W. ROBERTSON.

LABELING MACHINE.

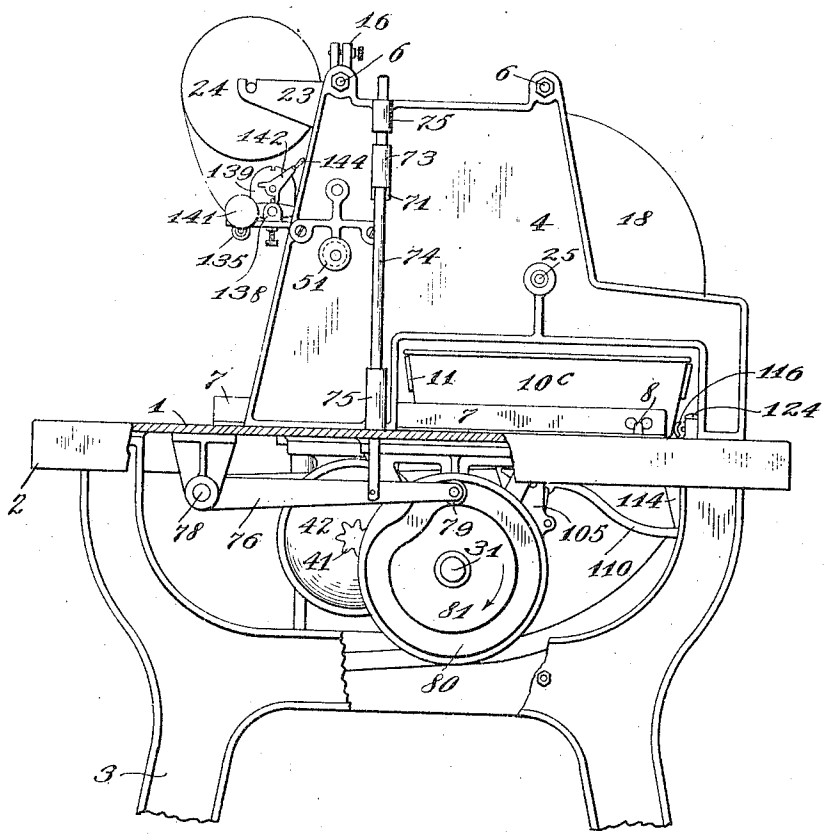
APPLICATION FILED APR. 24, 1911.

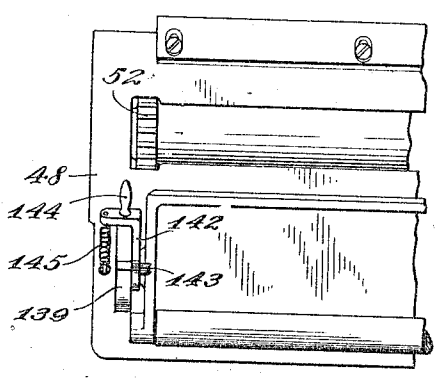
1,038,658.

Patented Sept. 17, 1912.

5 SHEETS—SHEET 1.

FIG. 1





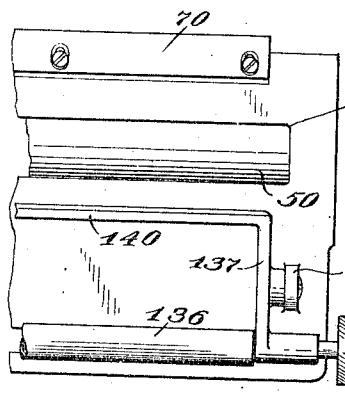


FIG. 6

WITNESSES:

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Hugh B. McGill

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Wm. Robertson.

BY Hull & Smith

ATTYS.

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5 SHEETS—SHEET 2.

FIG. 2

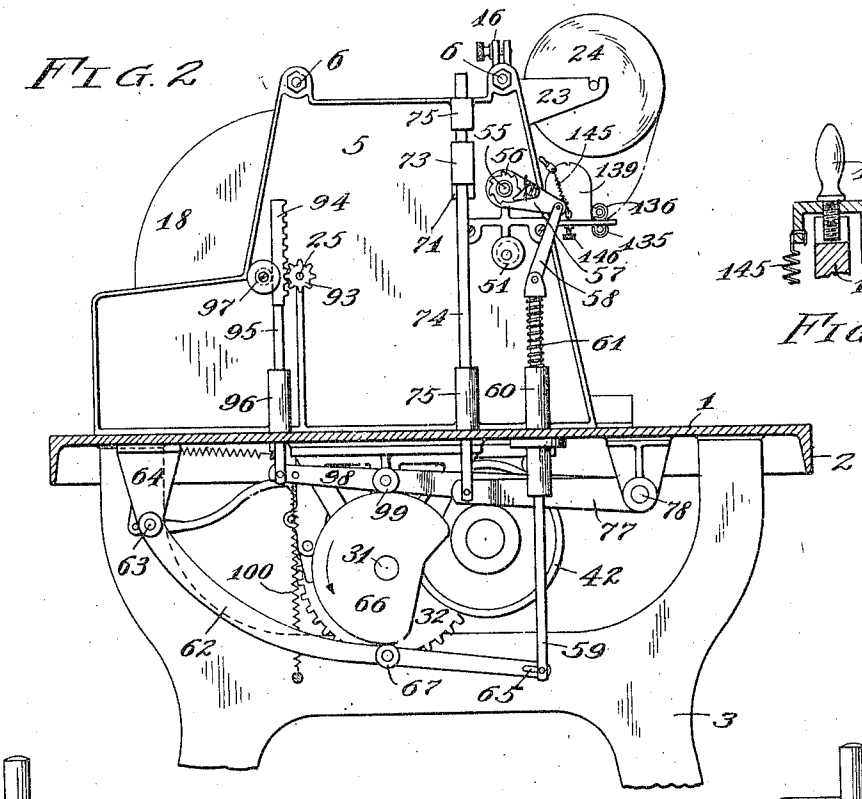
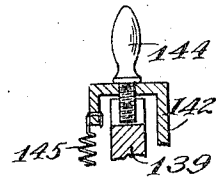
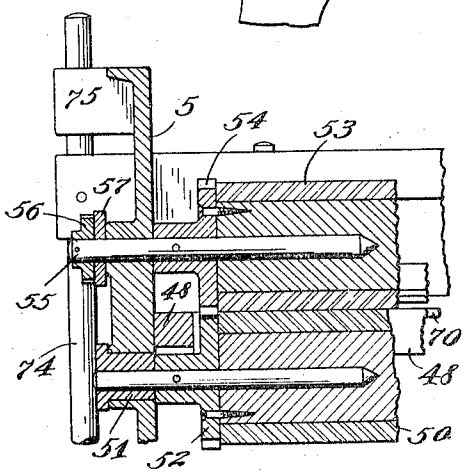


