United States Patent

[11] 3,580,456

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[54] **APPARATUS FOR INSERTING STICKLIKE OBJECTS INTO COMESTIBLE ARTICLES**
20 Claims, 16 Drawing Figs.

[52] **U.S. Cl.** **227/100,** 227/117
[51] **Int. Cl.** **B27f 7/02**
[50] **Field of Search** 227/2, 3, 4, 5, 6, 7, 81, 99, 100, 101, 105, 106, 107, 114, 117

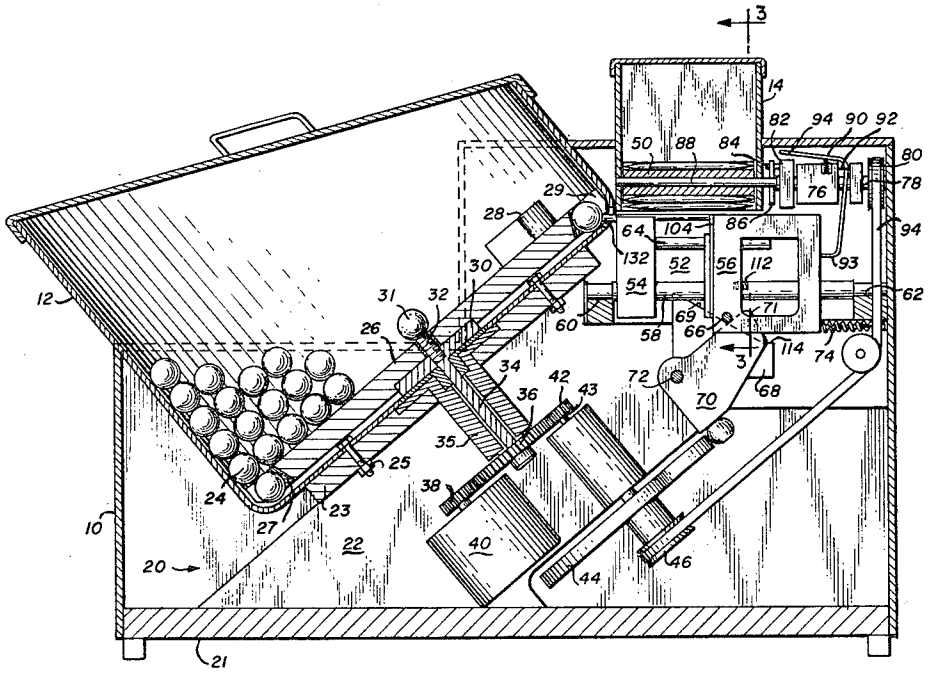
[56] **References Cited**

UNITED STATES PATENTS

1,941,992	1/1934	Makenny	227/105
2,733,439	2/1956	Pikal	227/2
2,799,857	7/1957	Raimondi	227/117
3,353,735	11/1967	Walters, Jr.	227/131X

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ABSTRACT: Apparatus for inserting toothpicks, or the like, into comestible articles such as hors d'oeuvres, diced cheeses or meats, bar fruits and similar articles including a suitable conveyor means for individually positioning the articles to be impaled relative to an impaling means, a container for storing the toothpicks or other objects with which the comestibles are to be impaled and impaling means operatively coupled to the conveyor means for retracting one or more of the impaling objects from the container and causing it to be driven into a comestible article to form the desired food preparation.



