May 18, 1937. F. L. BROEREN 2,080,691

NAPKIN DISPENSER

Filed Aug. 14, 1936 2 Sheets-Sheet 1

Fig. 1.

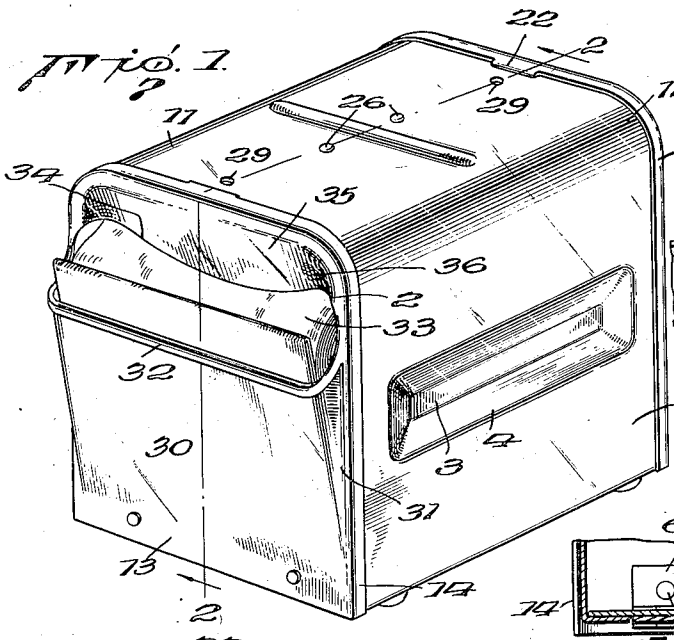


Fig. 3.

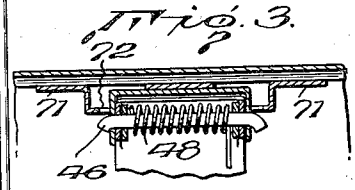
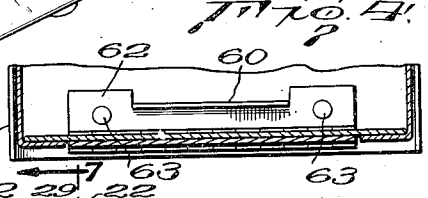


Fig. 4.



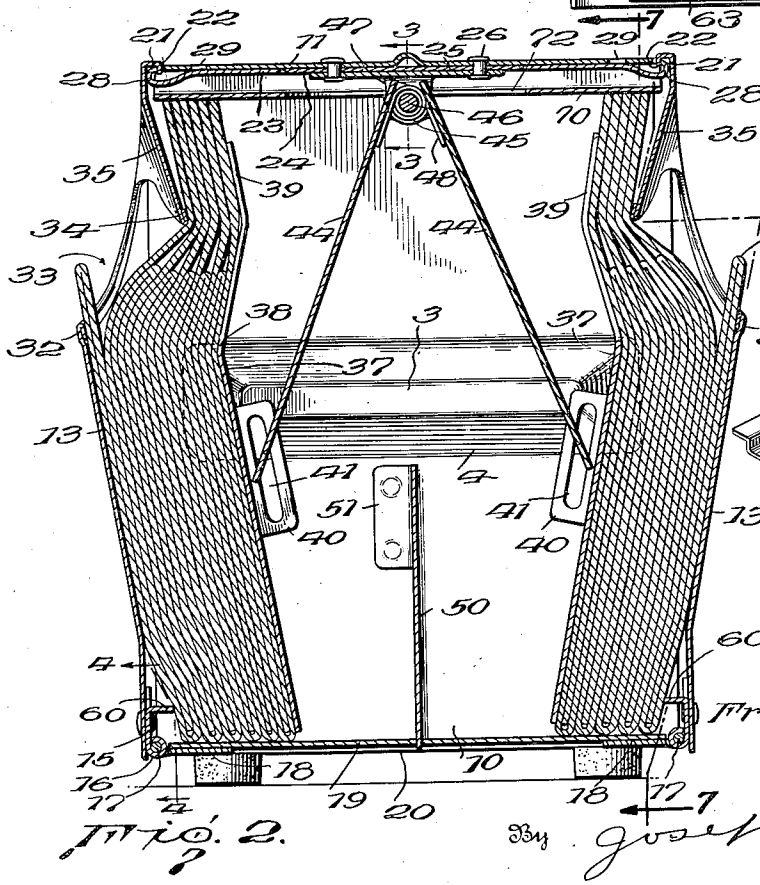
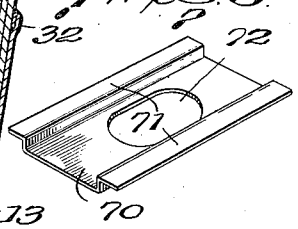


