

Feb. 10, 1953

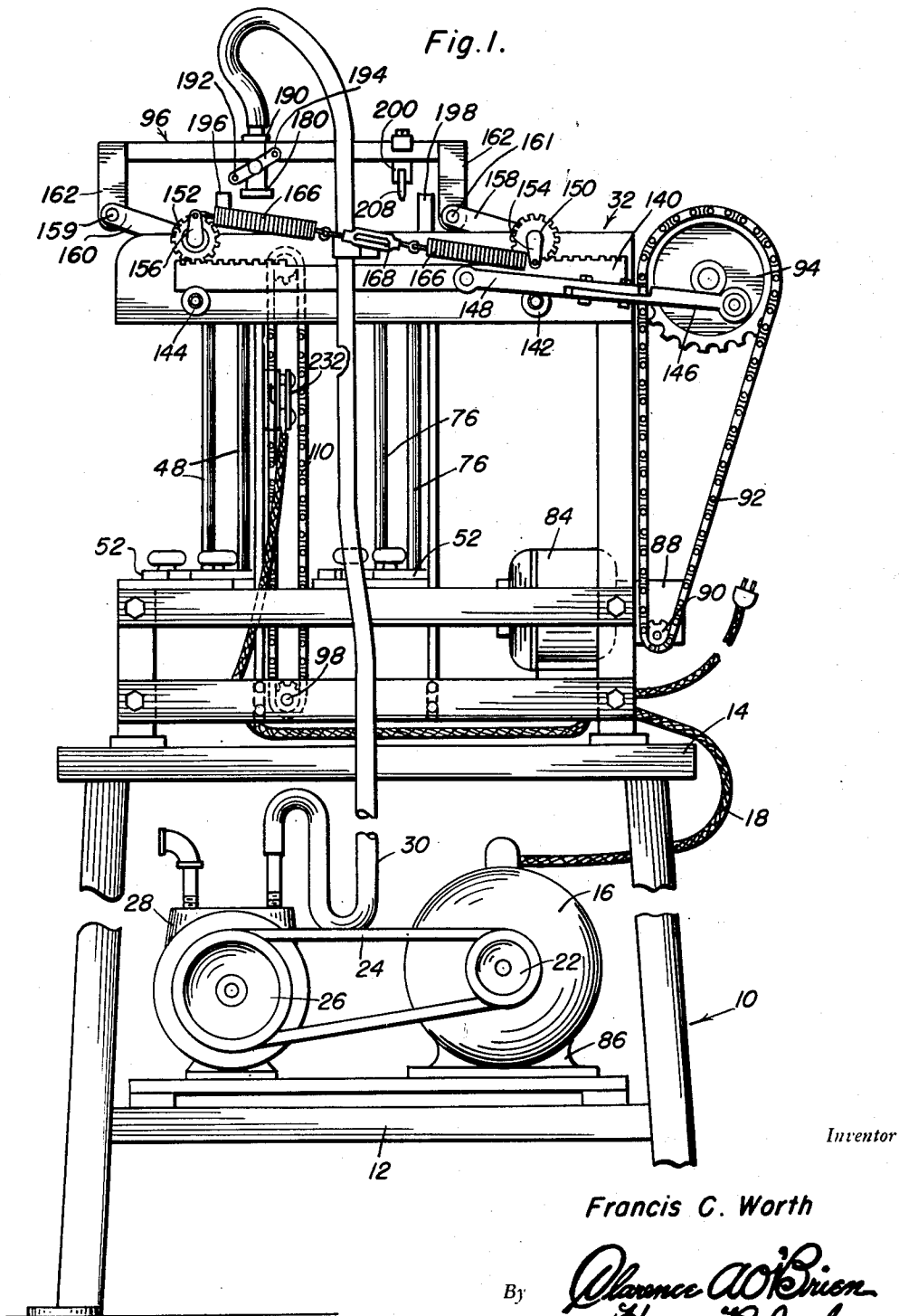
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2,627,809

LABEL PICKUP AND PRINTING MACHINE

Filed Aug. 15, 1947

6 Sheets-Sheet 1



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LABEL PICKUP AND PRINTING MACHINE

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6 Sheets-Sheet 2

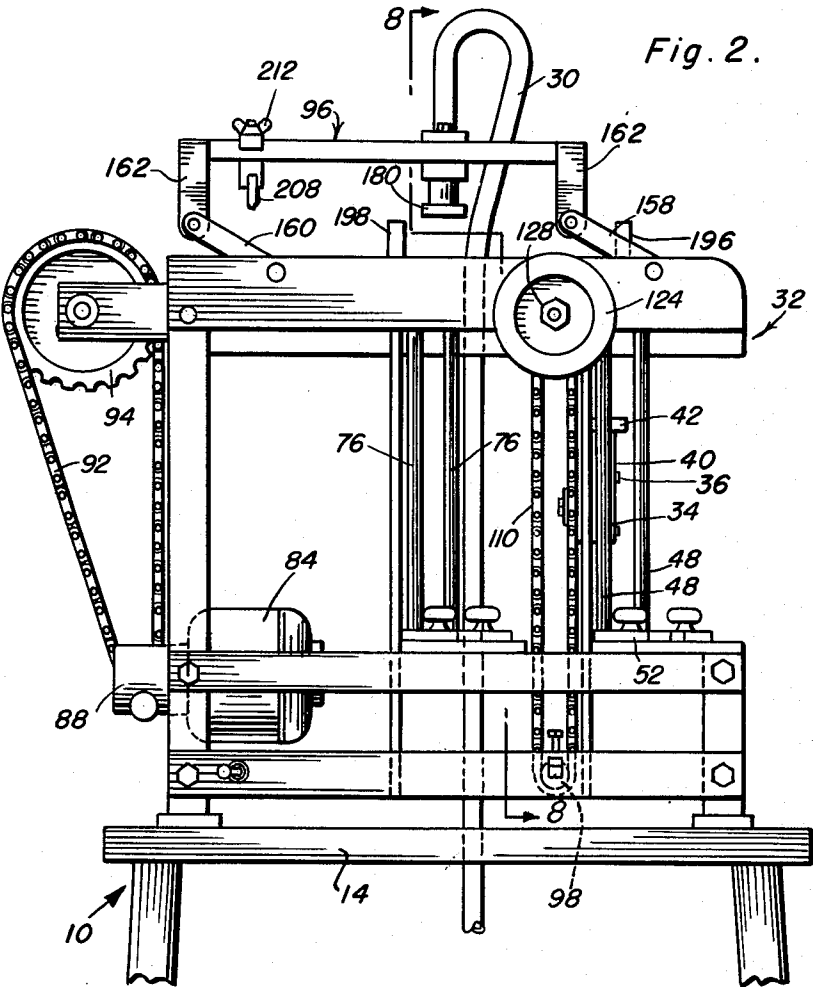


Fig. 2.

