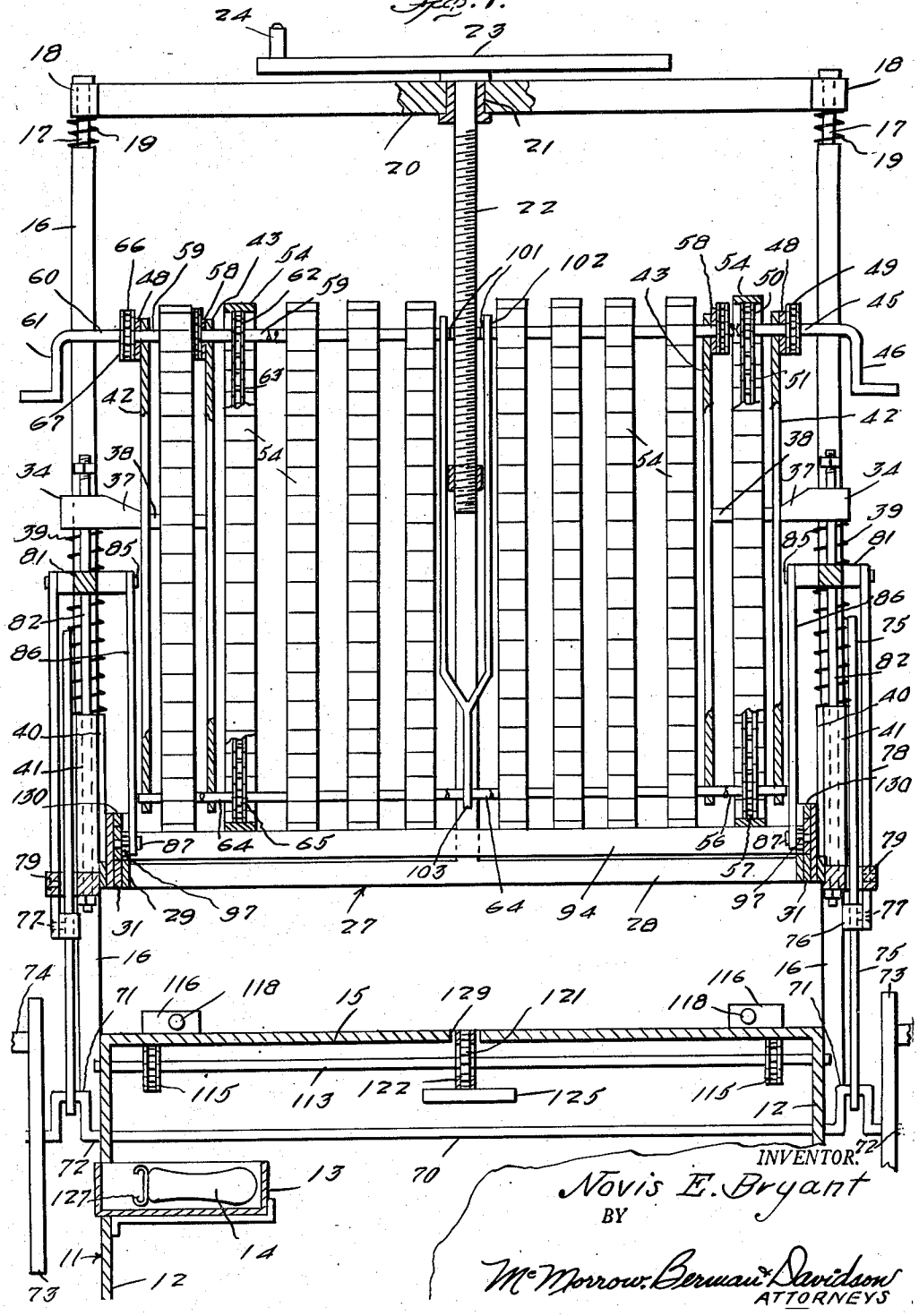
May 1, 1951 N. E. BRYANT 2,551,092

MACHINE FOR STAMPING ARTICLES

Filed March 26, 1948 5 Sheets-Sheet 1

Fig. 1.



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MACHINE FOR STAMPING ARTICLES

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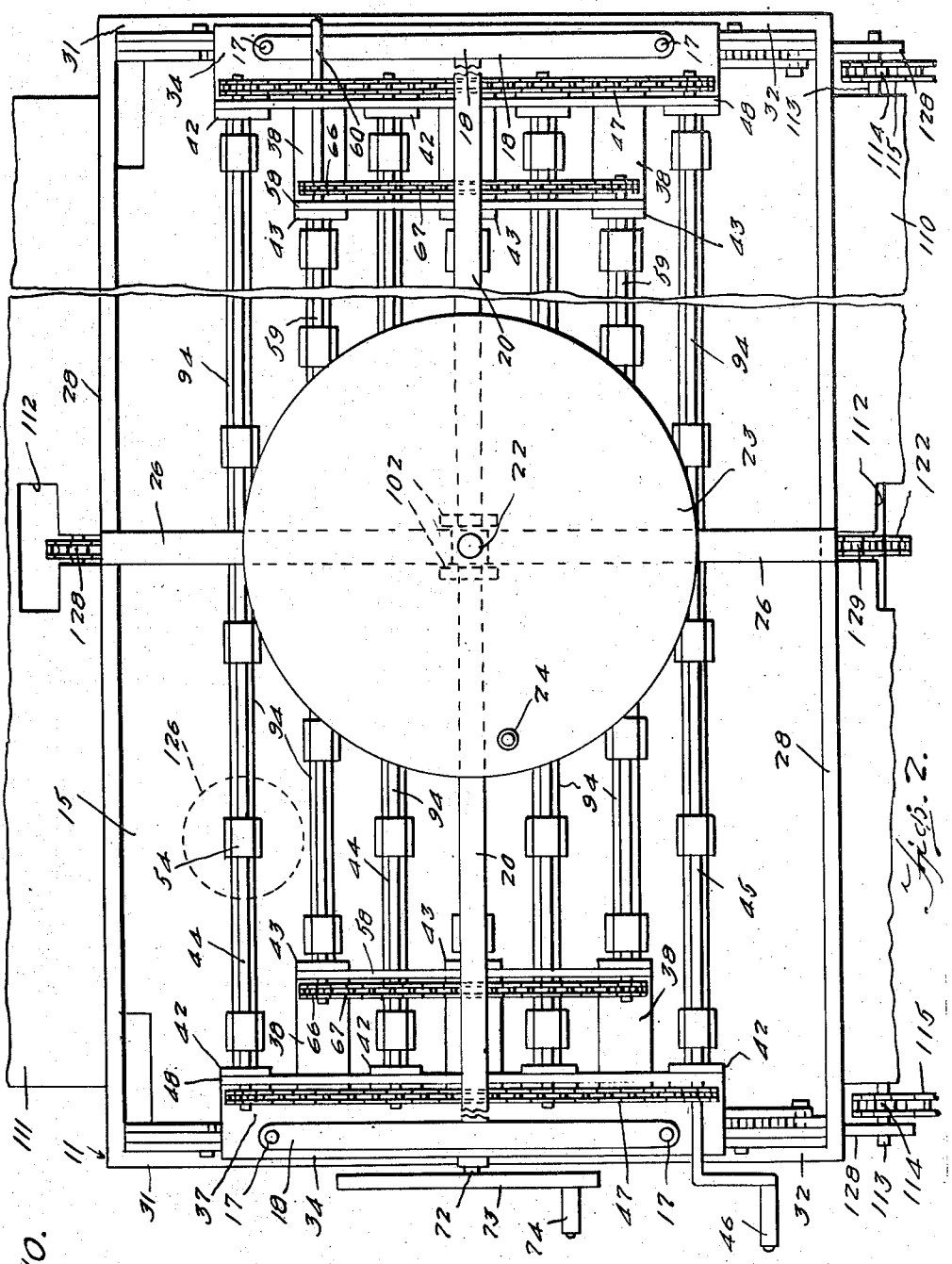

