

Sept. 28, 1943.

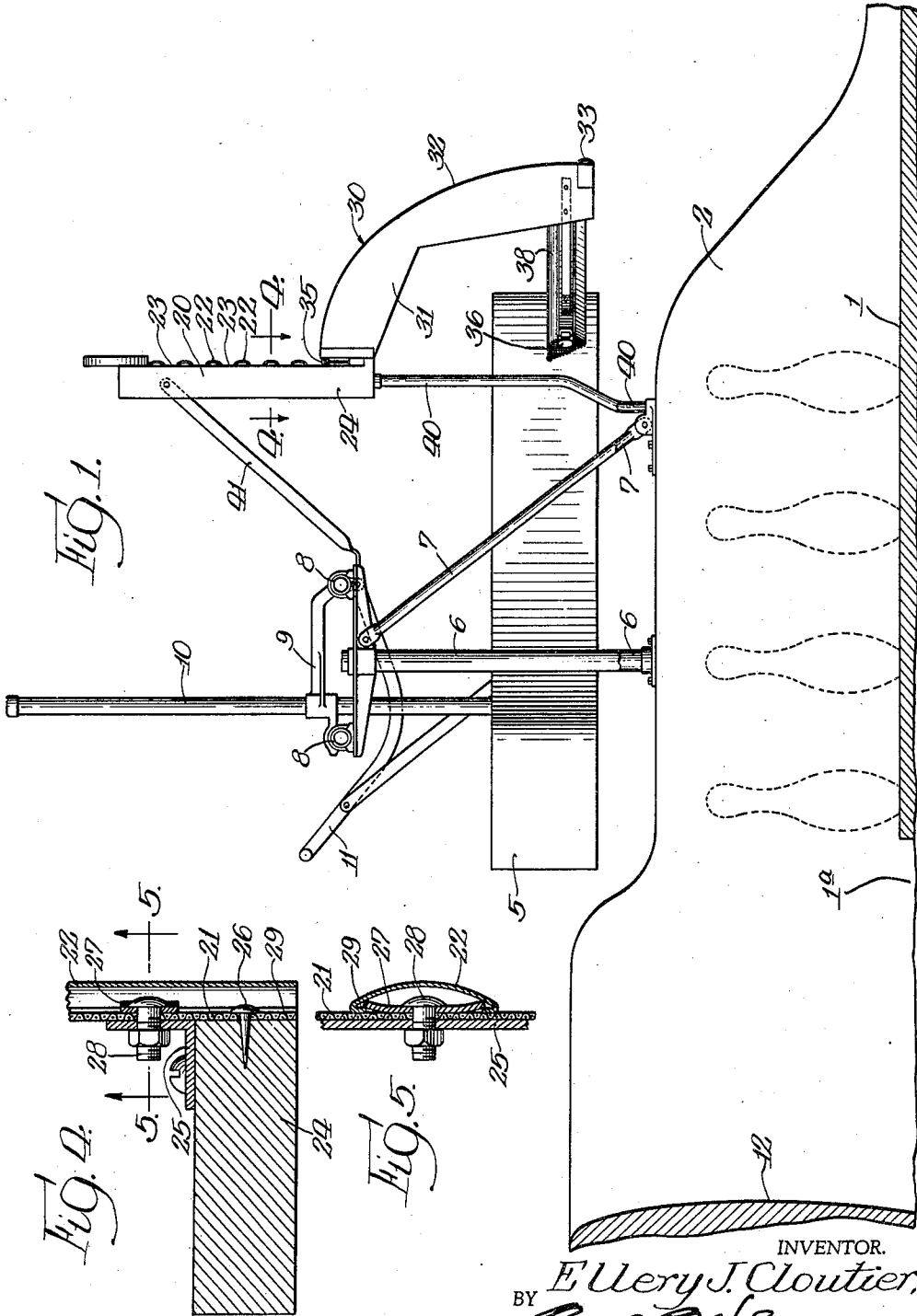
E. J. CLOUTIER

2,330,268

MASKING STRUCTURE FOR BOWLING ALLEYS

Filed Nov. 29, 1941

2 Sheets-Sheet 1



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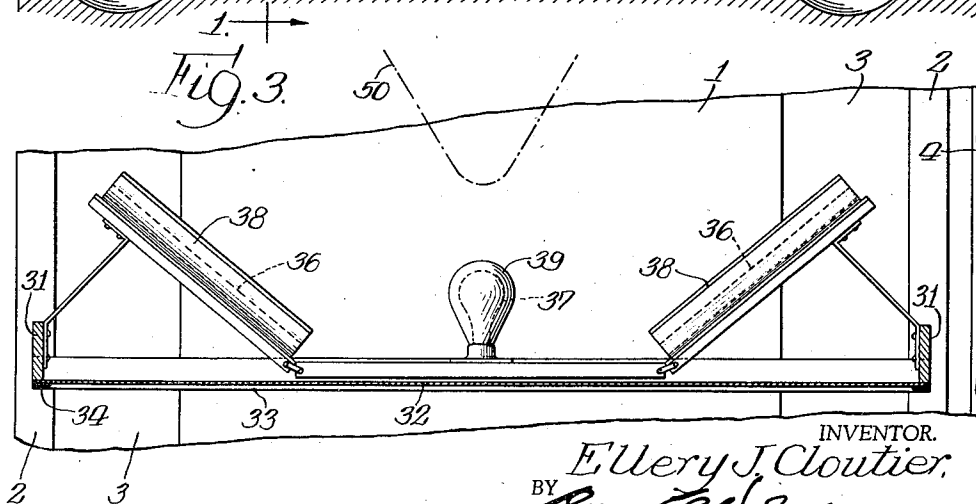
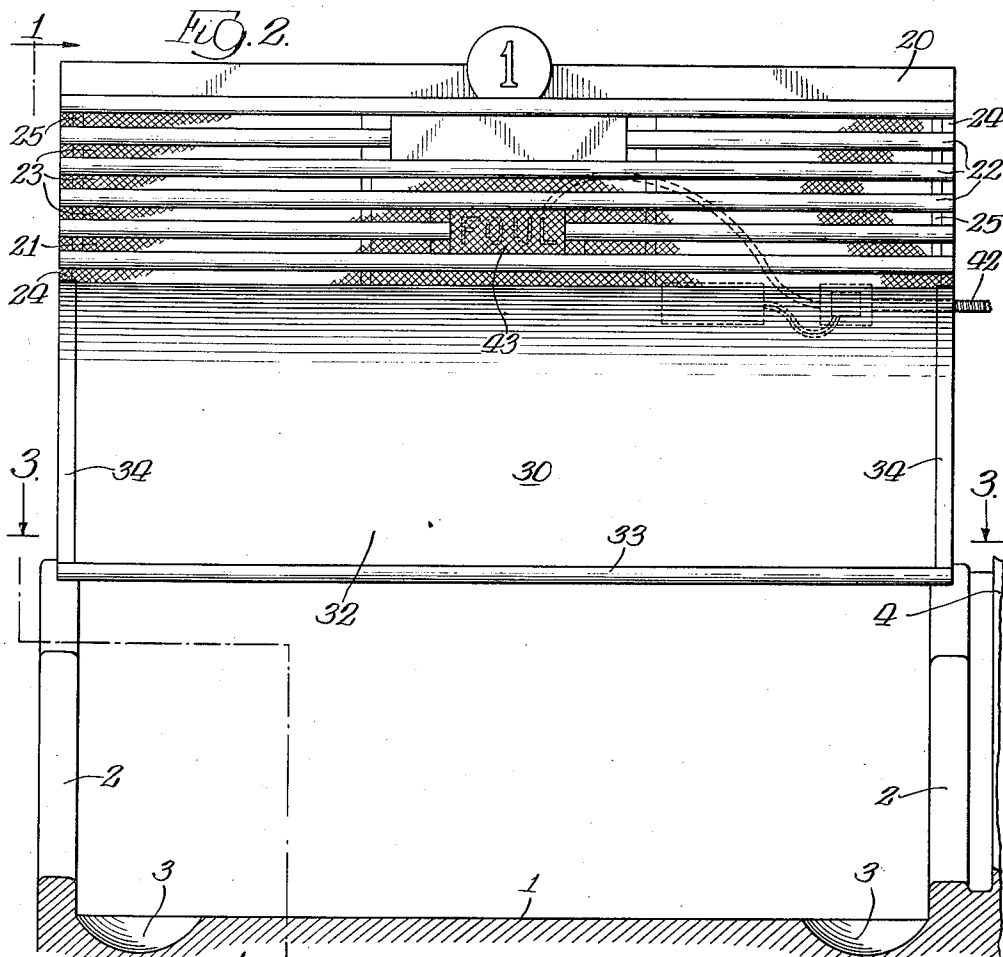
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MASKING STRUCTURE FOR BOWLING ALLEYS

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2 Sheets-Sheet 2



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MASKING STRUCTURE FOR BOWLING ALLEYS

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6 Claims. (Cl. 273—54)

This invention relates to equipment for bowling alleys and it is particularly concerned with the structure at the end of the alley adjacent the pit.

