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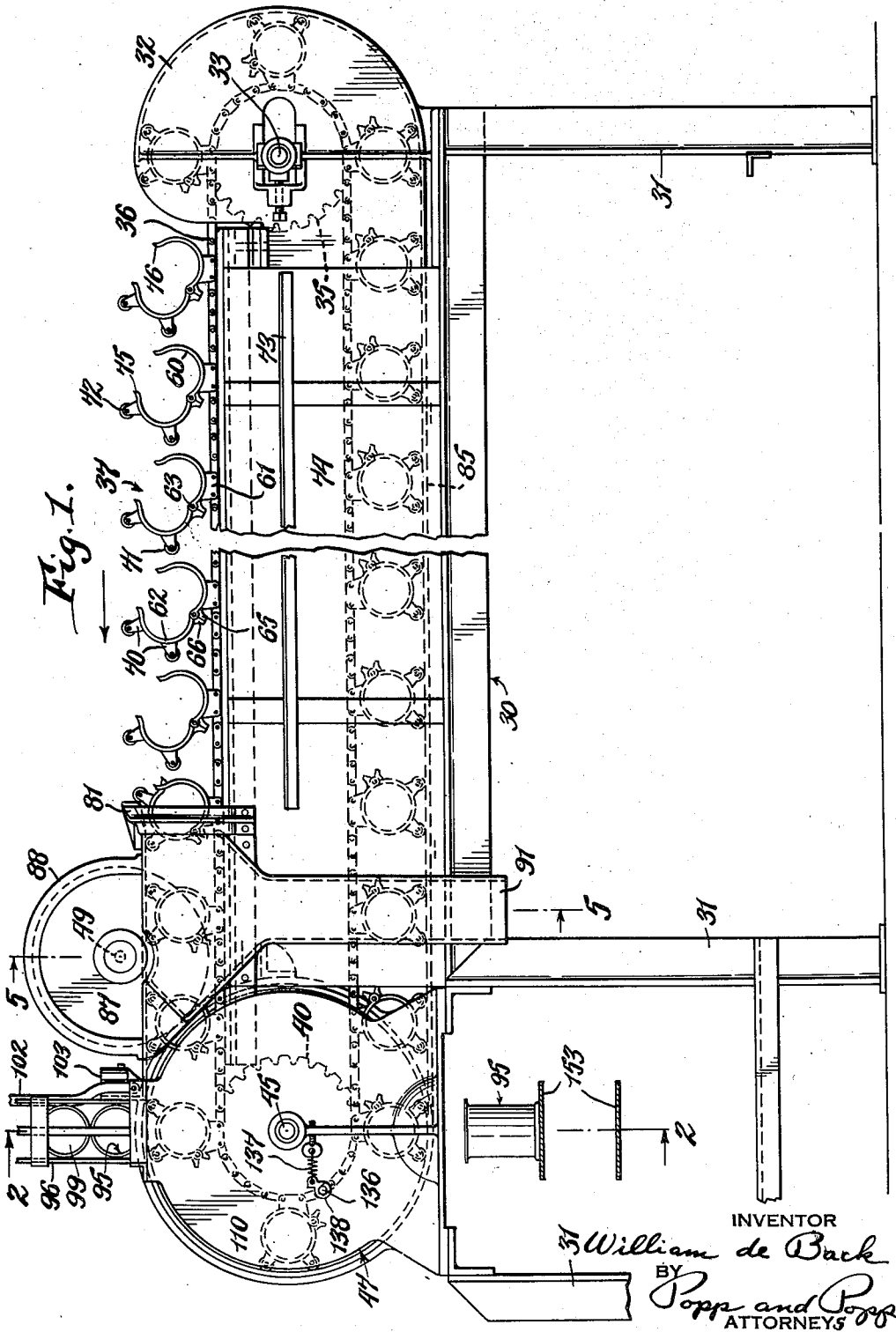
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APPARATUS FOR PACKING FOODSTUFFS

Filed June 26, 1937

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APPARATUS FOR PACKING FOODSTUFFS

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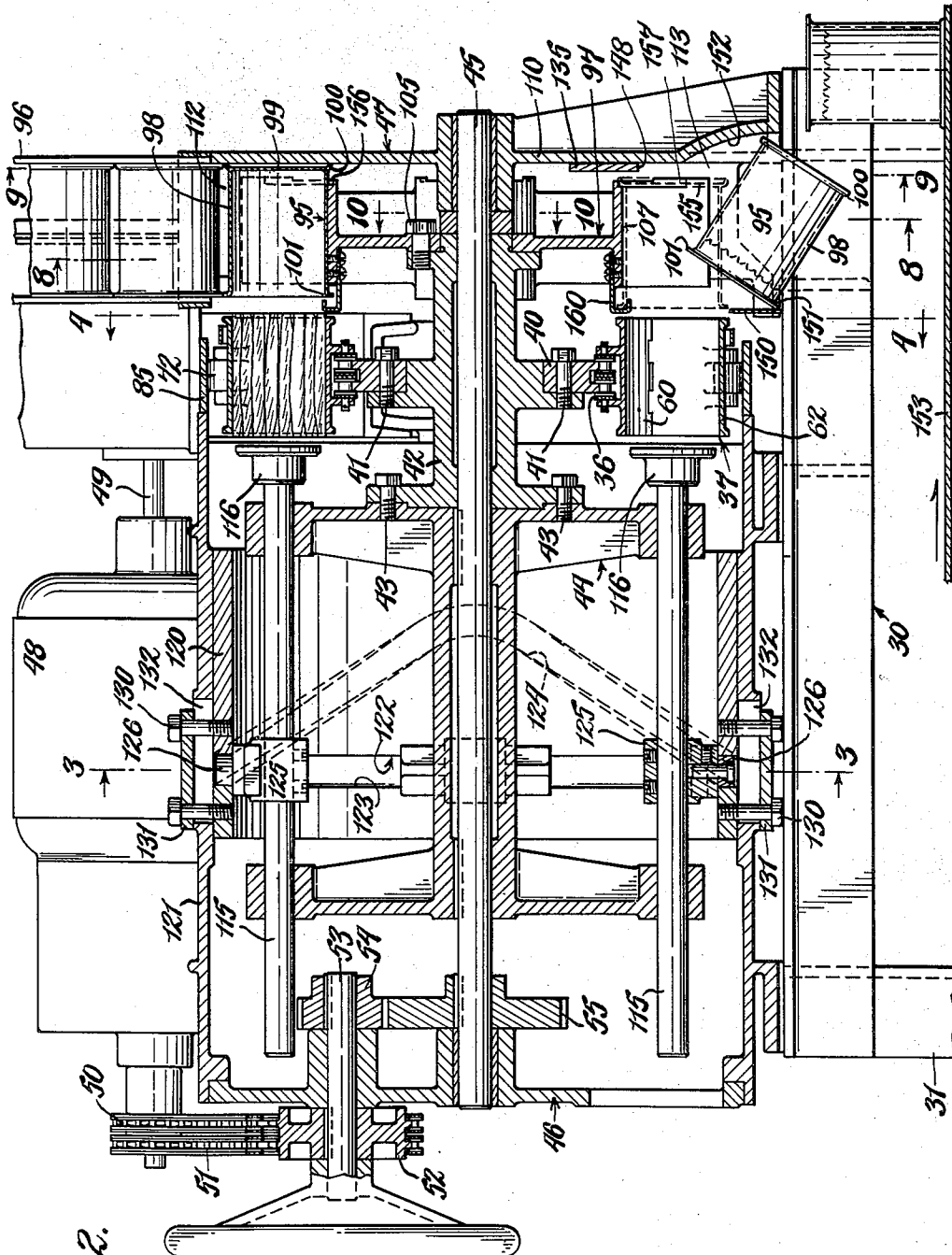


Fig. 2.