FIG. 8





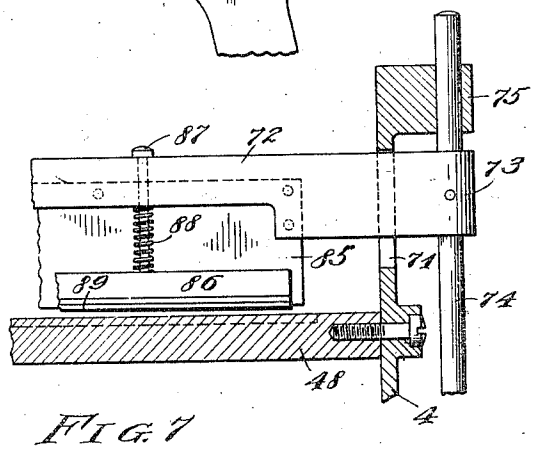


FIG. 7

WITNESSES:

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LABELING MACHINE.

APPLICATION FILED APR. 24, 1911.

1,038,658.

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5 SHEETS—SHEET 3.

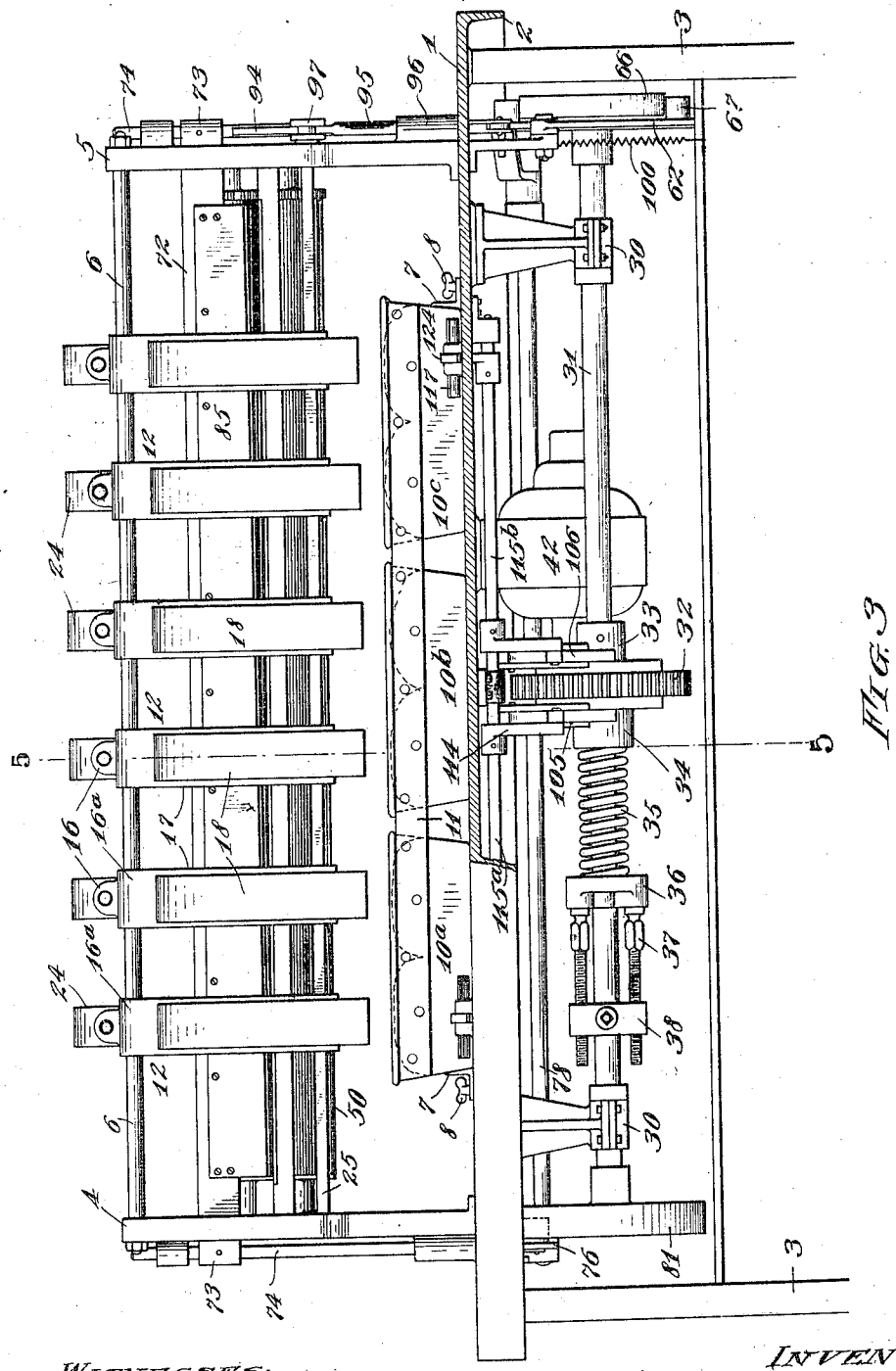

FIG. 3

WITNESSES:

Brannan B. West.

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LABELING MACHINE.

APPLICATION FILED APR. 24, 1911.

1,038,658.

Patented Sept. 17, 1912.