One object of the invention is to provide an artistic and effective mask for the pin setting mechanism when a device of this character is employed.

Another object of the invention is to provide a mask or shield adjacent the location of the pins and adapted to support or enclose illuminating means for concentrating the light on the pins.

A further object of the invention is to provide a screen which substantially conceals the pin boy from the view of the bowler, while affording means through which the pin boy can observe the bowler and thus govern himself so as to cooperate most efficiently.

In general it is an object of the invention to dramatize the game and enhance interest therein by providing a setting for the pins in which the light is concentrated upon them and in which adjacent mechanism necessary to the game is concealed or so arranged as not to distract the attention of the bowler during play.

Other objects and advantages will appear from the following description taken in conjunction with the drawings, in which:

Fig. 1 is a side elevation, partly in section, as indicated at line 1—1 on Fig. 2 and showing a masking unit embodying this invention as mounted in relation to the end portion of a bowling alley including the pit thereof and the pin setting mechanism associated therewith.

Fig. 2 is a front elevation of the end portion of a bowling alley equipped with a masking unit embodying this invention, the floor of the alley being indicated in section.

Fig. 3 is a horizontal sectional view taken substantially as indicated at line 2—3 on Fig. 2.

Fig. 4 is a detail section as indicated at line 4—4 on Fig. 1.

Fig. 5 is a detail section taken as indicated at line 5—5 on Fig. 4.

Although I have shown in the drawings, and shall herein describe in detail, a single form of the invention, I do not intend to limit the invention to the particular form shown, but aim to cover all modifications and alternative constructions coming within the scope of the claims.

Figs. 1 and 2 show the floor of the alley at 1 with upstanding side walls 2 which guard the area on which the bowling pins stand. The gutters are indicated at 3 and one of the return tracks for the bowling ball is partially shown at 4 on

Fig. 2. The pin setting apparatus, of which enough is shown for identification, includes a basket or carrier 5 into which the bowling pins are thrown by the pin boy and in which they are more or less automatically arranged in proper position for resetting on the alley floor 1. Supporting means for the carrier 5 includes upright posts 6 secured to the guard walls 2 together with brace members 7 and transverse tubular frame members 8 which support guide brackets 9 in which guide members 10 reciprocate when the carrier 5 is raised or lowered by means of a hand lever 11. Fig. 1 shows the carrier in its elevated position and in dotted outline indicates the position in which the bowling pins are left by the carrier in readiness for the bowler's play.

Beyond the end of the alley floor 1 is the depressed section at 1^a, known as the pit, which is provided with a back wall cushion 12 to receive the impact of the bowling ball and any pins which may be driven across the pit. A shelf or seat is usually provided to accommodate the pin boy during play, such seat being somewhat elevated above the floor of the pit in a relatively safe position.

The subject matter of this invention includes the vertical screen element 20 and the outwardly and downwardly curved masking element 30 which is associated therewith; these parts are dimensioned to effectively conceal the pin setting carrier 5, in its elevated position, and mechanism associated with it, but the screen 20 is so constructed that the pin boy shall be able to see the bowler as he delivers the ball. In the construction illustrated, this is rendered possible by constructing the screen element 20 as a frame over which there is stretched a reticulated member 21, preferably of wire mesh. The front surface of the screen, which is visible from the bowler's end of the alley, includes transverse bars 22 spaced at intervals so as to leave substantial areas 23 through which the pin boy can see the bowler. Each individual area 23, however, is relatively small in proportion to the total area of the screen and the spaced bars 22 are preferably given an ornamental finish of bright color or metallic plating so that they command attention rather than the screened areas, and it becomes comparatively difficult to see through the screen from the outer side which is presented to the players and spectators.

A convenient type of construction for the screen element 20 includes side frame members 24 to which there are secured vertically extending angle bars 25. The wire screen material 21

may extend over the forward edges of the side members 24, as seen in Fig. 4, and may be secured thereto in any convenient manner as by tacks 26 extending into these wooden frame members 24. Each of the ornamental bars 22 is held in place by small plates or washers 27 secured to the angle members 25 by bolts 28, the bar itself being in the form of a rail which is concave in cross section and has its marginal portions 29 intumed to lap under the edges of the washers 27, as shown in Fig. 5. It may be understood that the masking element may be made in sectional units, each equal to the width of one or two alleys, but that ordinarily, where the installation includes several alleys side by side, the masking elements will be connected end to end to form a substantially continuous screen over the end portions of all the alleys of the group. As indicated in Fig. 1, the screen element 20 is conveniently supported by uprights 40 attached to the upper edges of the guard walls 2; brace members 41 extending from the supporting structure for the pin setter serve to steady the frame 20 in upright position.

