

No. 720,982.

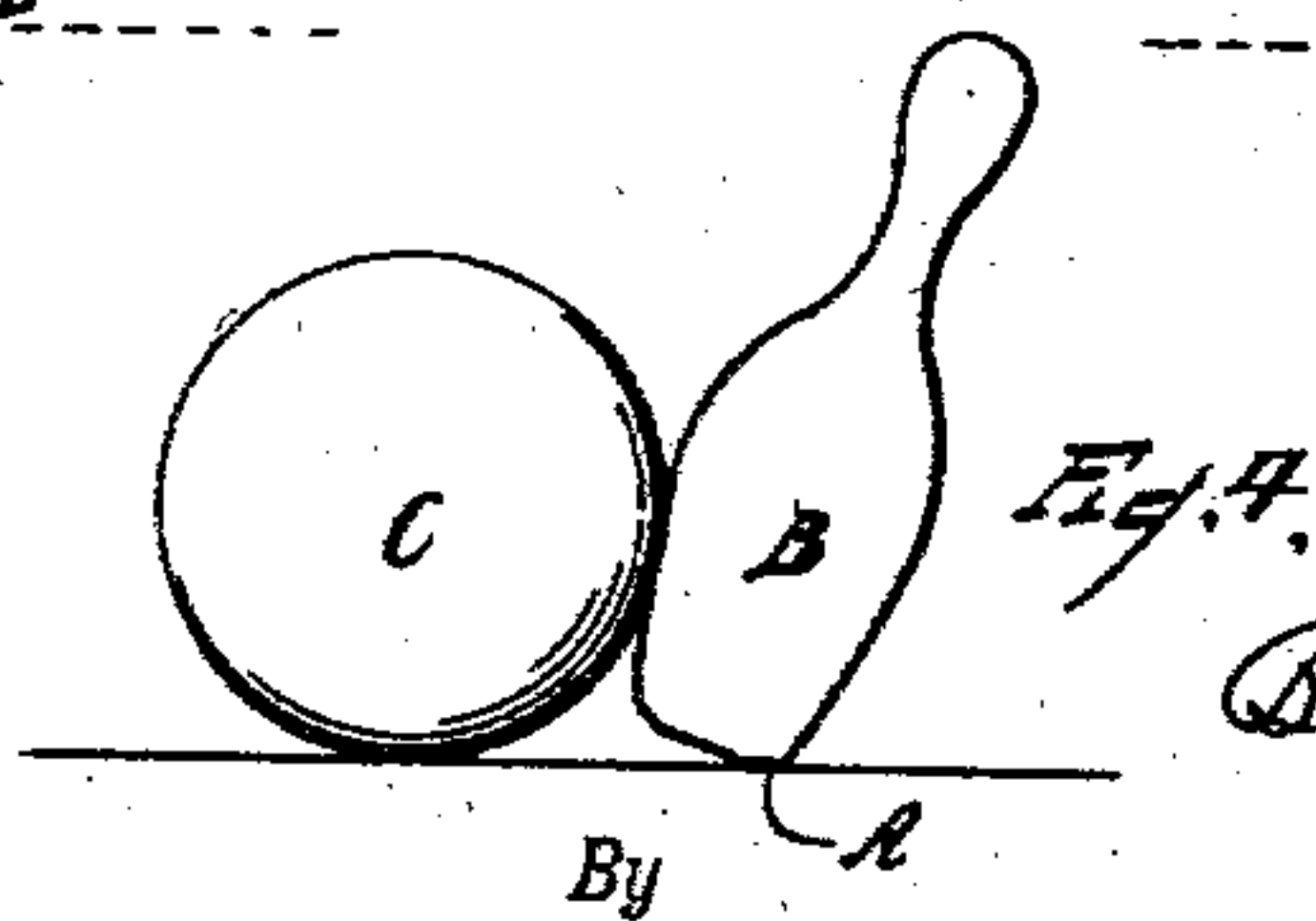
