June 16, 1959 R. J. LEE ET AL 2,890,822

DISPENSING CONTAINER FOR ROLLS OF SHEET WRAPPING MATERIAL

Filed April 20, 1956 2 Sheets-Sheet 1

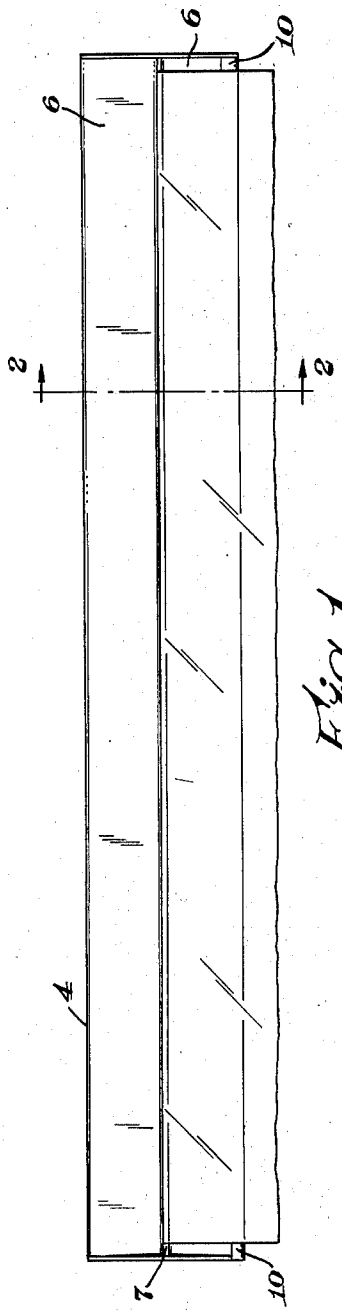


Fig. 1

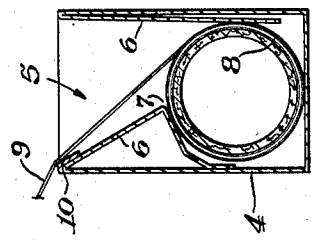


Fig. 5

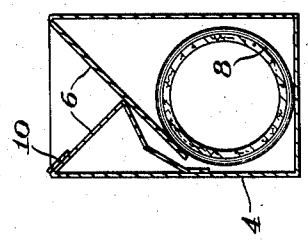


Fig. 4

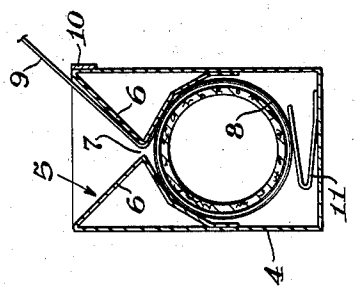


Fig. 3

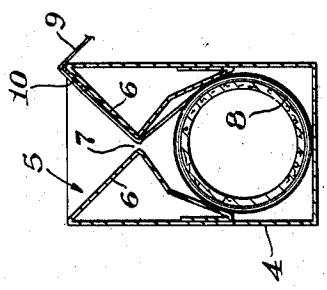


Fig. 2

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DISPENSING CONTAINER FOR ROLLS OF SHEET WRAPPING MATERIAL

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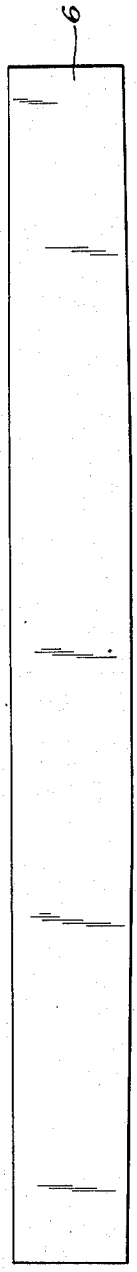


Fig. 9



Fig. 10

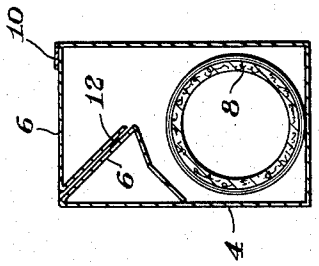


Fig. 8

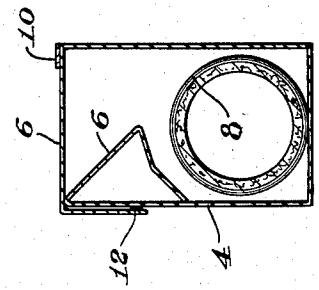


Fig. 7

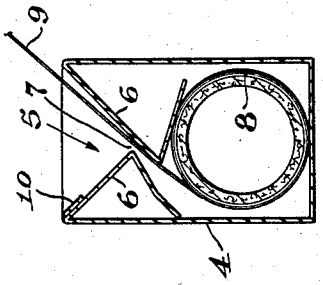


Fig. 6

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DISPENSING CONTAINER FOR ROLLS OF SHEET WRAPPING MATERIAL

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Application April 20, 1956, Serial No. 579,475

