Dec. 1, 1925. 1,564,054

D. FISHER

GAME

Filed Aug. 29, 1924 2 Sheets-Sheet 1

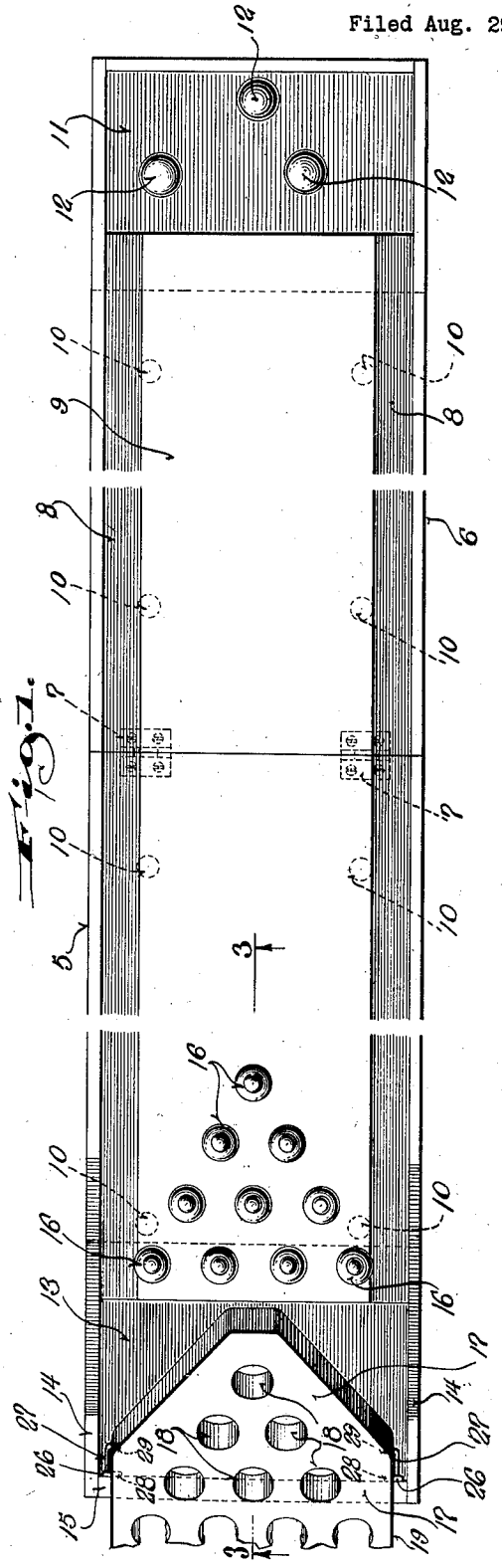


Fig. 1.

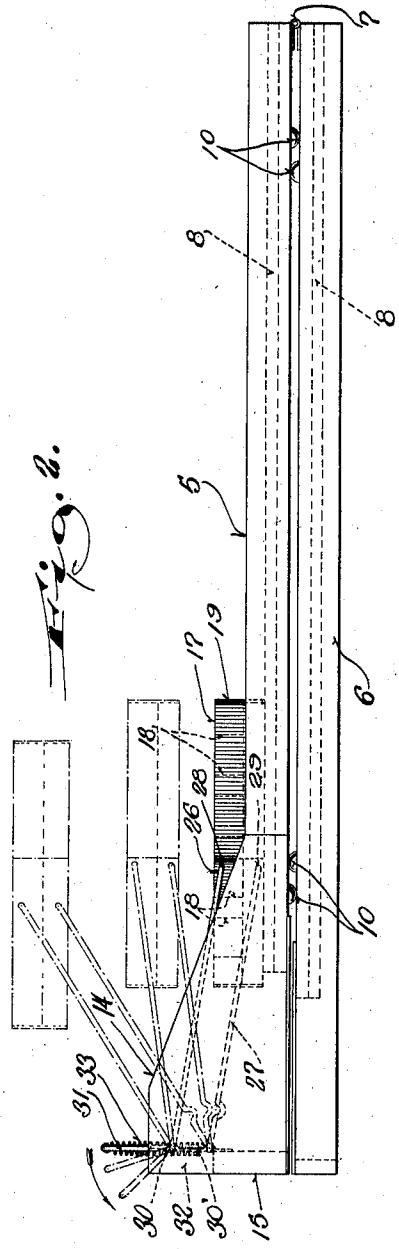


Fig. 2.

