Sept. 8, 1925. 1,552,849

E. LANTZ

AUTOMATIC BASEBALL BATTING PRACTICE APPARATUS

Filed May 19, 1925 2 Sheets-Sheet 1

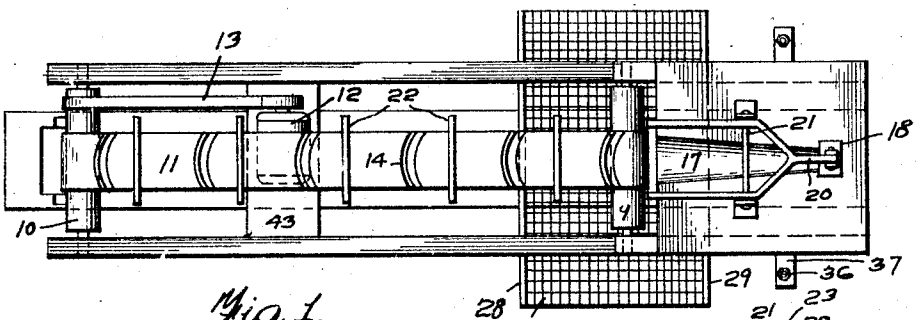
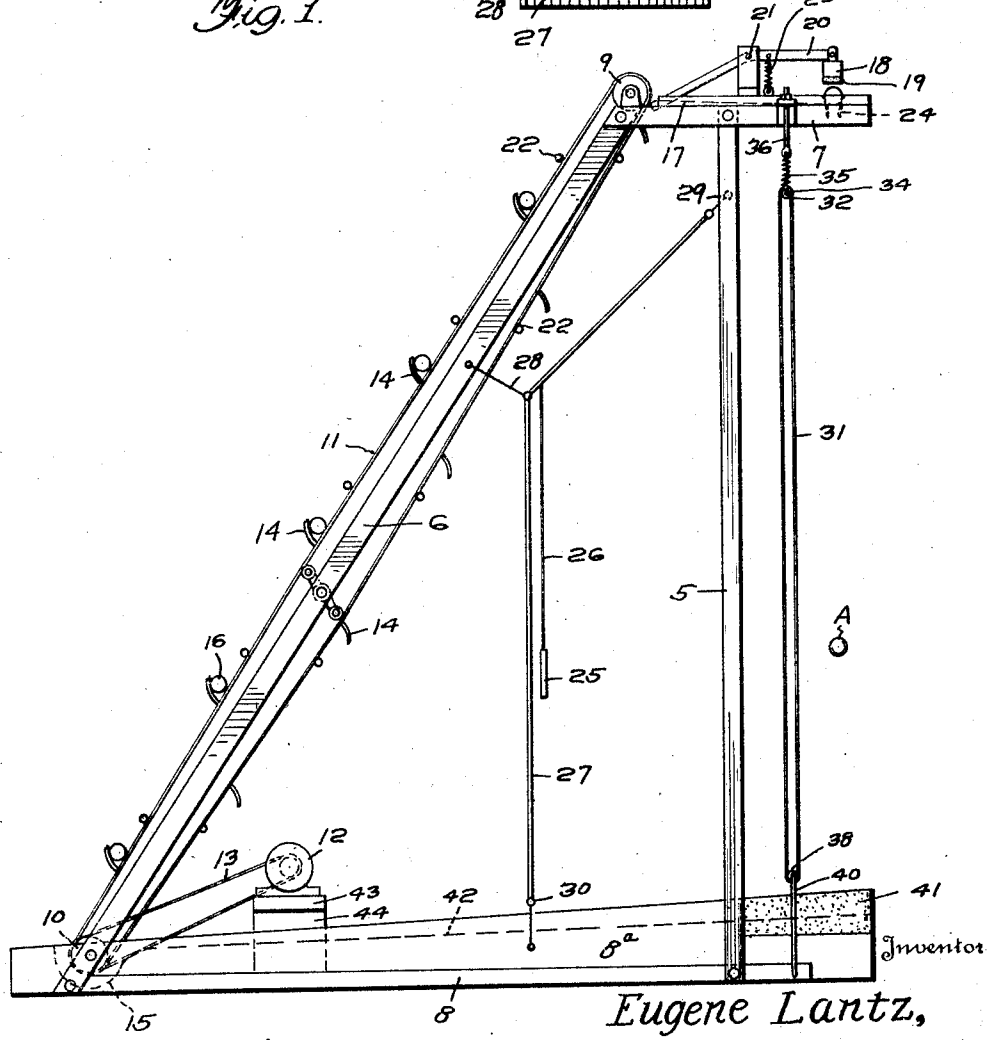


Fig. 1.



