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3,199,765

MAILING FOLDER

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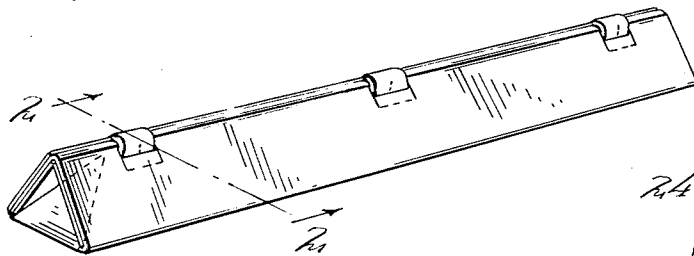


FIG. 1

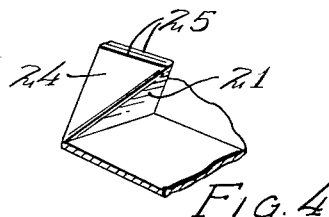


FIG. 4

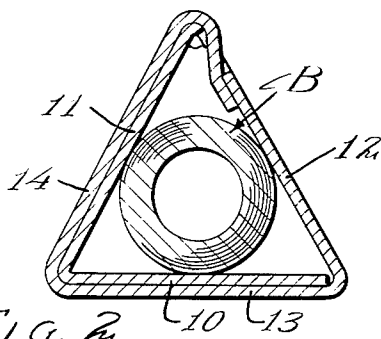


FIG. 2

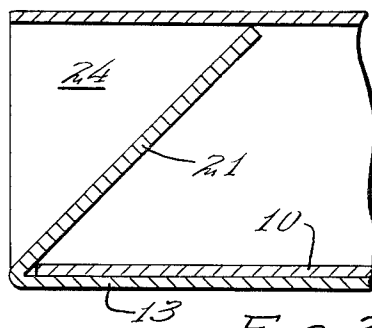


FIG. 3

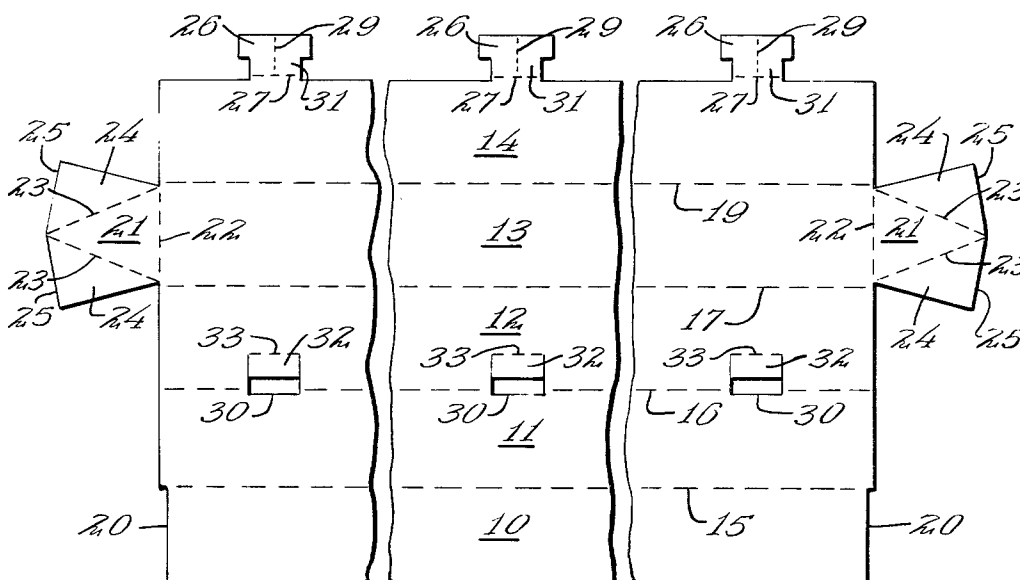


FIG. 5

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1

3,199,765

## MAILING FOLDER

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4 Claims. (Cl. 229-40)

This invention relates to an improvement in mailing folder and deals particularly with a shipping container useful in the shipment of spirally wound members such as calendars and the like or other such objects.

Articles such as display calendars and the like are usually packed in spirally wound tubes having paper webs projecting from the ends which may be tucked inwardly to hold the calendar in place. While such tubes have been successfully used for many years, they are usually quite thin, and may be cut or dented inwardly with comparative ease. Furthermore, folders of this type require a tremendous storage space due to their cylindrical shape. In view of this fact, many companies who produce display calendars also install tube wrapping machines so that the tubes may be made and immediately filled. Unfortunately, this does not completely correct the difficulty, as calendars are usually delivered to customers during the last one or two months of the year, thereby necessitating either a tube making and filling capacity capable of making and filling the tubes in one or two months of the year to take care of the year's production of calendars.

An object of the present invention resides in the provision of a mailing folder which is materially more resistant to compression than a mailing tube of the type normally used for mailing calendars, and which may be stored in flat form. Furthermore, in view of the fact that the folders when produced are of triangular cross section, they may be readily nested together and packaged in a very compact state. A further feature of the present invention resides in the fact that the mailing folders may be easily assembled by wrapping the panels forming the folder into a triangular shape and locking the panels in this form. This arrangement avoids the damage which is often inflicted in sliding the calendars into an end of the tube.

A further feature of the present invention resides in a novel means of closing the end of the folder to prevent the axial movement of the rolled calendar. The end closures act to hold the relatively fragile ends of the calendar spaced from the ends of the folder, thereby preventing injury to the calendar in the event the end of the folder are injured.

