Nov. 29, 1938. F. L. BROEREN ET AL 2,138,692

DISPENSER

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Fig. 1

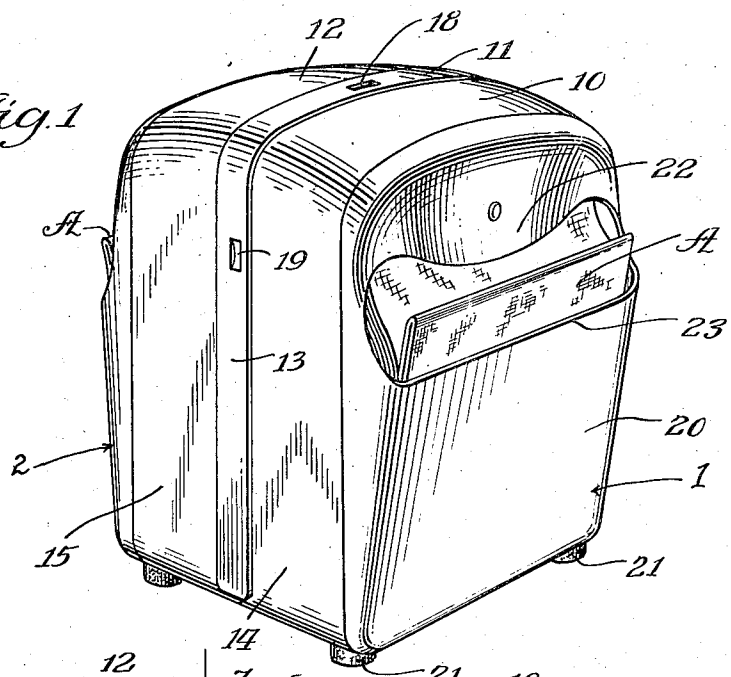
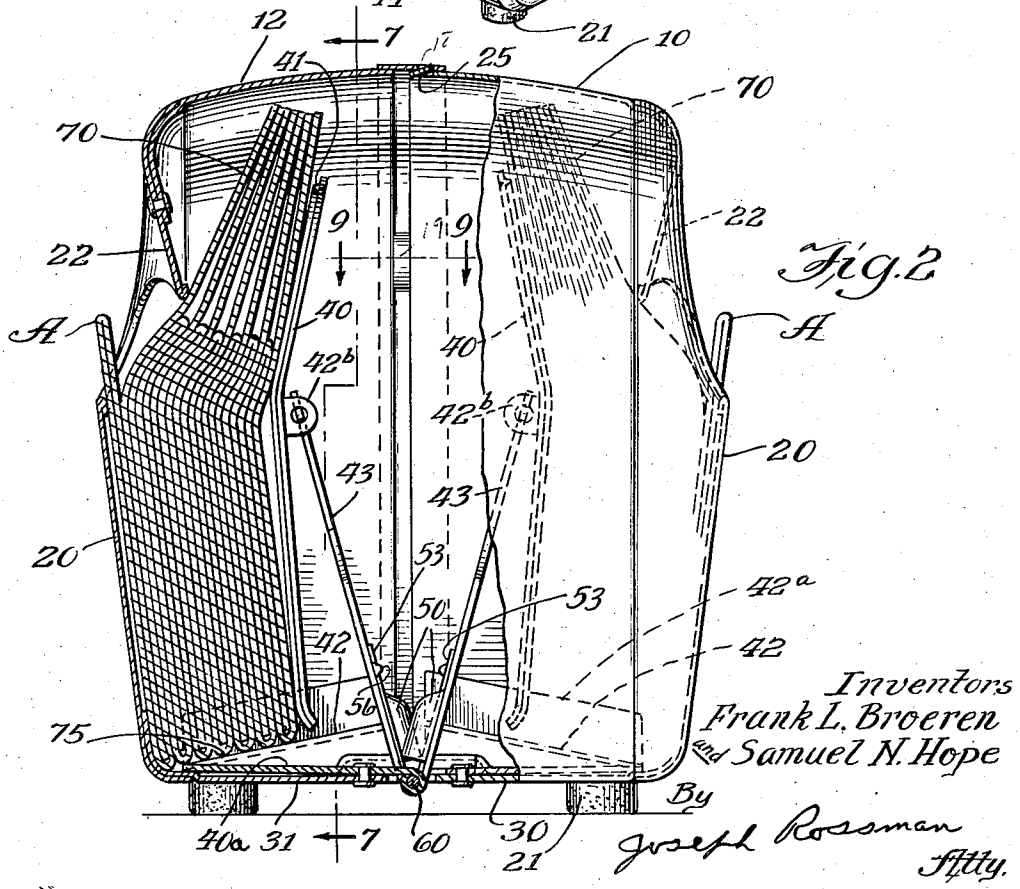


