Nov. 15, 1938. B. BARES 2,136,536

BUTTON POSITIONING MEANS AND MECHANISM

Filed Sept. 9, 1937 3 Sheets-Sheet 1

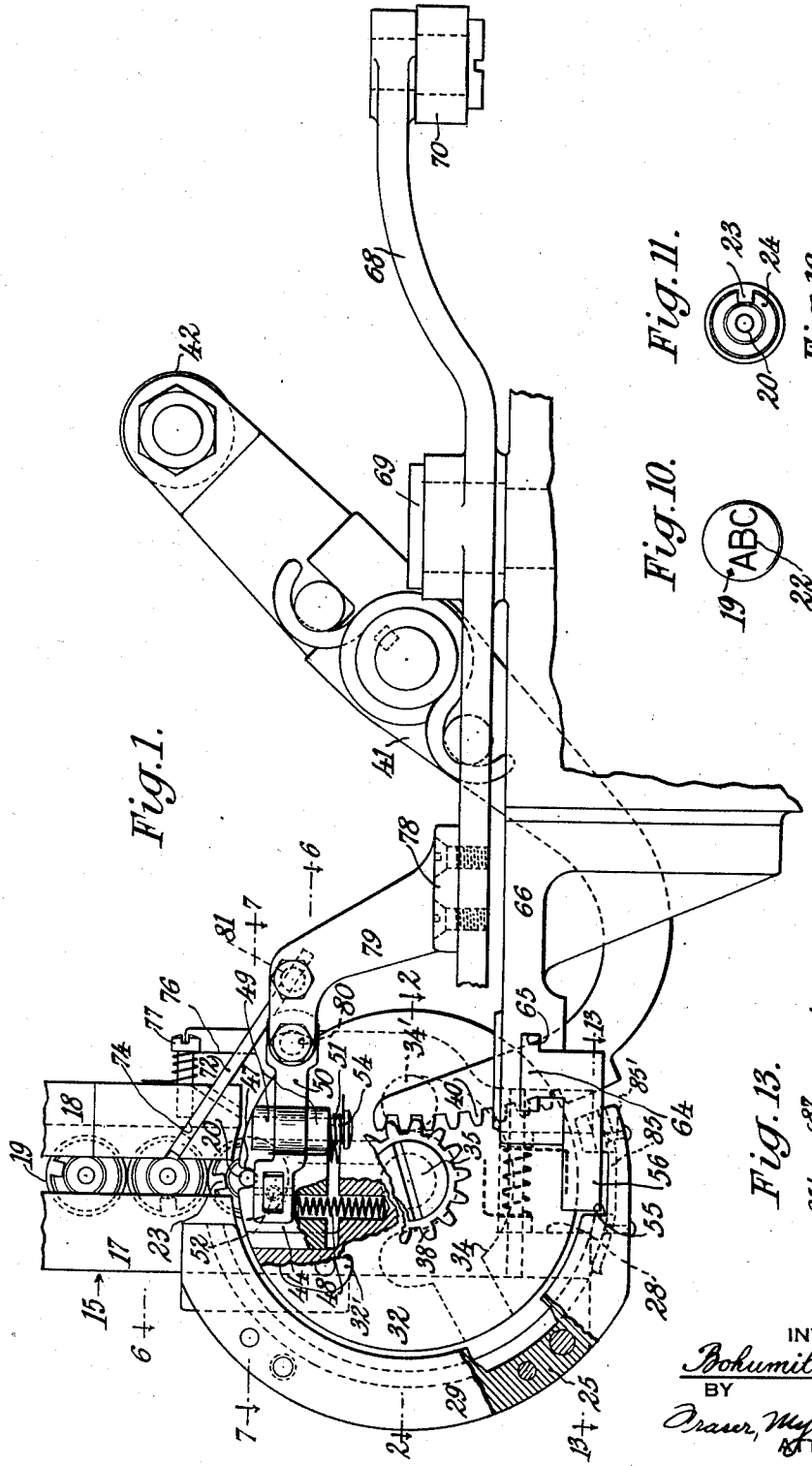


Fig. 1.

Fig. 11.



Fig. 12.

Fig. 10.

