Aug. 9, 1966 C. P. DAVIS 3,265,242

TISSUE DISPENSER WITH A MOVABLE DISPENSING SHEET

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Fig. 1.

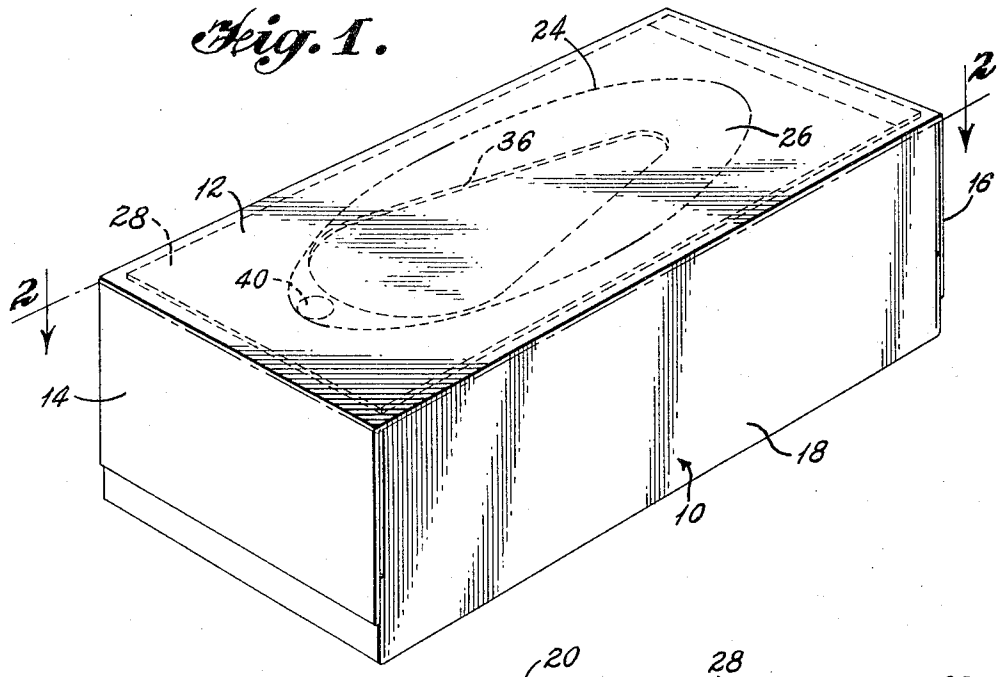
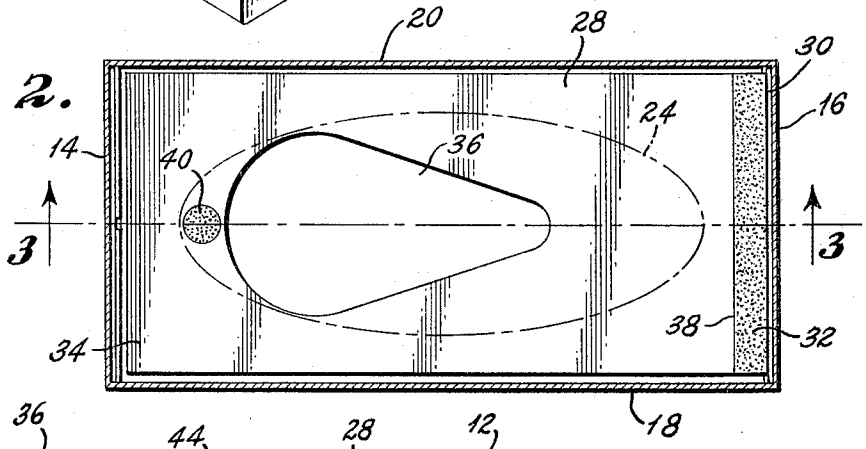


Fig. 2.



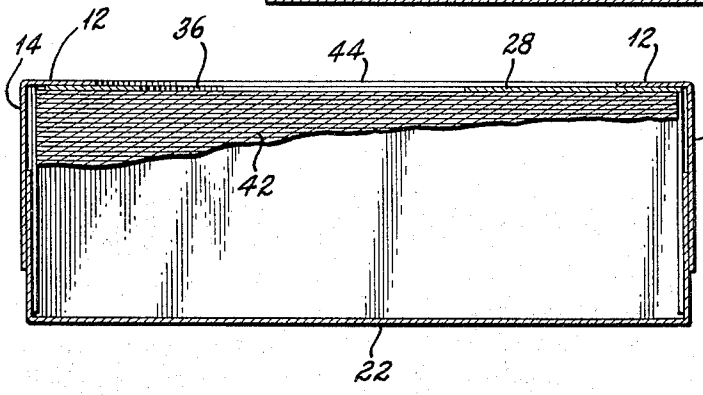


Fig. 3.

