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2,994,968

BOWLING INSTRUCTION DEVICE

Filed Aug. 26, 1959

FIG. 1

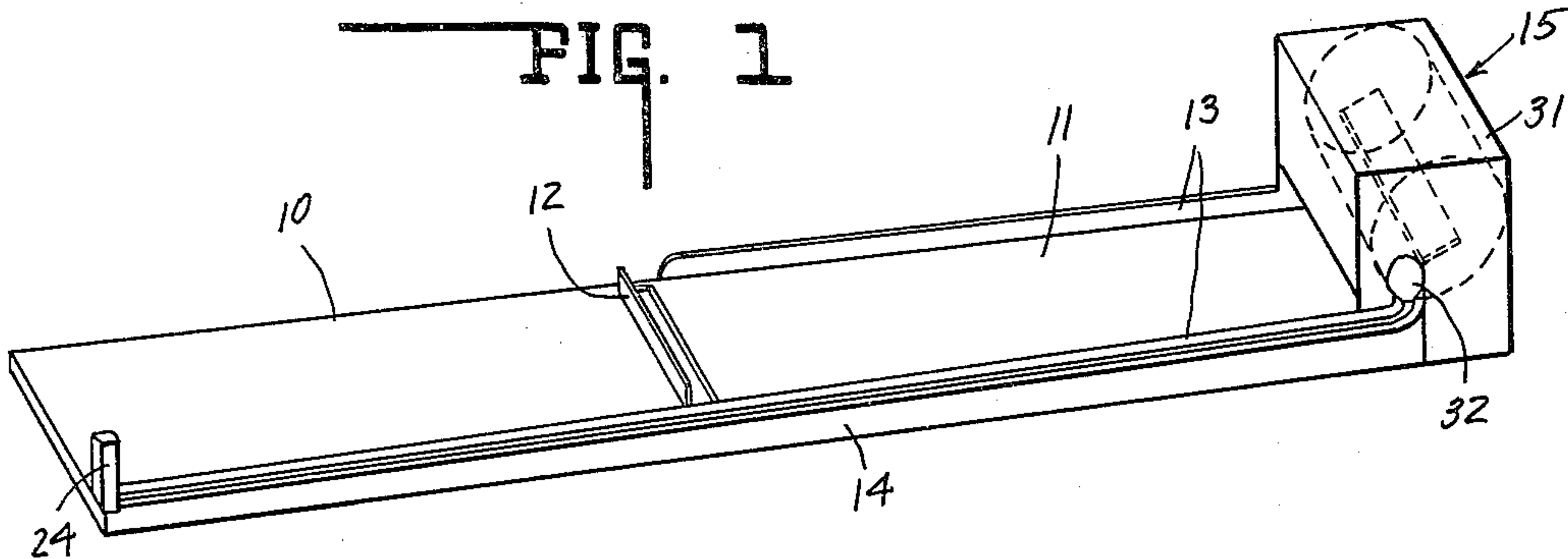


