No. 702,415. Patented June 17, 1902.

C. EDWARDS.

MECHANICAL BASE BALL PITCHER.

(Application filed Jan. 13, 1902.)

(No Model.) 2 Sheets—Sheet 1.

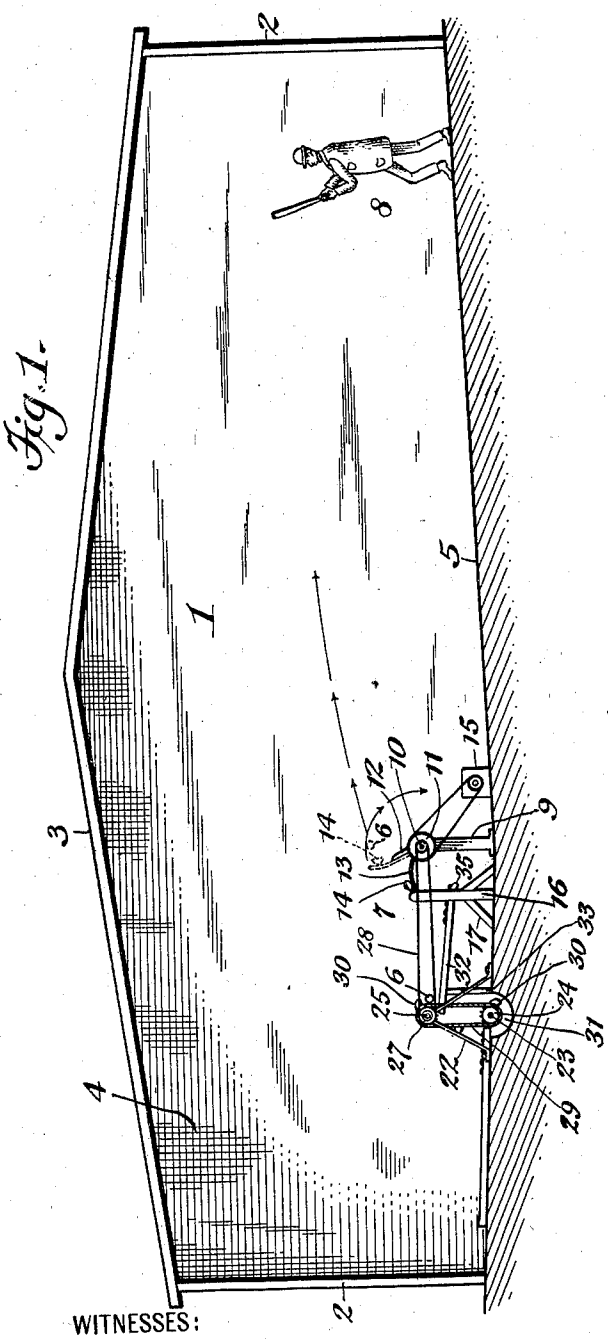


Fig. 1.

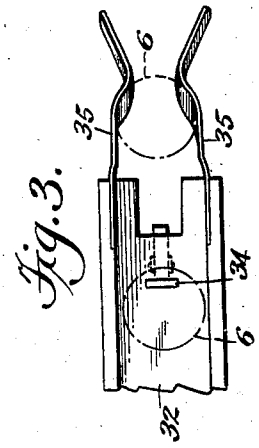


Fig. 3.

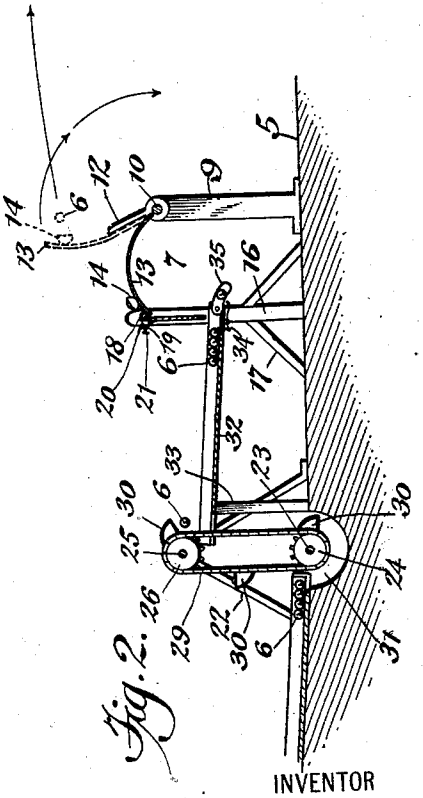


Fig. 2.

