July 2, 1963 J. H. WHITMAN 3,095,958

COAT HANGER DISPENSER

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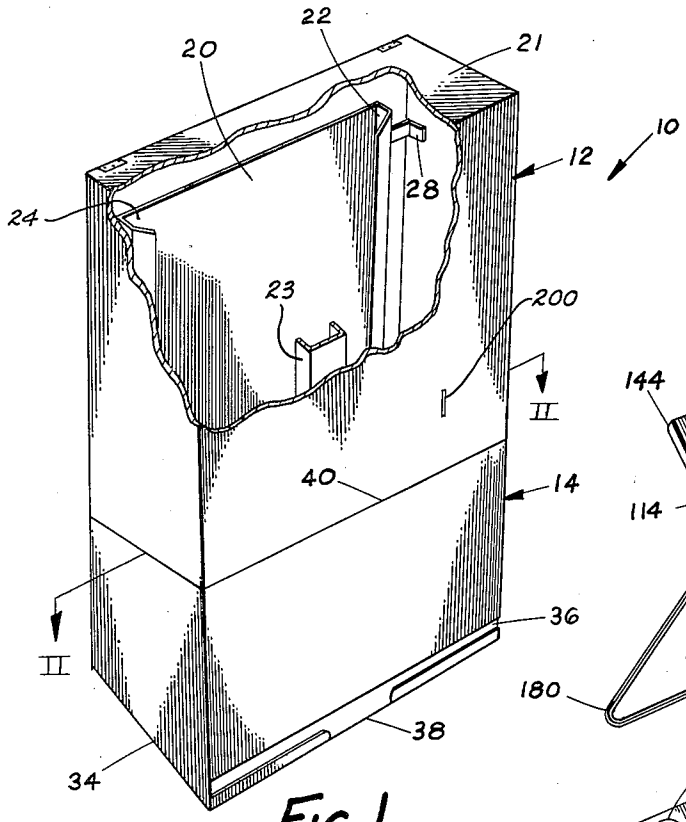



FIG. 1

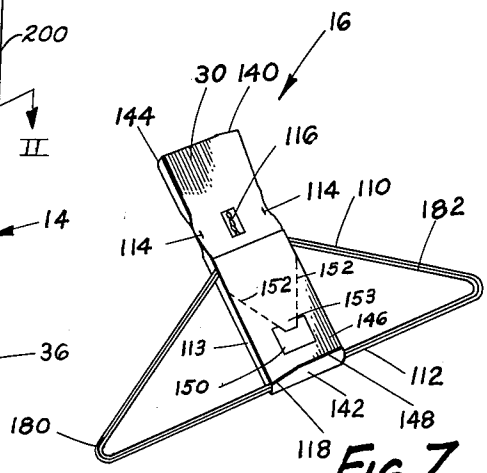



FIG. 7

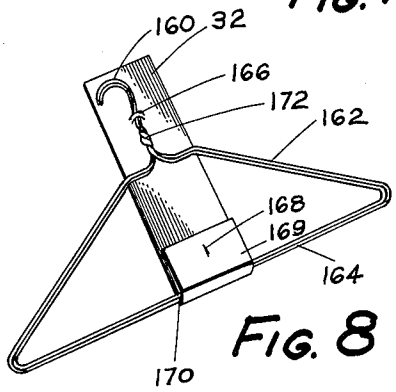



FIG. 8

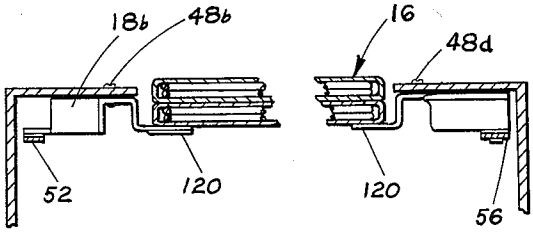



FIG. 4

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COAT HANGER DISPENSER

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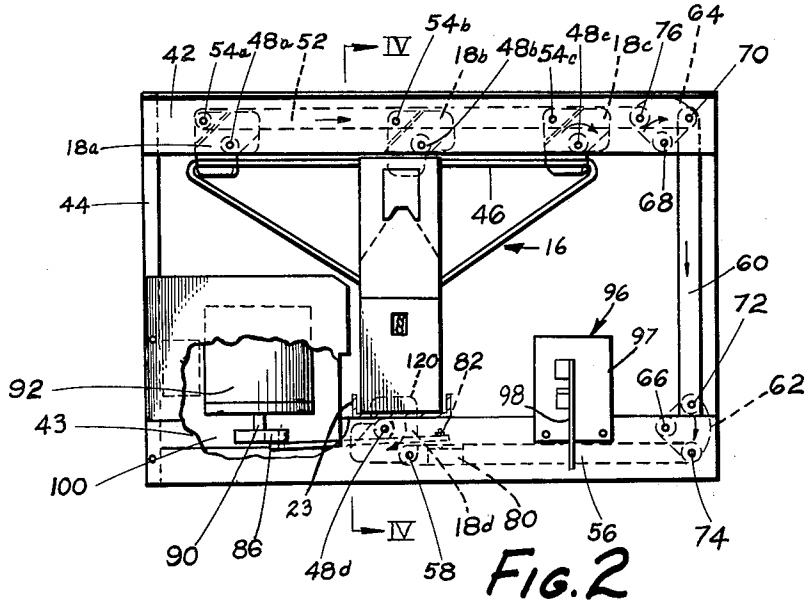



