April 14, 1959 E. G. GANTNER 2,882,113

TISSUE DISPENSER AND MOUNTING MEANS FOR THE SAME

Filed July 27, 1954 2 Sheets-Sheet 1

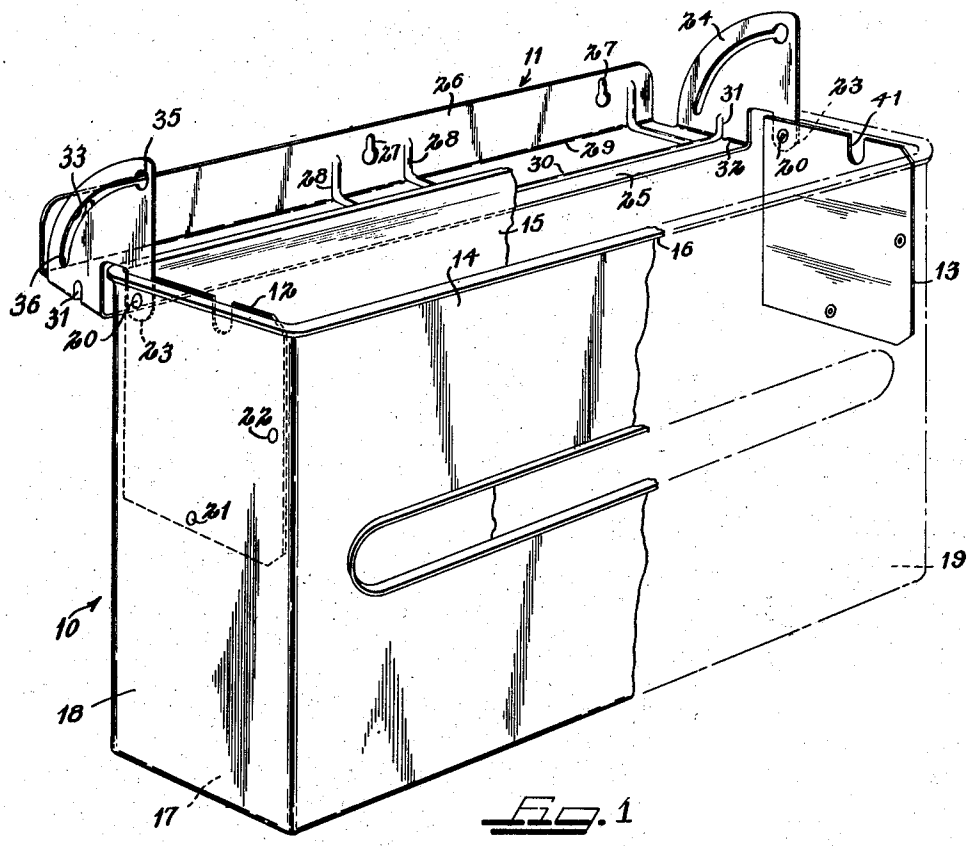


Fig. 1

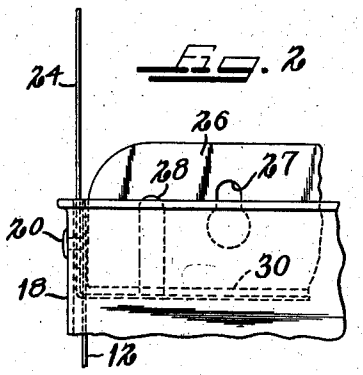


Fig. 2

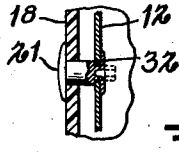