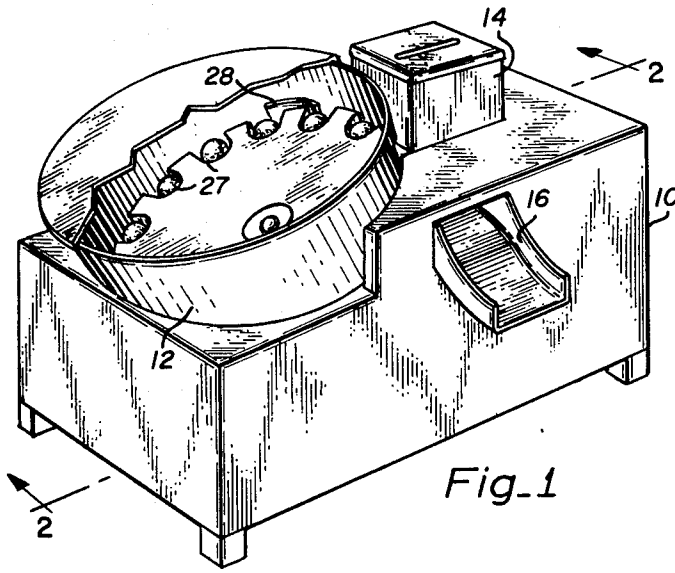


Fig_1

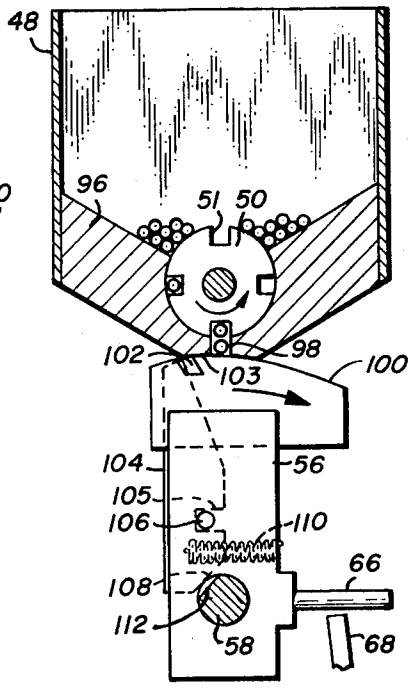


Fig_3

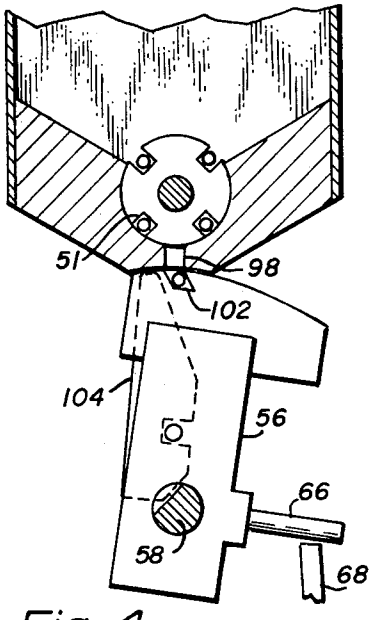


Fig_4

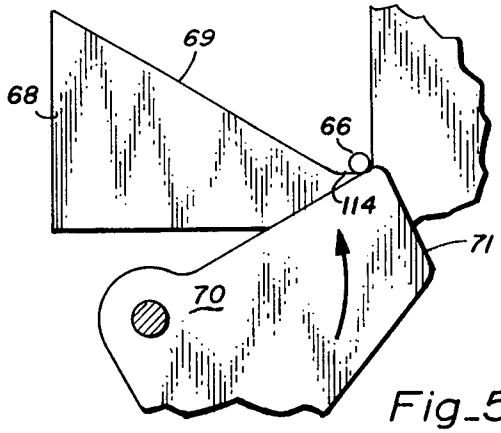


Fig_5

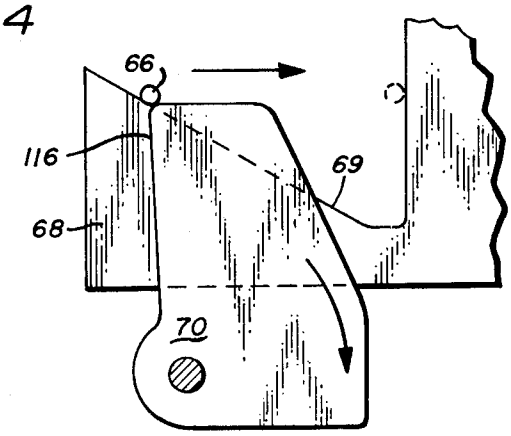


Fig_6

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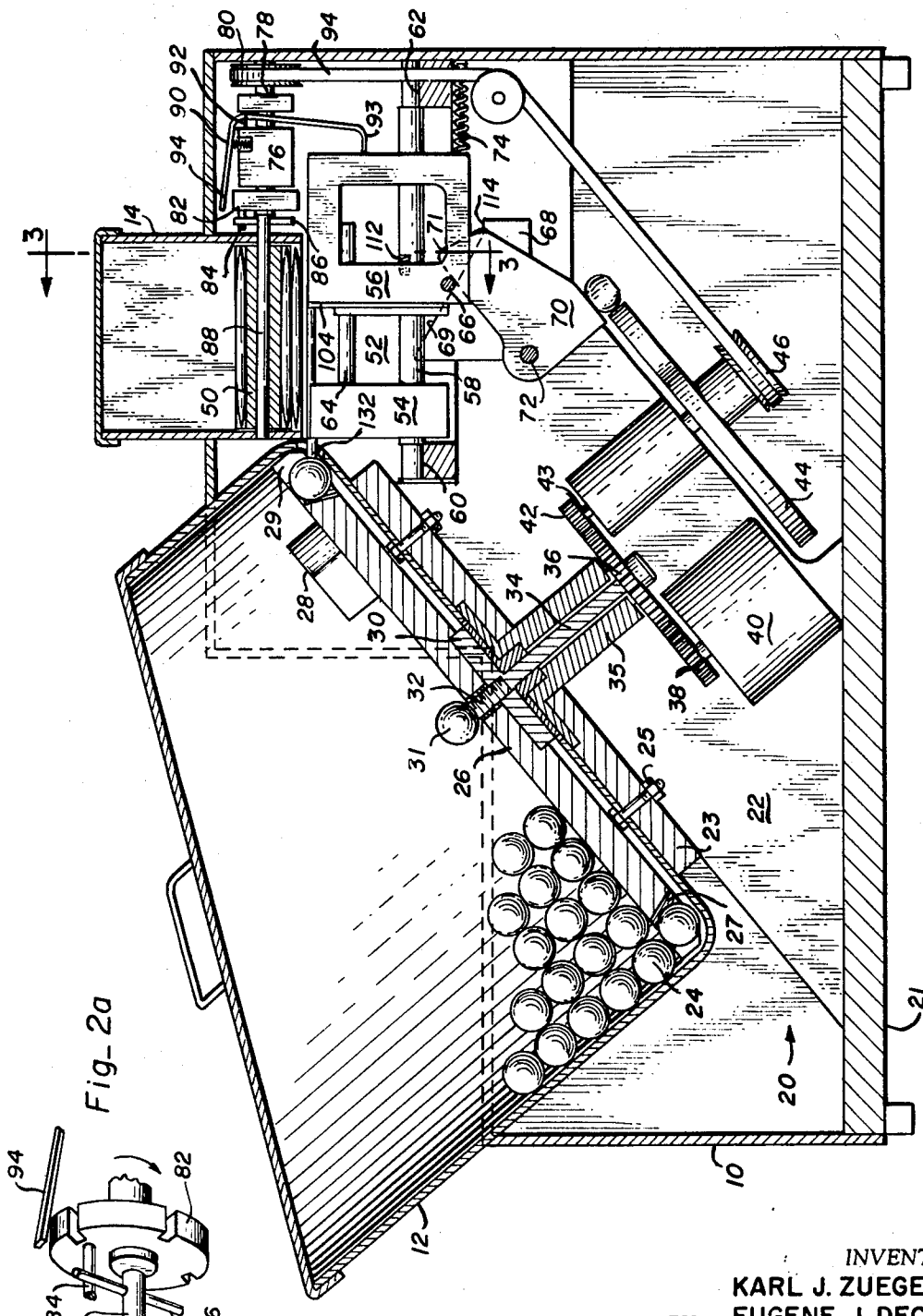


Fig. 2

Fig. 2a

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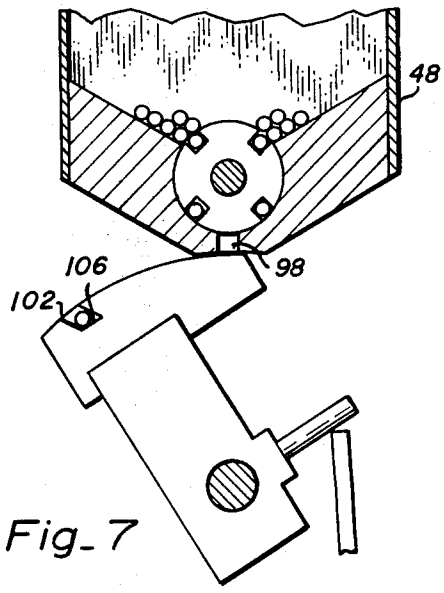


