

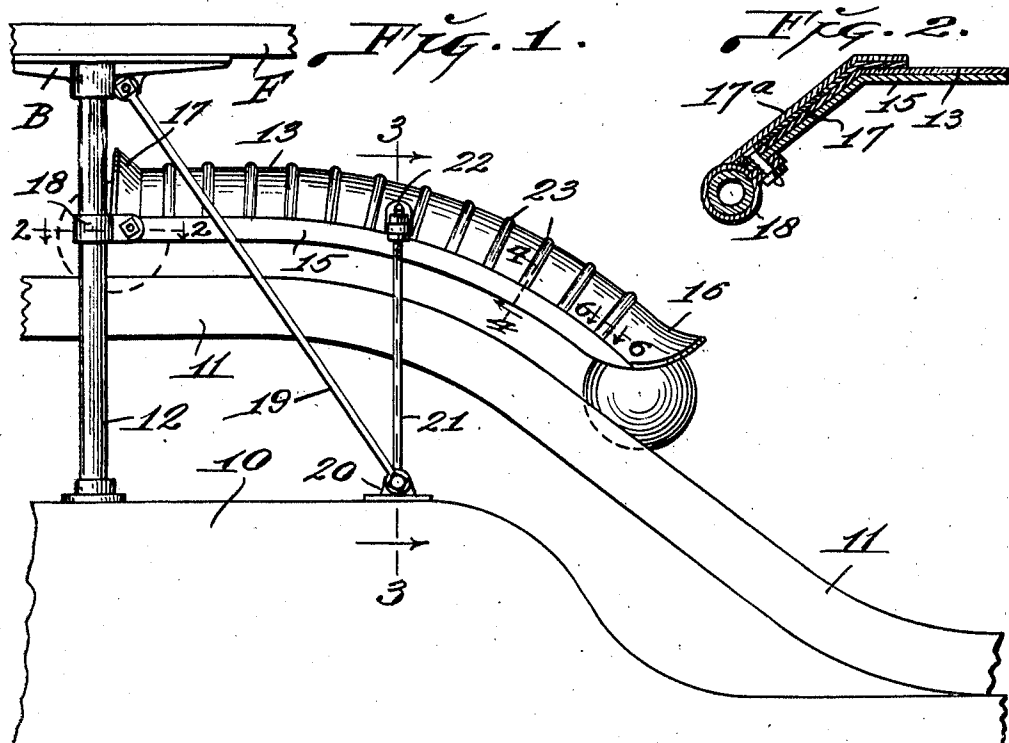
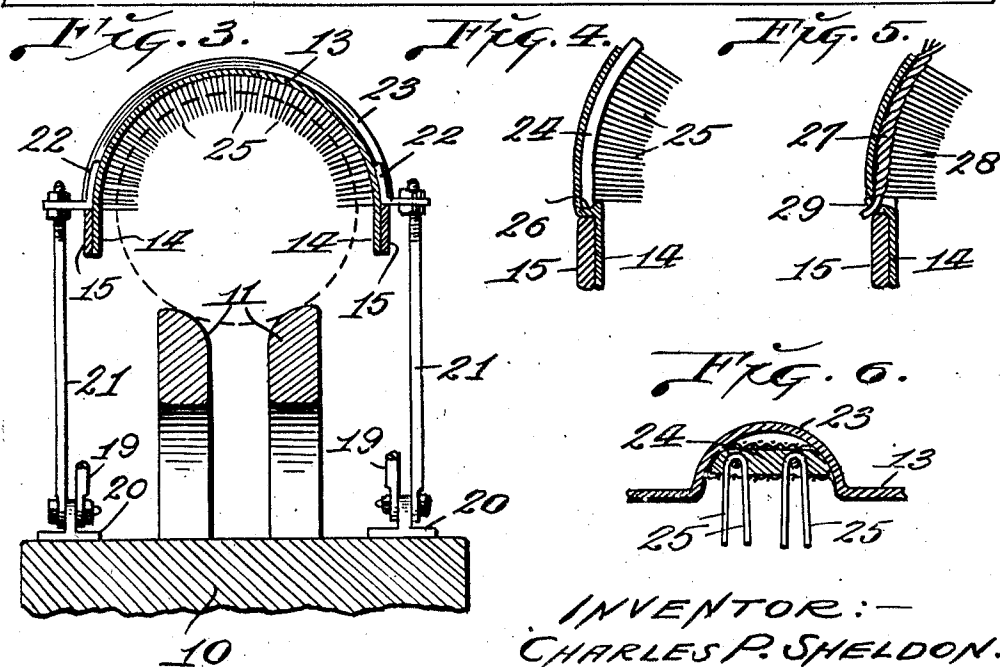
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BOWLING BALL CLEANER AND GUIDE