Fig. 6

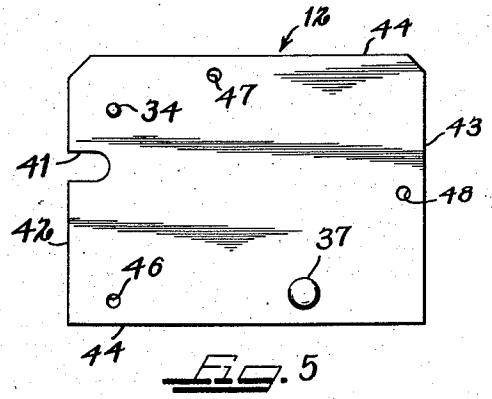


Fig. 5

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TISSUE DISPENSER AND MOUNTING MEANS FOR THE SAME

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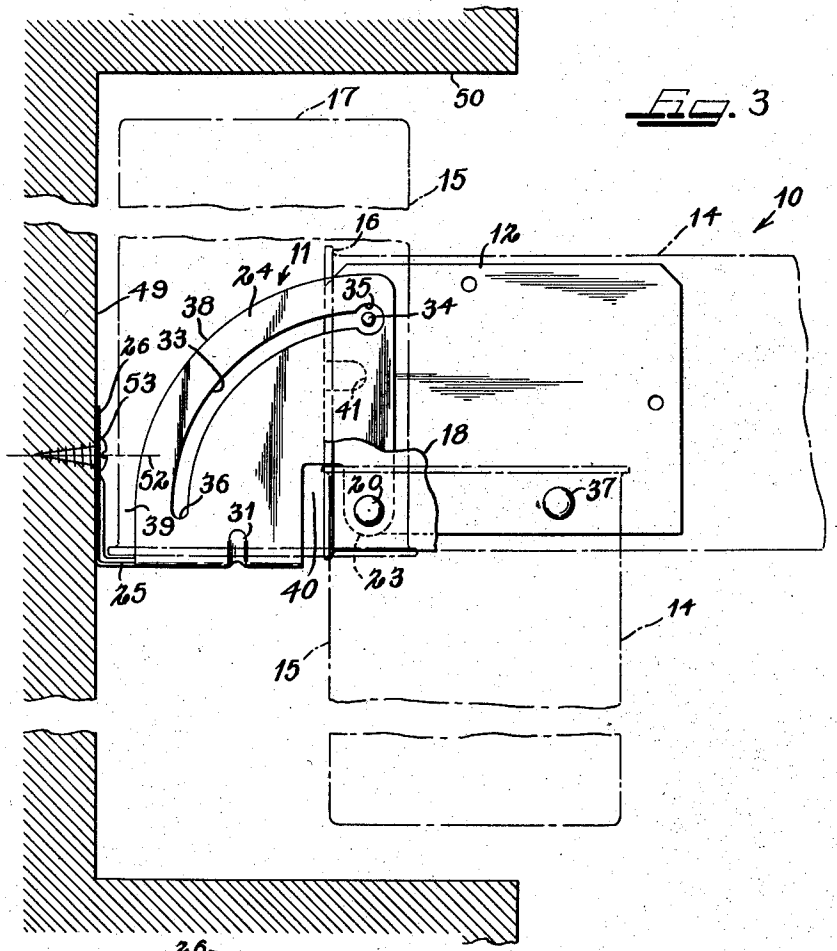


