J. H. MALLON.

APPARATUS FOR THE MANUFACTURE AND DISPLAY OF BEVERAGES.

APPLICATION FILED JULY 16, 1921.

**1,420,433.** **Patented June 20, 1922.**

2 SHEETS—SHEET 1.

Fig. 1.

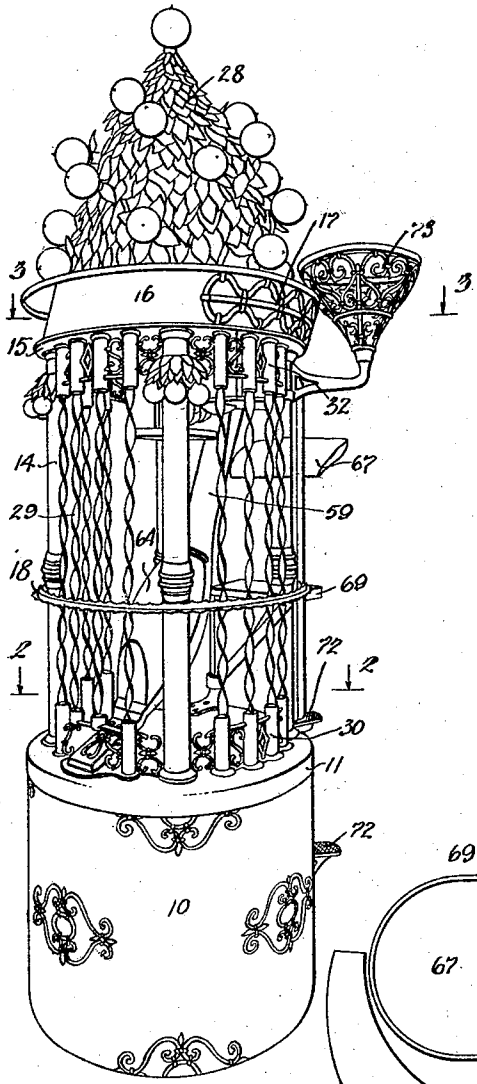



Fig. 2.

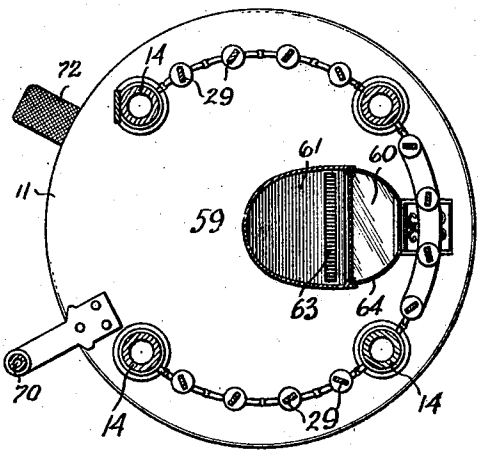
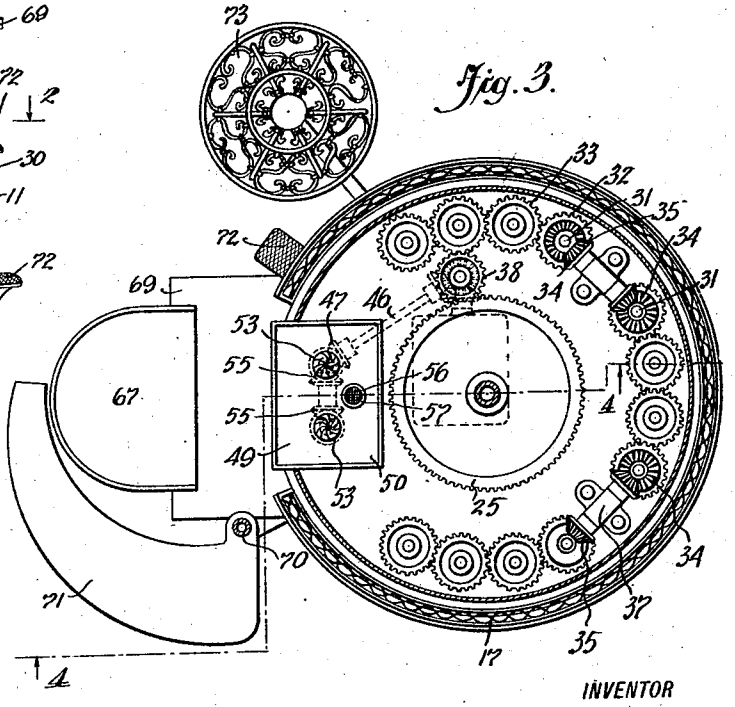



Fig. 3.