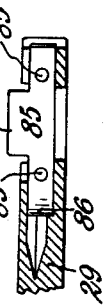


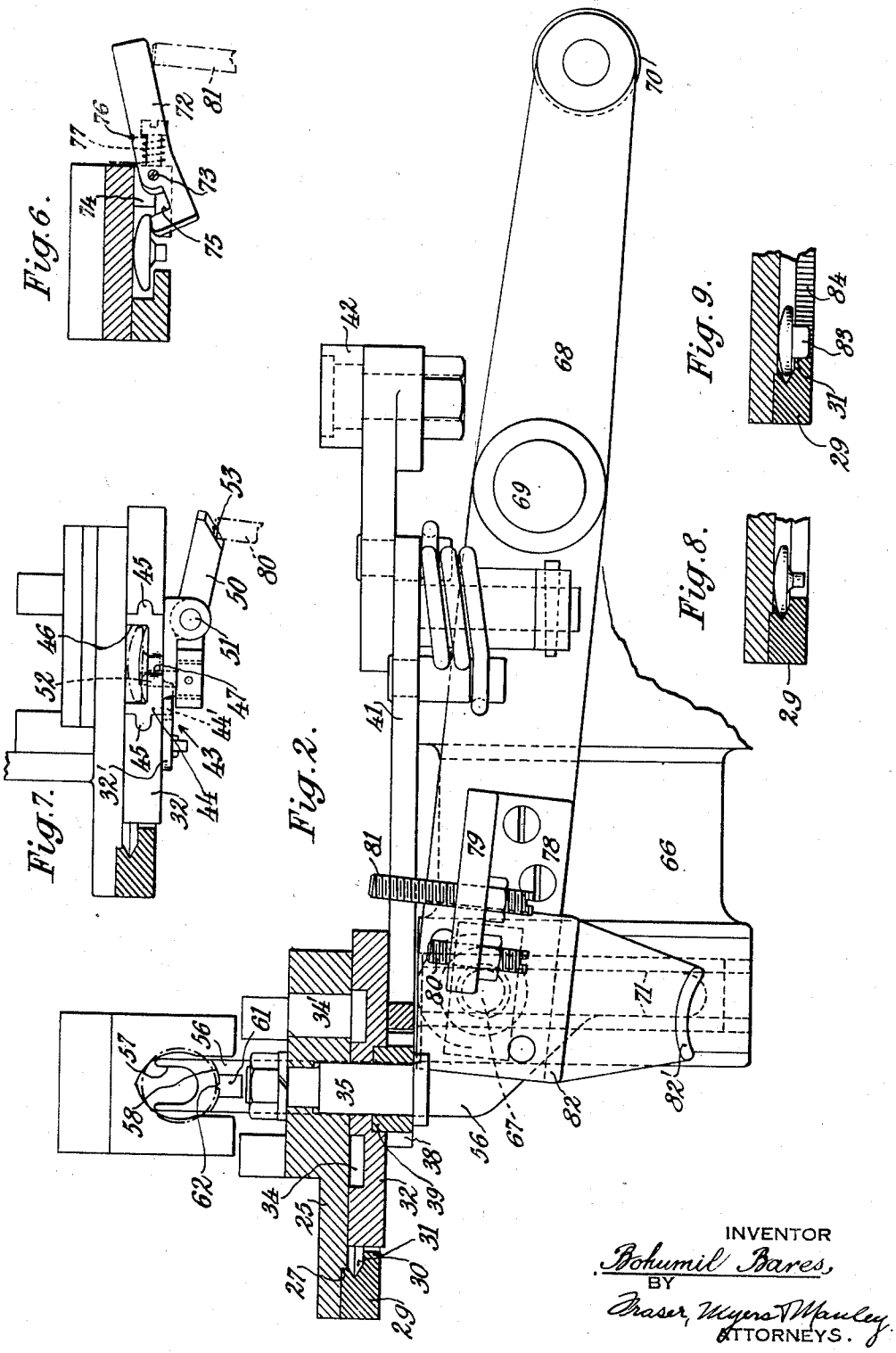
Fig. 13.

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BUTTON POSITIONING MEANS AND MECHANISM

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BUTTON POSITIONING MEANS AND MECHANISM

