

H. J. MARTIN.
 SPOTTING DEVICE FOR TENPINS.
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1,000,184.

Patented Aug. 8, 1911.

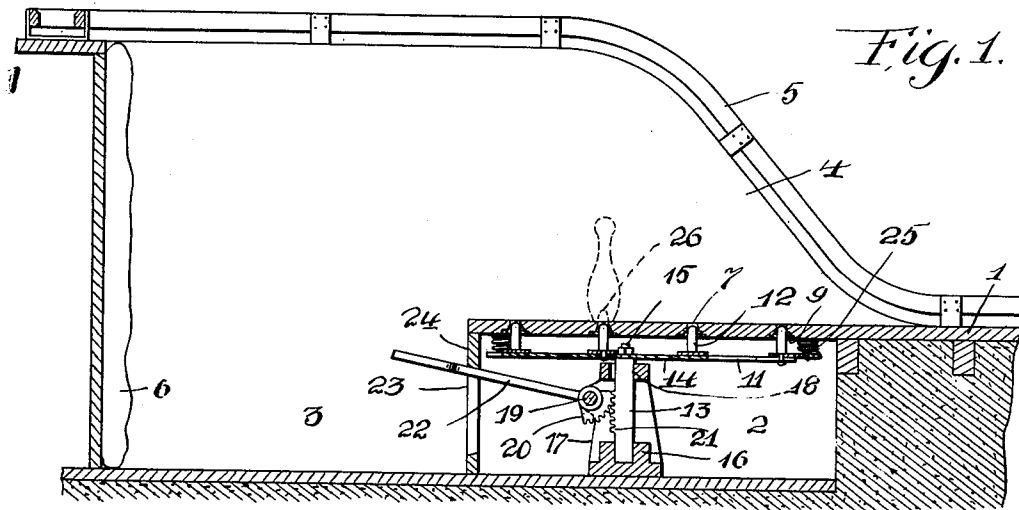


Fig. 1.

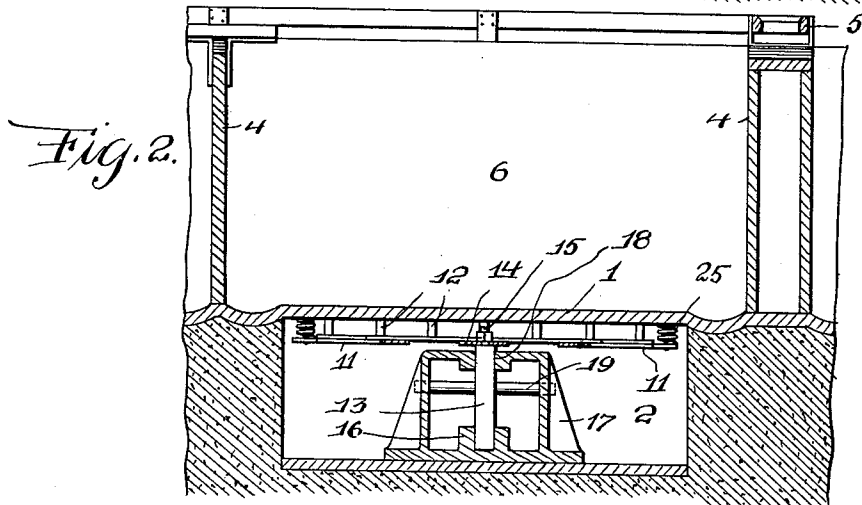


Fig. 2.

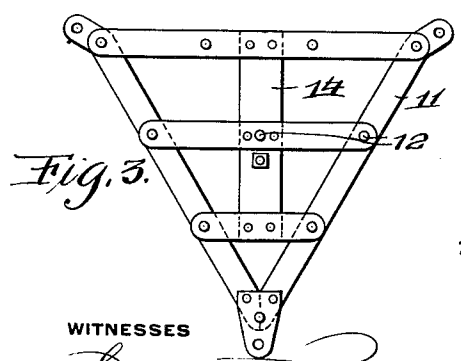


Fig. 3.

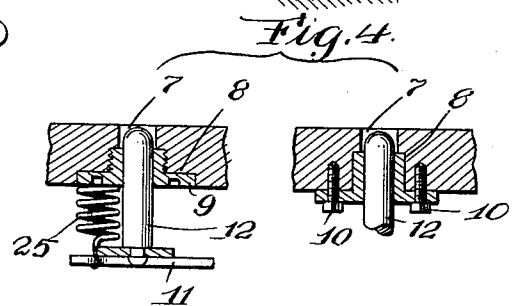


Fig. 4.