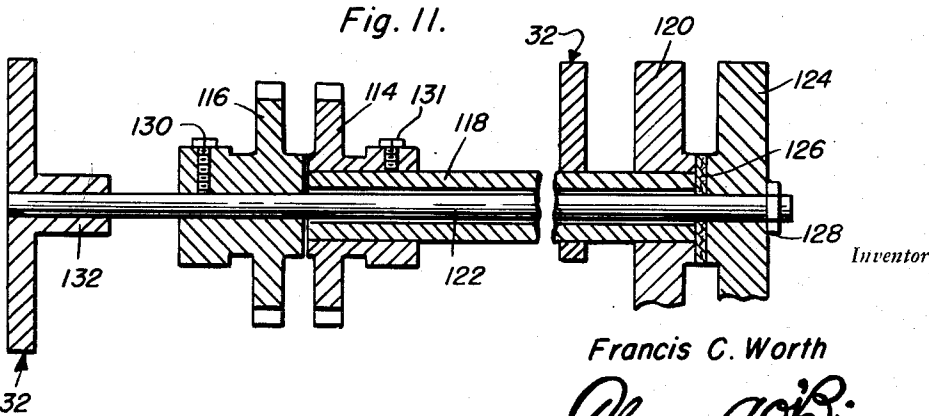


Fig. 11.

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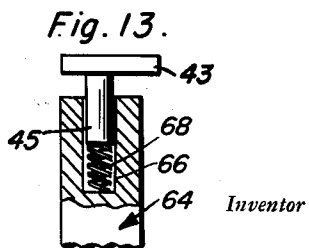
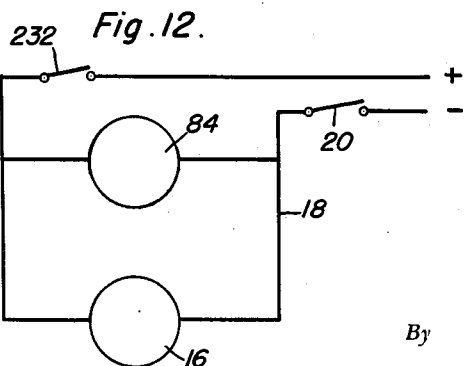
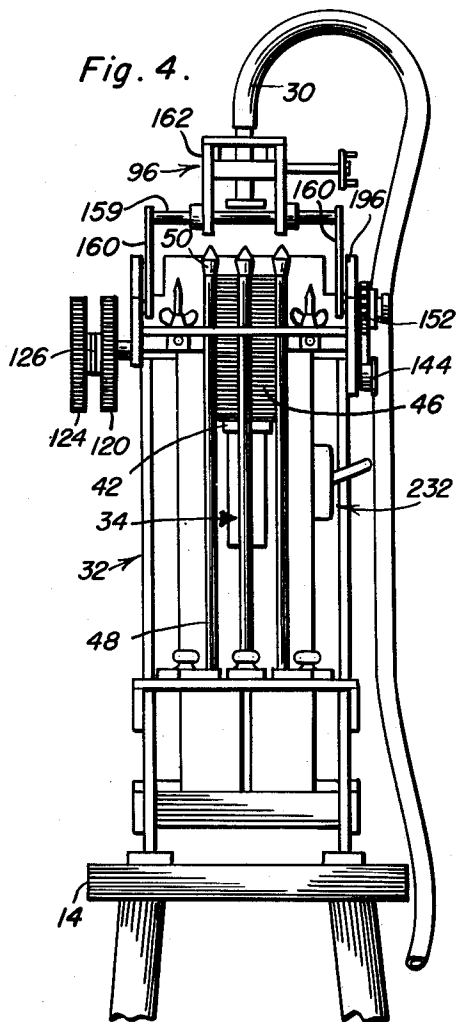
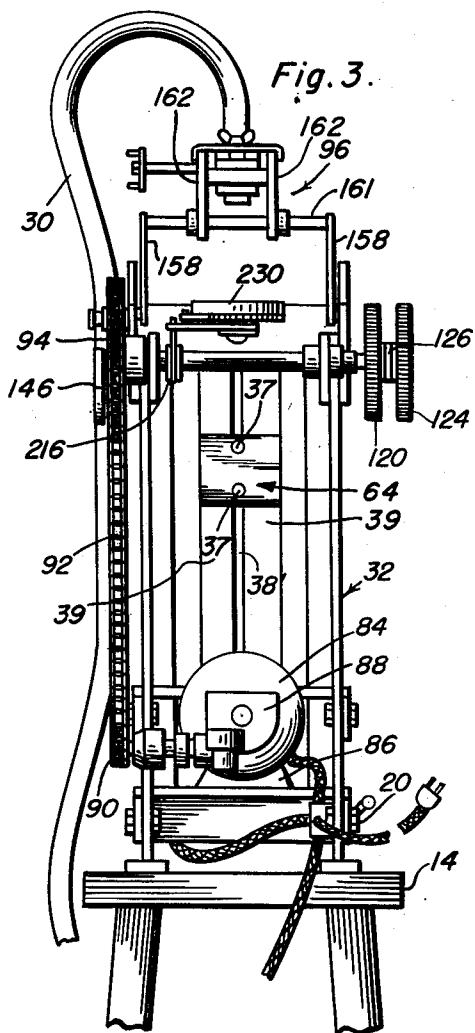
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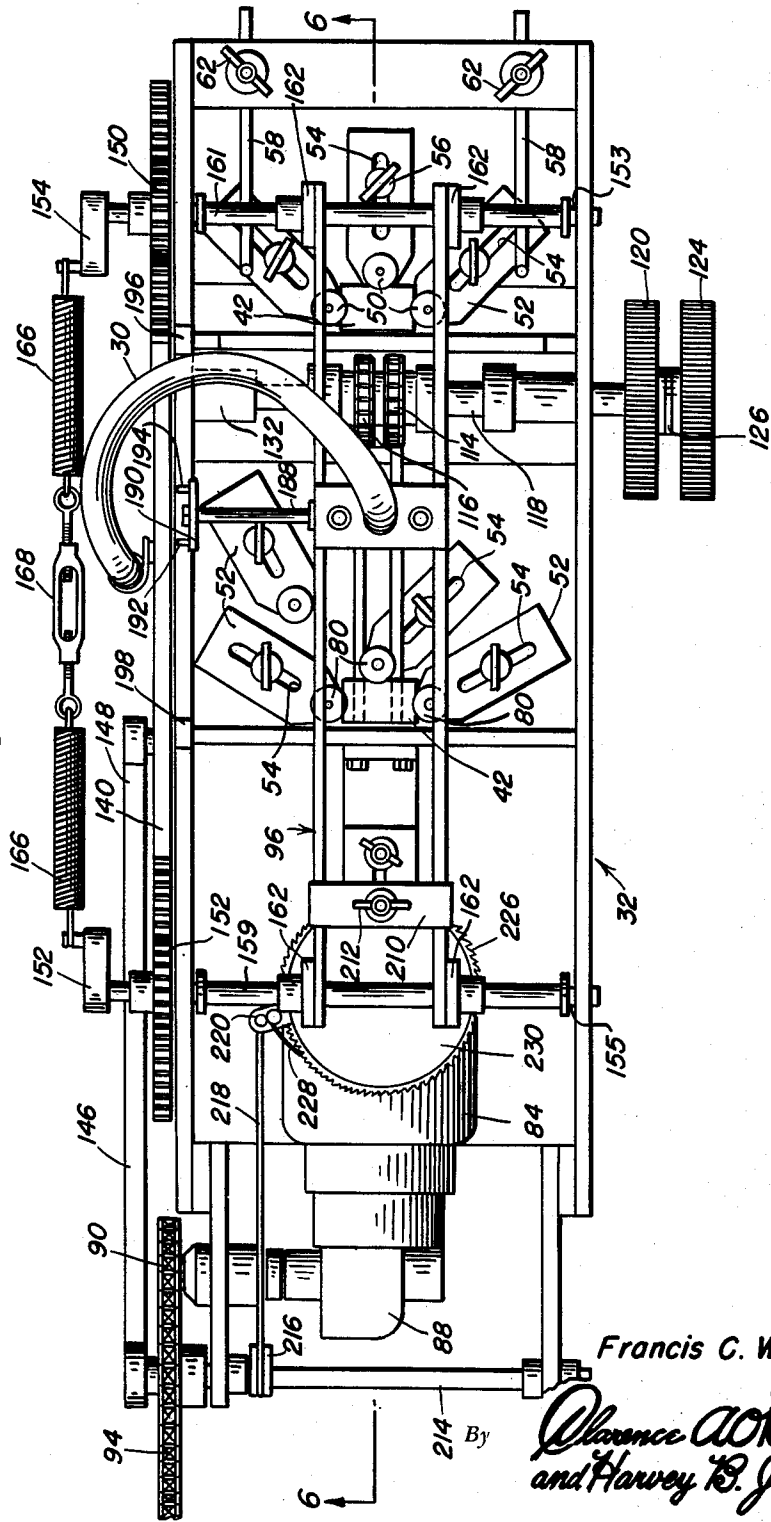
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LABEL PICKUP AND PRINTING MACHINE