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Fig. 3.

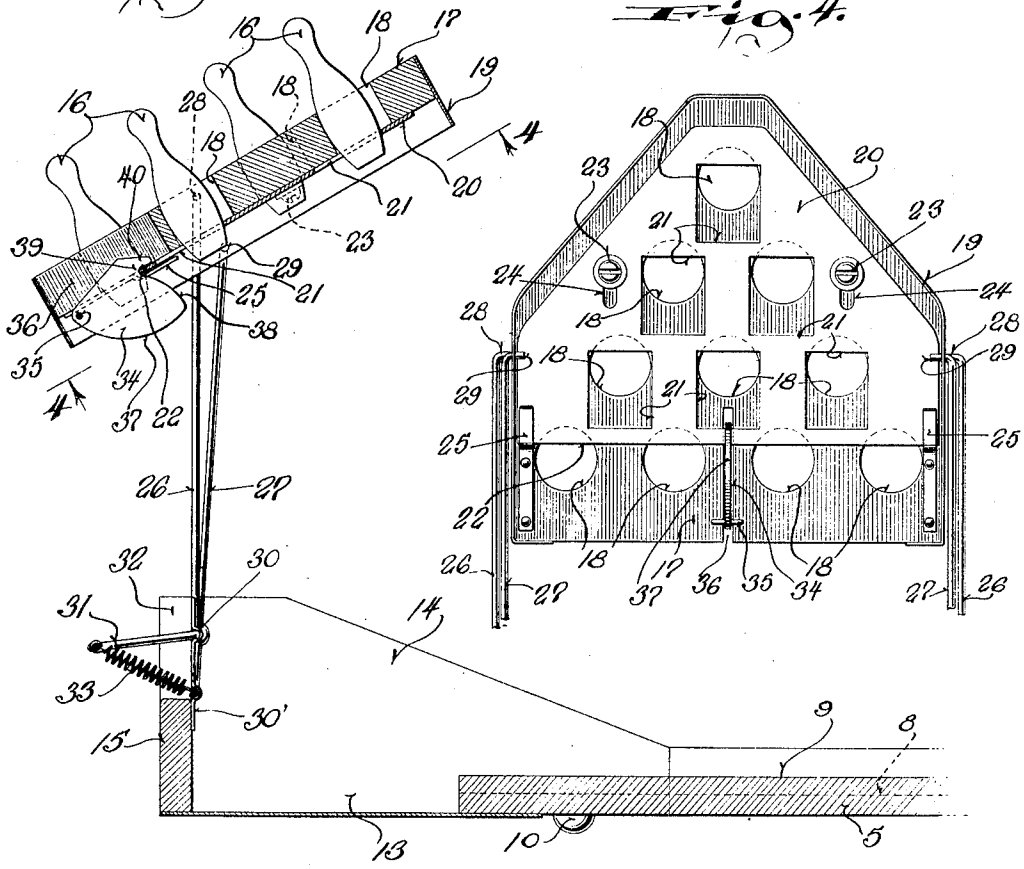
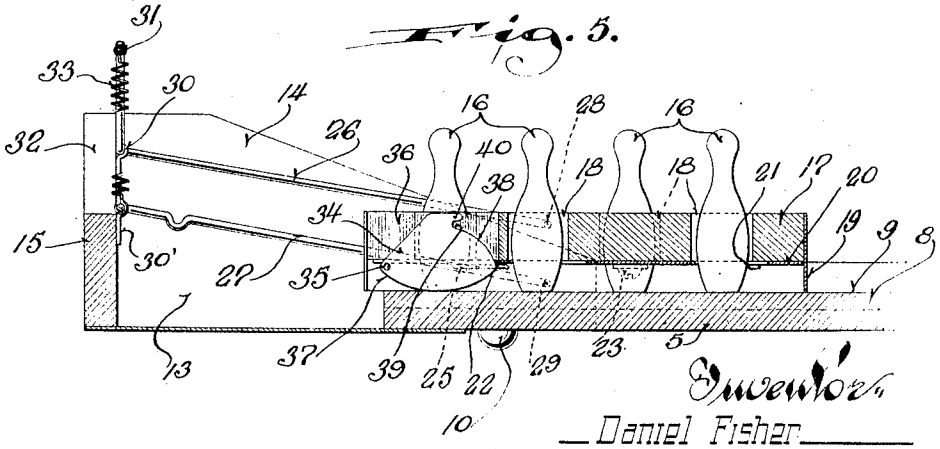


