Jan. 14, 1936. F. L. BROEREN 2,027,670

PAPER DISPENSER

Filed Sept. 17, 1934

Fig. 1

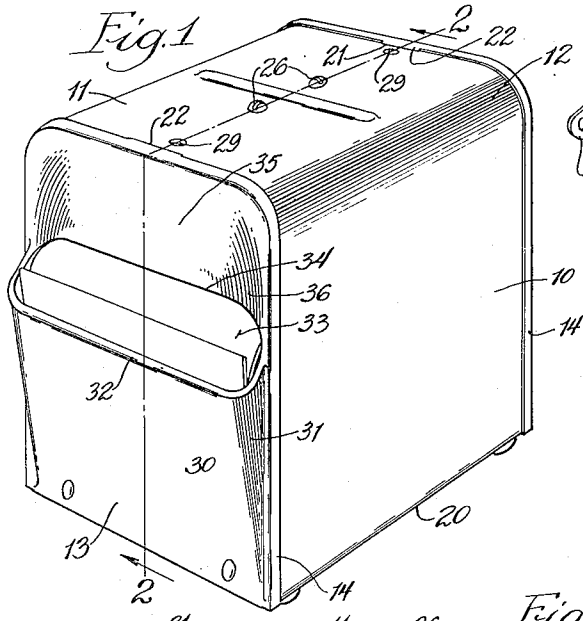


Fig. 3

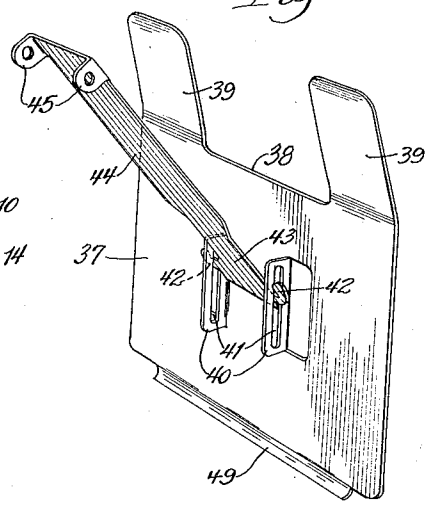
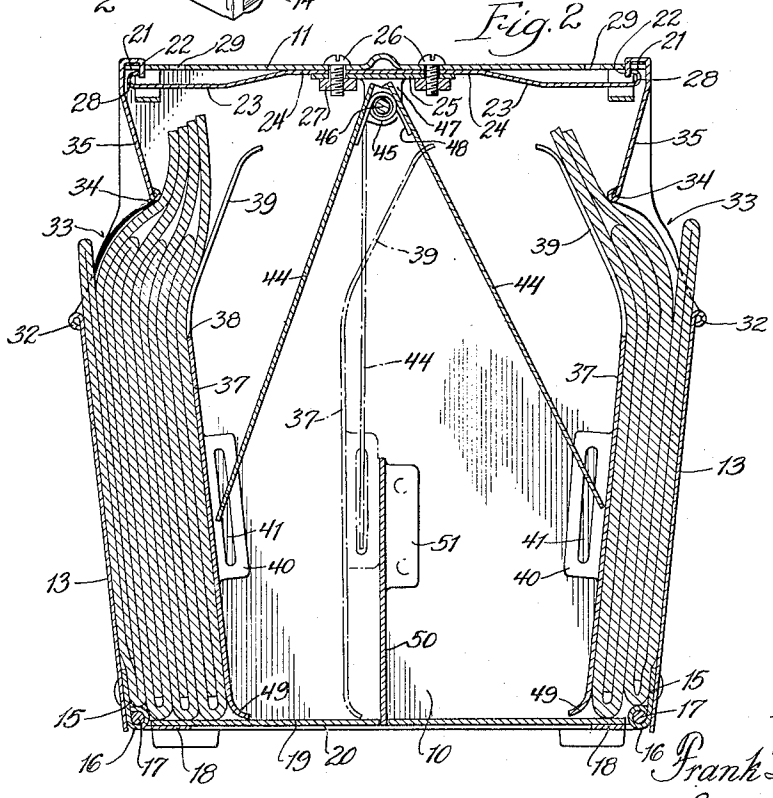


Fig. 2



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PAPER DISPENSER

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4 Claims. (Cl. 312—62)

The dispenser of the present invention is designed for use in the dispensing of napkins or the like which are so folded as to present a front free tab through the dispensing slot or orifice in position to be grasped by the user. In such circumstances, it is necessary to make provision for the confinement of the upper edges of the napkins in the stack while the grasping tab is released for projection into the slot, so that the tab of a single napkin only will be presented to the user.

