

March 4, 1930.

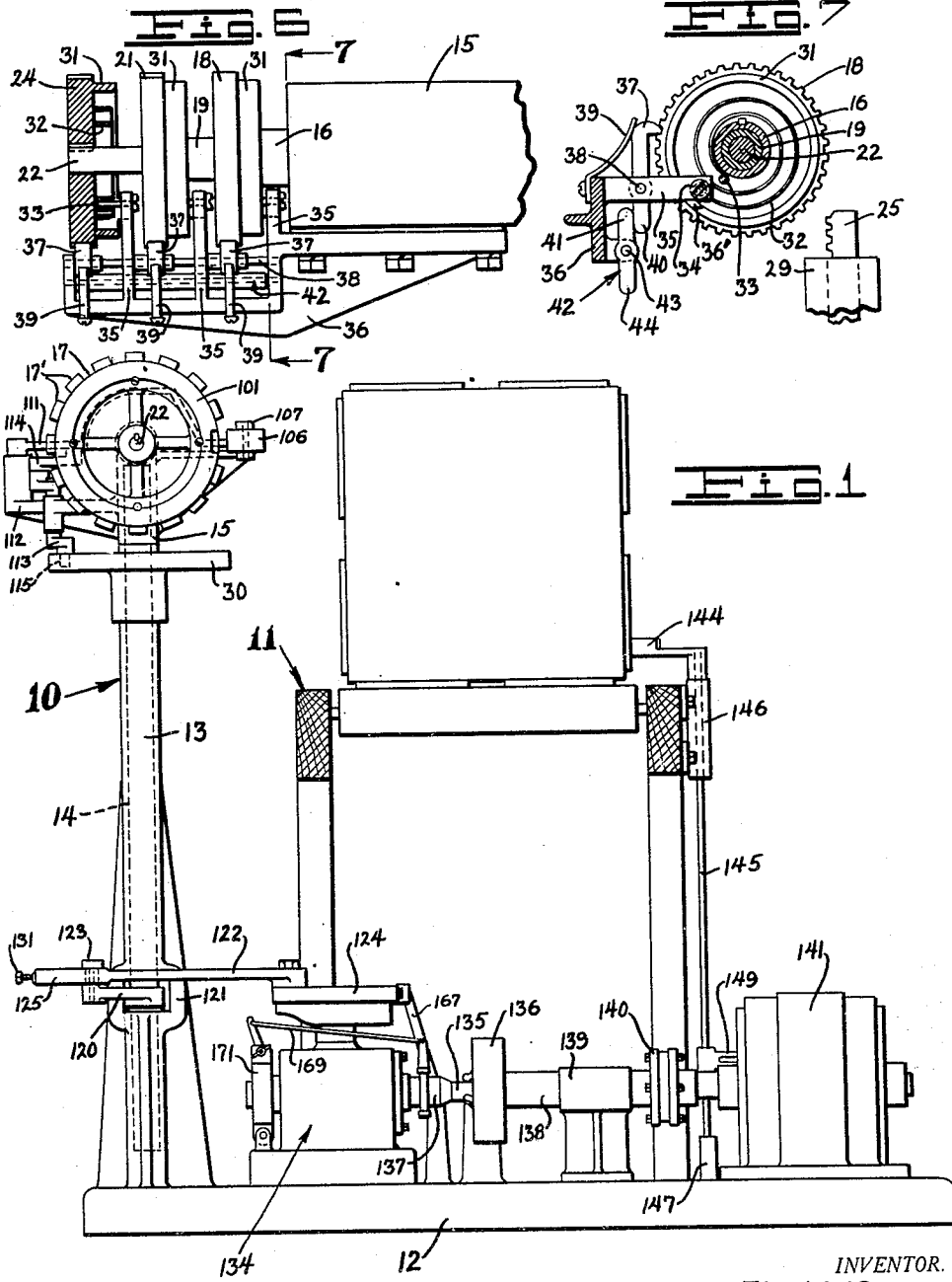
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1,749,698

AUTOMATIC BOX STAMPING MACHINE

Filed Nov. 23, 1927

8 Sheets-Sheet 1



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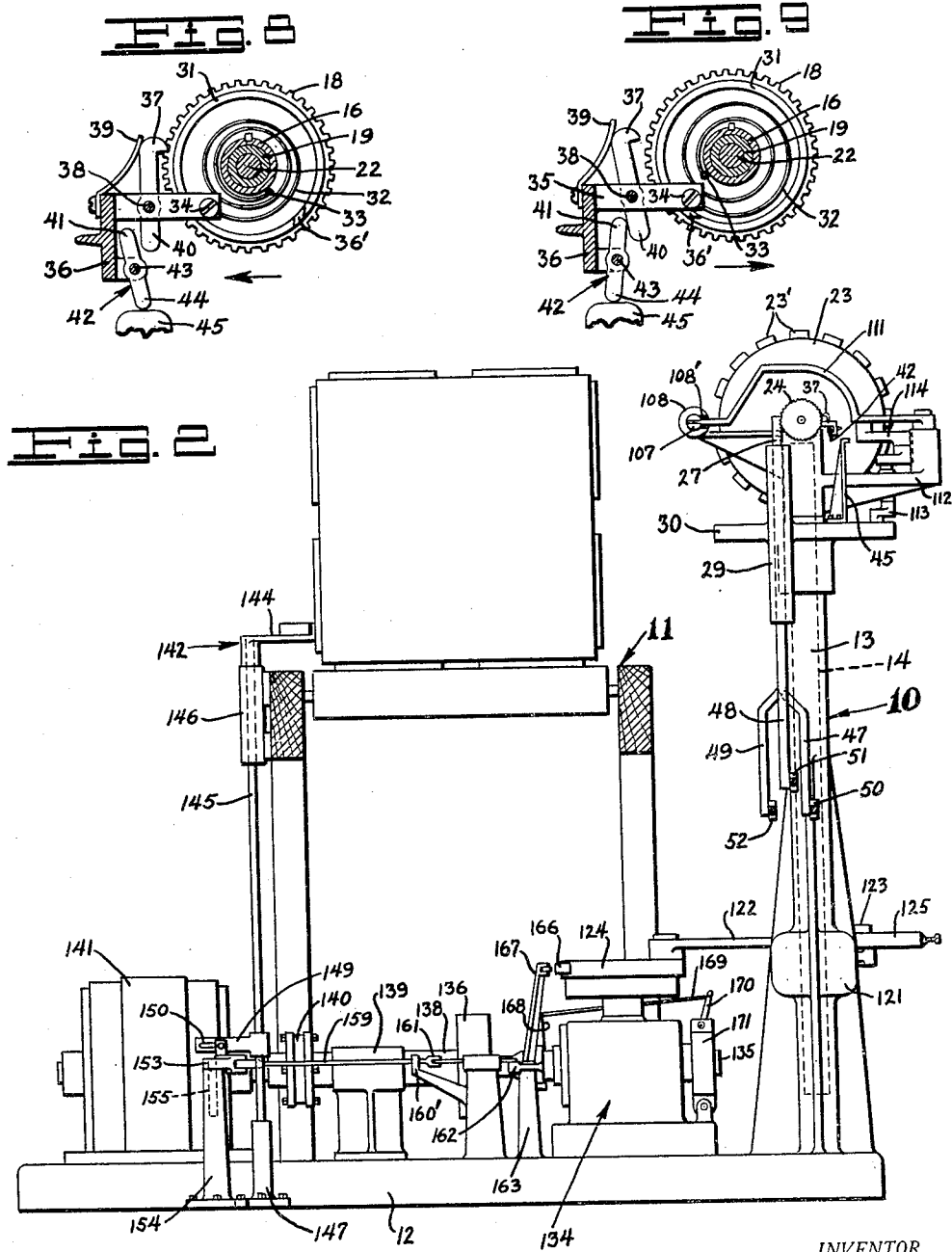
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AUTOMATIC BOX STAMPING MACHINE