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Fig. 5.



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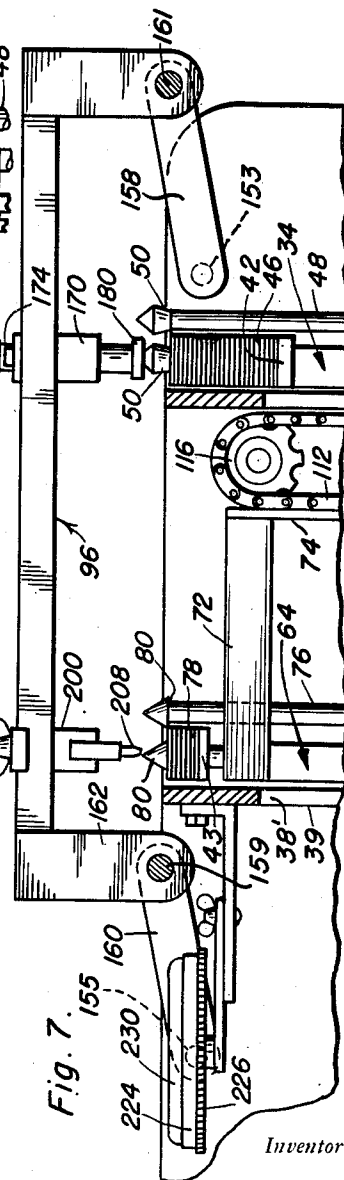
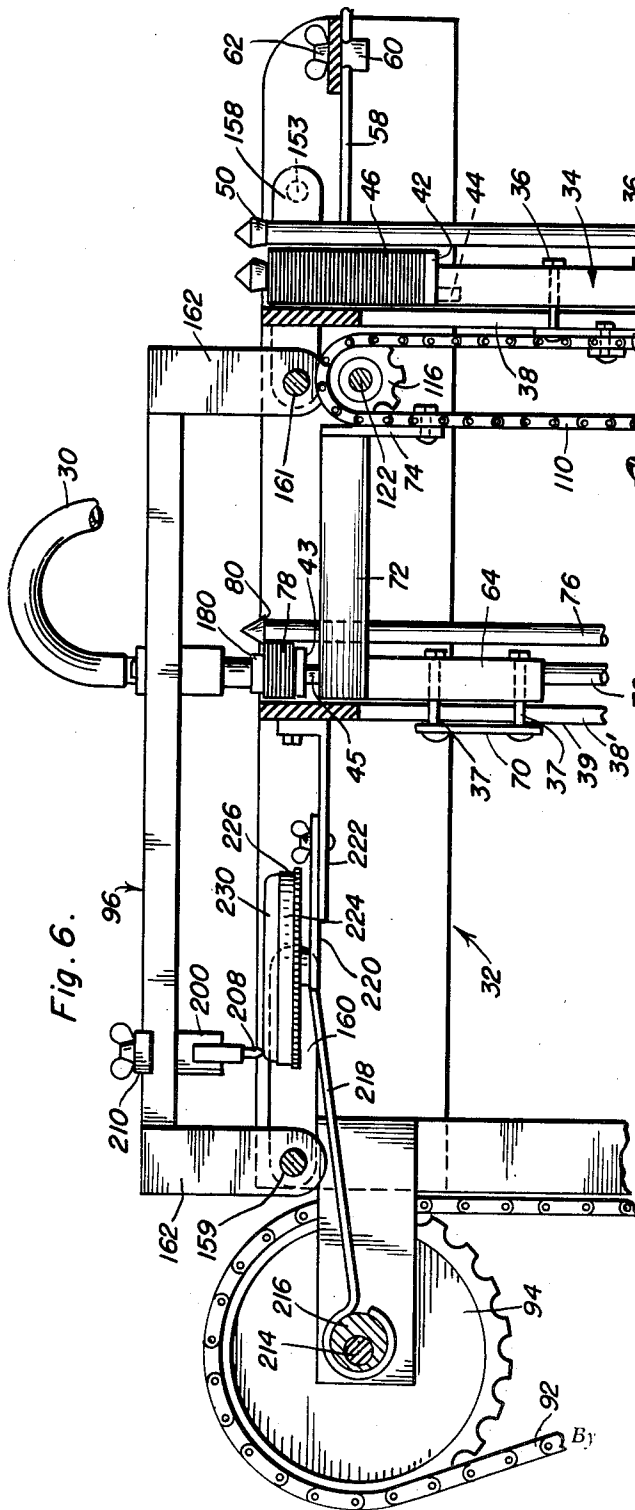
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LABEL PICKUP AND PRINTING MACHINE

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LABEL PICKUP AND PRINTING MACHINE