FIG. 2

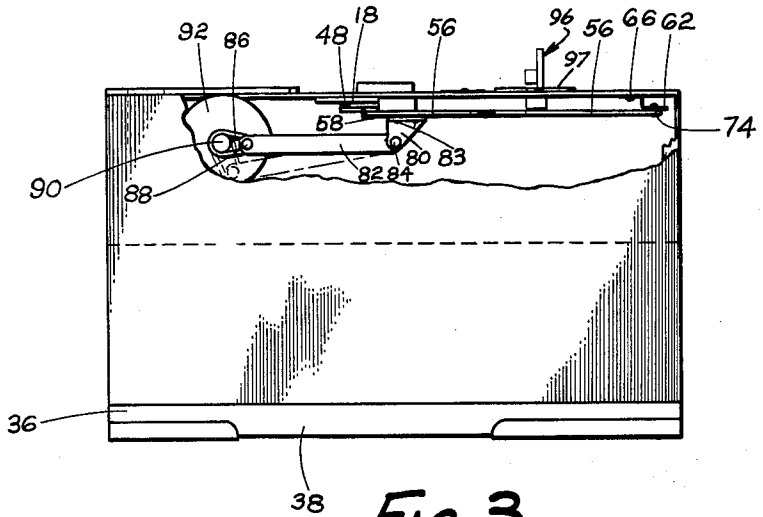



FIG. 3

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COAT HANGER DISPENSER

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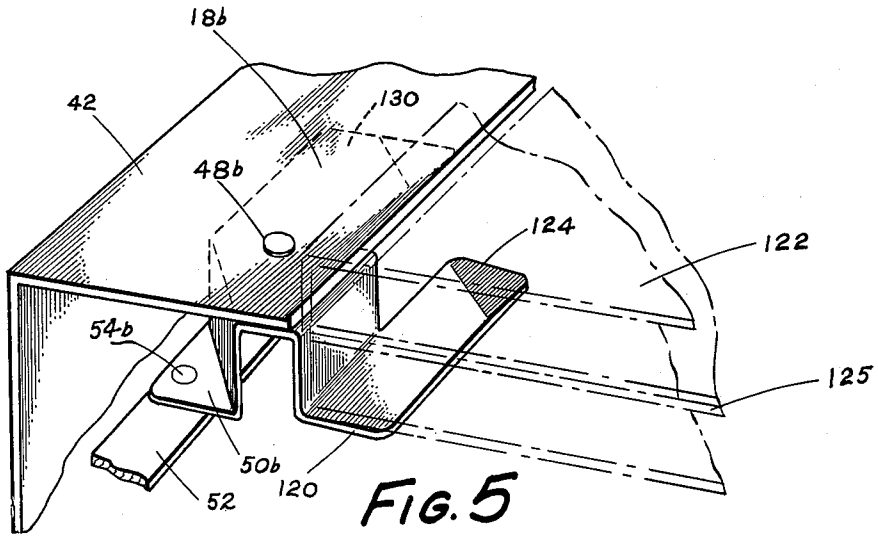



FIG. 5

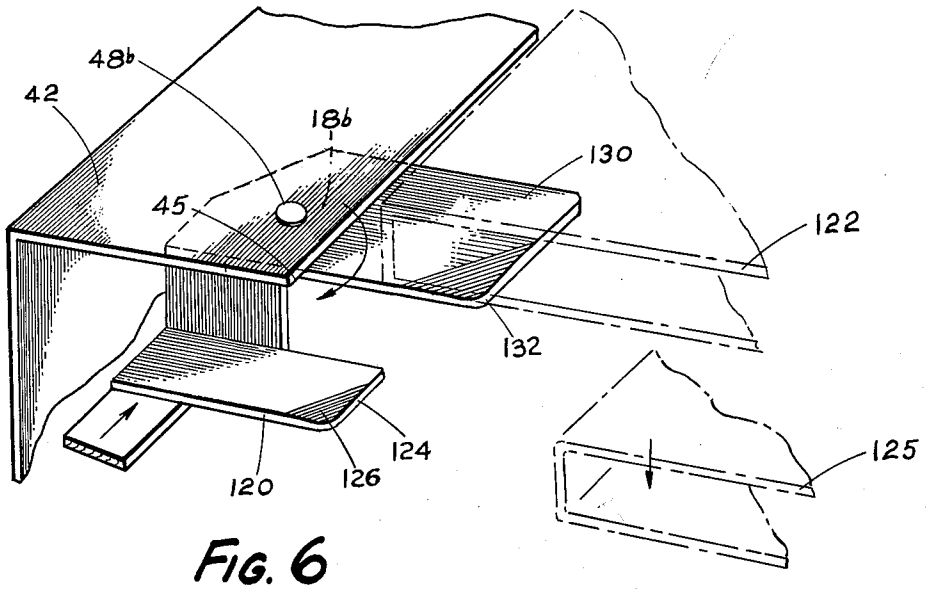



FIG. 6

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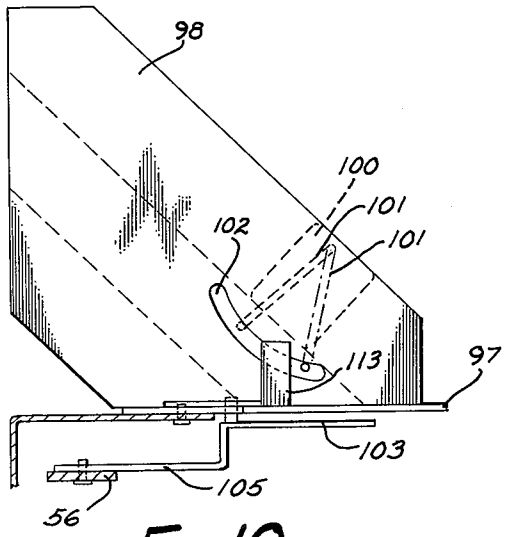