Fig. 2



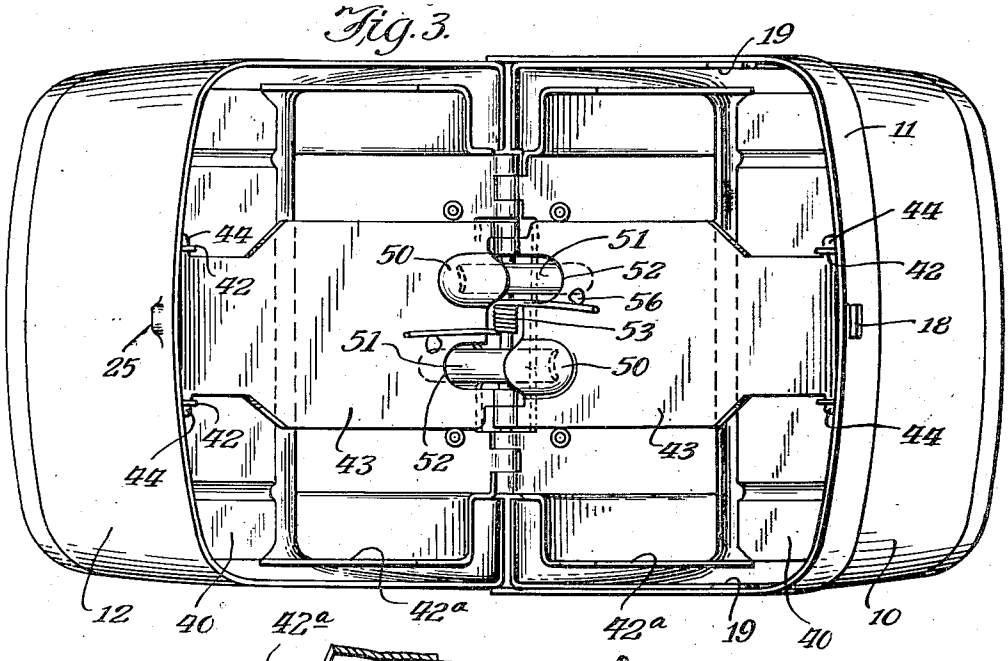
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DISPENSER

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Fig. 3.