6 SHEETS—SHEET 4.

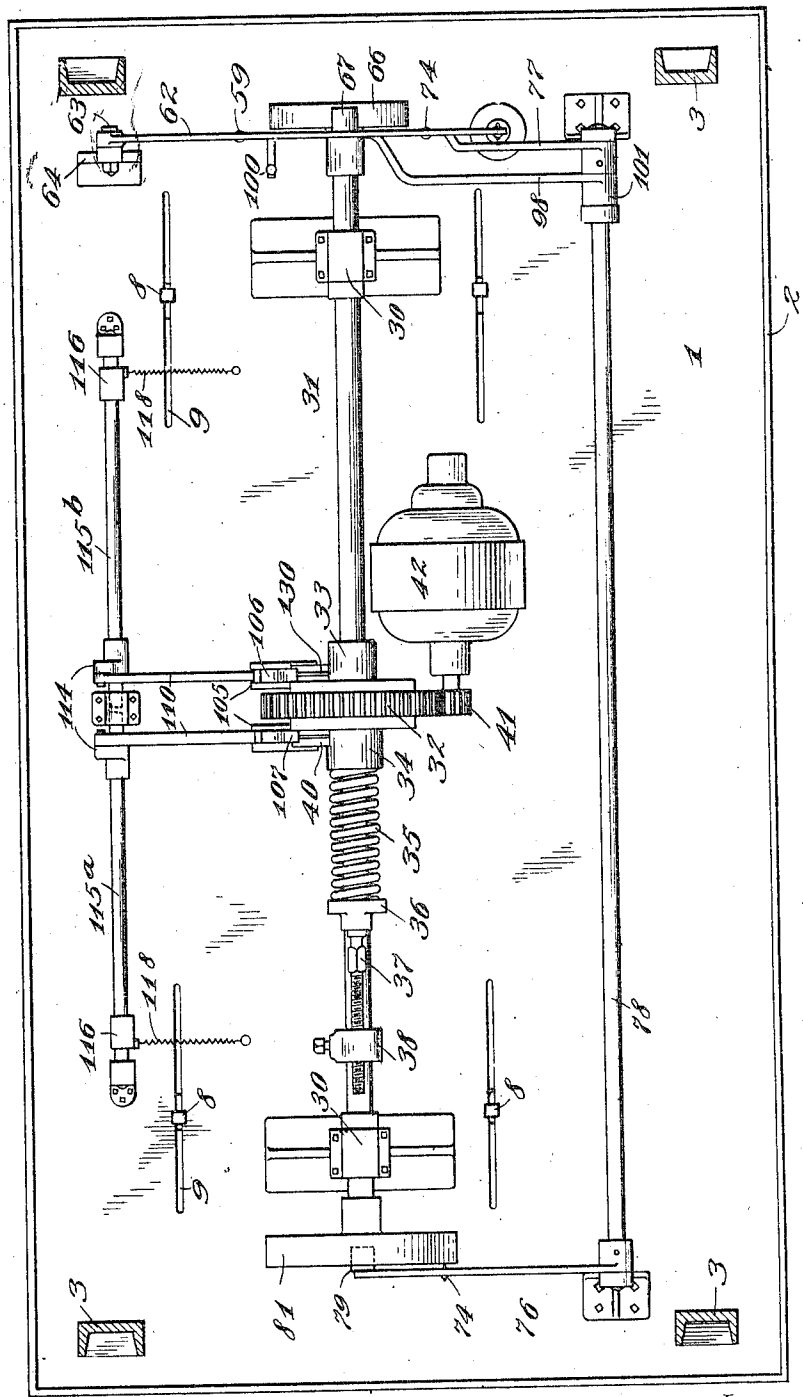

FIG. 4

WITNESSES:

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LABELING MACHINE.

APPLICATION FILED APR. 24, 1911.

1,038,658.

Patented Sept. 17, 1912.