FIG. 10

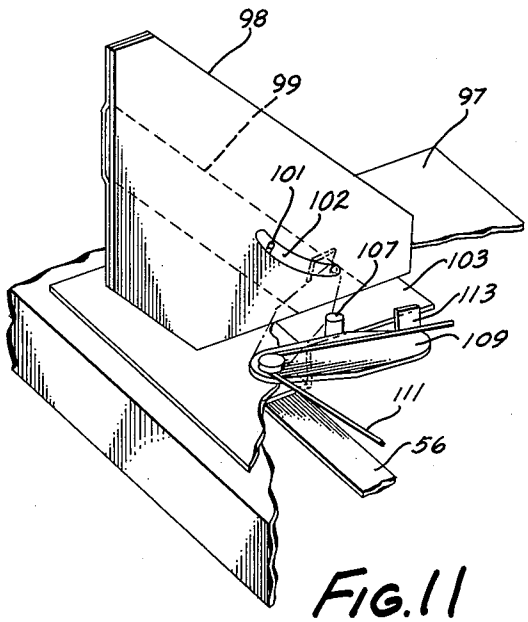



FIG. 11

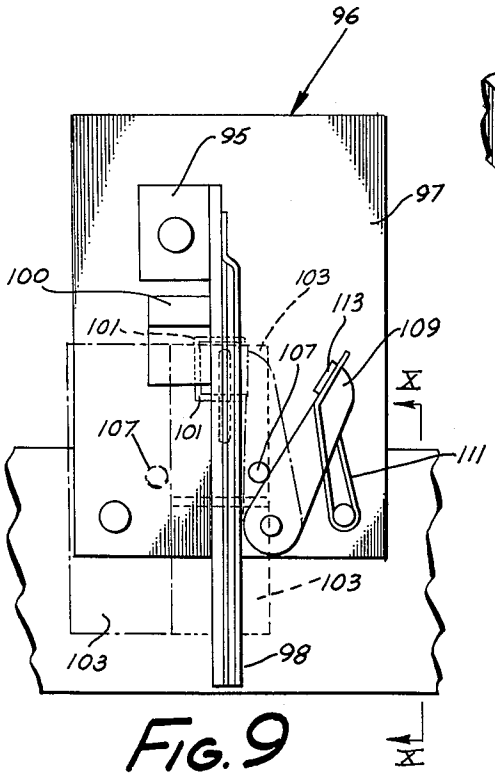



FIG. 9

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3,095,958

# COAT HANGER DISPENSER

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Filed Mar. 30, 1961, Ser. No. 99,389
10 Claims. (Cl. 194—10)

This invention relates to dispensing machines and more particularly to a clothes hanger dispensing apparatus, a coin actuator and clothes hanger packages used therewith.

The need for a convenient and simple source of clothes or coat hangers to supply patrons of commercial laundromats is only too well-known. Such a source would also be an appropriate addition to any dry cleaning establishment. Further, a source of hangers which requires its beneficiaries to pay a nominal sum therefor but which requires no human attention would be a boon to motel and hotel operators who usually suffer great losses due to the tendency of otherwise honest persons to keep hotel hangers because no others are available.

Therefore, it is the primary object of this invention to provide a convenient source of clothes hangers for laundromats, dry cleaning establishments, motels, hotels, and the like. Further objects of this invention are to provide such an apparatus which is lightweight and relatively portable in nature, simple to operate by any layman, very dependable in operation, readily adapted to operate on a coin actuated principle, proficient in maintaining the stored hangers in a completely untangled state, and quickly and easily loaded with new hangers.

Another object is to provide a unique and novel coin-actuated switching mechanism for use on a hanger dispensing machine whereby the hanger dispensing mechanism is actuated for a desired interval of time or during a predetermined movement or movements of the dispenser without the use of any relays or complex, multiple stopping and starting switches. The switching mechanism is composed of relatively simple, inexpensive parts and may be attached to a dispenser or other apparatus in a simple manner. It further consumes very little space and is completely reliable in operation.

Furthermore, it is an object of this invention to provide a novel type of package for clothes hangers which has utility as a hanger enveloping device to prevent intertangling of the hook portion of clothes hangers; which is relatively simple and inexpensive to manufacture; which may be readily and safely removed from clothes hangers by the user; which is capable of also holding a plastic clothes bag if desired; and which provides a uniform thickness and other characteristics to the packaged hangers that result in the effective adaptation of hangers to a clothes hanger dispensing machine.