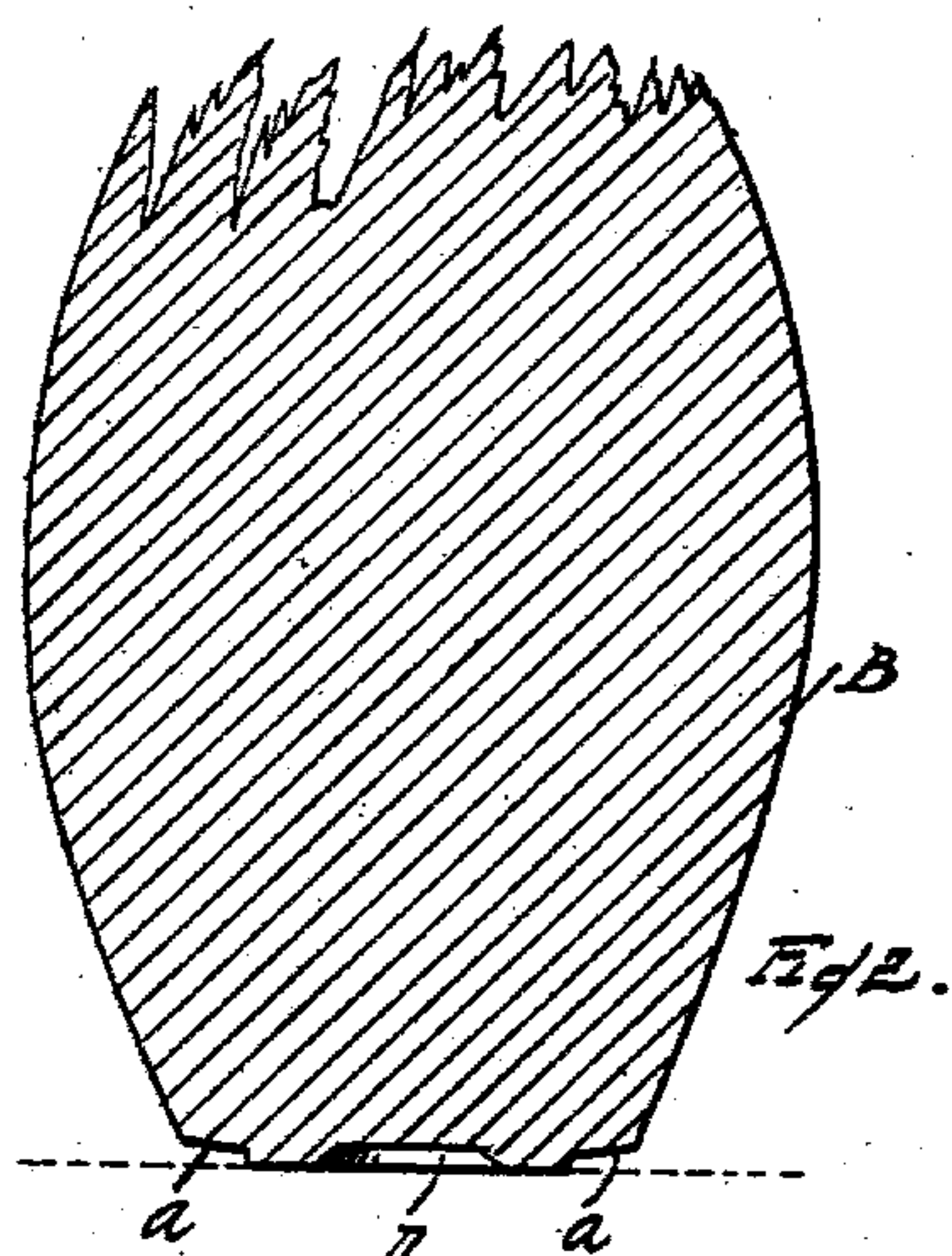
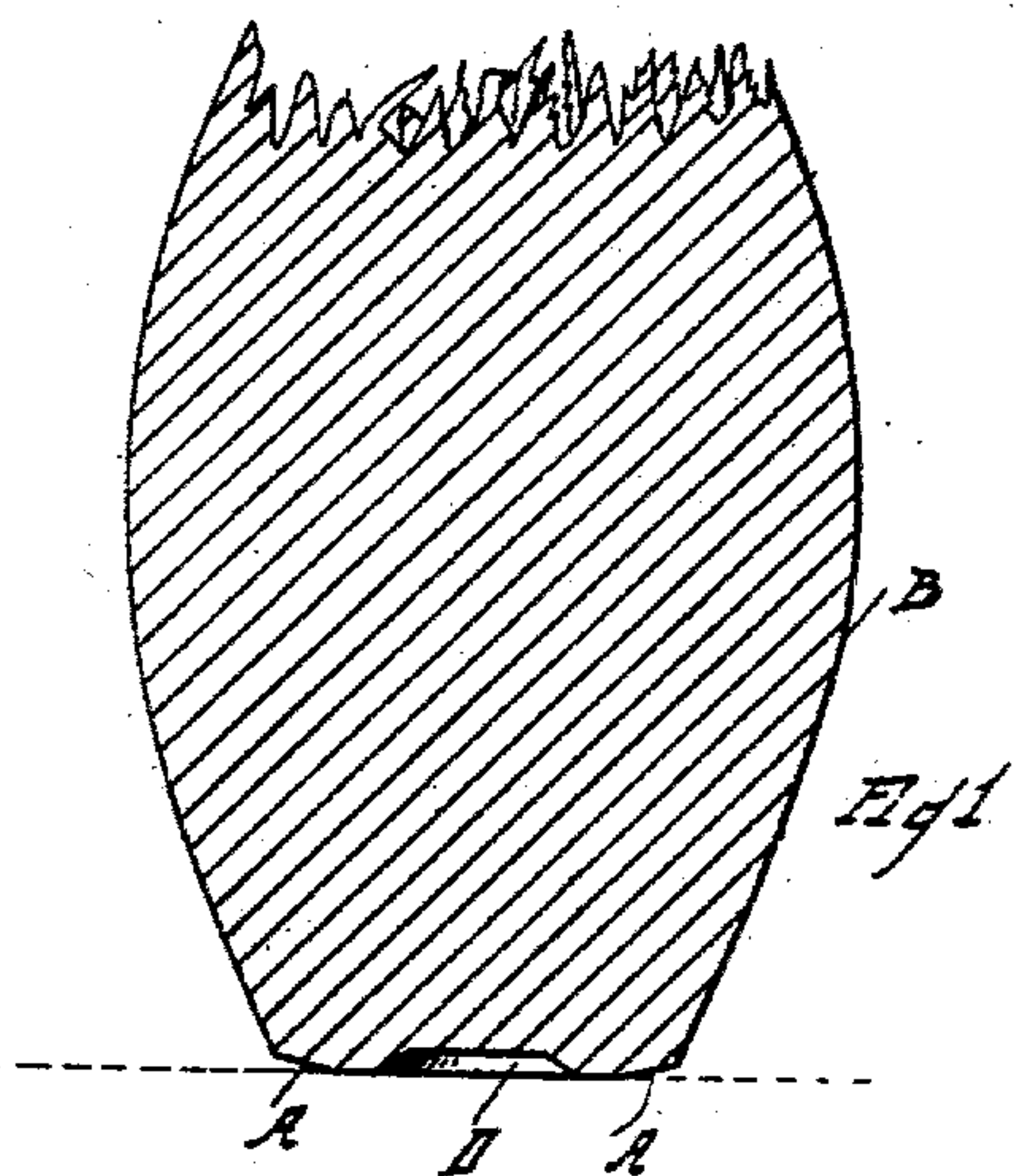