Filed Sept. 9, 1937 3 Sheets-Sheet 3

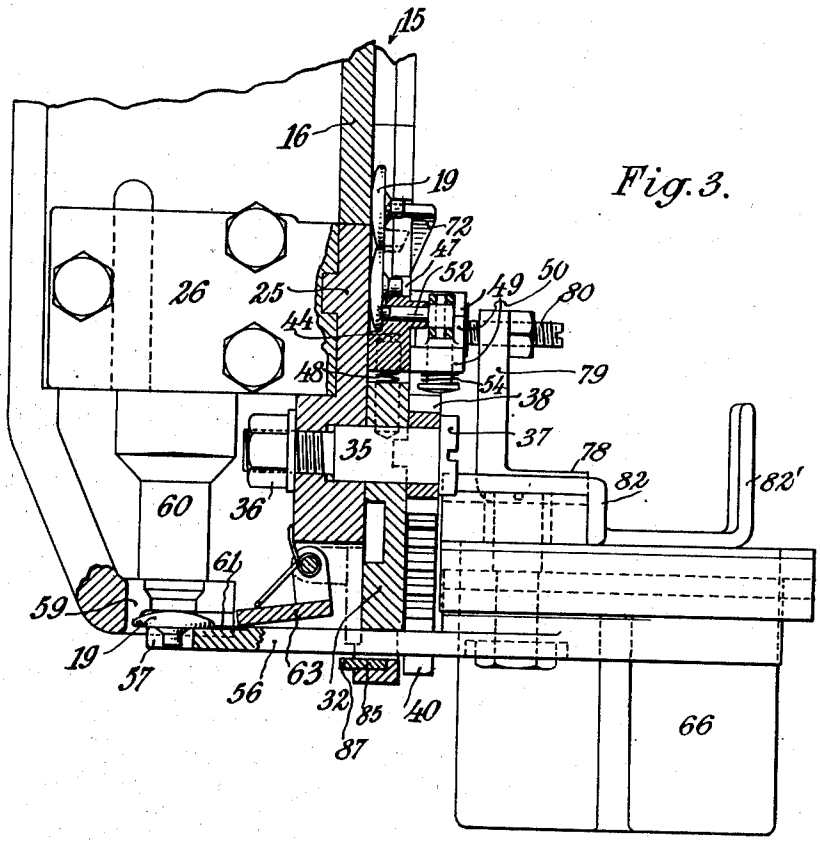


Fig. 3.

Fig. 4.

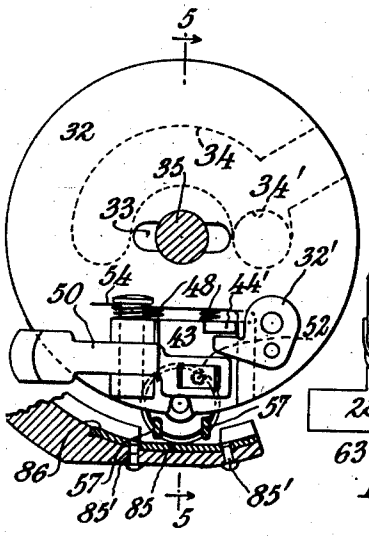
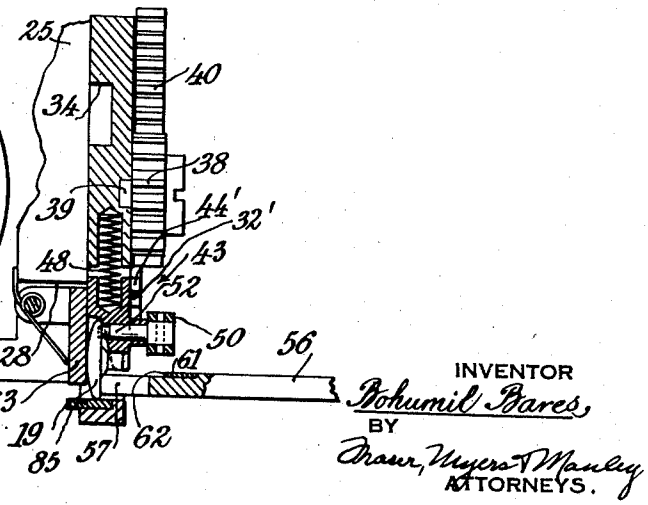


Fig. 5.



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UNITED STATES PATENT OFFICE

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BUTTON POSITIONING MEANS AND MECHANISM

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Application September 9, 1937, Serial No. 163,096

19 Claims. (Cl. 218—6)

The present invention relates to button feeding and positioning mechanism and constitutes an improvement upon the mechanism disclosed in the patent to Miller, No. 2,067,225.

The objects of the present invention are to generally simplify the construction and render more positive the feeding of buttons to the button positioning or orienting means and to insure retaining the buttons in oriented position while transferring them from the positioning means to the button-attaching or setting station.

According to the present invention, instead of using a plurality of spring-tensioned arcuate elements for providing frictional engagement with the periphery of the buttons carried by a hingedly mounted button receiver carrier by a rotatable disc for rotating them about their axes in the course of orienting them, as disclosed in the Miller patent above referred to, the rotatable disc has a floating receiver which is tensioned radially outwardly to press the periphery of the button into contact with a frictional surface in a fixed element which is so constituted as to promote rotation of the button about its axis as the button is carried in the receiver from the raceway or button-receiving station to the transfer station. The floating receiver is preferably formed with a trigger member carrying an index or locator pin for cooperation with a suitable indexing element on the button, which trigger member is periodically tripped to withdraw the locator pin from the receiver to admit a button thereinto at the button-receiving station. The invention also contemplates providing a novel auxiliary cut-off means in the button-feeding track or raceway to insure reception of a button in the floating receiver when it arrives at the button-receiving station. The invention also contemplates other features of novelty and combinations of parts, the construction and operation of which will be better understood by reference to the detailed description which follows, when considered in connection with the accompanying drawings, wherein:—

Figure 1 is a front elevation, with parts broken away, of that portion of a button-feeding and attaching machine with which the present invention is concerned.