Fig. 4.

Fig. 5.



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Patented Dec. 1, 1925. 1,564,054

UNITED STATES PATENT OFFICE.

DANIEL FISHER, OF MILWAUKEE, WISCONSIN, ASSIGNOR TO THE ALDAN CO., A COPARTNERSHIP, OF MILWAUKEE, WISCONSIN.

GAME.

Application filed August 29, 1924. Serial No. 734,906.

To all whom it may concern:

Be it known that I, DANIEL FISHER, a citizen of the United States, and resident of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented new and useful Improvements in Games, of which the following is a description, reference being had to the accompanying drawings, which are a part of this specification.

This invention relates to certain new and useful improvements in games and refers more particularly to a miniature bowling game.

One of the objects of this invention is to provide a miniature bowling game having simple and efficient means for accurately setting the pins thereof in playing position.

Another object of this invention resides in the provision of a pin setting device for a miniature bowling game which is normally held in a raised position out of the way of the alley and adapted to have the pins placed therein while in such raised position and then lowered to automatically release the pins to their proper positions upon the setting device coming to rest on the inner end of the alley.

It is a further object of this invention to provide a pin setting device for a miniature bowling game in which the setting device is moved from lowered, pin setting position to its normally inactive position and maintained substantially horizontal throughout its movement until it reaches its uppermost position when the same is inclined to cause the pin holding mechanism to move by gravity to a position securing the pins therein.

And a still further object of this invention resides in the provision of a miniature bowling game of the character described which is foldable or collapsible to permit its ready storage when not in use.

With the above and other objects in view which will appear as the description proceeds, my invention resides in the novel construction, combination and arrangement of parts substantially as hereinafter described and more particularly defined by the appended claims, it being understood that such changes in the precise embodiment of the herein disclosed invention may be made as come within the scope of the claims.

In the accompanying drawings, I have illustrated one complete example of the physical embodiment of my invention constructed according to the best mode I have so far devised for the practical application of the principles thereof, and in which:

Figure 1 is a top plan view of a miniature bowling game embodying my invention, parts thereof being broken away;

Figure 2 is a side plan view of my improved game illustrating the same as in collapsed or folded position;

Figure 3 is a view taken transversely through the inner end of the bowling alley on the plane of the line 3—3 of Figure 1, and illustrating the pin setting device as in its upper-most inactive position with the pins therein ready to be lowered to set the pins in proper position for playing at the inner end of the alley;

Figure 4 is a bottom plan view of the pin setting device, said view being taken on the plane of the line 4—4 of Figure 3; and

Figure 5 is a view similar to Figure 3 illustrating the pin setting device in its lowermost position about to be again raised to leave the pins on the alley inner end in their proper position.

Referring now more particularly to the accompanying drawings, in which like numerals designate like parts throughout the several views, the numerals 5 and 6 designate the inner and outer sections, respectively, of my improved miniature game which are connected at their adjacent ends by hinges 7 to permit their being extended to form a continuous alley or folded, as illustrated in Figure 2, with the section 6 under the section 5 to thus occupy a minimum amount of space.