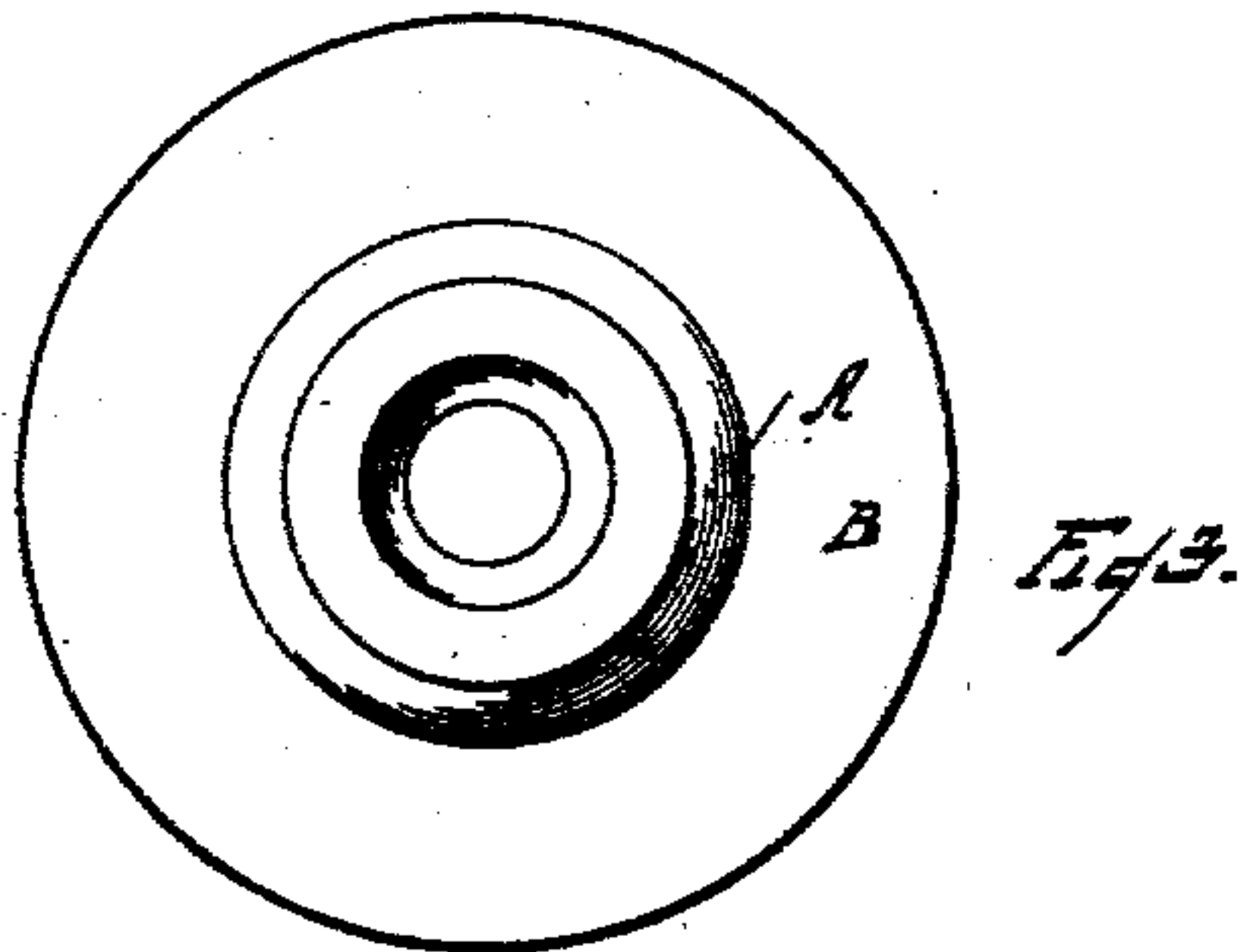
PATENTED FEB. 17, 1903.