5 SHEETS—SHEET 5.

FIG. 9

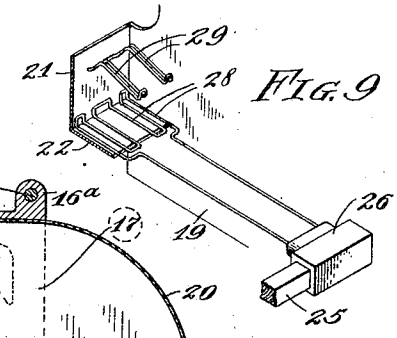


FIG. 5

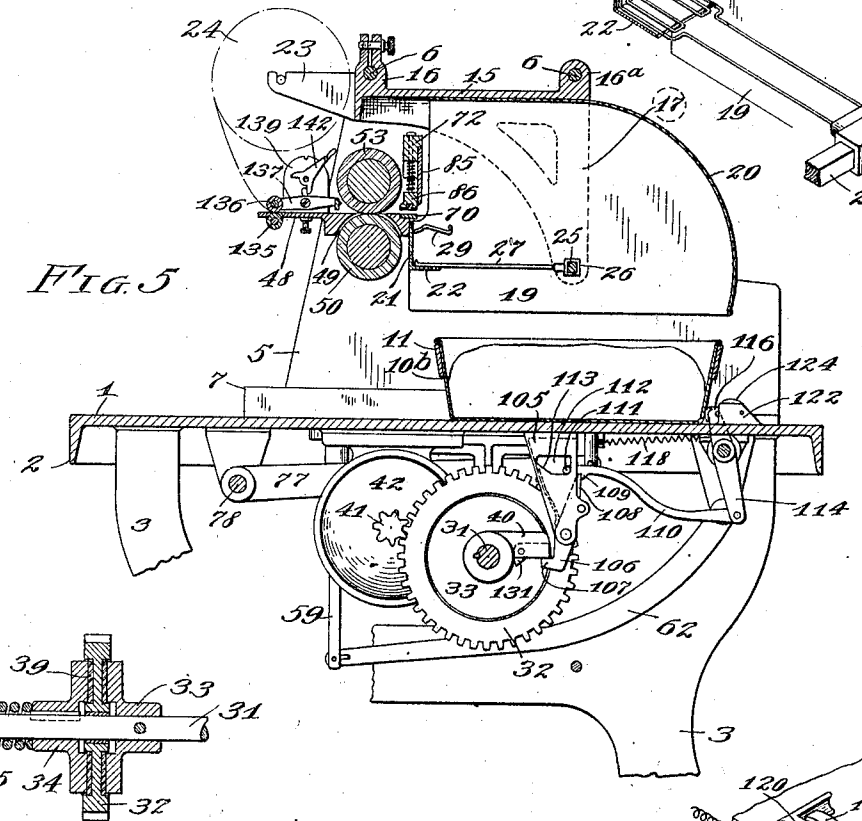


FIG. 10

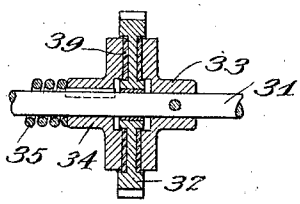


FIG. 11

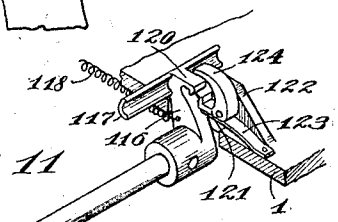
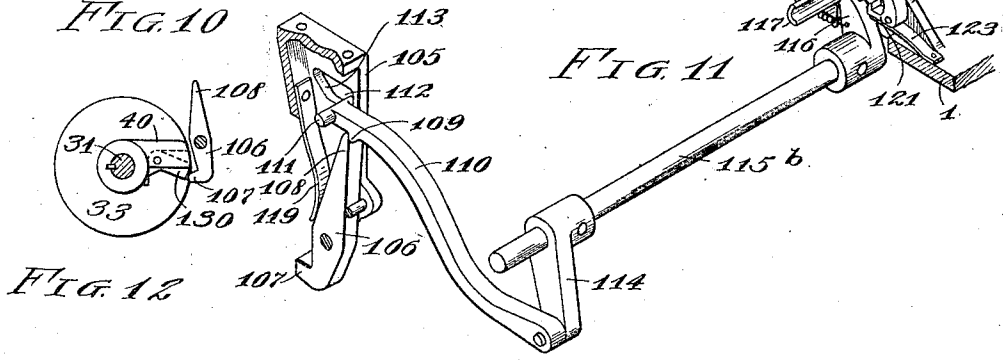


FIG. 12



WITNESSES:

Norman B. West

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ATTYS.

UNITED STATES PATENT OFFICE.

WILLIAM ROBERTSON, OF CLEVELAND, OHIO.

LABELING-MACHINE.

1,038,658. Specification of Letters Patent. Patented Sept. 17, 1912.

Application filed April 24, 1911. Serial No. 622,912.

To all whom it may concern:

Be it known that I, WILLIAM ROBERTSON, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented a certain new and useful Improvement in Labeling-Machines, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings.

This invention relates to labeling machines and particularly to machines adapted for attaching labels to loaves of bread, cakes, pies and other bakery products, although adaptable within the scope of my invention for attaching labels to parcels, boxes, bolts of cloth, rolls of paper, and many other articles.

The object of the invention is to provide a machine of this character in which all the parts shall coöperate to the end in view with the least possible danger of the machine being so operated as to act prematurely with the consequent loss of labels, damage to product, or derangement of parts; and, more specifically, to provide a machine in which any desired number of labels within a considerable range may be applied simultaneously to articles of the nature upon which the machine is intended to operate, said labels being automatically fed, cut, transferred to the articles, and affixed thereto.

Another object of the invention is the provision, in a device of this character, of mechanism whereby the operation of the label affixing means shall be prevented until the article to be labeled has been moved to the exact position intended and whereby said operation is immediately and positively performed as soon as that position is reached, while other objects and advantages of my invention will be made apparent in the course of the following description and claims.

One embodiment of my invention is illustrated in detail in the drawings accompanying and forming a part of this application, although it is to be understood that the machine illustrated therein is only one out of many devices by the use of which the principle of my invention may be employed, and that many variations in matter of form and arrangement of parts may be made without departing from the scope of my invention.

In said drawings, Figure 1 is a right hand end elevation of the complete machine, a part of the lip of the table being broken away; Fig. 2 is a left hand end elevation of the machine showing the table cut away just inside the line of the left hand legs; Fig. 3 is a rear elevation of the complete machine, a portion of the table flange being broken away; Fig. 4 is a bottom plan view of the table; Fig. 5 is a central vertical cross sectional view of the machine taken substantially on the line 5—5 of Fig. 3; Fig. 6 is a top plan view of the label feeding means, the upper feed roller and cutting knife being removed; Fig. 7 is a detail cross sectional view through the label feeding and cutting means; Fig. 8 is a detail view of an element of the label feed; Fig. 9 is a perspective view of the label transferring arm and associated parts; Fig. 10 is a detail view of the friction clutch; Fig. 11 is a perspective view of the trigger and associated parts; and Fig. 12 is a detail view illustrating the method of preventing premature operation of the machine and insuring its operation at the proper time.

Describing the parts by reference characters, 1 indicates a flat table, preferably of metal and having a depending lip or flange 2 therearound and having supporting legs 3. Mounted adjacent the ends of this table are the vertically extending flat end plates 4 and 5, respectively, which are connected by the longitudinally extending horizontal rods 6 so as to form a rigid frame. Secured to the top of the table parallel to the end plates 4 and 5 are the guides 7—7 secured by thumb screws 8 projecting through longitudinal slots 9 formed in the table so as to permit their adjustment toward or from each other. In these drawings I have illustrated the machine as adjusted for attaching labels to loaves of bread, and I have illustrated the usual baker's set consisting of three pans, 10^a, 10^b and 10^c, secured together in a row by means of metallic straps 11 and containing six loaves of bread; and the guides 7 are arranged so as exactly to permit the passage of one of these sets therebetween. Slidably mounted upon the rod 6 and adjustably securable thereto are the labeling units 12, one of which is arranged in operative relation to each loaf of bread which is passed thereunder. I have illustrated six such labeling units in this machine, though it is obvious that, since they are all exactly alike, the ma-

chine could be made larger or smaller within any desired limit, and that in case smaller sets be used, it is possible to slide the unused units to the end of the machine and leave them there. Each of these sets comprises a frame made of a horizontal plate 15 having upstanding ears 16 and 16ª sleeved upon the rod 6 and having depending side pieces 17 between which is secured a shell or hood 18 having an open bottom spaced a short distance above the top of the pans. The sides of this hood preferably consist of flat plates 19 connected at the top by a curved plate 20 and having their forward edges connected together by means of a brace 21 provided with a flat inwardly extending shelf 22.

Secured to the forward end of the plate 15 is a pair of brackets 23 upon which is mounted a roll 24 of labels, the width of which must be less than the width between the plates 19 of the hood. Journaled in the end plates 4 and 5 and extending through the plates 19 is the label transfer shaft 25, here shown as square in cross section although any polygonal, grooved, or splined shaft could obviously be employed. Sleeved upon this shaft inside of each hood is a sleeve 26 from which projects a radial arm 27 adapted to receive the label from the label feeding device, transfer it to the bread or other article, and affix it thereto. This arm is preferably made of wire, as shown in Fig. 9, and has upon its outer end a plurality of fingers 28 adapted to swing by other fingers 29 secured to the brace 21. The length of this arm is such as to cause it when in normal position, to rest upon the shelf 22 and the position of the shaft 25 is such as to cause the end of the arm to contact with the bread or other article at the desired point.