WITNESSES

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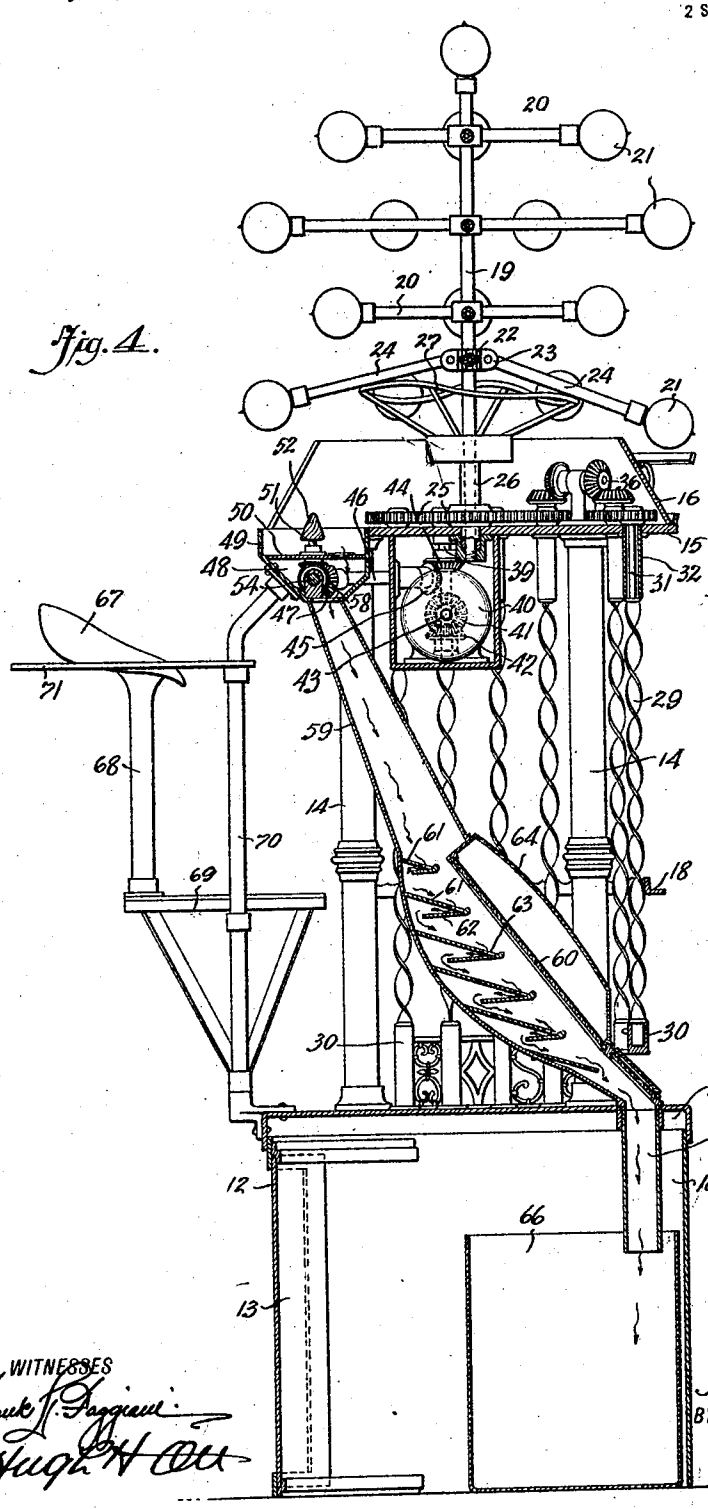
APPARATUS FOR THE MANUFACTURE AND DISPLAY OF BEVERAGES.

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2 SHEETS—SHEET 2.

*Fig. 4.*




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# UNITED STATES PATENT OFFICE.

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## APPARATUS FOR THE MANUFACTURE AND DISPLAY OF BEVERAGES.

1,420,433. Specification of Letters Patent. **Patented June 20, 1922.**

Application filed July 16, 1921. Serial No. 485,341.

*To all whom it may concern:*

Be it known that I, JAMES H. MALLON, a citizen of the United States, and a resident of Atlantic City, in the county of Atlantic and State of New Jersey, have invented a new and Improved Apparatus for the Manufacture and Display of Beverages, of which the following is a full, clear, and exact description.