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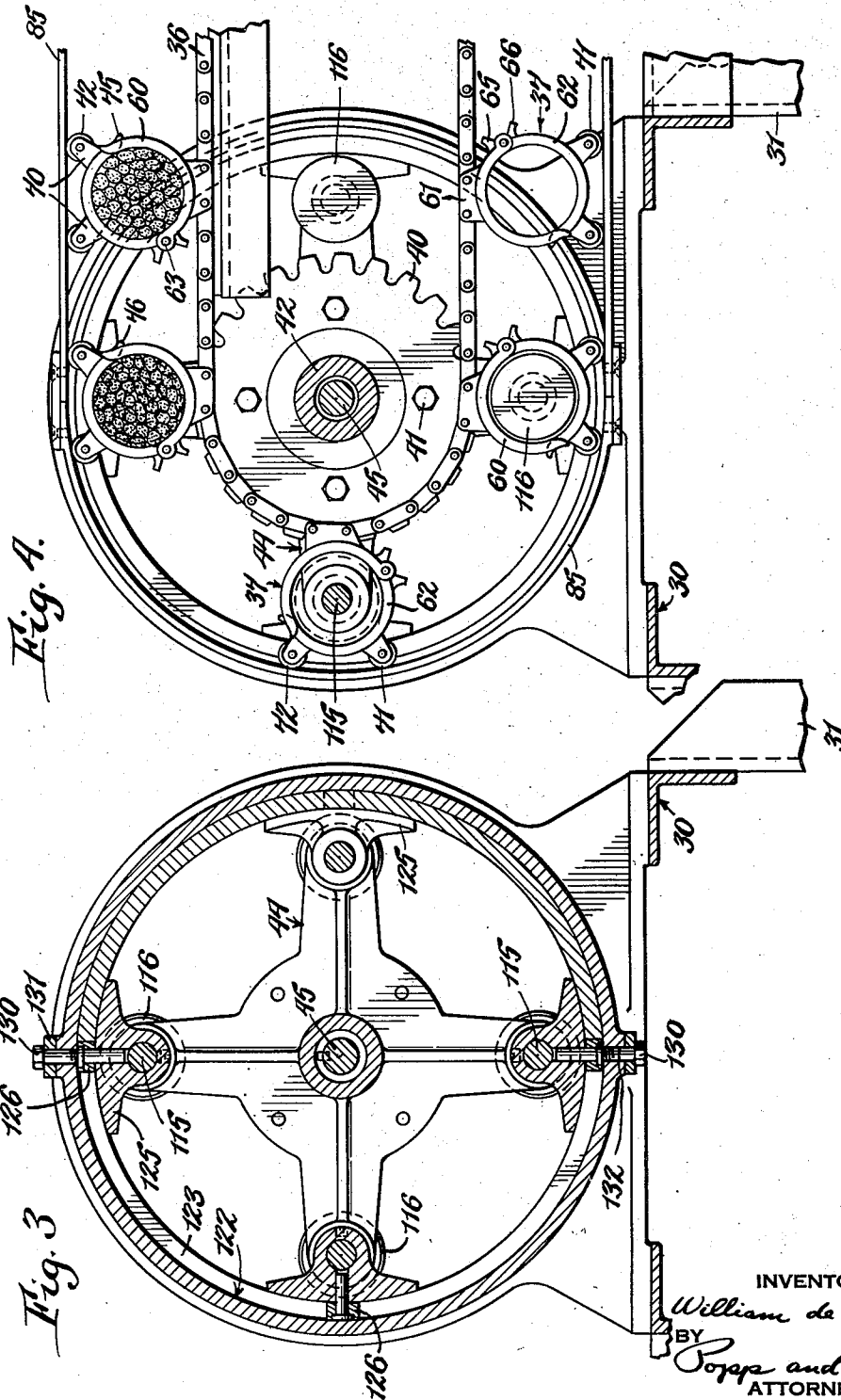
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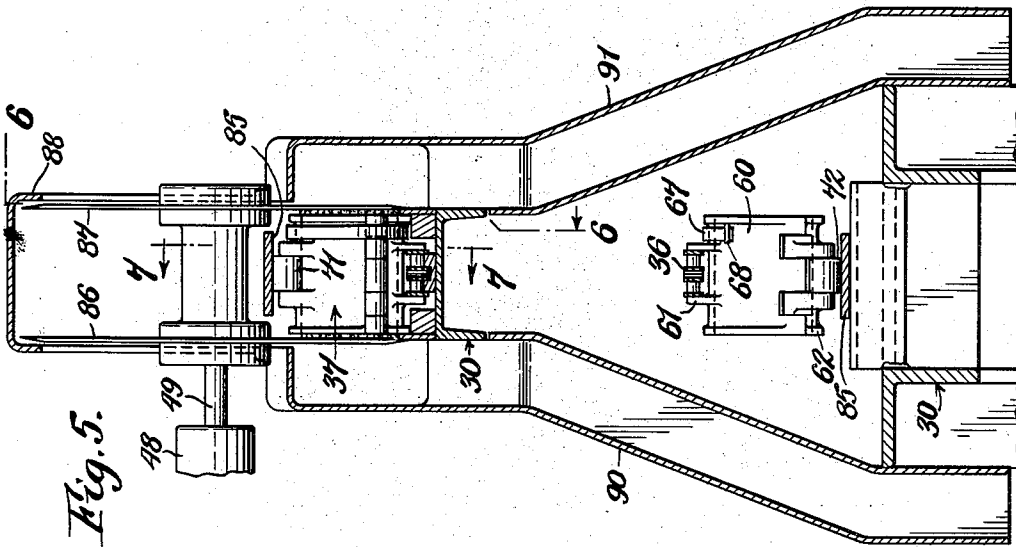


Fig. 5.

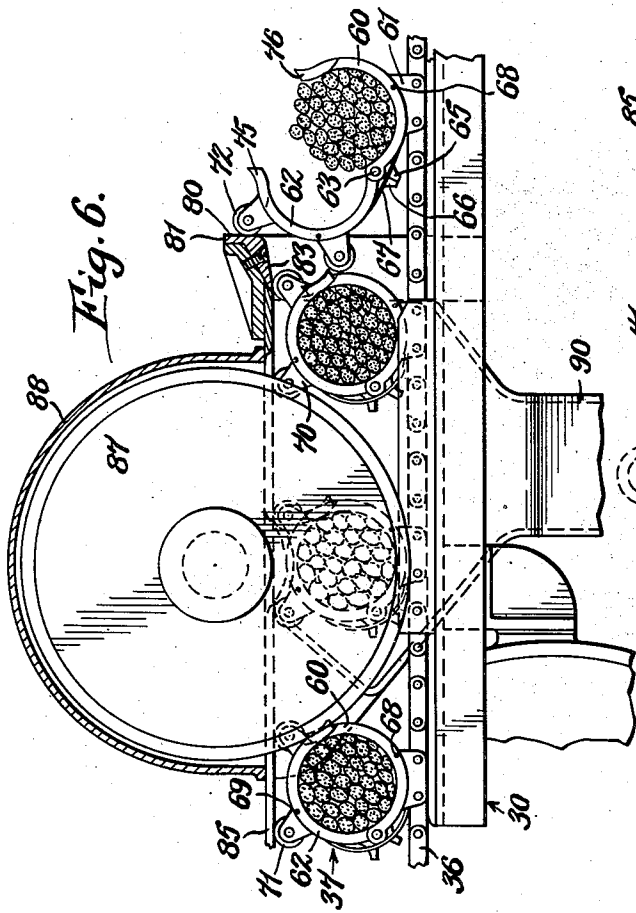


Fig. 6.

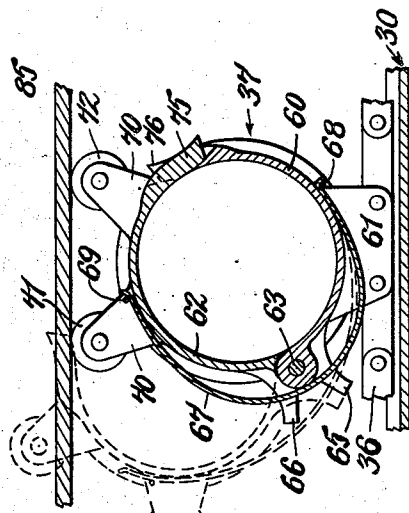


Fig. 7.

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APPARATUS FOR PACKING FOODSTUFFS

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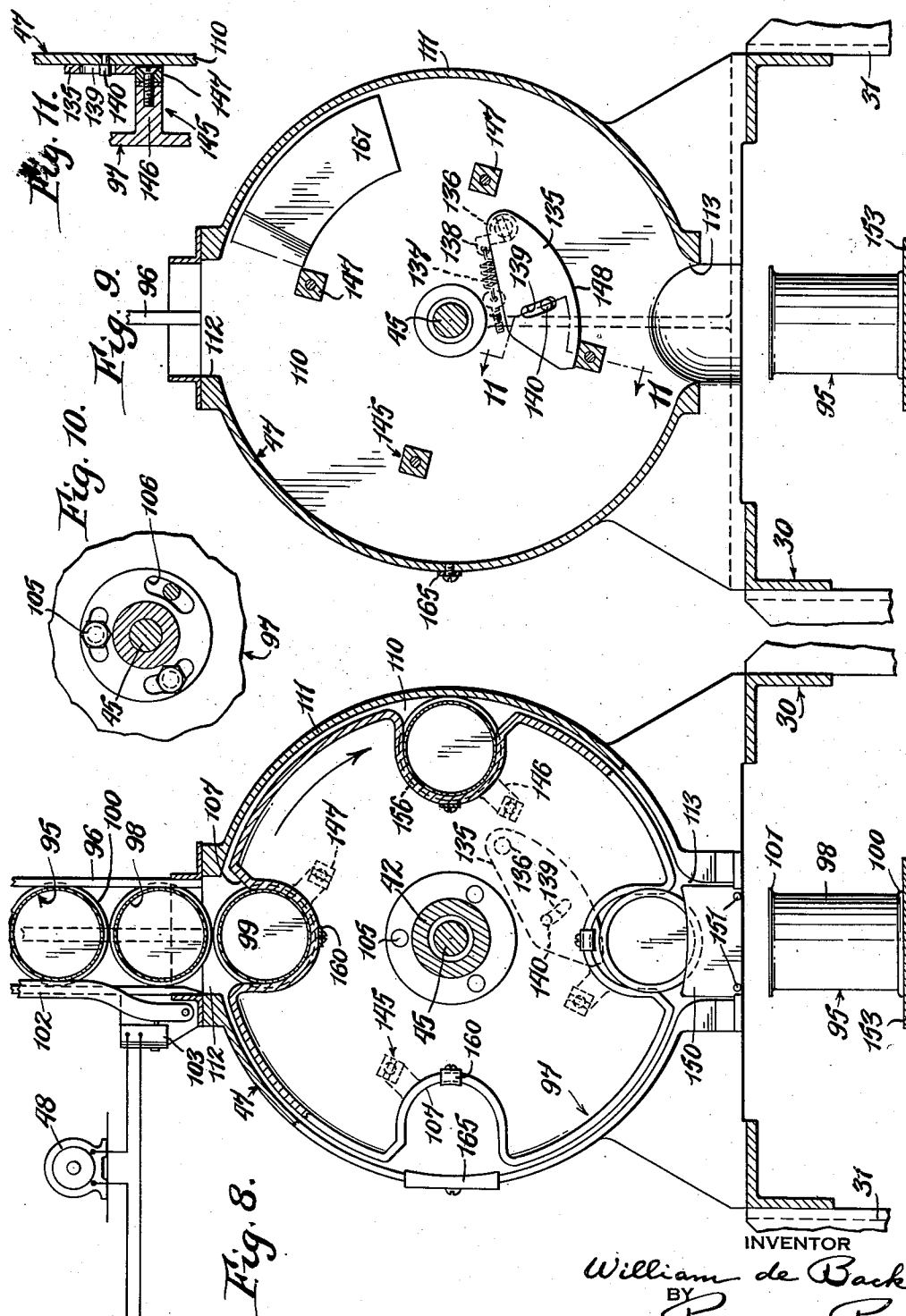


Fig. 8.