FIG. 2

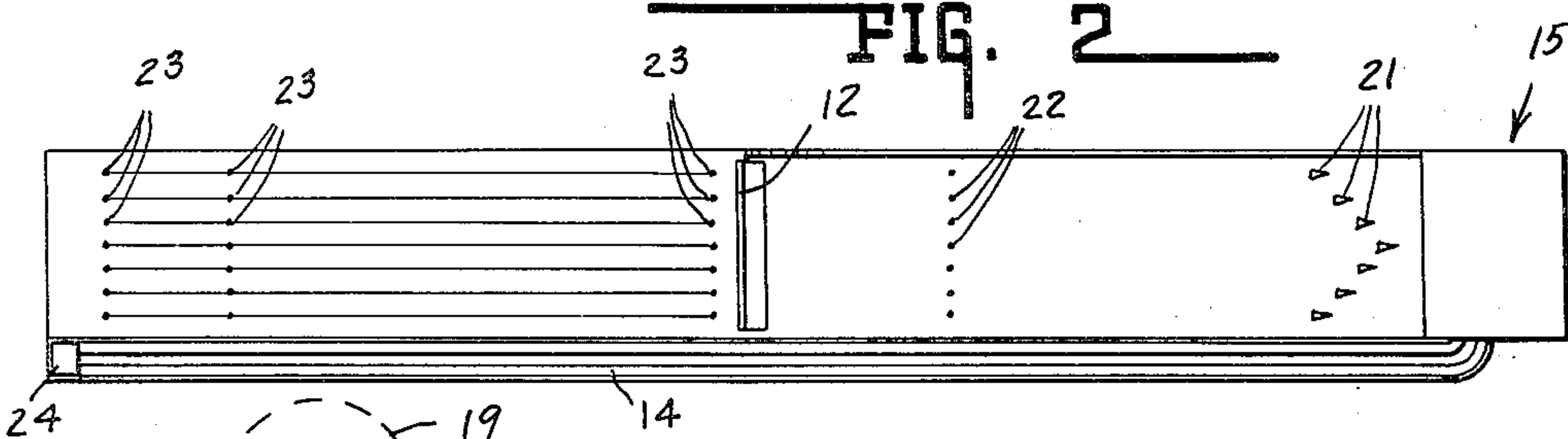


FIG. 3

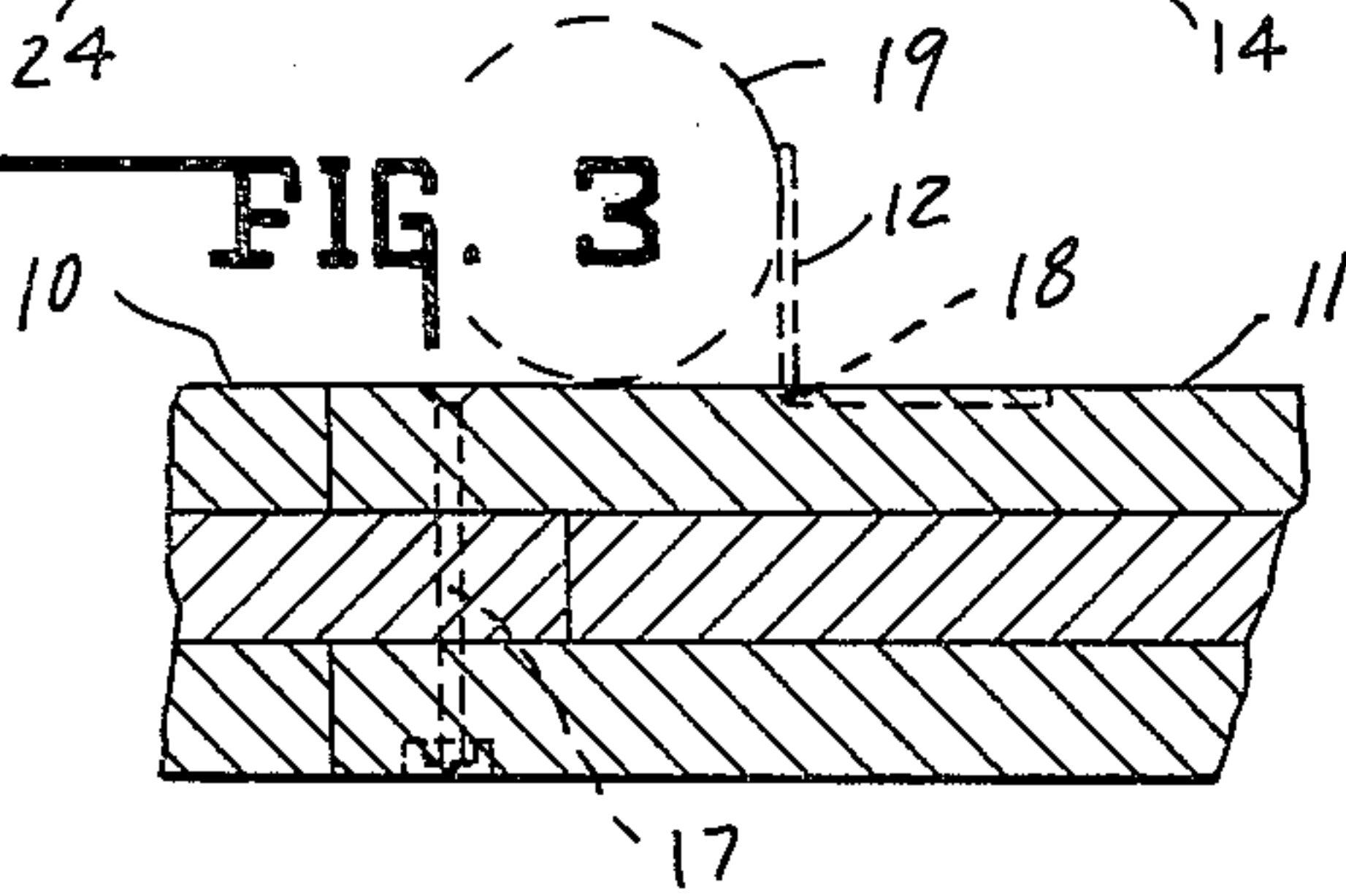


FIG. 4

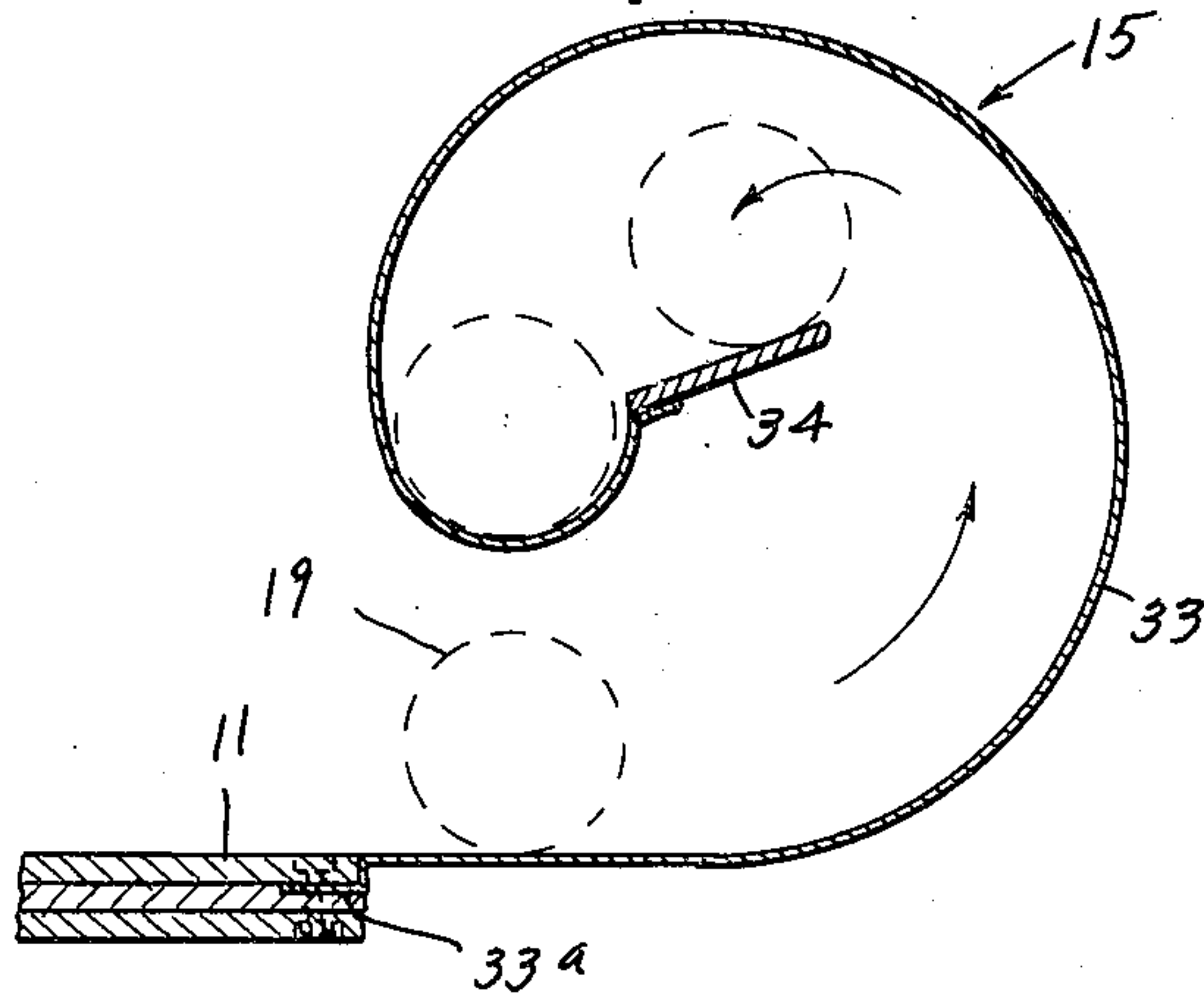
