B. MERKLEN.

BOWLING PIN.

APPLICATION FILED APR. 28, 1909.

940,341.

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Fig 1

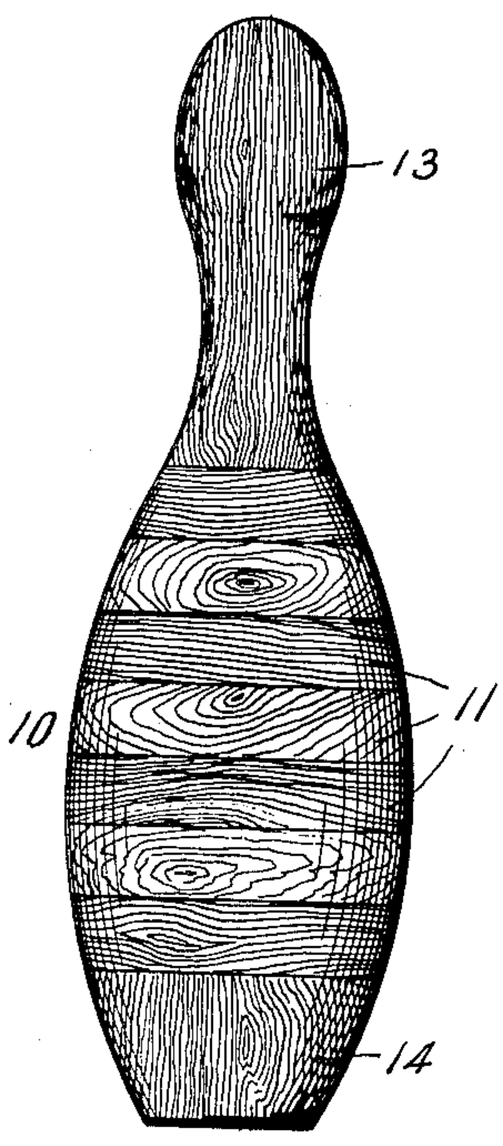
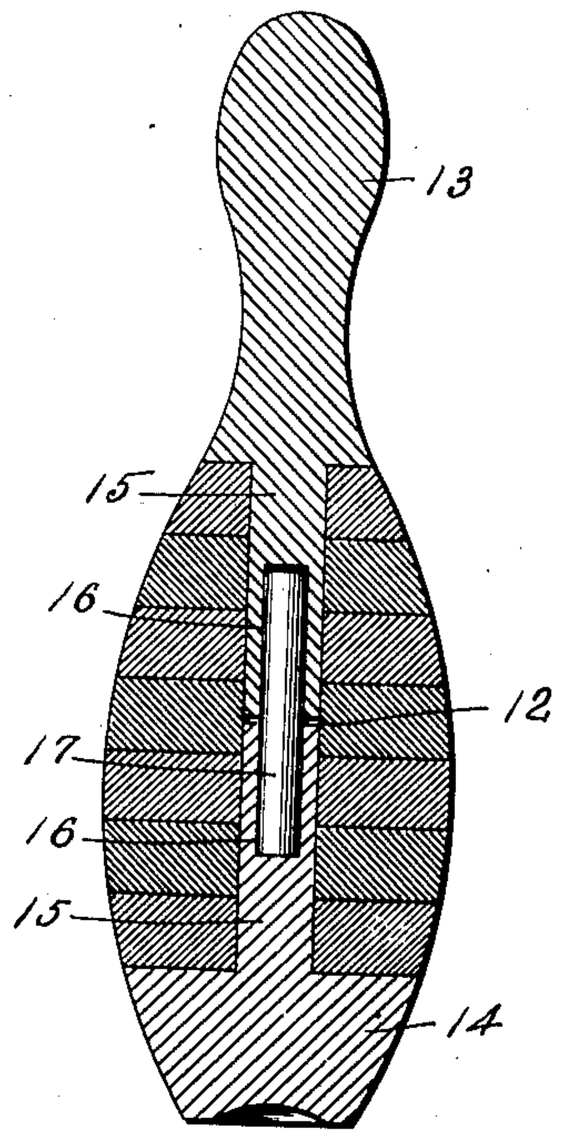


Fig 2



Witnesses

H. C. Bohnette

Horace G. Deitz

Inventor

Benjamin Merklen

By Meyer, Cushman & Rea

Attorneys

UNITED STATES PATENT OFFICE.

BENJAMIN MERKLEN, OF BROOKLYN, NEW YORK, ASSIGNOR TO BENJAMIN MERKLEN, JR., OF BROOKLYN, NEW YORK.

BOWLING-PIN.

940,341. Specification of Letters Patent. Patented Nov. 16, 1909.

Application filed April 28, 1909. Serial No. 492,782.

To all whom it may concern:

Be it known that I, BENJAMIN MERKLEN, a citizen of the United States, residing in the borough of Brooklyn, in the county of Kings and State of New York, have invented new and useful Improvements in Bowling-Pins, of which the following is a specification.

My invention relates to improvements in ten pins, and has particular relation to the manner in which the pin is formed.

The principal object of my invention is to provide a built-up ten pin in which the several principal parts are secured together at the time the pin is formed, one of the elements of the pin being in itself of built-up structure.

A further object is to provide the ball-striking face of the pin in the form of a plurality of relatively narrow sections permanently secured together, the sections being prearranged in such manner as to provide against cracking, chipping, splitting, or breaking of the pin while the latter is in use.