Fig. 3

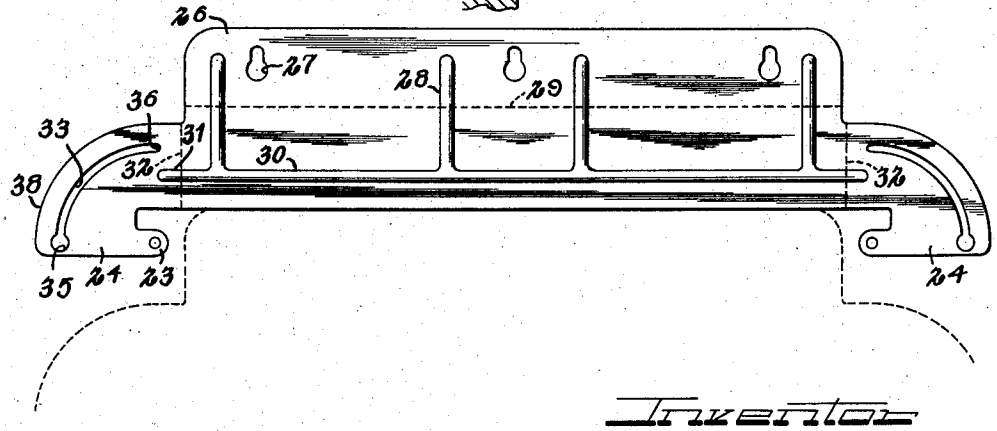


Fig. 4

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TISSUE DISPENSER AND MOUNTING MEANS FOR THE SAME

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Application July 27, 1954, Serial No. 446,094

4 Claims. (Cl. 312—248)

This invention relates to dispensing means for tissues, such as the well-known tissues sold by International Cellucotton Products Company of Chicago under the trademark "Kleenex." The invention also relates to mounting means for such dispensers, whereby the dispenser can be attached to vertical or horizontal mounting surfaces and conveniently filled in different positions for the purpose of loading the dispenser with a package of tissues, storing the tissues away in sanitary condition and dispensing tissues as may be required.

It may be noted, from the brief and generalized remarks just made, that the device in question must be adapted to suit at least two basic types of mounting surfaces: horizontal or vertical, and must also be adapted to serve at least three basic types of dispenser positions: loading, storing and dispensing. A great many types of dispensers and mountings thereof, previously made or proposed, were quite unable to perform those basic functions. Others were more or less able to perform such functions but they did so at the expense of insecure mounting and/or complicated and expensive manufacture. It is a primary object of the present invention to improve the dispensers and their mountings as to such safety and economy.

This object has been achieved by the provision of plastic and metal parts of the utmost simplicity. Aside from a small set of conventional mounting screws and unobvious, insignificant rivets only three parts are involved, a plastic dispenser box, a metal mounting bracket and a pair of identical metal guide, stop and brake plates. The design of the plastic dispenser box, the only part normally visible to the user, is such as to facilitate production of the box by the simplest molding procedures, thereby allowing formation and decoration of such box in manners harmonizing with the most different styles of interior decorating, car design, etc. More particularly the plastic box design is such that the inside surfaces of the box can be made in plain and smooth form, only the outer surfaces of the box being varied to suit said different styles, thereby greatly simplifying the core formation and making the plastic operation extremely economical. The inside surfaces of the dispenser are still important, for instance for the purpose of frictionally holding the tissue package in certain positions; but all provisions for such purposes are effected by the simple metallic elements of the combination according to this invention, without increase in cost of such metallic parts or of the entire combination.

The details will be understood from the following description of a preferred embodiment of this invention.

In the drawing:

Figure 1 is a perspective view of the new dispenser and mounting, the dispenser being partly broken away to disclose other parts.

Figure 2 is a fragmentary front view of the left end of the dispenser and mounting of Figure 1.

Figure 3 is an end view, taken from the left side, of the parts shown in Figure 2, also indicating other positions of the dispenser.

Figure 4 is a plan view of a metal blank from which one of the parts of the dispenser mounting is made.

Figure 5 is a plan view of one of the other parts of the dispenser mounting and

Figure 6 is a diagrammatic side view of one of the rivets used for this mounting.

Referring first to Figure 1 the dispenser **10** is here shown in loading position, held by a wall bracket **11** mounted on a vertical wall, with the aid of the aforementioned pair of guide, stop and brake plates **12, 13**. It will be noted that the inside of the dispenser box **10** substantially has the form of a plain rectangular box, that is, a box of rectangular cross-section in each of the three principal planes, in accordance with the well-known box design of the Kleenex and other tissue packages. The interior distance between the top or dispensing wall **14** and the opposite bottom wall **15** of the dispenser **10** substantially coincides with the standardized outside dimensions of the corresponding walls of the package (not shown). The same thing applies to the distance between the front or loading end of the dispenser, reinforced by a rib **16** and the back wall **17**. The interior distance between the side walls **18, 19** of the dispenser may be equal to or sometimes slightly greater than the standard side wall dimension of the package but the plates **12, 13** are mounted on said respective walls **18, 19**, inside the dispenser, at such distances from one another that at least a slight degree of friction is applied thereby upon the side walls of the box by the inner surfaces of said plates and/or the inner ends of the rivets **20, 21, 22** holding each plate **12, 13** to the corresponding dispenser wall. This friction serves to prevent shifting of the box between the storing and dispensing positions when the box is mounted on a vertical wall, as will be explained.

