

Oct. 4, 1949.

P. M. WAITE

2,483,568

METHOD OF SALVAGING BOWLING PINS

Filed April 2, 1948

2 Sheets-Sheet 1

Fig. 1.

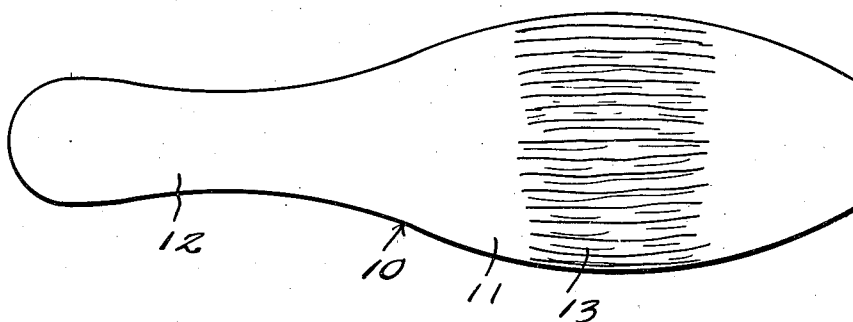


Fig. 2.

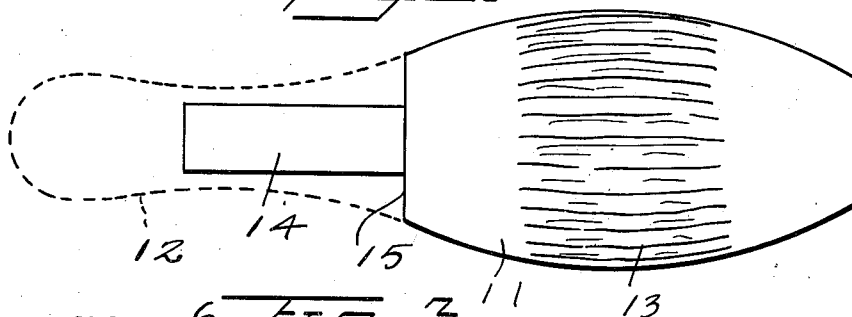
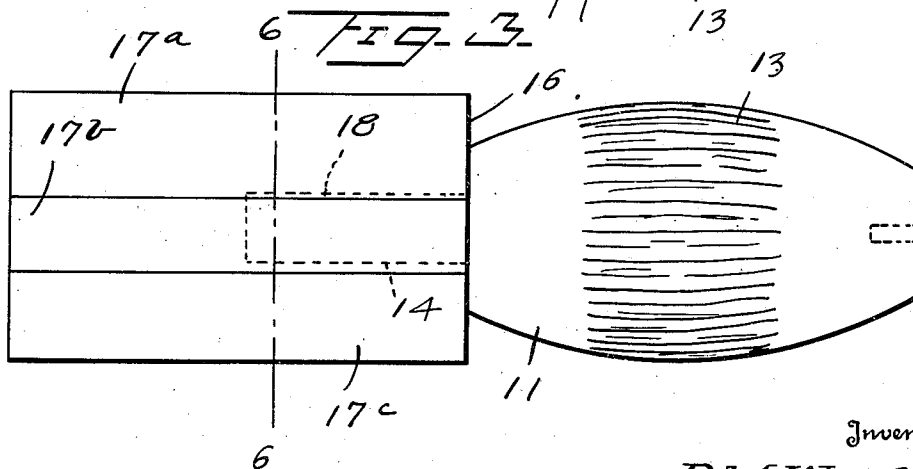


Fig. 3.