Filed Nov. 23, 1927

8 Sheets-Sheet 2



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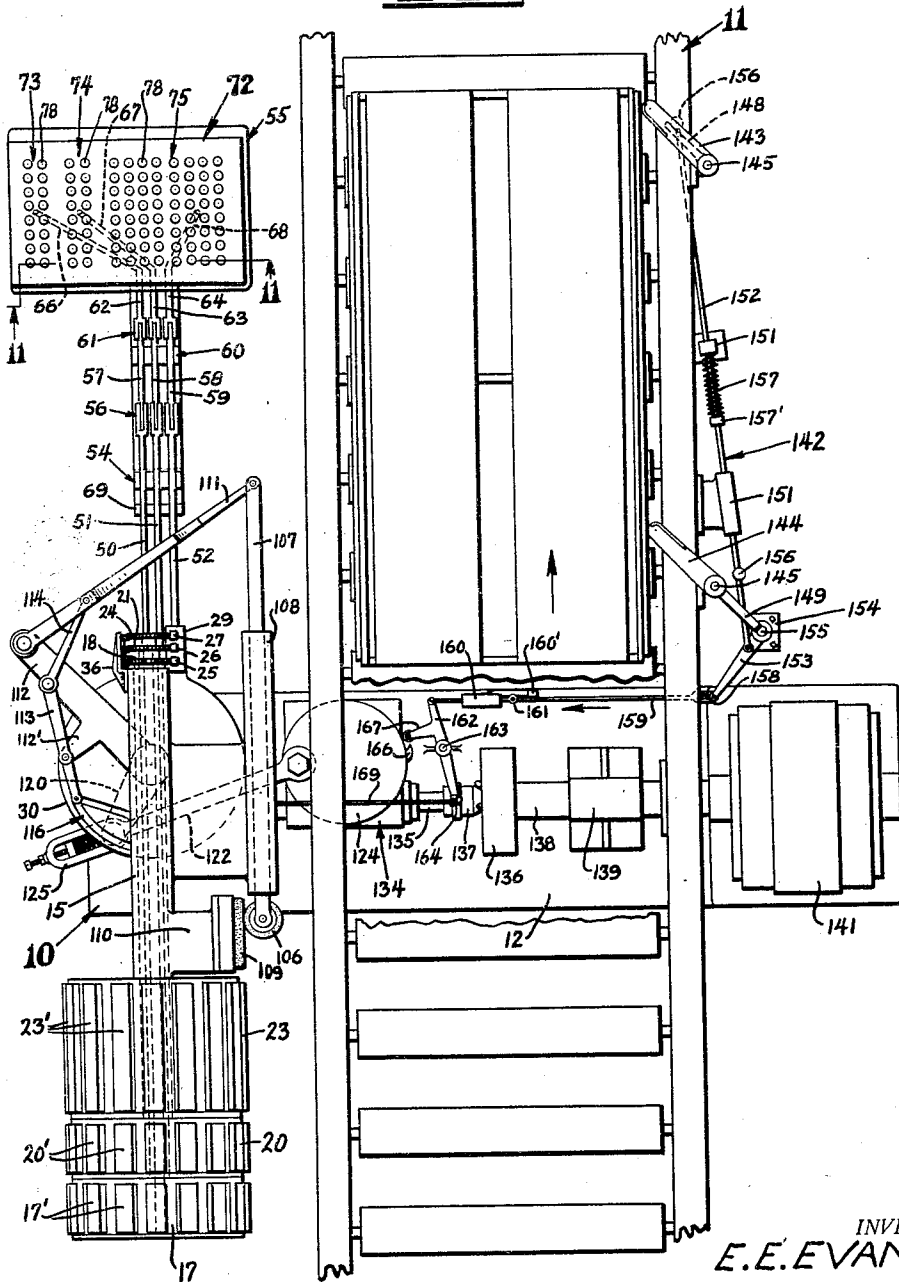
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AUTOMATIC BOX STAMPING MACHINE

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FIG. 3



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AUTOMATIC BOX STAMPING MACHINE

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Fig. 4

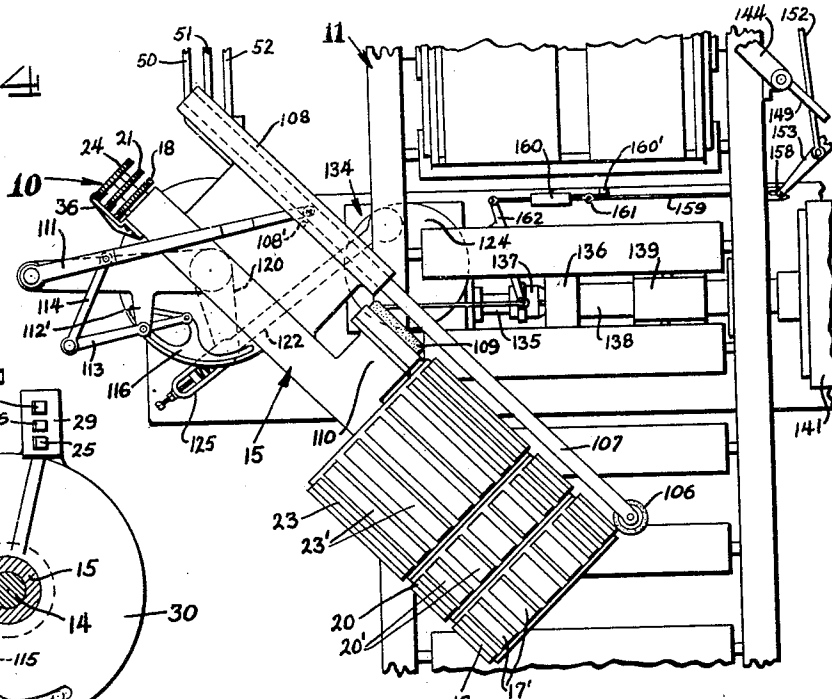


Fig. 6

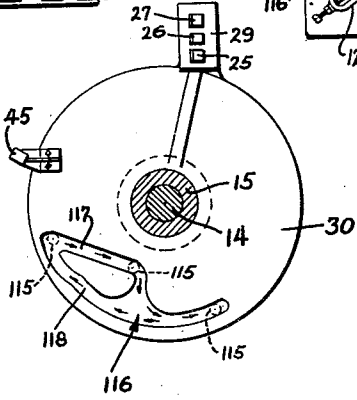
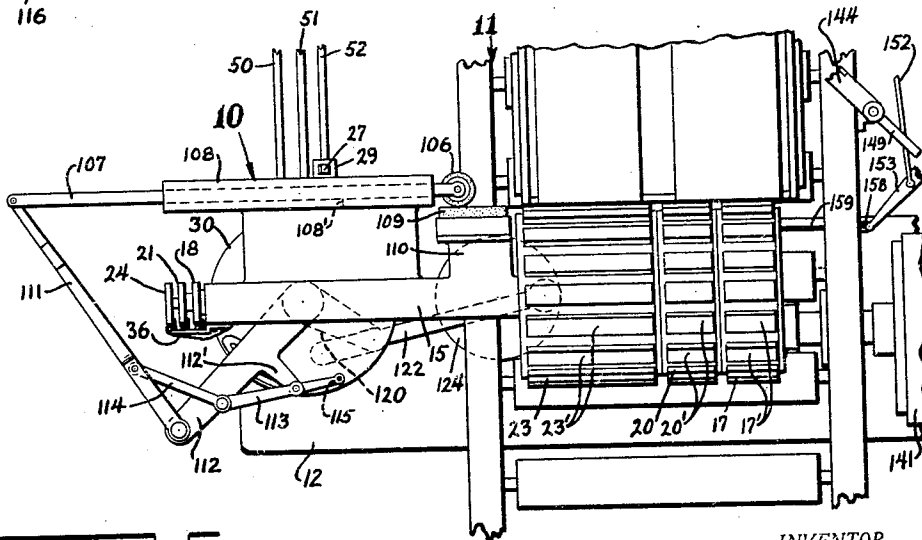


