

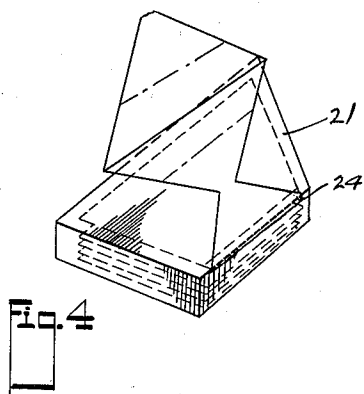
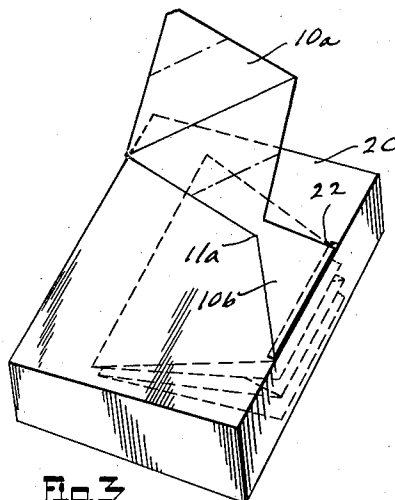
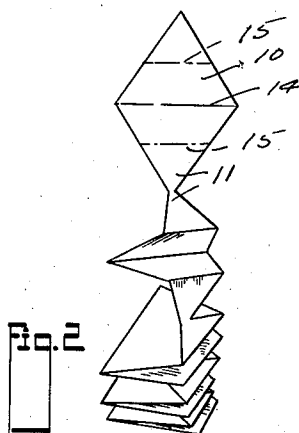
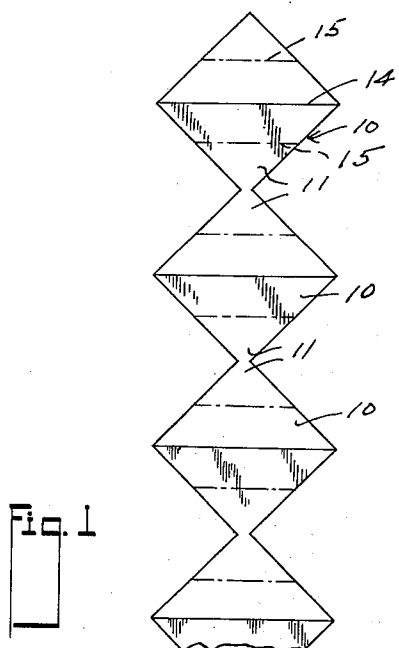
Feb. 11, 1958

N. B. DE FRANCO

2,823,089

TISSUE AND DISPENSER

Filed April 23, 1956



INVENTOR.
Nicholas B. DeFRANCO
BY
J. D. Douglas
His Atty.

1

2,823,089

TISSUE AND DISPENSER

Nicholas B. De Franco, Cleveland, Ohio

Application April 23, 1956, Serial No. 580,094

6 Claims. (Cl. 312-39)

This invention relates to a novel combination of a container dispenser and a paper or like product to be dispensed therefrom.

It is well known that there are on the market a number of types of containers from which napkins or tissues used for facial purposes as well as tissues for other purposes are dispensed and which are normally sold as a unit, that is, the tissues are sold in the dispensing containers. Usually the tissues are discrete pieces of paper that are folded into interlocking engagement with the succeeding pieces of paper such that when one piece is removed from an opening in the container a portion of the succeeding piece protrudes and enables the pieces to be removed one at a time.

One of the problems resides in the fact that sometimes more than one piece comes out or that sometimes the interlocking fails to move the succeeding piece of tissue out of the box and it is difficult to remove the next succeeding piece. Furthermore, the above arrangement requires a more or less difficult stacking arrangement for the pieces resulting in a higher production cost.

Another disadvantage resides in the fact that the opening in the box must be large to permit removal of the tissue with the result that once opened the contents may become contaminated.

By the present invention I am able to make a tissue in the form of a strip with all of the parts interconnected so that when one part is removed it will automatically tear itself loose from the other part after a portion of the succeeding part extends from the container. The opening in the container is small so that the contents do not become contaminated. Although the invention about to be described is described as being useful in connection with facial tissue dispensers it is also useful for other purposes such as wrapping paper, toilet tissues, napkins and the like.