Fig. 2 is a section taken substantially along the plane of the line 2—2 of Fig. 1.

Fig. 3 is a left end view of the portion of the machine shown in Fig. 1, with parts thereof broken away to better show the constructional details thereof.

Fig. 4 is a fractional front elevation with parts broken away, showing the floating button receiver at the button transfer station.

Fig. 5 is a section taken substantially along the plane of the line 5—5 of Fig. 4.

Fig. 6 is a section taken substantially along the plane of the line 6—6 of Fig. 1.

Fig. 7 is a section taken substantially along the line 7—7 of Fig. 1.

Figs. 8 and 9 are sections through the friction plate showing the operative relation of different types of buttons with said friction plate.

Figs. 10, 11 and 12 show a top plan, a bottom plan, and a side elevation, respectively, of a type of button adapted to be oriented in the machine.

Fig. 13 is a section taken substantially along the line 13—13 of Fig. 1.

Referring to the drawings, the orienting or button-positioning mechanism comprises a track or raceway 15 consisting of a supporting wall 16 upon which are mounted in spaced parallel relation a pair of undercut rails 17 and 18 providing an undercut groove down which the buttons 19 may move by the action of gravity. The buttons 19 are of the type illustrated in Figs. 10 to 12, and comprise a hub 20 having an enlarged head over which is mounted a shell 21 which may have a suitable design or manufacturer's trade-mark on the top thereof, such, for example, as indicated by the reference numeral 22. The shell has an integral tab 23 which is bent back over the underside of the top to provide a raised projection thereat which bears a definite relation to the design 22 and serves for cooperation with a locator means presently to be described, for orienting the button. If desired, the underside of the button head behind the bent back tab may be formed with an annular groove 24 to insure better engagement of the locator means with said tab. Obviously the buttons which may be used with the mechanism constituting the present invention are not limited to that disclosed in Figs. 10 to 12, but may be of other forms and types, in which event it will be understood that the locator means will be formed for cooperative engagement with the registering means on the button.

At the lower end of the raceway 15 there is a supporting plate 25 having a lateral reinforcing bracket 26 secured to the machine frame, said supporting plate having a substantially semi-circular rabbeted groove 27 in the front face thereof, and at a point diametrically opposite to the track, said plate is cut away to provide a substantially rectangular recess 28. Mounted on the front of the supporting plate 25 and seating in

the rabbeted groove 27 thereof is an arcuate friction plate 29 of substantially semi-circular form and being formed on its inner periphery with an angular groove 30, the faces of which groove are preferably smooth and form with each other an angle of approximately 60°. Extending radially inwardly beyond the groove 30 is a flange 31, the inner peripheral wall of which is concentric with the groove 30 and is preferably knurled to provide a friction surface, the function for which will presently appear.

Mounted on the supporting plate 25 in concentric relation to the friction plate 29 is a rotary cut-off disc 32, the outer periphery of which is spaced slightly inwardly from the inner peripheral wall of the flange 31. The disc 32 on its outer face is formed with a diametrical slot 33 and on its opposite face is formed with a substantially semicircular concentric groove 34. The disc 32 is mounted for rotation about a stud 35 passing through the center of the disc, the said stud in turn being mounted in the supporting plate 25 and being held thereon by a nut 36. Also mounted on the stud 35 directly under the enlarged head 37 thereon is a gear 38 the inner face of which is formed with a diametrical rib 39 which engages in the diametrical slot 33 so as to lock the gear for rotation with the disc 32.

In mesh with the teeth of the gear 38 for rotating the latter is a gear sector 40 provided at one end of a two-part, spring-tensioned lever 41 which has at its opposite end a roller 42 adapted to ride over a cam (not shown) for controlling the movement of the gear sector so as to cause reciprocation thereof, and in turn, oscillation of the rotary disc 32. To limit the extent of this oscillatory movement of the disc, a stop pin 34' mounted on the supporting plate 25 extends into the semi-circular groove 34 in the rear of the disc.