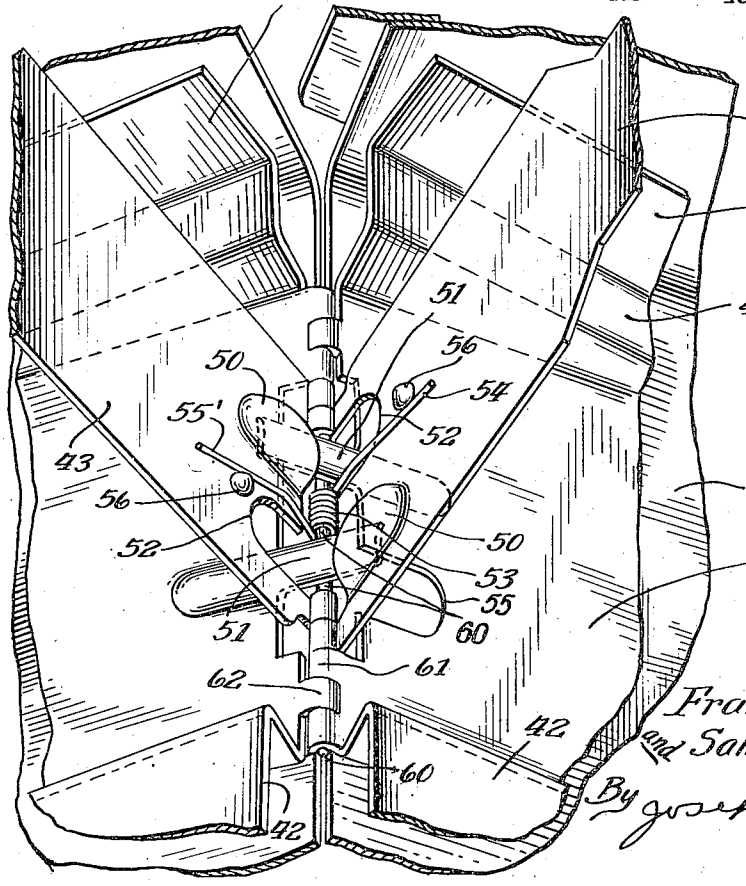


Fig. 4.

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DISPENSER

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Fig. 6.

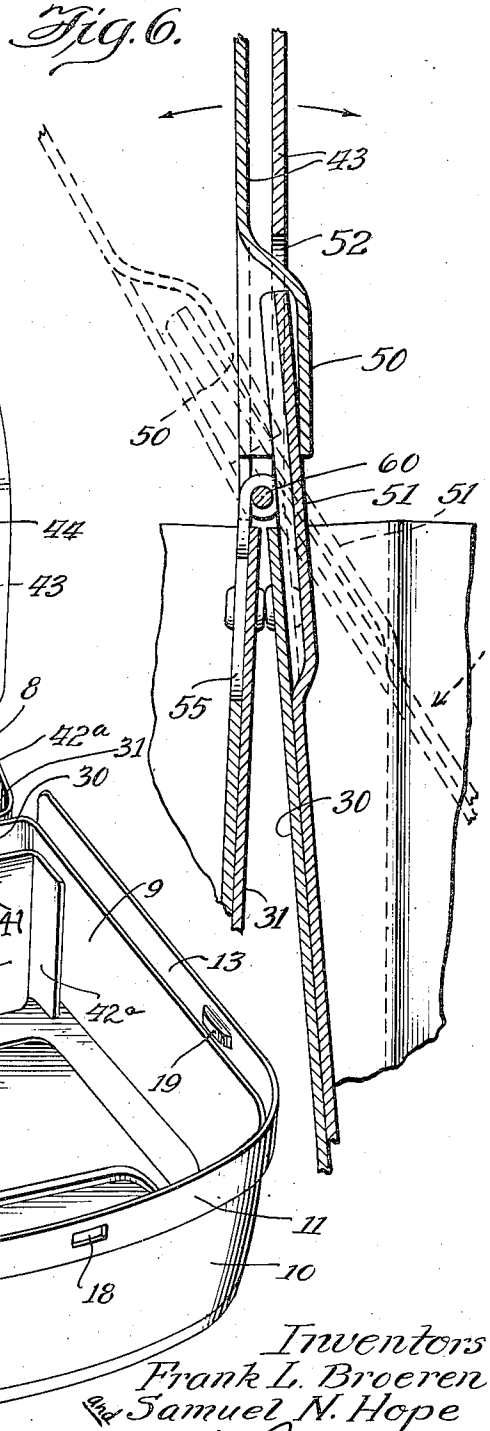


Fig. 5.