In view of the use of the plates **12, 13** as above described it is possible to incorporate any desirable degree of draft or taper in the inside surfaces of the box **10**, as is well known to persons skilled in the design of plastic parts.

The rivets **20** on each side **18, 19** of the dispenser are used not only to hold the corresponding plates **12, 13** to said side but also to serve as pivots between the dispenser and the mounting bracket **11**; the bracket having, for this purpose, a pair of pivot portions **23**, one for each pivot pin or rivet **20**. These pivot portions **23** have the form of flat tabs or ears inserted between the corresponding dispenser side walls and plates, for instance between wall **18** and plate **12**, being oriented in planes approximately parallel with the side walls. These ears **23** form projections on side members **24** of the bracket **11**, these side members in turn being end parts of a shelf portion **25**, extending at right angles to a mounting portion **26** of the bracket. The mounting portion **26** forms a substantially flat rectangular strip of metal, having the usual set of mounting holes **27**. Desirably a number of ribs **28** are formed in the bracket **11**, extending across the folding line **29** between the mounting and shelf portions **26, 25**, in order to reinforce the bracket against the stresses applied thereto in the operation of the dispenser. It is further preferred that the ribs **28** be interconnected by a rib **30** extending parallel with the folding line **29** along the shelf portion **25** and extending also into the end portions **24** as shown at **31**. Folding lines **32** at right angles to the line **29** separate the shelf portion **25** from the end portions **24**.

In order to provide the proper spacing of the plates **12, 13** as described and to allow sliding motion of the end portions **24** relative to and between these plates and their corresponding side walls **18, 19** each pivot rivet **20** is long enough to pass through the corresponding plastic side wall, end piece and plate, for instance through the members **18, 23** and **12**. For the same purpose the other rivets

21 and 22 desirably have a shouldered shank 32 as best shown in Figure 6. This shank extends through the plastic side wall 18 or 19 and the shoulder 32 holds the plate 12 at some distance from said wall, thereby providing room for the insertion and withdrawal of the end piece 24 as best shown in Figure 2. However it is also possible to mount the plates 12, 13 by means of plain rivets; particularly in view of the incorporation in said plates of other spacing members as will now be described.

Referring to Figure 3 each end portion 24 of the bracket 11 has an arcuate slot 33 formed therein which covers approximately 90 degrees of a circle, with the pivot pin 20 as a center. This slot serves to guide a button 34 incorporated in the corresponding guide plate 12 and to provide stop actions for the same at the forward and backward ends 35, 36 of the slot. The material and/or mounting of the parts 12, 18 and correspondingly that of the parts 13, 19 is sufficiently resilient to allow the button 34 to spring out of and back into the slot 33 upon corresponding rotation of the dispenser 10 about the pivots 20. Similarly a second button 37 is incorporated in each plate 12, 13 which is adapted to spring into the front end 35 of the corresponding slot 33 when the first-mentioned button 34 has reached the back end 36. Thus the two buttons 34, 37 lie on a circular arc about the pivot 20. Both of them are raised from the plane of the plate 12 or 13 in the direction towards the corresponding mounting wall 18 or 19 and accordingly toward the corresponding end piece 24. In this manner the buttons 34, 37 act as stop members for the swing of the dispenser 10, the stop action provided by the button 34 at the slot end 35 being yieldable; and at the same time said buttons serve to space the plate 12 or 13 from the mounting side 18 or 19 so far as allowed by the rivets 21, 22.