WITNESSES

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HUGH J. MARTIN, OF PITTSBURG, PENNSYLVANIA.

SPOTTING DEVICE FOR TENPINS.

1,000,184.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, HUGH J. MARTIN, a citizen of the United States of America, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Spotting Devices for Tenpins, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to a spotting device for ten pins, particularly in bowling alleys, and the primary object of the invention is to provide means in a manner as will be hereinafter set forth for accurately positioning pins upon the end of an alley, whereby when one of the pins is properly struck all of the pins will be knocked down, thus preventing the skill of a bowler from being interfered with by an improper setting of the pins.

Another object of this invention is to provide a spotting device that can be easily and quickly operated, the device being concealed in such a manner as not to interfere with bowling upon the alley, even when the device is inactive.

A still further object of the invention is to provide a spotting device that is simple in construction, durable, easy to install, and efficient for the purposes for which it is intended.

These and such other objects as may hereinafter appear are attained by the novel construction, combination, and arrangement of parts to be presently described and then claimed.

Reference will now be had to the drawing wherein like numerals of reference designate corresponding parts through the several views, in which:—

Figure 1 is a longitudinal sectional view broken away of an alley showing the adaptation therewith of a spotting device in accordance with this invention. Fig. 2 is a transverse sectional view of the same. Fig. 3 is a plan of a spotting frame forming part of the device, and Fig. 4 shows detail sectional views of the sockets that can be used in connection with the spotting frame.

1 denotes an alley provided with a well 2, a pit 3, longitudinal partitions 4, runways 5, and buffers 6 within the pit 3. The alley 1 has the rear end thereof provided with equally spaced vertical openings 7 of a triangular formation, and the material

bordering upon the lower end of these openings is cut away, as at 8, to accommodate metallic sockets 9, which as shown in Fig. 4 of the drawings may be screwed into the openings 7 or secured to the under side of the alley by screw bolts 10.

11 denotes a spotting frame triangular in plan and having a plurality of vertical equally spaced pins 12 corresponding in number to the openings 7 of the alley 1. The spotting frame 11 is made of strips or metal riveted or otherwise secured together and is located beneath the alley in the well 2 and is normally supported in proximity to the under side of the alley by a vertical post 13 detachably connected to the metallic strip 14 of the frame 11, as at 15. The post 13 has the lower end thereof seated in a socket 16 provided therefor in the bracket 17, the top of the bearing having a guide opening 18 for the post 13. The bearing 17 supports a rock shaft 19 and mounted upon said rock shaft is a segment gear 20 meshing with a rack 21, carried by the post 13. The segment gear 20 has a rearwardly extending tread or hand lever 22 protruding through a slot 23 provided therefor in the rear wall 24 of the alley 1.

Interposed between the corners of the frame 11 and the under side of the alley 1 are compression springs 25 adapted to normally retain the spotting frame in a lowered position.

The pins to be used in connection with the alley have the lower ends thereof provided with recesses 26 adapted to receive the pins 12 of the spotting frame.

From the foregoing it will be observed that I have devised a simple and inexpensive spotting device that is concealed and protected while the same is not in use, and that it is not necessary to use the device unless precision is desired in setting the bowling or ten pins.

The device in its entirety can be made of strong and durable metal and easily installed by simply providing the well 2 at the lower end of the bowling alley.

What I claim is:—

In a bowling alley, the combination with a ten pin bed provided with a series of openings and a well located below said bed, of a bearing bracket positioned in said well and provided at its top with a guide opening and at its bottom with a socket, a vertically movable post mounted in said socket and

extending through said guide opening, a vertically-movable spotting frame carried by the upper end of the post, pins carried by the frame and adapted to extend in said openings when the frame is elevated, springs connected to said bed and to the frame and normally maintaining the bed in a lowered position, said post provided with a rack, a shaft journaled in said bracket and provided with a toothed segment engaging said rack

for vertically moving the post when the shaft is rocked in one direction, and a lever connected to the shaft and projecting through and from the rear wall of said well.

In testimony whereof I affix my signature in the presence of two witnesses.

HUGH J. MARTIN.

Witnesses:

MAX H. SROLOVITZ,
CHRISTINA T. HOOD.