Fig. 2.

Fig. 5.



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NAPKIN DISPENSER

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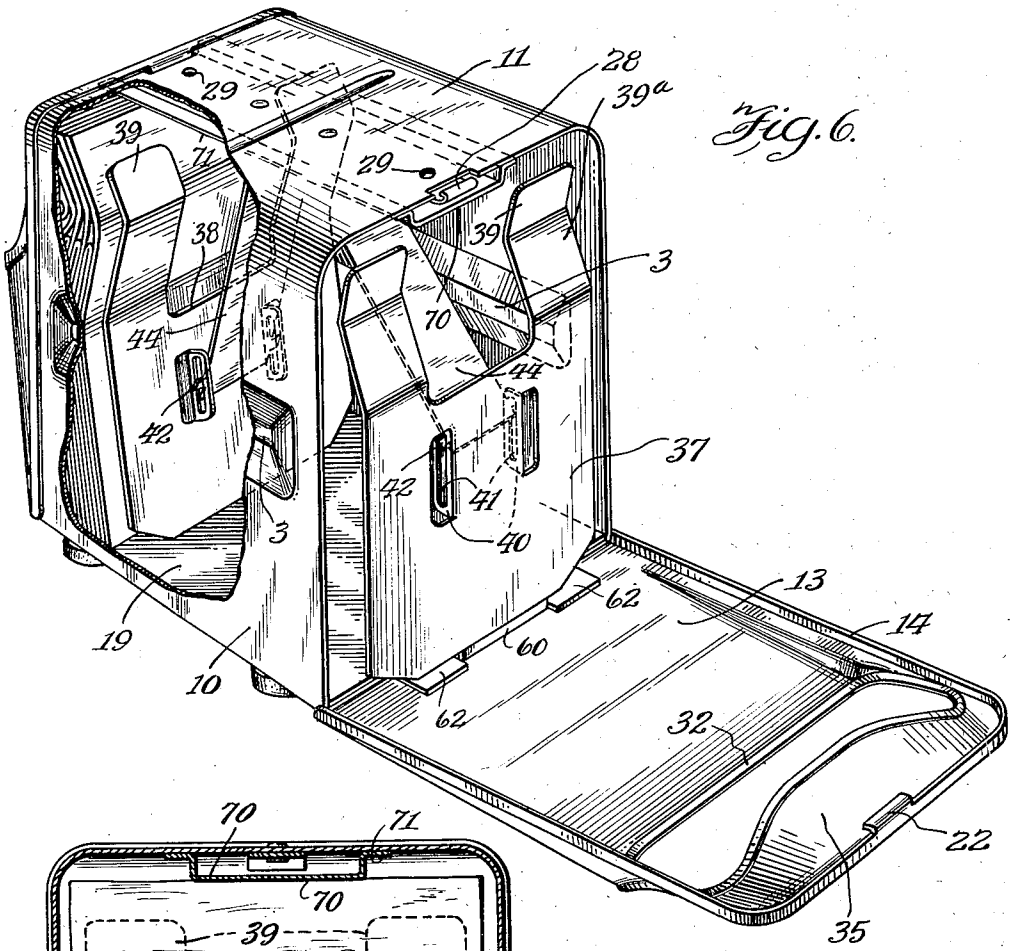


Fig. 6.