In the drawings:

Fig. 1 is a plan view of a portion of a strip of tissues indicated by solid transverse lines;

Fig. 2 is a perspective view illustrating the manner of folding the strip;

Fig. 3 is a perspective view of a container with one of the tissues pulled out of the container and ready to be separated; and

Fig. 4 is a perspective view of a modified form of container.

As best shown in Fig. 1, I prefer to make my tissues in the form of a strip wherein the strip comprises squares 10 of tissue having their opposite corners 11 connected to adjacent squares. Although it will be apparent that the invention would be useful if the squares were replaced by circles of tissue or ovals, in the interest of economy of manufacture squares are desirable because there is substantially no cutting waste.

The strip, which contains the desired number of squares for a certain size packet, is folded. The lines 14 indicate folds to be made in one direction and the lines 15 folds in the other direction. As viewed in the figure

2

the fold on the line 14 would be away from the viewer and the dotted lines 15 are representative of folds toward the viewer. The points 11 where the opposite corners are joined together are folded in the same direction as the lines 14, away from the viewer. This is best shown in Fig. 2.

The result of the folding is that a packet of tissues is formed which is an isosceles trapezoid in plan view, see Figs. 3 and 4.

The packet of folded tissues is then placed in a container. This container may be a rectangular box 20, Fig. 3, or may be a box 31 having a plan of the same configuration as the packet as shown in Fig. 4.

Referring to Fig. 3, it will be noted that the box 20 is provided with a slit-like opening 22 adjacent the one edge. This opening may be in the top as illustrated or in the side adjacent the top as illustrated at 24 in Fig. 4. In either position, the opening is of a length slightly less or approximately equal to the diameter of the tissue at the line 15.

The opening may be a complete cutout or it may be made in the well-known manner as by a perforation which serves as a seal until the perforated part is torn loose.

The length of the opening is such that being much shorter than the widest diameter of the tissue, the ends engage with the edges of the tissue somewhere between the smallest diameter 11 and the largest diameter 14.

Figs. 3 and 4 illustrate how one tissue 10a has been pulled out of the box, and the next succeeding tissue 10b has been pulled out to the point where the edges of the tissue engage with the ends of the opening. Further pulling of the tissue 10a will cause it to break loose from the tissue 10b at the point 11a. This leaves the point and part of the body of tissue 10b protruding from the opening. When it is grasped and pulled, because there is considerable width to the body, the resistance of the ends of the opening against the edge of the tissue is less than the tearing strength of the wider tissue and therefore the tissue will pull out of the box since the edges will move inward and the opening is wide enough transversely to permit the crinkling or folding without tearing.

However, when the tissue is completely out of the box as illustrated at 10a the resistance of the opening upon the edges of the tissue is greater than the tear strength at the point 11b and the tissue will tear off.

It will be apparent that the size of the box in Fig. 4 could be such that the packet could completely fill the box and there would be no marginal space as illustrated. The opening 24 could be made the full length of the box or slightly shorter if desired.

It will thus be seen that I have provided a tissue in combination with a dispenser wherein the peculiar formation the tissue cooperates with the formation of the opening in the dispenser to assure that one tissue will be dispensed at a time. It will also be apparent that a minimum sized opening in the box is provided which prevents contamination of the box contents except for the small corner of tissue that extends out of the box.

It will also be apparent that the folding of the tissue is such as to lend itself readily to folding by an automatic machine.

Although I contemplate that the greater demand would be for tissues sold in combination with the container it will be apparent that the tissues could be sold as separate packets and used with a permanent container of metal or plastic. In this instance the container would have one hinged side to facilitate loading.

Having thus described my invention I am aware that numerous and extensive departures could be made there-

3

from without departing from the spirit of the invention as defined by the appended claims.

I claim:

1. In combination, a box and a strip of tissues in the box, said tissues comprising a continuous strip formed in squares having adjacent opposite corners connected to adjacent opposite corners of adjacent squares, said strip being folded to provide a packet of folded squares consecutively above each other, the folding being along the transverse centerline of each square and two folds parallel to the centerline midway between the centerline and the attached corners and said attached corners being folded, said folded packet of tissues being disposed in said box, and said box being provided with a narrow elongated opening, the end of the endmost of said tissues extending through said opening and arranged to be grasped by hand and pulled through the opening, said opening having a length less than the greatest width of said tissue and having its ends being in engagement with the edges of the strip to resist passage of the strip therethrough and to cause said strip to tear apart at its narrowest part outside of said opening.