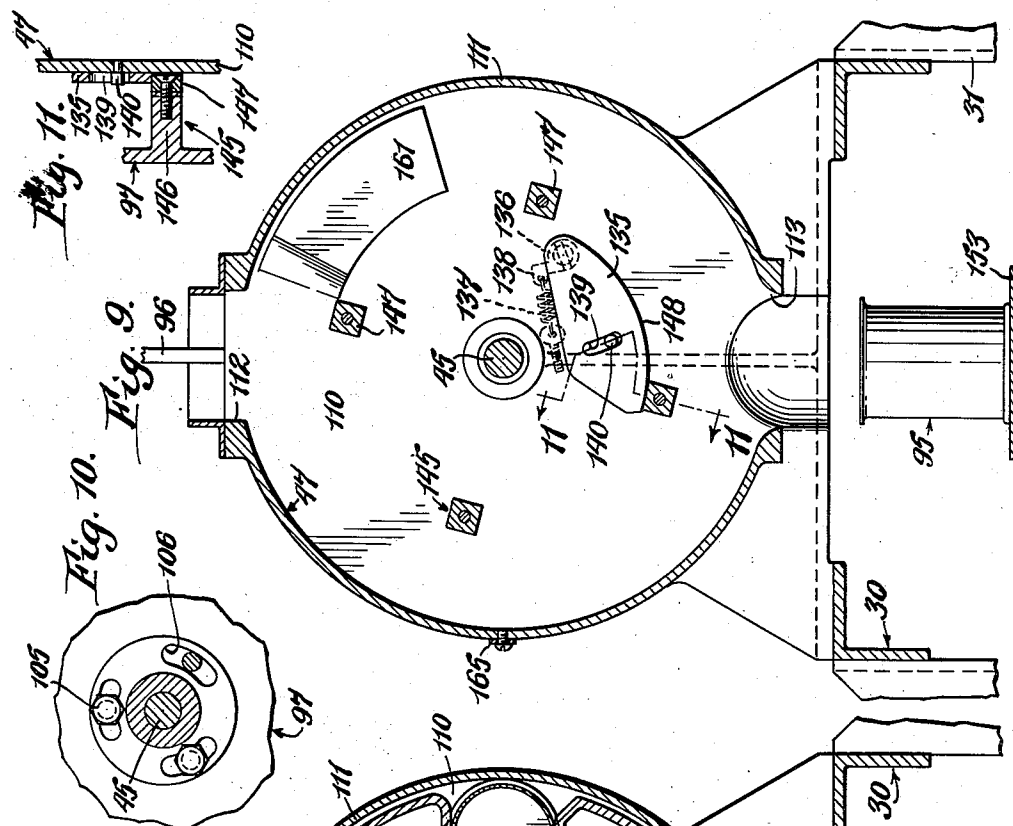


Fig. 9.

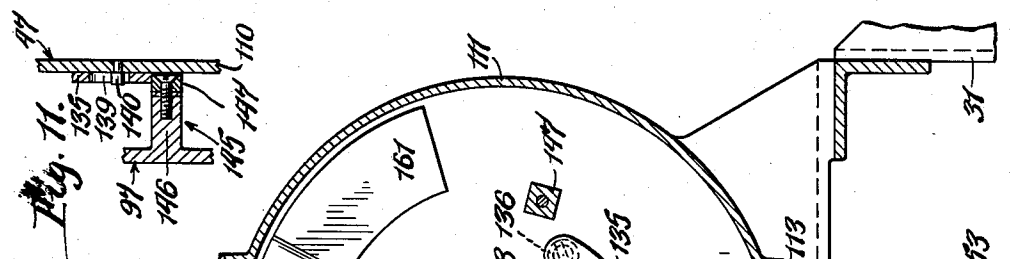


Fig. 10.

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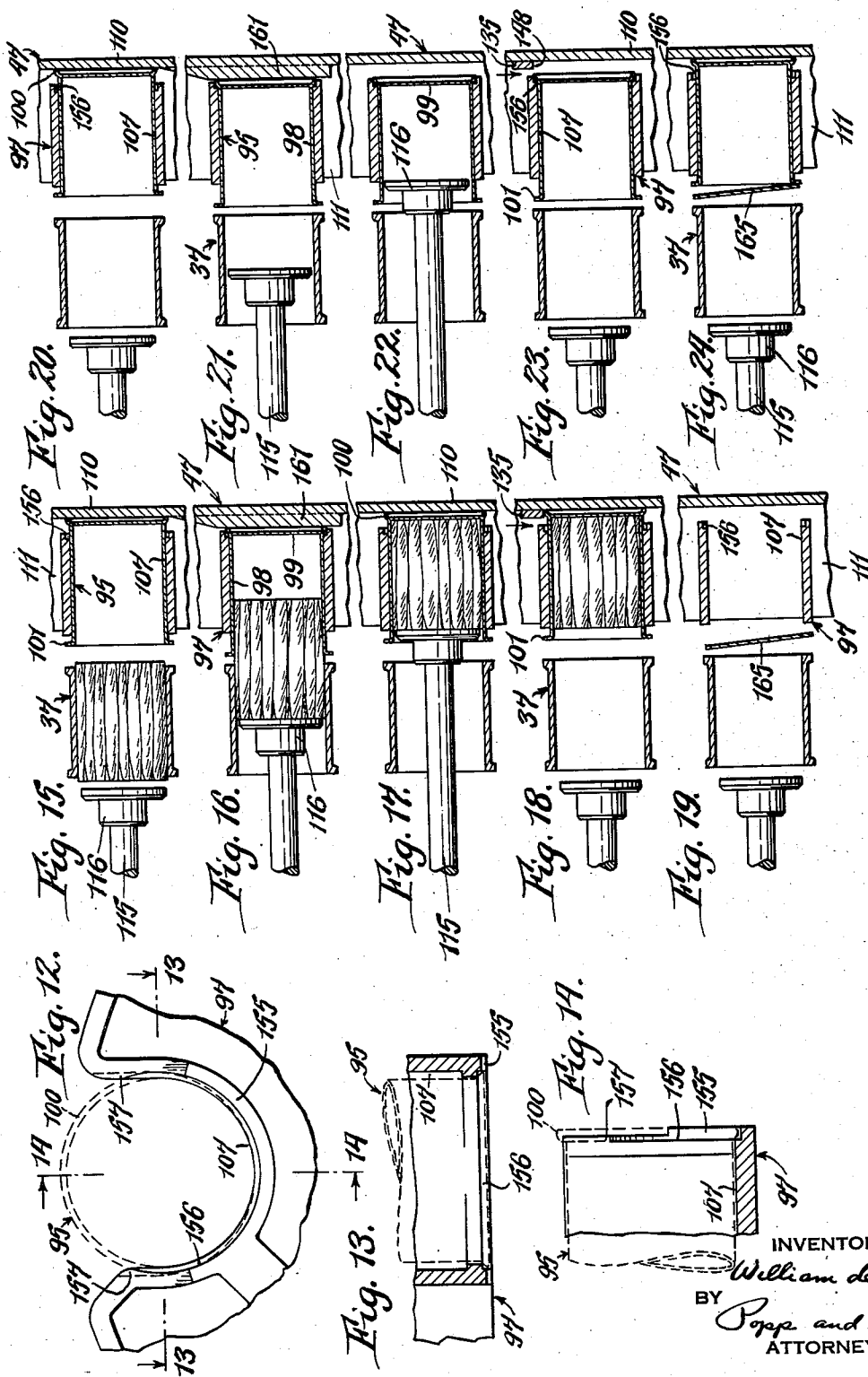
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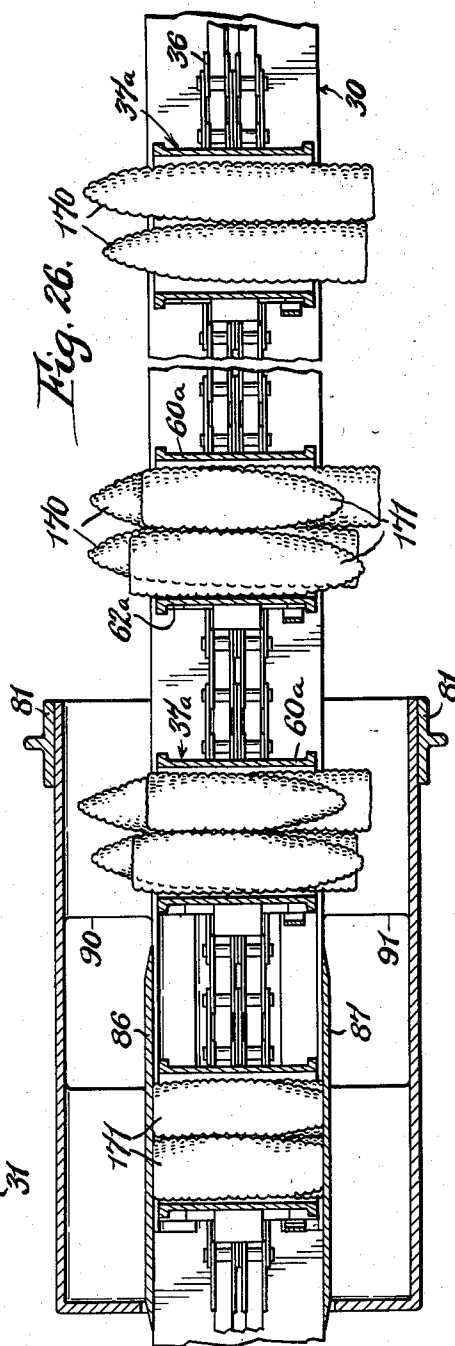
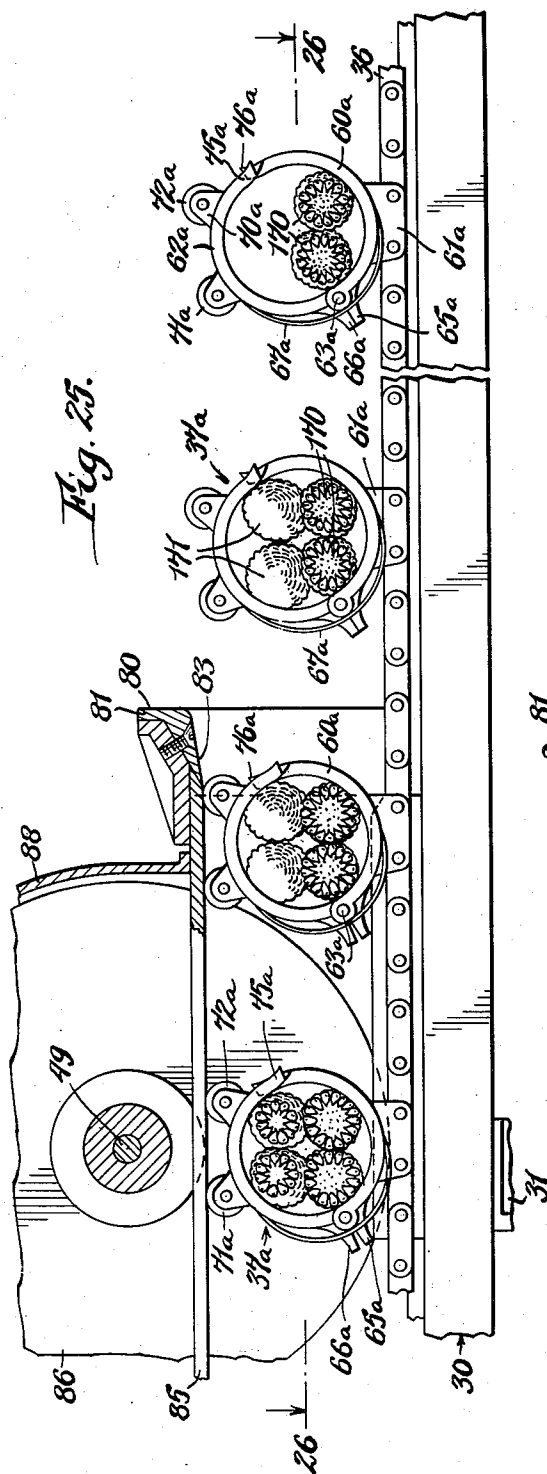
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APPARATUS FOR PACKING FOODSTUFFS