The sections 5 and 6 are correspondingly grooved or channeled along their side edges to provide the conventional gutters 8 between which the alley proper or playing surface 9 is located. Rubber pads or other resilient members 10 may be secured to the under-faces of the sections to provide supports for the game when extended or to engage the opposite sections when folded, as illustrated in Figure 2. The outer end of the section 6 is provided with a recess 11 in which the playing balls 12 are returned to the player, through the alleys 8, and the outer end of the section 5, which is the inner end of the alley, is provided with a recess 13, the sides and rear 14 and 15, respectively, of which are extended, as illustrated in Figures 2, 3 and 5.

As is customary in a bowling game, ten

pins 16 are set at the inner end of the alley in a triangular arrangement, as illustrated in Figure 1, and the game is played by rolling the balls 12 down the alley and the score is counted in the well known manner. In miniature games, it is a matter of great difficulty to properly and quickly set the pins in their positions and, in the accompanying drawings, is illustrated an improved pin setting device which I employ for this purpose.

The pin setting device comprises a plate member 17 which may or may not be of approximately triangular shape and has ten openings or pin receiving pockets 18 therein arranged in the order in which it is desired to have the pins 16 placed at the inner end of the alley, the openings 18 being of a diameter slightly greater than the largest diameter of the pins.

As illustrated, a flange member 19 surrounds the setting member and extends below the lower face thereof, secured to the under-face of the member 17 is a pin holding member 20, in the form of a plate having six openings 21 adapted to be aligned and partially disaligned with the openings 18, the inner edge 22 thereof being movable to partially close the rear-most openings 18. The member 20 is slidably mounted by fastening members 23 passed through elongated openings or slots 24 therein and the rear end portion thereof is slidably mounted between guide members 25 carried by the member 17 and extended thereover, the guide members 25 with the forward ends of the slots 24 providing means for regulating the movement over the openings 18 of the member 20.

The pin setting device is mounted from the rear wall 15 by two yoke-shaped members 26 and 27, respectively, preferably constructed from bendable metal such as wire, or the like. The member 26 has its extreme ends directed inwardly, as at 28, and pivotally engaged in the member 17 at a medial point preferably slightly to the rear of the center thereof and the yoke member 27 has its extreme ends directed inwardly, as at 29, and pivotally engaged in the flange 19 substantially on a vertical plane below the point the ends 28 of the member 26 are pivoted in the member 17.

The yoke member 26 has its closed end pivotally secured to the rear wall 15 adjacent the upper edge thereof by bearings 30 and the medial portion of the yoke is bent rearwardly and then inwardly to provide an operating handle 31 which extends through a slot or opening 32 in the rear wall 15. The yoke member 27 has its closed end journaled to the rear wall 15, as at 30', below the journal of the other yoke member, a distance substantially equal to that between the ends 28 and 29. With this construction, when the handle 31 is in its position illustrated in Figure 5, the pin setting member will be in a position to deposit the pins on the inner end of the alley, as will be later described, and, as the handle is moved in the direction of the arrow, the pin setting member passes through the dotted line positions illustrated in Figure 2, being maintained substantially horizontal until it nears its normal inactive position when the same is abruptly inclined downwardly and rearwardly to cause the plate 20 to shift to its rear-most limit of movement with its rear end 22 partially closing the four rear holes 18 and the forward edge of the plate openings 21 partially closing the remaining openings 18.