The present invention is directed primarily to the formation and configuration of the front slotted wall of the container, so that the inner face thereof, against which the forward napkin of the stack is compressed, will properly align and confine the stack of napkins in such a way as to freely project the grasping tab only through the slot, thereby positively preventing the grasping of more than a single napkin at a time.

The invention also relates to the formation and arrangement of the follower plate in its relation to the front wall; to the means provided for advancing the follower plate, and to the construction of the device as a whole.

Further objects and details will appear from a description of the invention in conjunction with the accompanying drawing, wherein,—

Figure 1 is a perspective view of the paper dispenser of the present invention;

Fig. 2 is a sectional elevation taken through line 2—2 of Fig. 1; and

Fig. 3 is a perspective view showing the rear face of the follower plate and the link for advancing the same.

The drawing shows a duplicate apparatus so arranged as to afford two compartments for the reception of two stacks of napkins or the like, with a dispensing slot or orifice on each of the two reverse walls of the dispenser, but it will be understood that the description hereinafter given is applicable to both of the divisions of the device and that the device may be made in single rather than duplicate form if so desired.

As shown, the dispenser is housed within a container comprising side walls 10 and a top wall 11 integrally formed with the two side walls and rounded at the corners 12. The side walls are closed at each end by a hinged panel 13 provided with a marginal flange 14 which when closed overlaps the associated edges of the side walls and top to furnish oppositely disposed closures for the containers.

Each of the panels is provided at its lower edge on the inside with a bar 15 which is recurved inwardly to afford tongues 16 which embrace a pintle 17 carried by intervening tongues struck upwardly from a bottom edge plate 18 to afford a hinge joint at each of the lower corners, thereby permitting the oppositely presented panels to open outwardly.

The bottom of the container is closed by a floor plate 19 which at its front and rear edges overlies the bottom edge plates 18 and at each side edge overlaps a flange 20 which is inturned from the side wall 10, the bottom plate being secured in any suitable manner to the plates 18 and the flanges 20 to afford a rigid closure for the bottom of the container.

The front and rear edges of the top wall 11 are cut to afford center notches 21 which permit the entry of a tongue 22 downturned from the top portion of the flange 14 to afford a keeper which operates in conjunction with the latch spring 23 which is offset downwardly from a spring bar 24 which carries a similar latch at each end and is secured in its center by a yoke plate 25 secured by screw bolts 26 and nuts 27.

The outer end of each latch spring is recurved to afford a hook shaped tooth 28 which when lifted engages the keeper 22 but which may be depressed by the insertion of a small object such as a nail or pin through an aperture 29 in the top wall of the container.

Each of the front panels is configured to afford an outwardly protruding pocket 30 which when the panel is closed projects obliquely from the base of the panel, and the sides of the pocket are afforded by upwardly widening portions 31 which spring outwardly from the side margins of the panels. The pocket terminates in a rounded lip 32 which is located somewhat above the center of the panel and which affords the lower margin for a transversely extending slot or aperture 33.

The upper margin of the aperture is afforded by a lip 34 on the lower edge of the inwardly dished panel wall 35 which extends obliquely inward throughout its entire extent save at its extreme ends which at 36 are rounded outwardly to merge into the margins of the panel. This configuration of the slot and the contiguous portions of the panel is important in the proper confinement and dispensing of the napkins or other folded articles.

The lower pocket portion of the panel is of a width between the rounded side portions 31 sufficient to permit the lower or body portion of the napkins to be pressed forwardly in obliquely standing relation to present the grasping tab of

the outermost napkin above the straight lip 32 and in position to be grasped by the user. At the same time the upper edges of the napkins within the stack are restrained by the lip 34 and held along a parallel line above and to the rear of the lip 32.

