Oct. 8, 1940. J. W. McCAULEY 2,217,256

BOWLING ALLEY APPLIANCE

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Fig. 1.

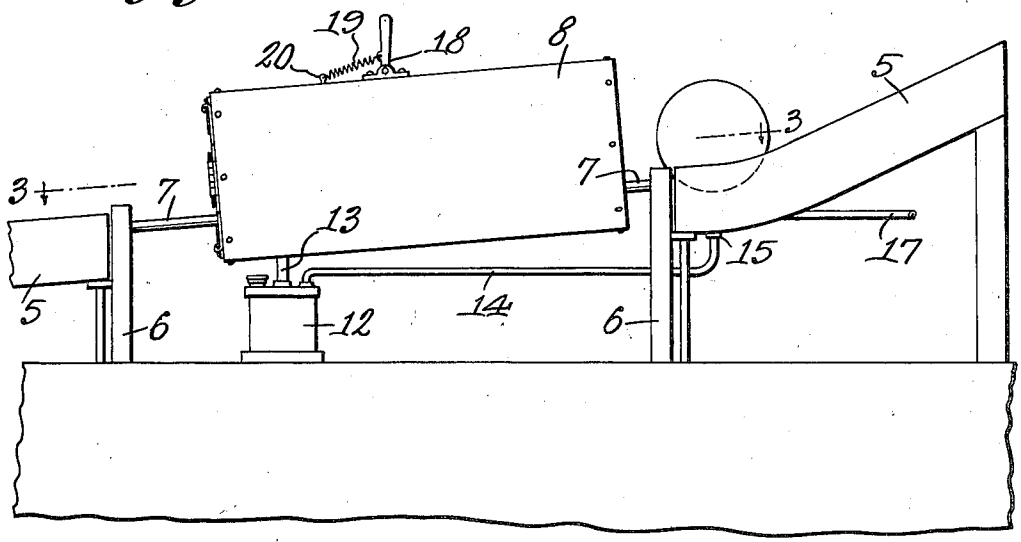
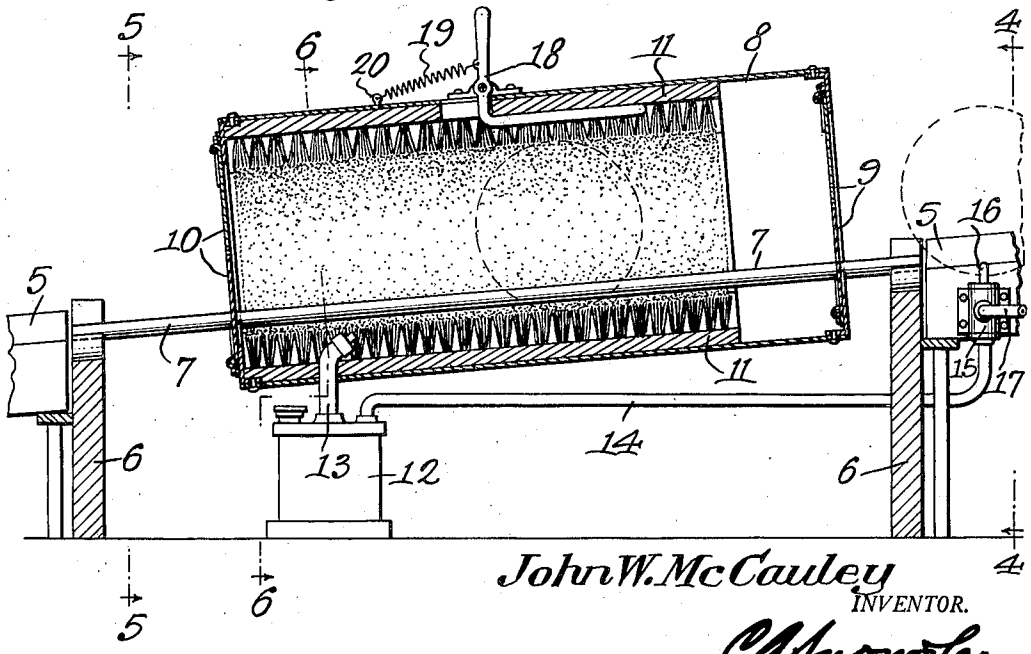


Fig. 2.



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Fig. 3.