These and other objects will be apparent from a scrutiny of the following specification when studied in accompaniment with the drawings in which:

FIG. 1 is a perspective view of the novel clothes hanger dispensing apparatus;

FIG. 2 is a top sectional view taken on the plane identified as II—II of FIG. 1, and showing the dispensing mechanism;

FIG. 3 is a partial front view showing the lower half of the hanger dispensing apparatus depicted in FIG. 1 and including the mechanism shown in FIG. 2;

FIG. 4 is a partial sectional view taken on the plane IV—IV in FIG. 2;

FIG. 5 is a partial sectional perspective view showing one of the parter devices shown in FIG. 2 in the at-rest position;

FIG. 6 is a similar view showing the parter in the rotated dispensing position;

FIG. 7 is a perspective view of one embodiment of the novel clothes hanger package;



FIG. 8 is a perspective view showing a second embodiment of the novel type of clothes hanger package;

FIG. 9 is a fragmentary plan view of the novel coin-actuated mechanism;

FIG. 10 is a sectional view of the coin-actuated mechanism taken on plane X—X of FIG. 9; and

FIG. 11 is a perspective view of the apparatus illustrated in FIG. 9.

The basic operation of the apparatus disclosed and to be described is the retention of a stack of packaged hangers upon a series of coacting rotatable parter members. These members support the stack and also separate the bottom package to be dispensed from the remaining packages. Upon simultaneous rotation of these members after actuation of the mechanism either manually or by means of a motor, the parters separate the bottom package and allow it to fall by rotation of a supporting tang from under the package, while another tang holds the remainder of the stack by protruding between the bottom package and the overlying packages to hold them up while the bottom one falls. The package structure facilitates this operation due to special tapered edges, and due to its uniform thickness.

The packaged hanger basically comprises a sheet of relatively stiff material embracing the hook portion of the hanger and at least a part of the elongated portion. The package imparts uniform thickness to a great portion of packaged hangers to facilitate accurate and reliable dispensing. In one form it includes perforations and a tab allowing quick, simple removal of the package from the hanger or hangers, which tab is displaced from holding staples to thus prevent injury to the package opener.

The coin-actuated switching mechanism basically comprises a coin receiving member associated with a switch which is actuated or thrown by a coin. A coin supporting member initially holds the inserted coin in the receiving member to hold the switch in the actuated position for an interval of time to operate the dispensing mechanism during a predetermined movement. This holding operation is preferably supplemented by an auxiliary switch holder which is selectively operated in sequence with the coin support. Upon completion of a cycle of the dispensing mechanism, the switch is allowed to return to its off position.

Referring now to FIG. 1, the dispensing apparatus 10 includes a storage assembly 12 and a dispensing assembly 14 which supplies the packaged hangers 16 to a user by means of a plurality of rotatable parters 18*a*, 18*b*, 18*c* and 18*d*.

The storage assembly 12 includes a rear guide member 20 with oppositely facing channel members 22 and 24 for the elongated portion of clothes hangers. Each of these channels preferably has a general divergent or V-shape to accommodate the similar V-shaped ends of ordinary hangers. These oppositely facing channel guides serve to align a stack of clothes hangers in combination with front channel guide 23 through which the hanger hooks slide. The hangers may be inserted from the top and slid to the bottom one upon the other in an ordinary stack. This guide mechanism is suitably attached to housing 12 as by tab 28. Obviously this guide mechanism may be altered without departing from the basic principle thereof. Storage container 12 is provided with a hinged door 21 in the top or the like through which hangers may be inserted. This door may include a conventional lock. In order to provide each group of individually bound hangers (preferably two in number) with a uniform thickness throughout a substantial portion thereof for even stacking and dependable dispensing, packages 30 or 32 are utilized. Particular features of the

packages facilitate smooth operation of parters 18 as will be explained more fully hereinafter.

The dispensing assembly 14 includes a bottom 34 which possesses a downward slant toward the front of the assembly, at which place an elongated slot 36 with a lower cutout portion 38 is found. Thus, a hanger dropped to the bottom will slide to the front with the hook portion protruding from slot 38 for removal. The two assemblies 12 and 14 may be fastened together by bolts or the like at the separation point 40, through flanges 42, 43 and 44 on the abutting portions, as shown in FIG. 2.

Referring to FIG. 2, it is seen how the packaged hanger assembly 16 rests upon a series of four parters 18*a*, 18*b*, 18*c* and 18*d*. One of these parter members 18*d* supports the hook portion of the hanger while three support the elongated portion 46. Obviously, two such supports would be sufficient for the elongated portion provided an appropriate alteration in the package geometry is made in conformity with operation principles to be explicitly set forth hereinafter. It should be noted that the parter 18*d* under the hook portion is positioned in a mirror image relationship with respect to the oppositely facing parters. The hanger assemblies 16 are stacked above these parters into guides 20 and 23 in the storage assembly 12. All of these packaged hangers assume the same position in the vertical stack.