Carried by the disc 32 and floatingly mounted therein is a floating receiver 43 for a button, said floating receiver consisting of a substantially rectangular body member 44 having laterally extending longitudinal ribs 45 slidably engaging within complemental grooves in the lateral walls of a recess formed in the disc 32. The body member 44 on its inner face is formed with a substantially semi-cylindrical socket 46 for receiving the head of a button or the like, and leading from said socket and extending outwardly toward the face of the body member is a secondary substantially semi-circular socket 47 for receiving the hub of the button. The floating receiver 43 is tensioned radially outwardly by a pair of helical springs 48, the ends of which seat in aligned sockets formed respectively in the disc 32 and in the receiver 43 whereby the periphery of a button contained within the sockets 46, 47, will be urged radially outwardly into frictional contact with the arcuate friction plate 29. When the floating receiver fails to pick up a button from the track, the outward radial movement of the body member 44 is limited by engagement of a lug 44' on the receiver with a stop element 32' mounted on the disc 32. The body member 44 is formed on its outer face with a pair of spaced ears or lugs 49 between which is pivotally mounted a lever or trigger member 50 through the medium of a locking pin 51 passing through said ears and lever. One end of said lever 50 is formed with a socket within which is supported the head of a locator pin 52 which is movable through an opening in the body member into the socket 46. Said locator pin is adapted for cooperation with the registering means on the button in a manner which will be presently explained. The lever 50 at its opposite end is chamfered, as indicated at 53, for cooperative engagement with a lever-tripping device which will be presently described. Normally the lever 50 is biased by a spring 54 so that the locator pin will be held in its button-engaging position, as best shown in Figs. 3 and 7.

When the rotary disc 32 is moved through an angle of approximately 180° from its position shown in Fig. 1 to that shown in Fig. 4 it carries with it the floating receiver to present the same and the button contained therein to the button transfer station. At this station the arcuate friction plate 29 is formed with an inner peripheral recess 55 through which is adapted to move a pusher rod 56, the inner end of which is bifurcated, as indicated at 57 (Fig. 2), and formed with an arcuate seat 58 for receiving the head of a button as the latter is being transferred from the floating receiver 43 to a pair of button-receiving jaws 59 beneath a setting punch 60 at the button-attaching station. To restrain the button against rotational movement about its axis during its transfer from the transfer station to the attaching station, due to frictional engagement between the button and the movable elements with which it comes in contact, there is provided on the top of the pusher rod adjacent the arcuate seat 58 a hardened metal plate 61, the edge thereof which lies flush with the arcuate seat being provided with an anvil point 62 adapted to bite into the periphery of the head of the button as the latter is being transferred. In the course of this transferring movement the button will be held pressed against the anvil point on the pusher rod by the spring-pressed gate 63 which will open from its normally closed position shown in Fig. 5, to its open position shown in Fig. 3, under the influence of the advancing movement of the pusher rod.

The pusher rod 56 is formed as part of a T-headed member 64 which is slidably movable in a T-headed slot 65 formed in a bracket 66 attached to the machine frame. To periodically actuate the pusher rod the latter is connected through the medium of a bolt 67 to a lever 68 which is fulcrumed at 69 and guided in its movements by engagement of a roller 70 at its free end in rolling contact with a cam (not shown). To allow for the movement of the pusher rod the top of the bracket 66 overlying the T-head slot 65 therein is formed with a longitudinal slot 71.

It has been found in operation that when the rotary disc 32 returns the floating receiver 43 to its uppermost position, that is, to its button-receiving position as shown in Fig. 1, occasionally the buttons stacked in the track 15 are knocked or forced upwardly therein to such an extent that at times the rotary disc would start on its return without picking up a button from the track due to the fact that the lowermost button did not have time to fall into the receiving socket 46 in the floating receiver. To overcome this fault I have provided an auxiliary cut-off device for the buttons in the track. This auxiliary cut-off device consists of a lever 72 which is pivotally mounted, as at 73, in an oblique slot 74 cut into the rail 18. The inner end of the lever 72 is notched, as at 75, to permit the end of the lever to press against the underside of a button head to frictionally hold the button and those above it in the raceway in position against downward movement. To provide for this frictional engagement, the auxiliary cut-off lever is biased by a spring 76 carried by a screw or other anchoring means

77. By the lever 72 frictionally engaging against a button in the slot which is spaced from the periphery of the rotary disc it serves to prevent the entire weight of all the buttons in the track from resting upon the rotary disc and thereby prevents the stack of buttons from being shot upwardly in the track on the return stroke of the disc, as above mentioned.

When the floating receiver is returned to its button-receiving position it will be apparent that the locator pin must be withdrawn from the socket 46 in the receiver to permit the reception of a button therein, and substantially simultaneously therewith the auxiliary cut-off means must be released so as to permit the buttons in the raceway to move downwardly to insure reception of a button in the receiver when it again is returned to button-receiving position. To permit of this substantially simultaneous action taking place there is mounted on the lever 68 a bracket 78, in the upstanding wall 79 of which is mounted a pair of adjustable screws 80 and 81, the screw 80 being adjusted to engage the end 53 of the lever 50 to withdraw the locator pin from the socket 46 and the screw 81 being adjusted to engage the end of the lever 72 to release the same from its frictional engagement with the button in the track, thereby permitting the buttons to drop downwardly therein. The adjustment of the screws 80 and 81 is preferably such that the engagement of the lever 50 will be somewhat in advance of the engagement of the lever 72 so that the floating receiver will be in position to receive the bottommost button from the track as the floating receiver is returned to its receiving position. For manually moving the lever 68, should this be found necessary when setting up and making adjustments in the machine, there is secured to the pusher rod engaging end of the lever 68 a bracket 82 formed with a hand-engaging portion 82'.