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7 Sheets-Sheet 7



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UNITED STATES PATENT OFFICE

2,180,349

APPARATUS FOR PACKING FOODSTUFFS

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Application June 26, 1937, Serial No. 150,579

24 Claims. (Cl. 226—101)

This invention relates to an apparatus and method of packing foodstuffs and more particularly to an apparatus and method of molding and inserting elongated vegetables such as corn on the cob, string beans, carrots, etc., in cans in the so-called "asparagus" type of pack.

In its general organization the invention comprises a series of open ended two-part molds mounted on a conveyer chain, the sections automatically opening up to facilitate the placing of the articles therein and thereafter automatically being closed before the molds are carried past a knife or knives which sever the projecting ends of the articles. The molds are then carried by the conveyer chain into register with a can wheel which is supplied with empty cans and the trimmed articles in the molds are transferred to the cans on the can wheel by means of cam actuated plungers. The cans are then discharged from the can wheels and the emptied molds travel on for refilling on the filling stretch of the chain. Special provision is made to prevent empty cans from being discharged from the can wheel in the event that one or more of the molds is not filled and means are also provided for stopping the machine in the event that the supply of empty cans fails.

One of the principal objects of the present invention is to mount the two-part molds on an endless chain carried by horizontally spaced sprockets so that the upper stretch of the chain provides a feeding stretch of substantial length, this long feeding stretch permitting several operators to be simultaneously engaged in filling the molds, thereby increasing the capacity of the machine. Further, by providing sprockets for supporting the chain the filled molds are caused to travel in a semi-circular path during which time the contents are readily transferred into cans carried by a can wheel rotating in unison with the sprocket at the discharge end of the machine.

Another object of the present invention is to provide a series of two-part molds each of which automatically opens up upon emerging on the filling stretch of the chain, this opening up facilitating the insertion of the articles to be packed in the molds.

Another object is to provide a two-part mold, the outer edges of which are formed to provide interlacing outwardly curving fingers, these fingers firmly drawing the articles into the mold when the sections are brought together without danger of bruising or injuring the articles.

Another object of the invention is to provide

such a two-part mold which opens up by the simple expedient of providing a suitable spring between the two mold sections and which is automatically closed by the provision of a roller on the movable section engaging a stationary track provided at the outlet end of the feeding stretch of the chain.

Another object is to provide a simple means for limiting the opening movement of the mold sections.

Another object of the invention is to provide such a machine in which the ends of the articles projecting from the two-part molds are severed while the molds are traveling in a straight line and before the molds pass around the sprocket at the discharge end of the machine in register with the can wheel.

Another object of the invention is to provide an apparatus and process which is particularly adapted for the packing of tapered articles, such as corn on the cob or carrots, the operator for this purpose placing approximately half of the tapered articles with the tapers running in one direction and the other half with the tapers running in the opposite direction and then adjusting the articles so that the maximum fill is obtained, the ends of the articles projecting from the mold being subsequently severed by the trimming knives.

Another object of the invention is to provide a simple form of can wheel which receives the can from a chute or slide and presents each can in register with a corresponding mold traveling around the mold chain sprocket at the discharge end of the machine in position to have the contents of the molds readily transferred to the cans.

Another object is to provide a series of cam operated plungers which rotate with the can wheel and molds and are moved coaxially into the molds to shove the contents into the empty cans on the can wheel by means of a stationary cam.

Another object of the invention is to provide a machine in which this last stationary cam is adjustable lengthwise of the plungers so as to vary the effective thrust of the plungers and thereby permit of packing articles into the cans of different heights.

Another object of the invention is to provide means whereby a failure in the supply of cans causes the entire apparatus to be shut down since otherwise the can receiving pockets in the can wheels would be filled with the contents intended for cans.

Another object of the invention is to provide a simple and effective means whereby filled cans

will be discharged from the can wheel but whereby unfilled cans will not be discharged but will be carried around by the can wheel and subsequently filled.

- 5 Another object of the invention is to provide a simple and effective means for discharging the filled cans in an upright position on a horizontal discharge belt.

- Other objects of the invention are to provide
10 such an apparatus for packing foodstuffs which is extremely simple in construction, considering the function which it performs, which can be operated to fill cans at a high rate of speed and which will uniformly fill the cans with the
15 desired pack and with a minimum waste of material.

In the accompanying drawings:

- Fig. 1 is a fragmentary side elevation of a machine for packing string beans made in accordance with my invention.

Fig. 2 is an enlarged vertical transverse fragmentary section, taken on line 2—2, Fig. 1.

Fig. 3 is a fragmentary vertical longitudinal section, taken on line 3—3, Fig. 2.

- 25 Fig. 4 is a fragmentary vertical section, taken on line 4—4, Fig. 2.

Fig. 5 is a fragmentary vertical transverse section, taken on line 5—5, Fig. 1.

- Fig. 6 is a fragmentary vertical longitudinal section, taken on line 6—6, Fig. 5.

Fig. 7 is an enlarged vertical section, taken on line 7—7, Fig. 5.

- Figs. 8, 9 and 10 are fragmentary vertical longitudinal sections, taken on the correspondingly
35 numbered lines on Fig. 2.

Fig. 11 is a fragmentary vertical transverse section, taken on line 11—11, Fig. 9.

- Fig. 12 is a fragmentary side elevation of a portion of a can wheel showing one of the can receiving pockets.

Figs. 13 and 14 are fragmentary sections, taken on the correspondingly numbered lines on Fig. 12.

- Figs. 15-19 are diagrammatic views illustrating the manner in which the contents of each mold is transferred to an empty can contained
45 on the can wheel and the can discharged from the same.

- Figs. 20-24 are similar views showing the manner in which the parts operate when one of the molds is not filled, the can being retained on the can wheel.

- Fig. 25 is a fragmentary view similar to Fig. 6 showing a modified form of two-part mold adapted for use in handling large tapered articles, such as corn on the cob, carrots and the like.

- Fig. 26 is a fragmentary horizontal section, taken on line 26—26, Fig. 25.

- The working parts of the machine are carried by a bed 30 suitably supported by standards 31, these being shown as being made of angle irons suitably welded together, although it will be understood that any other form of supporting means could be provided. A housing member 32 is supported at one end of the bed 30, this housing member supporting a transverse shaft 33 which is carried by bearings adjustably supported by the housing 32. The shaft 33 carries an idler sprocket 35 around which an endless chain 36 passes, this chain carrying a series of
60 two-part molds 37 into which the articles to be packed are placed. The other end of the chain 36 passes around a driving sprocket 40 which is secured, as indicated at 41, to the central flange of a sleeve 42, one end flange of this sleeve 42
75 being secured, as indicated at 43 to a plunger

carrying turret 44 which is keyed to a shaft 45. This shaft 45 is journaled in bearings provided in an end head 46 and a can wheel housing 47 mounted at the discharge end of the machine and is driven by an electric motor 48. The drive between the motor 48 and the shaft 45 comprises the motor shaft 49 and sprocket 50 on the motor shaft which through a chain 51 drives a sprocket 52 on a jack shaft 53, this jack shaft carrying a pinion 54 meshing with a gear 55 keyed to the shaft 45, as best illustrated in Fig. 2.

Each of the two-part molds 37, as best illustrated in Figs. 6 and 7, comprises a semi-cylindrical part 60 which is secured to the chain 36 by a pair of ears 61 which form part of the chain linkage and a relatively movable semi-cylindrical section 62 which is pivotally secured at one edge to the corresponding edge of the sections 60 by a pivot pin 63, the sections 60 and 62 being thereby hinged and capable of being opened and closed in the manner of a clam shell. The opening movement of the section 62 relative to the section 60 is limited by the engagement of a lug 65 projecting outwardly from the back of the section 60 adjacent the hinge 63 with a similar lug 66 projecting outwardly from the back of the section 62. The section 62 is normally held in its open position by a C-shaped spring 67, the back of which passes around the hinged connection between the two sections and the ends of which are caught under pins 68 and 69, respectively of the sections 60 and 62, as best illustrated in Fig. 7.

The section 62 of each of the molds is also formed to provide two pairs of outwardly projecting ears 70, the forward pair of ears carrying a roller 71 and the rearmost pair of ears carrying a roller 72. These rollers 71 and 72 cooperate with the stationary track to close the molds in a certain order, as hereinafter described, these rollers being released when the molds emerge on the upper feeding stretch of the chain so that the springs 67 open the mold sections so as to permit the ready insertion, by hand, of the articles to be packed.

When articles, such as string beans, are being packed it is desirable to avoid injury to the articles when the mold sections are closed. For this purpose the outer edge of the movable mold section 62 is curved outwardly and is slotted to provide a series of fingers 75 which interlace with similar outwardly curving fingers 76 on the mold section 60 when the mold sections are brought together. On the upper feeding stretch of the chain one or more operators fill the sections 60 with the proper quantity of string beans or the like, placing them lengthwise in the mold section with the ends projecting outwardly therefrom. Preferably the supply of beans is carried by shelves 73 at the sides of the machine, which shelves are shown as mounted on side panels 74 which also serve to house the inoperative lower stretch of the feed chain. When the mold section 62 is closed the articles are compressed within the mold and any article engaged by the outwardly curving interlacing fingers 75 and 76 is drawn into the mold without injury.