Fig. 2.

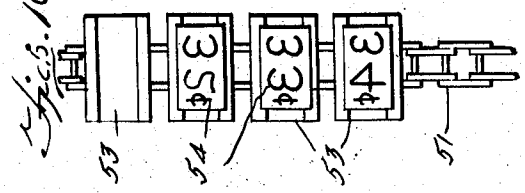

Fig. 10.

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MACHINE FOR STAMPING ARTICLES

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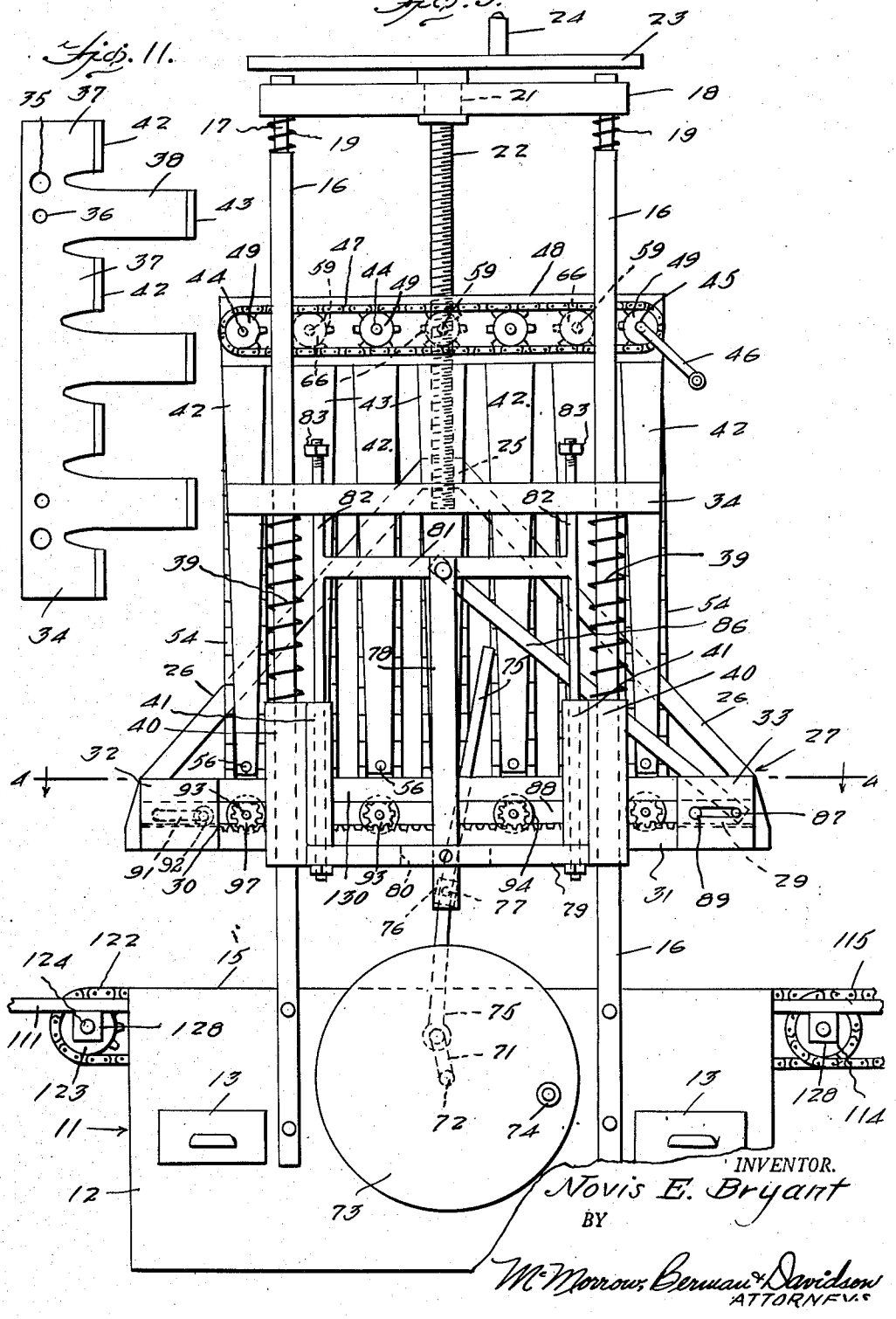
Fig. 3.

Fig. 11.



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MACHINE FOR STAMPING ARTICLES