WITNESSES:

A. Applemann Jr

Hartwell P. Heath

INVENTOR

Charles Edwards,

BY J. R. Littell,

his ATTORNEY.

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

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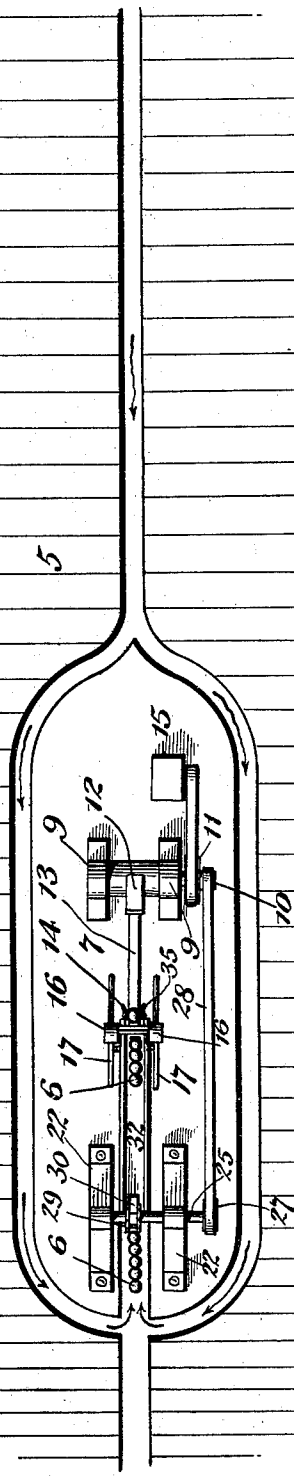


Fig. 4.

WITNESSES:

A. R. Eppleward

Hartwell P. Heath

INVENTOR

Charles Edwards,

BY J. R. Littell

his ATTORNEY.

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

UNITED STATES PATENT OFFICE.

CHARLES EDWARDS, OF BROOKLYN, NEW YORK.

MECHANICAL BASE-BALL PITCHER.

SPECIFICATION forming part of Letters Patent No. 702,415, dated June 17, 1902.

Application filed January 13, 1902. Serial No. 89,444. (No model.)

To all whom it may concern:

Be it known that I, CHARLES EDWARDS, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Mechanical Base-Ball Pitchers, of which the following is a specification.

This invention relates to mechanical base-ball pitchers, and has for its object to provide an improved device of the class described which will possess points of advantage in convenience, simplicity, inexpensiveness, positiveness and directness of action, effectiveness, and general efficiency.

Another object of this invention is to provide an improved device of the class described which can be adjusted so as to deliver the ball at the height desired by the batter.

Another object of this invention is to provide an improved device of the class described in which the ball, whether struck by the batter or not, will be returned and delivered to the mechanical pitcher.

Another object of this invention is to provide an improved device of the class described which is adapted for exhibition and use at amusement-parks, watering-places, seaside-resorts, and wherever people congregate for recreation.

In the drawings, Figure 1 is a side elevation of a mechanical base-ball pitcher embodying my improvements, showing a batter in position. Fig. 2 is a side elevation, partly in section, of the pitching device and ball-receiving and delivering means enlarged. Fig. 3 is a detail plan view of the end portion of the chute, showing a ball ready for delivery to the pitcher and a second ball resting against the stop near the end of the chute. Fig. 4 is a plan view of the operative parts of a mechanical base-ball pitcher embodying my improvements.

Corresponding parts in all the figures are designated by the same reference characters.