As will now be apparent, the operation of the machine is to deposit a severed label upon the finger 29, and then swing the arm 27 so as to transfer the label to the surface of the bread, and the means for accomplishing these two steps, and of timing their performance both with relation to each other and to the presentation of the bread will now be described.

Journaled in brackets 30 secured to the bottom of the table is a longitudinal shaft 31 having at substantially the middle point a gear wheel 32 loosely sleeved thereon. Secured to said shaft at one side of said wheel is the fixed collar 33 and sleeved upon the other side of said gear is the slidable but non-rotatable collar 34, which is yieldingly pressed toward the first collar by means of a spring 35 interposed therebetween and an adjustable abutment 36 also carried by said shaft. In this embodiment this abutment is adjusted by means of turn buckles 37 engaging a rigid collar 38. Between the collars 33 and 34 and the corresponding side faces of the gear 32 the friction disks 39 are interposed. Each of these collars is provided with a radially extending arm 40 adapted to be engaged by dogs or stop members which shall arrest their rotation, while the gear 32 is in mesh with the pinion 41 of a motor 42 and is driven thereby continuously.

Secured between the end plates 4 and 5 and spaced above the table 1 is a horizontal shelf 48 about which is grouped the label feeding means. The rear edge of this shelf abuts against the upper outer edges of the braces 21, as shown in Fig. 5, and parallel with this edge of the shelf is a longitudinal slot 49 in which is mounted the lower label feed roller 50. This roller is preferably supported in eccentric bushings 51 carried by the end plates 4 and 5 and also has at one end inside one of the plates a gear wheel 52, as illustrated in Fig. 7. Immediately above this roller is journaled a parallel companion roller 53 provided with a gear 54 meshing with the gear 52 and having one of its journal studs, as 55, extended through one of the end plates, as 5, and there provided with a ratchet wheel 56. Journaled on this stud immediately inside of the ratchet is a lever 57 having thereon a pawl adapted to engage said ratchet wheel and connected by a link 58 with a reciprocable rod 59 extending upwardly through the table and slidably mounted in a boss 60. A spring 61 is preferably associated with this rod so as to hold it in upward position, and a lever 62 pivoted at 63 to a bracket 64 rigidly carried by the table is slidably journaled to its lower end, as at 65. A cam 66 secured to the end of the shaft 31 bears against a roller 67 carried by said lever 62 and serves to produce one complete reciprocation of the rod 59 at each revolution. The point of contact of the rollers 50 and 53 comes substantially at the top of the table 48, as shown in Fig. 5, and the pitch of the ratchet wheel 56 is so selected that at each actuation thereof, said rollers will be advanced a sufficient distance to deliver one label to each of the different units.

The rear edge of the table 48 is provided with a flat horizontal cutting plate 70, as shown in Figs. 5, 6 and 7, and the end plates 4 and 5 are provided with vertical slots 71 immediately above the plate. A horizontal beam 72 is projected through these slots and runs from end to end of the machine, said beam being provided at its ends with eyes 73 in which are secured the vertical rods 74. These rods are slidably mounted in hollow bosses 75 carried by the end plates and extend below the surface of the table where they are connected to levers 76 and 77 secured to the ends of a horizontally journaled rock shaft 78. The arm 76 is provided with a roller 79 engaging in the

groove 80 of an internal cam 81 secured to the shaft 31, said cam being so designed as to cause one complete reciprocation of the rods 74 at each rotation.

Secured to the side of the beam 72 is a cutting knife 85 adapted to pass by the edge of the cutting plate 70 and shear off a label at each reciprocation, and mounted immediately at the side of said knife is a spring pressed foot or cushion 86 adapted to press the label strips against the plate 70 and hold them during the cutting operation. This foot or cushion is preferably secured to the beam 72 by bolts 87 passing slidably through vertical perforations therein and is held in downward position by springs 88 surrounding said bolts. The lower edge of this foot or cushion is preferably provided with a surface of rubber or other soft material 89. It will now be obvious that, at each rotation of the shaft 31, one label will be fed into each of the units 12 by the action of the cam 66, rod 59, lever 57, and ratchet wheel 56, and that after such feeding, said labels will be severed by the knife 85 and will drop upon the fingers 29.

Secured to the end of the shaft 25 outside of one of the end plates, as 5, is a pinion 93 meshing with a rack 94 carried at the upper end of a reciprocating rod 95 sleeved in a hollow boss 96 and held in mesh with said pinion by means of a roller 97. The lower end of this rod is articulated to a lever 98 provided with a roller 99 engaged with the cam 66 and preferably held in downward position by means of a tension spring 100. The other end of said lever may conveniently be journaled by loosely sleeving the same upon the shaft 78, as shown at 101. With the arrangement now described it will be seen that at each rotation of the shaft 31 the rod 95 and rack 94 will be moved downwardly under the influence of the spring 100 so as to rotate the shaft 25 and cause the arms 27 to pick up the labels from the fingers 29 and transfer the same to the top of the loaves, or other articles to be labeled. It is necessary, however, that this shaft be actuated but once for each set of tins introduced into the machine, and that this actuation should not take place until the tins have been moved sufficiently far to permit the arms 27 to clear the edges thereof, otherwise the arms will be damaged by contact with the metal. It is further necessary that means be provided to prevent the operation of the label affixing means until the tins have been delivered to the machine at the proper angle, otherwise some of the transfer levers might be damaged. And, furthermore, it is desirable to lock the machine against a second operation in case the attendant after having labeled one set of loaves should draw that set back a short distance instead of passing the same across the table to an attendant, as in the usual manner. The mechanism by which these results are obtained will now be described.

Secured to the bottom of the table adjacent each of the arms 40 is a bracket 105 having a dog 106 pivoted thereto. The lower ends of these dogs are provided with teeth 107 adapted to engage the arms 40 and the upper ends thereof with toes 108 adapted to be engaged by projections 109 carried on bars 110. The forward end of each of these bars is provided with laterally extending fingers 111 projecting into slots 112 formed in the sides of the bracket 105, the forward ends of these slots being formed with upwardly inclined surfaces 113. The rear ends of these bars are articulated to cranks 114, secured to the ends of separate rock shafts 115^a and 115^b, which are journaled to the bottom of the table adjacent the rear edges of the hoods 18. Secured to the outer end of each of these rock shafts is a trigger arm 116, here shown as provided on its forward face with an extended bearing plate 117 for engagement with the backs of the pans. Each of these triggers is preferably provided with a spring 118 for drawing the same forwardly and each of the dogs 106 is provided with a spring 119 for swinging its tooth into engaging position. If a set of tins be introduced into the machine and pressed against the triggers 116 the bars 110 will be pushed forwardly and the dogs 106 swung so as to release the arms 40 and permit the rotation of the shaft 31 by reason of the frictional engagement with the gear 32.