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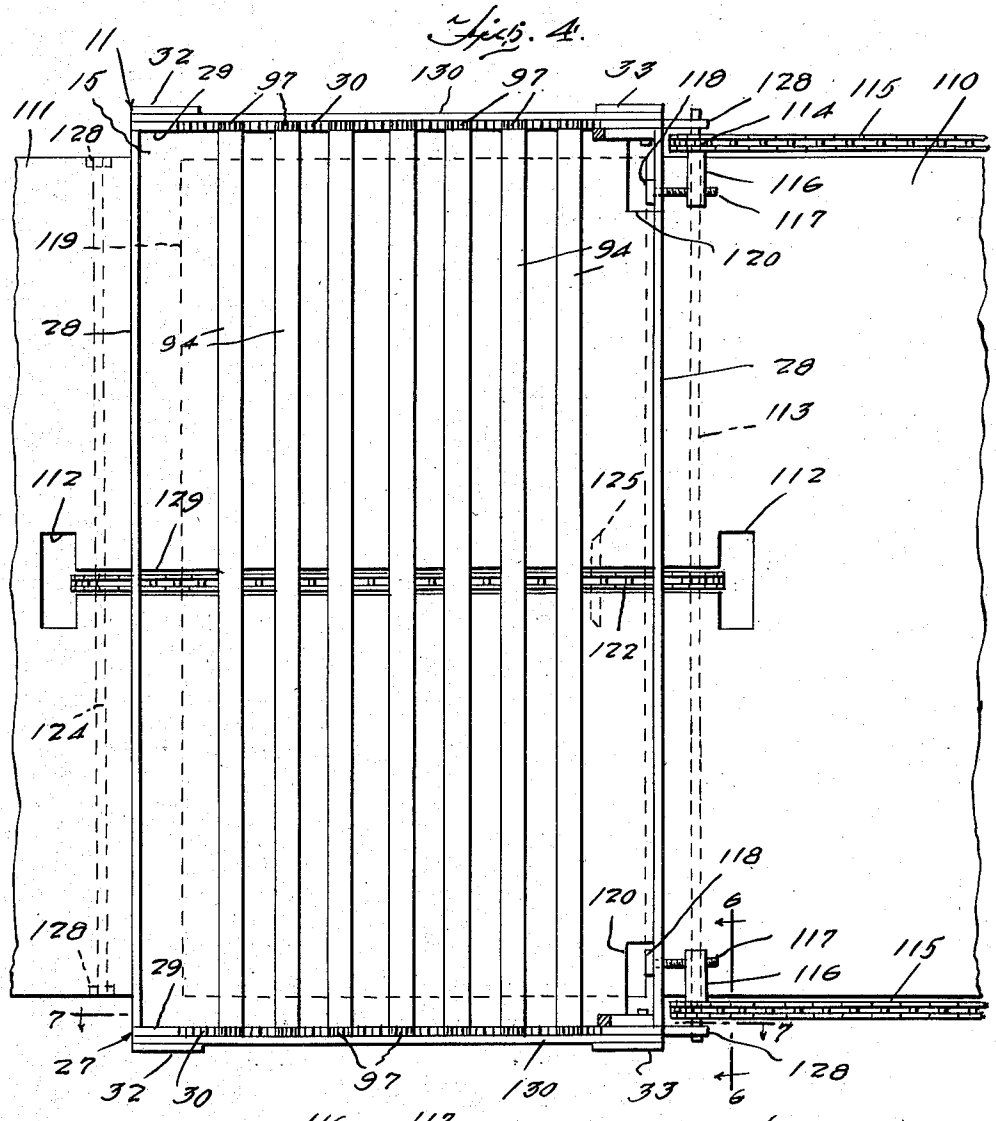
Fig. 4.



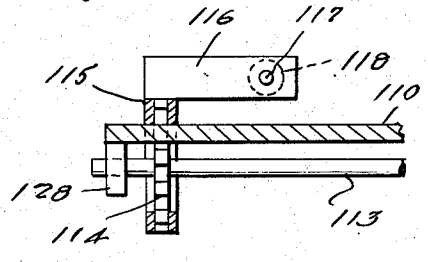


Fig. 6.

Fig. 12.

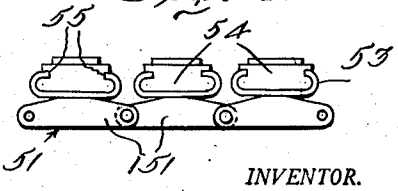


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Fig. 5.

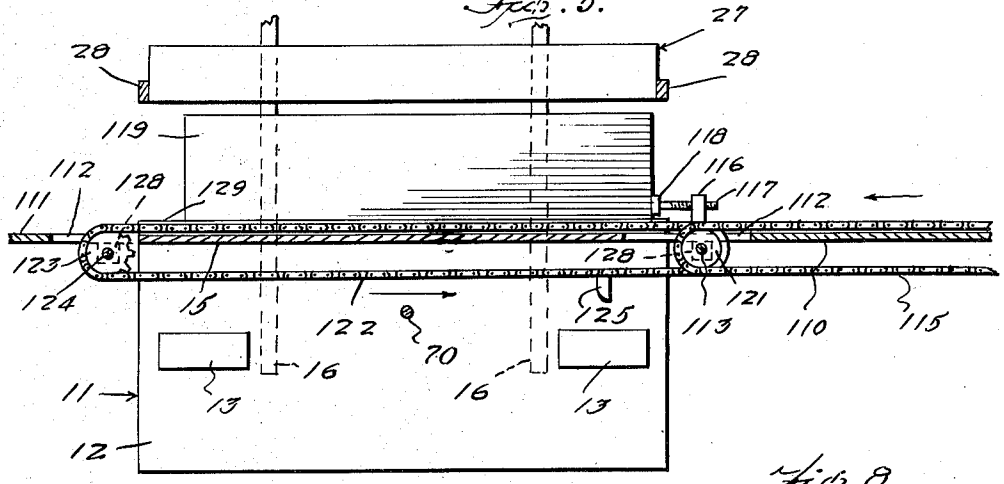


Fig. 8.

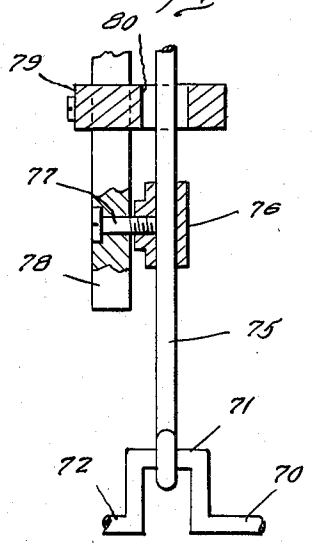


Fig. 9.

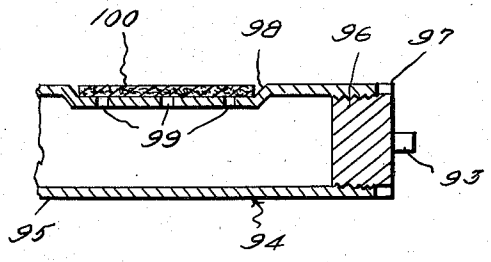
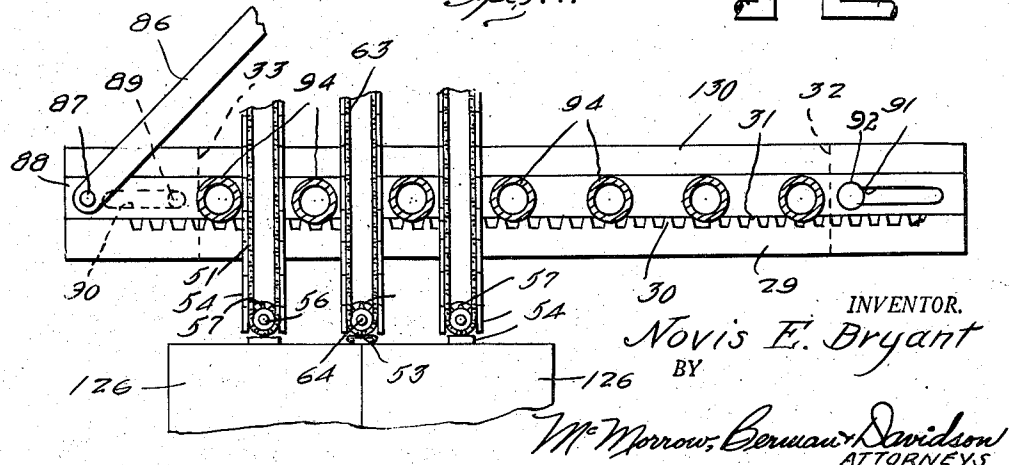


Fig. 7.



