This improvement relates more particularly to a kick-back, which may be readily provided with a new surface, after the surface thereof has become scarred and indented by use, by simply interchanging kick-back boards. The kick-back, as ordinarily installed, is built on a wood frame, to which the kick-back boards are secured, so that, to renew a worn and indented kick-back, the entire board kick-back surface and sometimes the frame itself, has to be destroyed or torn to pieces, in order that new kick-back surfaces may be installed.

To obviate this waste of time and material, and reduce the expense of renewing the kick-back surfaces, is the primary object of the present improvement. This object is accomplished by providing a permanent frame for supporting the kick-back boards, which are removably attached thereto. The kick-back boards of my improvement are provided with smooth kick-back surfaces on both sides, each adapted for use as the kick-back, so that by merely interchanging boards, fresh kick-back surfaces are presented.

It is well known that if a body or surface is backed up by a resilient member, impact blows against the body or surface will be, in part, absorbed by the resilient member, so that the body or surface will not be as readily indented. Therefore, a further object of the present improvement is to provide a resilient backing or support for the kick-back surfaces, which are mounted on the frames at the sides of the bowling alley. By thus providing a resilient mounting for the kick-back boards, the surfaces thereof will be less heavily indented and hence will last longer before renewal is necessary. And, as previously pointed out, renewal may be made simply by exchanging one kick-back board for another, thereby presenting a fresh surface for the kick-back.

Furthermore, in view of the fact that with my improvement, it is not necessary to destroy the kick-back supporting frame, a further object is to provide a permanent frame mounted at the sides of the alley for supporting the kick-back boards and, in the present instance, this preferably may comprise an open flanged casting, provided on opposite sides with parallel surfaces upon which the kick-back boards of adjacent alleys may be mounted. This frame is preferably provided with a plurality of peripheral holes, suitably spaced and adapted to register with corresponding holes in the kick-back boards. Suitable bolts or screws are provided for removably attaching the kick-back boards to the frame, so that a skilled carpenter is not required when it is desired to have the kick-back surfaces renewed. Anyone of ordinary skill can readily remove the bolts or screws and exchange the kick-back boards, thus providing fresh kick-back surfaces.

A further object is to provide removable kick-back boards with kick-back surfaces on both sides, and peripheral holes or other means for removably attaching the boards to the supporting frame.

One form of my improved kick-back for bowling alleys is shown in the accompanying drawings, in which Fig. 1 is a perspective view of the rear end of a bowling alley, showing the frames and kick-back boards in position; Fig. 2, is an enlarged side elevation of one of the kick-back surfaces and the supporting frame, the kick-back board being partially broken away to illustrate the construction; Fig. 3, is a vertical transverse section of the kick-back, more particularly adapted for use between two adjacent alleys, and Fig. 4 is an enlarged fragmentary cross section, illustrating a bolt arrangement for removably attaching the kick-back boards to the frame.

Referring to the drawings, the ordinary bowling alley is represented at A, the alley being provided with the usual gutters at B. At the rear end of the bowling alley, and at each side thereof, kick-back frames C are mounted, these frames being represented, in the present instance, as castings of aluminum or other suitable metal, and may be of open frame work construction, as indicated in Fig. 2 of the drawings. The peripheral outline of the kick-back frames may be of the usual or any desired shape and are preferably provided with an offset portion at D, at the end of the alley surface, so as to fill out the portion forming the pit into which the pins are knocked. In the present instance the frame, as represented in Figs. 3 and 4, is T-shaped in cross section, the upper portion being preferably substantially semi-circular in cross section, and provided with overhanging flanges E, covering and protecting the edges of the kick-back boards F. The kick-back frames C are provided
with parallel surfaces at G, on opposite sides of the rib for supporting the kick-back boards F, and a plurality of spaced holes H are provided around the periphery of each frame, in which bolts may be mounted for removably securing the kick-back boards to the frames. The kick-back boards F are provided with a plurality of correspondingly spaced holes K, through which suitable bolts L may be inserted, the bolts, in the present instance, passing through the holes H in the frame and being provided with nuts M for securing the kick-back boards to the frames substantially as shown in Fig. 4.