The parters 18*a*, 18*b*, 18*c* and 18*d* are pivotally mounted on the flanges 42 and 43 at 48*a*, 48*b*, 48*c* and 48*d* respectively. Thus, each of the parters may revolve in a horizontal direction about its vertical pivotal axis. Further, each of these parters possesses a downwardly extending corner flange portion 50*b* (see FIG. 5) for attachment to a series of linkages. Thus, the three colinear parters holding the elongated portion 46 of the hanger are attached to link 52 at pivotal points 54*a*, 54*b* and 54*c*, offset from pivotal points 48*a*, 48*b* and 48*c*. Longitudinal movement of the link 52 will cause the supports to rotate about the points 48*a*, 48*b* and 48*c*. Likewise, the single support 18*d* holding the hook portion of the hanger is attached to link 56 at pivotal point 58 in a like manner. Each of these links 56 and 52 are indirectly connected with a third lateral link 60 through bell cranks 62 and 64. These bell cranks are likewise mounted pivotally unto flanges 43 and 42 at points 66 and 68, respectively. Link 60 is pivotally attached to bell crank 64 at 70 and to bell crank 62 at 72. Link 56 is pivotally attached to bell crank 62 at 74, with link 52 being attached pivotally to bell crank 64 at 76. Thus it is seen the longitudinal movement of any of the links 56, 52 or 60 will cause a simultaneous movement of the remainder of the links and rotation of the parters. In FIG. 3 it may be seen how these bell cranks (taking bell crank 62 as an example) possess an offset between the places of attachment to the separate links as at 74 and to the housing flange as at 66. Also, in FIG. 3 it may be seen how link 56 is fixedly attached to right angle brace 80 via rivets 83 or the like. This right angle brace in turn is pivotally attached to link 82 at point 84. Link 82 is fastened to crank 86 at point 88. This crank is mounted fixedly upon shaft 90 of slow speed motor 92. Motor 92 may be mounted to the housing with suitable brackets (not shown). Upon actuation of motor 92, crank 86 will make a revolution about shaft 90 to thus pull link 82 to the left and actuate right angle brace 80, link 56, and each of the parters via bell crank 62, link 60, bell crank 64 and link 52. For example, the crank and link shown by the dash lines in FIG. 3 indicate the position thereof at one stage during the cycle. Preferably, there is no lost motion longitudinally between the linkages to facilitate smooth operation and to minimize wear.

Referring now to FIGS. 5 and 6 it is shown how the supports appear in the initial at-rest position (FIG. 5) and in the rotated active or dropping position (FIG. 6). For purposes of convenience the parter 18*b* shown in these figures is assumed to be the middle support under the long portion of the hanger. The other parters will operate in identical fashion except that parter 18*d* will operate in a reverse direction. Each parter possesses two main extending tangs in addition to flange 50*b* which is attached to link 56 at pivotal point 54*b*. They are the stack supporting tang 120 and the separator tang 130. Supporting tang 120 holds the stacked packaged hangers as shown in phantom in FIG. 5. When the motor 92 is actuated, link 56 moves in the direction indicated by the arrow in FIG. 6. This causes parter 18*b* to revolve about pivotal axis 48*b* and tang 120 to recede under flange 42 so that edge 124 of tang 120 is approximately flush with edge 45 of flange 42. This will allow the lowermost packaged hanger assembly 125 to freely fall as indicated in FIG. 6.

Tang 130 likewise rotates through link 56 but moves toward the opposite side of the housing and into the central space in the housing rather than out of it as does tang 120. Tang 130 is spaced above tang 120 a distance equal to the thickness of one or a multiple of the packaged hanger assemblies 122 or 125. Thus, when the support 18*b* rotates, tang 130 will force itself between the hanger packages 122 and 125 and will support package 122 and all hangers thereabove while package 125 falls. This is indicated in FIG. 6.

A tapered edge or corner portion 132 on tang 130 is preferably provided to facilitate this separating function. Likewise, a tapered edge 126 may be provided on tang 120 to cause the falling package to readily slide off tang 120 to the bottom of the container 14.

The supports after rotating the 90° to release the lower packaged hangers 125 return to the position shown in FIG. 5 upon which return the packaged hangers 122 and above held up on tang 130 fall unto returned tang 120 until motor 92 is again actuated.

In FIGS. 7 and 8 are depicted two modifications of the packaged hanger assembly 16 which may be utilized in the described dispensing apparatus, such hanger assemblies embodying conventional hangers including a hook portion, and a depending V-shaped portion, the ends of which are joined by an elongated portion. The package 30 in FIG. 7 is preferably of a paper board material which encompasses the hanger hook portion of hanger 110 and at least a substantial part of the elongated portion 112 of the hanger. This package may be fastened around the hanger by stapling its two ends together as at 114. It has been found that two hangers work very nicely in the packaged assembly, although obviously any number of hangers may be utilized as long as the essential principles described are practiced. Opening 116 is provided in the package on both sides thereof at the neck of the hook portion where the two ends of the wire forming the hanger are twisted together. The reason for this is that the twisted portion of the hanger is thicker than the remainder. Thus, to obtain a uniform thickness of the packaged hangers, the otherwise bulging cardboard material must be cut away. The thickness of this area is thus substantially the same as that of the remainder of the packaged hanger.

Also to be noted are the inwardly tapered edges 118 and 140 on diagonally opposite corners of package 30. These tapers facilitate the separating action of tang 130 when the parters are rotated to drop the lowermost package. Thus tapered edge 132 on tang 130, for example, cooperates with tapers 140 and 118 to allow parter tang 130 to readily move between the packages. The remaining portions of ends 142 and 144 are substantially at a right angle to the elongated parts 146 of package 30. This right angle relationship may be readily obtained by scoring the bended edges as at 148. If desired, opening 113 between the elongated parts 146 of package 30 may be utilized to retain a plastic clothes bag for simultaneous dispensing with the hangers.

Package 30 is also provided with a means of readily removing the package from the hangers, including opening 150 and perforations 152 extending from opening 150

to the edges of package 30. By grasping tab 153, the package may readily be ripped from the enclosed hangers. The staples 114 are spaced from tab 153 so that as the package is ripped along its perforation, the sharp points of the staples being torn loose will not scratch the user's hand.

