No. 624,807. Patented May 9, 1899.

W. H. HOWARD.

BOWLING ALLEY PIN.

(Application filed Aug. 11, 1898.)

(No Model.)

Fig. 1.

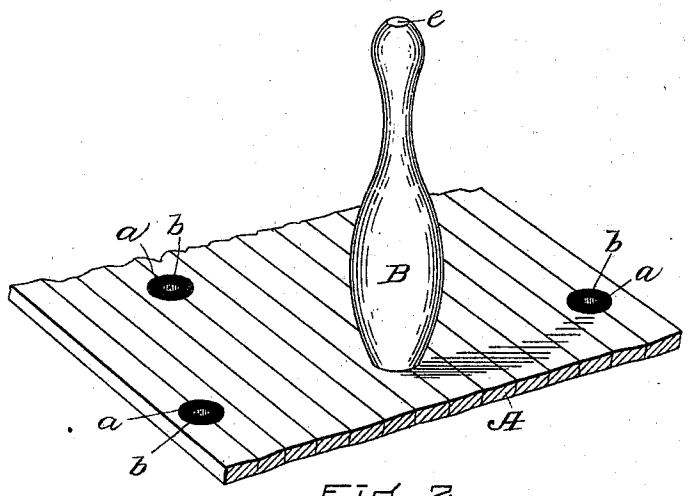
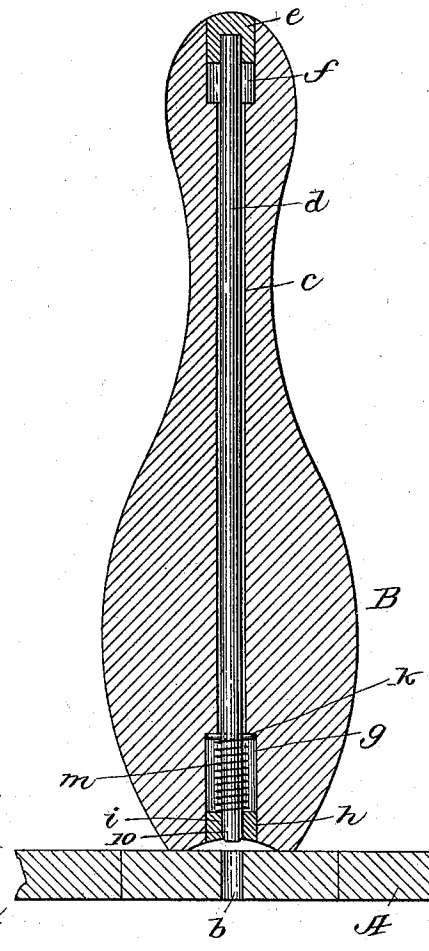


Fig. 2.



WITNESSES.
A. D. Grover.
Fred E. Dorr.

INVENTOR.
William H. Howard.
by D. E. Wachemacher
Atty.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

WILLIAM H. HOWARD, OF MALDEN, MASSACHUSETTS.

BOWLING-ALLEY PIN.

SPECIFICATION forming part of Letters Patent No. 624,807, dated May 9, 1899.

Application filed August 11, 1898. Serial No. 688,366. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. HOWARD, a citizen of the United States, residing at Malden, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Bowling-Alley Pins, of which the following is a specification.

In setting up pins on a bowling-alley it is very desirable that they should be accurately centered over the respective spots on which they are placed, as any inaccuracy in this respect may change the result of the game.

My invention has for its object to provide a bowling-pin with a novel device whereby it may be accurately centered in its proper standing position on the alley; and to this end my invention consists in a bowling-pin provided with a sliding rod extending longitudinally through its center and adapted to be temporarily projected from the base or bottom of the pin by the pressure of the thumb or finger, so that it may enter a hole or socket at the center of the spot on which the pin is placed, a retracting-spring being employed to withdraw the lower end of the rod from the hole in the alley as soon as the pin has been set up.

In the accompanying drawings, Figure 1 is a perspective view of a portion of a bowling-alley, representing one of my improved pins in place thereon. Fig. 2 is an enlarged central longitudinal section of a bowling-pin having my improved centering device applied thereto.

In the said drawings, A represents the portion of a bowling-alley on which the pins are set up, each spot *a* for the reception of a pin having a hole or socket *b* at its center, as shown in Fig. 1.

B represents a wooden bowling-pin, which is bored out longitudinally from end to end, forming an aperture *c* for the reception of a sliding rod *d*, the upper end of which is provided with a head or thumb-piece *e*, which fits within a recess *f*, formed by enlarging the diameter of the bore *c* at the top of the pin, said recess being of greater length than the head *e* to permit the same to move vertically within it. At the lower end or base of the pin B is a recess or chamber *g*, formed by an enlargement of the bore *c*, said chamber being closed at the bottom by a plug *h*, having a central aperture *i*, through which passes the lower end of the rod *d*, and between the inner surface of the plug *h* and a transverse pin *k*, passing through the rod *d*, is placed a light coiled retracting-spring *m*, which exerts an upward pressure on the pin *k*, and thereby causes the rod *d* to be normally drawn up within the bottom of the bowling-pin, so that its lower end 10 will not project beyond the base of the same, in which position of the rod its head *e* will be substantially flush with the top of the pin B, as shown in Fig. 2. When the bowling-pin is to be set up in its place on one of the spots *a*, the head *e* is pushed in by the thumb or finger, which causes the lower lower end 10 of the rod *d* to project beyond the base of the pin B, when it can be readily placed within the hole or socket *b* of the alley, thus accurately centering the pin as desired, after which the rod is released by removing the finger from the head *e*, when it will be instantly retracted by the spring *m*, leaving the parts in the position shown in Fig. 2, with no portion of the rod *d* projecting out beyond the bottom of the bowling-pin.

The above-described device is exceedingly simple and inexpensive and is not liable to get out of order or be injuriously affected by the shocks of the balls, while it affords a ready and convenient means of instantly centering the bowling-pin in the exact position in which it is desired to place it, thus giving every player an equal advantage and avoiding any controversies as to the manner in which the pins were set up — as, for instance, in a matched game.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A bowling-pin provided with a sliding rod extending longitudinally through its center and adapted to be temporarily projected from its bottom to enter a centering hole or socket in the alley, said rod having a retracting-spring, whereby its lower end is normally retained within the bottom of the bowling-pin, substantially as described.

2. The combination with a bowling-alley having the standing-places for the pins provided with centering holes or sockets, of a bowling-pin provided with a sliding rod passing longitudinally through its center, and adapted to be projected, against the resistance

of a retracting-spring, from the bottom of the bowling-pin to enter one of the said centering-holes in the alley, substantially as described.

3. The combination with a bowling-pin having a central longitudinal bore extending from end to end, said bore being enlarged at its opposite ends to form recesses or chambers, of a rod sliding within said central bore, and having a head or thumb-piece at its upper end, a plug inserted within the bottom of the chamber at the base of the bowling-pin and having a central aperture for the passage of the lower end of the sliding rod, and a retracting-spring encircling said rod within the said lower chamber and acting on said rod to withdraw its lower end within the bowling-pin after it has been projected to center the same, substantially as described.

Witness my hand this 9th day of August, A. D. 1898.

WILLIAM H. HOWARD.

In presence of—
P. E. TESCHEMACHER,
M. B. WILSON.