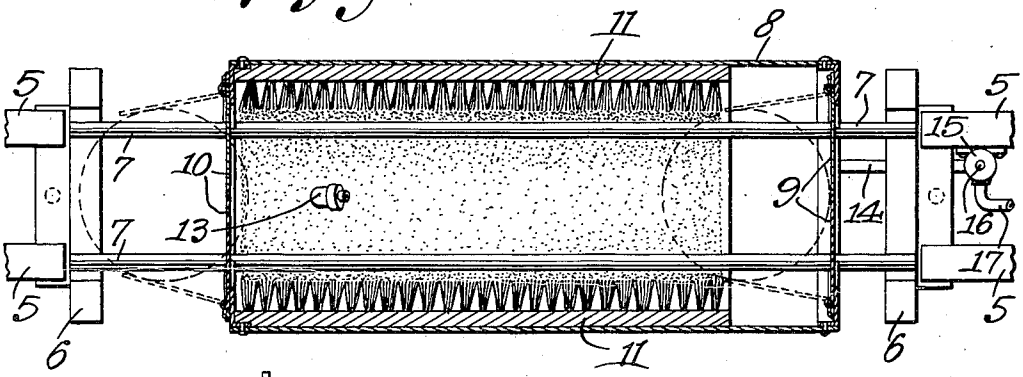


Fig. 4.

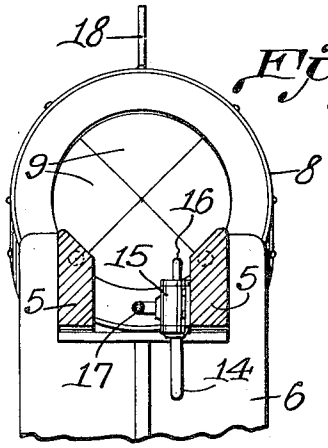


Fig. 6.

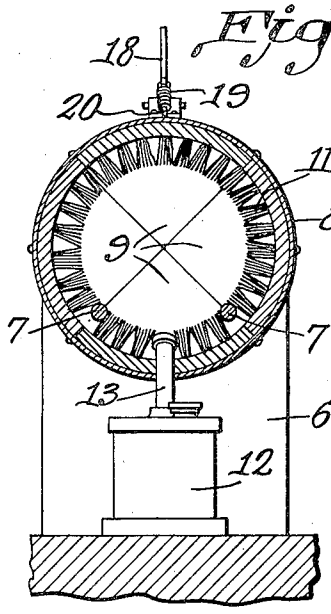
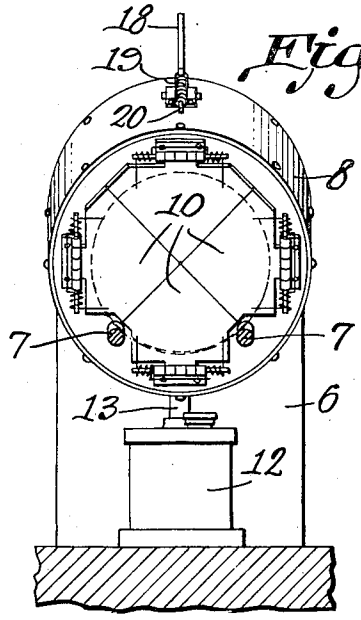


Fig. 5.



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UNITED STATES PATENT OFFICE

2,217,256

BOWLING ALLEY APPLIANCE

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Application July 22, 1939, Serial No. 285,999

3 Claims. (Cl. 273—54)

This invention relates to bowling alley appliances, the primary object of the invention being to provide means for disinfecting bowling balls while they are in play, to the end that the balls will be freed of all germs after having been picked up by the pin boy and dropped onto the return track of the bowling alley, thereby preventing the spread of disease.

An important object of the invention is to provide a disinfecting device of this character which may be readily and easily installed on the usual bowling alley return tracks without the necessity of altering the track structure in order to mount the device.

Another important object of the invention is to provide a disinfecting device which will be automatically actuated by the weight of the balls moving over the return track.

With the foregoing and other objects in view, which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein described, may be made within the scope of what is claimed, without departing from the spirit of the invention.

Referring to the drawings:

Figure 1 is an elevational view illustrating a disinfecting device constructed in accordance with the invention as mounted on the return track of a bowling alley.

Figure 2 is a longitudinal sectional view through the device.

Figure 3 is a sectional view taken on line 3—3 of Figure 1.

Figure 4 is a sectional view taken on line 4—4 of Figure 2.

Figure 5 is a sectional view taken on line 5—5 of Figure 2.

Figure 6 is a sectional view taken on line 6—6 of Figure 2.