In place of this particular package, package 32 shown in FIG. 8 may be utilized. This package is much simpler as can be readily seen by a comparison of the two. It obviously does not possess some of the advantages to be found in package 30, but it is less expensive to produce. Also it possesses the important characteristics of uniform thickness and stiffness. It is preferably made of a boxboard material having the usual undulated filler sections between the two enclosing sheets of paper or the like. This boxboard or other similar material underlies the hook portion 160 of hanger 162 and at least a substantial part of the elongated portion 164 of hanger 162. The hook portion may be suitably stapled to this backing 32 as at 166. Section 169 of package 32 enveloping the elongated portion 164 may be stapled to the major underlying support as at 168. The area 170 of package 32 immediately adjacent and overlying elongated portion 164 is compressed so that the entire packaged portion of the hanger has substantially a uniform thickness. This substantially uniform thickness facilitates dependable dispensation of this packaged unit from a hanger dispensing apparatus such as that described above.

It should be understood that the dispensing apparatus described may be used with plastice hangers of uniform thickness as well as with packaged conventional metal hangers as just described.

The coin actuated switching mechanism 96 (FIGS. 2, 3, 9, 10 and 11) comprises a base support plate 97 attached to housing flange 43. Upstanding therefrom and cooperating with coin slot 200 in the housing (FIG. 1) is a coin receiving member 98 mounted with a support flange 95 and including a coin chute 99. Mounted adjacent the receiving member is a switch, here an on-off switch 100 including arm or lever 101 extending through an arcuate slot 102 in coin chute 99 so that a falling coin shifts arm 101 downwardly as indicated in phantom in FIGS. 9 and 10 to throw the switch to the "on" or actuated position. Beneath the bottom of coin chute 99 is a coin retaining plate 103 which keeps the coin from falling further and thus forces the coin to hold the switch depressed in the actuated position until the plate is shifted. This plate 103 has an offset portion 105 secured to link 56 (FIG. 10). Extending upwardly from plate 103 is a stop pin 107 which normally holds auxiliary pivotal switch holder 109 away from the coin chute against the bias of spring 111. This spring is secured at one end to housing flange 43 and biased against tang 113 at its other end. When coin retaining plate is shifted sideways by movement of link 56, it will be seen that stop pin 107 also moves to allow holder 109 to move under the bias of spring 111 so that tang 113 contacts member 98 adjacent arcuate slot 102 to hold arm 101 in the actuated, down position until the movement of plate 103 is reversed.

*Operation*

The hanger dispensing apparatus shown in FIGS. 1 through 6 may be installed in a laundromat establishment or the like by attaching it to the wall or mounting it upon a suitable chassis. Electrical connection preferably utilizing the common 110 volt plug socket, is made to provide power for motor 92. Next, guide 20 of the storage assembly 12 is loaded with a stack of hangers either of the type shown in FIG. 7 or 8, or with other suitable hangers having a generally uniform thickness for reliable dispensing, with all of said hangers being oriented similarly. In other words the roughly V-shaped end 180 of the hanger assembly shown in FIG. 7 is placed in the divergent or roughly V-shaped slot 22, while end 182 is placed in slot 24, and the hook portion in channel 23. After the guides have been filled with hangers and the lowermost hanger package rests on the parters, and more specifically tangs 120 thereof as shown in FIG. 4, the unit is ready for operation. In order to dispense the lowermost hanger package in an apparatus without coin actuation or a motor, a manual handle protruding through the casing 14 is shifted to allow longitudinal movement of link 60 and thus the remainder of the links and parters.

As an alternative, the coin actuated, motor-operated mechanism may be utilized. A coin is dropped into coin slot 200 which connects with the coin chute 99 of receiving member 98. Beneath this chute is provided a suitable money receiving box (not shown). As the coin falls through the chute, it depresses lever 101 to actuate on-off switch 100. This switch actuates the slow speed motor 92. Motor 92 rotates shaft 90 and fixedly mounted crank 86. This motor is held in operation for one complete cycle of the part or support devices, linkage, and motor. This cycle also comprises one complete revolution of the entire coin actuated switch mechanism. That is, the coin which shifts arm 101 is retained in the bottom part of coin chute 99 by plate 103 so that the switch is held on. Crank 86 then moves link 82 to the left as shown in plantom in FIG. 3. This link thus moves in a generally reciprocating fashion as its follows the crank 86 around its circular path. Link 82 in turn moves right angle brace 80 to the left and link 56 to which the right angle brace is fixedly attached by rivets 83. Link 56 causes parter 18*d* underneath the hook portion of the hanger assembly 16 to rotate in a clockwise direction as seen by the arrow in FIG. 2. This causes tang 120 to move from under the lowermost hanger since it moves to a receding position underneath flange 42 due to the rotation thereof. Link 56 also simultaneously causes bell crank 62 to revolve in a clockwise direction, thus shifting link 60 longitudinally as shown by the arrow in FIG. 2, rotating bell crank 64 in a clockwise direction and shifting link 52 to the right as shown by the arrow in FIG. 2. Longitudinal movement of link 52 thus causes the three aligned parters 18*a*, 18*b* and 18*c* to revolve in a clockwise direction to release the longitudinal portion 46 of the packaged hangers simultaneously with the release of the hook portion by the individual oppositely facing parter. Because of this release the lowermost hanger falls to the bottom 34 of the apparatus, slides to the front, and protrudes from the slot in the container for easy removal. As the lowermost hanger is being released by the supporter tangs 120, parter tangs 130 move in between the lowermost package and the remaining stacked packages to prevent these remaining packages from also falling. This is shown in detail in FIGS. 5 and 6.