Operation.—In the operation of the device the buttons are first fed by any suitable means, preferably by a hopper (not shown), down the track or raceway 15 until the track becomes loaded solidly with buttons, the bottommost one resting on the periphery of the rotary disc 32. As the machine is operated, a downward movement of the gear sector 40 will bring the floating receiver 43 into its button-receiving position beneath the lower end of the track 15. As the floating receiver is being brought into this position the locator pin 52 will be moved outwardly by engagement of the adjustable screw 80 with the end of the lever 50, and substantially simultaneously with this operation the lever 72 will be operated to release the frictionally held buttons in the track so that they may move downwardly therein whereupon the bottommost button will move into the floating receiver. The gear sector 40 will then move upwardly, causing the periphery of the button in the floating receiver which is urged into frictional contact with the arcuate friction plate to rotate the button about its axis, in the course of which movement the registering means 23 on the button will be engaged by the locator pin 52 to restrain the button against further rotation when the button has reached its oriented position. Of course, as the disc and its floating receiver begin to move away from the track, the locator pin lever will be released, as will be also the auxiliary cut-off lever, whereupon the springs biasing said respective levers will come into play to move the locator pin into operating position and move the auxiliary cut-off lever into button-engaging position to engage the bottommost button in the track and hold it in spaced relation to the periphery of the rotary disc 32. The oriented button in the floating receiver will be thus carried around to the transfer station, whereupon the pusher rod will be moved inwardly to transfer the button from the floating receiver to the button-attaching station, in the course of which transferring action the oriented button will be moved past the gate 63, which, by imposing a frictional resistance upon the button as it passes thereunder, will force the head of the button into contact with the anvil point 62, which will bite into the button and thereby operate to keep it in oriented position and prevent any rotation of the button with respect to its axis. In this oriented position the button is deposited at the button-attaching station whereat it will be attached by the appropriate mechanism, herein shown as a setting punch 60, in desired oriented position upon the article presented to receive it. As the pusher rod is transferring the button from the transfer station to the attaching station, the rotary disc and the floating receiver are being returned to the button-receiving station, and as the inward limit of movement of the pusher rod is approached, the adjusting screws 80 and 81 which are carried by the pusher rod lever, are brought into operative relation with their respective elements.

In the operation of the mechanism described, it will be observed that as the floating receiver reaches the button transfer station the oriented button in the receiver will tend to drop down into the cut-out groove 55 and have its oriented position destroyed due to the absence at said transfer station of the friction engaging surfaces on the friction plate, and further, because of the limiting extent to which the floating receiver can move radially outwardly. To overcome this tendency it has been found necessary to elevate or raise the button above the friction engaging surfaces of the friction plate 29 just before the button reaches the transfer station. To accomplish this the end of the button track in the friction plate, i. e., that portion adjacent and overlying the bottom of the cut-out groove 55, is provided with a hardened platform plate 85 which may be secured in a rabbeted groove formed in the plate 29 by rivets 85' or otherwise, and the inner end of said plate is formed with a rounded cam nose 86 to facilitate the elevating action. To better serve the rotation of the oriented button from its horizontal axial to its vertical axial position through the gate 63, the platform plate has a lip 87 projecting rearwardly beyond the adjacent face of the friction plate 29. This platform plate is best shown in Figs. 1, 4, 5 and 13. With this detail of construction it will be appreciated that as the oriented button comes in contact with the cam nose 86 it will be elevated above the "V" or the knurled track, as the case may be, just prior to reaching the transfer station. During this elevating action, however, the button will be frictionally pressed downwardly against said platform plate by reason of the radial tension on the floating receiver and thereby retain said button in its oriented position.

The invention has been described with reference to operation upon a tack button of the type illustrated in Figs. 10 to 12, and in which the enlarged head on the button was brought into frictional contact with the surfaces of the angular groove 30 in the arcuate friction plate for rotation of the button about its axis. It will be appreciated, however, that where a button with an enlarged hub 83, such as shown in Fig. 9, is to

be oriented, the periphery of the hub may be urged into frictional contact with the knurled surface 84 on the inner periphery of the flange 31 for rotating the button about its axis.

From the foregoing detailed description it will be appreciated that the invention is susceptible of modification and change within the range of engineering skill, and I therefore do not wish to be limited to the details of construction herein disclosed, since these may be varied within the spirit of the invention as defined in the appended claims.