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6 Sheets-Sheet 6

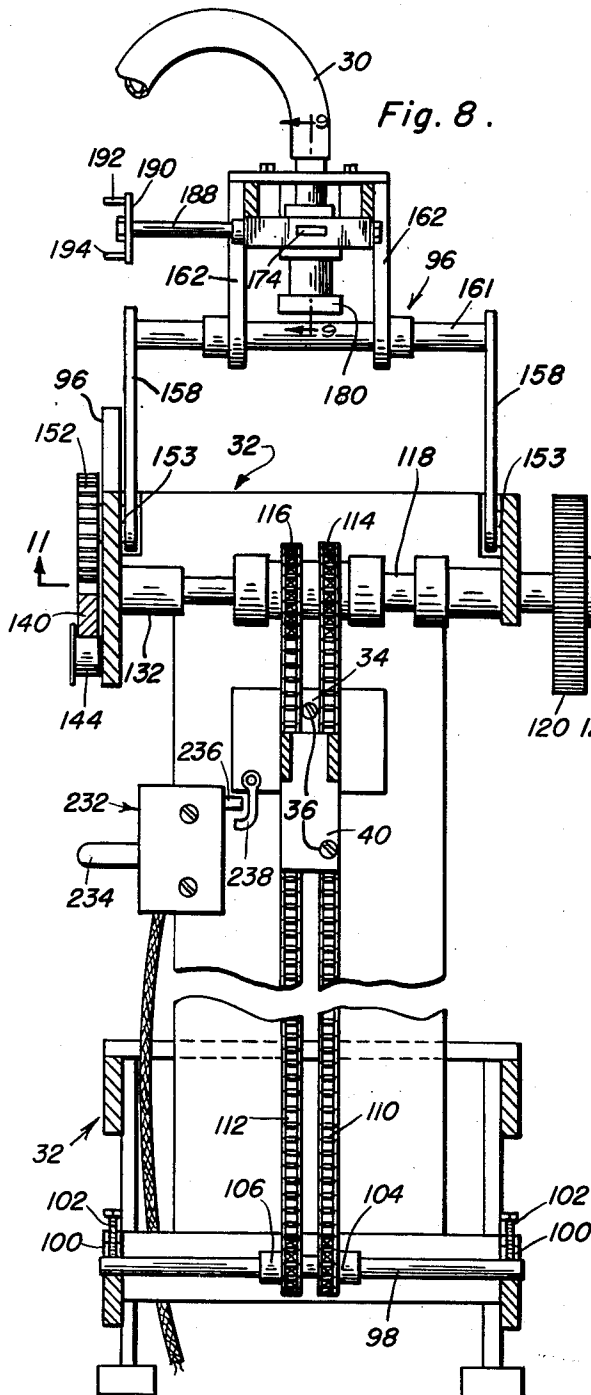


Fig. 8.

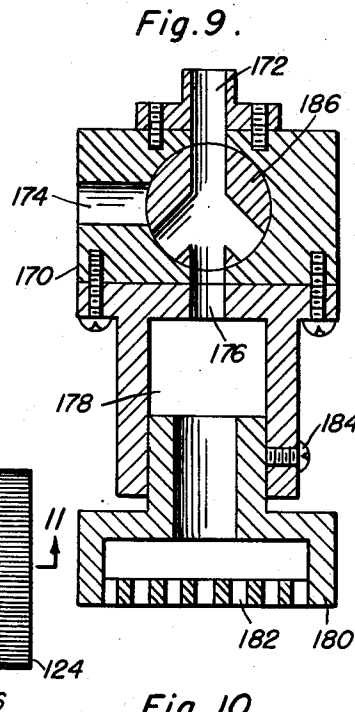


Fig. 9.

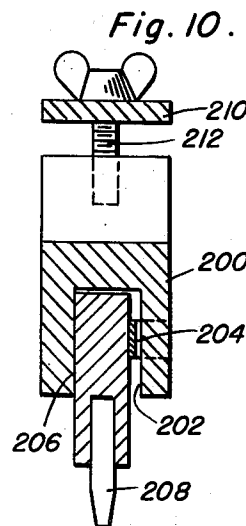


Fig. 10.

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UNITED STATES PATENT OFFICE

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LABEL PICKUP AND PRINTING MACHINE

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Application August 15, 1947, Serial No. 768,837

24 Claims. (Cl. 101—287)

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This invention appertains to novel and useful improvements in devices for lifting, stacking and simultaneously stamping the top label of a stack thereof.

An object of this invention is to lift the top label from a supply stack of labels, simultaneously code or stamp the top label in a second stack of labels, thence place said first-mentioned label upon said second stack of labels for subsequent coding.

Another object of this invention is to provide means for carrying out the above mentioned function.

Another purpose of this invention is to provide improved means for retaining the labels in the said first or supply stack and for urging the marginal edges of each individual label inwardly upon lifting the same so that it may be readily lifted from the supply stack to be deposited on the top of the second stack or printing stack.

Another object of this invention is to provide means for retaining the second stack of labels in an orderly fashion and retain the upper label thereof in a selected position through the utility of flanges extending from the upper portions of guide rods, the flanges being engageable with the marginal edges of the top label thereof.

Another purpose of this invention is to provide a swinging arm having the label lifting means and stamping means positioned thereon.

Another purpose of this invention is to provide a rotating ink supply, rotated a predetermined amount in accordance with each swing of the said swinging arm.

A still further object of this invention is to provide inertia reducing means in association with the said swinging arm.

Another purpose of this invention is to provide an improved conveyor system including resiliently biased platform for seating the bottom label of the supply stack thereon and a second platform for receiving labels on a second stack, said platforms being conveyed simultaneously a distance equal to the thickness of a single label upon deposit of a single label on the second stack which is disposed on the second platform.

Another purpose of this invention is to provide means operative with each platform for limiting the travel of each platform relative to its associated support, whereby the resiliency of the spring biasing means associated therewith is rendered ineffective when the inherent resiliency of a pack of labels reaches a predetermined value, so that the said inherent resiliency is of such a value as to be requisite for the efficient operation of the invention.

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Another purpose of this invention is to provide auxiliary guide means utilized in conjunction with labels of a large size, said guide means being adjustable in nature.

Another purpose of this invention is to provide means including a friction clutch whereby one of said platforms may be lifted while the other platform is held stationary, thereby adjusting the device to be utilized in conjunction with any number of labels within the capacity of the machine.

Another purpose of this invention is to provide automatic cutoff means utilized in association with suction label lifting means, arranged so that the suction means is rendered inoperative upon a selected elevation of one of the platforms.

Still another purpose of this invention is to provide automatic valve means for controlling the suction in the lifting means in accordance with the position of the swinging arm.

Another purpose of this invention is to stamp the top label of the printing or coding stack of labels and leave the stamped labels in a convenient collocation for subsequent easy handling.

Another purpose of this invention is to provide a relatively simple, inexpensive device of the character to be described which renders coding labels inexpensive and efficacious, utilizing a specially adapted sharp faced line of resilient type.