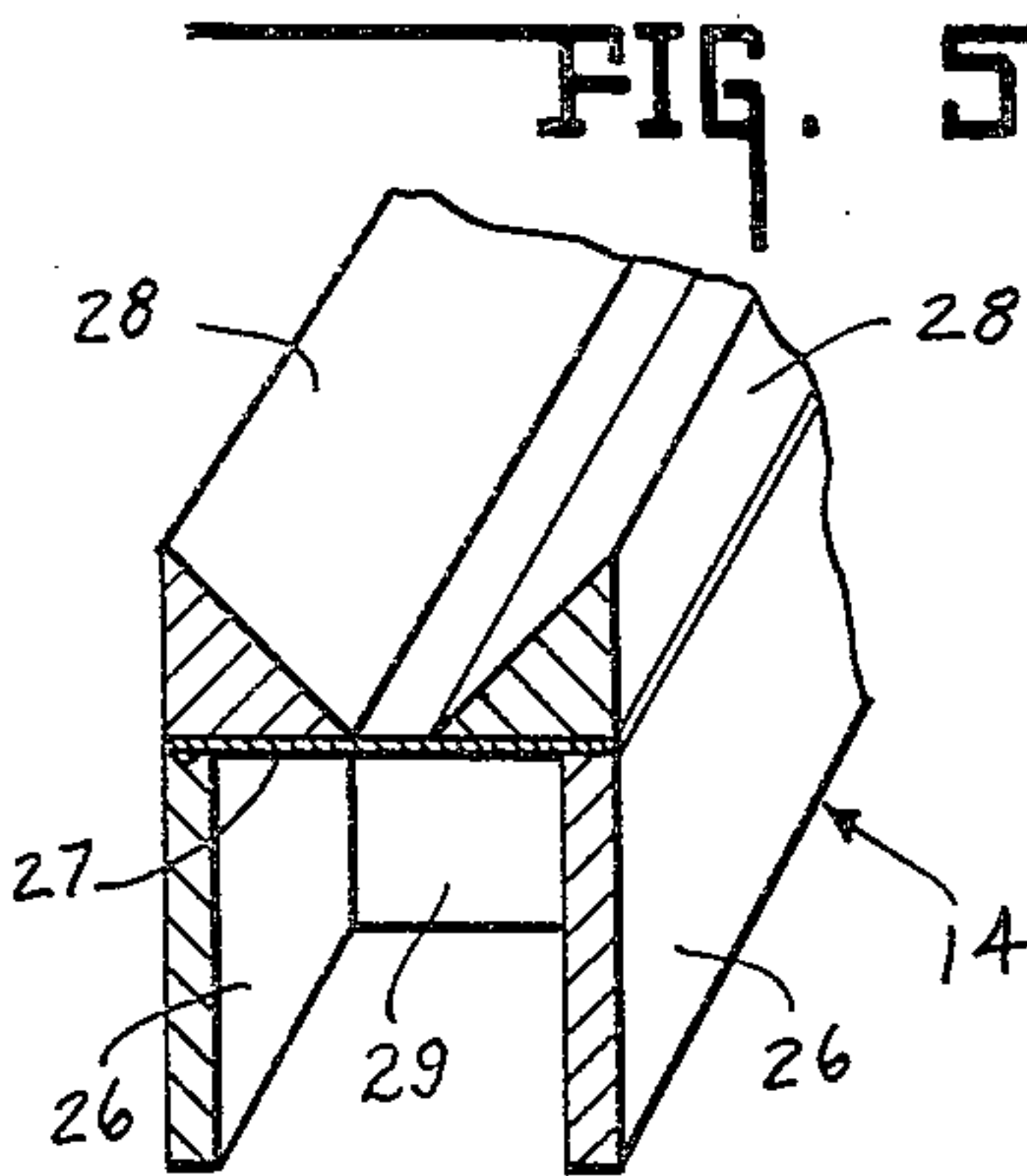


FIG. 5



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BOWLING INSTRUCTION DEVICE

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The present invention generally relates to devices for improving proficiency in games and in particular to a device facilitating practice and instruction in bowling.