The kick-back boards F are preferably built up of a plurality of layers with the grain crossed, so as to increase the strength and elasticity of the boards. As here illustrated, the kick-back boards F are provided with longitudinally extending wood strips F' on each side of vertically or transversely extending strips F", the arrangement being such that the outer strips F' form the kick-back surfaces on each side of the kick-back boards. In this manner, the boards are made reversible, so that both surfaces may be used. Thus the kick-back may be renewed by simply exchanging the kick-back boards on the two sides of the frame C, as shown in Fig. 3. Preferably the holes K of the boards F are counterbored on both kick-back surfaces, as indicated in Fig. 4 of the drawings, so that the heads and the nuts of the bolts may lie entirely below the exposed or working surface of the respective kick-back boards. The holes K being counter-bored on both sides of the kick-back boards enables the latter to be interchanged, as previously indicated, and the bolt heads and nuts will not be in position to be struck by the pins.

The interchangeability of the kick-back boards, according to my improvement, therefore, provides for doubling the service or length of life of the kick-back boards, for when the exposed surface becomes sufficiently indented or scarred, the boards may be reversed by interchange with adjacent or opposite boards on the kick-back frames and thereby present fresh surfaces for the kick-back. As previously indicated, however, it is desirable to still further increase the life of the kick-back surfaces, while at the same time adding to the resiliency thereof, by backing up the boards with a resilient member. The resilient backing, in the present instance, comprises washers or a strip N, of soft rubber or other suitable resilient material, inserted between the respective kick-back boards F and the rib faces G of the supporting frame C, as indicated in Figs. 3 and 4. By this construction, it is evident that the fit between the bolts L and the holes K in the kick-back boards, should be rather a loose fit, so as to permit sufficient motion of the boards to permit impact blows thereagainst to be absorbed by the resilient backing member N. Obviously, therefore, it will be understood that when the exposed surface of the kick-back board is struck by one of the pins, a portion of the blow will be absorbed by the resilient backing, thus preventing the blow from indenting or scoring the surface to as great an extent as would be the case if the kick-back surface were rigidly supported.

In operation, it will be understood that when the kick-back surfaces become sufficiently indented and scarred to require a change, the oppositely facing kick-back boards of an alley equipped with my improvement, may be interchanger, thus presenting fresh kick-back surfaces to the alley or where a plurality of adjacent alleys have common kick-back frames therebetween, the oppositely mounted kick-back boards on the same frame may be interchanged, thus presenting fresh kick-back surfaces.

Furthermore, it will be understood that while I have shown the kick-back frame as a metal casting, suitable frames of wood or other material may be provided, and bolts or screws arranged thereon for removably supporting the kick-back boards, as previously indicated. Also, it will be understood that while I have shown the resilient member as a strip of rubber or the like, inserted between the kick-back boards, and the frame, any other suitable resilient construction or support for the board may be employed. Furthermore, it will be understood that I do not wish to be limited to the specific construction or arrangement shown and described for obviously, various modifications therein may be made without departing from the spirit and scope of the invention.

I claim:
1. In a bowling alley, a kick-back comprising a supporting frame, a kick-back board adapted to be removably attached to said frame and means for securing the board to the frame.
2. In a bowling alley, a kick-back comprising a supporting frame, provided with parallel faces on opposite sides thereof for supporting kick-back boards for adjacent alleys, kick-back boards, both surfaces of which are adapted for use as the kick-back, and means for removably securing said kick-back boards to the frame, the arrangement being such that by interchanging the boards both surfaces thereof may be used.
3. In a bowling alley, a kick-back comprising a frame, a kick-back board adapted to be detachably secured to said frame, means for removably securing said board to the frame and resilient cushion packing mounted between said frame and the board.
4. In a bowling alley, a kick-back board
having a finished surface on each side there-
of, and provided with peripheral holes whereby the board is adapted to be mounted so as to present either surface as the kick-
back for the alley.

5. In a bowling alley, a kick-back comprising a frame at each side of the alley for supporting the kick-back boards, kick-back boards removably attached to the respective frames, both sides of said boards being usable as the kick-back, whereby by exchanging the boards, opposite sides thereof are brought into position for use.

6. In a bowling alley, a kick-back comprising a frame, a kick-back board mounted on said frame and a resilient backing for said board.

7. In a bowling alley, the combination of a supporting frame, kick-back boards mounted on said frame, resilient members between said board and the frame, and securing means for holding the boards to the frame so that blows may be absorbed by said resilient members.

8. In a bowling alley, the combination with a metal casting supporting frame, provided with faces on opposite sides for supporting kick-back boards, kick-back boards, both surfaces of which are adapted for use, mounted on said frame, and means for removably attaching the boards to the frame, the arrangement being such that by interchanging the boards, each of the kick-back surfaces thereof may be brought into position for use.

9. The bowling alley as claimed in claim 8, in which resilient members are interposed between the kick-back boards and the supporting frame, said securing means being adapted to permit play of the boards, so that they may permit the resilient members to respond to blows on the kick-back surface.

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