Fig. 5



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FIG. 10

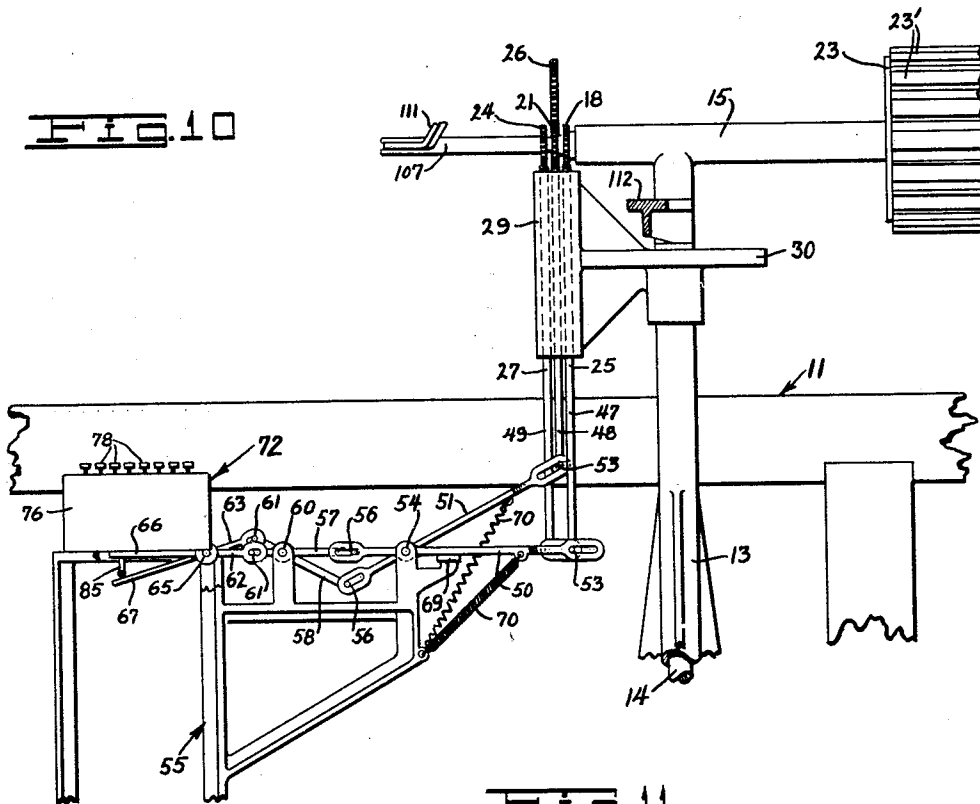
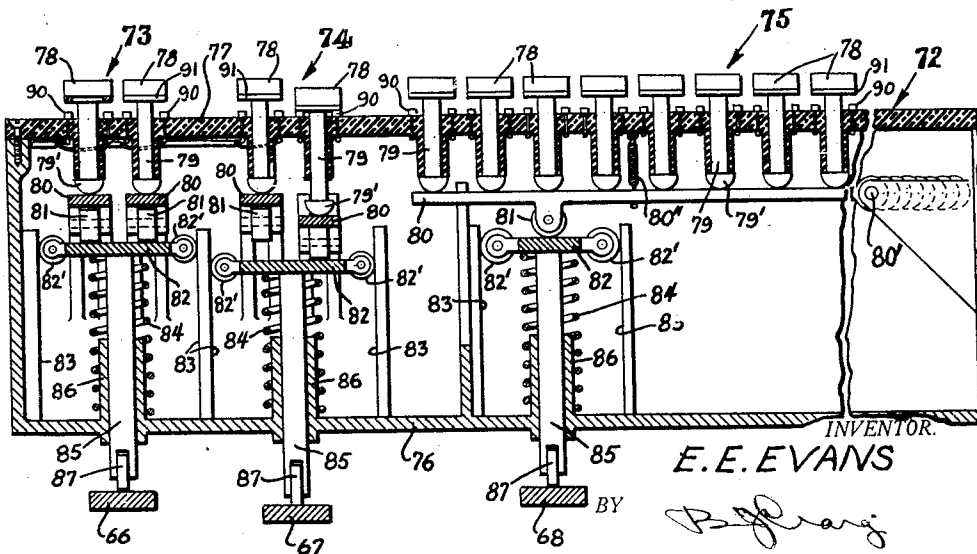


FIG. 11



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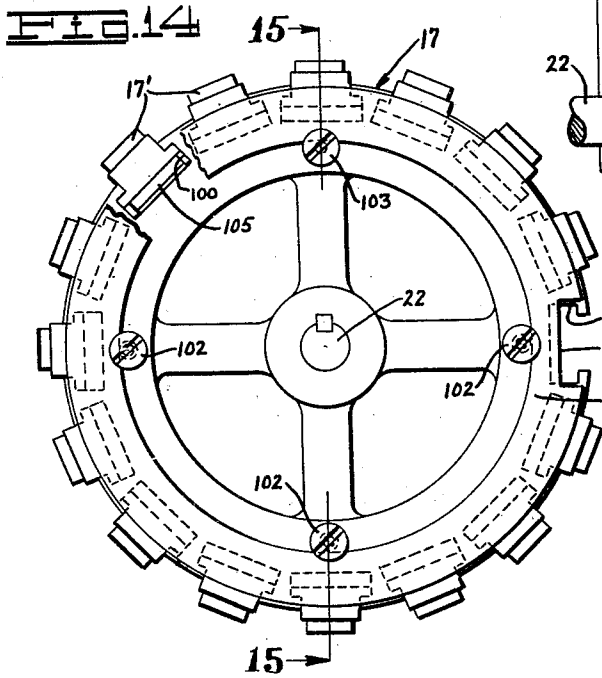
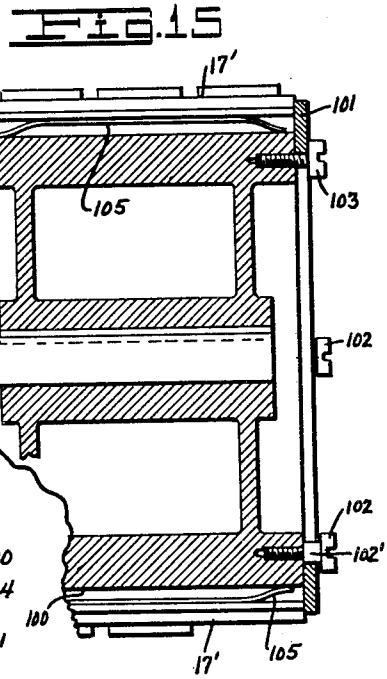
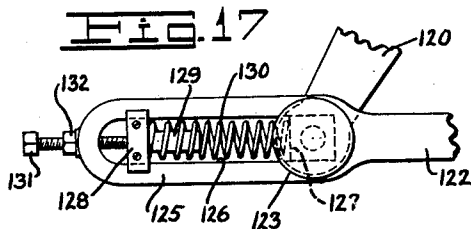
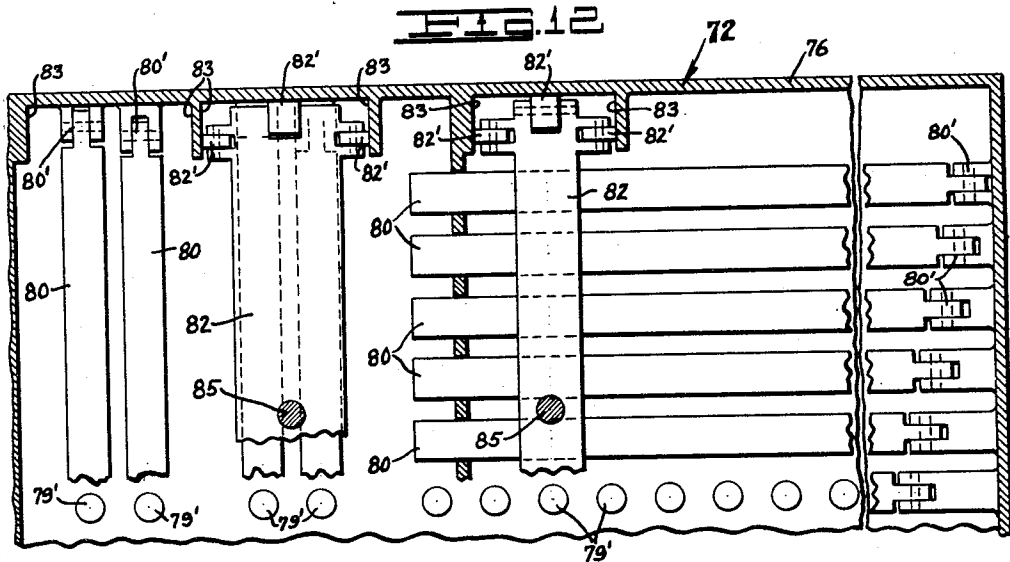
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AUTOMATIC BOX STAMPING MACHINE

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AUTOMATIC BOX STAMPING MACHINE