2. In combination, a box and a strip of tissues in the box, said tissues comprising a continuous strip formed in squares having adjacent opposite corners connected to adjacent opposite corners of adjacent squares, said strip being folded to provide a packet of folded squares consecutively above each other, the folding being along the transverse centerline of each square in the same direction and two folds parallel to the centerline midway between the centerline and the attached corners in the opposite direction to the first folds and said attached corners being folded in the same direction as the centerline fold, said folded packet of tissues being disposed in said box, and said box being provided with a narrow elongated opening above the second of said folds and of a length substantially equal to the width of the packet at said second folds, the end of the endmost of said tissues extending through said opening and arranged to be grasped by hand and pulled through the opening, said opening having a length less than the greatest width of said tissue and having its ends being in engagement with the edges of the strip to resist passage of the strip therethrough and to cause said strip to tear apart at its narrowest part outside of said opening.

3. In combination, a box having an elongated opening at one side, and a continuous strip of tissue sheets in the box, said strip being made up of successive adjacent tissue sheets, each sheet having its maximum width at its middle portion and at both sides of its middle portion having its opposite peripheral edges converging toward each other to provide reduced ends which are substantially narrower than said middle portion and narrower than said opening at said one side of the box, the successive adjacent sheets being attached to each other at their adjacent reduced ends, said strip being folded to provide a packet of folded sheets consecutively above each other in the box, each sheet being folded in one direction at its middle portion and having the fold at its middle portion positioned remote from the side of the box at which said opening is located, each sheet being folded in the opposite direction between the fold in its middle portion and each of its reduced ends and having said oppositely directed folds positioned one above the other adjacent the side of the box at which said opening is located, said sheets having their attached reduced ends disposed away from said side of

4

the box and at their attached reduced ends being folded in said one direction, and each sheet at its middle portion being substantially wider than said opening so that a sheet being withdrawn from the box through said opening is restrained at the opening to cause the sheet to tear at its connection at its reduced end to the preceding sheet in the strip.

4. The combination of claim 3, wherein each of said sheets at its oppositely directed folds has a width substantially equal to the width of said opening.

5. In combination, a box having an elongated opening therein, and a continuous strip of tissue sheets in the box, said strip being made up of successive adjacent tissue sheets, each sheet having its maximum width at its middle portion and at both sides of its middle portion having its opposite peripheral edges converging toward each other to provide reduced ends which are substantially narrower than said middle portion and narrower than said opening in the box, the successive adjacent sheets being attached to each other at their adjacent reduced ends, said strip being folded to provide a packet of folded sheets consecutively contiguous to each other in the box, each sheet being folded in one direction at its middle portion and having the fold at its middle portion positioned remote from said opening in the box, each sheet being folded in the opposite direction between the fold in its middle portion and each of its reduced ends and having said oppositely directed folds positioned toward said opening in the box, said sheets being folded in said one direction at their attached reduced ends, and each sheet at its middle portion being substantially wider than said opening so that a sheet being withdrawn from the box through said opening is restrained at the opening to cause the sheet to tear at its connection at its reduced end to the preceding sheet in the strip.

6. In combination, a box having an elongated opening therein, and a continuous strip of tissue sheets in the box, said strip being made up of successive adjacent tissue sheets, each sheet having its maximum width at its middle portion and at both sides of its middle portion having its opposite edges converging toward each other to provide reduced ends which are substantially narrower than said middle portion and narrower than said opening in the box, the successive adjacent sheets being attached to each other at their adjacent reduced ends, said strip being folded to provide a package of folded sheets consecutively contiguous to each other in the box, each sheet being folded at its middle portion and having the fold at its middle portion positioned remote from said opening in the box, each sheet extending on both sides of the fold in its middle portion toward said opening in the box, and each sheet at its middle portion being substantially wider than said opening in the box so that a sheet being withdrawn from the box through said opening is restrained at the opening to cause the sheet to tear at its connection at its reduced end to the preceding sheet in the strip.

References Cited in the file of this patent

UNITED STATES PATENTS

361,603	Wheeler	Apr. 19, 1887
885,272	Melville	Apr. 21, 1908
1,878,399	Hope	Sept. 20, 1932
1,927,324	Powell	Sept. 19, 1933
2,323,395	Harwood	July 6, 1943