It will be noted that the napkins here illustrated are so folded as to present a substantially greater thickness of material throughout the lower portion of the stack, that is to say, within the region which includes the shorter free tab portions, while the upper portion of the stack comprises those portions of the individual napkins which extend above the level of the tabs.

The configuration of the slotted panel is such as to afford greater fore and aft space in the pocketed region of the panel, which not only provides for greater thickness of the lower portion of the stack but also serves to bulge the stack forwardly in its center portion while the upper portion of the stack is held back and restrained by the lip 34. This bulging of the stack in the region adjacent to the slot serves to free the outermost grasping tab from confinement and permit it to project freely from the adjacent confined portion of the napkin to which it is attached, so that ample clearance is afforded to permit the user to readily grasp the tab thus presented and withdraw the outermost napkin from the dispenser.

This facility of manipulation is increased by the rearward dishing of the upper portion 35 of the panel, which thus affords a slot or aperture standing in a plane of substantially 45° and allowing for the ready insertion of the finger behind the foremost tab. At the same time the arrangement is such that the outermost napkin prior to withdrawal will completely close the aperture so that it will not be feasible to secure grasping contact with the upper edges of the napkins while confined within the container. The arrangement also prevents the ingress of dust, dirt or foreign material through the aperture and protects all of the napkins behind the outermost napkin from possibility of soil or contamination.

Each stack of napkins is fed forwardly by means of a follower plate 37 which is of generally rectangular configuration and is cut away in its upper portion to afford a recess 38 leaving side tongues 39 on each side of the recess. The side tongues are bent inwardly in relation to the body of the follower plate, which gives to the follower plate as a whole the forwardly bowed configuration which assists in the forward bowing or bulging of the stack toward the dispensing aperture 33 and affords the necessary clearance for the upper and lower portions of the stack in relation to the configuration of the forward panel.

The follower is provided with a pair of rearwardly extending flanges 40 which are struck out from the body of the plate and each of the flanges is provided with a vertical slot 41 which affords a guide for a hook 42 laterally projecting from the free end 43 of a link bar 44 provided at its upper end with ears 45 which are pivoted upon a center pintle 46 supported between tongues 47 inwardly turned from the yoke bar 25. The two link plates are thrust outwardly from the center point of pivotal suspension by the ends of a coil spring 48 which encircles the pintle 46 so that the link bars will exert an outward sliding thrust against the respective follower plates, each of which is inwardly curved at its lower edge 49 to ride freely upon the floor of the container. The two compartments within the container are separated by a partition wall 50 extending from side to side and secured by flanges 51 to the side walls 10.

In use, the napkins are inserted by unlatching the front panels and allowing them to swing outwardly, which permits a stack of napkins to be inserted into each of the compartments in advance of the respective follower plates. Each follower plate being freely and slidably carried upon the end of its link bar 44 will adjust itself to the rear surface presented by the stack of napkins, and, as the stack is depleted by successive withdrawals, the point of application of pressure will be progressively elevated to a greater and greater distance above the base of the stack. Since the base portion of the stack is thicker than the upper portion by the inclusion of the napkin tabs, the follower is thus permitted to change its angle of contact as required in the progressive depletion of the stack and to accommodate itself to the variation in the plane of confinement of the forward portion of the stack due to inequalities in the configuration of the slotted forward panel. Furthermore, the bowed configuration of the follower plate itself assists in the application of the required pressure against the center portion of the stack to bow the same forwardly and thus insure a proper presentation of the outermost tab through the slot.

It will be seen from the foregoing description that in its formation and method of advancement, the follower plate coacts with the specially formed and pocketed panel in applying the proper compression to insure delivery of all of the napkins, so that even when the stack becomes largely depleted, the remaining napkins will be properly presented for successive removal singly and without displacement or entanglement with one another.

Although in the invention as shown the dispenser is so positioned as to bring the slot or aperture 33 into horizontal relation to the body of the dispenser, it is not the intention to limit the features described to a dispenser standing in this position, since the dispenser as a whole might be so disposed as to bring the slot into vertical relation without substantial change or alteration in any of the features described. It will therefore be understood that in the claims, where such expressions occur as "upper" and "lower", or expressions defining the relationship of the parts to the plane of the earth, such expressions are employed for purposes of convenient reference and not for the purpose of limiting the invention to a dispenser standing in the vertical relationship shown and described.