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Patented Nov. 29, 1938

2,138,692

UNITED STATES PATENT OFFICE

2,138,692

DISPENSER

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Application January 3, 1938, Serial No. 183,036

9 Claims. (Cl. 312—62)

This invention relates to improvements in dispensing devices of that type in which a closed container is provided for holding folded paper napkins, or like articles, to protect them against soiling previous to use, and to permit the withdrawal of but a single article and at the same time to prevent waste of the articles.

One of the objects of the invention is to provide a container comprising a casing divided transversely at an intermediate part into two complementary sections, which are hinged together so that the casing can be easily opened and closed for loading the same, the two sections being adapted to form opposite receptacles to receive respectively stacks of the articles, with the two stacks separated by an intervening space, in which is mounted pressure exerting mechanism adapted to press the stacks toward the end walls of their respective sections so that individual articles can be dispensed through openings in the end walls of the sections when the two sections are closed. Another object of the invention is to provide means whereby the pressure exerting mechanism is automatically retracted when the casing is opened for reloading, so that the mechanism will not interfere with the introduction of the new stacks of articles.

The invention is described in detail hereinafter, pointed out in the appended claims, and illustrated by the accompanying drawings.

In the accompanying drawings, in which similar reference characters designate corresponding parts:

Figure 1 is a perspective view of the dispenser,

Figure 2 is a side view of the dispenser, partly in section,

Figure 3 is a plan view of the dispenser in partly opened position,

Figure 4 is an enlarged fragmental perspective view of the partly opened dispenser,

Figure 5 is a perspective view of the fully opened dispenser, and

Figure 6 is a sectional view taken on lines 6—6 of Figure 5.

Referring to the drawings, the dispenser comprises two complementary sections 1 and 2 hinged together by pintle 60 so as to be swingable from the closed portion shown in Figure 1 to the fully opened portion shown in Figure 5. Section 1 consists of a top wall 10, side walls 9 and 14, and a bottom wall 30. Section 2 similarly consists of a top wall 12, side walls 8 and 15, and a bottom wall 31. Each of the sections 1 and 2 is provided with a front face plate having an outwardly protruding pocket portion 20 and an upper portion 22 protruding inwardly of the sections 1 and 2 as shown in Figure 2. Pocket portion 20 terminates in a lip portion 23 forming the lower margin of a transversely extending dispensing slot through which the folded napkins A may be withdrawn from the dispenser.

Section 1 is provided with a flange portion 13 extending beyond the edge portions of the top wall 10 and side walls 9 and 14. The flange portion 13 is adapted to overlap the edge portions of the top wall 12 and side walls 8 and 15 of section 2 as shown in Figure 1 so as to securely close the sections 1 and 2. A tongue portion 25 (see Figure 3) is provided adjacent the edge of the top wall 12 of section 2 which engages a complementary slot 18 in flange 13 positioned in the top wall 10 of section 1, so as to releasably lock the sections together. The flange 13 is also provided with protuberances 19, as clearly shown in Figure 5 which act as stop portions for limiting the movement of the sections 1 and 2 when they are closed.

A plate 40*a* is riveted to the bottom 31 of section 2 as shown in Figure 2. Similarly a plate 40*a* is riveted to the bottom 30 of section 1. Plates 40*a* are provided with interfitting knuckle portions 61 and 62 which are retained by pintle 60 for permitting swinging of the sections 1 and 2 on said pintle.

Each section 1 and 2 is provided with a pusher plate 40 which is actuated by spring urged link bar 43 for exerting pressure upon the rear of a stack of napkins A placed in each section as shown in Figure 2. Each of the pusher plates is provided with ribs 41 which contact the rearmost napkin in the stack so as to reduce frictional contact with the pusher plate.