Professional bowlers conventionally divide motions required of a bowler into four primary categories: (1) the stance, (2) the approach, (3) the release, and (4) the followthrough. These steps can, of course, be taught and practiced on a regular alley, however, the distraction of the presence of bowling pins, the necessity to keep score and the action of bowlers on adjacent alleys all tend to make difficult the concentration needed for effective practice or receipt of instruction.

Modern bowling instruction theory proceeds on the thesis that "spot" bowling is generally more effective than aiming at the pins. In spot bowling the bowler aims at or attempts to roll his ball over markins on the alley bed. Conventionally, the dart markings normally located twelve to fourteen feet from the foul-line are used as targets, this on the valid assumption that it is easier to roll the ball over a target fourteen feet away rather than into the bowling pins some sixty feet distant from the ball release point. A further important point in correct bowling ball delivery is the release of ball well out over the foul-line, that is, well across the foul line. Generally novice bowlers release the ball too soon so that it rolls over the foul-line, whereas release of the ball well out in front of the bowler instead of at his side provides far better control of the ball.

The present invention provides a simulated bowling alley which is of standard dimension, but foreshortened to eliminate the alley portion beyond the conventional fourteen foot dart markings and the presence of bowling pins. Various markings are incorporated on the approach section and a simple but effective ball return device is provided. The device of the present invention reproduces a section of a conventional bowling alley, correct as to dimension, and the ball used in bowling practice on the device is a conventional bowling ball.

The primary object of the present invention is to provide a practice and instruction bowling device which can be used for practice and instruction in bowling in homes, clubs, schools or anywhere that regular bowling facilities are not readily available.

A further object of the present invention is to provide a bowling instruction device which is simple in construction, inexpensive to manufacture and constructed of materials not affected by moisture.

The full nature of the invention will be understood from the accompanying drawings and the following description and claims:

FIG. 1 is a perspective view of a device embodying the present invention.

FIG. 2 is a top plan view of the device shown in FIG. 1.

FIG. 3 is a side sectional view of a portion of the alley bed.

FIG. 4 is a side sectional view of the ball return portion of the device.

FIG. 5 is a perspective sectional view of a portion of the ball return trough.

Referring initially to FIGS. 1 and 2, the device includes an approach lane 10 and an alley bed 11 separated by an upstanding plate 12 which defines the foul line. The approach lane is the same size as that found in conventional bowling alleys and the alley bed is of conventional width but is foreshortened and is approximately fourteen

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feet in length. The alley bed is provided with side guards 13 and the ball return trough 14 extends along one side of the alley bed and the approach lane. At the far end of the alley bed there is positioned a ball return assembly indicated generally at 15.

As may best be seen in FIG. 3, the alley bed and the approach lane are formed of interlocking sections of wood treated with plastic moisture sealer and the stacked layers are held together by means of bolts 17. The plate 12 is pivotally mounted at 18 and is inset so that when in its position wherein it overlies the bed 11, its outer surface lies in the plane of the alley bed. In normal use the plate 12 is moved to its vertical position of FIG. 3 and thereby aids in causing the novice bowler to release the ball beyond the foul-line. Should the ball, indicated at 19 in FIG. 3, be released prematurely it will move the plate 12 into its horizontal position as the ball passes the foul-line.

As may best be seen in FIG. 2, the alley bed portion 11 is provided with spaced dart-shaped markings indicated at 21, and spaced from these markings are further markings 22. The markings 22 are each aligned with the center of a corresponding one of the dart-shaped markings 21. In the approach lane a series of markings 23 are provided and these have lines drawn therethrough so as to indicate to a bowler advancing toward the foul-line whether his approach is inclined to or aligned with the center axis of the alley.