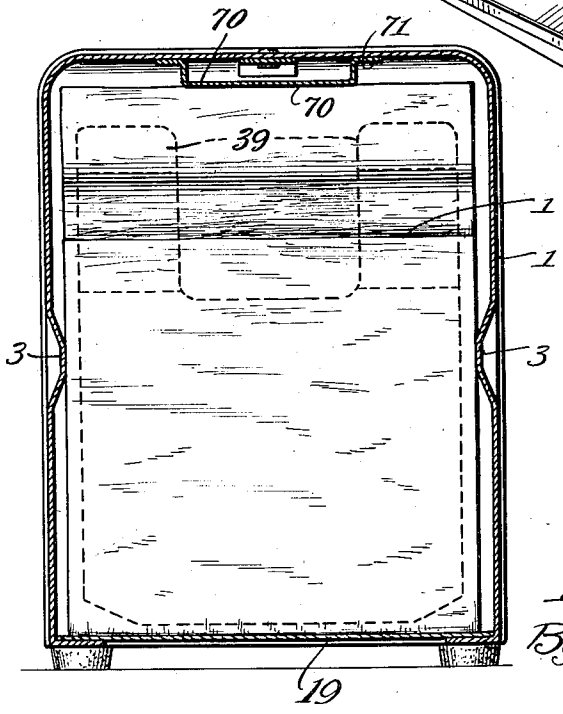


Fig. 7.

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NAPKIN DISPENSER

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Application August 14, 1936, Serial No. 96,007

7 Claims. (Cl. 312—62)

The dispenser of the present invention is designed for use in the dispensing of paper 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 and lower 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.

An important object of the present invention is the provision of means for confining the upper and lower portions of the foremost napkins in the stack in order to ensure ready withdrawal of only one napkin at a time from the container while retaining the succeeding napkins of the stack within the container in dispensing position and at the same time relieving the localized pressure of the stack on the upper and lower portions of the foremost napkin as it is being withdrawn.

Another object of the invention relates to the provision of a flange for contacting the lower portions of the napkins in order to ensure withdrawal from the dispenser of only one napkin at a time, and to relieve the localized pressure of the stack on the lower portions of the foremost napkin as it is being withdrawn from the dispenser.

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

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

Figure 2 is a sectional elevation taken through line 2—2 of Figure 1;

Figure 3 is a fragmental sectional view taken on lines 3—3 of Figure 2;

Figure 4 is a fragmental sectional view taken on lines 4—4 of Figure 2;

Figure 5 is a perspective view of a cover plate used in the dispenser;

Figure 6 is a perspective view, partly in section, of the dispenser with one of the hinged panels opened; and

Figure 7 is a sectional view of the dispenser taken on lines 7—7 of Figure 2.

The drawings show 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, similar to the dispenser disclosed in Patent 2,027,670 Jan. 14, 1936. 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 side panels 10 is provided in its medial portion with a depressed rectangular panel portion 3 which is surrounded by obliquely inclined contiguous panels 4 as illustrated in Figure 1. The depressed portions 3 at each side of the panels 10 protrude inside the dispenser and serve to contact the lateral edges of the stack of napkins so as to guide and align them with the dispensing aperture 33 in the front panel.

Each of the panels is provided at its lower edge on the inside with a bar 15 which is affixed by rivets 63 and 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.

A portion of the upper edge of bar 15 is bent inwardly at an angle of approximately 90° to form a short flange portion 60, as shown in Figure 4, which presses against the lower portions of the foremost napkin in the stack when the hinged panel is in closed position, as shown in Figure 2, and at the same time bows inwardly the lower portions of the foremost napkins in the stack. Flange 60 thus serves to resist the compressive force of the follower plate 37 against the lower portions of the stack of napkins in the dispenser and also serves to retain the lower portions of the napkins in the stack in proper position for dispensing.

When the tab 1 of the foremost napkin in the stack is grasped and pulled, the lower portion of the napkin is pulled above the flange 60 thereby relieving the pressure of the stack on the lower portion of the napkin, as the flange is spaced away from the front panel, and thus permitting it to be withdrawn readily and smoothly. As the lower portion of the foremost napkin is withdrawn above the flange 60, the corresponding lower portion of the next succeeding napkin

will be immediately pressed against the flange 60 and will be held thereagainst. By relieving the localized pressure of the stack on the lower portion of the foremost napkin, it will also be less likely to stick to the next adjacent napkin in the dispenser. This construction thus provides means for ensuring the withdrawal of only one napkin at a time.