Wing portions 42*b* are stamped out of each pusher plate and are provided with openings for hingedly receiving pins 44 provided at one end of the link bar 43. The other end of each link bar adjacent pintle 60 is provided with a cut out portion 52 and a complemental socket portion 50. The links 43 as described are reversely positioned in the two adjacent sections so that the socket portion 50 of one link bar is capable of fitting into the complemental opening 52 of the other link bar when the dispenser is fully opened as shown in Figure 5. The link bars are also pro vided with hinge knuckle portions 43*a* for receiving pintle so as to be swingable thereon.

Plates 40*a* are riveted to the bottom of each dispenser section and are provided with integral

fingers 51 which are adapted to extend into the adjacent section and to engage the socket portion 50 of the link bar in the adjacent section when the sections 1 and 2 are swung open, thereby retracting pusher plates 40 into the position shown in Figure 5. A coiled spring 53 is provided on pintle 60 which normally urges link bars 43 outwardly, the compressive force being exerted by the ends 54 and 55' of the spring which engage stop portions 56 on each link bar as shown in Figure 4.

Plates 40*a* are provided with a cut out portion 55 for receiving tongues 51 of the opposing plate when the dispenser is in closed position.

Plates 40*a* are also provided with integral flange portions 41, 42, and 42*a* as shown in Figure 5. The flange portions 42 serve to elevate the lower edge of the napkins A above the plates 40*a* thereby reducing frictional contact. The side flanges 42*a* serve to guide the napkins in proper alignment with the dispensing slot. The flange portions contact only the lower corner portions of the napkins thereby reducing frictional contact. Flanges 41 are triangularly shaped as shown in Figure 5 so that flange portions 42 are inclined downwardly toward the front wall of each dispenser section, thereby facilitating the forward movement of the napkins toward the dispensing slot as shown in Figure 2.

The bottom of each section is provided with rubber legs 21 for supporting the dispenser upon any desired supporting surface without scratching or marring the same.

In using the dispenser, the sections 1 and 2 are swung open by manually releasing tongue 25 from slot 18 so that the sections assume the position shown in Figure 5, with the pusher plates 40 retracted out of the sections and in back to back relation. A stack of napkins is then placed in each section with the grasping tabs A properly aligned so as to be presented to the dispensing slot in each of the front face plates. The sections 1 and 2 are then swung together and locked by the engagement of tongue 25 in slot 18 in the position shown in Figure 1. As the individual napkins are removed from the dispensing slot the pusher plates actuated by spring urged link bars 43 will urge forwardly the remaining napkins in proper position for dispensing purposes. The configuration of the face plate is such, owing to the outwardly protruding pocket portion and the inwardly protruding portion 22, as to bow the upper portions 70 of the napkins inwardly of the dispenser and to protrude the grasping portion A through the dispensing slot so as to be readily grasped and removed from the dispenser. The pusher plates 40 are also configured as shown in Figure 2 so as to cooperate with the front face panel contour to bend the stack of napkins for satisfactory dispensing.

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 construction of the dispenser as herein described thus provides a dispenser having two complemental hinged sections, each section adapted to contain a stack of napkins which are urged forward toward the dispensing slot by a pusher plate. When the sections are swung open the construction of the dispenser provides automatic means for retracting the pusher plates from the sections thereby permitting them to be refilled with a fresh supply of napkins. When the sections are closed upon the separated stacks of napkins the pusher plates are automatically actuated so as to urge the napkins toward the dispensing slot for positioning the napkins in proper position for withdrawal from the dispenser.

Numerous changes and modifications may be made in the details of the construction herein described and it is intended to cover such modifications within the scope of the appended claims except as they may be limited by the prior art.

We claim:

1. A dispenser for folded napkins and the like comprising two complemental sections, each section having a top, bottom, sides and a front face panel, said front face panel being provided with a dispensing opening, means for hingedly connecting the said sections whereby they may be closed upon separated stacks of napkins arranged in each section to abut the said respective front face panels so as to be dispensed through said dispensing openings, means to retain the sections in closed relation, pressure exerting means mounted on said sections for urging the separated stacks toward the respective front face panels when the said sections are closed, and means for automatically inactivating said pressure exerting means and withdrawing same from each of the sections when the said sections are swung open for refilling the dispenser with napkins.

