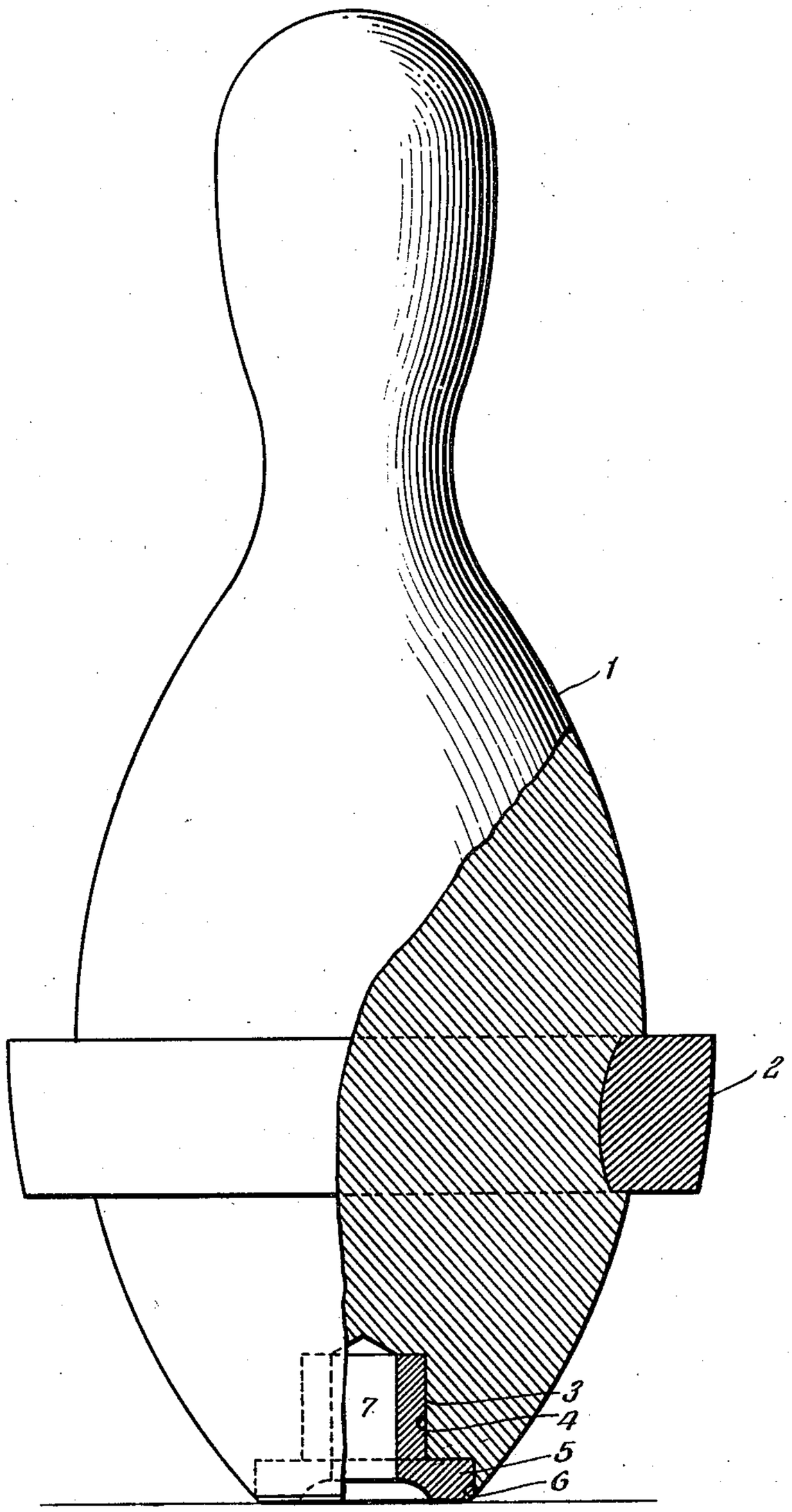
Nov. 18, 1924. 1,515,606

J. O. MILLER

BOWLING PIN

Filed April 8, 1924



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Patented Nov. 18, 1924. 1,515,606

UNITED STATES PATENT OFFICE.