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Fig. 4.

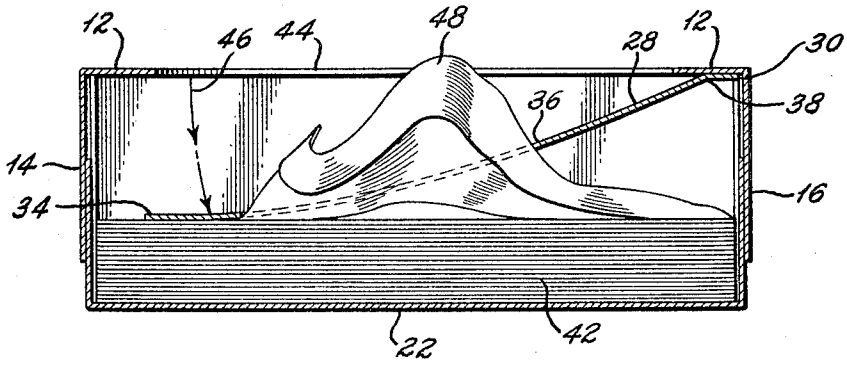
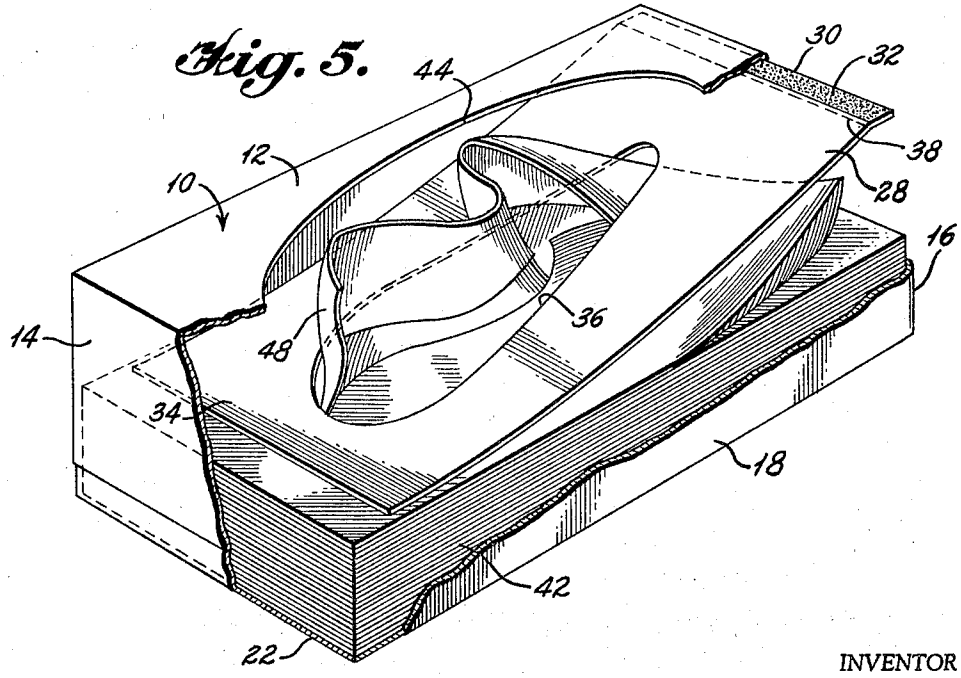


Fig. 5.



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TISSUE DISPENSER WITH A MOVABLE DISPENSING SHEET

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8 Claims. (Cl. 221—63)

This invention relates to a tissue dispenser, and more particularly to a tissue dispenser for use with interfolded or otherwise interconnected tissues such as facial tissues.

The art has long recognized the need for a dispenser from which interfolded tissues and the like can be removed one at a time and in which the top tissue may be easily grasped. In an ordinary dispenser the adherence of the interfolded tissues to one another will in many cases cause the interfolded tissues to be drawn out of the dispenser in a continuous chain. Further, as the height of a stack of tissues in a dispenser decreases, the user must reach near to the bottom of the dispenser to withdraw the lowermost tissues.

Various devices have been tried to solve these problems but quite frequently the solution to one problem only creates new problems. Thus, where devices have been attached to the dispenser to prevent more than one tissue from being removed at a time, these devices have been found to get in the way of the user when he is seeking to grasp the lowermost tissues, to become misaligned and to interfere with the loading of the dispenser. These problems become especially critical when the dispenser is of the disposable type which is thrown away by the user after all of the tissues are removed; since the components of such a dispenser must be made of inexpensive materials such as cardboard which often will not function as smoothly as other more expensive materials.