The pin setting member is yieldably held in its normal inactive position by a contractile spring 33 connected to the closed end of the yoke member 27 and to the outer free end of the handle 31. In the pin setting member, as illustrated in Figure 3, the pins 16 are placed in the pockets 18 with the bottoms thereof preferably extending a short distance through the unobstructed portions thereof, being held therein by the plate 20. The handle 31 is then swung in a reverse direction to the arrow illustrated in Figure 2 against the force of spring 33, which is extended as the pin setting member is lowered and, after its initial movement toward lowered position, the setting member assumes a true horizontal position parallel with the alley. As the setting member approaches its position of rest on the alley inner end, a cam or plate actuating member 34 shifts or slides the plate 20 forward, freeing the bottoms of the pockets and permitting the pins to drop onto the alley, as illustrated in Figure 5. The setting member is then raised by movement of the handle 31 in the direction of the arrow in Figure 2, the plate 20 being free of the openings 18 and disengaging the pins 16 leaves them properly arranged on the alley. The setting member is raised in a substantially horizontal position until it approaches its upward limit of movement, when it is abruptly inclined rearwardly to shift plate 20 over the pockets 18, as previously described.

The member 34, as illustrated in the drawings, may be of substantially triangular shape and pivoted at its extreme rear end, as at 35, in a slot or recess 36 in the rear of the member 17. The under surface 37 of the member 34 is preferably arcuate and the outer end 38 thereof is also arcuate and terminates in a plate receiving recess 39 with a projection or end 40 thereover to provide a stop for limiting the downward movement of the member 34 on its pivot.

With the pin setting member in its uppermost position, plate 20 partially closes the

bottoms of the pockets 18, as described and its rear edge 22 engages in the recess 39 with stop 40 resting thereon. In the setting of the pins, the arcuate face 37 of the member 34 cams on the alley as the pin setting member nears its position of rest thereon, causing member 34 to move into the slot 36, the surface 38 acting as a cam on the rear edge of plate 20 to move the same free of the pockets 18, as will be readily apparent.

From the foregoing description taken in connection with the accompanying drawings, it will be readily obvious to those skilled in the art to which an invention of this character appertains that I provide a miniature ten pin or bowling game having an inexpensive but efficient pin setting device.

What I claim as my invention is:

1. A game of the character described, comprising a support, a pin setting member, means connecting the pin setting member with the support whereby the same may be maintained in a substantially horizontal position as it is moved to and from the support, pin receiving pockets in the pin setting member adapted to receive therein pins to be positioned on the support, means for closing the pockets of the pin setting member, and means operable upon engagement with the support to move the pocket closing means free of the pockets.

2. A game of the character described, comprising a support, a pin setting member, means connecting the pin setting member with the support whereby the same may be moved to and from the support, pin receiving pockets in the pin setting member in which pins to be positioned on the support are disposed, means for closing the pockets of the pin setting member, means for tilting the pin setting member when it is moved from the support to position the pocket closing means over the pockets, and means operable to move the pocket closing means free of the pockets.

3. A game of the character described, comprising a support, a pin setting member, means conecting the pin setting member with the support whereby the same may be moved to and from a position on the support, pin receiving pockets in the setting member adapted to receive pins to be positioned thereon, means engageable with the support and engageable over the bottoms of the pockets when the pin setting member is in its raised position, means operable upon positioning of the pin setting member on the support to move said pocket closing means free of the pockets, and means yieldably urging the pin setting member to its position off the support.

4. A game of the character described, comprising a playing alley, a pair of yoke members of substantially equal lengths, means pivotally securing the closed ends of the yoke members to the rear of the alley in spaced relation, a pin setting member, means pivotally connecting the outer ends of the yoke members with the pin setting member spaced a distance substantially equal to that between the closed ends thereof, means for raising and lowering the pin setting member, the yoke members maintaining the pin setting members substantially horizontal, pin receiving pockets in the pin setting member adapted to receive playing pins, and means operable upon lowering of the pin setting member onto the alley to release pins in the pockets and position them on the alley.

5. A game of the character described, comprising a playing alley, a pair of yoke members of substantially equal lengths, means pivotally securing the closed ends of the yoke member to the rear of the alley in spaced relation, a pin setting member, means pivotally connecting the outer ends of the yoke members with the pin setting member spaced a disance substantially equal to that between the closed ends thereof, a handle member struck laterally from the closed end of one yoke member to provide means for raising and lowering the setting member, pin receiving pockets in the pin setting member adapted to receive playing pins, and means operable upon lowering of the pin setting member onto the alley to release the pins in the pockets and position them on the alley.