Fig_7

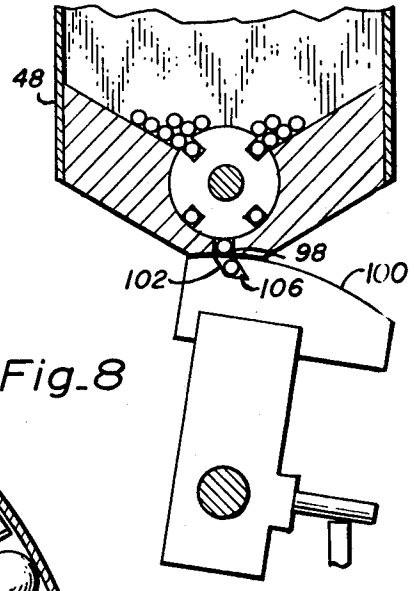
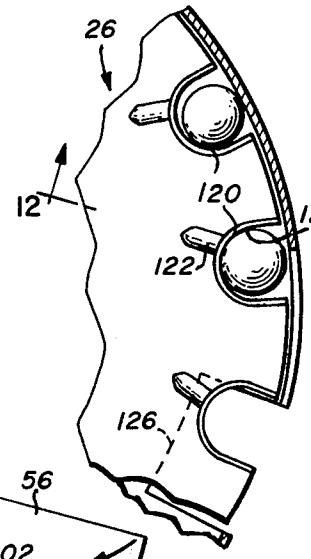


Fig_8



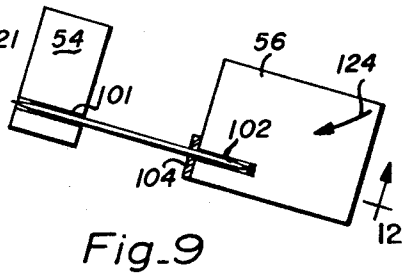


Fig_9

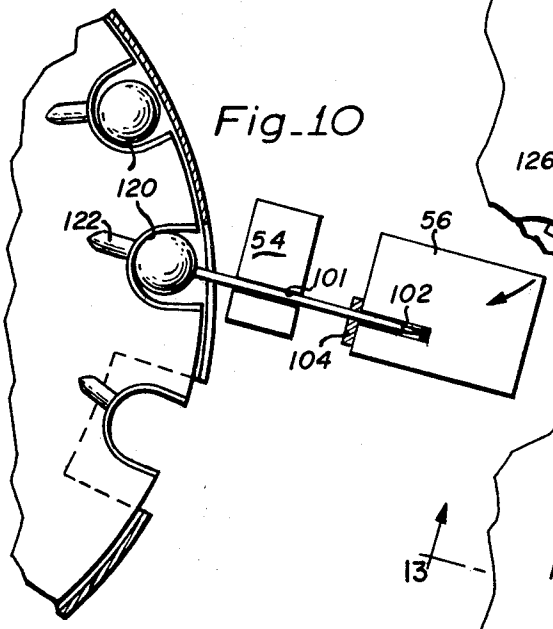


Fig_10

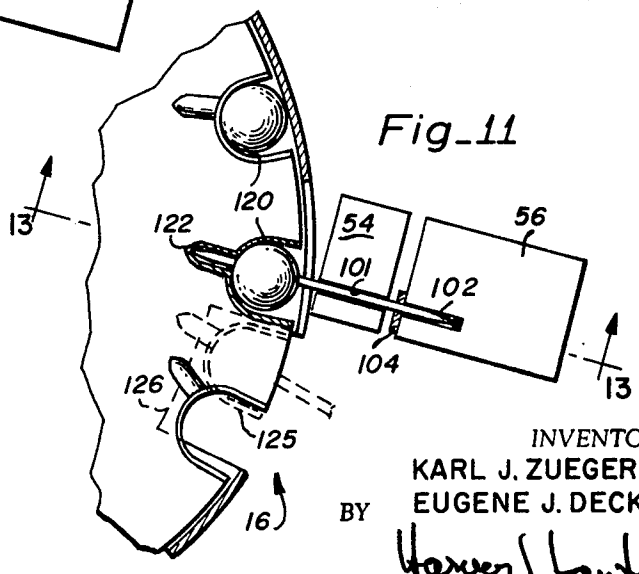


Fig_11

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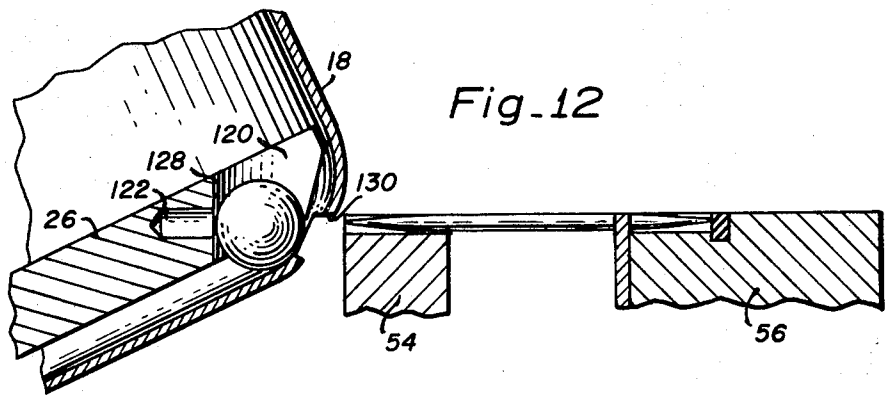