2. A dispenser for folded napkins and the like comprising two complemental sections, each section having a top, bottom, sides and a front face panel, said front face panel being provided with a dispensing opening, means for hingedly connecting the said sections whereby they may be closed upon separated stacks of napkins arranged in each section to abut the said respective front face panels so as to be dispensed through said dispensing openings, means for retaining the sections in closed relation, spring urged pusher plates mounted on said sections for urging the separated stacks toward the respective front face panels when the said sections are closed and means for automatically retracting the said pusher plates from each of said sections in back to back relation when the sections are swung open.

3. A dispenser for folded napkins and the like comprising two complemental sections, each section having a top, bottom, sides and a front face panel, said front face panel being provided with a dispensing opening, a hinge connection between the bottoms of the complemental sections including a pintle, whereby the sections may be closed upon separated stacks of napkins arranged in each section to abut the said respective front face panels so as to be dispensed through said dispensing openings, means for retaining the sections in closed relation, a link bar in each section hinged at one end upon said pintle, spring means for urging said link bars outwardly, pusher plates hinged to the other end of said link bars for urging the separated stacks toward the respective front face panels when the said sections are closed, and means for automatically retracting said link bars and pusher plates from each of said sections in back to back relation when the sections are swung open.

4. A dispenser for folded napkins and the like

comprising two complemental sections, each section having a top, bottom, sides and a front face panel, said front face panel being provided with a dispensing opening, a hinge connection between the bottoms of the complemental sections including a pintle, whereby the sections may be closed upon separated stacks of napkins arranged in each section to abut the said respective front face panels so as to be dispensed through said dispensing openings, means for retaining the sections in closed relation, a link bar in each section hinged at one end upon said pintle, a socket portion provided on one of said link bars adjacent the pintle, a complemental cut out portion provided on the opposite link bar adapted for receiving said socket portion, spring means for urging said link bars outwardly, pusher plates hinged to the other end of said link bars for urging the separated stacks toward the respective front face panels when the said sections are closed, and means for engaging said socket portions for automatically retracting said link bars and pusher plates from each of said sections when the sections are swung open.

5. A dispenser for folded napkins and the like comprising two complemental sections, each section having a top, bottom, sides and a front face panel, said front face panel being provided with a dispensing opening, a hinge connection between the bottoms of the complemental sections including a pintle, whereby the sections may be closed upon separated stacks of napkins arranged in each section to abut the said respective front face panels so as to be dispensed through said dispensing openings, means for retaining the sections in closed relation, a link bar provided in each section, said link bars being hinged at their lower ends upon said pintle, a socket portion provided on one of said link bars adjacent the pintle, a complemental cut out portion provided on the opposite link bar adapted for receiving said socket portion, spring means for urging said link bars outwardly, pusher plates hinged to the other end of said link bars for urging the separated stacks toward the respective front face panels when the said sections are closed, and a tongue portion affixed to the bottom of each casing for engaging the socket portion of the link bar in the adjacent casing for automatically retracting said link bars and pusher plates from each of said sections when the sections are swung open.

6. A dispenser for folded napkins and the like comprising two complemental sections, each section having a top, bottom, sides and a front face panel, said front face panel being provided with a dispensing opening, a hinge connection between the bottoms of the complemental sections including a pintle, whereby the sections may be closed upon separated stacks of napkins arranged in each section to abut the said respective front face panels so as to be dispensed through said dispensing openings, means for retaining the sections in closed relation, a link bar in each section hinged at one end upon said pintle, a socket portion provided on one of said link bars adjacent the pintle, a complemental cut out portion provided on the opposite link bar adapted for receiving said socket portion, spring means for urging said link bars outwardly, pusher plates hinged to the other end of said link bars for urging the separated stacks toward the respective front face panels when the said sections are closed, and a plate affixed to the bottom of each section, said plate being provided with an integral tongue portion extending into the adjacent section and engaging the socket portion of the link bar in the adjacent section for automatically retracting said link bars and pusher plates from each of said sections when the sections are swung open.