Ancillary objects and features of novelty will become apparent to those skilled in the art, in following the description of the preferred form of the present invention, illustrated in the accompanying drawings, wherein:

Figure 1 is an elevational side view of the preferred form of the present invention;

Figure 2 is an elevational view of the invention shown in Figure 1, taken from the reverse side of the device;

Figure 3 is an end view of the invention shown in Figure 2;

Figure 4 is an elevational end view of the invention shown in Figure 2, taken from the opposite side from the showing in Figure 3;

Figure 5 is a plan view of the preferred form of the invention;

Figure 6 is an enlarged fragmentary longitudinal sectional view of the invention shown in Figure 5 and taken substantially on the line 6—6 thereof and in the direction of the arrows;

Figure 7 is a fragmentary sectional view of the invention shown in Figure 5, similar to the showing of Figure 6, illustrating the swinging arm in a second operative position of its normal cycle of operation;

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Figure 8 is a sectional view of the invention shown in Figure 2 and taken substantially on the line 8—8 of Figure 2 and in the direction of the arrows;

Figure 9 is an enlarged sectional detail of construction illustrating the valve means used in conjunction with suction pickup device and taken substantially on the line 9—9 of Figure 8 and in the direction of the arrows;

Figure 10 is an enlarged sectional view of the stamping means positioned on the swinging arm;

Figure 11 is a longitudinal sectional view of the concentric shaft and taken substantially on the line 11—11 of Figure 8 and in the direction of the arrows;

Figure 12 is a wiring diagram illustrating the electrically operating system for actuating all of the electrical elements of the device; and

Figure 13 is a fragmentary elevational view of one of the resiliently biased platform forming part of the invention.

In many industries, it is essential that labels and the like be coded or stamped with either the date or a code number indicating certain data. Accordingly, it has become necessary for packers or bottlers to either manually stamp each individual label or mechanically stamp said labels prior to placing the same on bottles, receptacles and the like. It is within the purview of the present invention to provide a mechanical device for stamping the top layer of a stack of labels and the like, and neatly place the stamped labels in a stack prior to placing the said stamped labels in a device for fixing the same to a bottle, receptacle, or other article.

Many difficulties arise in attempting to stamp the top label of a stack of labels, which are efficaciously coped with both successfully and economically in the present invention. Referring to Figure 1, there is provided for convenience a table 10 having a top 14 and a shelf 12 beneath said top. Positioned on the shelf 12 is a prime mover, preferably a small motor 16 having a line 18 with a switch 20 therein extending therefrom. A pulley 22 is positioned on the shaft normally associated with an electric motor and a belt 24 extends therearound. This belt also extends around a second pulley 26 which is positioned on a small conventional suction pump 28. A flexible hose or conduit 30 extends from the inlet side of the said pump 28, whose function will be described in detail as the description proceeds.

Positioned on the top 14 is a mechanism for treating labels as outlined in the purposes and objects of the present invention. A support or frame, generally indicated at 32, is composed of any suitable material such as angle iron. Any number of braces and supporting brackets may be utilized in conjunction with the support 32 in accordance with sound engineering, design and design principles.

Means for supporting a stack of labels

A housing or support which forms an elevator 34 is provided with a plurality of bolts 36 extending therethrough which project through a slot 38 formed between a pair of support members for the supports broadly indicated at 32. A back plate 40 forming a part of said support 34 is attached to the bolts 36, being raised and lowered therewith.

A platform 42 is detachably secured to the said housing 34 through the medium of a pin 44 received in a suitable bore (unnumbered) in the said support 34. A plurality of labels or the like

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46 are placed on the said platform 42 in a neatly stacked pile or row. A plurality of guides 48 are associated with the stack of labels 46 and are in the form of rods having specially contoured cams at the terminal portions thereof. The said cam surfaces 50 are frusto-conical in shape, engaging the top label in the stack of labels 46 upon removal thereof. A plurality of the said rods 48 are supplied in selected positions about the marginal edges of the labels in the supply stack 46.

The opposite ends of the said rods 48 (see Fig. 2) are supplied with feet 52 having apertures 54 therein and set screws in said apertures. Going to Figure 5, it will be seen that said apertures 54 are preferably slots, whereby easy and dextrous adjustment of the said rods may be effected. Of course, the set screws 56 extend through the slots 54 and terminate in suitable threaded apertures in the table portion of the support 32.

Auxiliary guides 58 extend through swivel type perches 60 provided at the end of the said support 32. Set screws 62 are associated with each individual auxiliary guide for the purpose of affording a clamping means for utility with the swivel perches 60. As mentioned above, the platforms 42 are detachable in nature. When labels of selected shapes and sizes are desired to be stamped, separate platforms especially designed to suit the contour of the individual different labels may be supplied. When labels of large dimensions are utilized, the guides 58 are also brought into play.

Means for receiving a second stack of labels

A second housing or elevator 64 is supplied with a bore 66 therein. (See Fig. 13). The platform 43 which is identical in structure to the platform 42 and having the rod 45 extending therefrom is provided for detachable use in association with said bore 66 of the elevator 64. Means for resiliently biasing the said platform 43 outwardly of the said housing 64 is provided. This means is preferably a coil spring 68 seated in the base of said bore 66 and engageable with the under surface of the rod or pin 45. A pair of bolts 37 extend through the elevator or housing 64 and attach a plate 70 therewith in spaced relation relative to the housing 64. This plate is received on the opposite side of a pair of support members 39 while the housing is utilized diametrically thereof. Of course, the bolts 37 extend through the resulting slot 38' identical to that slot described in connection with the above mechanism. An arm 72 is rigidly secured to the said housing 64 and has a right angular link 74 extending therefrom. The function of the said arm 72 and link 74 will be described hereinafter.

Guide means for the second or printing stack of labels 78 positioned on the platform 43 is provided. This guide means may be noted as a plurality of rods 76 which are adjustably received on and within the said support 32 as described in conjunction with the guide rods 48. The upper portion of each of the said rods 76 is provided with a flange 80 which is fashioned on the lower portion of a frusto-conical head member thereon. These flanges 80 are adapted to engage the marginal edges and top surface adjacent the edges of the upper label in the said stack of labels 78.

One of the functions of the machine disclosed herewith is to lift the top label from the supply stack 46 and deposit it on the top label of the said printing stack 78. It will be noted that the cam surfaces 50 permit of such actuation while re-

stricting the lifting to but the upper or top label thereof. Since the cam surfaces engage the edges of the top label of the stack 46, a lifting force of the top label applied on the upper surface of the top label spaced from the edges, pulls the top label from the stack, flexing it as the edges of the top label are held momentarily by the cams. It is also noted that the flanges 80 engage the marginal edges of the top label of the stack 78, thereby retaining the label in the selected, desired stacked position.

Means for synchronously and adjustably actuating said platform

A motor 84 is supplied with a mount 85 for support purposes. A transmission 88 of the reduction type is supplied in association with the said motor 84 while a gear 90 is driven from the power take-off shaft of the said transmission 88. A chain, conventional in nature, 92 extends around the said gear 90 and another suitable gear 94 which is journaled in the said support 32 for the purpose of swinging or actuating a swinging arm mechanism, generally indicated at 96. Now, this swinging arm mechanism 96 is utilized for the purpose of picking up the top label from the stack 46 and depositing the same on the stack 78. With the above description as a background, the means for synchronously and adjustably positioning the said platforms 42 and 43 may be more readily ascertainable.

Referring to Figure 8, it will be seen that a shaft 98 is journaled in suitable apertures 100 in the said support 32. Set screws 102 may be supplied in conjunction with the said apertures 100 and shaft 98 for the obvious purpose of adjustment. Gears 104 and 106, respectively, are rotatably journaled on the said shaft 98 and have chains 110 and 112 extending therearound. These shafts extend also around gears 114 and 116, respectively, which are disclosed in Figure 11.