These and other objects and novel features of the present invention will be more clearly and fully set forth in the following specification and claims.

In the drawings forming a part of the specification:

FIGURE 1 is a perspective view of the folder in readiness for shipment.

FIGURE 2 is a cross sectional view through the folder, the position of the section being indicated by the line 2-2 of FIGURE 1.

FIGURE 3 is a vertical sectional view through an end of the folder in folded relation.

FIGURE 4 is a perspective view of one of the end closures, the major portion of the tubular body being broken away to show the construction.

FIGURE 5 is a diagrammatic view of the blank from which the folder is formed.

The preferred form of the blank is illustrated in FIGURE 5 of the drawings. The blank includes a series of rectangular panels 10, 11, 12, 13, and 14. These panels are hingedly connected along parallel fold lines 15, 16, 17 and 19. The panels are of generally similar size, although the first and second panels 10 and 11 are usually slightly narrower than the third, fourth, and fifth panels,

2

12, 13, and 14, as they lie inside of the other panels in the completed form of the construction. Furthermore, the ends of the panel 10 are preferably notched as indicated at 20 so that this panel is slightly shorter than the others.

As the end structures at both ends of the folder are identical, the parts thereof have been given similar identifying numerals. A triangular flap 21 is hingedly connected to each end of the fourth panel 13 along a fold line 22. The remaining sides of each triangular flap 21 are connected along fold lines 23 to triangular flaps 24. The fold lines 23 forming the remaining two sides of each triangular flap 21 are of substantially equal length, and this length is greater than the width of the various panels. As a result, when in closing position, these triangular sides make it necessary for the flaps 21 to assume an acute angle with respect to the panel 13 to which they are hinged. As is indicated in FIGURE 4 of the drawings, when the end closure is complete, the triangular flaps 24 lie in face contact with the inner surfaces of the adjoining panels, and the end edges 25 of the triangular panels are in side by side relation along the juncture between the third and second panels of the series, or in face contact with the inner surfaces of the panels 11 and 12.

A series of T-shaped locking tongues 26 are hingedly connected to the fifth panel 14 along lines of fold 27. Fold lines 29 which are at right angles to the fold lines 27 extend centrally through the locking tabs 26 to permit the locking tongues to fold to some extent into a generally V-shaped form. The panel 12 is provided with a series of apertures 30 which are of a width substantially equal to the width of the stem portions 31 of the T-shaped locking tongues 26, the apertures 30 being narrower than the width of the end portions of these tongues. Flaps 32 are hinged to the panel 12 along aligned fold lines 33, and extend into the apertures 30.

The tubular structures may be made with fewer panels than those described. For example, it would be possible to eliminate the fifth panel 14, and to lock the panel 13 to the panel 11. It might also be possible to eliminate the panel 10. However, the particular structure described has certain definite advantages.

In using the mailing folder, the calendar B or other object to be packed is placed upon the panel 13, and the end flaps 21, 24 are folded into the position shown in FIGURE 4. The panels 12 and 11 are then wrapped around the object B, and the panel 10 is tucked beneath the object, this arrangement actually binding the folder into closed position. As a further protection, the panel 14 is folded up to overlie the panel 11, and the locking tongues 26 are pushed through the apertures 30, the ends of these locks engaging within the folder to hold the same closed.

In accordance with the patent statutes, I have described the principles of construction and operation of my improvement in mailing folder, and while I have endeavored to set forth the best embodiment thereof, I desire to have it understood that changes may be made within the scope of the following claims without departing from the spirit of my invention.

I claim:

1. A mailing folder including,

a series of five elongated rectangular panels of substantially equal size connected by parallel longitudinally extending fold lines,

said panels being foldable in such a manner that the fourth and fifth panels of the series overlie the first and second panels of the series respectively to provide a tubular body of triangular cross section,

a triangular flap hinged along one side to an end of said fourth panel of said series, the other sides of the flap being of substantially equal width and longer

3

- than the width of said rectangular panels and adapted to fold over the end of the first panel of the series and at an acute angle thereto, said other flap sides extending along the inner surfaces of the second and third panels of the series, and
- 5 a pair of generally triangular flaps secured to said other flap sides and folded into face contact with said second and third panels between the angularly inclined triangular flap and the adjoining ends of the panels.
- 10 2. The structure of claim 1 and including locking means on said fifth panel engageable with cooperable locking means on another of said panels to hold said panels in tubular relation.
3. A mailing folder including:
- 15 a series of three elongated rectangular panels of substantially equal size connected by parallel longitudinally extending fold lines,
- said panels being foldable in such a manner as to form a tubular body of triangular cross section,
- 20 means for securing said first and third panels with said panels in triangular cross section relation,
- a triangular flap hinged along one side to an end of one of said panels, the other sides of said flap being of substantially equal width and longer than the

4

- width of said rectangular panels and adapted to fold inwardly at an acute angle to said one panel, said other flap sides extending along the inner surfaces of the second and third panels of the series, and
- 5 a pair of generally triangular flaps secured to said other flap sides and folded into face contact with the others of said rectangular panels between the angularly inclined triangular flap and the adjoining ends of the panels.
- 10 4. The structure of claim 3 and including a fourth panel of substantially equal size to said first mentioned panels and foldably connected to an end panel of said series and foldable inwardly of and in face contact with the other end panel of said series.

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