During the first portion of this operational sequence, the switch and motor are held active by the forced retention of the coin and the holding of switch arm 101 by the coin. After a short time interval, it is preferred to allow auxiliary switch arm holder 109 to swing over and have tang 113 hold arm 101 depressed. This occurs by lateral shifting of plate 103 as depicted in phantom in FIG. 9 to shift stop pin 107. The coin falls in the interior into a suitable coin box (not shown).

After the lowermost package has been released, the supporters 18*a*, 18*b*, 18*c* and 18*d* move back to their original position from the 90° rotated position due to the reversed movement of the links because of the return of crank 86 through its 360° cycle to its original starting position. Thus, the movement of crank 86 through the first 180° causes a 90° rotation of each of the parters or supporters and the last 180° of its cycle causes a return of the supporters back to their original position. The apparatus is thus in a position to dispense another group of packaged hangers upon the dropping of another coin into chute 200.

The reverse movement of link 56 causes return of plate 103 under the coin chute. This causes pin 107 to push auxiliary holder 109 away from slot 102 to allow the

switch arm 161 to return under a bias to its original raised "off" or inactive position. Thus, at the end of the cycle, motor 92 is deactuated to limit is movement to one revolution. This unique holding and shut-off mechanism completely dispenses with normally required holding relays, and separate on and off switches.

Thus it is seen how there is provided a novel type of hanger dispensing apparatus which is dependable in operation, convenient in size and weight and potential application, simple to reload, and relatively inexpensive to construct.

Also it is seen how there is provided a novel type of hanger package which prevents intertangling of stacked coat hangers, allows stacking of hangers in a relatively stable arrangement, is easily removed, and facilitates operation of a hanger dispensing apparatus.

Further, there is provided a unique coin actuated switch mechanism which causes the actuation and operation of a powered mechanism such as a dispenser during a predetermined movement or series of movements and then deactuates the powered mechanism automatically without relays, or complex multiple switches and elaborate wiring harnesses.

It is realized that various modifications may be made in the hanger dispensing apparatus, the hanger package, or the switching mechanism shown without departing from the spirit and scope of the invention described. It is fully intended to include such modifications within the protection afforded by law, such protection being limited only by the structures defined in the appended claims and the equivalent structures thereto.

I claim:

1. A hanger dispensing apparatus comprising the combination of a housing; a plurality of horizontally rotatable hanger package supports pivotally mounted on two sides of said housing; a stack of packaged hangers resting on said support; each package having at least one hanger therein and extending under the hook of said hanger, and around the central portion of the base of said hanger; at least two of said supports being on one side of said housing and under said hanger base and one of said supports centrally placed on the opposite side of said housing under the packaged hook portion; each of said supports having a first tang portion projecting toward the opposite side of said housing for normally supporting packaged clothes hangers; a second separating tang on each of said supports on an adjacent lateral side from said first tang so that when said support is rotated said second tang will project toward the opposite side of said housing while said first tangs recede therefrom; said second tangs being a distance above said first tang equal to the thickness of a hanger package; linkage means connecting said plurality of supports to a motor means; motor means operatively connected to said linkage means to cause said supports to rotate and thus cause said first tangs to recede toward the adjacent housing wall and thus create a central opening through which a hanger package may pass while simultaneously causing said second separator tangs to move toward the opposite side of said housing; switch means to actuate said motor means; and a guide means for packaged hangers above said supports; said guide means including a pair of vertical guide elements straddling said supports under said hanger base and holding the V-shaped ends of the packaged hangers aligned, and also including a U-shaped channel guide element positioned above said hook portion support and holding the packaged hooks aligned.

2. A hanger dispensing apparatus comprising the combination of a housing; a plurality of horizontally rotatable hanger package supports pivotally mounted on two sides of said housing; at least two of said supports being on one side of said housing and one of said supports centrally placed on the opposite side of said housing; each of said supports having a first tang portion projecting toward the opposite side of said housing for normally supporting packaged clothes hangers; a second separating tang on each of said supports on an adjacent lateral side from said first tang so that when said support is rotated said second tang will project toward the opposite side of said housing while said first tangs recede therefrom; said second tangs being a distance above said first tangs equal to the thickness of a hanger package; linkage means connecting said plurality of supports to a motor means, motor means operatively connected to said linkage means to cause said supports to rotate and thus cause said first tangs to recede toward the adjacent housing wall and thus create a central opening through which a hanger package may pass while simultaneously causing said second separator tangs to move toward the opposite side of said housing; coin actuated on-off switch means connected electrically with said motor means; mechanical holding means associated with said switch means to hold said switch in the on position until said supports are rotated a predetermined amount.

3. The apparatus in claim 2 wherein said holding means comprises a coin retaining member to hold said coin in its switch-actuating position.

4. The apparatus in claim 2 wherein said holding means comprises a shifting, coin-retaining-member to hold said coin in its switch-actuating position for a short time interval and then allowing said coin to drop, and an auxiliary switch holding member capable of shifting to hold said switch actuated after said coin has dropped.