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BOWLING BALL CLEANER AND GUIDE

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4 Claims. (Cl. 273-47)

My invention relates to a bowling ball cleaner and has for its principal object, to provide a simple, practical and inexpensive device capable of being readily applied to or removed from the runway of a bowling alley and which will be highly effective in automatically wiping and removing all dust and the like from the bowling balls as the latter traverse the distal ends of the ball runways.

A further object of my invention is, to provide a device of the character referred to which, in addition to functioning as a ball cleaner will serve as an efficient guide and guard to prevent balls, when carelessly thrown onto the runways by the pin boys from dropping off and rolling into the gutters or across adjacent alleys to interfere with and stop the play thereon.

Further objects of my invention are, to provide the receiving end of the body of the cleaner and guide with a flaring flange, which functions after the manner of a funnel or hopper to more effectively receive the balls when thrown onto the runway and further, to provide the flared end of the structure with a pad which cushions the balls and prevents battering and bending of the ball receiving end of the cleaner and guide.

A further object of my invention is to provide a simple and effective arrangement of ball wiping and cleaning elements within the body of the structure, which elements include bristles of hair, fibre or the like and readily replaceable in the event that they become worn to such an extent as to render them unfit for service.

With the foregoing and other objects in view, my invention consists in certain novel features of construction and arrangement of parts that will be hereinafter more fully described and claimed, and illustrated in the accompanying drawing in which,

Fig. 1 is a side elevational view of the ball cleaner and guard in position on the receiving end of the ball return.

Fig. 2 is an enlarged horizontal section taken on the line 2-2 of Fig. 1.

Fig. 3 is an enlarged cross section taken on the line 3-3 of Fig. 1.

Fig. 4 is an enlarged detail section taken on the line 4-4 of Fig. 1.

Fig. 5 is a detail section similar to Fig. 4 and showing a modified form of the ball wiping and cleaning members.

Fig. 6 is an enlarged cross section taken on the line 6-6 of Fig. 1.

Referring by numerals to the accompanying drawing which illustrates a preferred embodi-

ment of my invention, 10 designates one of the side kick backs at the lower end of a conventional bowling alley, 11, the spaced rails composing the ball return and 12, one of the posts that support the frame F of the pin setting rack.

My improved ball cleaner and guide, which is disposed above the kick back and that portion of the ball runway above said kick back, comprises an inverted channel shaped body 13, preferably composed of suitable material such as sheet metal, papier-mâché, plywood, plastics, cast metal or the like, approximately 42 inches in length and with a cross sectional radius of approximately 10½ or 11 inches.

The rear portion of this body, which is practically straight, occupies a position above and parallel with the straight horizontally disposed rear end portion of the runway 11 and the central and forward portions of said body curve downward to conform with that portion of the runway which curves downward over the forward portion of the side kick back 10.

Body 13 is half round in cross section with the lower portions of the wall thereof extended downward for an inch or so as designated by 14, and rigidly fixed to the outer faces of these depending portions, are metal struts 15, which provide a trim or finish for the body and at the same time, adding material strength and rigidity thereto.

The forward end of body 13 terminates in an overhang 16, approximately 4 inches in length, the front edge of which curves rearwardly and downwardly to meet the lower edges of the depending side portions 14.