It is therefore an object of this invention to provide a dispenser for interfolded tissues or the like which separates the tissues for removal one at a time.

It is a further object of this invention to provide a dispenser for tissues or the like which will hold the top tissue above the remaining tissues where it may be easily grasped.

An additional object of this invention is to provide a disposable dispenser for interfolded tissues or the like in which the dispensing means, for separating the tissues and holding the top tissue above the remaining tissues, is held in proper alignment at all times.

It is still a further object of this invention to provide a disposable dispenser for tissues and the like which may be filled without interference from the dispensing means.

Additional objects and advantages of the invention will become apparent from the following description and drawings.

The invention which accomplishes the above objects and purposes may be described as a dispenser from which individual tissues may be removed one at a time and in which a portion of the top tissue of a stack of tissues in the dispenser is held above the remaining tissues comprising, a receptacle including a top wall having an opening for removing tissues therethrough; and a dispensing sheet mounted in said receptacle and having an opening in line with at least a portion of the opening of said top wall, said dispensing sheet including a first end fastened to said receptacle to retain said first end adjacent said top wall and to maintain said dispensing sheet in proper alignment in said receptacle, and a second end free to move vertically between the top of a stack of tissues in said receptacle and said top wall.

Preferably the dispensing sheet has a transverse line of weakness adjacent said first end about which said second end may pivot.

Further in the dispenser of this invention the receptacle may have a perforated top wall with the perforations defining a removable section which when removed provides the opening in the top wall for withdrawing tissues therethrough. Preferably the dispensing sheet includes a portion intermediate its ends which is releasably fastened to said removable section for holding said dispensing sheet against the top wall until said removable section is removed from the top wall so that tissues may be inserted into the receptacle without interference from said dispensing sheet.

The invention having been generally described, the preferred specific embodiments will be discussed in detail with reference to the accompanying drawings.

FIGURE 1 is a perspective view of a tissue dispenser constructed in accordance with the teachings of this invention.

FIGURE 2 is a plan view taken along line 2—2 of FIGURE 1.

FIGURE 3 is a longitudinal vertical section taken along line 3—3 of FIGURE 1, with the tear-out section removed.

FIGURE 4 which is similar to FIGURE 3 illustrates the positions of the top tissue and the dispensing sheet after removal of a number of tissues.

FIGURE 5 is a perspective view partially in section of the dispenser as shown in FIGURE 4.

The dispenser is comprised of a receptacle generally 10, having a top wall 12, end walls 14 and 16, side walls 18 and 20 and a bottom wall 22. As may be seen in FIGURES 1 and 3 the walls, which are rectangular in shape, are constructed in a conventional manner and may consist of overlapping sheets such as end walls 14 and 16. Top wall 12 has perforations 24 defining an oval tear-out section 26.

A dispensing sheet 28 which is slightly smaller than top wall 12 is mounted within the receptacle with one end 30 being secured to the underside of top wall 12 as by an adhesive 32 or the like. The other end 34 of dispensing sheet 28 is free of any attachment to top wall 12. A line of weakness 38 is formed transversely across dispensing sheet 28 near end 30 and allows the free end 34 of dispensing sheet 28 to move vertically between top wall 12 and the top of the stack of tissues. The line of weakness may be formed by creasing, scoring or by any other conventional manner. Alternatively, the dispensing sheet may be made of a material which will allow the free end of the dispensing sheet to move vertically without having a line of weakness.

An opening or slot 36 is formed in dispensing sheet 28 and is in vertical alignment with at least a portion of tear-out section 26 of top wall 12. Preferably, dispensing sheet 28 is also fastened to top wall 12 at a point somewhere on tear-out section 26 as by an adhesive 40. The bond formed by adhesive 40 should be such that it will hold the dispensing sheet against the top wall prior to removal of the tear-out section and may be easily broken when the tear-out section is removed.

Referring to FIGURES 3, 4 and 5 it may be seen that receptacle 10 contains a stack of tissues, generally 42. The tissues which are to be used in the dispenser of this invention may be temporarily interconnected in any manner so long as the removal of one tissue will cause the next tissue to follow a short distance before the first tissue is separated therefrom. Conventionally this interconnection is accomplished by having the bottom fold of one tissue interfolded with the top fold of the next tissue or by having the tissues formed of a continuous sheet with perforations between the individual tissues.