The said gear 114 is adjustably fixed to a hollow shaft 118 which is suitably journaled in a cross member of the said support 32. A knurled knob 120 is pressed or otherwise fixed to the said hollow shaft 118 for hand actuation thereof.

A shaft 122 extends in the bore of the said hollow shaft 118 and also has a knurled knob 124 fixed to the terminal portion thereof. Friction disks or the like 126 are supplied between the said knobs 120 and 124. Means for adjustably regulating the frictional resistance between the said plates is provided. This means is obviously the nut 128 positioned on the end threaded portion of the said shaft 122.

The said gear 116 is adjustably positioned on the said shaft 122 through the medium of the set screw 130, while the end of the said shaft 122 is suitably journaled on a bearing 132 provided as a portion of the said support 32. The gear 114 is fixed adjustably to the hollow shaft 118 by the set screw 131. Independent actuation of each of the said gears 114 and 116 may be effected by manipulation of the knurled knobs 120 and 124. It is also evident that upon application of a force below a predetermined value, through one of the said gears 114 or 116, the other gear will be rotated due to the friction clutch means 126.

As a single label is deposited from the stack 46 to the stack 78, the platform 43 (see Fig. 13) is urged a predetermined amount, equal to the thickness of the single label. As soon as the platform 43 is urged downwardly or within the housing 64 a predetermined distance, the bottom portion or surface of the said platform 43 will

engage the upper surface of the said housing 64, thereby forming means for limiting the travel of the said platform relative to the associated housing 64. The resiliency of the said spring 68 is so calculated as to be rendered ineffective at such a time that a predetermined number of labels is placed thereupon. At this predetermined or critical circumstance, the stack of labels 78 is of such a height as to maintain a certain amount of inherent resiliency sufficient to compensate for the loss of resiliency of the said spring 68.

When the top label from the stack 46 is placed upon the stack 78, the said housing 64 is lowered a distance equal to the thickness of the said label by pressure of the head 180 which deposits the label on the stack 78. This rotates the gear 116 and housing, also urging the chain 112 downwardly in endless conveyor fashion. This movement is transmitted through the medium of the concentric shaft construction, described above, to the chain 110. The said arm 72 and link 74 are rigidly secured to the said chain 112 through the medium of a bolt and nut construction for the transmission of this movement. Since the two chains 110 and 112, respectively, are connected together through the medium of the clutch drive 126, the said chain 110 will also be moved the same amount and in the same direction. Now, since the back plate 40 associated with the said elevator or housing 34 is secured to the said chain 110 by means of a bolt and nut construction, the housing or support 34 being fixed to the chain 110 moves an amount equal to the movement of the housing 64.

It is essential that the platforms 42 and 43 be in substantially exact adjusted positions upon actuation of the device. Accordingly, by turning the knob 120 relative to the knob 124, overriding the friction clutch 126, the selected relative positions of the platforms may be adjusted by ultimately moving the chain 110 with respect to the chain 112.

Means for lifting and simultaneously printing; depositing and simultaneously inking

A rack gear 140 is slidably positioned on a pair of rollers 142 and 144, respectively, which are, in turn, journaled to the support 32 in the upper portion thereof. The hereinbefore mentioned gear 94 has an eccentrically mounted push rod 146 pivotally associated therewith. This push rod is adjustably secured to a connecting rod 148 which is fixed and adapted to reciprocate the rack gear 140.

A pair of small gears 150 and 152, respectively, are journaled in the support and are in operative engagement with the teeth of the said rack gear. Eccentrics 154 and 156, respectively, are secured the said gears 150 and 152 for a purpose to be described hereinafter. The said small gears 150 and 152, respectively, are journaled on suitable shafts or trunnions 153 and 155 and parallel links 158 and 160, respectively, are secured to these shafts. A frame member having four depending legs each indicated at 162 is pivoted to the terminal portion of the links 158 and 160 by means of the shafts 159 and 161, respectively, which are secured to the pairs of parallel links 158 and 160. This construction provides the above described swinging arm.

The said eccentrics 154 and 156, respectively, have a pair of springs 166 secured thereto, and the said springs are connected by a turnbuckle 168 for adjusting purposes. It will be noted that

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as the swinging arm 96 travels through its arc of a circle, the springs 166 will be tensioned at the end portions thereof. The tensioning of these springs tends to decelerate the swinging arm at the ends of its travel.

In Figures 8 and 9, it will be noted that a three-way valve and suction pickup means is supplied on the swinging arm 96. The valve construction is readily ascertainable from an inspection of Figure 9 wherein there is disclosed a valve casing 170 having a plurality of channels therein. The first channel 172 is adapted to receive the terminal portion of the flexible conduit 30 thereon. The second channel 174 is utilized as an exhaust port, while the third channel 176 communicates with the suction chamber 178. The said suction chamber is in direct communication with a detachable head 180 and a plurality of slots 182 therein. As suction is applied to the said channel 172, the said suction is then transmitted through the slots 182 to the top label of a single stack of labels. The said head 180 is detachably received in the suction chamber 178 by suitable means such as a friction screw 184 or the like. Of course, other suitable heads may be supplied in conjunction with the suction chamber 178 as dictated by the size of labels utilized in the stacks 46 and 78.

A valve core 186 is positioned within the housing 170 and an actuating arm 188 extends therefrom. A transverse rod 190 is rigidly secured to the said actuating rod or arm 188, having lugs 192 and 194, respectively, extending therefrom. These lugs are adapted to engage stationary stops 196 and 198, respectively, at selected portions of the travel of the swinging arm 96. As these lugs engage the said stops, the rod 188 receives a torque, twisting the same thereby moving the valve core 186 in order that one of the selected passages therein may communicate with selected channels 172, and 174 and 176. In the position of the valve illustrated in Figure 9, it will be noted that suction is directly transmitted to the head 180, and consequently the said head is in the grasping and lifting condition. As the swinging arm 96 is about to deposit the label to the top of the stack 78, the stop 198 engages one of the said lugs, turning the valve core in its housing, thereby shutting the suction and permitting the low pressure in the chamber 178 to be equalized with atmospheric pressure. After the said label is deposited on top of the stack 78, the swinging arm proceeds in the reverse direction until immediately before the picking up operation, at which time one of the lugs engages the stop 196, thereby placing the valve pickup means in the position illustrated in Figure 9 again.

In Figure 7, it will be noted that as the pickup means is about to engage the top label of the supply stack 46, stamping means engages the top label of said stack 78 for stamping purposes. This embodiment of the invention is so arranged that the top label of the stack 78 is stamped simultaneously with the picking up of the top label of the stack 46.

A clamping device seen in Figure 10 is associated with the stamping means for the purpose of slidably and adjustably positioning the said stamping means on the swinging arm 96. A housing 200 is supplied with a slot 202 therein. A resilient member 204 is positioned in the said slot 202 for the purpose of engaging the base portion 206 of the line of type 208. It has been found that the most efficacious kind of type utilized in this invention is very sharp, making an imprint of sharp, clear characters. A clamp 210

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is positioned at the upper portion of the said housing 200 and a suitable thumb screw 212 adjustably positions the clamp relative to the housing 200. Of course, portions of the swinging arm 96 are adapted to be positioned between the said clamp 210 and the housing 200.