Referring to the drawings, 1 designates a booth which may be of any suitable construction. Preferably the booth 1 comprises uprights 2 and a roof 3, supported by the uprights. The sides of the booth 1 are inclosed with any suitable material which will not prevent those persons outside the booth 1 from seeing what is taking place therein, but will prevent the ball passing out of the booth 1. As shown, such sides consist of wire screens 4, the meshes of which are of suitable size to prevent the ball passing through them. The floor 5 of the booth 1 is arranged so that the ball 6 will roll back to a position on the opposite side of the pitcher 7 from the batter 8 from whatever place it strikes. In the form shown the floor 5 is inclined downwardly from the sides to the center and from the ends to a point a suitable distance in rear of the pitcher 7.

At a convenient point in the booth 1 the pitcher 7 is placed. The pitcher 7 consists of mechanical means for projecting a ball to a batter 8, standing near the end of the booth 1. Such means may be of any suitable form and is here shown as a pair of spaced standards 9, arranged one on each side of the center line of the floor 5 of the booth 1, a shaft 10, mounted on the standards 9 and provided at one end with two pulleys 11, an arm 12, carried by the shaft 10 and projecting at right angles to its axis, and a spring 13, having one end secured to the shaft 10 and normally resting against one side of the arm 12 and having a cup 14 near its other end adapted to receive the ball 6.

A motor 15 of any of the ordinary forms is provided and connected with one of the pulleys 11 to drive the shaft 10.

At a suitable distance to the rear of the pitcher 7 and in alinement therewith are arranged means for temporarily arresting the movement of the spring 13 as the shaft 10 is rotated for the purpose of tensioning the spring 13 and causing it when released to project the ball 6 from the cup 14 to the batter. In the form shown such detaining means embody a pair of spaced standards 16, secured to the floor 5 of the booth 1 and, if desired, provided with inclined braces 17, one end of which is secured to the floor and the other end of which is secured to one of the standards 16. A cross-piece 18 is arranged at the top of the standards 16, so that it may be adjusted vertically. A convenient means of adjusting such cross-piece 18 vertically consists in a clamp 19, secured to the ends of the cross-piece 18 and adapted to slide in slots 20,

cut in the standards 16, and set-screws 21, by means of which the cross-piece 18 may be held at the desired height. The cross-piece 18 is arranged to engage the end of the spring 13 and temporarily stop the movement of the spring 13 during the rotation of the shaft 10 for the purpose of tensioning the spring 13. The amount of such tension is regulated by the adjustment of the cross-piece 18. When in the progress of the rotation of the shaft 10 the end of the spring 13 slips off the cross-piece 18, the release of the spring 13 projects the ball 6 from the cup 14 to the batter 8.

At the point in the rear of the pitcher 7 where all the inclines in the floor 5 of the booth 1 meet and on each side of the center line of the floor 5 is arranged a suitably-braced standard 22. A shaft 23, carrying two spaced sprocket-wheels 24, has its ends journaled at the foot of the standards 22, so that the sprocket-wheels 24 extend below the level of the floor 5 of the booth 1. A shaft 25, provided at one end with a pulley 27, is mounted on the standards 22. An endless belt 28 connects the pulley 27 and one of the pulleys 11. Two sprocket-wheels 26 are mounted on the shaft 25 intermediate the standards 22. Sprocket-chains 29 pass over the said sprocket-wheels 24 and 26. Secured to the outside of the sprocket-chains 29 at intervals are buckets 30, open at their tops and of suitable size to receive one of the balls 6. The buckets 30 are adapted to be carried through an opening 31 in the floor 5 of the booth 1 and below the level of such floor 5. The balls 6 roll, by reason of the inclines in the floor 5 of the booth 1, to a position in rear of the opening 31 and rest against the rear of the sprocket-chains 29, from which position they are taken one at a time by the buckets 30. A chute 32 is arranged to receive the balls 6 from the buckets 30 and convey them to the cup 14. In the form shown the chute 32 has an end extending under the bucket 30 as they pass over the shaft 25 and is provided with a suitable support 33. The other end of the chute 32 extends between the standards 16 and is open. A pivoted stop 34 is arranged in the bottom of the chute 32 near the open end thereof and is adapted to temporarily detain the balls 6 in said chute 32. The bottom of the chute 32 is slotted for some distance from its open end to permit the passage of the end of the spring 13, which in passing through such slot trips the pivoted stop 34 and releases one of the balls 6. From each side of the open end of the chute 32 extends a leaf-spring 35, having its free end flared outward. The springs 35 are adapted to receive one of the balls 6 as it rolls from the chute 32 and deliver it into the cup 14 as the latter presses the springs 35 apart in passing therebetween.