Referring to Fig. 2 and the direction of rotation of the shaft marked thereon it will be seen that the first action which takes place is the moving of the sharp nose of the cam 66 past the roller 99 so as to permit the spring 100 to actuate the rack 94 and operate the label transfer arms 27. These arms then pick up the labels from the fingers 29 and slap them down upon the surface of the loaf, as above explained. The customary practice is to affix the labels before the bread is baked so that the natural adhesiveness of the dough may hold the labels thereon without the need of any special gum or glue. The continued rotation of this cam causes the oppositely inclined surface thereof to return the lever 98 to its original position and with it the rack 94 and arm 27. As the cam 66 continues to revolve the sharp nose thereof passes the roller 67 permitting the upward movement of the rod 59 so as to enable the pawl on the lever 57 to engage the next succeeding tooth on the ratchet 56, after which this arm is again moved downwardly so as to feed one label from each of the rolls 24. It will be noted that this label is not fed

forwardly until after the arms 27 have been returned to their normal position, as it is imperative that the labels be not fed behind these arms. As soon as the arms 62 and rod 59 have been moved downwardly to their normal position, the cam 81 will have moved to a position to actuate the rods 74 and thereby the cutting knife 85. This cutting operation may be performed either at the beginning of the cycle of operations or at the end thereof. It is merely necessary that the cutting knife be actuated after the labels have been projected through the rollers and before the actuation of the transfer arms 27. In the present embodiment, I have illustrated the cam 81 as set to perform this operation at the beginning of the cycle, but this arrangement is not imperative.

Inasmuch as the shaft 31 began to move the instant the dogs 106 were released, I proceeded at once to the explanation of the cycle of operation without stopping to consider what happened to the dogs themselves. In case the triggers 116 are tripped simultaneously, the dogs 106 are released at the same instant and the shaft 31 moves the arms 40 far enough so that it is impossible for the dogs to catch these arms again. It is necessary, however, that these dogs be so arranged as to insure their catching the arms at the end of that revolution irrespective of whether the bread has or has not been removed, otherwise, a negligent attendant might pile up a quantity of labels upon each loaf. This end is secured by reason of the inclined side 113 of the slot 112 which causes the fingers 111 to raise the end of the rod 110 so as to disengage the projection 109 from the toe 108 and permit the spring 119 to return the dog to its original position. It is possible, however, that the attendant might frustrate this arrangement by drawing back the loaves slightly away from the triggers 116 and, by pressing them forwardly again, obtain a second actuation of the machine. In order to prevent this contingency, I form the rear of the trigger arms 116 with hooks 120 adapted to be engaged by latches 121 pivoted to brackets 122 formed in the rear of the triggers and pressed into locking position by springs 123. These latches are provided with upwardly curved releasing arms 124 projecting slightly above the tops of the brackets. When the bread pans are shoved against these triggers the latter are locked by means of the latches 121, though not until the dogs 106 have been released from the projections 109, as above explained. The operation of the machine takes place in the ordinary manner, the loaves being delivered thereto by an attendant positioned at the front thereof, but only one operation can by any possibility be had until the arms 124 have been depressed so as to release the triggers. A second attendant stands at the rear of the machine and removes the loaves, lifting them slightly so as to draw them from the tops of the brackets 122. The weight of the loaves causes the arms 124 to be depressed, thereby releasing the triggers as above described. The springs 118 then return the bars 110 to their original position, the projections 109 riding over the ends of the dogs.

One other contingency remains to be avoided: Supposing the tins be inserted at such an angle that one of the triggers is tripped while the other one is left untouched; the corresponding dog 106 will go through all the motions of releasing its corresponding arm 40 and the affected trigger will be locked back by the latch 121. The shaft 31 will, however, have been held against rotation by the other dog so that the first dog will immediately snap back into its original position beneath its arm, and the machine held against operation, inasmuch as the projection 109 would now be upon the wrong side of the dog. Consequently, if the attendant were then to shove the pan around straight so as to operate the farther trigger, the second dog would momentarily release its arm but the shaft would still fail to revolve because of the engagement of the first dog. In order to prevent this contingency, I provide the expedient illustrated in Figs. 5 and 12 which consists in providing each of the arms 40 with a pivoted blade 130 mounted in a recess formed in said arm and limited in its downward swinging movement by means of a projection 131. The outer end of this blade is arranged to form practically a continuation of the arm 40 so that if the arm fails to move the instant the dog 106 is released therefrom, the blade 130 will fall so as to prevent the reëngagement of the dog therewith, as shown in Fig. 12, and the shaft will be free to rotate the instant the other dog is disengaged.

In connection with the label feeding means I have illustrated an expedient for starting the labels thereinto and insuring their being severed at the proper points. Mounted in a longitudinal slot at the outer edge of the shelf 48 is a small starting roller 135 and above this roller is a second roller 136 carried at one side of a tiltable frame 137 which is journaled between lugs 138 and 139 formed on the top of said shelf. The side of said frame adjacent the feed rollers is provided with a stop plate 140 and the roller 136 is provided with a milled hand wheel 141. Pivoted to the lug 139 is a lever 142 having at its inner end a pair of spaced fingers adapted to engage a lug 143 carried by the frame and having at its outer end a set screw 144 adapted to be engaged in suitable notches in

said projection. The end of said lever is preferably extended laterally outside of said projection and there secured to a spiral spring 145 the other end of which is attached to a set screw 146 carried by said shelf. When this lever is swung toward the front of the machine it serves to press the stop plate 140 against the shelf 48 and so limit the insertion of the labels and permit them to be started evenly. The lever is then swung toward the rear of the machine so as to press the starting rollers 135 and 136 together whereupon the hand wheel 141 is turned to bring the labels into such proximity with the feed rollers 50 and 53 as to permit them to be grasped thereby. The distance between the feed rollers 53 and the cutting knife 85 is preferably equal to a whole number of labels, though it is obvious that the machine could be started under other conditions by properly cutting the first labels inserted. After the knife 85 has cut one label along the proper line, it is necessary merely to have rollers 50 and 53 of the proper size as compared with the pitch of the ratchet 56 to cause all succeeding labels to be cut with equal exactness. The cutting plate 70 is preferably made slightly adjustable, as shown in Fig. 6, so as to allow for grinding and adjusting.