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FIG. 13

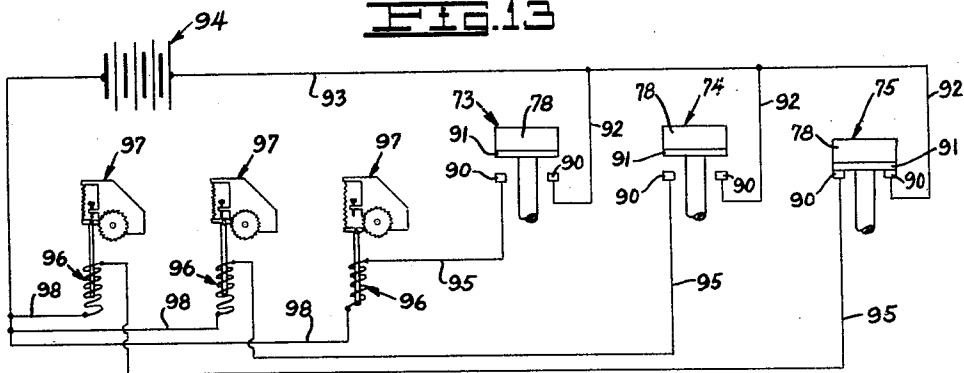


FIG. 18

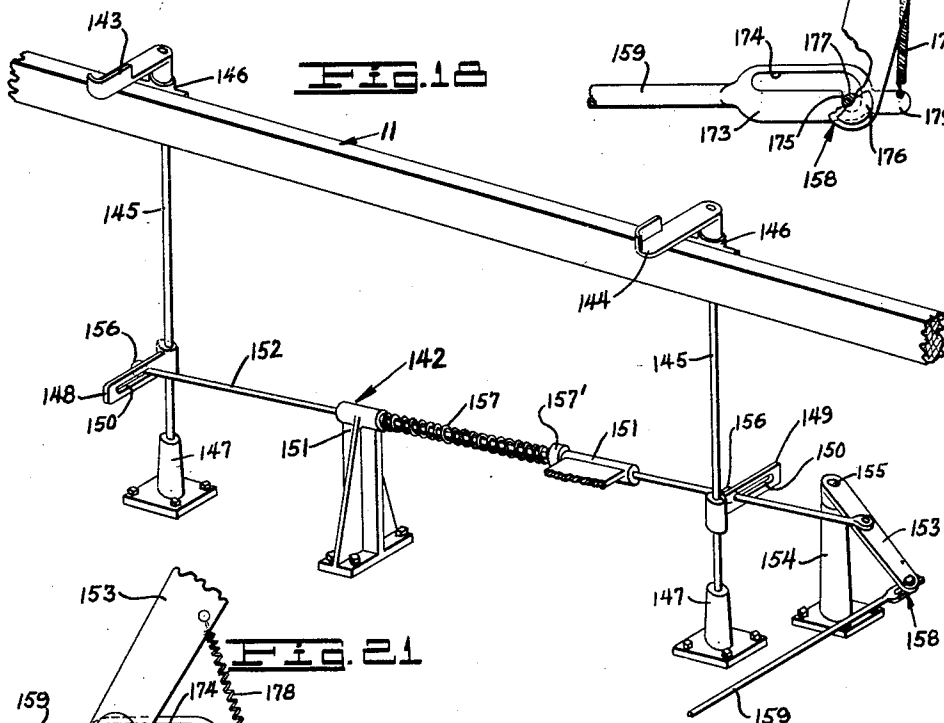


FIG. 19

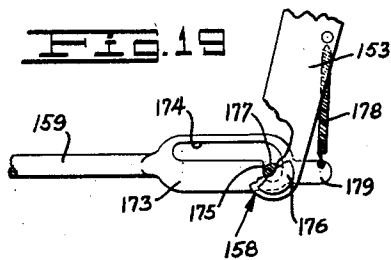


FIG. 21

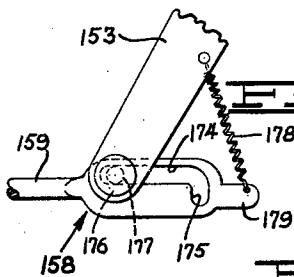
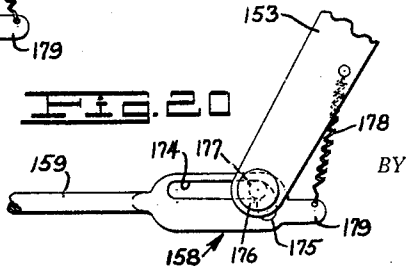


FIG. 20



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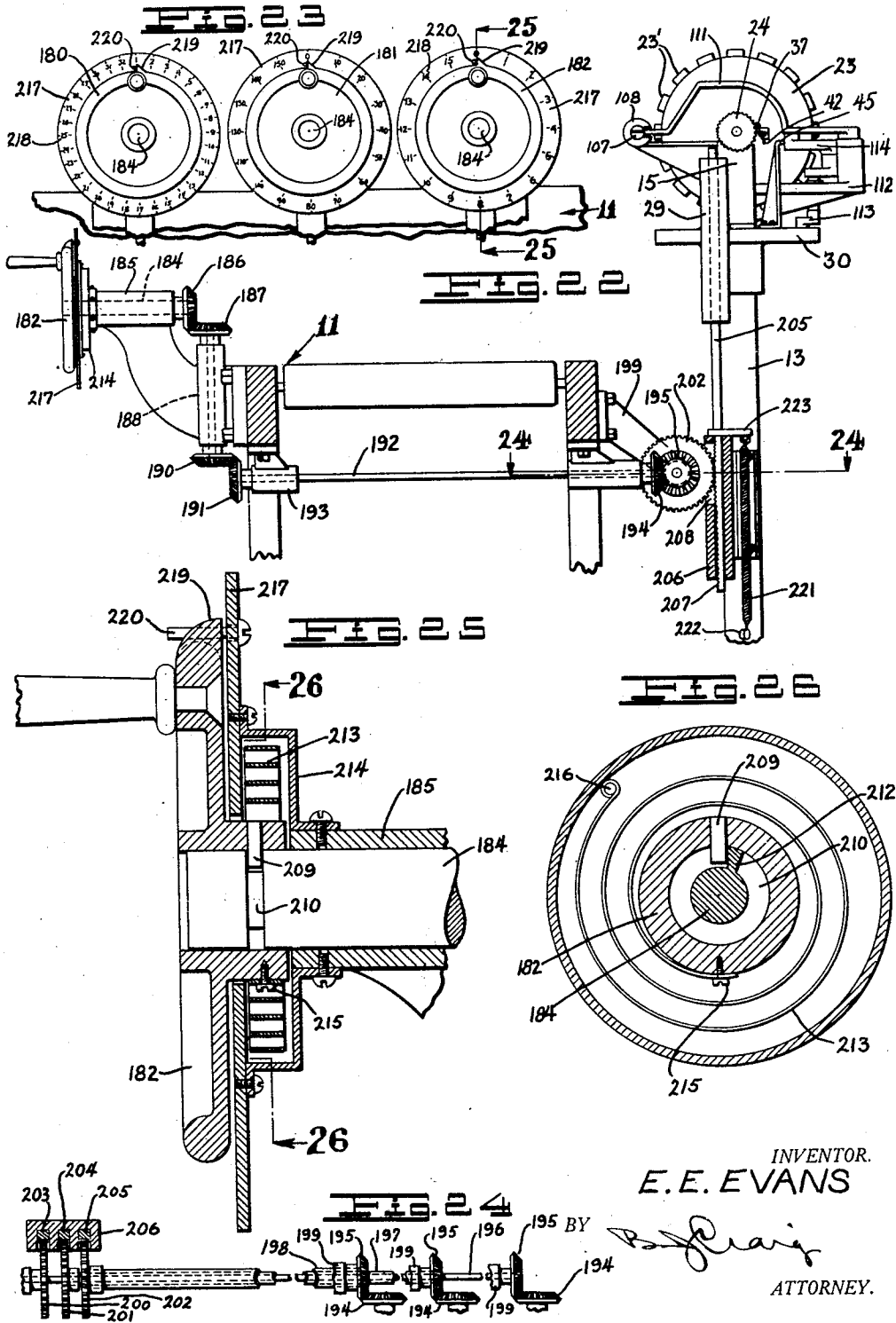
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AUTOMATIC BOX STAMPING MACHINE

Filed Nov. 23, 1927

8 Sheets-Sheet 8



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AUTOMATIC BOX-STAMPING MACHINE

Application filed November 23, 1927. Serial No. 235,137.

