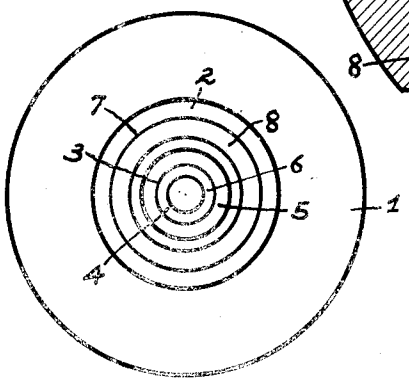


Fig 2



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UNITED STATES PATENT OFFICE.

PIERRE F. WILHEM, OF PITTSBURGH, PENNSYLVANIA.

BOWLING PIN.

Application filed October 17, 1927. Serial No. 226,640.

My invention relates to improvements in bowling pins, and important objects thereof are to provide a more substantial bowling pin having a protectable indurate annulus embedded in its bottom that is spaced from the peripheral edge of the latter, and which embodies an indurate tubular sleeve that is tightly forced into the center of the pin bottom forming a protecting wall about the spotter cavity and also securely wedging and locking the annulus in the pin bottom.

Further objects of the invention are to provide a bowling pin of the character described, which is simple in its construction and arrangement, strong, durable and efficient in its use, and comparatively inexpensive to manufacture.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention hereinafter disclosed can be made within the scope of what is claimed without departing from the spirit of the invention.

In the drawing wherein like numerals of references designate corresponding parts throughout the several views:—

Figure 1 is a side elevational view of a bowling pin partly in section, constructed in accordance with the invention.

Figure 2 is a bottom plan view of the bowling pin.

Referring in detail to the drawing 1 denotes the body portion of a bowling pin of conventional configuration including the usual reduced flat base or bottom 2.

The bottom 2, of the body portion 1, is formed with a centrally disposed, vertically extending bore 3, into which a tubular sleeve 4 is fixedly driven. It will of course, be obvious that the latter may be fixedly screwed or cemented in position in the bore 3, if desired. The sleeve 4 provides a protected cavity for the centering pins, which are now commonly employed for positioning the bowling pins on their respective spots on the bowling alley. The bore 3 is formed with a flared lower end 5 which is complemented by the flared lower end 6 of the tubular sleeve 4 and provided for the purpose of facilitating the engagement of the centering pins with the sleeve cavities during the bowling pin setting operation.

The bottom 2 of the body portion 1, is further formed with an annular groove 7 which is disposed parallel relatively to the vertical axis of the body portion 1. The outer side wall of the groove 7 is spaced from the peripheral edge of the bottom 2, and the inner side wall thereof is spaced from the peripheral edge of the flared lower end 5, of the bore 3. An annulus 8 is securely fixed in the annular groove 7, and has its lower face disposed flush with the plane surface of the bottom 2.

The annulus 8 and the tubular sleeve 4 are constructed from any suitable indurate material preferably fibre, hard rubber, or a composition of analogous hardness. The annulus 8 is driven to position in the groove 3 and is further secured by a wedging action effected thereagainst when the tubular sleeve 4 is driven to position in the bore 3.

The provision of the annulus 8 will prevent splitting of the base of the bowling pins and provides a substantial and durable bottom that will minimize the expense attached to the maintenance of the bowling pins equipped therewith.

In spacing the peripheral edge of the pin bottom 2 from the annulus 8, a bottom circle of pin wood is provided which protects the other bowling pins, balls, alleys, etc., from excessive damage, due to coming into forceful contact with the indurate annulus 8, as the bowling pins are knocked about by the bowler. Further, this arrangement of the annulus 8 establishes a peripheral bottom margin that will not be battered away by use, thereby eliminating the possibility of loosening the annulus 8 in its groove 7, from such cause.

By maintaining the bored wood center portion of the pin bottom 2, the whole bottom assembly of the bowling pin is securely and permanently locked together by driving the annulus 8 to position in the groove 7, and by subsequently thereto driving the tubular sleeve 4 to position in the bore 3, for the purpose herein before stated.

It will here be noted that a feature of the invention is the dependence of the annulus 8 and the tubular sleeve 4, relatively to each other. While the annulus 8 primarily provides a re-inforced pin base or bottom 2, it will also prevent the splitting of the body portion 1 when the tubular sleeve 4 is driven

to its position in the bore 3. In turn, the driving of the tubular sleeve 4 into the bore 3, effects a wedging action whereby the annulus 8 is fixedly locked in position in its groove 7.

The present invention provides a bowling pin construction that is serviceable and continuously efficient and enduring under the severe usage customary with devices of its kind.

What I claim is:

1. In combination, a pin of the character described having its base provided with a centrally disposed vertically extending bore and with an annular groove disposed parallel relatively to the vertical axis of the bowling pin, said bore having a flared lower end, an annulus of indurate material mounted in said groove and having its lower end disposed flush with said base, the inner wall of said annular groove being spaced from the lower peripheral edge of said flared end of said bore, said base having its peripheral edge spaced from the lower end of the outer wall of said annular groove, and a tubular sleeve of indurate material fixed in said bore providing a re-enforced centering pin cavity.

2. In combination, a pin of the character described having its base provided with a centrally disposed vertically extending bore and with an annular groove disposed parallel relatively to the vertical axis of the bowling pin, said bore having a flared lower end, an annulus of indurate material mounted in said groove and having its lower end disposed flush with said base, the inner wall of said annular groove being spaced from the lower peripheral edge of said flared end of said bore, said base having its peripheral edge spaced from the lower end of the outer wall of said annular groove, and a tubular sleeve of indurate material fixed in said bore providing a re-enforced centering pin cavity and further establishing a wedging action for maintaining said annulus in position in said groove.

In testimony whereof I affix my signature.

PIERRE F. WILHEM.