Oct. 11, 1960 M. L. CHANKO 2,955,824

BATTING PRACTICE DEVICE

Filed April 30, 1959

FIG. 1

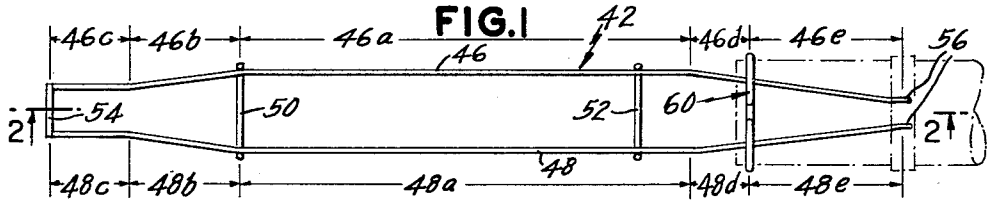


FIG. 4

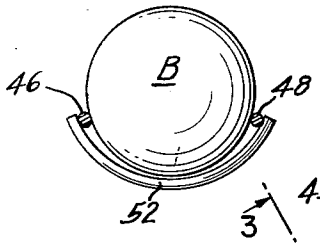


FIG. 2

FIG. 3

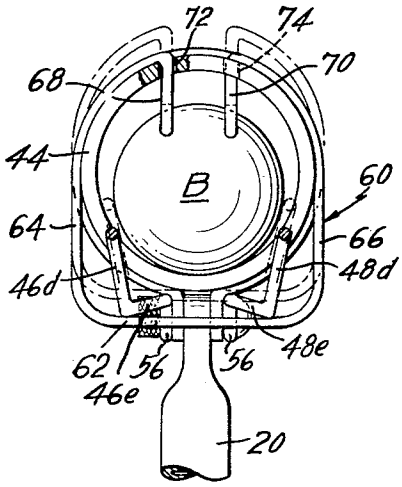
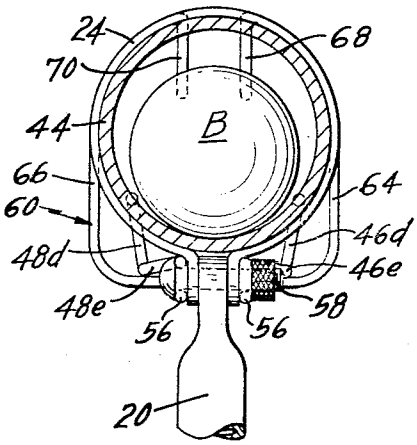


FIG. 5



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BATTING PRACTICE DEVICE

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4 Claims. (Cl. 273—26)

The present invention relates to a batting practice device.

More specifically, the present invention relates to a batting practice device wherein baseballs may be successively discharged under the control of the batter, one at the time, and which discharged balls follow a path simulating that of a pitched ball which passes the strike zone of the batter.

It is accordingly an object of the present invention to provide an improved batting practice device of generally improved and simplified construction.

Another object of the invention is the provision of a batting practice device having means for discharging the balls from a magazine, one at the time, under the control of the batter, and having means for imparting to the discharged balls a movement along a path which simulates that of a pitched ball and which passes through the strike zone of the batter.

Another object of the invention is to provide a unitary wire-shaped formation releasably secured to the discharge opening of a magazine for guiding the discharged balls and for providing gate means so as to discharge one of said balls at the time.

Another object is to provide a wire formation for guiding balls discharged from a magazine along a predetermined path and to impart to said discharged balls a trajectory through the air which simulates that of a pitched ball, said wire formation having gate means normally biased to prevent the discharge of said balls and being movable to a position in which said balls may be discharged.

Another object is to provide a wire formation for guiding balls discharged from a magazine along a predetermined path and to impart to said discharged balls a trajectory through the air which simulates that of a pitched ball, said wire formation having gate means normally biased to prevent the discharge of said balls and being movable to a position in which said balls may be discharged, said gate means including a pair of prongs extending downwardly into the magazine adjacent the discharge opening thereof and normally biased so as to prevent the discharge of said balls.

The above and other objects, features and advantages of the present invention will be more fully understood from the following description considered in connection with the accompanying illustrative drawings.

In the drawings:

Fig. 1 is a plan view of a wire formation in accordance with the invention;

Fig. 2 is a sectional view, on a larger scale, taken along line 2—2 of Fig. 1;

Fig. 3 is a view, partly in section, taken along line 3—3 of Fig. 2;

Fig. 4 is a view taken along line 4—4 of Fig. 2; and

Fig. 5 is a sectional view taken along line 5—5 of Fig. 2.