The ball return trough extends along one side of the alley and at its approach end is provided with a stop plate 24. As may be seen in FIG. 5, the trough is composed of side plates 26 spanned by an upper plate 27. Members 28, which are triangular in cross section, form the ball accommodating trough. Inner support plates 29 are disposed at spaced points along the length of the ball return trough. The ball return trough may be made in sections and bolted or otherwise rigidly secured together.

The ball return assembly is shown in FIG. 1 and includes a housing 31 having an aperture 32 at one end thereof which is adjacent the end of the ball return trough. As may be seen in FIG. 4, within the housing there is disposed a spirally formed metal sheet 33 whose extending base is offset to form a lip 33a which fits between and is bolted to the stacked layers of wood forming the alley bed 11. The transverse axis of the spirally formed plate or sheet 33 is incined with relation to the horizontal and toward the aperture 32 in the housing. The inner margin of the sheet 33 has attached thereto a catch board 34 which serves to direct a ball rolled too slowly to follow the curvature of the spirally formed plate into the passage leading to the aperture 32.

In operation, a bowler may make his approach in conventional fashion along the approach line, the lines joining the markings 23 serving to indicate whether his approach is inclined from or parallel to the axis of the alley. The plate 12 serves as an indication as to whether the ball has been released prematurely or at the proper time. By aligning the desired one of the markings 22 with the appropriate markings 21, proper ball control may be attained. The ball return assembly 15 serves to return the ball along the trough 14.

From the foregoing, it will be evident that the device of the presnt invention provides a convenient means for practicing and instructing in proper bowling form. The practice or instruction can be carried out away from the distraction and noise from adjacent alleys. Because the device is of relatively low cost construction and does not require the installation space of the conventional alley, the device of the present invention can be used in homes, clubs, schools or anywhere that regular bowling facilities are not available.

While the invention has been disclosed and described

in some detail in the drawings and foregoing description, they are to be considered as illustrative and not restrictive in character, as modifications may readily suggest themselves to persons skilled in this art and within the broad scope of the invention, reference being had to the appended claims.

The invention claimed is:

1. A bowling instruction device comprising an approach lane and an alley bed formed of plywood, a ball return trough disposed at one side of the alley bed, said approach lane being of conventional bowling alley width and length, said alley bed being of conventional width but foreshortened as compared to conventional alley length dimensions, a plate pivotally supported at one of its margins defining the foul line boundary between said approach lane and alley bed, said plate extending upwardly from the alley bed and adapted to be moved into contiguous overlying relation with the alley bed when contacted by a prematurely released ball, markings on said alley bed and approach lane to orient the approach and permit correct aiming of the ball, and a ball return assembly disposed at the end of said alley bed for depositing balls into said return trough, said assembly including a spirally formed metal sheet having its extending marginal area disposed in the plane of the alley bed and having its transverse axis tilted toward said ball return trough to deliver balls thereto.

2. A bowling instruction device comprising an approach lane and an alley bed formed of plywood, a ball return trough disposed at one side of the alley bed, said alley bed being foreshortened as compared to conventional alley length dimension, a plate pivotally supported at one of its margins defining the foul line boundary between said approach lane and alley bed, said plate extending upwardly from the alley bed and adapted to

be moved into contiguous overlying relation with the alley bed when contacted by a prematurely released ball, markings on said alley bed and approach lane to orient the approach and permit correct aiming of the ball, and a ball return assembly disposed at the end of the said alley bed for depositing balls into said return trough, said assembly including a spirally formed metal sheet having its extending marginal area disposed in the plane of the alley bed and having its transverse axis tilted toward said ball return trough to deliver balls thereto.

3. A bowling instruction device comprising an approach lane and an alley bed, a ball return trough disposed at one side of the alley bed, said approach lane being of conventional bowling alley width and length, said alley bed being of conventional width but foreshortened as compared to conventional alley length dimension, a plate pivotally supported at one of its margins defining the foul line boundary between said approach lane and alley bed, said plate extending upwardly from the alley bed and adapted to be moved into contiguous overlying relation with the alley bed when contacted by a prematurely released ball, markings on said alley bed and approach lane to define a proper approach and permit correct aiming of the ball, and a ball return assembly disposed at the end of said alley bed for depositing balls into said return trough.

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