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Patented May 1, 1951 2,551,092

UNITED STATES PATENT OFFICE

2,551,092

MACHINE FOR STAMPING ARTICLES

Novis E. Bryant, Roswell, N. Mex.

Application March 26, 1948, Serial No. 17,175

9 Claims. (Cl. 101—42)

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My invention relates to machines for stamping a plurality of similar articles with similar or like indicia. Although not so limited, the machine according to the invention is particularly adapted to stamp price or other identifying indicia on containers for food.

As is well known, many modern groceries are of the self-service type whereby it is important that each article displayed for sale be marked with its price. Moreover, in larger stores, the turn-over of goods is tremendous, and a large number of like articles must be marked with a like price. Many such articles, such as canned goods, come in one or two popular sizes which are packed in cases or cartons. Thus, one popular size can is packed in two layers in a cardboard carton with twelve cans to a layer. Likewise, a second popular size can is packed in a cardboard carton in two layers with twenty-four cans to a layer. By slicing such cartons in half horizontally, the same are readily transformed into open-topped racks each holding one layer of the containers. The containers in such racks are arranged in a definite pattern which is the same for each size of container, but which varies with the size of the containers in the racks. The machine according to my invention is particularly adapted to stamp simultaneously all of the articles in a rack formed as above described or racks of similar size.

With the foregoing in view, an object of my invention is to provide an improved gang stamp for articles.

A further object is to provide an improved gang stamp for articles which includes one or more gangs of stamps so arranged as to stamp simultaneously all of a plurality of like articles in one or more racks containing articles of like size and which are arranged in the racks in one or more patterns.

A further object is to provide a gang stamper which comprises novel combinations and sub-combinations of a bed, a stamper frame, one or more gangs of stamps carried by the frame, means for actuating said frame through a succession of stamping strokes, means for inking the stamps, and means for automatically feeding a plurality of racks of articles across said bed for successive stamping, together with the novel elements comprising said combinations and sub-combinations.

A further object is to provide a novel gang stamp which includes like sets of stamps arranged to provide a gang stamp and/or which includes novel means for simultaneously changing the setting of all sets of stamps.

A further object is to provide an improved gang stamp which includes novel actuating means for actuating the gang through a succession of stamping strokes and novel means automatically inking all of operatively positioned stamps of a gang between stamping strokes.

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A further object is to provide an improved gang stamp which includes novel means for intermittently positioning and removing successive racks of articles onto and off of a stamping bed for stamping by said gang stamp.

A further object is to provide an improved gang stamp which is readily adjustable to stamp articles of different sizes and/or articles arranged in two or more different patterns in article-carrying racks.

A further object is to provide an improved gang stamp which includes novel means for inking the stamps.

Other objects and advantages reside in the particular structure of the invention, combinations and sub-combinations of the several parts thereof, and/or of the elements comprising the same, and/or in the particular method or mode of operation, all of which will be readily apparent to those skilled in the art upon reference to the attached drawing in connection with the following specification, wherein the invention is shown, described and claimed.

In the drawing:

Figure 1 is an end view of a stamper according to the invention, parts being broken away and shown in transverse vertical section;

Figure 2 is a top plan view;

Figure 3 is a side elevation with parts broken away;

Figure 4 is a horizontal sectional view taken substantially on the plane of the line 4—4 of Figure 3;

Figure 5 is a fragmentary longitudinal vertical section through the lower part of the device, parts being omitted for the sake of clarity, and illustrating a feature of the invention;

Figure 6 is an enlarged fragmentary transverse vertical section taken substantially on the plane of the line 6—6 of Figure 4;

Figure 7 is an enlarged fragmentary longitudinal vertical section taken substantially on the planes of the line 7—7 of Figure 4;

Figure 8 is an enlarged fragmentary elevation, parts being broken away and shown in transverse vertical section, illustrating a detail;

Figure 9 is a transverse vertical section through one end of one of the inking rolls and shown on an enlarged scale;

Figure 10 is an enlarged fragmentary elevational view showing a further detail;

Figure 11 is a plan view of a portion of the stamper frame apart from the rest of the structure.

Figure 12 is a fragmentary elevation of the detail of Figure 10.

Referring specifically to the drawing, wherein like reference characters have been used through-

out the several views to designate like parts, 11 designates generally a base or stand which includes vertical side frame members 12 which may be suitably formed to slidably receive drawers 13 therein for the reception of spare parts 14 or the like. The side frame members 12 are connected together at their upper edges by a top wall 15 which is horizontally disposd and provides a bed for the device. A plurality of vertically-extending frame members 16 are fixed to the side frame members 12 and extend vertically a considerable distance above the bed 15 to provide an arbor. At least the upper ends of the arbor-providing members 16 are tubular and slidably receive the lower ends of depending rods 17. The upper ends of the rods 17 at each side of the arbor are connected by longitudinally-extending horizontally-disposed frame members 18. The frame members 18 are connected intermediate their ends by a cross-brace 20. A central portion of the cross-brace 20 is provided with a suitable journal 21 for the upper and unthreaded end of a threaded shaft 22. The shaft 22 extends vertically toward the bed 15 and the upper end thereof has fixed thereon a suitable disc 23 providing a flywheel or crank and which includes an actuating crank handle 24. Suitable coil springs 19 surround the rods 17 between the upper ends of the arbor-providing members 16 and the under sides of the frame-providing members 18, whereby to provide shock absorbers and vibration-absorbing means. The lower end of the shaft 22 is threaded in the interiorly-threaded collar or web 25 of a yoke which includes a pair of diverging legs 26, the lower ends of which are rigidly connected to a stamper frame 27. As is obvious from the foregoing, the crank or disc 23, together with the shaft 22, provides means for raising or lowering the frame 27 whereby to adjust the latter for articles of different heights. As will appear, a floating portion of the stamper frame 27 is adapted to be reciprocated toward and away from the bed 15, and such motion is permitted by the sliding connection of the head-providing frame 18 and its supporting rods 17. The springs 19 in addition to their vibration-damping and shock-absorbing characteristics comprise means for returning the floating portion of the frame 27 to its uppermost position, at the completion of a stamping stroke.