After the open molds 37 pass the filling station the roller 72 strikes the opposing face 80 of a U-shaped bracket 81 which is mounted to straddle the feed chain 36 and the procession of molds 37 carried thereby. This engagement causes each movable mold section 62 to be swung rearwardly toward the corresponding mold section 60 and as the forward movement of the chain continues 75.

the roller 72 rides onto a cam face 83 provided on the underside of the bracket 81. This cam face 83 effects the final closing movement of each mold passing under the bracket 81 and when completely closed the rollers 71 and 72 ride onto a track 85 which holds the passing molds firmly closed and the articles compressed. This track 85 extends around the sprocket 40, the lower stretch of the chain and the sprocket 35 and terminates at a point directly above the shaft 33. It will therefore be seen that the molds are held in a closed condition from the time they are closed by the bracket 81 until they reemerge on the upper stretch of the chain at the filling station.

When the molds pass beyond the bracket 81 they pass between two pairs of rotary knives 86, 87. As best illustrated in Figs. 5 and 6 these knives are suitably guarded by a casing 88 and are both mounted on the motor shaft 49 so as to revolve at high speed. As the molds pass between the knives 86, 87 the ends of the articles projecting from the open ends of the molds are cut off, these cuttings falling into a pair of chutes 90, 91 from which they can be discharged into any sort of a receptacle placed under the open lower ends of the chute. It will be seen that the articles contained by the molds are all cut to a length determined by the spacing of the knives 86 and 87 this being, of course, determined by the size of the cans which are being filled.

The cans 95 are supplied from an overhead vertical chute 96 which can be of any suitable construction and which permits the cans to drop into the pockets of a can wheel indicated generally at 97. Each can is of the usual construction comprising a cylindrical body 98 having a bottom or end head 99, which is secured to the cylindrical body by a peripheral bead 100, this peripheral bead extending outwardly from the cylindrical body 98. The other end of the can is left open and is formed to provide a peripheral flange 101 around the open mouth. As the cans move down the supply chute 96 they engage an arm 102 and hold this arm out. The arm in this position holds a micro-switch 103 (Fig. 8) in a closed condition. This micro-switch is in the main line supplying current to the motor 48 and it will therefore be seen that as long as cans are being supplied from the chute 96 the motor can be operated. However, should the supply of cans fail the arm 102 will not be held out by the cans and will move to open the micro-switch 103, thereby shutting down the motor 48 and stopping the entire machine. This avoids waste since the machine would function without the presence of cans but the articles would be dumped, unpacked, on the discharge belt.

The can wheel 97 is secured to one end flange of the sleeve 42 by means of screws 105. Preferably these screws pass through slots 106 provided in the hub of the can wheel so that the position of the can wheel can be adjusted with reference to the sleeve 42 before the screws 105 are tightened. The can wheel is formed to provide a plurality of pockets 107, these pockets being of rounding form to receive the cans 95 in a position in which they are coaxial with the main shaft 45. It will be seen that the can wheel 97 turns with the sprocket 40 carrying the chain 36 on which the molds 37 are mounted and the can pockets are so spaced as to aline with the cavities of the molds as they pass around the sprocket.

The can wheel is enclosed by the housing 41

comprising a vertical wall 110 which also carries the bearing for the corresponding end of the shaft 45 and a semi-circular wall 111 which extends around the periphery of the can wheel and holds the cans within the pockets 107, the cans falling from the chute 96 through a can inlet opening 112 in this casing and the filled cans falling out through a can outlet opening 113 at the bottom of the casing.

As the cans in the can wheel pockets travel around in register with the cavities of the molds 37 the contents of the molds are transferred into the cans. For this purpose the turret 44, which rotates with the sprocket 40 and the can wheel 97 carries a plurality of plungers 115, these plungers alining with the pockets 107 of the can wheel and hence also with the cavities of the molds 37 being carried around the driving sprocket 40. Each of these plungers 115 is provided adjacent the conveyor chain 36 with a head 116 which is smaller than the cavity of each of the molds 37 so that it can enter the mold cavities and push the contents of the molds into the cans. To effect this movement of the plunger a stationary cylindrical drum 120 is mounted inside of the housing 121 for the turret 44 and this drum is formed to provide an inwardly facing cam groove 122. This cam groove includes a straight portion 123 or land which extends around one half of the drum 120 and a salient portion 124 in the other half of the drum, this salient portion extending toward the can wheel, as best illustrated in Fig. 2. A sleeve 125 is fixedly secured to each of the plungers 115 and each sleeve carries a roller 126 which rides in the cam groove 122. It will therefore be seen that as the turret 44 is rotated the plungers 115 are reciprocated by the cam groove and are projected into and retracted from the cavities of the molds 37 so as to transfer the contents of the molds into the cans 95. With the shape of the cam groove 122 as shown, each plunger is held in a retracted position as it rises from the bottom to the top of the turret 44 since at this time its roller is traversing the land 123. On the start of the downward movement of each plunger its roller enters the salient portion 124 of the cam groove and hence during such downward movement the plunger is extended into the corresponding mold cavity and later retracted therefrom.

In order to adjust the effective thrust of the plungers 116 the entire cam drum 120 is adjustably movable lengthwise of the axis of the main shaft 45. To this end the drum is secured by two pairs of bolts 130 which extend through a clamping plate 131 and also through a slot 132 in the casing 121. Upon loosening the bolts 130 it will be seen that the drum 120 can be shifted axially within the limits determined by the slots 132. After this the screws 130 are tightened so as to hold the drum 120 in the desired adjusted position. This adjustment does not alter the throw of the plungers but alters the position at which each plunger is stopped in its operative stroke and then retracted. It will therefore be seen that this adjustment permits of packing cans of different heights with articles of a corresponding length, the adjustment of the effective movement of the plungers insuring that the articles are not crushed into the cans.

To insure the discharge of the filled cans through the discharge opening 113 at the bottom of the can wheel a hammer 135 is provided which gives each filled can a tap as it alines with the opening 113. As best shown in Fig. 9 this ham-

mer comprises a flat plate which is pivotally secured to the inner face of the front wall 110 of the can wheel housing, as indicated at 136. This hammer 135 is yieldingly held away from the main shaft 45 by a spring 137 which can be operatively connected with the hammer 135 in any suitable manner as by connecting it with a small arm 138 fast to the pivot shaft of the hammer 135. The outward movement of the hammer is limited by the length of a slot 139 into which a stop pin 140 projects.

To operate the hammer 135 each time that a filled can aligns with the discharge opening 113 the can wheel carries a plurality of trips indicated generally at 145, one of these trips being provided adjacent each pocket 107. As best shown in Fig. 11 each of these trips comprises an arm 146 projecting out from the can wheel adjacent a corresponding pocket 107 and carrying a block 147 which is arranged to engage the outer curving edge 148 of the hammer 135 and move the hammer inwardly. When each block 147 passes beyond the end of the hammer 135 the spring 137 snaps the hammer outwardly and since, with filled cans, the hammer is in line with the bead 100 of the cans it knocks the can down and out of its pocket 107. The cans so knocked down are held against endwise displacement by a stationary guide plate 150 at the bottom of which a pair of spaced pins 151 are provided. These pins catch the flanges 101 of the cans as they fall and cause the cans to tip as illustrated in Fig. 2. This tipping of the falling cans is permitted by providing a rounding pocket or recess 152 in the front wall 110 of the can wheel housing. The tipping of the filled cans by the pins 151 causes them to fall upright upon the upper stretch of a discharge belt 153 which conveys the filled cans away.

In the event that the operators fail to fill one of the molds 37 means are provided which prevent the discharge of the can coming into register with this mold through the discharge opening 113, the empty can being instead carried around by the can wheel to be subsequently filled. By this means empty cans are not dropped onto the discharge belt 153 from which they would have to be removed and replaced in the can supply and preventing the discharge of empty cans also guards against such empties being processed and sealed in the same manner as if they were filled.

To this end the end face of each can pocket 107 on the opposite side of the can wheel 97 from the corresponding plunger 115 is provided with an axially extending semi-circular lip 155, this lip being disposed on the side nearest the axis of the can wheel. This lip and the adjacent face of the pocket is provided with a semi-circular recess 156 which is of the same diameter as the bead 100 at the bottom of each can and each recess 156 is tapered at its opposite ends so as to form shoulders 157 which engage the bead 100 and prevent the can from falling out even though the pocket is inverted. It will be seen that when the can is shifted to the left, as indicated in Figs. 21-23 the bead 100 is disposed in the recess 56 and the shoulders 157 prevent this end of the can from falling upon inverting the can pocket as the can wheel is rotated. The other ends of the empty cans are prevented from falling by a hook 160 which is secured to each pocket 107 and extends toward the plungers 115, the hooks being arranged to enter and engage the open mouths of the cans.

The empty cans from the can chute 96 drop into the pockets 107 as each pocket comes into register with the can filling opening 112. The chute 96 so guides these cans that they drop into the position illustrated in Figs. 2, 15 and 20. In this position the bottom of the can is arranged against the flat face of the end wall 110 of the can wheel housing and the hook 160 is out of engagement with the lip or rim around the open mouth of the can. As each pocket moves away from the can filling opening 112 the bottom of each can engages a stationary cam plate 161 mounted on the inner face of the wall 110 of the can wheel housing as best shown in Figs. 9, 16 and 21. This displaces each can axially so that its bead 100 enters the semi-circular retaining groove 156 and so that the lip of each can is moved to a position within the hook 160.