The rear or ball receiving end of the body 10 is provided with an outwardly flared flange 17 that may be from 2 to 3 inches in length, thus forming a half round funnel for the balls as they are thrown or deposited onto the runway immediately to the rear of and below the cleaner and guide.

The lower ends of this flange and the overlying ends of struts 15 are positioned immediately behind the posts 12, so that the latter serve as buffers or fenders to prevent said lower ends from being struck by balls carelessly thrown onto the runway, and by suitable means, such as conventional hose clamps 18, the lower ends of said flanges and ends of struts 15, are rigidly connected to said posts as illustrated in Fig. 2.

The inner faces of flanges 17 are covered with cushioning pads 17a of leather, fabric, corrugated paper, or a combination thereof, in order to prevent the balls from hitting the metal of the flange

and becoming scarred, when said balls are thrown onto the ball return, toward the open end of the cleaner.

Further, this padded flange serves to guide the balls into the cleaner and onto the return rails and thereby preventing the balls from dropping off the runway onto the adjacent alley or gutters.

Brace rods 19 have their upper ends detachably secured to the brackets B that support the pin setting rack frame F and the lower ends of these rods are detachably secured to brackets 20 mounted on the side kick back 10.

To firmly support the cleaner and guide in proper position above the runway, rods 21 have their lower ends detachably secured to the brackets 20 and the upper ends are detachably secured in any suitable manner to brackets 22 that are rigidly secured to and project outwardly from the sides of body 13.

By adjustably connecting the upper ends of rods 21 to the sides of body 13, the latter may be readily adjusted vertically toward or away from the runway.

For the reception of brushes, the body 13 is formed with a plurality of outwardly projecting transverse corrugations 23, the same extending between the upper edges of the struts forming the trim 15, such corrugations being preferably one inch in width and one-half inch in depth.

I prefer to provide about twelve corrugations, spaced approximately three inches, center to center.

Removably seated in these corrugations are the backs of the brushes forming a part of the cleaner and guide and one form of brush may comprise a back 24 of flexible material such as a strip of sole leather, which carries throughout its length, a number of tufts of bristles 25, either hair, fibre or heavy yarn (see Figs. 4 and 6).

To retain the brushes in the corrugations, the ends of the flexible backs 24 are seated in recesses 26 that are formed in body 13, at the ends of said corrugations (see Fig. 4).

It may be found practical to form the brushes of two or more wires 27 twisted together to form the back and which twisted wires carry bristles 28 as illustrated in Fig. 5. When such construction is employed the ends of the twisted wires may engage in apertures 29 formed in the body 13 at the ends of the corrugations.

The construction of the brushes as described enables same to be readily applied to or removed from body 13, thus facilitating replacements when the brushes become worn or unfit for service.

Thus, when the cleaner and guide is set up for use with the backs of the brushes positioned in the corrugations, a plurality of transversely arranged rows of bristles project radially inward from the half round body of the device, directly above the ball return, so that all balls traversing said return beneath the device, will be engaged by said bristles, with rubbing contact so as to effectively wipe and remove all dust and like foreign matter from the surface of the balls and the latter, in cleaned condition, will roll by gravity to the head of forward ends of the returns.

Thus it will be seen that I have provided a bowling cleaner and guide that is simple, strong and durable in construction, inexpensive of manufacture and very effective in performing the functions for which it is intended.

It will be understood that minor changes in the size, form and construction of the various parts of my improved bowling ball cleaner and guide may be made and substituted for those herein shown and described without departing from the spirit of the invention, the scope of which is set forth in the appended claims.

I claim as my invention:

1. The combination with a bowling alley ball return, of an inverted channel shaped member disposed above the receiving end of said ball return, which member is provided with transversely disposed corrugations and ball engaging and wiping elements removably seated in said corrugations.

2. The combination as set forth in claim 1 and means mounting said inverted channel shaped member for adjusting same vertically.

3. The combination as set forth in claim 1 and an outwardly flaring flange on the rear end of said member.

4. The combination as set forth in claim 1 with an outwardly flaring flange on the rear end of said member and a cushioning pad on the underface of said flange.

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