This invention relates to improvements in receptacle stamping or marking devices.

The general object of this invention is to provide an improved receptacle stamping device which is automatically operated.

Another object of the invention is to provide a device of the class described wherein improved means is provided for automatically inking the type before each stamping operation.

A further object of this invention is to provide an improved means for operating a marking device.

Another object of the invention is to provide improved means for moving the type of a box stamping device to a stamping position.

An additional object of my invention is to provide a registering receptacle marker.

A further object of my invention is to provide a receptacle marking device with means for indicating certain characteristics of the goods in the receptacle marked.

Other objects and advantages of this invention will be apparent from the following description taken in connection with the accompanying drawings wherein:

Fig. 1 is a side elevation of my improved stamping device showing it in an operative position and showing a conveyor with which it is associated in section.

Fig. 2 is an elevation of my machine taken from the side opposite to that shown in Fig. 1.

Fig. 3 is a top plan view of my improved stamping device and associate parts showing the device as about to be actuated to operate a stamp upon an article.

Fig. 4 is a top plan view of the stamping device showing the type roll as being actuated to stamp upon an article and showing the type being inked.

Fig. 5 is a view similar to Fig. 4 showing the type roll moved to stamp upon an article.

Fig. 6 is a fragmentary top plan view of the head showing the type drum actuating gears and associate parts.

Fig. 7 is a section taken on line 7—7 of Fig. 6 showing the type drum actuating gears and associate parts in normal position.

Fig. 8 is a view similar to Fig. 7 showing the position of the type drum actuating gears

and associate parts when the type drums are traveling towards a stamping position.

Fig. 9 is another view similar to Fig. 7 showing the type drum actuating gears and associate parts returning to their initial positions.

Fig. 10 is a fragmentary side view of my device showing the type setting mechanism.

Fig. 11 is an enlarged section of the type selecting device taken on line 11—11 of Fig. 3.

Fig. 12 is a fragmentary section through the housing of the device shown in Fig. 11 looking at the underside of a part of the type selecting mechanism.

Fig. 13 is a wiring diagram of the type selecting device and associate registering mechanism.

Fig. 14 is an end view of one of the type carrying drums.

Fig. 15 is a section through the type drum shown in Fig. 14 taken on line 15—15 of Fig. 14.

Fig. 16 is a top plan view of the annular member on the standard of my device showing the cam groove formed therein.

Fig. 17 is a fragmentary top plan view of the actuating arm showing the resilient connection between it and the actuating link.

Fig. 18 is a perspective view of the trip mechanism for causing the stamping device to actuate.

Fig. 19 is a top plan view of one of the clutch actuating levers in an inoperative position.

Fig. 20 is a view similar to Fig. 19 showing the lever as having been actuated to place the clutch in an operative position.

Fig. 21 is another view similar to Fig. 19 showing the lever in the same position as in Fig. 20 and the clutch rod actuated to disengage the clutch.

Fig. 22 is a view similar to Fig. 2 showing a modified means for moving the type drums to place the type bars in a printing position.

Fig. 23 is a front face view of the hand wheels and dials used in my modified positioning means.

Fig. 24 is a fragmentary top plan section taken on line 24—24 of Fig. 22 showing a

part of the connections between the type drums and the hand wheels.

Fig. 25 is an enlarged section through one of the hand wheels taken on line 25—25 of Fig. 23, and

Fig. 26 is a section taken on line 26—26 of Fig. 25.

This invention is an improvement over that shown in my co-pending application Serial No. 193,702, filed May 23, 1927, and comprises many novel features not included in that application.

Referring to the drawings by reference characters I have indicated my improved stamping device generally at 10 and although it is adapted for other purposes I have shown it in conjunction with a box lidding machine, only the continuous conveyor table 11 of the lidding machine being shown.

My improved stamping device 10 is so constructed that it may be used between a lidding machine and a strapping machine without interfering with the actuation of either or being in the way of the operator of either machine. But it will be understood that my machine may be used in conjunction with either machine or may be used wherever desired.

As shown in the accompanying drawings my improved stamping device 10 comprises a base 12 having a standard 13 thereon in which a shaft 14 is mounted for rotation. The shaft 14 terminates in a head 15 to which it is secured and which is adapted to move with the shaft.

Within the head 15 I mount for rotary movement a sleeve 16 to one end of which is secured a type carrying roll 17 and to the opposite end of which is secured a spur gear 18. Mounted for rotary movement within the sleeve 16 I provide another sleeve 19 to one end of which is secured another type carrying roll 20 and to the opposite end of which is secured a spur gear 21. Within the sleeve 19 I provide a rotatable shaft 22 to one end of which is secured a third type carrying roll 23 and to the other end of which is secured a spur gear 24.

As shown in the accompanying drawings the type carrying drums 17, 20 and 23 each include a plurality of type bars 17', 20' and 23' respectively, each of which may include different indicia of various characters. The type bars 17' may indicate the packer's number, the type bars 20' the grade and the type bars 23' the variety of the goods in the container which is stamped.

The gears 18, 21 and 24 are adapted to be rotated by racks 25, 26, and 27 respectively which are supported in a bearing 29 integral with an annular member 30 which is secured to the standard 13 (see Fig. 2).

As shown in Figs. 6, 7, 8 and 9 the gears 18, 21 and 24 each include a housing 31 in which is mounted a clock spring 32 for re-

turning the gears to their initial positions. One end of each spring 32 is secured to the gear as at 33 and the opposite end is anchored to the shank of a screw 34 which is supported by an arm 35 of a bracket 36 which is secured in any desired manner to the head 15. A stop 36' is provided upon the face of each of the housings 31. Each stop is adapted to abut an arm 35 when one of the gears 18, 21 or 24 is in its initial position.

For retaining the gears 18, 21 and 24 in the position to which they are moved by their respective racks I provide pawls 37 each of which is mounted for independent movement on a shaft 38 mounted on the bracket 36. The pawls 37 are shown as adapted to be yieldably urged into engagement with the gears by springs 39 secured to the bracket 36. Each of the pawls 37 include a downwardly extending finger 40 which is adapted to engage an upwardly extending portion 41 of a trigger 42. This trigger 42 is shown as pivoted on a shaft 43 supported by the bracket 36 and includes a downwardly extending portion 44.

The portion 44 is adapted to abut a trip 45 and causes the trigger 42 to move about its pivot 43 and move all of the pawls 37 out of engagement with their respective gears when the head is returning from a stamping position to its initial position as clearly shown in Fig. 9. When the pawls 37 are moved out of engagement with their respective gears the gears will be rotated by the springs 32 until the stops 36' abut the arms 35 and thus return the type rolls 17, 20 and 23 to their initial positions. When the head is moving towards a stamping position the trigger 42 will be rocked by the trip 45 away from the pawl 37 as clearly shown in Fig. 8 and will not actuate the pawls 37.

The racks 25, 26 and 27 are provided with rods 47, 48 and 49 which extend below the bearing 29 and are slackly connected to rocker arms 50, 51, and 52 respectively as at 53 (see Figs. 2 and 10). These rocker arms 50, 51 and 52 are each pivoted as at 54 to a support indicated generally at 55 and are slackly connected as at 56 at their opposite ends to other rocker arms 57, 58 and 59 which are pivoted as at 60 to the support 55. (See Figs. 3 and 10.) Each of the rocker arms 57, 58 and 59 is slackly connected as at 61 to levers 62, 63 and 64 which are pivoted as at 65 and include arms 66, 67 and 68. The rocker arms 50, 51 and 52 are adapted to be returned to their initial positions against a stop 69 by springs 70 which are anchored at one end to the support 55 as shown in Fig. 10.

For actuating the various rocker arms to move the racks 25, 26 and 27, and cause the gears 18, 21 and 24 to rotate and thereby rotate the type drums 17, 20 and 23 to various positions I provide upon the support a selective device indicated generally at 72 in Figs. 11-13

3, 10, 11 and 12. This selective device includes groups of keys 73, 74 and 75 which correspond to the type carrying drums 23, 20 and 17 respectively. Each of the keys in the group 73 corresponds to the indicia 23' upon the drum 23, the keys in the group 74 each corresponds to the indicia 20' on the type drum 20 and each of the keys in group 75 corresponds to the indicia matter 19' on the drum 17. As a rule there will be more keys provided in each of the groups than there is indicia matter on the type drums so as to take care of the maximum amount of indicia matter which may later be placed upon the indicia drums.