This invention has relation to an apparatus for advertising purpose and refers more particularly to a booth especially designed for manufacturing, displaying and advertising orange juice or other similar liquid beverages.

The invention contemplates and seeks for one of its objects to provide a highly attractive displaying and advertising apparatus in the nature of a booth which also includes means for extracting or removing fruit juices from the fruit for its dispensation as a liquid beverage.

As a further object the invention aims to provide an advertising apparatus which includes ornamental and fanciful moving elements in addition to the means for removing the fruit juices and a common actuating mechanism for said means and elements.

A still further object of the invention resides in the provision of an apparatus of the character described which is comparatively simple in its construction and operation, inexpensive to manufacture and operate, and which is extremely effective in its purpose.

With these and other ends in view the invention resides in the novel construction, combination and arrangement of parts set forth in the following specification, particularly pointed out in the appended claims and illustrated in the accompanying drawings, it being understood that the right is reserved to embodiments other than those actually illustrated herein to the full extent indicated by the general meaning of the terms in which the claims are expressed and by variations in the phraseology of the same.

In the drawings—

Figure 1 is a perspective view of a booth constructed in accordance with the invention.

Fig. 2 is a horizontal sectional view taken approximately on the line 2—2 of Fig. 1.

Fig. 3 is a similar view taken approximately on the line 3—3 of Fig. 1.

Fig. 4 is a vertical sectional view taken approximately on the line 4—4 of Fig. 3.

Referring to the drawings by characters of reference, the booth consists of a hollow cylindrical base 10, closed at its upper end by a cover 11 and provided at one side with an opening 12 constituting a doorway and closed by a sliding door 13. The cover 11 is provided with an annular series of upstanding columns or pillars 14 which support a roof 15 having an upstanding frusto-conical band 16 around which an ornamental frieze 17 is arranged. An ornamental annular band 18 surrounds the medial portion of the pillars and is secured thereto to constitute a brace for the structure. A centrally disposed vertical stationary shaft 19 extends upwardly from the roof 15 and is provided with vertically spaced radiating stationary arms 20 to the extremities of which are attached light bulbs 21 simulating the type of fruit which the booth displays and the juice of which is dispensed therefrom. A collar 22 is secured to the shaft 19 beneath the lowermost series of stationary arms and said collar is provided with a plurality of pairs of spaced ears 23 between which the inner ends of the movable arms 24 are pivoted, the outer extremities of said arms 24 having secured thereto light bulbs 21; and a gear 25 is mounted on the lower extremity of the shaft and is supported by the roof 15, said gear being provided with an upstanding sleeve 26 which supports at its upper end an annular undulating frame 27. The frame 27 underlies and supports the movable arms 24 and upon rotation of the same said arms are swung upwardly and downward upon their pivots. Preferably the shaft 19, arms 20 and 24, and the frame 27 are concealed by a covering 28 simulating leaves or foliage whereby the bulbs 21 are only visible. A plurality of helical strips 29 are mounted in step bearings 30 at their lower ends and are provided with upstanding trunnions 31 at their upper ends which extend through the bearings 32 depending from the roof 15. The upper extremity of each trunnion 31 has keyed thereto a pinion 33. The helical bars are preferably arranged in sets of four disposed between the

columns 14 and in each set the pinions 32 interengage with each other whereby the same are driven simultaneously. The adjacent trunnions 31 of each set have keyed thereto beveled gears 34 which mesh with the beveled gears 35 on a common shaft 36 mounted in a bearing 37. One of the pinions 33 of one set of helical bars meshes with a drive pinion 38 which also meshes with the gear 25.

The drive pinion 38 is mounted on a vertical drive shaft 39 which is driven from the motor 40 by the inter-engageable beveled gears 41 and 42 respectively keyed to the motor shaft 43 and the drive shaft 39. A second beveled gear 4 is keyed on the drive shaft 39 and meshes with a beveled gear 45 on a counter shaft 46, to the opposite end of which a beveled pinion 47 is keyed. The counter shaft 46 extends through one of the walls of the lower compartment 48 of a hopper 49, the intermediate wall 50 of which constitutes a bearing for the shafts 51 of the fruit reamers 52. The lower extremity of the shafts 51 have keyed thereto beveled gears 53 which are simultaneously driven by a shaft 54 to the opposite extremities of which beveled gears 55 are secured to mesh with the gears 53. One of the gears 53 meshes with the gear 47 whereby the driving of the fruit reamers 52 is obtained. The intermediate wall 50 of the hopper is provided with a discharge opening 56 covered by a suitable strainer 57 and the lower compartment is provided with a discharge opening 58 which communicates with an angularly disposed tubular conveyor 59 extending centrally through the booth from front to rear. The lower portion of the conveyor at its front side is provided with a glass panel 60 and the interior of its rear wall is provided with a plurality of stepped vertically spaced forwardly inclined beveled plates 61 having rearwardly directed flanges 62, the rear ends of which terminate and are spaced from the rear wall of the conveyor.