The operation and advantages of my invention will be readily understood and appreciated. The motor 15 is started after the batter 8 has taken his place, and through the pulleys 11 drives the shafts 10 and 25. One of the buckets 30 in rising above the floor 5 picks up one of the balls 6, and as the bucket 30 passes over the shaft 25 drops the balls 6 into the chute 32. As the spring 13, carried by the shaft 10 in its rotation, passes, its end releases the stop 34 and permits the ball 6 to fall between the springs 35. The cup 14 presses the springs 35 apart and permits the ball 6 to drop into said cup 14. When the end of the spring 13 engages the cross-piece 18, the movement of the spring 13 is checked, and when the continued movement of the shaft 10 releases it the recoil of the spring against the arm 12 throws the ball 6 from the cup 14 to the batter 8. If the batter 8 strikes or fails to strike the ball 6, it will nevertheless roll into position to be again picked up by one of the buckets 30. This device will furnish exercise and amusement not only to the batter 8, but to those outside, and will prove a novel and attractive feature of amusement-resorts.

I do not desire to be understood as limiting myself to the details of construction and arrangement as herein described and illustrated, as it is manifest that variations and modifications may be made in the features of construction and arrangement in the adaptation of the device to various conditions of use without departing from the spirit and scope of my invention and improvements. I therefore reserve the right to all such variation and modification as properly fall within the scope of my invention and the terms of the following claims.

Having thus described my invention, I claim and desire to secure by Letters Patent—

1. A mechanical base-ball pitcher, comprising a booth provided with screened sides, a spring provided with a cup to hold the ball and carried by a revolving shaft, means of mechanically collecting and placing the balls in said cup, means of arresting the movement of said spring for a limited time, and means of operating the same.

2. The combination with a mechanical base-ball pitcher, of a screened inclosure to prevent the escape of the ball, a floor inclined from all directions to a predetermined point to guide the ball to such point, an endless belt carrying buckets to elevate the ball, means for operating said belt and delivering the ball to the pitcher.

3. The combination with a mechanical base-ball pitcher, provided with means for recovering the ball, of an open-ended chute having its bottom slotted for some distance from its open end and provided with a pivoted stop projecting at one end through the bottom to engage the ball and at the other end into the slot and with springs projecting from the sides of its open end to clamp the ball between them, and means for tilting the stop and releasing the ball and for pressing apart the springs and delivering the ball to the pitcher.

4. The combination with a mechanical base-ball pitcher provided with means of recovering the ball and delivering the ball to the pitcher, of shafts carrying sprocket-wheels connected by sprocket-chains provided with buckets interposed between the recovering means and the delivery means and adapted to carry the ball from one to the other, and means for operating one of said shafts.

5. A mechanical base-ball pitcher, comprising two spaced standards, a shaft mounted on said standards and provided at one end with a pulley, an arm carried by said shaft and projecting therefrom at right angles to the axis of said shaft, a spring secured at one end to said shaft and normally resting against said arm and provided near its other end with a cup to receive a ball, means for tensioning said spring, and means for driving said shaft.

6. The combination with a mechanical base-ball pitcher provided with a spring carried by a revolving shaft, of two spaced standards, and a cross-piece adjustably secured on said standards and adapted to engage said spring and temporarily arrest its movement during the rotation of the shaft.

In testimony whereof I have signed my name in the presence of the subscribing witnesses.

CHARLES EDWARDS.

Witnesses:
HARTWELL P. HEATH,
JOHN M. HOCTOR.