What I claim is:

1. In a button-positioning mechanism for buttons or the like having means thereon capable of registering the button, in combination, a track along which the buttons are fed, a receiver mounted to move in an arc adapted to periodically receive a button from the track, an arcuate frame relative to which the receiver is movable, means on the frame for frictionally engaging a part of the button to rotate it about its axis in the receiver as the receiver moves relatively to the frame, resilient means normally acting to urge a button in the receiver into frictional engagement with the arcuate portion of the frame, and means carried by the receiver for engaging the registering means on the button during rotation thereof to restrain the button against further rotation.

2. In a button-positioning mechanism for buttons or the like having means thereon capable of registering the buttons, in combination, a frame having an arcuate portion, a rotatable disc concentric with said arcuate portion, a floating receiver in said disc having a recess adapted to receive a button to be oriented, said floating receiver being tensioned radially outwardly so that a peripheral portion of the button within the receiver will engage the arcuate portion of the frame and be rotated thereby as the disc moves relatively to the frame, and means carried by the floating receiver for engaging the registering means on the button during rotation thereof to restrain the button against further rotation about its axis, notwithstanding further rotation of the disc.

3. A button-positioning mechanism according to claim 2, wherein the floating receiver has a recess for accommodating a button having a cylindrical hub and an enlarged circular head, and wherein the enlarged head on the button will be frictionally engaged by the arcuate portion of the frame for rotating the button about its axis.

4. A button-positioning mechanism according to claim 2, wherein the floating receiver has a recess for accommodating a button having a cylindrical hub and an enlarged circular head, and wherein the hub on the button will be frictionally engaged by the arcuate portion of the frame for rotating the button about its axis.

5. In a button-positioning mechanism for buttons or the like having means thereon capable of registering the button, in combination, a track along which the buttons are fed, a movable receiver adapted to periodically receive a button from the track, a frame relative to which the receiver is movable, means on the frame for frictionally engaging a part of the button to rotate it about its axis in the receiver as the receiver moves relatively to the frame, resilient means normally acting upon the receiver to urge a button therein into frictional engagement with the frame, and a pivotally mounted spring-tensioned lever having a locator pin thereon carried by the receiver for engaging the registering means on the button, and means for engagement with said lever to move the locator pin out of its button-engaging position so that a button from the track may move into the receiver.

6. In a button-positioning mechanism for buttons or the like having means thereon capable of registering a button, a button feeding station, a button transfer station, a button attaching station, means for receiving a button from the feeding station and having cooperative engagement with the registering means on the button for orienting the button and presenting it in oriented position at the transfer station, a movable arm for engaging the button at the transfer station and transferring it to the attaching station, said arm being movable to turn the button through an angle relatively to its axis, and means on said arm for insuring the retention of the oriented position of the button during its movement from the transfer station to the attaching station.

7. In a button-positioning mechanism for buttons or the like having means thereon capable of registering a button, a button feeding station, a button transfer station, a button attaching station, means for receiving a button from the feeding station and having cooperative engagement with the registering means on the button for orienting the button and presenting it in oriented position at the transfer station, a movable arm for engaging the button at the transfer station and transferring it to the attaching station, said arm being movable parallel to the axis of the oriented button to turn the button through an angle relatively to its axis, and a sharp point on said arm for biting into the button for insuring the retention of the oriented position of the button during its movement from the transfer station to the attaching station.

8. In a button-positioning mechanism for buttons or the like having means thereon capable of registering a button, a button feeding station, a button transfer station, a button attaching station, means for receiving a button from the feeding station and having cooperative engagement with the registering means on the button for orienting the button and presenting it in oriented position at the transfer station, a movable arm for engaging the button at the transfer station and transferring it to the attaching station, said arm being movable to turn the button through an angle relatively to the axis, and having a bearing surface for engaging the periphery of the button and a sharp point projecting slightly from said bearing surface for biting into the periphery of the button for holding it against rotation during its movement from the transfer station to the attaching station.

9. In a button-feeding mechanism, in combination, a gravity track along which the buttons are fed, a rotary cut-off means movable across the end of the track having a peripheral recess therein for receiving one button at a time from the track, an auxiliary cut-off means for engaging the bottommost button in the track after a button therefrom has been deposited in the peripheral recess of the rotary cut-off means, said auxiliary cut-off means serving to hold said bottommost button in spaced relation to the periphery of the rotary cut-off means, and means for releasing the engagement of the auxiliary cut-off means with the button when the peripheral recess in the cut-off means is again presented in alinement with the track so as to permit the

buttons to move downwardly in the track to deposit the bottommost button into the peripheral recess.