In order to control the positions of the dispenser 10 with accuracy the buttons 34, 37 are located on a circular arc substantially as wide as the dimensions of the dispenser side walls 18, 19 allow. Accordingly the plates 12, 13 are approximately as wide as the dispenser itself and likewise the front portion of the side pieces 24 is approximately as high as the dispenser is wide. In order not to interfere with the swinging movement between the dispenser and the side pieces 24, about the pivots 20, the top and back edges 38 of said side pieces are made in form of circular arcs concentric with the slots 33 and adjacent the same. A space 39 of sufficient width is provided between the mounting portion 26 and the back edge 38 to accommodate the dispenser wall 14 in the closed position of the dispenser. On the other hand a space 40 is provided between the pivot portions or ears 23 and the body of the side pieces 24 to accommodate the dispenser wall 15 in the loading position of the dispenser. The compact arrangement of the parts is further insured by the provision of a slot 41 in one of the narrow sides 42 of each plate 12, 13, between the pivot 20 and button 34, in register with the end portion 31 of the bracket reinforcing rib 30; in other words the radial distances of said end portion 31 and slot 41 from the pivot 20 are made approximately equal.

Thus the metal parts of the new assembly can be made in extremely simple forms and procedures. The flat guide stop and brake plates 12, 13 can obviously be punched out of rectangular strips or sheets of metal with practically no loss or scraps. Parallel short sides 42, 43 are formed in this process together with parallel long sides 44, 45. In the same punching process and by means of a single die there are also formed the buttons 34, 37 as slightly raised or upset portions; the pivot hole 46 and the rivet holes 47, 48 at any suitably selected portions of the plates, matching the positions of corresponding holes in the plastic dispenser.

Likewise as shown in Figure 4 the brackets 11 can be formed in most economical manner. Successive blanks for such brackets can be punched out of rectangular sheet material with practically no loss or scraps. It is possible to form the accurate contour of the blank, with elongated portions 25, 26 and end portions 24 having arcuate and inwardly projecting edges 38, 23, all in one punching stroke, together with the arcuate slots 33, the mounting holes 27 and the reinforcing ribs 28, 30, 31. By means of a second and extremely simple die each blank is then folded about the lines 29, 32, thereby completing its formation.

In order to install a dispenser, little more is necessary than to select a suitable vertical or horizontal or other mounting surface. For instance it may be assumed that the surface 49 in Figure 3 is a vertical wall surface below an overhanging cabinet 50 and above a projecting board. Suitable locations 52 for mounting screws 53 can then be found without difficulty by measuring a proper distance below the surface 50 and above the projecting board, which may be facilitated by the use of a simple paper stencil, as known to the art. Suitable locations 52 are marked with any sharp tool; the drill holes are then drilled in the wall; the screws 53 are then started in said holes. Next the mounting portion 26 of the bracket 11 is placed with the lower and enlarged parts of the mounting holes over the screw heads; it is then moved down so that the shanks of the screws enter the upper portion of each mounting hole and finally the screws are tightened securely. The dispenser 10 hanging on the pivots 20 can then be folded up for storage or 90 degrees down for removal of tissues or another 90 degrees down for reloading.

It will be noted that between the storage and dispensing positions of the unit, as shown in Figure 3, there would be a tendency of the tissue package to slip backwards out of the dispenser, interfering with proper action of the unit, but that such tendency can be controlled, with very slight compression of the package, by the aforementioned spacing and brake action of the plates 12, 13. Downward loss of the package, in the storage condition, is additionally prevented by the supporting effect of the shelf portion 25.

It may further be noted that an arrangement corresponding with that of Figure 3 can also be achieved wherein the surface 49 is an undersurface of a cabinet, dashboard or the like, in which event there is usually no overhanging surface 50, at least none of any appreciable depth. In this case accordingly the dispenser is held in horizontal condition for storage, in vertical position for dispensing and in inverted horizontal condition for loading. In the normal storage condition the dispenser is safely held against gravity and substantial vibration, by the engagement of the button 37 with the slot end 35.