Means for rotatively positioning an ink pad

The said gear 94 is journaled on a shaft 214 in the said support 32 and a cam 216 is rigidly secured about the said shaft. An arm 218 eccentrically embraces the said cam 216, while the opposite end of the arm is secured to a pitman 220. This pitman is pivotally associated with a suitable bracket 222 forming a portion of the said support.

A base member 224 is rotatably positioned on the said bracket 222 and gear teeth 226 are positioned about the periphery of the said base 224. A resilient keeper 228 is secured to the said pitman 220 and engages a single tooth during each cycle of rotation of the said cam 216. Accordingly, upon each swing of the said swinging arm 96, the base will be rotated a distance equal to the designed gear teeth size, correlated with the shape and size of the said cam 216. An ink pad 230 is detachably secured to the said base 224.

Shown best in Figure 6, it will be noted that as the head 180 is depositing the top label on the stack 78, the stamping means is receiving a fresh supply of ink from the said ink pad 230 by its being positioned thereon.

Going to Figure 8, it will be noted that a switch generally indicated at 232 is supplied for breaking an electrical circuit. Manual actuation means 234 is supplied in association with this circuit breaker, while a lug 236 extends from the said circuit breaker for engagement with a keeper 238, secured to one of the elevator or lifting means, described in detail hereinabove. This construction permits the mechanism to be rendered inoperative when substantially the last label of the stack 46 is approached by the lifting means or head 180.

Having described the invention, what is claimed as new is:

1. In a label stamping apparatus, a frame, an arm, means carried by said frame for cyclically swinging said arm in reversing directions through an arc, a first support including a first platform with a supply stack of labels thereon, means for resiliently urging said platform and opposing the weight of said supply stack, a second support having a second platform therein with a second stack of labels on the second platform, means including a friction clutch for simultaneously raising said supply stack and lowering said second stack an amount substantially equal to the thickness of one label, suction means secured to said arm for lifting a label from said first-mentioned platform and depositing the label on the second platform, valve means operatively connected with said suction means for selectively controlling the actuating of said suction means in accordance with the position of travel of said arm, and means secured to said arm for stamping the top label on said second platform while said suction means is disposed on the top label of the supply stack.

2. In a label stamping apparatus, a frame, an arm, means carried by said frame for cyclically swinging said arm in reversing directions through an arc in a vertical plane, a first support including a platform with a supply stack of labels there-

on, means for resiliently urging said platform and opposing the weight of said supply stack, a second support having a second platform therein with a second stack of labels on the second platform, means including a friction clutch for simultaneously raising said supply stack and lowering said second stack an amount substantially equal to the thickness of one label, suction means secured to said arm for lifting a label from said first-mentioned platform and depositing the label on the second platform, valve means operatively connected with said suction means for selectively controlling the actuation of said suction means in accordance with the position of travel of said arm, means secured to said arm for stamping the top label on said second platform while said suction means is disposed on the top label of the supply stack, and cam means adjustably secured to said frame for exerting a force against the sides of a label of the supply stack during the lifting of this label.

3. The combination of claim 2 and rods adjustably secured to said frame, flanges at the ends of said rods for lockingly engaging the edges of the top label of second stack after it has been disposed on the second platform.

4. The combination of claim 3 and adjustable clamps secured to said frame and disposed adjacent said first-mentioned platform for laterally supporting the supply stack of labels.

5. The combination of claim 4 and means secured to said frame for rendering said suction means inoperative at a predetermined elevated positioning of said second support.

6. In a label stamping apparatus, a frame, an arm, means carried by said frame for cyclically swinging said arm in reversing directions through an arc, a support including a label supply stack platform, means for resiliently urging said platform outwardly of said support and opposed by the weight of the supply stack, a second support including a second platform with a second stack of labels thereon, and resilient means reacting on said support and platform opposed by the weight of the second stack, means including a friction clutch for simultaneously raising the supply stack platform and lowering said second platform, suction means carried by said arm for lifting a label from said first-mentioned platform and depositing the label on the second platform, valve means operatively connected with said suction means for selectively controlling the actuation of said suction means in accordance with positions of travel of said arm, means secured to said arm for stamping the top label of said second stack, resilient means reacting on said arm opposing the operation of said swinging arm at the ends of the travel thereof, and cam means adjustably secured to said frame for exerting a force against the sides of each label while it is being lifted by said lifting means.

7. In a label stamping apparatus, a frame, a swinging arm carried by said frame, a first and a second elevator mounted on said frame to support respectively a supply stack of labels and a second stack of labels, a label pick-up device secured to said swinging arm to pick up the top label from the supply stack and deposit it on the second stack, means engageable with the second stack to lower the second stack an amount substantially equal to the thickness of the label, and means operatively connected with said elevators for raising the first elevator an amount equal to the thickness of the label in response to the lowering movement of said second elevator, and said

second elevator having a spring loaded platform directly supporting said second stack so that the second stack of labels is resiliently mounted, a stop operatively connected with the platform to prevent movement of the platform relative to the elevator when the second stack of labels reaches a predetermined height.

8. An apparatus for stamping the top label of a stack of labels comprising a frame, a first elevator carried by said frame for supporting a supply group of labels, a second elevator carried by said frame for supporting a stack of labels, guides secured to said frame adjacent said second elevator for retaining the stack of labels orderly, an arm secured to said frame and movable in a reciprocatory travel which has two reversing points, a pick up head carried by said arm and disposed on the top label of the group at one point of travel of the arm, a printing member carried by said arm and disposed on the top label of the stack when said member is disposed on the top label of the group, and means for operating said arm to the other point of its travel to deposit the label carried by the pick up head on the stack.

9. An apparatus for stamping the top label of a stack of labels comprising a frame, a first elevator carried by said frame for supporting a supply group of labels, a second elevator carried by said frame for supporting a stack of labels, guides secured to said frame adjacent said second elevator for retaining the stack of labels orderly, an arm secured to said frame and movable in a reciprocatory travel which has two reversing points, a pick up head carried by said arm and disposed on the top label of the group at one point of travel of the arm, a printing member carried by said arm and disposed on the top label of the stack when said member is disposed on the top label of the group, and means for operating said arm to the other point of its travel to deposit the label carried by the pick up head on the stack, an ink supply device carried by said frame and so disposed with respect to said second elevator that said printing member is disposed thereon when said pick up head is disposed over said second elevator.

10. The combination of claim 9, and means operatively connected with said ink supply device for imparting rotation thereto.

11. The combination of claim 8, and means operatively connected with said elevators for raising said first elevator in response to movement of said second elevator caused by the pressing of the top label on the stack.

12. The combination of claim 8, and means for adjustably securing said guides to said frame so that said guides are movable toward and away from each other in a single plane to accommodate various size labels.