Inventor

P.M. Waite

334

Kimmel & Crowell Attorneys

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2 Sheets-Sheet 2

Fig. 4

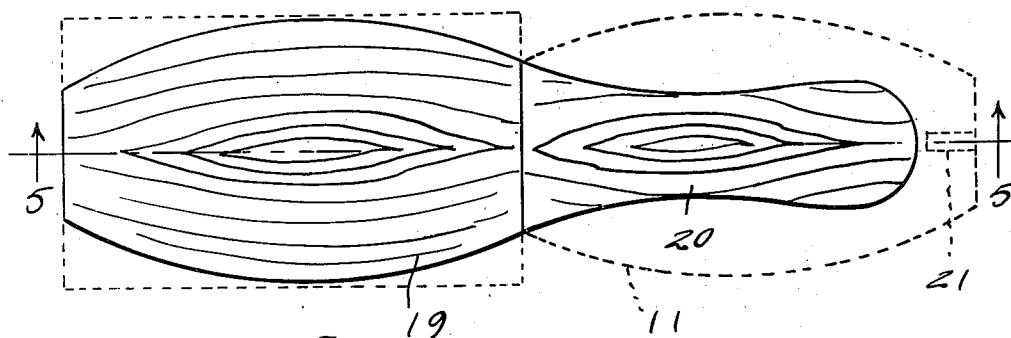


Fig. 5

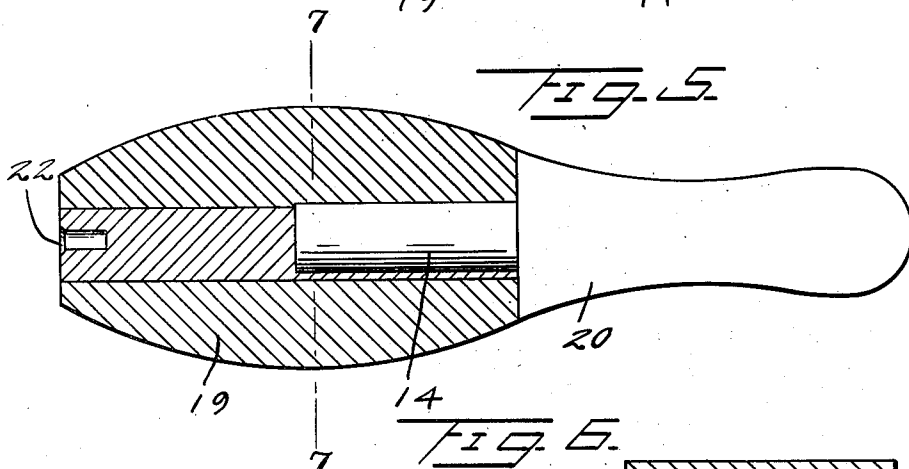


Fig. 6

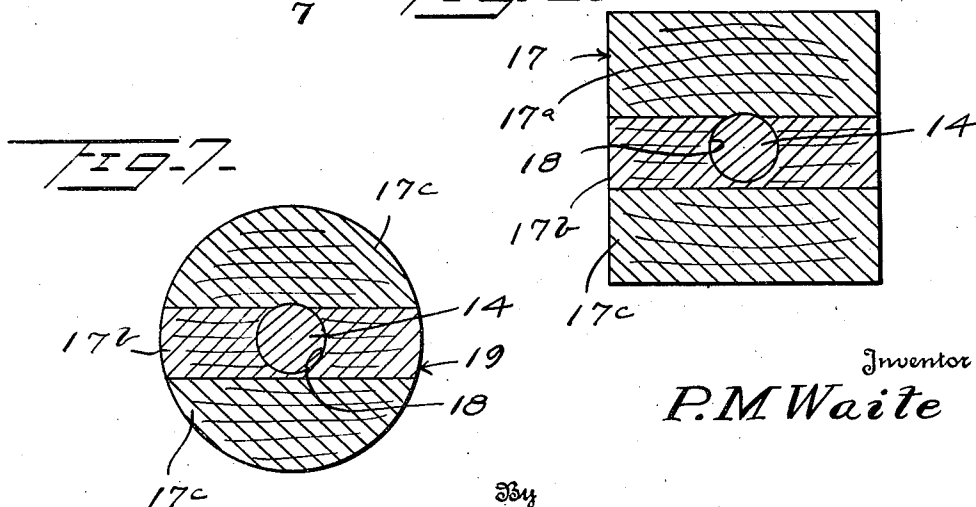
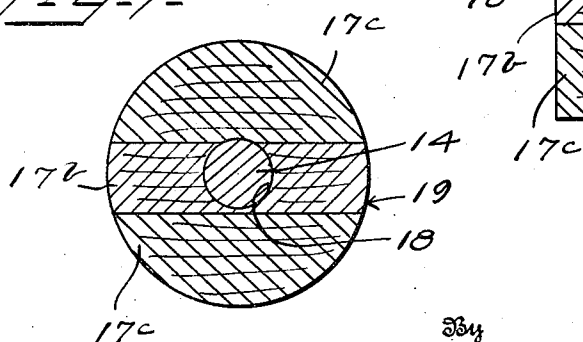


Fig. 7



Inventor

P. M. Waite

By

Kimmel & Crowell Attorneys

UNITED STATES PATENT OFFICE

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METHOD OF SALVAGING BOWLING PINS

Philip M. Waite, Corry, Pa.

Application April 2, 1948, Serial No. 18,689

2 Claims. (Cl. 144—309)

1

This invention relates to bowling pins.