13 Claims. (Cl. 225—51)

This invention relates to an improved dispensing container or carton for sheet material, particularly plastic film and the like for wrapping purposes, which is packaged in wound rolls that are provided in the container. More particularly, this invention relates to a dispensing container having means for maintaining in accessible disposition a portion of the sheet or film material stored therein in order to facilitate withdrawing a desired length for severance from the roll while effectively preventing or minimizing the propensity of withdrawn portions of the sheet to recoil or feed back onto the roll in the package.

The dispensing container of the present invention represents an improvement over the container disclosed by Robert I. Kallman, Thomas M. Steinbach and Robert F. Stoming in their copending application for patent covering a Dispensing Container for Rolls of Sheet Wrapping Material having Serial No. 579,266, which was filed on April 19, 1956.

The conventional dispenser cartons in which relatively small rolls of waxed paper, plastic film, metal foil and other commonly employed sheet wrapping materials are packaged for domestic and analogous uses are not ordinarily adapted to maintain a portion of the sheet material exposed for easy access in order to facilitate withdrawing a desired length for severance from the roll. Neither are they usually adapted to prevent recoil or feed back of the withdrawn sheet onto the roll in the container after the cutting operation. Withdrawn portions of plastic film wrapping material, in particular, have a tendency to recoil onto the supply roll from which they are unwound, especially when only a relatively short portion of the film has been withdrawn or is exposed from the roll.

It would be advantageous to provide an improved dispensing container for rolls of sheet wrapping material, particularly plastic film, which, simply and expeditiously, would be adapted to maintain the loose or unwinding portion of the sheet or film material stored therein in accessible disposition and to effectively prevent or minimize its recoiling onto the supply roll. This result and other advantages and benefits may be realized in accordance with the present invention which comprises a dispensing container for packaging a wound supply roll of sheet wrapping material, trough forming elements in said container providing therein an open, V-shaped, outwardly funnelled trough having an outlet for said sheet wrapping material disposed longitudinally along its bottom, said trough extending in the direction of the roll width-accommodating length of said container, and at least a portion of the elements comprising said trough being adapted to frictionally snub and brake said sheet wrapping material when it is contained in and being dispensed from the container. The trough or the trough elements in the container may be adapted to frictionally snub and brake the sheet wrapping material by being adapted to directly frictionally engage a supply roll of the wrapping material when it is contained in the container or by being adapted to nip or frictionally clutch sheet material withdrawn from the roll and emerging through the outlet of

the container. Advantageously, a sheet cutting means may be provided at or near one of the upper edges of said trough on said container. Further features of the invention will hereinafter be apparent.

There is shown in plan view in Figure 1 of the accompanying drawing a dispensing container 4 in accordance with the present invention. It is usually preferable for the container 4 to be in the form of a generally rectangular, roll-accommodating box made of cardboard, paperboard, fiberboard or like material of construction. When greater permanence is desired, all or portions of the container may also be fabricated of metal or plastic materials. The upper or dispensing side of the container is comprised of an open, V-shaped, outwardly funnelled trough, indicated generally by the reference numeral 5, which extends the length of the container parallel with a supply roll (not shown in Figure 1) of sheet wrapping material contained therein. As shown, an entire side of the container may be made up of the trough although, if desired, only a portion of the width of one of the sides may be comprised of the dispensing trough. An outlet 7 for the sheet material 9 is provided by an opening between the spaced bottom edges of the sloping sides 6 which form the trough 5. One of the bottom edges of the sides 6 may be formed to overlap the bottom edge of the other side in the trough. A cutting strip 10 may advantageously be provided at or along the upper edge of one of the sides of the trough in order to permit severing withdrawn lengths of the sheet material on the container. The cutting strip may be of any desired material and it may have a serrated or straight cutting edge, as may be preferred.

As depicted in the cross-sectional view of the container 4 in Figure 2, taken along the line 2—2 in Figure 1, both sides of the trough 5 may be sloping. If preferred, and as shown in cross-section in Figure 5, one of the sides of the trough may be provided with a shaped, steeply pitched, substantially upright slope and may be disposed practically contiguous and parallel with one of the vertical sides of the container. A supply roll 8 of the sheet material 9, wound on a suitable core, is shown in the container 4 in all of the Figures 2 through 8, inclusive. As illustrated, the supply roll 8 may unwind in either direction in the container and the cutting strip 10, when it is provided, may either be inside or outside of the trough 5.