B. A. STEVENS.

BOWLING PIN.

APPLICATION FILED OCT. 2, 1902.

NO MODEL.



WITNESSES

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# UNITED STATES PATENT OFFICE.

BENJAMIN ABBOTT STEVENS, OF TOLEDO, OHIO.

## BOWLING-PIN.

SPECIFICATION forming part of Letters Patent No. 720,982, dated February 17, 1903.

Application filed October 2, 1902. Serial No. 125,621. (No model.)

*To all whom it may concern:*

Be it known that I, BENJAMIN ABBOTT STEVENS, a citizen of the United States, residing at Toledo, county of Lucas, State of Ohio, have invented a certain new and useful Improvement in Bowling-Pins; and I declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to bowling-pins; and the object of my improvements is to provide a bowling-pin with its base so formed that it shall resist the abrading action incident to its use for a longer time than pins as usually formed. I accomplish this object in the device illustrated in the accompanying drawings, in which—

Figure 1 is a central vertical section of the lower portion of a bowling-pin embodying my invention. Fig. 2 is a view similar to Fig. 1, showing a modified form. Fig. 3 is a plan view of an inverted bowling-pin. Fig. 4 is an elevation of a bowling-pin and ball in contact with the same, showing the position that the pin assumes when being forced along the floor of the bowling-alley by the action of the ball.

The bowling-balls at present used are of about nine inches in diameter, and the pins when struck by them and pushed along the floor, as indicated in Fig. 4, take approximately a certain position with their axes inclined to the vertical, so that the contact between the pin and floor is at the edge of the base of the pin remote from the ball. The action of the floor upon the pin is to rub the material away and irregularly break off parts of the wood until the supporting edges are broken into, when the pin will no longer be properly supported when placed in position. My invention is intended to obviate or postpone this action. To this end I preferably make the base of the pin somewhat thicker than it has usually been made and I turn the base so that there shall be around its outer edge a chamfer or conical-surfaced ring portion A, Fig. 1, or I form the base by cutting away to a greater extent the overhanging portion *aa*, Fig. 2, which portion extends around the base.

B indicates the pin; D, the base thereof; A, the chamfered portion, as above described, and *aa* the overhanging portion, as above described.

C represents the ball.

The action is as follows: When the ball C strikes the pin B, it turns it to about the position shown in Fig. 4, so that if the base is formed as in Fig. 1 the chamfered portion of the base will rest and be forced along on the bowling-alley floor, thus presenting considerable material to the action of the floor to resist the abrasion. If the base of the pin is formed as in Fig. 2, the outer portion of the overhanging part of the base strikes against the floor and the wear or abrading action is upon this overhanging portion, so that the base proper is not broken or worn away. In each case it is the overhanging portion which receives the abrading action instead of the base upon which the pin stands. In either case the result is to remove the wearing action of the floor from that part of the base which acts to support the pin when the same is standing in position and to take said wearing action upon a part of the pin the deformation of which will not seriously affect the equilibrium of the pin. In the modification of Fig. 1 the wearing action is not only transferred from the supporting part of the base, but in such action is also resisted by a surface of considerable extent in the line of the wearing or abrading action.

What I claim is—

1. A bowling-pin made wholly of wood having its base chamfered upward around its edge so that when struck and moved along by the ball, said pin shall contact the floor at a point outside of its supporting-base.

2. A bowling-pin made wholly of wood having an overhanging portion around the base, said overhanging portion being adapted to contact the floor when the pin is moved along by the ball.

In testimony whereof I sign this specification in the presence of two witnesses.

BENJAMIN ABBOTT STEVENS.

Witnesses:

WALTER J. CHASE,  
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