The baffle plates are apertured as at 63 at their forward extremities whereby the fruit juices descending through the conduit will gravitate through the apertures 63 on to the upper surface of the flanges 62 and thence on to the upper surface of the baffle plate 61 therebeneath. A removable hood 64 is provided to cover the panel 60 in order to hide the baffle plates when no juices are running through the conduit. The lower end of the conduit 59 communicates with a discharge pipe 65 extending through an opening in the cover 11 and depending therefrom into the hollow base 10. A suitable receptacle 60 is designed to be arranged beneath the discharge pipe 65 for the purpose of receiving fruit juices, the same being removable and insertable through the doorway 12 when the door 13 is open. In order to provide combinations for an operator to feed the fruit to the reamers and hopper box, a suitable seat 67 is mounted in the rear of the machine on a standard 68 supported by a platform 69. The platform is in turn supported from a standard 70 connected at its opposite extremities respectively to the cover 11 and the hopper box 49. A table 71 is rotatably mounted and supported by the standard 70 and suitable steps 72 are secured to the hollow base 10 to provide means by which the operator may ascend and descend from the platform 69. An ornamental basket 73 is supported from one of the columns 14 within convenient reach of the operator and the same is designed to receive a supply of fruit from which the juices are to be extracted.

In operation of the machine the motor 40 is started to simultaneously drive the juice extracting elements or reamers 52, the helical strips 29 and the undulating frame 27, the latter effecting the continuous raising and lowering of the arms 24. The operator seated in the seat 67 successively feeds the fruit to the extracting elements 52. The juice from the fruit descends through the strainer and lower compartment of the hopper into the conveyor conduit 59 from whence it passes over the baffle plate 61 into the receptacle 66 from the discharge pipe 65. The helical strips 29 are designed to attract attention through their movement to the machine and draw the observer's attention to the fruit juices passing through the conduit. When no juices are passing through the conduit, the hood or cover 64 is arranged in covering position over the transparent panel to conceal the baffle plates.

From the foregoing it will be appreciated that a highly attractive display apparatus for fruit juice beverages has been designed for installation in public fountains or resorts.

Having thus described my invention, what I claim is:

1. An apparatus for the display of fruit juice beverages comprising a booth including a hollow base, upstanding columns and a roof, a hopper supported adjacent the roof at the rear end of the booth for receiving the fruit juice, a transparent conveyor conduit communicating with and extending from the hopper diagonally through the booth and having an outlet terminating within the hollow base, an annular series of vertically disposed rotary helical bars having mirrored surfaces surrounding the booth and said conveyor, and a common actuating means for rotating the helical bars whereby the same will attract and direct the observer's attention to the juices passing through the conveyor conduit and whereby to reflect the juices passing through said conveyor conduit to simulate moving streams of fruit juice.

2. In an apparatus for display and advertising of fruit juice beverages, a booth including a hollow base, upstanding columns and a roof, a conveyor conduit extending diagonally through the booth having an inlet above the roof for the reception of the fruit juice, a transparent panel in the front wall of the conduit, an annular series of vertically disposed rotary bars surrounding the booth and a conduit and provided with mirrored helical surfaces adapted to reflect the juices passing through the conduit to simulate moving streams of fruit juice, a plurality of movable ornamental elements supported by the roof, and a common means for actuating the rotary bars and movable ornamental elements.

3. In an apparatus for the display and advertisement of fruit juice beverages, a booth including a hollow base, upstanding columns and a roof, a conveyor conduit extending diagonally through said booth having an inlet above the roof for the reception of the fruit juice, a transparent panel in the front wall of the conduit, an annular series of vertically disposed rotary bars surrounding the booth and conduit and provided with mirrored helical surfaces adapted to reflect the juices passing through the conduit to simulate moving streams of fruit juice, a vertical shaft extending upwardly from the roof, ornamental elements carried by said shaft and simulating the fruit from which the juice is derived, and a common means for actuating said shaft and the rotary bars.

JAMES H. MALLON.