10. In a button-feeding mechanism, in combination, a gravity track along which the buttons are fed, an oscillatable disc cut-off means movable across the end of the track having a peripheral recess therein for receiving one button at a time from the track, and an auxiliary cut-off means, for restraining the weight of all the buttons in the track from bearing on the rotary oscillatory cut-off means, said auxiliary cut-off means comprising a spring-pressed element normally engaging the bottommost button in the track to hold it in spaced relation in the periphery of the oscillatory cut-off means, said spring-pressed element being intermittently releasable to permit the buttons to move downwardly in the track by the force of gravity and deposit the bottommost button in the track into the peripheral recess of the oscillatory cut-off means.

11. In a button-feeding mechanism, in combination, a gravity track along which buttons are fed, a rotary disc cut-off means movable across the end of the track for receiving one button at a time from the track, an auxiliary cut-off member pivotally mounted and spring-pressed to normally engage a button above the bottom of the track to restrain the engaged button and the buttons above said engaged button from resting on the periphery of the rotary cut-off means, and means for intermittently releasing the engagement of the auxiliary cut-off member to permit the buttons to move downwardly in the track by the force of gravity and deposit the bottommost button from the track into the rotary disc cut-off means.

12. In a button-positioning mechanism for buttons or the like having means thereon capable of registering the buttons, in combination, a track along which buttons are fed, an oscillatable disc cut-off means extending across said track, said disc having a recess adapted to periodically receive a button from the track, a transfer station, a button-attaching station, a pivotally mounted lever having a locator pin carried by the disc for orienting the button within the disc while it is rotated from the button-receiving station to the transfer station, a movable arm for engaging the button at the transfer station and transfering it to the button-attaching station and means carried by said movable arm for engaging the pivotally mounted lever to move the locator pin out of the recess in the disc to permit the reception of a button therein.

13. In a button-positioning mechanism for buttons or the like having means thereon capable of registering the buttons, in combination, a gravity track along which buttons are fed, an oscillatable disc cut-off means extending across said track, said disc having a recess adapted to periodically receive a button from the track, locator means carried by said disc and having a part normally extending into the recess for orienting the button therein as the disc is rotated, an auxiliary cut-off means normally engaging a button above the bottommost in the track to restrain the engaged button and those above it from resting on the buttons below them in the track, and means operable substantially simultaneously for engaging the locator means to withdraw the part from the recess in the disc so that a button from the track may enter the recess and for releasing the auxiliary cut-off means to permit the buttons in the track to move downwardly therein.

14. A button-positioning means according to claim 13, wherein the locator means comprises a pivotally mounted arm and the part which extends into the recess is a pin mounted on said arm and wherein the auxiliary cut-off means is a pivotally mounted, spring-tensioned lever.

15. A button-positioning means according to claim 13, wherein the means for engaging both the locator means and the auxiliary cut-off means are a pair of projections on an intermittently movable lever.

16. A button-positioning means according to claim 13, wherein the means for engaging both the locator means and the auxiliary cut-off means are a pair of adjustable pins on an intermittently movable lever.

17. A button-positioning means according to claim 13, wherein the locator means comprises a pivotally mounted arm and the part which extends into the recess is a pin mounted on said arm, wherein the auxiliary cut-off means is a pivotally mounted lever and wherein the means for engaging both the locator means and the auxiliary cut-off means are a pair of projections on a lever movable in timed relation to the oscillatable disc cut-off means.

18. In a button-positioning mechanism for buttons or the like having means thereon capable of registering the buttons, in combination, a button-feeding station, a button-transfer station, a frame having an arcuate portion, a rotatable disc concentric with said arcuate portion, a floating receiver in said disc having a recess adapted to receive a button to be oriented, said floating receiver being tensioned radially outwardly so that a peripheral portion of the button within the receiver will engage the arcuate portion of the frame and be rotated thereby as the disc moves relatively to the frame, said frame having a cut-out portion at the transfer station through which a button transfer member is reciprocable, cooperating means on the disc and on the floating receiver for limiting the radial outward movement of the floating receiver, means carried by the floating receiver for engaging the registering means on the button during rotation thereof to restrain the button against further rotation about its axis notwithstanding further rotation of the disc, and means adjacent the button transfer station and in advance thereof for preventing the oriented button in the floating receiver from dropping down into the recess in the frame when the floating receiver reaches the transfer station.

19. In a button-positioning mechanism for buttons or the like having means thereon capable of registering the button, in combination, a track along which the buttons are fed, a movable receiver adapted to periodically receive a button from the track, a frame relative to which the receiver is movable, means on the frame for frictionally engaging a part of the button to rotate it about its axis in the receiver as the receiver moves relatively to the frame, resilient means normally acting upon the receiver to urge a button therein into frictional engagement with the frame, and a spring-tensioned locator pin carried by the receiver for engaging the registering means on the button, and means for moving the locator pin out of its button-engaging position so that a button from the track may move into the receiver.

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