7. A dispenser for folded napkins and the like comprising two complemental sections, each section having a top, bottom, sides and a front face panel, said front face panel being provided with a dispensing opening, a hinge connection between the bottoms of the complemental sections including a pintle, whereby the sections may be closed upon separated stacks of napkins arranged in each section to abut the said respective front face panels so as to be dispensed through said dispensing openings, means for retaining the sections in closed relation, a link bar in each section hinged at one end upon said pintle, a socket portion provided on one of said link bars adjacent the pintle, a complemental cut out portion provided on the opposite link bar adapted for receiving said socket portion, spring means for urging said link bars outwardly, pusher plates hinged to the other end of said link bars for urging the separated stacks toward the respective front face panels when the said sections are closed, a plate affixed to the bottom of each section, said plate being provided with an integral tongue portion extending into the adjacent section and engaging the socket portion of the link bar in the adjacent section for automatically retracting said link bars and pusher plates from each of said sections when the sections are swung open, and guide members integral with said plate for guiding the stack of napkins forwardly and downwardly toward said front face panel for positioning the napkins in proper position for withdrawal from the dispenser.

8. A dispenser for folded napkins and the like comprising two complemental sections, each section having a top, bottom, sides and a front face panel, said front face panel being provided with a dispensing opening, a hinge connection between the bottoms of the complemental sections including a pintle, whereby the sections may be closed upon separated stacks of napkins arranged in each section to abut the said respective front face panels so as to be dispensed through said dispensing openings, means for retaining the sections in closed relation, a link bar in each section hinged at one end upon said pintle, a socket portion provided on one of said link bars adjacent the pintle, a complemental cut out portion provided on the opposite link bar adapted for receiving said socket portion, spring means for urging said link bars outwardly, pusher plates hinged to the other end of said link bars for urging the separated stacks toward the respective front face panels when the said sections are closed, a plate affixed to the bottom of each section, said plate being provided with an integral tongue portion extending into the adjacent section and engaging the socket portion of the link bar in the adjacent section for automatically retracting said link bars and pusher plates from each of said sections when the sections are swung open, and guide members integral with said plate for guiding the stack of napkins forwardly and downwardly toward said front face panel for positioning the napkins in proper position for withdrawal from the dispenser, said guide members being elevated above the bottom of the said sections and contacting only the lower corner portions of the napkins.

9. A dispenser for folded napkins and the like comprising two complemental sections, each section having a top, bottom, sides and a front face panel, said front face panel being provided with a dispensing opening, a hinge connection between the bottoms of the complemental sections including a pintle, whereby the sections may be closed upon separated stacks of napkins arranged in each section to abut the said respective front face panels so as to be dispensed through said dispensing openings, means for retaining the sections in closed relation, a link bar in each section hinged at one end upon said pintle, a socket portion provided on one of said link bars adjacent the pintle, a complemental cut out portion provided on the opposite link bar adapted for receiving said socket portion, spring means for urging said link bars outwardly, pusher plates hinged to the other end of said link bars for urging the separated stacks toward the respective front face panels when the said sections are closed, said pusher plates being provided with longitudinally spaced ribs for contacting the said stacks of napkins, a plate affixed to the bottom of each section, said plate being provided with an integral tongue portion extending into the adjacent section and engaging the socket portion of the link bar in the adjacent section for automatically retracting said link bars and pusher plates from each of said sections when the sections are swung open, and guide members integral with said plate for guiding the stack of napkins forwardly and downwardly toward said front face panel for positioning the napkins in proper position for withdrawal from the dispenser, said guide members being elevated above the bottom of the said sections and contacting only the lower corner portions of the napkins.

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