The stamp frame 27 comprises a lower frame portion which includes transverse frame members 28 which extend across the bed 15 and which are connected by longitudinally-extending side frame members 29, the upper edges of which intermediate the ends are formed to provide rack teeth 30. The end and side frame members 28 and 29 are connected together to provide a rigid frame in any suitable manner, not shown. The side frame members 29 also include upper and lower strip members 130 and 31, respectively, which are maintained in vertically-spaced parallel relation by end blocks 32 and 33, respectively, the end blocks 32 being at the left hand end of the machine and the end blocks 33 at the right hand end of the machine, Figures 3 and 4. The end blocks 32 and 33 are secured to the racks 29 and to the strip members 130 and 31 in any suitable manner, not shown, whereby to provide a slideway between the members 130 and 31. Such slideway is located just outwardly of the racks 29 for a purpose to be described later. The legs 26 of the yoke are secured in any suitable manner to the end frame members 28 intermediate the ends of the latter. The frame for the

stamper includes a pair of longitudinally-extending frame members 34, each of which extends longitudinally of the bed 15 along one side in vertically-spaced relation to the lower frame members aforesaid. Each of the frame members 34 comprises a relatively thick plate 34 formed with a pair of longitudinally-spaced and vertically-extending relatively large apertures 35 therethrough and adjacent relatively smaller and likewise longitudinally-spaced, vertically-extending apertures 36, the purpose of which will be described later. The outer edge surface of the intermediate frame members 34 are flat, but the inner edges are extended to provide a plurality of longitudinally-spaced and relatively short bracket members 37, and also a plurality of relatively long bracket members 38 which extend inwardly between adjacent bracket members 37. The structure of the frame members 34 is best seen in Figure 11. The arbor-providing frame members 16 are slidably received in the large apertures 35 of the frame members 34 and the frame members 34 are resiliently supported on coil springs 39 which are concentrically disposed about the frame members 16 below the frame members 34. The lower ends of the springs 39 seat against the upper edges of tubular sleeves 40 which are concentrically disposed about the frame members 16 and which are likewise fixed to the stamp frame 27 in any suitable manner, not shown. Thus, the springs 39 provide recoil springs as well as vibration-damping springs, and are effective to return the floating portion of the frame 27 to its uppermost position at the completion of a stamping stroke. The sleeves 40 have fixed thereto smaller and shorter sleeves 41 for a purpose to be described later.

It will be apparent from the foregoing that the parts of the floating stamp frame now to be described and which are supported by the intermediate frame members 34 are vertically reciprocable on the arbor-providing members 16 relative to the rest of the stamp frame. Each short bracket 37 of the side frame members 34 has fixed to the free end thereof a vertically-disposed journal-providing member 42. In like manner, each of the long brackets 38 has fixed to the free end thereof a vertically-disposed journal-providing member 43. The journal-providing members 42 are connected together at their upper ends by a cross-brace 48. The cross-brace 48 and the upper ends of the journal-providing members 42 have journaled therein in longitudinally-spaced relation a plurality of cross-shafts 44 and a single cross-shaft 45. The cross-shaft 45 is located at the right-hand end of the cross-brace 48. One end of the shaft 45 is extended laterally outwardly of the frame and formed to provide a crank 46. Each end of each shaft 44 and 45 has fixed thereon a sprocket 49, and all of such sprockets 49 are connected together for rotation simultaneously by a chain 47. Each shaft 44 and 45 has fixed thereon in longitudinally-spaced relation a number of sprockets 50 for endless chains 51. The chains 51 are best seen in Figures 10 and 12, and comprise a plurality of pivotally-connected links 151 of any suitable form. Each link 151 has mounted thereon means providing a spring clip 53 for detachably securing thereto a suitable indicia-bearing stamp 54. The stamps 54 may be of any suitable structure, such as rubber stamps, and are provided on their upper and lower edges with grooves 55 for a laterally-slidable engagement with the tongues of the spring clips 53. Thus, to replace

a stamp 54, it is only necessary to slide the same laterally out of the spring clip 53 holding the same. As shown in Figure 10, at least one clip 53 of each chain contains no stamp, whereby to provide a blank space on each chain. The purpose of this omission will be apparent later.

The lower ends of the journal-providing members 42 are connected together by cross-shafts 56 journaled therein and on which are fixed a plurality of sprockets 57 for the chains 51. It will be apparent from the foregoing that each chain 51, together with the stamps 54 carried thereby, comprises a set of stamps, and all of such sets of stamps comprise a gang of stamp sets. Each stamp 54 bears a different indicia, such as a different price, and like stamps of each set are similarly positioned in all sets of the gang. Also, the blank clips 53 of each set are similarly positioned in each set of the gang. Thus, the operator of the stamper may, by rotating the crank 46, simultaneously change the setting of each set of stamps so that each set has a similar indicia-bearing stamp positioned at the lowermost point of the chain which comprises the stamping position for the stamps of the sets. Obviously, then, if a like article is positioned on the bed 15 below each chain 51, a downward movement of the stamp frame 27 and/or of the chains 51 and their related parts, will result in all of the articles so positioned being simultaneously stamped with like indicia.

The gang of stamps just described are 24 sets in number and are arranged on the stamp frame in a pattern corresponding to the pattern of one layer of a case or carton, or rather, the pattern of the articles contained in a case or carton, wherein the articles are symmetrically positioned therein in two layers of twenty-four each. This arrangement is typical in the packaging of a popular sized can and permits one-half of the can carton to be used to provide a rack for the cans when the same are stamped. Another popular sized can of a larger size is packed in two layers of twelve each in a similar cardboard carton. To accommodate such popular sized can, I have provided a second gang of stamp sets now to be described.

To mount the second gang of stamp sets, the upper ends of the journal-providing members 43 are fixed to the inner free edges of the elongated brackets 38 of the member 34. The upper ends of the journal-providing members 43 are connected together by a cross-brace 58. Cross-shafts 59 are journaled in the upper ends of the members 43 and the cross-brace 58. One cross-shaft 59 is extended, as at 60, outwardly of the frame and formed to provide a crank 61, Figure 1. Intermediate portions of the shafts 59 have fixed thereon for rotation therewith sprockets 62 for chains 63 which correspond to the chains 51 aforesaid, and which have mounted on each link thereof stamps 54 held in place for ready detachment by clips 53. The lower ends of the journal-providing members 43 are connected together by cross-shafts 64 journaled therein and which are provided with longitudinally-spaced sprockets 65 for the chains 63. Outwardly of each cross-brace 58, the cross-shafts 59 have fixed thereon sprockets 66 connected together by chains 67. From the foregoing, it is apparent that the second gang of stamps is actuated by the cranks 61 to change the setting of the sets in the same manner as that described for the sets of the first gang. Also, it is to be understood that the stamp sets of the second gang are arranged in a pattern corresponding to the pattern of the containers in a carton of the larger popular sized can aforesaid. When the stamp sets of one gang are in use, the stamp sets of the other gang are set so that the blank clip 53 is in the stamping position, whereby to avoid the possibility of contradictory indicia being stamped on the same container or article. However, in the particular gangs shown and described, the patterns of the cans in their racks is such that the stamps of the inoperative gang will normally hit in the interstices between adjacent containers.