Fig_12

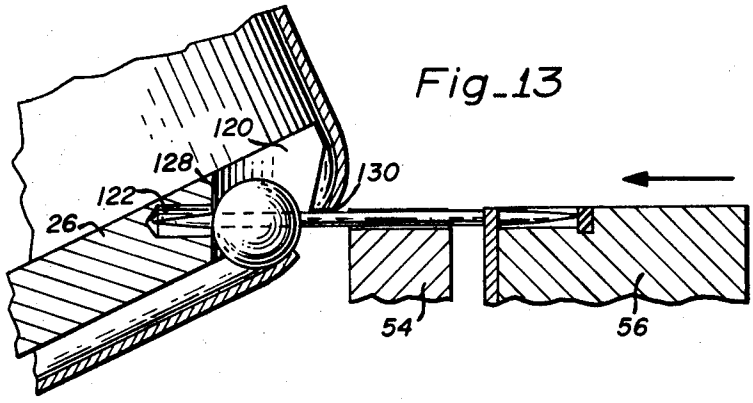


Fig_13

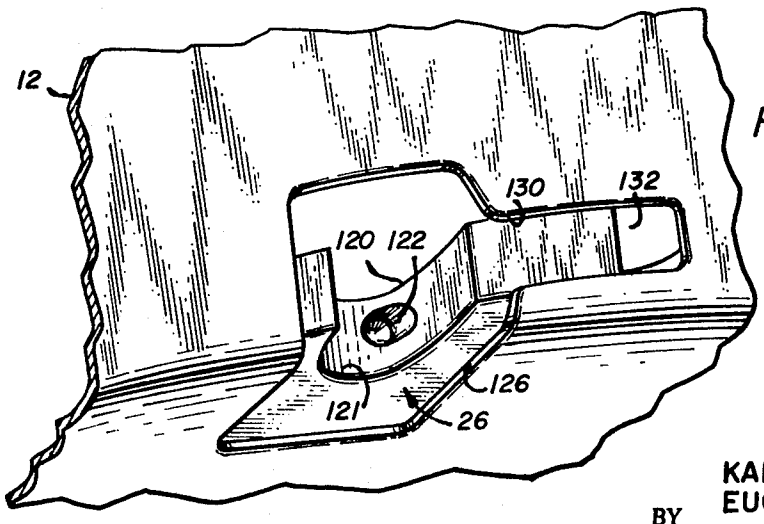


Fig_14

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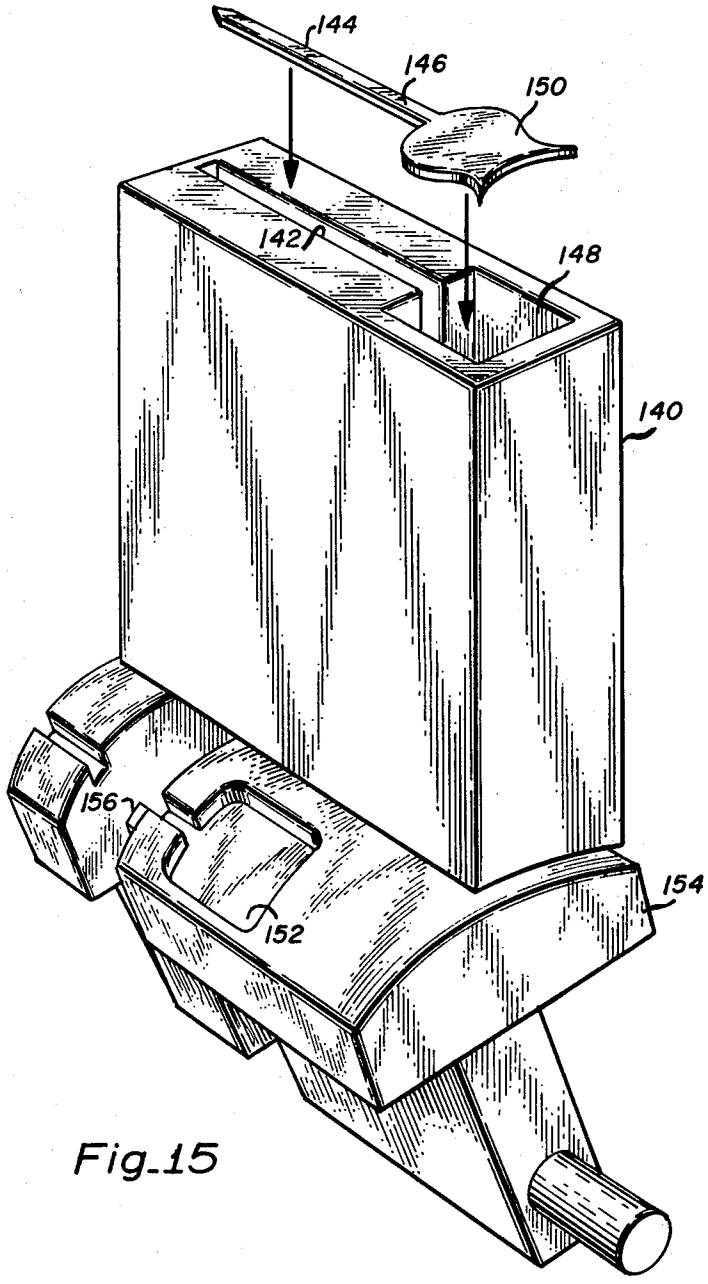


Fig_15

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APPARATUS FOR INSERTING STICKLIKE OBJECTS INTO COMESTIBLE ARTICLES

FIELD OF THE INVENTION

The present invention relates generally to food preparation apparatus and, more particularly, to an automated means for inserting toothpicks or other sticklike objects into small edible morsels such as hors d'oeuvres, bar fruits, cheeses and the like.

DESCRIPTION OF THE PRIOR ART

It has long been the custom in bars, restaurants and cocktail lounges throughout the world to place certain fruits or vegetables, such as olives, cherries, onions, etc., commonly denominated as bar fruits, into alcoholic beverages and, since these bar fruits are typically eaten during the consumption of the beverage, it is customary to place a toothpick or similar object therein to facilitate the removal from the beverage container. In addition, many places also serve hors d'oeuvres which are similarly pierced with toothpicks to facilitate handling of the edible bits.

In those establishments which have a large volume of patronage, the preparation of these items in the required quantities can become quite time consuming when done manually. In fact, many places specifically employ help to do nothing more than prepare these articles. This, of course, adds additional operational expense which could be eliminated if suitable mechanical apparatus was made available to perform the "toothpicking" function.

OBJECTS OF THE PRESENT INVENTION

It is therefore a principal object of the present invention to provide a novel mechanical apparatus for inserting toothpicks or similar objects into large quantities of small comestibles.

Another object of the present invention is to provide a novel apparatus for preparing large quantities of bar fruit for placement in beverages, or the like, by inserting toothpicks or similar sticklike articles therein.