A further object is to provide a pin which, while possessing the advantages in construction of a divided pin, forms, when the pin is completed, the permanent equivalent of a one-piece pin.

To these and other ends, the nature of which will be readily understood as the invention is hereinafter disclosed, said invention consists in the improved construction and combination of parts hereinafter fully described, illustrated in the accompanying drawings, and particularly pointed out in the appended claims.

In the accompanying drawings, in which similar reference characters indicate similar parts in each of the views, Figure 1 is a view in elevation of a pin constructed in accordance with my invention. Fig. 2 is a vertical sectional view taken centrally of the pin.

A ten pin formed in accordance with my invention, preferably comprises a number of parts which, when secured together, form a pin which is entirely free from metallic connections, and has its elements permanently connected together. These elements are the separate head and base of the pin, a laminated ball-striking portion, and an interior connecting element. These elements will now be described in detail.

Referring first to the ball-striking portion of the pin, this element, designated as 10, consists of a plurality of strips or pieces 11 of wood of a suitable kind secured together by gluing to form a block, the strips being arranged with the grain of the wood of adjacent strips extending in parallel planes, but at substantial right angles to each other, this arrangement providing for the grain of alternate strips running in the same direction. The block so formed is of a size greater than that required to form the body or ball-striking portion of the pin, said block being adapted to be turned down to the proper size and shape after the block has become thoroughly set and dried. This block is provided with a central opening 12 extending interiorly through the block and crossing each of the strips of which the block is composed.

The head 13 and the base 14 of the pin are shaped in a manner such that when assembled with the shaped block, the whole will produce the external configuration of a ten pin of the generally accepted type. The head and base are separated, each of said parts being provided with a stud 15 of a diameter to substantially fit the opening 12, said studs having a combined length slightly less than the length of said opening and being adapted, in the assembling of the elements, to be glued to the wall of the opening 12, as hereinafter set forth. The studs 15 are each provided with a longitudinally extending recess 16 adapted to receive a dowel pin 17 by means of which the head and base are secured together, the dowel pin 17 having a glued connection with the walls of the recesses formed in the studs 15.

After the several parts have been properly shaped, the dowel pin 17 is inserted within the recess of the stud 15 carried by the base, being glued therein in the usual manner of securing dowel pins in position. The block 10 is then placed in position on the stud 15 of the base, said stud having been provided with an exterior coating of glue and the wall of the opening 12 having been similarly coated, after which the head with its stud 15 properly provided with the securing substance, has its stud 15 pushed into the opening 12, the recess 16 of the stud receiving the upper end of the dowel pin 17, and by being driven, the parts are secured together, substantially all of the contacting surfaces of the several parts being glued.

By this construction it will be seen, that

although the ten-pin includes two elements formed separate from each other and positioned to provide no inter-engagement, the dowel pin 17 will serve not only to provide against a separation of the parts by reason of the glued connection, but will also serve to support the opposing ends of the head and base, the elements referred to. And by providing the break formed in the continuity of the length of the ten-pin by the division line between the head and base, at a point approximate the center of the length of the opening 12, the block 10 and studs 15 cooperate to withstand the shocks and jars incident to the playing of the game of ten pins. The fact that the base is substantially imperforate, eliminates the requirement of the use of any metallic binder at this point, presenting an advantage in that the presence of any external metallic surface is eliminated, in addition, the cost of construction is materially cheapened, since the interior structure is composed practically of wooden elements secured together by glue or an equivalent securing medium.

By forming the block 10 in the manner indicated, there is provided a construction which is exceedingly durable, not liable to crack or split, or chip, and which will afford the necessary resisting qualities required in preventing a breaking of the ten-pin interiorly of the block.

It will be understood, of course, that it is not necessary that the several elements be shaped in advance to provide the external configuration of the ten pin, since the several elements may be first secured together in the manner described, and then the assembled elements turned to produce the complete configuration.

Having thus described my invention what I claim as new is:

1. A ten pin comprising a head, a base, and a body portion, said body portion having a relatively smooth axial bore, said head and base each extending within the body portion and having their inserted ends adjacent each other, the line of separation of the inserted ends being approximately midway of the length of the body portion, and means for connecting said inserted ends, said means extending into the head and base respectively.

2. In a ten pin, a head, a base, and a body portion, said body portion having a relatively smooth bore and comprising a series of strips secured together with the grain of adjacent strips extending in approximate parallel planes and at right angles to each other, said strips each extending in opposition to and having a direct securing engagement with either the head or base.

3. A ten pin comprising a head having a stud, a base also having a stud, said studs extending in axial alinement and each having a longitudinally extending recess, a dowel pin fitting and being secured within the recesses to secure the head and base together, and a body portion surrounding the studs, the free ends of said studs being located entirely within and extending approximately midway of the length of the body portion.

4. A ten pin comprising a head having a stud, a base also having a stud, said studs extending in axial alinement and each having a longitudinally extending recess, a dowel pin fitting and being secured within said recesses to secure the head and base together, and a body portion surrounding the studs, the free ends of said studs being located entirely within and extending approximately midway of the length of the body portion, said body portion being of laminated construction.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

BENJAMIN MERKLEN.

Witnesses:

FRANK ZELMER,

XAVIER MERKLEN.