There is no precise criticality involved in the included angle which is described by the trough 5. Generally an angle between about 45° and 160° will be found suitable. Likewise, the depth of the trough may be varied over a relatively wide range. Ordinarily, it is beneficial for it to be at least ½ inch deep to insure that a suitably engageable length of the sheet material will remain exposed in accessible disposition in the trough. On the other hand, troughs which are deeper than an average index-finger length may be unsatisfactorily deep.

Advantageously, the sides of the trough are provided in a collapsible manner and at least one of the sides may be resiliently yieldable. This permits inserting a wound roll of the sheet material through the trough in order to load the container when it is desirable to package the wound rolls in such a manner, particularly when a container having a trough of the variety illustrated in Figures 2 and 3 is utilized. It also facilitates threading the loose or free end of the sheet material 9 from the wound roll 8 in the roll holding section of the container through the outlet 7. This may readily be accomplished, either in the case of a fresh package or whenever the loose end of the sheet material has been lost, by removing the supply roll from the container, as through an openable end flap therein, unwinding the loose end of sheet material from the roll and loading the roll through the trough into the roll holding portion of the container while retaining the unwound end exposed in the trough.

Collapsible and resiliently yieldable trough sides may be provided in various ways. Conveniently, as is illustrated in Figures 2 through 8 of the drawing, they may be formed by employing a bendable or foldable accordion pleated supporting strip for maintaining the side of the trough in a sloping position in the container. Such a support yields when the side of the trough is pressed in and returns the side of the trough to a desired sloping position when the pressure is released. It is frequently desirable for the foldable strip supporting a collapsible and resiliently yieldable trough side to be attached firmly by an adhesive or the like, to the side of the container.

The trough 5 or the elements which form and provide the trough in the container 4 may be adapted in various ways to directly frictionally engage the supply roll held in the container in order to frictionally snub and brake the sheet wrapping material to prevent or minimize recoil and feed back. Thus, as shown in Figure 2, the supporting strips for the trough sides may directly press on the wound roll 8 for this purpose or, as shown in Figure 3, a folded, resilient spring-like section 11 of cardboard or other material may be placed in the container against the roll to urge it against the supporting strips so as to permit their braking action on the roll. It is generally beneficial for a resilient folded strip of this type to extend substantially coextensive with the length of the wound roll 8.

The frictional snubbing action of the trough may also be accomplished by forming one of the sides of the trough 6 as a straight section, hinged to the container side at its upper edge, but not otherwise attached to the side of the container. Such a strip as shown in Figure 4, may be employed advantageously for covering the roll during shipment and storage. To prepare the container for operation, as shown in Figure 5, it may be forced down in the box to press against the side of the roll in order to effect the roll snubbing and braking function.

Or, as shown in Figure 6, one of the sides 6 of the trough 5 may be a floating L-shaped section disposed with its bottom portion under the bottom edge of the opposite side of the trough, said L-shaped section being hinged to the container along its upper edge and elsewhere unattached. The bottom leg of such an L-shaped side may advantageously press flatly against the wound roll 8 in the container 4 to frictionally snub and brake the sheet material while forming the V-shaped trough 5. If desired, and as shown in Figures 7 and 8, an L-shaped side may also be employed as a cover for the container 4 during shipment and handling by raising it perpendicular with the upright sides of the container and level with the opposite edge of the trough 5 and, advantageously, employing the bottom leg of the section as a flap. In such cases, the flap portion of the L-shaped side may be sealed with an adhesive material 12 on the side of the container, as shown in Figure 7, or against the opposite side of the trough, as shown in Figure 8. When such a form of trough side is employed as a cover for the container, it advantageously permits shipment and handling of a completely boxed-in straight-sided container that has a rectangular cross-sectional form without exposing any portion of the trough until the container is converted for dispensing use. This may be accomplished readily by forcing the container covering L-shaped side under the bottom edge of the opposite side of the trough in order to complete the trough arrangement in the dispensing container after it has been loosened from any adhesive seal that may have been employed.

The outlet 7 in the trough 5, as mentioned, may also be made sufficiently narrow, as by overlapping of the trough sides, or may be otherwise formed to adapt it to nip the loose end of sheet material being withdrawn from the roll in the container. When this is done, it may be advantageous, as is illustrated in Figure 9, for the trough side 6 to have swept back or tapered edges so that only the central portion of the sheet material is nipped by the

outlet. This permits the ends of the sheet material to be withdrawn in an unrumpled manner without being nipped or pinched and may facilitate its easier dispensability from the container. Alternatively, as depicted by the view of the bottom edge of a trough side 6 in Figure 10, slight projections or bumps 13 may be provided centrally away from the edges near or at the bottom edge of one or both of the trough sides. The projections 13 serve to frictionally engage and nip the central portion of the sheet material being withdrawn from the container in order to resist its recoiling onto the supply roll.