Still another object of the present invention is to provide a novel means for automatically inserting toothpicks, or the like, into comestible articles of the type including hors d'oeuvres, diced cheeses or meats, bar fruits, and other similar products without causing unnecessary damage thereto.

SUMMARY OF THE PRESENT INVENTION

The present invention is directed to a means for inserting toothpicks, or the like, into comestible products, such as hors d'oeuvres, diced cheeses, meats, bar fruits, and similar articles, and includes a suitable conveyor means for individually positioning the articles to be impaled into a predetermined position, a container for storing the toothpicks or other objects with which the comestibles are to be impaled, and means operatively coupled to the conveyor means for extracting one of the impaling objects from the container and causing it to be driven into a comestible article to form the desired food preparation.

In accordance with a preferred embodiment of the present invention, a fruit hopper is provided which is in the form of a tilted bowl with a continuously rotating plate, having a plurality of cupped-shaped openings positioned about the perimeter thereof, positioned in the bottom thereof. As the plate turns, individual fruits drop into the openings and are carried to a bowl position wherein a slot is provided through which a toothpick may be inserted. A toothpick withdrawal and driving shuttle is operatively coupled to the rotating plate so as to withdraw a toothpick from a storage container and drive it through the slot in the hopper bowl and into the article as it is carried without stopping past the impaling location. After the fruit is impaled, the mated fruit and toothpick are carried by the same continuously rotating plate to a larger opening in the bottom of the hopper and allowed to drop into a collecting receptacle.

A principal advantage of the present invention is that it provides an automatic means for inserting toothpicks, or the like, into a food product without otherwise damaging the article in any substantial way, and which, upon being loaded with the articles of food and toothpicks, can be left completely unattended.

Another advantage of the present invention is that the same apparatus can be utilized to insert toothpicks, or the like, into a variety of sizes and types of comestible articles which may even be intermixed within the hopper.

Still other advantages of the present invention will become apparent to those of skill in the art after having read the following detailed description of a preferred embodiment which is illustrated in the several figures of the drawing.

IN THE DRAWING

FIG. **1** is a perspective view of a toothpick inserting apparatus in accordance with the present invention.

FIG. **2** is a section taken along line **2–2** of the embodiment of the present invention shown in FIG. **1** to illustrate generally, the operative components thereof.

FIG. **2***a* is a detailed illustration of the toothpick hopper drive mechanism shown in FIG. **2**.

FIG. **3** is a partial section taken across the toothpick hopper and shuttle apparatus along the line **3–3** of the illustrated embodiment shown in FIG. **2**.

FIG. **4** is a cross section taken along the line **3–3** of FIG. **22** with the shuttle rotated into the toothpick receiving position.

FIG. **5** illustrates the shuttle driving cam mechanism in the starting position.

FIG. **6** illustrates the shuttle driving cam mechanism at the end of stroke position.

FIG. **7** is a partial section taken through the shuttle and toothpick hopper showing the position of the shuttle when the driving cam is in the position illustrated in FIG. **6**.

FIG. **8** is a partial section taken through the shuttle and hopper to illustrate the manner in which a second toothpick is used to interrupt the feeding operation if no fruit is in position to receive a toothpick.

FIGS. **9**, **10** and **11** are partial top illustrations showing the various relationships of the fruit feeding means and the toothpick shuttle during operation of the device.

FIG. **12** is a partial side section taken along the line of **12–12** of FIG. **9**.

FIG. **13** is a partial side section taken along the line **13–13** of FIG. **11**.

FIG. **14** illustrates the configuration of the toothpick insertion and discharge opening in the fruit bowl.

FIG. **15** illustrates an alternative hopper and shuttle configuration for inserting another type of stem into comestible articles.

DETAILED DESCRIPTION OF A PREFERRED EMBODIMENT

In FIG. **1** of the drawing, a preferred embodiment of the invention is illustrated that includes a housing **10** for enclosing the operative mechanisms of the device, a bowl **12** into which the food product is placed, a hopper **14** into which a supply of toothpicks are deposited and a discharge chute **16**.

FIG. **2** is a section taken along the line **2–2** of FIG. **1** to illustrate in detail of a preferred embodiment of the device. The main support structure **20** includes a horizontal base **21** and a vertical support member **22**. Affixed to the upper edge of the member **22** is a flange **23** to which the bowl **12** is mounted by the bolts **25**. The bowl **12**, which may be of stainless steel, plastic or of any other suitable material, is inclined as illustrated so that the fruit or other articles placed therein will ultimately fall down into the lower edge portion **24**. Rotationally mounted within the bottom of the bowl **12** is a circular feeder wheel having a plurality of generally U-shaped cutouts **27** radially spaced about the perimeter thereof for individually receiving the fruits and carrying them up to the upper region **29** of the bowl **12** as the disc is rotated. Since, with the bowl

fully loaded, there may be a tendency for the fruit to be carried on top of the wheel a deflector 28 is provided so as to prevent such fruit from interfering with toothpick insertion at the point 29.

The disc 26 is secured to the hub 30 by a suitable fastening means 31 which passes through a hole 32 in the middle of the disc and is threadably received in the center of the hub 30. The hub 30 is affixed to one end of a drive shaft 34 which is received within a bearing sleeve 35 that is mounted to the support member 22. Affixed to the other end of shaft 34 is a gear 36 that is engaged by a drive gear 38 of the motor 40 so as to be driven thereby. Also driven by the motor 40 via the gears 36 and 38 is a gear 42 affixed to one end of the shaft 43. A three-lobed cam 44 is mounted to the other end of shaft 43 along with a belt-driven pulley 46.

Mounted to the upper portion of the member 22 is a toothpick hopper 14 which includes a rotating feed mechanism 50 for supplying toothpicks to a toothpick insertion mechanism 52. The insertion mechanism 52 includes a guide member 54 and a shuttle member 56 both of which are pivotally mounted upon a shaft 58 affixed at either end to support member 22 at the points 60 and 62. A shaft 64 is affixed to the guide member 54 at one end, and passes through a portion of the shuttle 56 so that the members 54 and 56 are constrained to rotate together about the shaft 58. Whereas the guide member 54 is fixedly mounted to the shaft 58, the shuttle member 56 is slidably disposed thereon.