If the mold 37 coming opposite the can is filled the corresponding plunger 115 displaces the articles from the mold cavity into the can. The latter part of this displacement action takes place after the can has passed beyond the flat cam 161. Therefore the final movement of the plunger 115 will move the filled can axially toward the housing wall 110 and will move the bead 100 out of the groove 156 and the rim of the can out of the hook 160. This position of the can is illustrated in Fig. 17. As the filled can moves toward the bottom of the filled can wheel the elevated spring loaded hammer 135 is released and gives the bead 100 of the filled can a tap which insures the can falling out of the now inverted pocket and through the discharge opening 113. If however the mold 37 has not been filled the plunger 115 merely enters the empty can but does not displace the can, this action being illustrated in Fig. 22. Therefore even though the plunger enters the can its bead 100 remains in engagement with the groove 156 and its rim remains caught by the hook 160. Since the empty can remains in the position effected by the cam 161 it is held out of the path of the hammer 135 and therefore while this hammer operates as each can pocket passes the opening 113 it does not strike empty cans. Since the empty can, in the inverted position of its pocket 107, is supported at one end by the hook 160 and at its opposite end by the shoulders 157 which engage the bead 100 of the can the empty can does not fall out through the filled can discharge opening 113 but instead is carried on to the top of the can wheel. As the empty can passes along the rising side of the can wheel its mouth is engaged by an angularly disposed, stationary cam plate 165 which shifts the empty can axially into engagement with the wall 110, as best shown in Fig. 24. This cam plate 165 moves the empty cans back into line with the supply of empties supplied from the chute 96. This can therefore passes under the can filling opening 112 and on the next turn of the can wheel is either filled and ejected from the machine or is not filled and retained on the can wheel for still another revolution of the can wheel.

The form of the machine shown in Figs. 25 and 26 is substantially similar to that shown in Figs. 1-24 except that a slightly modified form of mold is provided which facilitates the molding and trimming of tapered vegetables, such as corn on the cob or carrots. This form of mold is exactly the same as the form of the two part mold shown in Figs. 1-24 except that the stop lugs 65a and 66a, which correspond to the lugs 65 and 66 in the form of the invention shown in Figs. 1-24, are set so that the mold sections do not open up 75

widely, as illustrated in Fig. 1, but open up only to a slight extent. In other respects the molds are identical with those shown in Figs. 1-24 and the same reference numerals have therefore been employed and distinguished by the suffix "a".

In packing corn on the cob an operator at one side of the machine will first place half of the number of ears to be packed in each can in the bottom of each mold 37a. In the illustration it is assumed that the cans receive four ears and therefore the first operator places two ears 170 in the mold cavity. These are inserted tip first from one end of the mold as illustrated at the right of Fig. 26. The half filled mold then moves on to the next operator at the opposite side of the machine who inserts the other two ears 171 tip first from the opposite side of the mold. This operator then adjusts the ears so that the mold cavity is filled to the maximum extent. This can be done because the upper two ears 171 taper in the opposite direction from the lower two ears 170 and hence the ears can be adjusted axially either as a group or individually to secure the maximum amount of kernels in the mold cavity. The filled molds then pass on to the cam 85 which slightly compresses the mold to firmly hold the ears while passing the knives 86, 87 which sever the projecting tips and butts. After this the trimmed ears are transferred to cans in the same manner as previously described with reference to string beans. It will be seen that by placing the ears of corn in the molds in such manner that half of the ears taper in one direction and the other half taper in the opposite direction, the maximum fill can be obtained and also the ears manoeuvred so that the most desirable kernal portion of each ear is packed in the can.

Operation

As long as the supply of cans is contained within the chute 96 the arm 102 is held in an outward position as shown in Fig. 8 and consequently the motor 48 is operating. This operation of the motor continuously rotates the two knives 86 and 87 which are mounted directly on the motor shaft 49 and through the chain 51, jack shaft 53 and gears 54 and 55 continuously rotates the main shaft 45. The rotation of the shaft 45 rotates the plunger turret 44 keyed thereto and also rotates the sprocket 40 and the can wheel 97 which are secured to the plunger turret 44 by the screws 43, 41 and 105. The rotation of the sprocket 40 moves the endless conveyer chain 36 mounted thereon and consequently advances the molds 37 in the direction of the arrow shown in Fig. 1. These molds are so spaced that as they travel around the sprocket 40 they are brought into line with the pockets 107 of the can wheel and with the plunger 115 carried by the plunger turret 44.

The operators on the opposite sides of the feeding stretch of the chain 36 take bunches of, say, string beans from the supply shelves 73 and pack them in the mold sections 60, the quantity of beans so placed in the mold section 60 being determined by the amount which will effect a complete fill of the size of cans being filled and the beans being placed lengthwise of the mold sections 60 with the ends of the beans projecting outwardly from the opposite ends thereof. The filling of the mold sections 60 is facilitated by the opening of the movable mold sections 62 as the molds emerge on the filling stretch of the chain 36. This opening is effected by the springs 67 which opens the mold sections 62 to the positions

shown by full lines in Fig. 1, the opening movement of the mold sections 62 being limited by the stop lugs 65 and 66 provided on each mold section near the hinged connection therebetween.

As each mold 37 moves to a position in which its roller 72 engages the flat face 80 of the bracket 81 which bridges the conveyer chain 36, the continued forward movement of the chain causes this mold section to gradually close thereby molding the beans into cylindrical form. In so closing, the outwardly curving fingers 75 and 76 interlace and gently draw any beans therebetween into the mold instead of injuring them. The continued forward movement of the chain 36 causes the roller 72 to ride onto the cam face 83 which serves to finally compress the beans between the mold sections and hold them firmly so that as the molds 37 pass between the two revolving knives 86 and 87 the projecting ends are cut off clean and drop into the chutes 90, 91 from which they may be collected by a suitable container placed under the bed 30.

The continued forward movement of the chain 36 brings each mold 37 into line with one of the plungers 115 and also with one of the pockets 107 of the can wheel 97, this plunger and this pocket rotating in register with the mold 37 as the mold passes around the sprocket 40. As the can wheel 97 rotates the cans 95 from the supply chute 96 drop one by one through the can inlet opening 112 of the can wheel housing and into the pockets 107 of the can wheel as they are brought successively into line with this opening. The cans drop into the position illustrated in Figs. 2 and 15, the open mouth of the can being presented to the mold 37 which has at this time been brought into line with the can and the bead 100 of the can being disposed against the end face 110 of the can wheel housing. The continued forward movement of the can wheel 97 causes the bottom of the can to engage the cam 161 mounted on the wall 110 immediately adjacent the filling opening 112 and this cam shifts the can axially toward the mold 37, as best illustrated in Fig. 16. At the same time the roller 126 of the corresponding plunger 115 has entered the salient portion 124 of the cam groove 122 in the drum 120 so that the plunger 115 has been moved to project its head 116 into the corresponding mold 37 and start the transfer movement of the beans from the mold into the can, as shown in Fig. 16. As this roller rides onto the high part of the salient portion 124 of the cam groove 122, the plunger 115 is extended to its maximum extent and shoves the beans against the bottom of the can, this final movement of the plunger also displacing the entire can axially so that its bead 100 reengages the flat inner face of the wall 110 of the can wheel housing.

The roller 126 of the plunger thereupon is withdrawn by traveling down the salient portion 124 of the cam groove 122 and the continued rotation of the can wheel 97 brings the corresponding arm 146 under the hammer 135, the engagement of the block 147 carried by this arm 146 lifting the hammer 135 against the resistance of its spring 137 which tends to throw this hammer 135 downwardly. When the block 147 passes beyond the end of this hammer 135, the hammer is suddenly released and under the influence of the spring snaps downwardly, striking the bead 100 of the filled can just as the can is in line with the discharge opening 113 at the bottom of the can wheel housing. The can therefore falls through this opening and its flange 101 engages

the pair of pins 151 at the bottom of the guide plate 150. This causes the can to swing in its falling movement, the bottom of the can falling through the curving portion 125 at the bottom of the can wheel housing and the flange 101 being restrained by the pins 151. The filled cans therefore fall in an upright position upon the upper stretch of the discharge belt 153 by means of which the filled cans are carried on for further processing.

In the event that the operators fail to fill one of the molds 37 this mold comes into register with an empty can in exactly the same manner as if it were filled and the movement of the can wheel causes the bottom of this can to engage the cam 161 and the can to be shifted axially toward the empty mold 37 in the same manner as previously described with reference to a filled can. This movement effected by the cam 161 causes the bead 100 of the can to enter the semi-circular recess 156 and to engage under the shoulders 157 provided by this recess. This movement effected by the cam 161 also causes the flanged rim of the can to enter the hook 160 mounted at the opposite end of each can wheel pocket 107.

With the continued movement of the mold 37 in unison with the plunger turret 44 and the can wheel 97, the aligning plunger 115 is caused to enter both the empty mold 37 and also the empty can in the same manner as if the mold contained beans, but since no beans are present in this mold the can is not shifted axially back into engagement with the flat face of the wall 110 as would be the case if beans were present in the mold 37. The comparative action of the final movement of the plunger with filled and unfilled mold sections is illustrated in Figs. 17 and 22, respectively. Therefore, in the continued movement of the can wheel the bead 100 of the empty can remains in engagement with the retaining shoulders 157 of the groove 156 and its rim remains within the hook 160. Further, the can is retained in a position out of the path of the hammer 135 so that while this hammer is elevated and subsequently suddenly released, the downward movement of this hammer under the influence of its spring 137 is ineffectual since it does not strike the beads 100 of unfilled cans. In this position the empty can is contained in an inverted position directly in line with the filled can discharge opening 113 but since its bead 100 is in the groove 156 and its rim caught under the hook 160 it is prevented from falling at its bottom end by the shoulders 157 provided by the groove 156 and at its other end by the hook 160. Therefore, the can is retained within the pocket and is carried on with the can wheel. As the empty can moves up the rising side of the can wheel its open end engages the cam plate 165 which shifts the empty can so that its bottom is reengaged with the inner flat face of the wall 110 of the can wheel housing. This brings the empty can back into line with the cans supplied from the chute 96 and of course since the pocket containing this empty can is already filled it passes idly by the filling opening 112. This can therefore continues with the sequence of operations as previously described and is either filled or again carried around the can wheel depending upon whether it registers with a filled or an unfilled mold 37.

When the closed mold sections travel past the cam face 83 the rollers 71, 72 ride onto the track 85, this track holding the mold sections firmly closed as the molds pass the knives 86, 87 and around with the can wheel. This track is con-

tinued along the bottom stretch of the chain 36 and is also continued around the idler sprocket 35. Therefore, the molds 37 are held in a closed condition from the time of closing by the cam 83 until it passes beyond the end of the track 85 located above the shaft 33. When the mold is released from this track the mold sections are opened up by the springs 67 and traverse the filling stretch of the chain 36, thereby being refilled with beans as previously described.