For purposes of description and in the name of greater clearness, I have illustrated the cams 66 and 81 as separate from each other and secured to opposite ends of the shaft 31. It is obvious, however, that the cams can be formed together as a single piece, and the same will doubtless frequently be done in practice. Furthermore, I have illustrated the machine as trigger operated, though it will be obvious that it might be made to operate continuously upon a time basis without departure from my invention, and reliance placed upon the attendant or upon some type of feeding device for presenting the loaves thereto with sufficient regularity. It will also be obvious that the machine could be adapted for the attaching of labels to other articles than loaves of bread within the scope of my invention. And, furthermore, while I have necessarily described my invention in detail I do not propose to be limited to any such details except as the same may be positively included in the claims hereto annexed or may be rendered necessary by the prior state of the art.

Having thus described my invention, I claim:—

1. In a labeling machine, the combination, with a support for the articles to be labeled, of a frame adjacent to said support, a plurality of labeling units carried by said frame and adjustable thereon so as to operate upon a plurality of said articles simultaneously, a shaft journaled in said frame and traversing all of said units, transferring means forming a part of each of said units and adapted to be operated by said shaft, mechanism for delivering separate labels singly to the transferring means of each unit, and means for actuating said shaft to cause said transferring means to attach said labels to said articles.

2. In a labeling machine, the combination, with a support for the articles to be labeled, of a frame adjacent to said support, a plurality of labeling units adjustable along said frame so as to operate upon a plurality of articles simultaneously, a shaft journaled in said frame, a transferring arm carried by said shaft in connection with each of said units means for delivering separated labels singly to each of said arms, and means for actuating said shaft to swing said arms and transfer said labels to said articles.

3. In a labeling machine, the combination, with a support for the articles to be labeled, of a frame adjacent to said support, a plurality of labeling units carried by said frame, a shaft journaled in said frame and traversing all said units, collars slidably but non-rotatably sleeved upon said shaft, there being one collar for each of said units, an arm carried by each of said collars, means for delivering separated labels singly to each of said arms, and means for rotating said shaft to transfer said labels to the surface of articles on said support and affix said labels thereto.

4. In a labeling machine, the combination, with a support for the articles to be labeled, of a frame secured above said support, a plurality of labeling units carried by said frame and adjustable thereon so as to operate upon a plurality of said articles simultaneously, an operating member carried by said frame and traversing all of said units, a swinging arm associated with and forming a part of each of said units and adapted to be operated by said member, mechanism for delivering separate labels singly to said arms, and means for actuating said operating member to cause said transferring arms to attach said labels to said articles.

5. In a labeling machine, the combination, with a support for the articles to be labeled, of a frame adjacent to said support, a plurality of labeling units carried by said frame and spaced from said support, said units being adjustable along said frame, a transferring arm forming a part of each unit, means for delivering separated labels singly to each of said arms, and means for actuating said arms simultaneously to transfer said labels to said articles and affix them thereto.

6. In a labeling machine, the combination, with a support for the articles to be labeled, of a frame secured adjacent to said support, a labeling unit adjustable along said frame, a shaft journaled in said frame and travers-

ing said unit, a collar slidably but non-rotatably sleeved upon said shaft, said unit having side pieces embracing said collar and maintaining the same in fixed relation relatively thereto, an arm carried by said collar, means for delivering separated labels singly to said arm, and means for rotating said shaft to swing said arm and transfer said labels to the surface of articles on said support.

7. In a labeling machine, the combination, with a support for the articles to be labeled, of a frame secured above said support, a plurality of labeling units adjustable along said frame, means carried by said support for adjusting the position of the articles relatively to said units, and means for actuating said units to affix labels to said articles.

8. In a labeling machine, in combination, a pivoted arm, means for delivering labels singly to said arm, means for operating said arm to transfer said labels to the surfaces of the articles to be labeled and to affix the same thereto, and means for preventing the action of said arm until said articles have been presented in a predetermined relation thereto.

9. In a labeling machine, the combination, with a support for the articles to be labeled, of a frame adjacent to said support, fingers carried by said frame and adapted to receive the labels, means for delivering separated labels singly to said finger, an arm pivoted to said frame, and means for swinging said arm to remove said labels from said fingers and transfer the same to the surfaces of the articles to be labeled and affix them thereto.

10. In a labeling machine, the combination, with a support for the articles to be labeled, of a frame adjacent to said support, fingers carried by said frame and adapted to receive the labels, means for delivering separated labels singly to said fingers, an arm pivoted to said frame, means for swinging said arm to remove said labels from said fingers and transfer the same to the surfaces of the article to be labeled, and means for returning said arm to its original position in advance of the delivery of the next label to said fingers.

11. In a labeling machine, the combination, with a support for the articles to be labeled, of a frame adjacent to said support, a plurality of labeling units mounted on said frame, means carried by each of said units for supporting a strip of connected labels, a feed roller journaled in said frame and traversing all of said units, means for actuating said feed roller in a step by step manner to deliver labels to all of said units simultaneously, means for severing separate labels from said strips of labels after their passage by said roller, and means for transferring said separated labels to the surfaces of said articles and for affixing the same thereto.

12. In a labeling machine, the combination, with a support for the articles to be labeled, of a frame adjacent to said support, a plurality of labeling units mounted on said frame, means carried by each of said units for supporting a strip of connected labels, a severing device carried by said frame and traversing all of said labeling units, means for advancing said labels to said severing device in a step by step manner, means for actuating said severing device to detach separate labels, and means for transferring such separated labels to the surfaces of said articles and for affixing the same thereto.

13. In a labeling machine, the combination, with a support for the articles to be labeled, of a frame adjacent to said support, a plurality of labeling units, adjustable along said frame, means carried by each of said units for supporting a strip of connected labels, a cutting device carried by said frame and traversing all of said labeling units, means for advancing said labels to said cutting device in step by step manner, means for actuating said cutting device to detach separate labels from said strip, means for transferring such separated labels to the surfaces of said articles and for affixing the same thereto, and means for returning said transferring means to its original position before the advancing of the next label.