The selective device 72 includes a housing 76 having a top 77 secured thereto and made of an insulated material as shown in Fig. 11. In the accompanying drawings I have shown the groups of keys 75 as including eight rows of keys 78 arranged eight in a row, thus totalling sixty-four in all, and the groups 73 and 74 each having eight rows of keys 78 arranged two in a row. Each of the keys 78 is secured to a stem 79 which is arranged in the top 77 for reciprocable movement and includes a semi-spherical knob 79' at its lower end. Each of the knobs 79' of each key 78 in a single row is adapted to contact with a lever 80 which is pivoted to the housing at 80'. The levers 80 are resiliently held against the knobs 79' by coiled springs 80'' and are provided on their under sides with rollers 81. The rollers 81 on each of the levers 80 are adapted to engage transverse bars 82 which are provided adjacent each end with a pair of rollers 82' which are adapted to actuate in guideways 83.

The transverse bars 82 are adapted to be resiliently supported by coiled springs 84 and have secured thereto a plunger 85. The plungers 85 are positioned for reciprocable movement in bearings 86 and are provided at their lower ends with rollers 87. The roller 87 of plunger 85 of the key group 75 is adapted to contact with the arm 68 of the lever 64, and the roller 87 of the plunger 85 of the key group 74 is adapted to contact with the arm 67 of the lever 63, and the roller 87 of the plunger 85 of the key group 73 is adapted to contact with the arm 66 of the lever 62.

As shown, the distance from the free end of each of the levers 80 to the pivot 80' is different so that the members 79' of each key associated with a single lever 80 contacts with the lever 80 at a different distance from the pivot 80'. Thus it will be seen that full movement of no two keys engaging a single lever will move the lever the same distance and that no two levers in a single group will move the same distance when fully actuated.

The keys in the group 73 may each indicate a different variety of goods, the keys

in the group 74 may each indicate a different grade and the keys in the group 75 may each indicate a different packer's number.

From the foregoing description it will be seen that to position the type bars on the type carrying drums 17, 20 and 23 it is only necessary for the operator to depress one of the keys in each of the groups 73, 74 and 75 which will, through the medium of the arms 66, 67 and 68 and the various associated levers cause the rods 47, 48 and 49 of the racks 25, 26 and 27 to move and thus move the racks and cause the gears 18, 21 and 24 to rotate the type drums 17, 20 and 23 to position the selected type in a stamping position. The levers 80, etc., will be of such length that depression of each operating key will cause a certain desired type to be turned to operative position.

Positioned beneath each of the keys 78 of the selective device 72 I provide a pair of electric contacts 90 which are adapted to be bridged by a contact ring 91 on the under side of the keys 78. As shown in the wiring diagram in Fig. 13 one of the contacts 90 is connected through a wire 92 and a wire 93 to a source of electrical energy shown as a battery 94. The other contacts 90 are connected through a wire 95 to the trip actuating solenoid winding 96 of counter mechanisms 97. The counters 97 may be of any approved standard type and will usually be located a considerable distance from the selective device 72, preferably in the office of the packing house in which my device is used. From each coil 96 a wire 98 connects through a wire 99 with the battery 94. I preferably employ a counter for each key so that when one of the keys 78 is depressed to position a certain type bar the contact ring 91 will bridge the contacts 90 and cause the counter mechanism 97 associated with that particular key to actuate and register.

The type rolls 17, 20 and 23 are all preferably constructed alike so I will only describe the roll 17 which is shown in detail in Fig. 14. This type roll 17 is adapted to support a plurality of type bars 17' which fit in the dovetailed grooves 100 of the type roll and are retained in the grooves by a retaining ring 101. The retaining ring 101 is supported by a plurality of bolts 102 on which it is movable. The bolts 102 have shoulders or washers 102' which engage the end of the roll and prevent the bolt from being drawn to engage the ring. A plain bolt 103 is provided for clamping the retaining ring 101 in a fixed position to the roll 17. The retaining ring 101 is notched as at 104 to provide an aperture through which the type bars 17' may be inserted or removed from the grooves 100.

When it is desired to insert or remove a type bar 17' from the type roll the bolt 103 is loosened and the retaining ring moved so that the notch 104 aligns with the groove 100 in

which the type bar is to be inserted or removed from. After the type bar has been removed or inserted the ring 101 is again moved to its normal position as shown in Fig. 14. The type bar which would normally occupy the groove which is in a stamping position when the type roll is in a normal position is preferably omitted as shown in Fig. 14.

The type bars 17' each preferably rest on a flat spring 105 (see Fig. 15) which is positioned in the grooves 100 so that when the type bars strike an object to print thereupon they will yield. By so resiliently mounting the type bars the life of the type thereupon will be greatly prolonged and a better impression will be made.

For inking the type bars after they have been moved to a stamping position I provide an inking roller 106 (see Figs. 4 and 5) which may be of any desired size. The inking roller may be made of any desired material and is shown as mounted on a plunger rod 107 which is reciprocatably mounted in a slide bearing 108 integral with the head 15. For applying ink to the roller 106 I have shown an ink carrying pad 109 mounted on a bracket 110 integral with the head 15.

For reciprocating the plunger rod 107 I have shown a lever 111 pivotally connected thereto adjacent the end opposite the inking roller 106. This lever 111 which comprises two telescopic sections is shown as pivotally supported by a bracket 112 rigid with the head 15. The lever 111 is adapted to be moved by a lever 113 to which it is pivotally connected by a link 114. The lever 113 is pivoted intermediate its length to an arm 112' on the bracket 112 and is provided at its free end with a roller 115 which projects downwardly and is positioned in a cam groove 116 formed in the annular member 30 (see Fig. 16). The slide bearing 108 is provided for a part of its length with an elongated slot 108' in which the lever 111 moves when actuating the plunger rod 107.

When the head 15 and the type rolls are in a normal or inoperative position as shown in Fig. 3 the plunger rod 107 is retracted and the inking roller does not contact with the type bars of the type drums but rests on the inking pad 109. As the head 15 and the type drums move towards a stamping position as shown in Fig. 4, the roller 115 is moved in a branch 117 of the cam groove 116 and through the medium of lever 111, link 114 and lever 113 causes the plunger rod 107 to advance and move the inking roller 106 over the face of the type bars which are to perform the stamping operation. As clearly shown in Fig. 16 the cam groove is of such a shape as to cause the plunger rod and the inking roller 106 to be fully retracted again before the type drum has reached a stamping position (see Fig. 5). As the head 15 and the type

drums return from a stamping position to the normal or inoperative position, the cam roller 115 travels in a branch 118 of the cam groove 116 and retains the plunger rod and inking roller in a retracted position until the device is again actuated to stamp an article.

For imparting horizontal movement to the head 15 and the type drums I provide an arm 120 (see Figs. 1, 4, 17, etc.) which is secured to the shaft 14 and is arranged in an enlarged boss 121 on the standard 13. The arm 120 is pivotally secured to one end of a link 122. The other end of the link is pivotally secured to a rotatable disk 124.

I prefer to pivot the arm 120 as at 123 to the link 122 in a resilient manner as shown in detail in Fig. 17 so that when the type drums strike the article to print thereupon the shock imparted to the whole device will not be destructive. As shown in Fig. 17 the link 122 is provided with a head 125 in which is provided an elongated aperture 126. Positioned in the aperture 126 I provide a block 127 through which the shank of the pivot 123 passes. At the opposite end of the aperture 126 I provide a slide 128 which includes a boss 129. A coiled spring 130 is positioned in the aperture 126 between the block 127 and the slide 129. To adjust the tension of the spring 130 I provide a set screw 131 in the end of the head 125 which contacts with the slide 123 and is adapted to be retained in a fixed position by a lock nut 132. Thus it will be seen that when the arm 120 comes to a stop when the type drums strike an article the link 122 may continue to move against the action of the spring 130 for a short distance.

The disk 124 is adapted to be rotated from gears through the medium of a reduction transmission indicated at 134. The transmission 134 may include any arrangement of gears desirable and is shown as adapted to be operated by a shaft 135 which is adapted to be rotated by a clutch 136. The clutch 136 includes a clutch spool 137 and is shown as adapted to be rotated by a shaft 138 supported in a bearing 139 on the base 12. The shaft 138 is shown as adapted to be rotated through the medium of a flexible coupling 140 by an electric motor 141. It will be understood that when desirable I may use a belt and pulley or a gear train to rotate the shaft 138.