With the form of the invention shown in Figs. 25 and 26 the molds 37a are slightly modified in that the stop ears or lugs 35a, 36a are so spaced that instead of permitting the mold sections 32a to open wide, as illustrated in Fig. 1, this mold section is permitted to open up only to a limited extent and not sufficiently far to disengage the fingers 75a and 76a from one another. This form of mold is used when the machine is employed for packing large tapered articles, such as corn on the cob or carrots. In filling the mold sections with corn on the cob, for example, the operator at one side of the machine first places, say, two ears of corn point first into each mold 37 as illustrated at the right of Fig. 26. Thereafter the operator on the opposite side of the machine inserts two additional ears point first from the opposite side of this mold. This operator then adjusts the individual ears to secure the maximum amount of kernels within the mold by shifting the ears lengthwise relative to one another or as a group. Since half of the ears taper in the opposite direction from the other half it will be seen that the maximum fill can be obtained and that the ears are firmly held within the mold sections throughout their length. The continued movement of the filled mold sections causes the roller 72a to engage the cam face 83 which effects a slight closing movement of the mold sections so that the mold sections firmly hold the ears of corn as they are passed between the knives 86 and 87 which sever the projecting tips and butts therefrom. Thereafter the filled mold sections pass on into register with the empty cans on the can wheel 97 and the plunger 115 carried by the turret 44 and the trimmed cobs are handled in exactly the same manner as described with reference to string beans.

I claim as my invention:

1. Apparatus for packing foodstuffs, comprising an endless flexible conveyer, means for supporting said conveyer to traverse a noncircular path, means for moving said conveyer to successively traverse a filling station and a transferring station, a plurality of molds carried by said conveyer in spaced relation and adapted to be filled with said foodstuffs at said filling station, means for mounting said molds on said conveyer to hold said molds in a constant, fixed position relative to said conveyer and means for emptying said molds into cans at said transferring station.

2. Apparatus for packing foodstuffs, comprising an endless flexible conveyer, means for supporting said conveyer to traverse a noncircular path, means for moving said conveyer to successively traverse a filling station, a trimming station and a transferring station, a plurality of open molds carried by said conveyer in spaced relation and adapted to be filled with foodstuffs at said filling station, means for mounting said molds on said conveyer to hold said molds in a constant, fixed position relative to said conveyer, cutting means at said trimming station and traversed by the filled molds and arranged to trim the ends

of the foodstuffs projecting from said molds and means synchronized with the movement of said conveyer for emptying said molds at said transferring station.

5 3. Apparatus for packing foodstuffs, comprising an endless flexible conveyer, means for supporting said conveyer to traverse a noncircular path, means for moving said conveyer to successively traverse a filling station and a transferring station, a plurality of open ended molds carried by said conveyer in spaced relation, means for mounting said molds on said conveyer to maintain the axes of said molds in substantially parallel relation and at right angles to the line of movement of said conveyer, said molds being adapted to be filled with said foodstuffs at said filling station, the axes of said molds being horizontally disposed, cutting means traversed by the filled molds and arranged to trim the projecting ends of said foodstuffs and means synchronized with the movement of said conveyer for emptying said molds into cans at said transferring station.

4. Apparatus for packing foodstuffs, comprising an endless flexible conveyer, means for supporting said conveyer to traverse a noncircular path, means for moving said conveyer to successively traverse a filling station and a transferring station, a plurality of molds carried by said conveyer in spaced relation and adapted to be filled with said foodstuffs at said filling station, each of said molds comprising a fixed section non-rotatably mounted on said conveyer and a hinged section, said last section being movable to open said mold and facilitate the filling thereof, means at the advance end of said filling station for opening said molds, means at the other end of said filling station for closing said molds and means for subsequently emptying said molds into cans at said transferring station.

5. Apparatus for packing foodstuffs, comprising an endless flexible conveyer, means for supporting said conveyer to traverse a noncircular path, means for moving said conveyer to successively traverse a filling station and a transferring station, a plurality of open ended molds carried by said conveyer in spaced relation and adapted to be filled with said foodstuffs at said filling station, each of said molds comprising a fixed section and a hinged section, said last section being movable to open said mold and facilitate the filling thereof, spring means for yieldingly holding each mold open while traversing said filling station, a track arranged alongside said conveyer and arranged to engage and close said hinged sections while traversing said transferring station and means for emptying the closed molds at said transferring station.

6. Apparatus for packing foodstuffs, comprising an endless flexible conveyer, means for supporting said conveyer to traverse a noncircular path, means for moving said conveyer to successively traverse a filling station and a transferring station, a plurality of open ended molds carried by said conveyer in spaced relation and adapted to be filled with said foodstuffs at said filling station, each of said molds comprising a fixed section and a hinged section, said last section being movable to open said mold and facilitate the filling thereof, spring means for yieldingly holding each mold open while traversing said filling station, means for limiting the opening movement of said hinged section comprising a stop lug provided on said hinged section adjacent the hinge and engaging a corresponding stop lug provided on said fixed sec-

tion, a track arranged alongside said conveyer and arranged to engage and close said hinged sections while traversing said transferring station and means for emptying the closed molds at said transferring station.

7. Apparatus for packing foodstuffs, comprising an endless flexible conveyer, means for supporting said conveyer to traverse a noncircular path, means for moving said conveyer to successively traverse a filling station and a transferring station, a plurality of open ended molds carried by said conveyer in spaced relation and adapted to be filled with said foodstuffs at said filling station, each of said molds comprising a fixed section and a hinged section, said last section being movable to open said mold and facilitate the filling thereof, a C-shaped spring embracing the hinged portion of said sections, means for securing one end of said spring to the outer end of said fixed section, means for securing the other end of said spring to said hinged section whereby said spring yieldingly holds said sections open while traversing said filling station, a track arranged alongside said conveyer at said transferring station and arranged to engage and close said hinged sections while traversing said transferring station and means for emptying said molds at said transferring station.

8. Apparatus for packing foodstuffs, comprising an endless flexible conveyer, means for supporting said conveyer to traverse a noncircular path, means for moving said conveyer to successively traverse a filling station and a transferring station, a plurality of open ended molds carried by said conveyer in spaced relation and adapted to be filled with said foodstuffs at said filling station, each of said molds comprising a fixed section and a hinged section, said last section being movable to open said mold and facilitate the filling thereof, spring means for yieldingly holding each mold open while traversing said filling station, a stationary abutment mounted adjacent the discharge end of said filling station, a roller mounted on the hinged section of each mold and restrained by said abutment to effect a closing movement of said hinged section, a track arranged alongside said conveyer and leading from said abutment, said track engaging said roller and holding said hinged section closed while traversing said transferring station and means for emptying the closed molds at said transferring station.

9. Apparatus for packing foodstuffs, comprising an endless flexible conveyer, means for supporting said conveyer to traverse a noncircular path, means for moving said conveyer to successively traverse a filling station and a transferring station, a plurality of open ended molds carried by said conveyer in spaced relation and adapted to be filled with said foodstuffs at said filling station, each of said molds comprising a fixed section and a hinged section, said last section being movable to open said mold and facilitate the filling thereof, spring means for yieldingly holding each mold open while traversing said filling station, a pair of rollers provided on each hinged section in spaced relation lengthwise of said conveyer, a stationary abutment mounted adjacent the discharge end of said filling station and arranged to restrain the first roller of each mold and effect closure of its hinged section, a track arranged alongside said conveyer and leading from said abutment, said track engaging said rollers and holding said hinged sections closed while traversing said transferring

station and means for emptying the closed molds at said transferring station.

10. In apparatus for packing foodstuffs, a semicylindrical open ended mold comprising a fixed semicylindrical section and a movable semicylindrical section hinged at one longitudinal edge to the corresponding edge of said fixed section, the opposite edges of said sections being formed to provide a plurality of outwardly curving fingers adapted to interlace in the closed position of said mold sections.

11. Apparatus for packing foodstuffs, comprising a pair of horizontally spaced wheels rotating on horizontal axes, a flexible endless conveyer passing around the peripheries of said wheels, a plurality of elongated molds carried by said conveyer in spaced relation and projecting laterally therefrom, means for mounting said molds on said conveyer to maintain the axes of said molds in substantially parallel relation and at right angles to the line of movement of said conveyer, said molds being adapted to be filled with foodstuffs while traversing one horizontal stretch of said conveyer, and means rotating with the wheel at the discharge end of said one horizontal stretch for emptying said molds into cans.

12. Apparatus for packing foodstuffs, comprising a pair of horizontally spaced wheels rotating on horizontal axes, a flexible endless conveyer passing around the peripheries of said wheels, a plurality of molds mounted on said conveyer in spaced relation and projecting outwardly therefrom, each of said molds comprising a fixed section and a hinged section, yielding means for opening said hinged sections while traversing one stretch of said conveyer to facilitate filling said molds with foodstuffs, a C-shaped track arranged alongside said conveyer and engaging and closing said hinged sections while traversing the balance of said conveyer and means rotating with the wheel at the discharge end of the filling stretch of said conveyer for emptying said closed molds.

13. Apparatus for packing foodstuffs, comprising a pair of horizontally spaced wheels rotating on horizontal axes, a flexible endless conveyer passing around the peripheries of said wheels, a plurality of open molds mounted on said conveyer in spaced relation and projecting laterally therefrom, said molds being adapted to be filled with foodstuffs while traversing one horizontal stretch of said conveyer, a motor arranged beyond the discharge end of said filling stretch and having its shaft arranged parallel with the axes of said wheels, a rotary knife mounted on said motor shaft and arranged to trim the ends of the foodstuffs projecting from the passing molds, drive means between said motor shaft and the adjacent wheel and plungers alining with said molds and rotating with said last wheel for emptying said molds and means for reciprocating said plungers.

14. Apparatus for packing foodstuffs, comprising a wheel, a flexible endless conveyer passing around said wheel, a plurality of open ended molds carried by said endless conveyer in spaced relation, means for mounting said molds on said conveyer to hold said molds in a constant, fixed position relative to said conveyer and to maintain the axes of said molds parallel with the axis of said wheel, said molds being adapted to be filled with foodstuffs, a turret rotating with said wheel, a plurality of longitudinally slidable plungers carried by said turret, said plungers alining coaxially with the mold cavities and

means for reciprocating said plungers on rotation of said wheel and turret to discharge said molds.