Referring now to the drawings, the batting practice device of the present invention comprises in general a magazine 44 provided at one end thereof with a formation 42 which defines a guideway or runway for the balls B in the magazine and which also defines a gate or stop 60 for said balls. The magazine 44 is mounted in a tilted position thereof, as shown in Fig. 2, so that the balls may be gravity fed toward the formation 42 when stop 60 is moved out of the path of said balls. Any suitable mounting or support may be provided for mounting magazine 44 in said tilted position thereof. For example, and as shown in Fig. 2, there is provided a standard 20 at the upper end of which there is provided an annular or ring-shaped member 24 which is adapted to releasably hold the magazine 44. Ring 24 is mounted for pivotal movement about standard 20, by means of bolt 58, so that it may be adjusted so as to provide any desired angle of inclination of the magazine 44.

Magazine 44 comprises a tubular member open at the opposite ends thereof to define a loading opening (not shown) and a discharge opening 45. At the discharge end of magazine 44 there is provided the previously mentioned formation 42 which defines simultaneously the stop means 60 for preventing the discharge of the balls through opening 45 and the runway for guiding the movement of the discharged balls from the magazine 44.

Wire formation 42 comprises a pair of longitudinally extending wires 46 and 48 having intermediate portions 46*a* and 48*a*, respectively, held in parallel spaced relation by means of transversely extending downwardly curved parts 50 and 52 suitably secured thereto, as by welding. Extending from the outer ends of portions 46*a*, 48*a*, respectively, in converging relation, are wire portions 46*b*, 48*b*, respectively. Wire formation 42 terminates at one end thereof in upwardly curved parallel spaced end portions 46*c*, 48*c*, respectively, interconnected by transversely extending part 54. From the inner ends of portions 46*a*, 48*a*, respectively, wire formation 42 extends to define converging wire portions 46*d*, 48*d*, respectively, which are angularly related to intermediate wire portions 46*a*, 48*a*, respectively. Wire formation 42 terminates at its inner end with converging wire portions 46*e*, 48*e*, respectively, the latter terminating in hooked portions 56. Hooked portions 56 are wrapped around the bolt 58 which pivotally mounts ring-shaped members 24 onto standard 20, to thereby releasably and resiliently mount wire formation 42 on magazine 44 for pivotal movement relative thereto. Wire formation 42, by its resilient mounting, is normally biased in the position shown by the full lines in Fig. 2.

Wire portions 46*a–d* and 48*a-d* cooperate to define a guideway or runway for the balls B which are discharged from magazine 44, and impart to the discharged balls a trajectory which simulates the path of a pitched ball, as will hereinafter be discussed. Provision is made for releasing only one ball at the time from magazine 44, which ball will follow a predetermined trajectory set therefor. Toward that end, wire formation 42 is provided with a gate 60 secured thereto, for movement in unison therewith. Gate 60 comprises a wire formation having a base 62 which may be welded to wire formation 42 at the junctions of portions 46*d*–46*e* and 48*d*–48*e*, respectively, as best shown in Figs. 3 and 5. Side parts 64 and 66 extend upwardly from the opposite ends of base 62, respectively, then curve inwardly, and terminate in prongs 68 and 70, respectively, which extend downwardly into magazine 44 through apertures 72 and 74, respectively, provided therefor.

In the normal position of wire formation 42 (shown by the full lines in Figs. 2 and 3), gate 60 is adjacent the discharge opening 45 of magazine 44, prongs 68 and 70 extend a substantial distance inwardly of magazine 44 to prevent the discharge of balls B therefrom, base 62 is spaced a small distance from magazine 44, and the curved portions of gate 60 engage the magazine. The device is

now ready for its utilization. To operate the device, the batter raises the free end of wire formation **42**, against the resilient action thereof, to the position shown by the dashed lines in Figs. 8 and 9. This removes prongs **68** and **70** from the path of the lowermost gravity biased ball B, thereby enabling the latter to roll out of magazine **44**, between the spaced wire portions **46***d*, **48***e* and **46***a*, **48***a*, which define a guideway for the downward movement of said ball. It will be understood that the batter raises the wire formation for a fractional period of time to permit only one ball to be discharged from the magazine **44**, after which he places the bat on his shoulder in position for batting practice. Due to the resiliency of wire formation **42**, upon removal of the bat, formation **42** will return to its lowermost position shown by the full lines in Figs. 2 and 3 in which prongs **72** and **74** are in position to prevent the next ball from being discharged. In the meantime, the ball B which has just been discharged rolls down the guideway, picking up momentum, and the curved end portions **46***c*–**48***c* cause the ball to take on an upward motion as it leaves wire formation **42**, to follow a path or trajectory in the air which is substantially similar to that followed by a pitched ball and which passes through the strike zone of the batter who is in position to swing his bat for his batting practice. The same steps may now be repeated to discharge the next ball from magazine **44** which will follow substantially the same path previously described.