13. The combination of claim 8, and means for adjustably securing said guides to said frame so that said guides are movable toward and away from each other in a single plane to accommodate various size labels, and means adjustably fixing said printing member and said pick up head to said arm to respectively adjust the head for centering on the labels and to print on selected portions of the labels of the second stack.

14. An apparatus for stamping the top label of a stack of labels comprising a frame, a first elevator carried by said frame for supporting a supply group of labels, a second elevator carried by said frame for supporting a stack of labels, guides secured to said frame adjacent said sec-

ond elevator for retaining the stack of labels orderly, an arm secured to said frame and movable in a reciprocatory travel which has two reversing points, a pick up head carried by said arm and disposed on the top label of the group at one point of travel of the arm, a printing member carried by said arm and disposed on the top label of the stack when said member is disposed on the top label of the group, and means for operating said arm to the other point of its travel to deposit the label carried by the pick up head on the stack, said second elevator including a platform, a spring reacting on said platform opposing the weight of the stack of labels, and stops carried by said guides holding the top label on the stack of labels, whereby the label carried by the head is pressed on the stack until its edges are flexed by the stops to a position that the label edges have passed the stops and at the same time compressing the spring, and the spring then returning the stack so that the top label of the stack is pressed against the stops.

15. An apparatus for stamping the top label of a stack of labels comprising a frame, a first elevator carried by said frame for supporting a supply group of labels, a second elevator carried by said frame for supporting a stack of labels, guides secured to said frame adjacent said second elevator for retaining the stack of labels orderly, an arm secured to said frame and movable in a reciprocatory travel which has two reversing points, a pick up head carried by said arm and disposed on the top label of the group at one point of travel of the arm, a printing member carried by said arm and disposed on the top label of the stack when said member is disposed on the top label of the group, and means for operating said arm to the other point of its travel to deposit the label carried by the pick up head on the stack, said second elevator including a platform, a spring reacting on said platform opposing the weight of the stack of labels, and stops carried by said guides holding the top label on the stack of labels, whereby the label carried by the head is pressed on the stack until its edges are flexed by the stops to a position that the label edges have passed the stops and at the same time compressing the spring, and the spring then returning the stack so that the top label of the stack is pressed against the stops, and auxiliary guides adjustably carried by said frame to support said group of labels.

16. An apparatus for stamping the top label of a stack of labels comprising a frame, a first elevator carried by said frame for supporting a supply group of labels, a second elevator carried by said frame for supporting a stack of labels, guides secured to said frame adjacent said second elevator for retaining the stack of labels orderly, an arm secured to said frame and movable in a reciprocatory travel which has two reversing points, a pick up head carried by said arm and disposed on the top label of the group at one point of travel of the arm, a printing member carried by said arm and disposed on the top label of the stack when said member is disposed on the top label of the group, and means for operating said arm to the other point of its travel to deposit the label carried by the pick up head on the stack, and cams carried by said frame disposed in contacting relationship with the top label of the supply stack, said cams being spaced from each other a distance smaller than the distance across the top label so that the top label is flexed in removing it from the group to lessen

adhesion between the top and next adjacent label.

17. An apparatus for coding labels comprising a frame, a first vertically movable elevator and a second vertically movable elevator, each carried by said frame, a driving connection between said elevators arranged to move the two elevators vertically in unison, a horizontal arm, links pivoting said arm to said frame for swinging movement in reciprocatory cycles of operation, a label pick up unit carried by said arm and a printing unit fixed to said arm, guide rods adjustably secured to said frame adjacent said first elevator to retain a supply stack of labels against lateral displacement, said horizontal arm being disposed above said elevators and said pick up unit at the beginning of a cycle of operation of the arms to grasp the top label of the supply stack and said printing unit being so disposed with respect to said pick up unit that it is disposed directly over said second elevator to print on the top label of the labels when there are labels thereon.

18. An apparatus for coding labels comprising a frame, a first vertically movable elevator and a second vertically movable elevator, each carried by said frame, a driving connection between said elevators arranged to move the two elevators vertically in unison, a horizontal arm, links pivoting said arm to said frame for swinging movement in reciprocatory cycles of operation, a label pick up unit carried by said arm and a printing unit fixed to said arm, guide rods adjustably secured to said frame adjacent said first elevator to retain a supply stack of labels against lateral displacement, said horizontal arm being disposed above said elevators and said pick up unit at the beginning of a cycle of operation of the arms to grasp the top label of the supply stack and said printing unit being so disposed with respect to said pick up unit that it is disposed directly over said second elevator to print on the top label of the labels when there are labels thereon, means carried by said frame for actuating said pick up unit to release the label carried thereby when said horizontal arm completed substantially half a cycle of operation and when said pick up unit is disposed directly above said second elevator.

19. An apparatus for coding labels comprising a frame, a first vertically movable elevator and a second vertically movable elevator, each carried by said frame, a driving connection between said elevators arranged to move the two elevators vertically in unison, a horizontal arm, links pivoting said arm to said frame for swinging movement in reciprocatory cycles of operation, a label pick up unit carried by said arm and a printing unit fixed to said arm, guide rods adjustably secured to said frame adjacent said first elevator to retain a supply stack of labels against lateral displacement, said horizontal arm being disposed above said elevators and said pick up unit at the beginning of a cycle of operation of the arms to grasp the top label of the supply stack and said printing unit being so disposed with respect to said pick up unit that it is disposed directly over said second elevator to print on the top label of the labels when there are labels thereon, means carried by said frame for actuating said pick up unit to release the label carried thereby when said horizontal arm completed substantially half a cycle of operation and when said pick up unit is disposed directly above said second elevator, an ink supply device carried by said frame and so disposed with respect to said printing unit that it is disposed in contact there-

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with when said pick up unit is being actuated by said pick up unit actuating means.

20. The combination of claim 18, and auxiliary guides adjustably secured to said frame for laterally supporting labels on said first elevator.

21. The combination of claim 17, and means interposed in said driving connection between the elevators for vertically adjusting one of the elevators with respect to the other elevator.

22. The combination of claim 17, and said guide rods having cams at the ends thereof with surface spaced a distance less than the distance across a label on the first elevator so that the labels are flexed when pulled between said cams.

23. The combination of claim 17, and electrical means for operating said links to actuate said horizontal arm, and an electrical limit switch rendering said electrical means inoperative in response to movement of one of said elevators beyond a predetermined point.

24. An apparatus for coding labels comprising a frame, a first vertically movable elevator and a second vertically movable elevator, each carried by said frame, a driving connection between said elevators arranged to move the two elevators vertically in unison, a horizontal arm, links pivoting said arm to said frame for swinging movement in reciprocatory cycles of operation, a label pick up unit carried by said arm and a printing unit fixed to said arm, guide rods adjustably secured to said frame adjacent said first elevator to retain a supply stack of labels against lateral dis-

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placement, said horizontal arm being disposed above said elevators and said pick up unit at the beginning of a cycle of operation of the arms to grasp the top label of the supply stack and said printing unit being so disposed with respect to said pick up unit that it is disposed directly over said second elevator to print on the top label of the labels when there are labels thereon, and said second elevator including a platform having a spring reacting thereon thereby forming a resilient seat for labels placed thereon.

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