Secured to the far side of the shuttle 56 and projecting out of the plane of the drawing as shown in FIG. 2 is a dowel pin 66 which enables the shuttle 56 to be axially driven along the shaft 58. In order to produce a combined rotational and longitudinal displacement of the shuttle 56 with respect to the shaft 58, a ramp 68 is provided having a camming surface 69 which is engaged by the dowel pin 66. The ramp 68 is positioned laterally of the shaft 58 so that as the shuttle 56 is displaced along the shaft 58 it is caused to rotate thereabout as the pin 66 rides up the camming surface 69. Shuttle 56 is driving leftwardly by a drive arm 70 which also engages the pin 66.

Rotation of the drive arm 70 about the pivot 72 is caused by its engagement with the three-lobed cam 44 which is driven by the motor 40. The cam 44 causes one cycle of shuttle operation to be effected for each time that one of the feeder apertures 27 is swept past the position 29. A spring means 74 is affixed to one side of shuttle 56 and to the support frame for returning the shuttle rightwardly as the drive arm 70 disengages the dowel pin 66. Spring means 74 is positioned so as to impart a turning moment to shuttle 56 about shaft 58 and in a direction which tends to maintain pin 66 in engagement with the camming surface 69. This also allows pin 66 to ride up and over the end 71 of drive arm 70 as drive arm 70 is rotated clockwise into the starting position shown in FIG. 5.

In order to drive the toothpick feeding mechanism 50, a friction drive mechanism 76 is provided. The mechanism 76 includes a shaft 78 having a pulley 80 affixed to one end thereof, and a notched friction driven ratchet wheel 82 affixed to the other end (see also FIG. 22). Projecting from the ratchet wheel 82 is a pin 84 which engages a lever 86 affixed to the end of the shaft 88 of the toothpick feeding mechanism 50. A pawl 90 is pivotally attached to the mechanism 76 at 92 so that the end 94 thereof engages a notch in the ratchet wheel 82 when urged into engagement therewith as the shuttle 56 contacts lever arm 93. As the shuttle 56 is returned to its rightmost position by the spring 74, the wheel 82 is stopped as it is engaged by the pawl 94 so as to interrupt the drive of the toothpick feeding mechanism.

Turning now to FIG. 3, which is a cross section taken through the hopper 14 and shuttle 56 along the line 3–3 of FIG. 2, it will be seen that the toothpick feeder mechanism 50 is formed of a cylinder having four orthogonally positioned longitudinal slots cut in the surface thereof which are of an appropriate size so as to contain only one toothpick in each slot. The bottom surfaces 96 of the hopper 14 are sloped inwardly toward the feeder 50 so as to cause the toothpicks contained therein to be continuously presented to the feeder 50. A slot 98 is provided in the bottom of the hopper 48 which has cross-sectional dimensions substantially equivalent to those of the grooves 51 of the feeder 50, i.e., the vertical depth of the slot 98 is made substantially equal to the thickness of a toothpick to be used in the device.

The upper surface 100 of the shuttle 56 is contoured so as to continuously engage the bottom surface of the hopper 14 as the shuttle is reciprocally rotated about the shaft 58, and an inclined slot 102 is provided therein, as indicated, so that when the shuttle 56 is rotated to its most clockwise position, the opening to slot 102 lies directly beneath the slot 98 in the hopper 14. A similar slot 101 is provided in the upper surface of member 54 in alignment with the slot 102. Thus, a toothpick contained in the slot 98 will be caused to drop into the slots 101 and 102 when they are passed beneath slot 98, if the slots 101 and 102 are not already occupied.

In order to maintain the toothpick in the slots 101 and 102 as the shuttle rotates counterclockwise, so that the slots 101 and 102 are no longer beneath the surface 103 of the hopper 48, a clamping means 104 is provided at one end of the shuttle 56 (see FIG. 2) which pivots about a pin 106 so as to engage the toothpick and bias it back into the wedge-shaped rightmost side of the slots 101 and 102, thus maintaining it firmly within the slot.

The clamp 104 has a camming surface 108 which engages the shaft 58 as the spring 110 attempts to rotate it counterclockwise about the pin 106 and out of engagement with the toothpick. The pin 106 passes through a slot 105 in the clamp 104 and the spring force of spring 110 is relatively small so that very little positive force need be applied to the toothpick to disengage it from the grip of clamp 104. Formed in the side of the shaft 58 is a longitudinal camming surface 112 which is engaged by the camming surface 108 of clamp 104 so that when the shuttle is in its rightmost position the clamp is caused to rotate away from the slot 102 so as to allow a new toothpick to enter the slot. It, however, reengages the toothpick before the shuttle slot 102 has been rotated out from beneath the surface 103.

In FIG. 4, the shuttle 56 is shown rotated into its most clockwise position so as to allow a toothpick to fall from the slot 98 into the slot 102. It will be noted that during the time that the shuttle has rotated from the position shown in FIG. 3 to that illustrated in FIG. 4, the toothpick feeding mechanism 50 has been rotated approximately 45° and stopped so that it is only possible for one toothpick to be dropped into the slot 102 each time that it is presented. The feeder 50 is stopped, and held in the position shown, by the pawl 90 as described above with regard to FIG. 2. If such were not the case and two picks were permitted to drop simultaneously through slot 98, i.e., one from slot 98 and another from one of the grooves 51, there is a possibility that one of the toothpicks might upset the other and cause the shuttle to become jammed.

Turning now additionally to FIGS. 5 and 6 of the drawing, the operation of the shuttle drive mechanism will be explained. In FIGS. 4 and 5, it will be noted that the shuttle 56 is in its rightmost position as indicated by the pin 66 in FIG. 5, and its clockwisemost position as indicated in FIG. 4. At this point, the pin 66 engages the horizontal portion 114 of the ramp 68. As the drive arm 70 is rotated counterclockwise by the lobed cam 44, it engages the pin 66 and drives the shuttle 56 along the shaft 58 for a short distance with no rotation until pin 66 reaches the camming surface 69. During this motion the clamp 104 rides up the camming surface 112 on the shaft 58 and is driven into engagement with the toothpick contained in slots 101 and 102. Thereafter, the toothpick is firmly held to the shuttle as the pin 66 is driven up the ramp 68 causing the shuttle 56 to be axially displaced along the shaft 58 and rotated thereabout.