Eugene Lantz,

Fig. 2.

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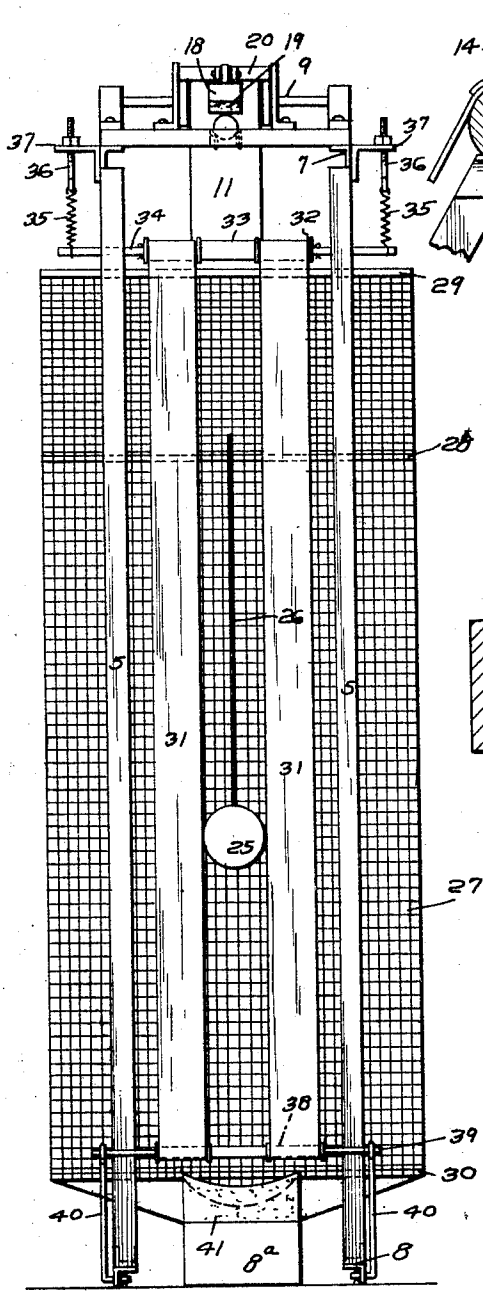


Fig. 3.

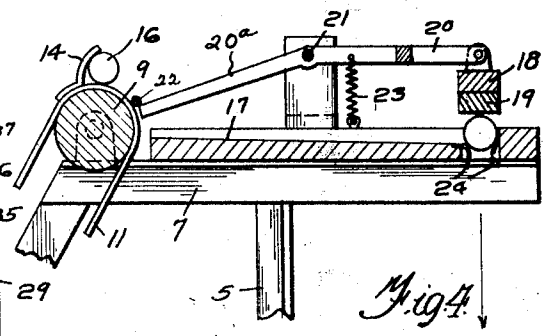


Fig. 4.

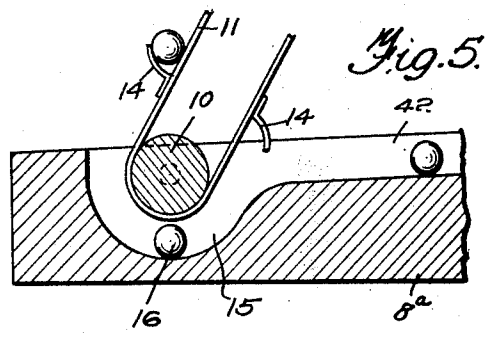


Fig. 5.