It will be apparent that the height of magazine **44** as well as the angle of inclination thereof can be adjusted to any desired amount so that the balls which are discharged follow a predetermined path as may be desired by the batter. It will also be noted that when wire formation **42** is raised to discharge a ball B, base **62** will engage magazine **44** and limit the upward movement of the wire formation so as to prevent the complete removal of prongs **72** and **74** from the magazine, while still permitting the discharge of a ball.

Thus it is seen that the batting practice device described above is eminently well suited to accomplish the objects of the invention.

This application is a continuation-in-part of my application Serial No. 795,397, filed February 25, 1959.

While I have shown and described the preferred embodiments of my invention, it will be understood that various changes may be made in the idea or principles of the invention within the scope of the appended claims.

Having thus described my invention, what I claim and desire to secure by Letters Patent is:

1. A batting practice device comprising, housing means for a ball of the type adapted to be hit by a batter, said housing means having an opening at one end thereof through which said ball is adapted to be discharged, and resilient means extending from said one end of said housing means and defining guiding means for said ball, said guiding means being shaped so as to impart to said ball a predetermined trajectory corresponding to that of a pitched ball, whereby said discharged ball passes through the strike zone of the batter, said resilient means also having stop means normally biased for preventing the discharge of said ball from said housing means, said stop means comprising means extending downwardly into the housing means and normally biased into a lowermost closing position thereof in which it is in the discharge path of said ball and prevents the discharge thereof from the housing means.

2. A batting practice device comprising, housing means for a ball of the type adapted to be hit by a batter, said housing means having an opening at one end thereof through which said ball is adapted to be discharged, and resilient means extending from said one end of said housing means and defining guiding means for said ball, said guiding means being shaped so as to impart to said ball a predetermined trajectory corresponding to that of a pitched ball, whereby said discharged ball passes through the strike zone of the batter, said resilient means also having stop means normally biased for preventing the discharge of said ball from said housing means, said stop means comprising means extending downwardly into the housing means and normally biased into a lowermost closing position thereof in which it is in the discharge path of said ball and prevents the discharge thereof from the housing means, said resilient means being movable under the control of the batter for moving said downwardly extending means upwardly from said closing position thereof out of the discharge path of said ball, said resilient means also including limiting means for preventing the complete withdrawal of said downwardly extending means from said housing means.

3. A batting practice device comprising, housing means for a ball of the type adapted to be hit by a batter, said housing means having an opening at one end thereof through which said ball is adapted to be discharged, and resilient means extending from said one end of said housing means and defining guiding means for said ball, said guiding means being shaped so as to impart to said ball a predetermined trajectory corresponding to that of a pitched ball, whereby said discharged ball passes through the strike zone of the batter, said resilient means comprising a pair of longitudinally extending wires secured to each other in spaced relation and terminating at the outer ends of free upturned portions and at the inner ends in a pair of portions releasably secured to said housing means for pivotal movement relative thereto, gate means secured to said pair of wires and adapted to be positioned adjacent the discharge opening of said housing means, said gate means having a base, side parts and a pair of prongs extending downwardly into the housing means through apertures provided therefor, said base being normally biased below said housing means and in spaced relation therewith, said prongs being normally biased in the path of said ball to prevent the discharge thereof, said resilient means being movable under the control of the batter for moving said prongs upwardly from said normally biased position thereof out of the discharge path of said ball for permitting the discharge of said ball, said base defining means for limiting the upward movement of said prongs to prevent the complete withdrawal thereof from said housing means.

4. An attachment for use in combination with a tubular member which is adapted to contain balls, for controlling the discharge of balls from said tubular member and for imparting to said balls a motion having a predetermined trajectory corresponding to that of a pitched ball, said attachment comprising a pair of longitudinally extending wires secured to each other in spaced relation and terminating at the outer ends in free upturned portions and at the inner ends in a pair of portions adapted to be releasably secured to said tubular member for pivotal movement relative thereto, gate means secured to said pair of wires and adapted to be positioned adjacent the discharge opening of said tubular member, said gate means having a base, side parts and a pair of prongs adapted to extend downwardly into said tubular member and adapted to be normally biased in position for preventing the discharge of balls contained in said tubular member, said longitudinally extending wires having parts extending from said gate means to said upturned portions thereof and adapted to cooperate with the latter for guiding balls discharged from said tubular member and imparting thereto said predetermined trajectory.

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