6. A game of the character described, comprising a playing alley, a pair of yoke members of substantially equal lengths means pivotally securing the closed end of the yoke member to the rear of the alley in spaced relation, a pin setting member, means pivotally connecting the outer ends of the yoke members with the pin setting member spaced a distance substantially equal to that between the closed ends thereof, a handle member struck laterally from the closed end of one yoke member to provide means for raising and lowering the setting member, a contractile spring having one end connected with the outer end of said handle and its other end connected with the closed end of the other yoke member to normally yieldably retain the setting member in raised position, pin receiving pockets in the pin setting member adapted to receive playing pins, and means operable upon lowering of the pin setting member onto the alley to release pins in the pockets and position them on the alley.

7. In a game of the character described, a pin setting member, comprising a pin carrying base having a plurality of apertures therein arranged in the order in which pins are to be placed for playing, a plate slidably

mounted on the under surface of the base and freely movable to partially obstruct the bottom of the pin receiving openings, and a cam member actuated upon lowering of the base to lower-most position to move said plate free of the pin receiving openings and permit the setting of the pins positioned therein.

8. In a game of the character described, a pin setting member, comprising a pin carrying base having a plurality of apertures therein arranged in the order in which pins are to be placed for playing, a plate slidably mounted on the under surface of the base and freely movable to obstruct the bottom of the pin receiving openings, a cam member actuated upon lowering of the base to lower-most position to move said plate free of the pin receiving openings to permit the setting of pins positioned therein, and means for moving the pin setting member to and from its raised and lowered positions in a substantially horizontal position until it nears its upper-most position when the same is sharply inclined to cause movement of the plate member to its position over the openings.

9. A pin setting member of the character described, comprising an apertured base, a plate member slidably mounted on the under surface of the base and movable to and from a position obstructing the openings therein, a cam member of substantially triangular shape, means pivotally securing the cam member at one apex to the base with its outer end engageable with the inner edge of the slidably mounted plate whereby movement of the cam member in one direction on its pivot causes the plate member to be shifted to a position free of the openings in the base, a playing alley, and means mounting the setting member for movement onto the playing alley, the lower face of the cam member normally extending beneath the base and engaging the alley as the setting member is lowered to cause the outer end of the cam to move the plate free of the openings in the base and deposit the pins positioned therein on the alley.

10. A pin setting member of the character described, comprising an apertured base, a plate member slidably mounted on the under surface of the base and movable to and from a position obstructing the openings therein, a cam member of substantially triangular shape, means pivotally securing the cam member at one apex to the base with its outer end engageable with the inner edge of the slidably mounted plate whereby movement of the cam member in one direction on its pivot causes the plate member to be shifted to a position free of the openings in the base, a playing alley, means mounting the setting member for movement onto the playing alley, the lower face or the cam member normally extending beneath the base and engaging the alley as the setting member is lowered to cause the outer end of the cam to move the plate free of the openings in the base and deposit the pins positioned therein on the alley, and means limiting the pivotal movement of the cam member.

11. A game of the class described comprising a board, a pin setting member pivoted thereto and adapted to be moved to and from said board, pin receiving pockets in said member, a plate slidable with respect to said member and adapted to partially close the pockets therein, and means carried by said pin setting member and operable upon engagement with said board to move the plate free of the pockets when depositing the pins upon said board.

12. A game of the class described comprising a board, a pin setting member pivoted thereto and adapted to be moved to and from said board, said pin setting member moving throughout its major portion of movement in substantially parallel relation to said board and during its lesser movement at an angle thereto, pin receiving pockets in said member, a plate slidable with respect to said member and adapted to move by gravity during the lesser movement of said member to partially close the pockets, and means carried by said pin setting member and operable upon engagement with said board to move the plate free of the pockets when depositing the pins upon said board.

In testimony whereof I affix my signature.

DANIEL FISHER.