5. A hanger and dispenser apparatus combination comprising a housing; a plurality of horizontally rotatable hanger supports pivoted on two opposite sides of said housing; each of said supports having a first tang projecting toward the opposite side of said housing with the plurality of tangs being in one plane for normally supporting packaged hangers; a second tang on each of said supports on an adjacent lateral side with respect to said first tangs so that when said supports are rotated said second tangs project toward the opposite side of said housing and said first tangs recede therefrom; said second tangs being spaced above said first tangs a set distance equal to a multiple of the thickness of the hanger packages to be dispensed; linkage means connecting said plurality of supports; a stack of packaged hangers above and resting upon said plurality of supports; said hangers being grouped in a predetermined number in said packages; said packages enveloping the hook portion of said hangers and the central part of the elongated portion of said hangers and having a substantially uniform thickness; motor means operatively connected to said linkage means for rotating said supports to cause said first tangs to recede and create a central opening through which the lowermost package may fall, and to cause said second tangs to protrude to support the remainder of said packages; and switch means to actuate said motor means and including holding means adapted to keep said motor means actuated until the first tangs on said supports completely recede to create said central opening and return to the protruding position.

6. The combination in claim 5 wherein each of said first and second tangs and said packages have tapered edges at the mutual areas of contact.

7. A dispensing apparatus having in combination a housing; a plurality of horizontally rotatable hanger supports pivoted on two opposite sides of said housing; each of said supports having a first tang which projects toward the opposite side of said housing and wherein said plurality of said tangs are in one plane; each of said supports having a second tang located on an adjacent lateral side of said support from said first tang so that when said support is rotated said second tang will project into the space toward the opposite side of said housing; said second tang being spaced a set distance above said first tang; a pair of facing channel guides mounted above said supports; linkage means operatively connecting said plurality of supports; a stack of packaged hangers

resting upon said supports and having the V-shaped ends of each hanger base within said channel guides; a third guide mounted above said support on the opposite side of said housing and interfitting with the hook portions of said hangers; said packaged hangers having a substantially uniform thickness over a substantial area thereof; motor means operatively connected with said linkage means to rotate said supports and thus cause said first tangs to recede to create an opening large enough for a packaged hanger to pass therethrough and to cause said second tangs to project toward said opposite side of said housing for maintaining said stack of packaged hangers from passing therethrough; and switch means to actuate said motor means and hold it actuated until said supports recede to form a dropping opening and protrude again into said opening.

8. An article dispensing apparatus, comprising: a housing adapted to retain a stack of articles; a plurality of shiftable supports arranged about an opening adjacent the bottom of said housing and adapted to normally support a stack of articles in said housing; said supports when shifted adapted to drop the lower article in said stack and then return to the original supporting position under the stack; linkage means connecting said shiftable supports and adapted to move in a generally reciprocating manner; motor and crank means operably connected to said linkage means to reciprocate the linkage means; coin receiving means in said housing including a coin chute; switch means electrically connected to said motor means and having an actuating lever in said coin chute to be shifted by a coin; a coin retaining member normally extending under said coin chute to initially hold a coin in said chute against said actuating lever to maintain said switch and thus said motor actuated; said coin retaining member being mounted to said linkage means to move from under said chute with movement of said linkage means; auxiliary holding means for said switch actuating lever adjacent said chute, mounted pivotally to said housing, and biased toward an engaging position with said actuating lever, but normally held out of engagement therewith by a stop means; said stop means being operably associated with said linkage means to shift therewith and allow said auxiliary holding means to hold said lever in an actuated position while said coin retaining member simultaneously shifts from under said chute allowing said coin to drop out of said chute; said stop means adapted to shift back with said linkage means upon return reciprocal movement of said linkage means to release said actuating lever; and said coin retaining member being shifted beneath said coin chute again upon return reciprocal movement of said linkage.

9. An article dispensing apparatus, comprising: a plurality of shiftable supports arranged about an opening and adapted to normally support a stack of articles; said supports when shifted adapted to drop the lower article in said stack and then return to the original supporting position under the stack; linkage means connecting said shiftable supports and adapted to move in a generally reciprocating manner; motor means operably connected to said linkage means to reciprocate the linkage means; coin receiving means including a coin chute; switch means electrically connected to said motor means and having an actuating lever in said coin chute to be shifted by a coin; a coin retaining member normally extending under said coin chute to initially hold a coin in said chute against said actuating lever to maintain said switch and thus said motor actuated; said coin retaining member being mounted to said linkage means to move from under said chute with movement of said linkage means; auxiliary holding means for said switch actuating lever normally held out of engagement therewith by a stop means; said stop means being operably associated with said linkage means to shift therewith and allow said auxiliary holding means to hold said lever in an actuated position while said coin retaining member simultaneously shifts from under said chute allowing said coin to drop out of said chute; said stop means adapted to shift back with said linkage means upon return reciprocal movement of said linkage means to release said actuating lever; and said coin retaining member being shifted beneath said coin chute again upon return reciprocal movement of said linkage.

10. A hanger dispenser apparatus comprising: a housing; a plurality of at least two rotatable hanger supports mounted on one side of said housing, and one centrally positioned rotatable hanger hook support mounted on the opposite side of said housing; each of said supports having a first tang projecting toward the opposite side of said housing with the plurality of tangs being in one plane for normally supporting a stack of hangers over an opening; a second tang on each of said supports on an adjacent lateral side of said supports with respect to said first tangs so that when said supports are rotated the first tangs will recede and allow the lowermost hangers to fall while the second tangs protrude to hold up the rest of the stack; linkage and bell crank means connecting said plurality of supports around said housing; and motor and crank means and switch means for rotating said supports and returning them again, including holding means adapted to keep said motor actuated for one complete revolution to rotate said supports through a complete cycle.

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