For moving the clutch spool 137 to cause the clutch 136 to actuate the stamping device I provide a trip mechanism indicated generally at 142 and shown in perspective in Fig. 18. The trip mechanism 142 includes a pair of arms 143 and 144 which are secured to vertical shafts 145 and project from one side of the conveyor mechanism 11 into the path of the box or receptacle upon which it is desired to stamp. The shafts 145 are journaled in bearings 146 secured to the conveyor mechanism and in bearings 147 secured to the floor. Secured to the shafts 145 adjacent the bear-

ings 147 I provide arms 148 and 149, each of which are provided with an elongated aperture 150. The arms 148 and 149 extend from the shafts 145 in opposite directions to each other so that they will not be moved in the same direction.

Supported in bearings 151 and positioned in the apertures 150 of the arms 148 and 149 I provide a rod 152 which is pivotally connected at one end to an arm 153 which is pivotally mounted on a bearing 154 as at 155. On the rod 152 adjacent each of the arms 148 and 149 I provide an enlarged collar 156 against which the arms 148 and 149 are adapted to abut to move the rod 152. For retaining the rod 152 in a normal position I provide a coiled spring 157 which abuts one of the rod bearings 151 and abuts a collar 157' secured to the rod 152 as clearly shown in Fig. 18.

When a box enters the lidding machine in the direction indicated by the arrow in Fig. 3 it strikes and rocks the arm 144 and causes the arm 149 to move away from the adjacent collar 156 on the rod 152 as shown in Fig. 3, and does not move the rod 152. As the box continues to travel and fully enters the lidding machine it trips and rocks the arm 143 and causes it to move the arm 148 which in turn abuts the adjacent collar 156 of the rod 152 and causes the rod 152 to move, thereby moving the arm 153.

When a box enters the lidding machine in a direction opposite to that indicated by the arrow in Fig. 3 the action is just the opposite to that described, that is, the box strikes the arm 143 and causes the arm 148 to move away from the adjacent collar 156 and does not move the rod 152, but when the box strikes the arm 144 it moves and causes the arm 149 to abut the adjacent collar 156 on the rod 152 and moves the rod 152 which in turn moves the arm 153 in the same direction as when it is caused to move by the arm 143.

The arm 153 is slidably connected as at 158 to a rod 159 which is shown as supported in a bearing 160 and hinged intermediate its length as at 161. For restricting the horizontal movement of the rod 159 to one direction I provide a stop 160' which is integral with the bearing 160 and clearly shown in Fig. 2. The rod 159 is pivotally connected to a rocker arm 162 which is pivoted intermediate its length as at 163 and engages the clutch spool 137 as at 164. Thus when the arm 153 moves the rod 159 in the direction indicated by the arrow in Fig. 3 the spool 137 will be moved to cause the clutch 136 to engage and cause the stamping mechanism to be actuated.

When the stamping mechanism has completed a stamping operation and returned to its normal position, a lug 166 provided on the disk 124 strikes an upwardly extending arm 167 on the rocker arm 162 and causes the rocker arm to move the clutch spool 137 out

of engagement with the clutch 136 to discontinue the actuation of the stamping device.

The rocker arm 162 is provided with another upwardly extending arm 168 (see Fig. 2) which is connected by a rod 169 to an actuating lever 170 of a brake mechanism 171 which is adapted to operate on the end of the transmission shaft 135. Thus when the clutch spool 137 is disengaged from the clutch 136 the brake 171 is automatically applied to the transmission shaft 135 to immediately stop the actuation of the stamping device.

As the box is still in the lidding machine after the stamping mechanism has actuated and the arm 153 retains its clutch setting position, it is necessary to provide means to allow the rod 159 to return to its normal position when the lug 166 causes the clutch spool to move out of engagement with the clutch. To allow for this movement I prefer to construct the slack connection 158 of the arm 153 and the rod 159 as shown in detail in Figs. 19, 20 and 21. The end of the rod 159 is flattened as at 173 and provided with an elongated aperture 174, the outer end of which is provided with a notch 175. The arm 153 is provided with a bolt 176, the shank 177 of which is adapted to actuate in the elongated aperture 174 and the notch 175.

For normally urging the end of the rod 159 towards the arm 153 to retain the shank 177 in the notch 175 I provide a coiled spring 178 having one end attached to a lip 179 of the rod and having the opposite end anchored to the arm 153.

When the arm 153 is moved to actuate the clutch mechanism the shank 177 of the bolt 176 moves the rod 159 until the arc travel of the arm causes the shank to move out of the notch 175 into the elongated aperture 174 as shown in Fig. 20.

When the lug 166 of the disk 124 causes the clutch mechanism to be disengaged the rocker arm 162 moves the rod in a direction opposite to that indicated by the arrow in Fig. 3, and as the shank 177 of the bolt 176 of the arm 153 is positioned in the elongated aperture 174 the rod 159 moves independent of the arm 153 which cannot return to its normal position until after the box has been removed from the lidding machine (see Fig. 21).

When the box is removed from the lidding machine the arms 143 and 144 return to their normal positions and move the arm 153 back to its normal position so that the shank 177 of the bolt 176 is again positioned in the notch 175 whereupon the device is again in an initial position and set to be actuated by another box entering the lidding machine.

In Figs. 22 to 26 inclusive I have shown a modified means for positioning the type bars in a printing position. In this modified means the selective mechanism is shown as

on the opposite side of the conveyor to the stamping device, but it will be understood that with very little alteration it may be located on the same side as the stamping mechanism when desired.

5 This modified selective device as shown comprises three hand wheels 180, 181 and 182 which correspond to the type drums 17, 20 and 23 respectively. Each of the hand
10 wheels 180, 181 and 182 are adapted to be connected to the gears 18, 21 and 24 in exactly the same manner; therefore but one of the connections between the hand wheels and the gears will be described.

15 As shown in the accompanying drawings the hand wheel 182 is mounted to rotate a shaft 184 which is mounted in a bearing 185 secured to the side of the conveyor mechanism 11. A bevel gear 186 is secured to the shaft 184 and meshes with another bevel gear
20 187 on one end of a shaft 188 which is positioned in a bearing 189 integral with the bearing 185. Another bevel gear 190 is secured to the opposite end of the shaft 188 and is adapted to mesh with a bevel gear 191
25 secured to one end of a shaft 192 which is supported in bearings 193 secured to the conveyor frame. Another bevel gear 194 is secured to the opposite end of the shaft 192 and is adapted to mesh with a bevel gear 195
30 secured to a shaft 196 and is adapted to actuate the type drum 17.

As shown in Fig. 24 the bevel gear 195 which is adapted to actuate the type drum
35 20 is secured to a sleeve 197 which surrounds the shaft 196 and the bevel gear 195 which is adapted to actuate the type drum 23 is secured to a sleeve 198 which surrounds the sleeve 197.

40 The shaft 196 and the sleeves 197 and 198 are shown as supported in bearings 199 secured to the conveyor frame. A spur gear 200 is secured to the opposite end of the shaft 196 and spur gears 201 and 202 are secured
45 to the opposite ends of the sleeves 197 and 198 respectively.

When the modified selective device is used the racks 25, 26 and 27 previously described are replaced by racks 203, 204, and 205, which
50 in addition to being positioned in the bearing 29 are positioned adjacent their lower ends in a bearing 206 which may be secured to the standard 13 in any desired manner. The racks 203, 204, and 205 in addition to
55 having gear teeth adjacent their upper ends similar to the racks 25, 26 and 27, are provided with similar gear teeth adjacent their lower ends as indicated at 207.

The bearing 206 is provided with a plurality of apertures as indicated at 208 through
60 which the gears 200, 201 and 202 are adapted to extend to engage the racks 203, 204 and 205 respectively so that when the hand wheels 180, 181 and 182 are operated the gears 200,
65 201 and 202 will move the racks 203, 204

and 205 to cause the gears 18, 21 and 24 to actuate to position the type drums in the same manner as previously described.