I claim:

1. A tissue dispenser unit comprising a dispenser molded of plastic material in substantially plain box shape having a top or dispensing wall, a bottom wall, an end wall and a pair of side walls, a flat plate secured to and spaced a slight distance from the inside face of each side wall adjacent the open end of said dispenser, said plates having pivot means therein, a pair of detent projections on one face of each plate spaced apart on an arc having the pivot means as its center; and a bracket adapted to be mounted on a suitable surface, said bracket having a shelf portion and end portions integral therewith and one extending into the space between a respective side wall and plate engaged by the pivot means to fixedly pivot the dispenser to the bracket to allow the dispenser to be swung into storage, loading and dispensing positions, and guideways in the bracket end portions each for receiving both related detent projections, said guideways being formed on an arc with the pivot means as its center and the end portions being yieldably displaceable to permit said detent projections to enter and leave the guideways while the dispenser is swung about said fixed pivot means, said shelf portion constituting a closure wall for the open side of the dispenser when it is in storage position.

2. A tissue dispenser unit comprising a substantially

plain box-shape dispenser open at one end and including a pair of side walls, a plate secured to and spaced from the inside face of each side wall adjacent said open end, said plates having pivot means therein, a pair of projections on the outwardly disposed face of each plate spaced apart on an arc having the pivot means as its center; and a bracket adapted to be mounted on a suitable surface, said bracket having a shelf portion and end portions integral therewith and one extending into the space between a respective side wall and plate engaged by the pivot means to fixedly pivot the dispenser to the bracket to allow the dispenser to be swung into storage, loading and dispensing positions, and guideways on the bracket end portions each for receiving both related projections, said guideways being formed on an arc with the pivot means as its center and the end portions being yieldably displaceable to permit said projections to enter and leave the guideways while the dispenser is swung about said pivot means, said shelf portion constituting a closure wall for the open side of the dispenser when it is in storage position.

3. A tissue dispenser unit comprising a dispenser having a plain box shape including a top or dispensing wall, a bottom wall, an end wall and a pair of side walls, a plate secured to and spaced from the inside face of each side wall adjacent to the open end of said dispenser, said plates having pivot means therein, a pair of projections on the outwardly disposed face of each plate spaced apart on an arc having the pivot means as its center; and a bracket adapted to be mounted on a suitable surface, said bracket having a mounting portion, a shelf portion and end portions integral with the shelf portion and each extending into the space between a respective side wall and plate and engaged by the pivot means to fixedly pivot the dispenser to the bracket to allow the dispenser to be swung into a vertical storage position above the shelf portion, a vertical loading position substantially below

the shelf portion and a horizontal dispensing position, and guideways in the bracket end portions each for receiving the related projections, said guideways being formed on an arc with the pivot means as its center and the end portions being yieldably displaceable to permit said pairs of projections to enter and leave the respective guideways while the dispenser is swung about said pivot means.

4. A dispenser unit comprising a dispenser having a plain box shape including a top or dispensing wall, a bottom wall, an end wall and a pair of side walls, a plate secured to and spaced a slight distance from the inside face of each side wall adjacent the open end of said dispenser, said plates having pivot means therein, a pair of projections on one face of each plate spaced apart on an arc having the pivot means as its center; and a bracket adapted to be mounted on a surface, said bracket having a shelf portion and end portions integral therewith and each extending into the space between a respective side wall and plate engaged by the pivot means to fixedly pivot the dispenser to the bracket to allow the dispenser to be swung into storage, loading and dispensing positions, and guideways in the bracket end portions each for receiving both related projections, said guideways being formed on an arc with the pivot means as its center and the end portions being yieldably displaceable to permit said pairs of projections to enter and leave the respective guideways while the dispenser is swung about said pivot means.

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