When tear-out section 26 of top wall 12 is removed, an opening 44 is provided. A portion of opening 44 is in line with opening 36 of dispensing sheet 28. After

a number of tissues have been removed from the receptacle, dispensing sheet 28 takes the position shown in FIGURES 4 and 5. As indicated by arrow 46, dispensing sheet 28 has pivoted about line of weakness 38 with the free end 34 resting on top of the remaining tissues 42. The uppermost tissue 48 extends through opening 36 in dispensing sheet 28 and out through opening 44 in top wall 12.

When the dispenser is ready to be filled by the tissue manufacturer it is completely formed except for the end walls which remain open. The dispensing sheet 28 is fastened to the underside of top wall 12 at one end 30 and preferably is also fastened to tear-out section 26 of top wall 12 at a point intermediate the ends of dispensing sheet 28. By being fastened to the top wall at two points the dispensing sheet is held flat against the inside surface of the top wall and cannot interfere with insertion of a stack of tissues through one of the open ends of the receptacle. If the dispensing sheet is not fastened to the tear-out section of the top wall, the insertion of the stack of tissues may still be accomplished without interference from the dispensing sheet by inserting the stack of tissues through the end of the receptacle adjacent end 30 of the dispensing sheet. Since this end of the dispensing sheet is adhered against the inside surface of the top wall, it will not interfere with the insertion of the tissues. If the receptacle is filled while it is up-side-down the remainder of the dispensed sheet will be held by the force of gravity out of the path of the tissues being inserted. If the receptacle is not turned up-side-down then the leading edge of the stack of tissues will contact the free end of the dispensing sheet and pivot it up out of the way. After the tissues have been inserted, the end walls are closed and sealed in a conventional manner.

In use, the loaded dispenser is opened by removing tear-out section 26 and breaking the bond between tear-out section 26 and dispensing sheet 28. The top tissue may then be pulled out through opening 36 in dispensing sheet 28 and opening 44 in top wall 12. The friction between the next following tissue and the inside edge (that edge which surrounds opening 36) of dispensing sheet 28 causes the next following tissue to be held in the receptacle with its top portion extending upwardly above dispensing sheet 28 as shown in FIGURES 4 and 5.

In FIGURES 4 and 5 it may be seen that as the height of the stack of tissues decreases dispensing sheet 28 pivots along line of weakness 38 and follows the stack downwardly with free end 34 resting on the top tissue 48, a portion of which also projects through opening 36.

As each successive tissue is removed the friction between the inside edge of dispensing sheet 28 and the tissue causes the dispensing sheet to pivot upwardly with little or no relative movement between the tissue and the dispensing sheet. When the free end of the dispensing sheet comes into contact with top wall 12, its upward movement is stopped. The continued upward pull on this tissue causes the tissue to overcome the friction of the inside edge of the dispensing sheet and pass out of the receptacle through opening 44. Meanwhile the next following tissue, the upper fold of which has been interfolded with the lower fold of the top tissue, is drawn partially through opening 36 by the upward movement of the top tissue. As this next following tissue comes into contact with the inside edge of the dispensing sheet the friction between the edge and this tissue becomes greater than the friction between the two interfolded tissues. Thus, when the dispensing sheet stops its upward movement and the top tissue is withdrawn, the upper portion of this next following tissue is held in opening 36. After the top tissue is completely withdrawn the dispensing sheet pivots downwardly and rests on the top of the next following tissue with the upper portion of this tissue extending through opening 36 in position to be easily grasped by the user.

Since dispensing sheet 28 is firmly adhered at end 30 to the underside of top wall 12, it is held in proper alignment. This feature allows the dispensing sheet to pivot up and down freely without coming into contact with the inside of the walls of the receptacle and insures that the free end of the dispensing sheet will rest on top of the stack of tissues. If the dispensing sheet were not held in proper alignment it could contact the walls of the receptacle. When the receptacle is relatively empty the contact between a free floating dispensing sheet and the side walls of the receptacle would tend to cause the dispensing sheet to become wedged with one edge resting on a side wall of the receptacle and the other edge resting on the tissues. The user must then reach into the receptacle, straighten the dispensing sheet, grasp the top tissue and pull it through the opening in the dispensing sheet.

By having one end of the dispensing sheet attached to the inside surface of the top wall, one end of the opening in the dispensing sheet is always located in the upper portion of the receptacle. Thus, the portion of the top tissue being held by this end of the opening will always extend above the dispensing sheet out of the receptacle or at least into the upper portion of the receptacle depending on the number of tissues remaining in the dispenser. Even the last tissue will be held near the top of the receptacle and the user will never have to reach down into the lower portion of the receptacle.