As clearly shown in Figs. 25 and 26 the hand wheels 180, 181 and 182 are loosely
70 mounted on the shafts 184 and are each provided with a pin 209 which extends into a groove 210 formed in the shafts 184. The pins 209 when in an initial position are adapted to abut a stop 212 formed in the grooves
75 210 so that upon rotation of the hand wheels in one direction the pins 209 will rotate the shafts 184 but will not rotate the shafts when they are returned to their initial position.

For returning the hand wheels to their initial positions I provide clock springs 213
80 positioned in housings 214 secured to the bearings 185. One end of the springs 213 are secured to the hand wheels as at 215 and their opposite ends are anchored to the housings 214 as at 216.

Secured to the housings 214 I provide dials 217, upon which is provided indicia matter as indicated at 218 corresponding to the indicia upon the type bars of the type drums
85 17, 20, and 23, with which the corresponding hand wheel is connected. Each of the hand wheels is preferably provided with a pointer 219 and stops 220 are provided on the dials 217 for the pointers 219 to abut when
90 the hand wheels are in their initial position.

For returning the racks 203, 204 and 205 to their initial position after the head 15 has started towards a stamping position, I provide
95 coiled springs 221 anchored at one end to a bracket 222 on the standard 13 and secured at their opposite ends to an arm 223 provided on each of the racks. The arms 223 also act as stops to limit the downward movement of the racks by abutting the bearing
100 206 as shown in Fig. 22.

From the foregoing description it will be apparent that when the hand wheels are released after being moved to position a certain type bar they will immediately return
105 to their initial positions and that the racks will return to their initial positions as soon as the gears 18, 21 and 24 move out of engagement with them as the head 15 moves toward
110 a stamping position. Thus the type positioning mechanism is automatically reset to again be actuated to position the type.

The type drums 17, 20 and 23 will be returned to their initial positions when the
120 pawls 37 are moved out of engagement with the gears 18, 21 and 24 by the trigger 42 as previously described.

Having thus described my invention, I claim:

1. In combination with a conveyor, a printing member, means operated by an article on said conveyor to move said printing member against an article on said conveyor, said printing member including shiftable char-
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acters, and key operated selective means for moving said characters to printing position.

2. In a device of the class described, a conveyor mechanism adapted to move articles, a device adapted to operate upon articles on said conveyor, means to actuate said device, operating means for said actuating means and means to render said operating means active on movement of an article in either of two directions on said conveyor.

3. In a device of the class described, a conveyor mechanism adapted to move articles therealong, a stamping device adjacent said conveyor and adapted to stamp upon an article on said conveyor, said stamping device including a movable type carrier, means to move said type carrier to and from a stamping position, a clutch mechanism, a source of power, a trip mechanism adapted to actuate said clutch mechanism to cause said stamping device to operate and means to actuate said trip mechanism by an article moved on said conveyor in either of two directions.

4. In a device of the class described, a conveyor, a stamping device adjacent said conveyor and adapted to stamp upon an article on said conveyor, means to move said stamping device to and from a stamping position, a clutch mechanism, a trip mechanism adapted to actuate said clutch mechanism to cause said stamping device to operate and means to actuate said trip mechanism by an article being moved on said conveyor in either one of two directions.

5. In a device of the class described, a conveyor mechanism adapted to move articles therealong, a stamping device adjacent said conveyor and adapted to stamp upon an article on said conveyor, means to move said type carrier to and from a stamping position, and means to cause said stamping device to operate when an article is moved on said conveyor in either one of two directions.

6. In a device of the class described, a conveyor mechanism adapted to move articles therealong, a stamping device adjacent said conveyor and adapted to stamp upon an article on said conveyor, said stamping device including a movable type carrier, means to move said type carrier to and from a stamping position, said means including a speed reduction transmission, a clutch mechanism and a source of power, a trip mechanism adapted to actuate said clutch mechanism to cause said stamping device to operate, said trip mechanism including means whereby it will be actuated by an article being moved on the conveyor in one direction and other means whereby it will be actuated by an article being moved on said conveyor in the opposite direction.

7. In a device of the class described, a conveyor mechanism adapted to move articles therealong, a stamping device adjacent said conveyor and adapted to stamp upon an ar-

tle on said conveyor, said stamping device including a movable type carrier, means to move said type carrier to and from a stamping position, said means including a clutch mechanism and an electric motor, a trip mechanism adapted to actuate said clutch mechanism to cause said stamping device to operate, said trip mechanism including a pair of spaced arms projecting in the path of an article being moved upon said conveyor, one of said arms being adapted to actuate said trip mechanism when an article is being moved on said conveyor in one direction and the other of said arms being adapted to actuate said trip mechanism when an article is being moved on said conveyor in the opposite direction.

8. In a stamping device of the class described, a base, a shaft mounted for rotation above said base, a head on said shaft, a printing member supported by said head, means to move said member to and from a stamping position, said means including a clutch mechanism and means to drive said clutch mechanism, said mechanism including a brake, means to move said member and means to operate said clutch and said brake when said member has moved to and from stamping position.

9. A stamping device including a pivoted arm, a movable type carrier mounted on said arm and a plurality of movable type drums on said carrier, means to move said type carrier to and from a stamping position, means to mount each of said type drums for independent movement, means to rotate each of said drums, means to normally urge said type drums to normal position, means to hold said drums in set position and means to release said last mentioned means.

10. A stamping device including a movable type carrier and a plurality of movable type drums, a plurality of type bars supported by said type drums, means to move said type carrier to and from a stamping position, an independent shaft for each of said type drums, a gear on the end of each of said shafts, separate means to rotate each of said gears, a plurality of pawls adapted to engage each of said gears to normally restrict their movement in one direction, a single trigger adapted to engage all of said pawls and move them out of engagement with said gears when said type carrier is returning from a stamping position, and means to return said gears and said type drums to their normal positions when said pawls are released.

11. A stamping device including a movable type carrier and a plurality of type drums, a plurality of type bars supported by said type drums, a plurality of keys, means operated by said keys for selectively positioning said type bars for printing, means to ink a positioned type bar, said inking means

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including an inking roller, means to move said roller and means to actuate said roller moving means.

12. A stamping device including a movable type carrier and a plurality of type holding members, a plurality of removable type supported by said type members, means for selectively positioning said type for printing, means to ink the type, said inking means including an inking roller, a rod on which said roller is mounted, said rod being mounted for reciprocable movement in a bearing movable with said type carrier, a stationary cam, a lever mechanism movable with said type carrier, said lever mechanism being connected to said plunger rod and adapted to be actuated by said cam when said type carrier moves to a stamping position to cause said inking roller to advance across the face of said selected type.

13. A stamping device including a movable type carrier and a plurality of movable type drums, a plurality of type bars supported by said type drums, means for selectively positioning said type bars for printing, means to ink a selected type bar while said type carrier is moved to a stamping position, said inking means including an inking roller, said roller being mounted on a plunger rod, said plunger rod being mounted for reciprocable movement in a bearing movable with said type carrier, a stationary cam, a lever mechanism movable with said type carrier, said lever mechanism being connected to said plunger rod and adapted to be actuated by said cam when said type carrier moves to a stamping position to cause said inking roller to advance across the face of said selected type bar and to be retracted to an inoperative position before said type carrier has completed its movement towards a stamping position, an ink carrying pad, said inking roller in its inoperative position being disposed on said ink carrying pad.

14. A stamping device including a movable type carrier and a plurality of movable type drums, a plurality of type bars supported by said type drums, means to move said type carrier to and from a stamping position, each of said type drums being mounted on an independently movable shaft, a gear on the end of each of said shafts, separate means to rotate each of said gears, a bracket movable with said type carrier, a plurality of pawls supported by said bracket and adapted to engage each of said gears to normally restrict their movement in one direction, a single trigger adapted to engage all of said pawls and move them out of engagement with said gears when said type carrier is returning from a stamping position, a housing on each of said gears, a clock spring in each of said housings, one end of each of said springs being secured to their corresponding gears and having their opposite ends anchored to

said bracket, a stop on each of said housings adapted when said gears are in a normal position to abut a portion of said bracket, said springs being adapted when said pawls are released to return said gears to their normal positions and thereby return said type drums to their normal positions.

15. In combination with a conveyor, a printing member, means to move said printing member against an article on said conveyor, said printing member including shiftable characters, means actuated by an article on said conveyor for moving said characters to printing position, a recording station and means to record at said station the character selected for printing.

In testimony whereof, I hereunto affix my signature.

ERNEST E. EVANS.

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