In the manufacture of bowling pins it is the general practice to form the pins out of a single block of hard wood, such as maple. These pins are beat up and damaged quite badly around the belly portion and in a short time are chipped and rendered useless for competition. The cost of the wood making up a set of pins is exceedingly high and is a major factor in the maintenance of bowling alleys. When the pins become damaged a very substantial portion of each pin is in good condition, and it is an object of this invention to provide an improved bowling pin and method of making the same which will permit salvaging the good portions of the pins and combining these salvaged portions with new portions so as to produce a bowling pin which will stand up equally as well as pins made out a single block of new wood. In the formation of the composite pin, the beat up portion of the old pin, that is the belly portion of the pin, is used to form the neck or head of a pin, and a dowel is first formed from a portion of the old neck or head. The dowel is then inserted into a new block of wood from which the new belly or body portion of the pin is to be formed. The pin is then formed into the conventional shape, the old body portion of the pin being turned with the new block of wood and formed into the neck or head of the composite pin.

Two or more laminations, not necessarily of equal thickness, may be glued together to form the square section as shown in the drawings, and by reason of the crossing or opposed grain structure of the several laminations, there is obtained much greater strength in that portion of the pin absorbing the most abuse during actual play.

A further object of the invention is the utilizing of new lumber, a considerable portion of which might otherwise be scrap, for the body of the pin and which in connection with the re-use of old wood for the other part of the pin, would greatly aid in conserving already scarce supplies of hard maple lumber.

To the foregoing objects, and others which may hereinafter more fully appear, the invention consists of the novel construction, combination and arrangement of parts, as will be more specifically referred to and illustrated in the ac-

2

companying drawings, but it is to be understood that changes, variations, and modifications may be resorted to which fall within the scope of the invention as claimed.

In the drawings:

Figure 1 is a detailed side elevation of a battered bowling pin used in the formation of a composite bowling pin.

Figure 2 is a detailed side elevation showing the first step in forming the new pin.

Figure 3 is a detailed side elevation showing the battered pin secured to a new block of wood.

Figure 4 is a detailed side elevation showing the completed composite pin.

Figure 5 is a longitudinal section taken substantially on the line 5—5 of Figure 4.

Figure 6 is a sectional view taken on the line 6—6 of Figure 3.

Figure 7 is a sectional view taken on the line 7—7 of Figure 5.

Referring to the drawings, the numeral 10 designates generally a bowling pin which is formed with a body or belly 11 and a neck or head 12. The pin shown in Figure 1 is a battered and substantially useless pin at least useless so far as being useful for further play in bowling competition. The body 11 of the pin 10 is shown as having a battered portion 13 which affects the resiliency of the pin after being struck by a ball or after one pin strikes another. In view of the exceedingly high cost of the wood which is formed into the pin 10, and in order to reduce this cost and in addition to conserve the wood, the old pin member 10 is put into a lathe and the neck portion 12 is turned down so as to form a dowel 14. The dowel 14 terminates adjacent the upper portion of the body 11 and a squared shoulder 15 is provided which is adapted to abut against the adjacent squared end 16 of a block 17 of new wood which is formed of glued together laminations 17a, 17b and 17c. The laminations 17a, 17b and 17c may be of equal or unequal thickness which are arranged to provide opposed or differential grain flow with the grain of the block 17 extending in the same direction as that of the old pin member 10.

The block 17 is initially square in transverse section as shown in Figure 6 and the upper end of the block 17 is formed with a socket 18 extending downwardly from the upper end and

3

terminating at a point above the lower end of the block 17. The two members are then secured together by glue or other suitable fastening means, the dowel 14 engaging in the socket 18. The composite element formed by the body 11 and the block 17 is then put in a lathe or other turning device and the body 19 of the composite pin is formed from the block 17. The neck or head 20 of the composite pin is formed from the old body 11 and preferably the neck or head 20 is substantially shorter in length than the body 11 so that the old spotter socket 21 in the body 11 is removed. The length of the composite pin shown in Figures 4 and 5 is equal to the normal length of a bowling pin of conventional size and after the pin has been completely reformed, the body 19 is formed with a central spotter socket 22. By providing a bowling pin as hereinbefore described, the pin will have the same or greater strength and resistance as a pin formed out of a single piece of wood and in view of the fact that the attached neck or head with the dowel engages the body of the pin at a point above the point of normal contact between the ball and the pin, the attached neck or head will be able to withstand any shocks to which it may be subjected by striking against the adjacent pins or portions of the alley.

I claim:

1. The method of making a composite bowling pin from a battered pin and a new block of wood which includes forming a dowel from the neck

4

portion of the battered pin, fixedly securing the dowel into an end of the new block of wood, shaping the body or belly of the composite pin from the new block of wood, and shaping the neck or head of the pin from the body of the battered pin.

2. The method of making a composite bowling pin from a battered pin and a new block of wood which includes forming a dowel from the neck portion of the battered pin, fixedly securing the dowel into an end of the new block of wood with the grains of the battered pin and new block of wood extending in the same direction, shaping the body or belly of the composite pin from the new block of wood, and shaping the neck or head of the pin from the body of the battered pin.

PHILIP M. WAITE.

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