I claim:

1. In a dispenser of the character described, the combination of a container for a stack of napkins or the like when folded to each present a free tab terminating on a line above the center and below its upper edge, said container including a panel provided above its center with a transversely extending slot lying in an oblique plane and positioned to expose only the upper edge of the free tab of the outermost napkin for grasping, the panel below the slot being obliquely outwardly protruded to afford a pocketed portion having a width substantially equal to the width of the folded napkins and terminating at its upper edge in a straight lower lip constituting the lower edge of the slot, the upper portion of the panel being dished inwardly to afford a straight upper lip constituting a restraining edge for the upper portions of the napkins within the stack, said upper lip extending parallel with the lower lip substantially from side to side of the upper por-

tion of the stack and serving in conjunction with the lower lip to bow forward the medial portion of the stack in position to present the foremost tab for grasping and to hold the foremost napkin in position to completely close the slot, and means for advancing the stack to permit successive withdrawals of the napkins or the like.

2. In a dispenser of the character described, the combination of a container for a stack of napkins or the like when folded to each present a free tab terminating on a line above the center and below its upper edge, said container including a panel provided above its center with a transversely extending slot lying in an oblique plane and positioned to expose only the upper edge of the free tab of the outermost napkin for grasping, the panel below the slot being obliquely outwardly protruded to afford a pocketed portion having a width substantially equal to the width of the folded napkins and terminating at its upper edge in a straight lower lip constituting the lower edge of the slot, the upper portion of the panel being dished inwardly to afford a straight upper lip constituting a restraining edge for the upper portions of the napkins within the stack, said upper lip extending parallel with the lower lip substantially from side to side of the upper portion of the stack and serving in conjunction with the lower lip to bow forward the medial portion of the stack in position to present the foremost tab for grasping and to hold the foremost napkin in position to completely close the slot, a follower plate positioned to bear against the rear of the stack, and spring means freely connected to the follower plate for exerting pressure thereon while permitting the follower plate to freely position itself with relation to the rear surface of the stack, the upper portion of the follower plate being bent rearwardly to accommodate the upper portions of the napkins in relation to the upper restraining lip of the slot.

3. In a dispenser of the character described, the combination of a container for a stack of napkins or the like when folded to each present a free tab terminating on a line above the center and below its upper edge, said container including a panel provided above its center with a transversely extending slot lying in an oblique plane and positioned to expose only the upper edge of the free tab of the outermost napkin for grasping, the panel below the slot being obliquely outwardly protruded to afford a pocketed portion having a width substantially equal to the width of the folded napkin and terminating at its upper edge in a straight lower lip constituting the lower edge of the slot, the upper portion of the panel being dished inwardly to afford a straight upper lip constituting a restraining edge for the upper portions of the napkins within the stack, said upper lip extending parallel with the lower lip substantially from side to side of the upper portion of the stack and serving in conjunction with the lower lip to bow forward the medial portion of the stack in position to present the foremost tab for grasping and to hold the foremost napkin in position to completely close the slot, a follower plate provided on its rear face with a pair of spaced members having vertical guide slots, a link bar pivoted at its inner end and having its outer end configured to engage the slots, and spring means for advancing the free end of the follower plate, the upper portion of the follower plate being bent rearwardly to afford a forwardly bowed surface for contact with the stack.

4. In a dispenser of the character described, the combination of a container for a stack of napkins or the like when folded to each present a free tab terminating on a line above the center and below its upper edge, said container including a panel provided above its center with a transversely extending slot lying in an oblique plane and positioned to expose only the upper edge of the free tab of the outermost napkin for grasping, the panel below the slot being obliquely outwardly protruded to afford a pocketed portion having a width substantially equal to the width of the folded napkins and terminating at its upper edge in a straight lower lip constituting the lower edge of the slot, the upper portion of the panel being dished inwardly to afford a straight upper lip constituting a restraining edge for the upper portions of the napkins within the stack, said upper lip extending parallel with the lower lip substantially from side to side of the upper portion of the stack and serving in conjunction with the lower lip to bow forward the medial portion of the stack in position to present the foremost tab for grasping and to hold the foremost napkin in position to completely close the slot, means for pivoting the lower edge of the panel to the body of the container, and a follower plate for advancing the stack of napkins toward the slot.

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