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 extending from bar 24 which carries a similar latch at each end and is secured in its center by a yoke plate 25 secured by bolts 26.

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. The panel is provided with a reentrant curved portion 2 which merges into the upper part of pocket portion 31, as shown in Figure 1. The inwardly directed portion 35 contacts the upper portions of the foremost napkin in the stack and resists the pressure exerted on the stack by follower plate 37 thereby outwardly bulging the upper portions of the foremost napkins in the stack as illustrated in Figure 2. As the upper portions of the foremost napkin are withdrawn from the dispenser the portion 35 contacts the corresponding portion of the next succeeding napkin and thereby relieves the pressure of the stack on the foremost napkin as it is being withdrawn. 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 inclined substantially 45° to a vertical plane 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 substantially 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 on each side of the recess. The lower portion 39a of each of the side tongues is bent inwardly out of the plane of the follower plate 37 and the upper portion 39 is bent forwardly so as to be parallel to the main body 37. This configuration of the follower plate assists in the forward bowing or bulging of the stack toward the dispensing aperture.

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 hook 42 laterally projecting from the free end of a link bar 44 provided at its upper end with ears 45 which are pivoted upon a center pintle 45 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.

A plate 70, shown in Figure 5, is attached on the inside of the top panel 11 at the flanged portions 71. A perforated portion 72 is provided for permitting free play of the hinged link bars 44.

The flat portion of the plate 70 extending within the container serves to prevent excessive downward movement of the latch spring 23 and prevents entanglement of the upper portions of the napkins with the latch. The flat portion of the

plate 70 also acts as a guide for the upper edges of the napkin stack as shown in Figures 2 and 6. Furthermore when the foremost napkin is pulled out from the dispenser at the moment when the lower portion of the napkin is released from engagement from the flange 60 the upper edge of the napkin will be held in proper dispensing position as it is in contact with the plate 70.

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 configuration of the follower plate 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.

The provision of the inwardly directed flange 60 ensures the withdrawal of only one napkin at a time, as when the foremost napkin is pulled out by grasping the tab portion the follower plate will immediately push the napkin stack forwardly and bring the corresponding lower portions of the next succeeding napkin in the stack into engagement with flange 60 thereby holding it in place. The inwardly directed portion 35 similarly permits release of the upper portions of the foremost napkin and at the same time retains the succeeding napkins within the dispenser.

Furthermore the stack of napkins is positively guided at all its edges in relation to the dispensing slot by means of plate 70 which guides the upper edge, the depressed lateral panels 3 which guide the side edges, and the bottom 19 which supports and guides the lower edges as shown in Figure 7.

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 stand on their lower edges and to each present a free grasping tab terminating on a line below its upper edge, said container including a panel having a dispensing opening, means for pressing the stack of napkins toward said dispensing opening, means for engaging the upper portions of the foremost napkin in the stack, said upper napkin engaging means being adapted to outwardly bulge the upper portions of the foremost napkins in the stack, an inwardly protruding flange portion affixed to the container for engaging the lower portions of the foremost napkin of the stack, said lower napkin engaging means being adapted to bow inwardly the lower portions of the foremost napkins in the stack, said upper and lower napkin engaging means permitting successive single withdrawals of the foremost napkin in the stack while retaining the next succeeding napkins within the container in dispensing position, and relieving the localized pressure of the stack on the foremost napkin at the said upper and lower portions as it is being withdrawn from the container.

2. In a dispenser of the character described, the combination of a container for a stack of napkins or the like when folded to stand on their lower edges and to each present a free grasping tab terminating on a line below its upper edge, said container including a panel having a dispensing opening, means for pressing the stack of napkins toward said dispensing opening, means for engaging the upper portions of the foremost napkin in the stack, an inwardly protruding flange portion affixed to the container for engaging the lower portions of the foremost napkin of the stack, said lower napkin engaging means being adapted to bow inwardly the lower portions of the foremost napkins in the stack, said upper and lower napkin engaging means permitting successive single withdrawals of the foremost napkin in the stack while retaining the next succeeding napkins within the container in dispensing position, and relieving the localized pressure of the stack on the foremost napkin at the said upper and lower portions as it is being withdrawn from the container.