To reciprocate the stamps of both gangs relative to the stamp frame 27, there is provided a drive shaft 70 which is journaled in the side frame members 12 of the bed or base 11. The opposite ends of the drive shaft 70 extend outwardly of the members 12 and are formed to provide like and similarly-disposed cranks 71, and free ends 72 in axial alignment with the drive shaft 70. Each free end 72 has fixedly secured thereto a flywheel or crank disc 73 formed to provide a crank handle 74 on the outer surface thereof. The crank 71 has pivoted thereto in any suitable manner the lower end of the connecting rod 75 which is relatively elongated and which is adjustably secured in a sleeve 76. The sleeve 76 is pivotally secured to a pitman 78 by a combined set screw and pivot pin 77. As clearly shown in Figure 8, the set screw 77 extends through the sleeve 76 and provides means for locking the connecting rod 75 in longitudinally-adjusted relation relative to the pitman 78. The purpose of this arrangement is to permit the stamping frame 27 to be raised or lowered to accommodate articles or containers of different heights without varying the stroke of the reciprocable portion of the stamp frame. A lower portion of the pitman 78 is fixedly secured in any suitable manner to a crosshead 79 which may be provided with an aperture 80 therethrough for the free passage of the extended end of the connecting rod 75. In this connection, the aperture 80 provides a longitudinal slot to permit free oscillation of the extended end of the connecting rod 75 as the flywheel 73 revolves. The upper end of the pitman 78 is secured in any suitable manner to an upper crosshead 81. The lower and upper crossheads 81 extend longitudinally of the frame outwardly thereof and their outer ends are connected together by vertically-disposed rods 82, the upper ends of which extend above the upper crosshead 81 a considerable distance. Lower portions of the rods 82 are slidably received in the smaller sleeves 41 aforesaid, while the upper ends of such rods are slidably received in the smaller apertures 36 aforesaid in the intermediate frame member 34. The upper free ends of the rods 82 are preferably threaded and provided with nuts 83 to provide adjustable stops. As is readily apparent from Figure 3, the slidable connections of the rods 82 in the frame members 34 provide a lost motion connection between the pitman 78 and the relatively reciprocable portion of the stamp frame 27. Thus, with the crank 71 at the uppermost limit of its stroke, the upper ends of the rods 82, together with the stops 83, will project a substantial distance above the upper surface of the frame members 34. At an intermediate point on the down stroke of the crank 71, the stops 83 will engage the upper surface of the members 34 and carry the same downwardly with the crank . By means of the fixed connection of the member 34 with the gangs of stamps,

both gangs are carried downwardly toward the bed through a stamping stroke. When the crank 71 reaches its lowermost point and starts to rise, the pressure of the stops 83 is released from the frame member 34, but such frame member is driven upwardly by the springs 39 aforesaid. This recoil by the springs continues to the limit of expansion of the springs, as shown in Figure 3, and continued rotation of the crank extends the stops 83 to the Figure 3 position well above the upper surface of the frame members 34. The purpose of this lost-motion connection is to provide an intermittent stamping stroke wherein the stamps are stationary to permit inking thereof by means now to be described.

The operating mechanism for the inker to be described presently comprises a drag link 86, the upper end of which is pivoted, as at 85 to the inner edge of each upper crosshead 81. The drag links 86 extend diagonally and longitudinally of the frame, and their lower ends are pivoted by any suitable means, such as the pin 87, to ink frame-providing side members 88. The members 88 are slidable between the side frame members 130 and 31 aforesaid in the slideway provided by the spacing thereof. The side members 88 are retained in place at one end by a headed pin 89 fixed thereto which slides in a slot 90 formed in the right-hand end block 33, Figure 3. The opposite ends of the slides 88 are formed with longitudinally-extending slots 91 which slidably receive the headed pins 92 which are carried by and are inwardly-directed from the left-hand end blocks 32. Thus, both ends of the side members 88 are locked against lateral displacement from between the slideway-providing members 130 and 31. The inking frame members 88 are provided with a plurality of longitudinally-spaced apertures therethrough providing journals for the stub shafts 93 of a plurality of inking rolls 94 which are best illustrated in Figure 9.

Each inking roll 94, Figure 9, comprises a tubular body 95, the open ends of which are closed by plugs 96 which are secured therein in any suitable or well known manner, it being understood that the plugs will not loosen and become disengaged upon oscillating movement of the rolls. The plugs 96 have the shafts 93 fixed on the outer ends thereof and marginal portions of such plugs are formed with teeth to provide pinion gears 97 which are adapted to mesh with the teeth of the racks 30. Each body portion 95 of each tube 94 is provided with a surface portion which is recessed, as at 98, at one side in the region of each stamp set. Such recessed portion 98 is formed with a plurality of apertures 99 therethrough for the passage of stamp ink to a stamp pad-providing member 100 which is secured in the recesses 98. The apertures 99 are normally uppermost, but in the operation as will presently be described, are adapted to be rotated through 180° whereby they are downwardly directed to permit free passage of ink through the apertures 99 to the stamp pad-providing member 100 to re-ink the latter.

The operation of the inker comprises a horizontal reciprocation relative to the stamp frame and which reciprocation is continuous. As is readily apparent from Figure 3, as the pitman 73 reciprocates with the crosshead 81, such motion is transmitted through the drag link 86 to one end of the inker frame-providing members 88 and causes the latter, together with the associated inking rolls 94, to reciprocate longitudinally of

the bed and relatively to the stamp frame. As the inking frame reciprocates, the ink rolls are continuously oscillated through 180° because of the meshing of the pinions 97 with the rack 30. This oscillatory motion of the inking rolls 94 not only provides for re-inking of the stamp pad 100, but also serves to remove the inking rolls from their normal position beneath each stamp set to inoperative positions between adjacent rows of stamp sets, whereby to permit such stamp sets to come down with the floating portion of the stamp frame to perform a stamping stroke. Thus, the inking rolls are positioned beneath the rows of stamp sets with the ink pads 100 uppermost and in contact with the lowermost stamp of each stamp set to ink such stamps during the period when by virtue of the lost motion connection aforesaid the floating portion of the stamping frame is stationary at the uppermost limits of the stamping stroke. Thereafter, as the adjustable stops 83 approach the side frame members 34, the inking rolls 94 are moved laterally between the adjacent rows of stamp sets to permit the floating stamp frame to descend through the working portion of the stamping stroke.

In the particular embodiment of the invention shown, it will be noted that the chain-supporting center upper crossshaft 59 is so positioned as to bisect the height-adjusting shaft 22. To avoid interference with such shaft, the upper crossshaft is divided centrally and the adjacent free ends 101 are journaled in the upper ends of the legs 102 of a yoke member which includes a stem 103, the lower end of which is journaled on the lower center cross-shaft 64, as is readily apparent in Figure 1. Obviously, other means of avoiding the adjusting shaft 22 may be used without departing from the spirit or scope of the invention as defined in the appended claims.