15. Apparatus for packing foodstuffs, comprising a wheel, a flexible endless conveyer passing around said wheel, a plurality of open ended molds carried by said endless conveyer in spaced relation, means for mounting said molds on said conveyer to hold said molds in a constant, fixed position relative to said conveyer and to maintain the axes of said molds parallel with the axis of said wheel, said molds being adapted to be filled with foodstuffs, a turret rotating coaxially with said wheel, a plurality of longitudinally slidable plungers carried by said turret, said plungers alining coaxially with the mold cavities and means for reciprocating said plungers on rotation of said wheel and turret to discharge said molds comprising a stationary cam encircling said turret and having a salient portion projecting toward said molds and means secured to each plunger and riding on said cam to compel each plunger to follow its curvature.

16. Apparatus for packing foodstuffs, comprising a pair of horizontally spaced wheels rotating on horizontal axes, a flexible endless conveyer passing around the peripheries of said wheels, a plurality of open ended molds mounted in spaced relation along said conveyer with their axes maintained at all times parallel with the axes of said wheels, said molds being adapted to be filled with foodstuffs while traversing one horizontal stretch of said conveyer, a turret rotating with the wheel at the discharge end of said filling stretch, a plurality of longitudinally slidable plungers carried by said turret, said plungers alining coaxially with the mold cavities and means for reciprocating said plungers on rotation of said wheel and turret to discharge said molds, comprising a stationary cam encircling said turret and having a salient portion projecting toward said molds and means secured to each plunger and riding on said cam to compel each plunger to follow its curvature.

17. Apparatus for packing foodstuffs, comprising a pair of horizontally spaced wheels rotating on horizontal axes, a flexible endless conveyer passing around the peripheries of said wheels, a plurality of open ended molds mounted in spaced relation along said conveyer with their axes maintained at all times parallel with the axes of said wheels, said molds being adapted to be filled with foodstuffs while traversing one horizontal stretch of said conveyer, a turret rotating with the wheel at the discharge end of said filling stretch, a plurality of longitudinally slidable plungers carried by said turret, said plungers alining coaxially with the mold cavities and means for reciprocating said plungers on rotation of said wheel and turret to discharge said molds, comprising a drum encircling said turret and having a continuous cam track having a salient portion projecting toward said molds, means secured to each plunger and riding said track to compel each plunger to follow its curvature and means for adjusting the axial position of said drum with reference to said turret to vary the effective throw of said plungers.

18. Apparatus for packing foodstuffs, comprising a wheel, a flexible endless conveyer passing around said wheel, a plurality of open ended molds carried by said endless conveyer in spaced relation, means for mounting said molds on said conveyer to hold said molds in a constant, fixed position relative to said conveyer and to main-

tain the axes of said molds parallel with the axis of said wheel, said molds being adapted to be filled with foodstuffs, a turret rotating coaxially with said wheel, a plurality of longitudinally slidable plungers carried by said turret, said plungers alining coaxially with the mold cavities, means for reciprocating said plungers on rotation of said wheel to push the contents out of said molds, a can wheel rotating coaxially with said wheel and having pockets alining with said mold cavities, said can wheel being located on the opposite side of said wheel from said turret, means for feeding an open ended can to each pocket in a receiving position in which its mouth is axially in line with the corresponding mold cavity thereby to receive the material discharged from said cavity by the movement of the corresponding plunger and means for discharging the filled cans from said can wheel.

19. Apparatus for packing foodstuffs, comprising a wheel, a plurality of cylindrical, open ended molds carried around said wheel in spaced relation, the axes of said molds being arranged parallel with the axis of said wheel, said molds being adapted to be filled with foodstuffs, a turret rotating coaxially with said wheel, a plurality of longitudinally slidable plungers carried by said turret, said plungers alining coaxially with the mold cavities, means for reciprocating said plungers on rotation of said wheel to push the contents out of said molds, a can wheel rotating coaxially with said wheel and having pockets alining with said mold cavities, said can wheel being located on the opposite side of said wheel from said turret, means for feeding an open ended can to each pocket in a receiving position in which its mouth is axially in line with the corresponding mold cavity thereby to receive the material discharged from said cavity by the movement of the corresponding plunger, the entering movement of said foodstuffs shifting said can axially to a second position in its pocket, means permitting the discharge from said can wheel of the cans so shifted to said second position and means on said can wheel for retaining in the corresponding pocket each unfilled can remaining in its receiving position.

20. Apparatus for packing foodstuffs, comprising a pair of horizontally spaced wheels rotating on horizontal axes, a flexible endless conveyer passing around the peripheries of said wheels, a plurality of open ended molds mounted in spaced relation along said conveyer with their axes maintained at all times parallel with the axes of said wheels, said molds being adapted to be filled with foodstuffs, a turret rotating with one of said wheels, a plurality of longitudinally slidable plungers carried by said turret, said plungers alining coaxially with the mold cavities, means for reciprocating said plungers on rotation of said turret to push the contents out of said molds, a can wheel rotating coaxially with said turret and having pockets alining with said mold cavities, said can wheel being located on the opposite side of said last wheel from said turret, means for feeding an open ended can to each pocket in a receiving position in which its mouth is axially in line with the corresponding mold cavity, thereby to receive the material discharged from said cavity by the movement of the corresponding plunger and means for discharging the filled cans from said can wheel.

21. Apparatus for packing foodstuffs, comprising a pair of horizontally spaced wheels rotating on horizontal axes, a flexible endless conveyer

passing around the peripheries of said wheels, a plurality of open ended molds mounted in spaced relation along said conveyer with their axes parallel with the axes of said wheels said molds being adapted to be filled with foodstuffs, a turret rotating with one of said wheels, a plurality of longitudinally slidable plungers carried by said turret, said plungers alining coaxially with the mold cavities, means for reciprocating said plungers on rotation of said turret to push the contents out of said molds, a can wheel rotating coaxially with said turret and having pockets alining with said mold cavities, said can wheel being located on the opposite side of said last wheel from said turret, means for feeding an open ended can to each pocket in a receiving position in which its mouth is axially in line with the corresponding mold cavity, thereby to receive the material discharged from said cavity by the movement of the corresponding plunger, the entering movement of said foodstuffs shifting said can axially to a second position, means permitting the cans so shifted to said second position to fall from the inverted pockets of said can wheel and means for retaining each unfilled can in its pocket when located in its receiving position, comprising a hook secured adjacent each pocket and entering the mouth of each can and a semicircular recess in the opposite end face of each pocket and forming shoulders engaging the bead at the bottom of each empty can when the pocket is inverted.

22. Apparatus for packing foodstuffs, comprising a pair of horizontally spaced wheels rotating on horizontal axes, a flexible endless conveyer passing around the peripheries of said wheels, a plurality of open ended molds mounted in spaced relation along said conveyer with their axes parallel with the axes of said wheels, said molds being adapted to be filled with foodstuffs, a turret rotating with one of said wheels, a plurality of longitudinally slidable plungers carried by said turret, said plungers alining coaxially with the mold cavities, means for reciprocating said plungers on rotation of said turret to push the contents out of said molds, a can wheel rotating coaxially with said turret and having pockets alining with said mold cavities, said can wheel being located on the opposite side of said last wheel from said turret, means for feeding an open ended can to each pocket in a receiving position in which its mouth is axially in line with the corresponding mold cavity, thereby to receive the material discharged from said cavity by the movement of the corresponding plunger, the entering movement of said foodstuffs shifting said can axially to a second position, means permitting the cans so shifted to said second position to fall from the inverted pockets of said can wheel and means for retaining each unfilled can in its pocket when located in its receiving position, comprising a hook secured adjacent each pocket and entering the mouth of each can and a semicircular recess in the opposite end face of each pocket and forming shoulders engaging the bead at the bottom of each empty can when the pocket is inverted and stationary cam means for shifting the can fed to each pocket axially to said receiving position prior to the filling operation of the corresponding plunger.

23. Apparatus for packing foodstuffs, comprising a wheel, a plurality of open ended molds carried around said wheel in spaced relation, the axes of said molds being arranged parallel with the axis of said wheel, said molds being adapted

to be filled with foodstuffs, a turret rotating coaxially with said wheel, a plurality of longitudinally slidable plungers carried by said turret, said plungers alining coaxially with the mold cavities, means for reciprocating said plungers on rotation of said wheel to push the contents out of said molds, a can wheel rotating coaxially with said wheel and having pockets alining with said mold cavities, said can wheel being located on the opposite side of said wheel from said turret, means for feeding an open ended can to each pocket in a receiving position in which its mouth is axially in line with the corresponding mold cavity thereby to receive the material discharged from said cavity by the movement of the corresponding plunger and means for discharging the filled cans from said can wheel including a hammer pivoted to rotate about a fixed axis located near the bottom of said can wheel and yieldingly held in the path of each filled can and an abutment carried by said can wheel adjacent each pocket and engaging and lifting said hammer, each abutment releasing said hammer when the corresponding pocket reaches a completely inverted position thereby permitting it to strike the filled can and discharge it from the can wheel.

24. Apparatus for packing foodstuffs, comprising a wheel, a plurality of open ended molds car-

ried around said wheel in spaced relation, the axes of said molds being arranged parallel with the axis of said wheel, said molds being adapted to be filled with foodstuffs, a turret rotating coaxially with said wheel, a plurality of longitudinally slidable plungers carried by said turret, said plungers alining coaxially with the mold cavities, means for reciprocating said plungers on rotation of said wheel to push the contents out of said molds, a can wheel rotating coaxially with said wheel and having pockets alining with said mold cavities, said can wheel being located on the opposite side of said wheel from said turret, means for feeding an open ended can to each pocket in a receiving position in which its mouth is axially in line with the corresponding mold cavity thereby to receive the material discharged from said cavity by the movement of the corresponding plunger, a conveyer arranged below said can wheel and means for righting the filled cans falling from the inverted pockets of the can wheel onto said conveyer, comprising a pair of stationary pins arranged below said can wheel in line with the rim of the falling can, said fingers restraining said rim to cause the bottom of the can to land on said conveyer.

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