As the shuttle 56 reaches the position shown in FIG. 7, the pin 66 will be at the position shown in FIG. 6, and will thereafter ride over the corner 116 of the drive arm 70 and be quickly returned by the spring 74 to the starting position in-

dicated in FIG. 3. As the radius of the three-lobed cam **44** decreases to a minimum the drive arm **70** is returned to the starting position (FIG. 5) to again engage pin **66** and start the next shuttling cycle.

Should no fruit be presented at the position **29** as the present toothpick is lanced thereinto, the clamp **104** will maintain the pick within the slots **101** and **102** of the members **54** and **56** respectively, so as to cause it to be returned with the shuttle back to the loading position indicated in FIG. **8**. It will be noted that during the time that the shuttle has performed the lancing operation the feeder **50** has been rotated at least 90° so as to deposit another toothpick into the slot **98**. However, since the depth of the slot **102** in the shuttle **56** is substantially equal to the thickness of the toothpick, the one contained within the slot **98** will not drop down into the occupied slot **102** but will simply bump over the toothpick disposed therein and will remain in position in slot **98** as the shuttle is again returned into the lancing position.

Likewise, the toothpicks in slots **51** of feeder **50** merely bump over slot **98** if a toothpick remains therein as the slots **51** pass over the slot **98**. The cooperative effect of this feature and that performed by the clamp **104** effectively render the device capable of sensing whether or not fruit appears in the lancing position so as to retain the toothpick within the shuttle groove rather than cause it to be ejected when there is no fruit to be speared.

Referring now to FIGS. **9**, **10** and **11**, the lancing operation is illustrated as viewed from the top of the apparatus. It will be noted that the cutouts **120** in the periphery of wheel **26** include angled bores **122** which allow the toothpick to be driven through the fruit contained within the cutouts without striking the wheel **26**. As indicated in these FIGS., the longitudinal axis of the toothpick carrying slots **101** and **102**, and thus the shuttle axis (shaft **58**), is angled with respect to a tangent to the wheel **26**. This angle is chosen so as to cause the toothpick to pass through the approximate center of any size fruit contained within the cutouts **120**. The choice of a suitable angle depends upon the shape characteristics of the cutouts **120** since the carrying position of the various sizes of fruits is dependent upon the points at which the fruit engages the wall **121** thereof.

In FIG. **9**, the shuttle starting position is shown with the shuttle beginning its motion in the direction indicated by the arrow **124** so as to intercept the fruit as the wheel **26** continues to rotate. If a fruit is in the cutout and is pierced by the toothpick, as indicated in FIGS. **10** and **11**, the continued turning of the wheel **26** will cause the toothpick to be raised out of the slot **101** and twisted against the clamping force of the clamp **104**, thus freeing the toothpick from the shuttle **56** as it returns to its starting position. Shortly thereafter, as indicated by the dashed lines **125**, the cutout containing the fruit and toothpick combination reaches the aperture **126** in the bowl **12** and the fruit and pick are allowed to drop out of the device onto the chute **16** which conveys the prepared fruit to a suitable receiving receptacle.

FIGS. **12** and **13** are side sections illustrating the operations shown in FIGS. **9** and **11** respectively. It will be noted from these sections that the toothpick engages the plane of the wheel **26** at an angle relative thereto. In order to prevent this angular intersection from dislodging the fruit, the interior radial wall **128** of the cutouts **120** are angled normal to the direction of penetration of the toothpick so that the impact of the toothpick striking the fruit is absorbed by the wall **128**. In addition, to further insure that the fruit is not dislodged and that the toothpick is constrained to follow the intended path, the upper edge **130** of the slot **132** cut in the bowl **12** (see also FIG. **14**) is precisely located and configured so as to provide an upper camming surface for maintaining the toothpick within the slot **101** in the member **54** as it is driven into the bowl **12**. The shape of the discharge aperture **126**, as well as the toothpick entrance slot **132**, is illustrated in FIG. **14**.

In operation, a quantity of fruit or other objects to be toothpicked are loaded into the bowl **12**, and the motor **40** is actuated by flipping a turn-on switch. Assuming the hopper **14** contains enough toothpicks to accommodate all of the articles placed in the bowl **12**, no further attention need be paid to the device. It will continue to insert one toothpick into each fruit until the last has been discharged out of the chute **16**. Although not incorporated in the device illustrated, it would be a simple matter to provide a means for sensing when the last article is discharged from the bowl **12** so as to automatically shut down operation of the device.

Returning now to the method of operation, once the motor **40** has been energized, it will cause the wheel **26** to be driven so as to individually present the fruit for impalement at the position **29**. The cam **44** is also driven by the motor **40** and causes the drive arm **70** to be rotated to engage the pin **66** and urge the shuttle **56** leftwardly and counterclockwise about the shaft **58** so as to thrust the toothpick carried thereby into the bowl. Should no fruit be carried by the conveyor **26** into the lancing position **29**, the toothpick will be withdrawn from the bowl as the shuttle returns to its starting position, and will be retained for insertion into the next cutout in the wheel **26**.

Upon the first occurrence of a fruit at position **29**, the toothpick will be driven thereinto and will be wrenched from the insertion mechanism **52** as the combined fruit and pick are driven towards the opening **126** for discharge from the bowl **12**. The shuttle **56** will then return empty to beneath the hopper **14** where a new pick will drop from slot **98** into slot **102** for insertion into the next fruit presented at **29**. This operation will continue until the last fruit is removed from the bowl.

Referring now to FIG. **15** of the drawing, a simplified embodiment of a modified hopper and shuttle structure is shown for inserting sticks having ornamental heads into the comestible loaded in the bowl **12**. In accordance with this embodiment, the hopper **140** is in the form of a vertical magazine having a narrow slot **142** for accommodating the elongated stem **144** of the stick **146** and a larger slot **148** for receiving the head end **150** thereof. Likewise, the groove **152** in the top of the shuttle **154** is modified to receive the decorative head **150** of the sticks **146**.

In this embodiment, since the sticks are flat over substantially their entire length and are not as subject to upset as are tapered toothpicks, it is not necessary that a feed mechanism of the type previously illustrated be utilized. Here only one stick can be picked up at a time by the slot **152** and the presence therein of one stick will prevent another from dropping out of the magazine **140** as the shuttle rotates into the retraction position.