The invention contemplates means for feeding racks of articles to be stamped to the bed 15 and likewise means for removing such racks from the bed 15. Such means may comprise longitudinal front and rear extensions 110 or 111 of the bed which lie in the same horizontal plane and may be of any suitable length and supported in any suitable manner, not shown. This feature is best seen in Figures 4, 5 and 6, and to some extent in the Figures 1, 2 and 3. As is readily apparent in Figures 4 and 5, the right-hand or feeding bed extension 110 has a cross-shaft 113 journaled therein in any suitable brackets 128. The ends of the shaft 113 extend outwardly of the extension 110 and have fixed thereon suitable sprockets 114. Endless chains 115 extend around the sprockets 114 and likewise around suitable drive sprockets at the far end of the extension 110. Any suitable guide means may be provided for driving the chains 115 and sprockets 114. For simplicity's sake, the right-hand end of the approach extension and the sprockets carried thereby, together with drive means for the chains 115, have not been shown. However, it is understood that any suitable and/or well known means may be utilized. The chains 115 have fixed thereon in any suitable manner longitudinally-spaced and laterally-opposed pairs of chairs 116. The inner end portions of the chairs 116 are internally threaded to seat the threaded shanks 117 of adjustable chair seats 118. The purpose of the chairs and chair seats is to convey a suitable rack 119 along the extension 110 and ultimately position the same on the bed 15 in proper relation to the stamp sets, whereby when the stamp frame is moved downwardly through a stamping stroke,

the articles in the case 119 will be properly positioned below appropriate stamp sets for stamping. By providing an adjustable seat 118, the conveyor is readily adaptable to racks of different sizes. Corner portions of the bed 15 are cut away, as at 120, to permit free passage of the chairs 116 and chair seats 118 therethrough after a rack 119 has been properly positioned on the bed.

The drive shaft 113 has fixed thereon intermediate its ends a sprocket 121, Figure 5, which drives a conveyor chain 122 the other end of which extends around an idler sprocket 123 mounted on an idler shaft 124 secured to the discharge frame extension 111 in any suitable brackets 128. The upper run of the chain 122 extends across the head 15 in a groove 129 whereby to avoid contact with the racks 119. A chair 125 is carried by the conveyor chain 122 and is passed through the feeding and discharge extensions 110 and 111 by means of slots 112 formed therein. Chair 125 extends above the surface of bed 15. The timing of the apparatus is such that the chairs 116 of the approach conveyor deposit a case 119 of articles upon the bed 15 at a time when the discharge conveyor chair 125 is approaching the frame extension 110. Thus, the case 119 is allowed to remain stationary on the bed 15 throughout a stamping stroke, but is removed therefrom by the discharge conveyor chair 125 between stamping strokes and between the positioning of an additional rack or case 119 on the bed 15. Thus, the apparatus according to the invention comprises an intermittent feed of racks of articles onto the bed 15 and off of the same.

The operation of the device includes setting the stamp frame for the particular articles to be stamped by means of the flywheel 23 and adjusting screw or shaft 22. Thereafter, an appropriate gang of stamp sets is rendered inoperative by placing a blank clip 53 at the lowermost point of each chain. This is accomplished by appropriate rotation of either the crank 46 or the crank 61, depending upon which gang is to be inactivated. Thereafter, the gang to be used is set with an appropriate stamp in the lowermost or operative stamping position. The device is now ready for use and a rack 19 filled with appropriately sized containers 126 is positioned on the approach bed extension 110, whereby it is transmitted onto the stamping bed 15 by the chairs 116 and chair seats 118. Manual actuation of the cranks 74 will cause the parts to pass through a stamping and inking stroke, or strokes, as aforesaid. Thereafter, the discharge conveyor chair 125 will engage the case 110 and move the same onto the discharge extension bed 111. At such point the case may be removed for shelving by any suitable means, not shown. Thereafter, the operation is repeated as long as the size of the articles to be stamped and the setting of the stamp sets remains unchanged. However, if a batch of containers of the same size is to be stamped with a different price, it is a simple matter to actuate the appropriate crank 46 or 61, as the case may be, to properly set the active gang of sets to an appropriate setting. If a rack or containers of a different size and/or a different pattern of packing in the racks is to be stamped, it is a simple matter to inactivate the active gang by turning the stamp sets thereof to a blank space. Thereafter, the other gang is set up as aforesaid and the stamping proceeds as before. In the event that the rack 119 is of a different size than the one previously used, it is a simple matter to adjust the chair seats 118 on the chairs 116 so that the rack of the new size is properly positioned beneath the stamp sets of the active gang. In the event of a break-down of the parts so that machine stamping is impossible, I contemplate providing a hand stamp 14 which may be contained in one of the drawers 13 of the base 11 and which has a head 127 formed to provide a spring clip corresponding to the spring clips 53 of the stamp chains. Thus, the hand stamp 14 may be utilized with any of the stamps 54 if necessary.

While I have shown and described what is now thought to be a preferred embodiment of the invention, it is to be understood that the same is susceptible of other forms and expressions. Consequently, I do not limit myself to the precise structure shown and described hereinabove except as hereinafter claimed.

I claim:

1. A machine for stamping indicia on a plurality of like containers simultaneously, comprising a bed adapted to receive a rack containing a plurality of like containers, an arbor fixed to said bed, a stamp frame, means mounting said frame on said arbor for reciprocating movement toward and away from said bed providing a stamping stroke, a plurality of rows of like endless belts carried by said frame, said rows being separated to provide spaces therebetween, a plurality of stamps detachably secured to each belt, means for simultaneously driving all of said belts whereby to position a stamp of each belt in a stamping position relative to said frame, a plurality of inking rolls for said stamps, there being a roll for each row of belts, means mounting said rolls on said frame with said rolls normally in inking relation to a stamp in a stamping position on each belt, means for moving all of said rolls simultaneously to inoperative positions in said spaces between said rows of belts, said last-means being thereafter operative to actuate said frame through a stamping stroke, and said last means being thereafter operative to return said rolls to said inking position.

2. A machine for stamping indicia on a plurality of like containers simultaneously, comprising a bed adapted to receive a rack containing a plurality of like containers, an arbor fixed to said bed, a stamp frame, means mounting said frame on said arbor for reciprocating movement toward and away from said bed providing a stamping stroke, a plurality of rows of like endless belts carried by said frame, said rows being separated to provide spaces therebetween, a plurality of stamps detachably secured to each belt, means for simultaneously driving all of said belts whereby to position a stamp of each belt in a stamping position relative to said frame, a plurality of inking rolls for said stamps, there being a roll for each row of belts, a crank, a connecting rod pivoted on said crank, a pitman pivoted to said connecting rod, a crosshead pivoted to said pitman for reciprocation thereby, a lost-motion connection between said crosshead and said frame whereby to actuate the latter during a portion only of said reciprocation of said crosshead, an inking frame mounting said rolls, means mounting said inking frame for reciprocation at right angles to the path of said crosshead, a drag link pivoted to said crosshead, direct pivotal connection between said link and said inking frame, and said last-named connection being effective to reciprocate said inking

frame alternately with the reciprocations of said first-named frame.