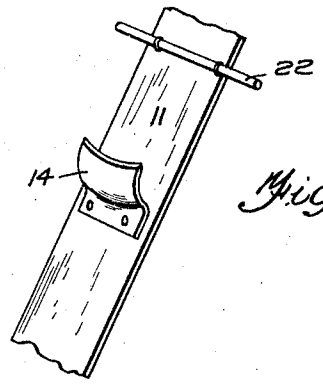


Fig. 6.

Inventor

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Patented Sept. 8, 1925. 1,552,849

UNITED STATES PATENT OFFICE.

EUGENE LANTZ, OF JERSEY CITY, NEW JERSEY.

AUTOMATIC BASEBALL-BATTING-PRACTICE APPARATUS.

Application filed May 19, 1925. Serial No. 31,365.

To all whom it may concern:

Be it known that I, EUGENE LANTZ, a citizen of the United States, residing at Jersey City, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Automatic Baseball-Batting-Practice Apparatus, of which the following is a specification.

This invention relates to an automatic base ball batting practice machine and it has for its object to provide a device of this character constructed to test the skill of the batter and of utility, not alone as a batting practice machine, but as an amusement device in amusement parks and like places.

Further objects and advantages of the invention will be more specifically set forth in the detailed description which follows.

In the accompanying drawings:

Figure 1 is a plan view of a machine constructed in accordance with the invention,

Figure 2 is a side elevation thereof,

Figure 3 is a front elevation,

Figure 4 is a vertical sectional view through the top of the structure,

Figure 5 is a detailed sectional view of the lower or pick-up end of the ball elevator, and

Figure 6 is a perspective view of a portion of the pick-up elevator.

Like numerals designate corresponding parts in all of the figures of the drawings.

The particular form of the invention which I have chosen for purposes of illustration comprises a frame consisting of vertical rails 5, inclined rails 6, top platform 7 and bottom frame 8. These parts may be made of any suitable material, either metal or wood, though I prefer to make them of metal and to unite them by removable bolts so that the structure may be readily disassembled when desired, either for purposes of shipment or storage.

The frame work described, supports rollers 9 and 10 over which a pick-up conveyor belt passes. Motion is imparted to the rollers and the pick-up belt from a motor 12 through the medium of a belt 13. The conveyor belt 11 carries a plurality of cups or buckets 14, adapted as they travel around through a depression 15 (see Fig. 5), of bed block 8, to pick up the base balls, indicated at 16 and to elevate them to a position above the platform 7, where they drop on to an inclined trackway 17 and roll toward the outer end of the platform 7. The outward movement of each ball is interrupted by its contact with a hammer head 18, having a cushion 19 upon its lower face. This hammer head is carried by a lever 20 which is mounted to rock upon a shaft 21. This lever is bifurcated and its separated rear ends lie in the path of movement of contact bars 22 that are carried by the belt 11. A spring 23 is attached to the lever 20 and to the platform 7 and tends to draw the hammer 18 downwardly. Therefore the action of the bars 22 upon the rear ends of the separated legs 20^a of the lever 20 elevates the hammer 18 against the tension of spring 23. When the hammer is elevated the ball rolls into a pocket constituted by a pair of spring clips 24 where it rests until the particular bar 22 which has elevated the hammer 18 rides past the arms 20^a, whereupon the spring 23 acts to cause the hammer 18 to descend and to strike the ball a sharp blow which drives it through the fingers 24 and causes it to fall toward the bed block 8. When the ball reaches the position indicated at A in Fig. 2 the batter strikes at it or he may strike at it at any point that he sees fit which will test his skill. However, in order to determine the degree of control possessed by the player, I preferably provide a target in the form of a plate indicated at 25, said target being suspended upon a cord or other suitable flexible element indicated at 26. This target is suspended in front of a net back stop at 27 which is suitably connected to and supported from the frame work as indicated at the points 28, 29 and 30. However, it is to be understood that the net may be supported in other ways and from other points.

A back stop for the bat is formed by a pair of belts 31. The upper portions of these belts pass over rollers 32 which are separated by a spacing element 33 and which rollers are mounted upon a rod 34. This rod is spring supported by means of springs 35 the upper ends of which are connected to tension bolts 36, said bolts being supported from brackets 37.

