

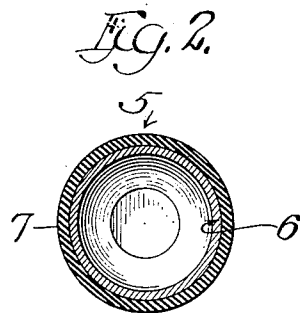
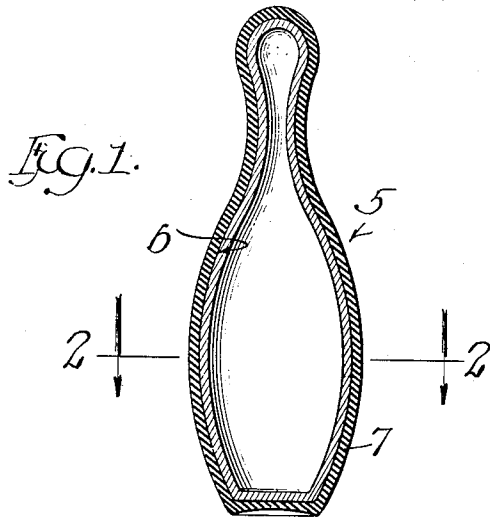
W. P. MUSSEY.

BOWLING PIN.

APPLICATION FILED NOV. 29, 1912.

1,060,932.

Patented May 6, 1913.



Witnesses:  
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# UNITED STATES PATENT OFFICE.

WILLIAM P. MUSSEY, OF CHICAGO, ILLINOIS.

## BOWLING-PIN.

1,060,932.

Specification of Letters Patent.

Patented May 6, 1913.

Application filed November 29, 1912. Serial No. 734,040.

*To all whom it may concern:*

Be it known that I, WILLIAM P. MUSSEY, a citizen of the United States, and a resident of the city of Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Bowling-Pins; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to an improvement in bowling pins and the invention consists of the matters hereinafter described and more particularly pointed out in the appended claims.

Bowling pins, being commonly made of wood, are affected in weight by reason of atmospheric changes and are likewise apt to become warped or distorted by the moisture in the atmosphere. Such pins are easily battered, chipped and cracked in play, the average set of pins in a public bowling alley lasting about ten days and must be replaced by new ones. Thus the item of expense is quite a large one.

The object of my invention is to produce a cheap practical bowling pin, which is not affected by the moisture of the atmosphere, which will not become battered or chipped in play and also a pin in which the weight will be invariable and uniform in all pins.

In the drawings:—Figure 1 represents a vertical section through a bowling pin made in accordance with my invention. Fig. 2 represents a horizontal sectional view taken on a plane indicated by the line 2—2 of Fig. 1.

Referring now to that embodiment of my invention illustrated in the accompanying drawings, and more particularly to Fig. 1, 5 indicates as a whole my improved bowling pin. The same comprises an inner hollow metallic core 6 and an outer shell 7. The core 6 being made of metal may be cast in the required form or may be made up of pressed metal sections, brazed at their adjoining edges. The shell 7 is made of a homogeneous composition such as celluloid, hard rubber, papier-mâché, wood fiber, or other tough composition having like texture

and characteristics, and which are hard and preferably waterproof. It may be either elastic or non-elastic. Bowling pins must be of a standard weight, and in making my improved pin, the hollow core 6 will be of a predetermined weight, which, added to the weight of the shell 7 will produce a pin of the standard weight. The hollow metallic core 6 is of the same approximate form as the finished pin and the wall thereof is preferably of the same general thickness throughout, thereby assuring sufficient rigidity to withstand the impact of the ball or other pins in play without indentation, which would leave a space between the core and shell. The outer shell 7 completely incases the hollow core 6, and when made of a homogeneous composition as above mentioned, will not become dented or cracked in play, yet will, when placed upon a hollow core, produce the desirable "click" pleasing to the player.

The construction above described provides a well balanced pin in which all the natural qualities of the standard pin will be found.

In the game of ten pins, the governing body for all contests have promulgated certain rules relative to the playing thereof. A standard weight of pin has been decided upon and in case of the all wood pins of today, hardly any two pins are the same in weight. The variation from the said regulation weight of complete sets of pins often being ten to twelve ounces below or above said regulation weight. Pins made in accordance with my invention may be accurately gaged in weight so as not to vary one way or another from the regulation weight. A shell or covering of celluloid or like material will withstand the battering in play without injury to, and thus greatly prolong the life of, the pin. In addition, such a shell may be colored so as to present a contrast to its surroundings and the color will not become lost in play.

I claim as my invention:—

1. A bowling pin comprising an inner hollow core and an outer shell of a hard, tough, homogeneous composition.

2. A bowling pin comprising an inner hollow metallic core and an outer shell of a hard, tough, homogeneous composition.

3. A bowling pin comprising an inner hollow metallic core having the approximate form of a bowling pin, the wall of the core being of the same general thickness throughout, and an outer shell of a hard, tough, homogeneous composition.

In testimony, that I claim the foregoing

as my invention, I affix my signature in the presence of two witnesses, this 26th day of November, A. D. 1912.

WILLIAM P. MUSSEY.

Witnesses:

GEORGE R. WILKINS,  
KARL W. DOLL.