3. In a dispenser of the character described, the combination of a container for a stack of napkins or the like when folded to stand on their lower edges and to each present a free grasping tab terminating on a line below its upper edge, said container including a hinged front panel having a dispensing opening, means for pressing the stack of napkins toward said dispensing opening, means for engaging the upper portions of the foremost napkin in the stack, a flange portion affixed to the lower portion of said front panel and extending inwardly within the container, for engaging the lower portions of the foremost napkin of the stack, said upper and lower napkin engaging means permitting successive single withdrawals of the foremost napkin in the stack while retaining the next succeeding napkins with-

in the container in dispensing position, and relieving the localized pressure of the stack on the foremost napkin at the said upper and lower portions as it is being withdrawn from the container.

4. In a dispenser of the character described, the combination of a container for a stack of napkins or the like when folded to stand on their lower edges and to each present a free grasping tab terminating on a line below its upper edge, said container including a panel having a dispensing opening, means for pressing the stack of napkins toward said dispensing opening, means for engaging the upper portions of the foremost napkin in the stack, inwardly protruding flange means for engaging the lower portions of the foremost napkin of the stack, said upper and lower napkin engaging means permitting successive single withdrawals of the foremost napkin in the stack while retaining the next succeeding napkins within the container in dispensing position, and relieving the localized pressure of the stack on the foremost napkin at the said upper and lower portions as it is being withdrawn from the container.

5. In a dispenser of the character described, the combination of a container for a stack of napkins or the like when folded to stand on their lower edges and to each present a free grasping tab terminating on a line below its upper edge, said container including a front panel having a dispensing opening, cooperating side panels, said side panels having means for guiding the stack of napkins and aligning them in proper relation to said dispensing opening, means for pressing the stack of napkins toward said dispensing opening, means for engaging the upper portions of the foremost napkin in the stack, inwardly protruding flange means for engaging the lower portions of the foremost napkin of the stack, said upper and lower napkin engaging means permitting successive single withdrawals of the foremost napkin in the stack while retaining the next succeeding napkins within the container in dispensing position, and relieving the localized pressure of the stack on the foremost napkin at the said upper and lower portions as it is being withdrawn from the container.

6. In a dispenser of the character described, the combination of a container for a stack of napkins or the like when folded to stand on their lower edges and to each present a free grasping tab terminating on a line below its upper edge, said container including a front panel having a dispensing opening, cooperating side panels, said side panels having inwardly depressed portions for contacting the edges of the stack of napkins to guide them as they are fed forwardly in aligned position with relation to said dispensing opening, means for pressing the stack of napkins toward said dispensing opening, means for engaging the upper portions of the foremost napkin in the stack, inwardly protruding flange means for engaging the lower portions of the foremost napkin of the stack, said upper and lower napkin engaging means permitting successive single withdrawals of the foremost napkin in the stack while retaining the next succeeding napkins within the container in dispensing position, and relieving the localized pressure of the stack on the foremost napkin at the said upper and lower portions as it is being withdrawn from the container.

7. In a dispenser of the character described, the combination of a container for a stack of napkins or the like when folded to stand on their lower edges and to each present a free grasping tab terminating on a line below its upper edge, said container including a front hinged panel having a dispensing opening, cooperating side panels, said side panels having inwardly depressed portions for contacting the side edges of the stack of napkins to guide them as they are fed forwardly in aligned position with relation to said dispensing opening, means for pressing the stack of napkins toward said dispensing opening, means for engaging the upper portions of the foremost napkin in the stack, a flange affixed to the lower portion of said front hinged panel and extending inwardly within the container for engaging the lower portions of the foremost napkin of the stack, said upper and lower napkin engaging means permitting successive single withdrawals of the foremost napkin in the stack while retaining the next succeeding napkins within the container in dispensing position, and relieving the localized pressure of the stack on the foremost napkin at the said upper and lower portions as it is being withdrawn from the container.

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