The lower portions of the belt pass over rollers 38 that are supported upon a transverse rod 39. The ends of this rod engage the eyes of eye bolts 40. The lower ends of these eye bolts are bent inwardly and engage with the members 8.

If the batter fails to hit the ball it drops upon a sand cushion 41 and travels down an inclined runway 42 of bed block 8[a] to the depression 15 where it is again picked up by the belt 11 and elevated to the hammer 18. The force of the blow delivered by the hammer 18 may be variably determined by the shape of bars 22 or by the position of the arms 20[a] with respect to said bars. For example the bars will remain in contact with said arms longer, and raise the hammer higher before its release, if the arms 20[a] are full length, than if said arms are slightly shorter. Any other relation of these parts which will secure this result, is within the scope of the invention.

The motor 12 may be disposed wholly outside of the frame or it may be supported upon a base block 43 carried by side brackets 44, of such height that the block 43 is spaced far enough above the bed block 8[a], and its runway, to permit the balls to roll under the block 43. It is apparent that many ways will readily suggest themselves to those skilled in the manufacture of amusement devices for carrying out the principles herein illustrated, consequently it is to be understood that the invention is not limited to the precise construction set forth but that it includes within its purview whatever changes fairly come within either the terms or the spirit of the appended claims.

Having described my invention, what I claim is:

1. A machine of the character described ccomprising a ball pick-up mechanism arranged to carry balls to an elevated position from which position they fall by gravity, and a bat stop structure arranged adjacent to and in the rear of the path of movement of said balls as they fall by gravity.

2. A device of the character described comprising a pick-up mechanism adapted to pick up base balls and carry them to an elevated position from which elevated position they fall by gravity, a bat stop arranged adjacent the path of travel of the balls as they fall, and a trackway for the balls arranged to conduct the balls back to the pick-up position.

3. A structure as recited in claim 2 wherein the bat stop comprises a pair of spaced yieldingly mounted belts disposed on opposite sides of the line of travel of the balls.

4. A device of the character described comprising an elevating mechanism for base balls, a detent to which the balls are delivered from the elevating mechanism, a hammer adapted to dislodge the ball from the detent with a blow, a yieldingly mounted bat stop along the face of which the balls fall by gravity, and a runway upon which the balls fall and which conducts the balls to the pick-up position.

5. A structure as recited in claim 4 wherein the bat stop comprises a pair of yieldingly mounted belts.

6. A structure as recited in claim 4 in combination with a target disposed rearwardly of the bat stop.

7. A structure as recited in claim 4 in combination with a target disposed rearwardly of the bat stop and a back stop disposed rearwardly of the target.

8. A structure as recited in claim 4 wherein the bat stop comprises a pair of spaced inch-like members and a spring mounting for said members.

9. A device of the character described comprising a supporting frame, a travelling pick-up mechanism adapted to elevate base balls to the top of the frame, a trackway extending laterally from the upper end of the pick-up mechanism, a yielding detent to which the balls are conducted along said trackway, a pivoted hammer comprising portions terminating adjacent the pick-up mechanism, and members carried by the pick-up mechanism and adapted to engage said portions to operate the hammer to elevate the same, a spring for returning the hammer to cause it to strike the ball and drive it from the said mechanism, a bed block upon which the balls fall said bed block comprising a runway and a pocket in the runway in which the lower edge of the pick-up mechanism travels.

10. A structure as recited in claim 9 in combination with a pair of yieldingly mounted spaced belts constituting a bat stop, the belts being spaced far enough apart to permit the passage of a ball that is struck between them and a target disposed rearwardly of said belts.

11. A structure as recited in claim 9 in combination with a bat stop comprising a pair of belts and yielding mounting for the same, said belts being disposed upon sides of the line of travel of the ball with sufficient space between them to permit of the passage of the ball therethrough, a target disposed rearwardly of the bat stop, and a back stop supported from the frame and, in turn, supporting the target.

In testimony whereof I affix my signature.

EUGENE LANTZ.