In this embodiment as in the previous, a clamping means **156** is provided for holding the stick **146** in place until it is wrenched free by insertion into a fruit or other object to be impaled. Clearly, a much more elaborate cartridge structure can be utilized, but for purposes of simplicity this basic illustration is deemed adequate. Additionally, it is contemplated that an alternative type of comestible hopper and feed mechanism might be utilized in accordance with the apparatus disclosed in the present invention.

While the invention has been described with reference to certain preferred embodiments, many alternations and modifications thereof will be apparent to those skilled in the art after having read the foregoing disclosure. However, the development of such modifications will be deemed to be proximate results flowing naturally from the teaching of the present invention.

It is therefore to be understood that this particular disclosure is made for purposes of illustration only, and is in no manner intended to be limiting in any way. Furthermore, it is intended that the appended claims be interpreted as covering all modifications which fall within the true spirit and scope of the invention.

What I claim is:

1. Apparatus for inserting elongated sticklike objects into comestible articles comprising:

conveyor means for individually transporting said articles to a predetermined location;

hopper means for containing a quantity of said sticklike objects; and

reciprocating pickup and displacement means operatively coupled to said conveyor means for extracting one of said sticklike objects from said hopper means and displacing that object into piercing engagement with one of said articles carried by said conveyor means, said reciprocating means including as an operative component thereof, a means for sensing the absence of an article at said location and causing said one sticklike object to be retained by said reciprocating means for repeated reciprocal displacement to and from said location until an article carried by said conveyor means is engaged thereby.

2. Apparatus for inserting elongated sticklike objects into comestible articles as recited in claim 1 wherein said reciprocating means includes a shuttle means having means for clamping engaging said one sticklike object and preventing ejection therefrom until said one sticklike object is mated with said article.

3. Apparatus for inserting elongated sticklike objects into comestible articles as recited in claim 2 and including means for disengaging said one sticklike object from said shuttle means and discharging the mated sticklike object and article from said conveyor means.

4. Apparatus for inserting elongated sticklike objects into comestible articles as recited in claim 3 wherein said reciprocating means includes a guide means for guiding said one sticklike object as it is displaced to and from said predetermined location by said shuttle means.

5. Apparatus for inserting elongated sticklike objects into comestible articles as recited in claim 4 wherein said shuttle means and said guide means are caused to rotate about a common axis, said guide means being longitudinally fixed relative to said axis whereas said shuttle means is displaceable therealong.

6. Apparatus for inserting elongated sticklike objects into comestible articles as recited in claim 5 wherein said conveyor means includes a circular disc means having a plurality of generally U-shaped cutouts radially disposed about the periphery thereof for receiving said articles and carrying them to said predetermined location.

7. Apparatus for inserting elongated sticklike objects into comestible articles as recited in claim 6 wherein said axis intersects the plane of said disc at an angle so that said one sticklike object will be angularly thrust into said cutouts so as to pass through the approximate center of an article carried therein even though the size of said article may vary over a relatively wide range.

8. Apparatus for inserting elongated sticklike objects into comestible articles as recited in claim 1 wherein said hopper means includes a means for presenting a single one of said sticklike objects to said shuttle means each time it passes thereby and retaining that single one sticklike object should the previous object be retained in said shuttle means.

9. Apparatus for inserting elongated sticklike objects into comestible articles as recited in claim 1 wherein said conveyor means and said reciprocating means are driven by a common drive means.

10. Apparatus for inserting elongated sticklike objects into comestible articles as recited in claim 5 and further comprising a camming means disposed adjacent said axis, said shuttle means having a pin projecting therefrom which engages said camming means such that as said shuttle means is displaced along said axis, it is caused to rotate thereabout as said pin rides up said camming means.

11. Apparatus for automatically inserting toothpicks into bar fruits, such as olives, onions, cherries or the like comprising:

container means into which a large quantity of said fruits may be placed, said container means including conveyor means for individually conveying said fruits to a predetermined location within said container;

hopper means for containing a quantity of toothpicks and individually presenting them one at a time for removal therefrom; and

reciprocating shuttle means and guide means operatively coupled to said conveyor means for receiving one of said toothpicks from said hopper means and driving it into mating engagement with one of said fruits conveyed to said predetermined location, said shuttle means including as an operative component thereof, means for retaining said toothpick for repeated displacement into and out of said predetermined location until a fruit is matingly engaged thereby.

12. Apparatus for automatically inserting toothpicks into bar fruits as recited in claim 11 wherein said shuttle means and said guide means are caused to rotate about a common axis, said guide means being longitudinally fixed relative to said axis whereas said shuttle means is displaceable therealong.

13. Apparatus for automatically inserting toothpicks into bar fruit as recited in claim 12 wherein said shuttle means includes a means for clampingly engaging said toothpick and retaining it until it is mated with a fruit at said predetermined location.

14. Apparatus for automatically inserting toothpicks into bar fruits as recited in claim 13 and including means for disengaging said toothpick from said shuttle means after it is mated with said fruit and discharging the mated toothpick and fruit from said container means.

15. Apparatus for automatically inserting toothpicks into bar fruits as recited in claim 14 wherein said conveyor means includes a circular disc means having a plurality of pockets radially disposed about the periphery thereof for receiving said fruits and carrying them to said predetermined location.

16. Apparatus for automatically inserting toothpicks into bar fruits as recited in claim 15 wherein said axis intersects the plane of said disc means at an angle so that said toothpicks will be angularly thrust into said pockets so as to pass through the approximate center of a fruit carried therein even though the sizes of said fruit may vary over a relatively wide range.

17. Apparatus for automatically inserting toothpicks into bar fruits as recited in claim 11 wherein said hopper means includes a means for retaining a subsequent toothpick presented should the previous toothpick be retained in said shuttle means.

18. Apparatus for automatically inserting toothpicks into bar fruits as recited in claim 11 wherein said conveyor means and said reciprocating means are mechanically driven by a common energy source.

19. Apparatus for automatically inserting toothpicks into bar fruits as recited in claim 12 and further comprising a camming means disposed adjacent said axis, said shuttle means having a pin projecting therefrom which engages said camming means such that as said shuttle means is displaced along said axis, it is caused to rotate thereabout as said pin rides up said camming means.

20. Apparatus for automatically inserting toothpicks into bar fruits as recited in claim 19 wherein said shuttle means is driven along said axis by the application of a force to said pin in a direction generally parallel to said axis.