JOHN O. MILLER, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE BRUNSWICK-BALKE-COLLENDER COMPANY, OF WILMINGTON, DELAWARE, A CORPORATION OF DELAWARE.

BOWLING PIN.

Application filed April 8, 1924. Serial No. 704,957.

To all whom it may concern:

Be it known that I, JOHN O. MILLER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Bowling Pins, of which the following is a specification.

This invention relates to improvements in bowling pins, and its object is to provide simple and efficient means for protecting the base of the pin against wear and thereby maintain the pin in serviceable condition and prolong its life for a greater period than has been customary herebefore.

Many bowling alleys are provided with pin setting devices which comprise metal pins operating through the alley bed at the pin spots thereon to project above the surface of the bed for engaging openings provided for them in the bases of the pins. These metal pins register the bowling pins in correct position on the pin spots on the alley bed, after which they are lowered below the surface of the alley bed, so as not to interfere with the game. The pin boy operates the setter to project the setter pins above the surface of the alley and then places the bowling pins on the metal setter pins; and after this has been done many times, it is found that the metal pins wear the wood walls of the openings so that correct setting and spotting of the bowling pins is not always assured. This wear of the wall of the mold in the bowling pin makes the pin setting operation more difficult and laborious because the metal setter pin is somewhat pointed and will not enter a worn hole properly.

Furthermore, a bowling pin wears in service at the base so that it will not stand properly, and means are sometimes provided where a number of bowling alleys are installed, as well as at sales rooms for bowling supplies, for re-finishing the bowling pin base; some pins are provided with reinforced bases, and other means have been proposed for reducing the wear on the bases of the bowling pins.

My invention has for its object to provide simple means for reducing wear of the setter pins on the bowling pins, and also for reducing the normal wear on the bases of the pins, whereby to prolong the efficient service of a bowling pin.

I have illustrated my invention in one form of a duck pin, but this selection is merely for the purpose of explaining the invention, and it will be understood that the invention can be embodied in any form of bowling pin for which it is or may be adapted.

The drawing is an elevation of a duck pin and shown partly broken away and in section. The pin 1 shown in the drawing has an annular rubber ring 2 which is now used on duck pins and constitutes no part of my invention. A plug 3 is inserted in a bore 4 in the bottom of the pin and this plug has a flange 5 which is seated in a counter bore 6. The plug has a central opening 7 which is of a size and shape adapted to receive the metal registering pin of that form of bowling pin setter which comprises a plurality of metal pins adapted to be projected upward through the alley bed and is known commercially as the simplex pin setter.

The plug is preferably made of fiber in one piece and secured by glue in the bores, but it can be made of other suitable materials and in more than one piece and securely anchored in the bowling pin in any suitable manner. The plug provides a fiber sleeve 3 which will resist the wear of the setter pin, and the flange 5 provides a bottom or base for the pin which will resist the wear to which the bottom or base of a bowling pin is subjected. This base 5 preferably projects slightly below the body of the bowling pin so that it will stand a great deal of wear before the wear reaches the body, and thereby the efficient service of the pin is greatly prolonged.

I am aware that changes may be made in the size, shape and arrangement of the plug and that it can be used in other bowling pins and secured in place in any suitable manner, and I reserve the right to make all such adaptations of and changes in the construction and arrangement of my invention as fairly fall within the scope of the following claims.

I claim:

1. A bowling pin having a bore and a counter bore in its base, and a wear preventing tubular plug seated in said bore and having a flange seated in said counter bore.

2. A bowling pin having a bore and a counter bore in its base, a wear preventing

tubular plug comprising a sleeve seated in said bore, and an integral flange seated in said counter bore.

3. A bowling pin having a bore and a counter bore in its base, and a wear preventing tubular plug seated in said bore and counter bore, and projecting below the body of the pin.

4. A bowling pin having a bore and a counter bore in its base and a wear preventing tubular plug comprising a sleeve seated in said bore, and an integral flange seated in said counter bore and projecting below the body of the pin.

JOHN O. MILLER.