While an opening of almost any shape may be used in the dispensing sheet it has been found that if the opening is elongated and is restricted at the end nearest the attached end of the dispensing sheet, the tissues will be sure to catch on the inside edge of the dispensing sheet at the high end. This insures that the top tissue is held as high as possible. An opening having the shape described is shown in the drawings.

There has been illustrated and described what are considered to be preferred specific embodiments of the invention. It will be understood, however, that various modifications and variations of this invention will become readily apparent to those skilled in the art without departing from the scope of the invention which is defined in the appended claims.

I claim:

1. A dispenser for tissues from which individual tissues may be removed one at a time and in which a portion of the top tissue is held above the remaining tissues comprising: a receptacle including a top wall having an opening for removing tissues therethrough; and a dispensing sheet mounted in said receptacle having an opening in line with at least a portion of the opening of said top wall and including a first end fastened to said receptacle to retain said first end adjacent said top wall and to maintain said dispensing sheet in proper alignment in said receptacle, and a second end free to move vertically between the top of a stack of tissues in said receptacle and said top wall.

2. A dispenser for tissues from which individual tissues may be removed one at a time and in which a portion of the top tissue is held above the remaining tissues comprising: a receptacle including top, bottom, side and end walls, said top wall having an opening for removing tissues therethrough; and a dispensing sheet mounted in said receptacle and having an opening therein in line with at least a portion of said opening of said top wall for allowing removal of tissues therethrough and providing an inside edge of said dispensing sheet for separating the tissues from each other and for holding a portion of the top tissue above the remaining tissues, said dispensing sheet including a first end attached to one end of the inside surface of said top wall to maintain said dispensing sheet in proper alignment in said receptacle, a second end free of any attachment to said top wall, and a line of weakness extending transversely across said dispensing sheet adjacent said first end to allow said sec-

ond end of said dispensing sheet to rest on top of a stack of facial tissues placed in said receptacle and to pivot vertically between the top of the stack of tissues and said top wall.

3. The dispenser of claim 2 wherein the opening in said dispensing sheet is elongated and is restricted at the end nearest the attached end of said dispensing sheet, said restricted end serving to insure that the top tissue is caught on the inside edge of said dispensing sheet at the higher end of said dispensing sheet where the tissue may be easily grasped.

4. A dispenser for tissues from which individual tissues may be removed one at a time and in which a portion of the top tissue is held above the remaining tissues comprising: a receptacle having a perforated top wall, said perforations defining a removable section which when removed provides an opening in said top wall for withdrawing tissues therethrough; and a dispensing sheet mounted in said receptacle and having an opening in line with at least a portion of said removable section, said dispensing sheet including a first end fastened to one end of the inside surface of said top wall to maintain said dispensing sheet in proper alignment in said receptacle, and a second end free of any attachment to said top wall, said second end of said dispensing sheet being free to rest on top of a stack of tissues in said receptacle and to pivot vertically between the top of the stack of tissues and said top wall.

5. The dispenser of claim 4 wherein said dispensing sheet includes a portion intermediate said first and said second end releasably fastened to said removable section for holding said dispensing sheet against said top wall until said removable section is removed from said top wall whereby tissues may be inserted into the receptacle without interference from said dispensing sheet.

6. A dispenser for tissues from which individual tissues may be removed one at a time and in which a portion of the top tissue is held above the remaining tissues comprising: a receptacle including top, bottom, side and end walls, said top wall having perforations defining a removable section which when removed provides an opening in said top wall for withdrawing tissues therethrough;

and a dispensing sheet mounted in said receptacle and having an opening therein in line with at least a portion of said removable section for allowing removal of tissues therethrough and providing an inside edge of said dispensing sheet for separating tissues from each other and for holding a portion of the top tissue above the remaining tissues, said dispensing sheet including a first end attached to one end of the inside surface of said top wall to maintain said dispensing sheet in proper alignment in said receptacle, a second end free of any attachment to said top wall, and a line of weakness adjacent said first end to allow said second end of said dispensing sheet to rest on top of a stack of tissues in said receptacle and to pivot vertically between the top of the stack of tissues and said top wall as tissues are removed from said dispenser.

7. The dispenser of claim 6 wherein said dispensing sheet includes a portion intermediate said line of weakness and said free end fastened to said removable section for holding said dispensing sheet against the inside surface of said top wall until said removable section is removed from said top wall whereby tissues may be inserted into said receptacle through either end thereof before the end walls are closed without interference from said dispensing sheet.

8. The dispenser of claim 6 wherein the opening in said dispensing sheet is elongated and is restricted at the end nearest the attached end of said dispensing sheet, said restricted end serving to insure that the top tissue is caught on the inside edge of said dispensing sheet at the higher end of said dispensing sheet where the tissue may be easily grasped.

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