3. A machine for stamping indicia on a plurality of like containers simultaneously, comprising a bed adapted to receive a rack containing a plurality of like containers, an arbor fixed to said bed, a stamp frame, means mounting said frame on said arbor for reciprocating movement toward and away from said bed providing a stamping stroke, a plurality of rows of like endless belts carried by said frame, said rows being separated to provide spaces therebetween, a plurality of stamps detachably secured to each belt, means for simultaneously driving all of said belts whereby to position a stamp of each belt in a stamping position relative to said frame, a plurality of inking rolls for said stamps, there being a roll for each row of belts, a crank, a connecting rod pivoted on said crank, a pitman pivoted to said connecting rod, a crosshead pivoted to said pitman for reciprocation thereby, a lost-motion connection between said crosshead and said frame whereby to actuate the latter during a portion only of said reciprocation of said crosshead, an inking frame mounting said rolls, means mounting said inking frame for reciprocation at right angles to the path of said crosshead, a drag link pivoted to said crosshead, direct pivotal connection between said link and said inking frame, said last-named connection being effective to reciprocate said inking frame alternately with the reciprocations of said first-named frame, and means for adjusting both of said frames on said arbor toward and away from said bed whereby to accommodate containers of different sizes.

4. A machine for stamping indicia on a plurality of like containers simultaneously, comprising a bed adapted to receive a rack containing a plurality of like containers, an arbor fixed to said bed, a stamp frame, means mounting said frame for reciprocating movement toward and away from said bed providing a stamping stroke, a set of stamps carried by said frame in a stamping position, means for actuating said frame toward and away from said bed through a stamping stroke, means for inking said stamps between stamping strokes, at least another set of stamps carried by said frame in an inoperative position, and means for simultaneously moving said first set of stamps to an inoperative position while moving said second set of stamps to a stamping position.

5. In a gang stamper for simultaneously stamping a plurality of like articles with like indicia, said stamper including a frame, the improvement comprising a plurality of substantially identical sets of stamps, each set comprising an endless belt, separate means detachably mounting each stamp on a belt, spaced driven and idler rollers for each belt, means rotatably mounting said rollers on said frame, means on said frame operatively connecting all of said driven rollers together for simultaneous actuation, whereby to position simultaneously like stamps of all sets in a stamping position.

6. In a gang stamper for simultaneously stamping a plurality of like articles with like indicia, said stamper including a frame, the improvement comprising a plurality of substantially identical sets of stamps, each set comprising a plurality of links pivotally connected together to provide an endless belt and means detachably mounting a stamp on each separate link, spaced driven and idler rotatable means for each belt, means rotatably mounting said driven and idler means on said frame, an endless flexible driving member operatively connecting all of said driven means together for simultaneous actuation, whereby to position simultaneously like stamps of all sets in a stamping position.

7. A machine for stamping indicia on a plurality of like containers simultaneously, comprising a bed adapted to receive a rack containing a plurality of like containers, an arbor fixed to said bed, a stamp frame, means mounting said frame on said arbor for reciprocating movement toward and away from said bed providing a stamping stroke, a plurality of rows of like endless belts carried by said frame, said rows being separated to provide spaces therebetween, a plurality of stamps detachably secured to each belt, means for simultaneously driving all of said belts whereby to position a stamp of each belt in a stamping position relative to said frame, a plurality of inking rolls for said stamps, there being a roll for each row of belts, a crank, a connecting rod pivoted on said crank, a pitman pivoted to said connecting rod, a crosshead pivoted to said pitman for reciprocation thereby, a lost-motion connection between said crosshead and said frame whereby to actuate the latter during a portion only of said reciprocation of said crosshead, an inking frame mounting said rolls, means mounting said inking frame for reciprocation at right angles to the path of said crosshead, a drag link pivoted to said crosshead, direct pivotal connection between said link and said inking frame, said last-named connection being effective to reciprocate said inking frame alternately with the reciprocations of said first-named frame, said rolls comprising hollow cylindrical members each being formed with a line of perforations therethrough, ink pad-providing material covering said perforations, said perforations being normally uppermost to retain ink in said rolls, and means for rotating said rolls 180° on each reciprocation of said inking frame to re-ink said ink pad-providing material.

8. A machine for stamping indicia on a plurality of like containers simultaneously, comprising a bed adapted to receive a rack containing a plurality of like containers, an arbor fixed to said bed, a stamp frame, means mounting said frame on said arbor for reciprocating movement toward and away from said bed providing a stamping stroke, a plurality of rows of like endless belts carried by said frame, said rows being separated to provide spaces therebetween, a plurality of stamps detachably secured to each belt, means for simultaneously driving all of said belts whereby to position a stamp of each belt in a stamping position relative to said frame, a plurality of inking rolls for said stamps, there being a roll for each row of belts, a crank, a connecting rod pivoted on said crank, a pitman pivoted to said connecting rod, a crosshead pivoted to said pitman for reciprocation thereby, a lost-motion connection between said crosshead and said frame whereby to actuate the latter during a portion only of said reciprocation of said crosshead, an inking frame mounting said rolls, means mounting said inking frame for reciprocation at right angles to the path of said crosshead, a drag link pivoted to said crosshead, a direct pivotal connection between said link and said inking frame, said last-named connection being effective to reciprocate said inking frame alternately with the reciprocations of said first-named frame, said rolls comprising hollow cylindrical members each

being formed with a line of perforations therethrough, ink pad-providing material covering said perforations, said perforations being normally uppermost to retain ink in said rolls, a fixed rack on said stamp frame, a pinion fixed to each roll and in mesh with said rack, and said rack and pinions being adapted to rotate said inking frame to re-ink said ink pad-providing material.

9. In a gang stamper for simultaneously stamping a plurality of like articles with like indicia, said stamper including a frame and a bed adapted to receive racks of like articles thereon for stamping, the improvement comprising a gang of stamps carried by said frame, said stamps of said gang being disposed in spaced relation on said frame in a pattern conforming to that of articles of like size in a rack, at least a second gang of stamps carried by said frame, said stamps of said second gang being disposed in spaced relation and in a pattern interfitting with said pattern of said first gang and corresponding to a second pattern of racked articles of like size, means for simultaneously moving both gangs toward and away from said bed through a stamping stroke, and means on said rack for simultaneously rendering all of the samps of a selected gang inoperative during at least one stamping stroke.

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