14. In a labeling machine, the combination, with a support for the articles to be labeled, of a frame adjacent to said support, a pair of feed rollers carried by said frame, a strip of connected labels carried by said frame, means for actuating said rollers in a step by step manner so as to advance said strip therethrough, means for clamping said strip when so advanced, means for severing single labels from said strip after such advance, means for receiving such severed labels, and means for transferring such severed labels from said receiving means to the surfaces of said articles and for affixing the same thereto.

15. In a labeling machine, the combination, with a support for the articles to be labeled, of means for transferring and affixing separated labels to the surfaces of said articles, mechanism for operating said means, a trigger adapted to be displaced by the articles to be labeled to permit the operation of said transferring and affixing means, and means for preventing a second actuation of said transferring and affixing means until the articles labeled have been withdrawn from said support in a predetermined manner.

16. In a labeling machine, the combination, with a support for the articles to be

labeled, of means for transferring and affixing separated labels to the surfaces of said articles, mechanism for operating said means, a trigger adapted to be displaced by the articles to be labeled to permit the operation of said transferring and affixing means, means for arresting the operation of said machine after a single cycle of operation, means for locking said trigger in inoperative position after each displacement, and means actuated by the withdrawal of said articles from said machine for permitting the resetting of said trigger.

17. In a labeling machine, the combination, with a support for the articles to be labeled, of means for transferring and affixing separated labels to the surfaces of said articles, mechanism for operating said means, a stop for arresting the movement of said mechanism after a single actuation of said transferring and affixing means, a trigger adapted to be displaced by the articles to be labeled, connections between said trigger and said stop to release said stop upon such displacement and permit the actuation of said labeling and affixing means, means for disconnecting said trigger from said stop after such displacement and until the removal of said articles from said support, and means adapted to be operated by the removal of said articles for reconnecting said trigger and said stop.

18. In a labeling machine, the combination, with a support for the articles to be labeled and adapted to receive a plurality of said articles simultaneously, of means for transferring and affixing separated labels to the surfaces of all said articles simultaneously, stops for arresting the movement of said mechanism after a single actuation of said transferring and affixing means, a trigger at each side of the mid-position of said articles and adapted to be displaced thereby, connections between each of said triggers and said stops, said triggers being so arranged that the actuation of either singly will fail to release said stops but so that the actuation of both either simultaneously or successively will cause such release.

19. In a labeling machine, the combination, with a support for the articles to be labeled, of means for transferring and affixing separated labels to the surfaces of said articles, a rotatable shaft, connections between said shaft and said transferring and affixing means whereby the latter is operated upon the rotation of said shaft through a predetermined angle, stop means for arresting the rotation of said shaft, a trigger adapted to be displaced by the articles to be labeled, connections between said trigger and said stop means adapted to release said stop means upon such displacement and permit the rotation of said shaft, means for disconnecting said trigger from said stop means after such displacement, means for returning said stop means into arresting position immediately after such disconnection whereby the rotation of said shaft may be arrested after the proper angle of rotation, means for maintaining said trigger and said stop means disconnected until the removal of said articles from said support, and means whereby the removal of said articles will reconnect said trigger and said stop means.

20. In a labeling machine, the combination, with a support for the articles to be labeled and adapted to receive simultaneously a plurality of said articles abreast, of means for transferring and affixing separated labels to the surfaces of all said articles simultaneously, a rotatable shaft, connections between said shaft and said transferring and affixing means whereby the latter is caused to perform a single operation upon the rotation of said shaft through a predetermined angle, a trigger at each side of the mid-position of said articles adapted to be displaced thereby, a stop associated with each trigger and adapted to arrest the rotation of said shaft, connections between each trigger and its stop adapted to release said stop upon such displacement, means for disconnecting said trigger from said stop after such displacement, means tending to return said stop into arresting position immediately after such disconnection whereby the rotation of said shaft may be arrested after the proper angle of rotation, and means for preventing the arresting action of said stop until after such rotation has been commenced.

21. In a labeling machine, the combination, with a support for the articles to be labeled, of means for transferring and affixing separated labels to the surfaces of said articles, a rotatable shaft, friction means for rotating said shaft, operating connections between said shaft and said means, a trigger adapted to be displaced by the articles to be labeled, stop projections carried by said shaft, stop means carried by said machine and adapted to engage said stop projections, connections between said trigger and said stop means whereby the displacement of said trigger may free said shaft, means for disconnecting said trigger from said stop upon such displacement, and means for returning said stop to engaging position so as to arrest the rotation of said shaft after a single operation of said transferring and affixing means.

22. In a labeling machine, the combination, with a support for the articles to be labeled, of means for transferring and affixing separated labels to the surfaces of said articles, a rotatable cam for operating said means, stops for arresting the movement of said cam after a single actuation of said

transferring and affixing means, a trigger adapted to be displaced by the articles to be labeled, connections between said trigger and said stop to release said stop upon such displacement and permit the actuation of said labeling and affixing means, and means for disconnecting said trigger from said stop after such displacement.

23. In a labeling machine, the combination, with a support for the articles to be labeled, of means for transferring and affixing separated labels to the surfaces of said articles, mechanism for operating said means, stop means adapted to be interposed in the path of movement of said mechanism for arresting the movement thereof, a trigger adapted to be displaced by the articles to be labeled, connections between said trigger and said stop means for withdrawing said stop means from said mechanism, means for disconnecting said trigger from said stop means upon such displacement so as to permit said stop means to return to engaging position, and means operated by the forward movement of said articles upon said support for permitting the reconnection of said trigger with said stop means.

24. In a labeling machine, the combination, with a laterally extended support for the articles to be labeled, of a plurality of simultaneously operating labeling units mounted in substantially parallel relation with said support, each of said labeling units comprising means for transferring and affixing labels to the surfaces of such articles, mechanism for operating said transferring and affixing means, a trigger at each side of said support and adapted to be displaced by said articles when the same are moved into proper position as regards said labeling units, a movable stop member associated with each of said triggers and normally held in a position to arrest the movement of said mechanism, connections between each of said triggers and its associated stop member for moving the same out of such arresting position upon such displacement, means for disconnecting each trigger from its stop member after such movement so as to permit the return of said stop member to engaging position, and means for delaying the return of each stop member until after the movement of the other stop member.

In testimony whereof, I hereunto affix my signature in the presence of two witnesses.

WM. ROBERTSON.

Witnesses:
ALBERT H. BATES,
HAROLD E. SMITH.