The curved masking element 30 consists of formers or end frames 31 which may be made up of wooden pieces having suitably curved contours to support an outer covering 32 of plywood or other sheet material ornamented with a trim rail 33 along its lower edge and trim strips 34 at its lateral margins. Other ornamentation may be applied to the outer surface of the curved panel 32 if desired. This curved mask or awning effectively conceals the pin carrier 5 when the latter is elevated out of the way in preparation for the bowler's play, but to allow for convenient access to the carrier 5 for inspection or repair the unit 30 is attached to the screen 20 by hinges seen at 35 in Fig. 1, so that it may be swung upwardly and propped up in that position temporarily when occasion requires.

Fig. 3, which shows a portion of the bowling floor 1 in plan view, indicates in dotted outline at 50 the forward portion of the area occupied by the bowling pins when they are set up. To illuminate the pins, the masking unit 30 is shown supporting a pair of tubular lamps 36, which may be of the fluorescent type, and an additional incandescent lamp 37 directly over the middle of the alley. Suitable reflectors at 38 and 39 are provided for the lamps, so as to concentrate the light downwardly on the bowling pins, and wiring connections for the current supply may be carried in conduits such as that shown at 42 supported at the inner side of the masking unit in any convenient manner. Fig. 2 shows a signal device comprising a panel 43 which may be illuminated to display the word "Foul" by means of an automatic mechanism which is not a part of the present invention, and which is associated with the foul line at the "approach" end of the alley; the screen 20 furnishes a convenient support for this signal where it will be in full view of the bowler and will readily come to his attention at the time of delivery of the ball, as well as being visible to other players and spectators.

The screen 20 and the associated structure 30 thus cooperate to form a slightly and effective masking unit by which the pin setting mechanism and the pin boy, himself, are substantially concealed from the bowler's view so as not to distract his attention, while the masking unit affords a convenient location for the illuminating means which further assists the bowler to concentrate his attention on the pins.

I claim as my invention:

1. In a masking structure for a bowling alley extending across the alley and upwardly from a line spaced above but adjacent the upper ends of the bowling pins as set up for play, a portion of said structure being composed of reticulated material combined with opaque bars spaced apart to form elongated sight openings in said material through which a person at the pit may observe a person at the approach end of the alley.

2. In a bowling alley having a pin setting mechanism which includes a carrier movable between upper and lower limits, a masking structure extending across the alley with its lower edge spaced above but adjacent the upper ends of the bowling pins as set up for play, said structure extending upwardly in position to screen the carrier from view when at its upper limit, an upper portion of said structure above the upper limit of travel of said carrier having sight openings through which a person at the pit may observe a person at the approach end of the alley.

3. A masking structure for a bowling alley comprising an upper, vertically disposed portion spaced above the alley and extending across it at a position forward of the pit, and a lower portion curving forward and downward from the lower margin of said upper portion at a position to mask the pin carrier of the pin setting mechanism in its raised position, said upper portion having sight openings through which a person at the pit may observe a person at the approach end of the alley, the sight openings of the upper portion being provided by an area of reticulated material combined with horizontally extending opaque bars spaced apart to form elongated windows of said reticulated material.

4. A masking structure for a bowling alley comprising an upper, vertically disposed portion spaced above the alley and extending across it at a position forward of the pit, and a lower portion trending forward and downward from the lower margin of said upper portion at a position to mask the pin carrier of the pin setting mechanism in its raised position, said lower portion being hingedly mounted for swinging upwardly from its normal position.

5. A masking structure for a bowling alley which includes a pit for a pin boy at one end and an approach for a player at the opposite end of the alley, said masking structure being permanently fixed in position and extending across the alley upwardly in a substantially vertical plane from a line spaced above but adjacent the upper ends of the bowling pins as set up for play, with sight openings in said structure through which a person at the pit may observe a person at the approach end of the alley.

6. A masking structure for a bowling alley which includes a pit for a pin boy at one end and an approach for a player at the opposite end of the alley, said masking structure being fixed permanently in a position extending across the alley and upwardly in a substantially vertical plane from a line spaced above but adjacent the upper ends of the bowling pins as set up for play, a portion of said structure being of reticulated material through which a person at the pit may observe a person at the approach end of the alley, the outer surface of said material being provided with contrasting color means rendering the screen substantially opaque to a person at the approach.

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