As is apparent, the trough, adapted to frictionally snub the sheet material being withdrawn, provides a simple and efficient means in the dispensing container of the present invention for maintaining a withdrawn portion of the sheet material in accessible disposition after a desired withdrawn length has been severed from the supply package while effectively preventing or minimizing recoil onto the supply roll. Further, although the accessible portion is maintained from the supply roll, it is protected by reason of its location in the trough in the container. In addition, the trough secures an efficient cutting angle for the sheet material on the associated cutting means that may be provided on the container to facilitate severing withdrawn lengths from the package. The braking or locking of the sheet material being withdrawn from the package also assists in obtaining a better tearing or cutting action thereof. Furthermore, when the roll is directly engaged by the trough elements, it is more firmly and stationarily maintained in the container during handling.

Dispensing containers in accordance with the invention may be employed with particular advantage for plastic wrapping films such as those which are comprised of copolymers of vinylidene chloride and vinyl chloride which may frequently be generically characterized as being sarans and which enjoy widespread popularity and have great favor as a wrapping material for domestic and other uses.

Since certain changes in the practice of this invention may be made without substantially departing from its spirit or scope, it is to be understood that all the foregoing be interpreted as being merely illustrative and in no sense or manner limiting or restrictive of the invention excepting as it is particularly set forth and defined in the appended claims.

What is claimed is:

1. A dispensing container for packaging a wound supply roll of sheet wrapping material, trough forming elements in said container providing therein an open, V-shaped, outwardly funnelled trough having an outlet for said sheet wrapping material disposed longitudinally along its bottom, at least one of said trough-forming elements being securely fastened along both its top and bottom longitudinal edges to said container, said trough extending in the direction of the roll width-acommodating length of said container and forming an included angle between about 45° and 160°, the opening of said trough comprising an entire side of said container, said trough being further disposed in said container so that a substantially vertical plane through the longitudinal axis of a supply of sheet wrapping material passes substantially through the trough when said supply of sheet wrapping material is contained in said container and at least a portion of the elements comprising said trough being adapted to frictionally snub and brake said sheet wrapping material when it is contained in and being dispensed from the container.

2. In the container of claim 1, said trough being comprised of at least one collapsible and resiliently yieldable side.

3. In the container of claim 1, the elements of said trough being adapted to directly frictionally engage a supply roll of the wrapping material when it is contained in the container.

4. The container of claim 1, wherein the elements of

said trough are adapted to directly frictionally engage a supply roll of the wrapping material when it is contained in the container and including resilient means disposed in said container for urging a supply roll of the wrapping material against the elements of said trough when a supply roll is in the container.

5. In the container of claim 1, one of the sides of said trough being a straight section that is hinged along its upper edge to a side of the container, said straight side being adapted to be disposed in said container to frictionally press against the side of a supply roll of the wrapping material when it is contained in the container.

6. A container in accordance with the container set forth in claim 5 wherein said straight trough side section is further adapted to cover a roll of the wrapping material when it is contained in the container prior to forming said trough by disposing said straight trough side against the side of said roll.

7. In the container of claim 1, one of the sides of said trough being an L-shaped section disposed with its bottom portion adjacent to its bottom edge under the bottom edge of the opposite side of the trough, said L-shaped trough side section having its upper edge hinged to a side of the container, the bottom leg of said L-shaped trough side section being adapted to frictionally press flatly against a supply roll of the wrapping material when it is contained in the container.

8. A container in accordance with the container set forth in claim 7 wherein said L-shaped trough side section is further adapted to provide a hinged, straight sided cover for the trough portion of said container prior to forming said trough by disposing the bottom portion of L-shaped section under the bottom edge of the opposite side of the trough, the bottom roll engaging leg of said L-shaped trough side section comprising a flap for said cover formed by said section.

9. In the container of claim 1, the outlet provided between the bottom edges of said trough being adapted to nip the loose end of sheet wrapping material being withdrawn from a supply roll of the wrapping material when it is contained in the container.

10. In the container of claim 1, the bottom edge of at least one of the sides of said trough being swept back at its ends and closely disposed to the bottom edge of the opposite side of the trough to provide an outlet between the bottom edges of said trough that is adapted to nip and compressively engage both sides of the central portion of the loose end of sheet wrapping material being withdrawn from a supply roll of the wrapping material when it is contained in the container.

11. In the container of claim 1, at least one of the sides of said trough having central raised projections near its bottom edge to provide an outlet between the bottom edges of said trough that is adapted to nip and compressively engage both sides of the central portion of the loose end of sheet wrapping material being withdrawn from a supply roll of the wrapping material when it is contained in the container.

12. The container of claim 1 and including a sheet cutting means at one of the upper edges of said trough.

13. The container of claim 1 in combination with a wound supply roll of plastic wrapping film packaged therein.

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