Referring to the drawings in detail, the reference character 5 designates the ball return track of a bowling alley the portion of the ball return track illustrated being that section of the track adjacent to the bowling alley pit, where the bowling balls are placed by the pin boy, to be returned to the bowler.

In mounting the device, a section of the ball return track is cut away and supports such as indicated at 6 are positioned within the space adjacent to the ends of the cut-away portion of the track. These supports 6 are formed with openings for the reception of the rods 7 which are spaced apart and arranged in parallel relation with respect to each other, providing a continuation of the track, the ends of the rods being disposed in such relation with the return track as to permit a ball to move from the rods onto the track.

The reference character 8 designates the disinfecting housing, which in the present showing is cylindrical in formation, the ends of the housing being closed by means of the spring-pressed closures 9 and 10, the closures 9 being mounted so that they open inwardly under the weight of a bowling ball passing into the housing, while the closures 10 are so mounted that they open outwardly at the discharge end of the housing, under the weight of the bowling ball passing therefrom.

As clearly shown, the housing is lined with a brush member 11 which is substantially tubular in formation, the bristles of the brush being arranged so that they will contact a ball of a predetermined diameter, to treat the entire surface of the ball, as it moves through the housing. The housing 8 is supported on the rods 7 which are shown as extending directly through the housing.

Supported directly under the housing 8, and arranged preferably adjacent to the discharge end thereof, is a container 12 into which the disinfecting liquid is placed, the container having a discharge pipe 13 extending upwardly therefrom, the extremity of the discharge pipe being disposed rearwardly so that disinfecting liquid discharged from the container, will be directed rearwardly into the path of travel of the ball. It will also be noted that due to the position of the discharge pipe or nozzle, the disinfecting liquid will be directed to all of the bristles of the brush member.

Extending from the container 12, is a pipe 14 that extends into the valve housing 15 in which the valve 16 operates, the valve 16 including a plunger stem which lies between the rails of the return track to be engaged by a ball moving over the track. Connected with the valve housing 15 is a pipe 17 that has connection with a compressed air supply tank not shown, to the end that when the valve 16 is actuated to establish communication between the pipes 14 and 17, air will be forced into the container 12, picking up a quantity of the disinfecting material and discharging the material throughout the area of the housing, thoroughly saturating the bristles of the brush. It is obvious that as the ball moves through the bristles, it will be treated in such a

way that germs which may be picked up on the ball, will be destroyed.

Pivotally mounted on the valve housing 15, is an arm 18, the inner end of the arm being extended at right angles so that it normally lies in close engagement with the brush member, the upper end of the arm 18 providing a handle whereby the pin boy may swing the arm into engagement with the ball passing through the housing, to force the ball from the housing.

A coiled spring indicated at 19 has connection with the arm 18 at one of its ends, the opposite end of the spring being secured to the housing 8, at 20. As the arm is pulled by the pin boy to force the ball through the housing, the arm will be returned to its normal position, when it has been released.

From the foregoing it will be seen that due to the construction shown and described, the bowling balls will be thoroughly disinfected and all germs picked up by the ball due to handling by the pin boys or the bowlers, will be destroyed.

It will, of course, be understood that the disinfecting material will be of a character which will readily evaporate so that the balls will dry upon leaving the housing 8.

What is claimed is:

1. The combination with the ball return track of a bowling alley, of a ball disinfecting device comprising a housing mounted within the track and through which bowling balls move, a brush member within the housing, the brush member being tubular to contact with the balls moving through the housing, means for spraying disinfecting material over the brush member to be picked up by the ball moving through the housing, said means comprising a valve operated by the weight of the ball moving over the track, and means for forcing balls through the housing.

2. The combination with the ball return track of a bowling alley, of a ball disinfecting device comprising a tubular housing positioned adjacent to the track and in inclined position so that balls moving over the track may move through the housing, brushes within the housing, means for spraying disinfecting material over the brushes and ball moving through the housing, and a pivoted arm extending into the housing and adapted to engage a ball moving through the housing, for moving the ball.

3. The combination with the ball return track of a bowling alley, of a ball disinfecting device comprising an inclined tubular housing mounted within the track, bristles lining the tubular housing and disposed in the path of travel of balls passing through the housing, said bristles adapted to apply disinfecting material to said balls, a nozzle positioned at the lower end of the housing and disposed to deliver disinfecting material towards the upper end of the housing saturating the bristles, a valve operated by the weight of the balls passing into the housing, and adapted to control the passage of disinfectant through the nozzle, and a lever extending into the housing and adapted to force balls through the housing, when the lever is operated.

JOHN W. McCAULEY.