July 16, 1957 W. A. KLEIN 2,799,393

CONTAINER FOR DISPENSING SHEET MATERIAL

Filed July 27, 1956

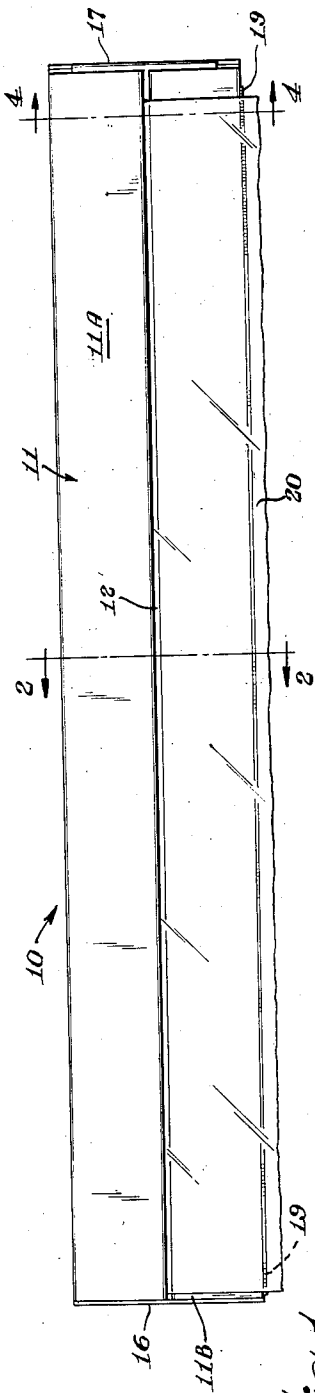

Fig. 1

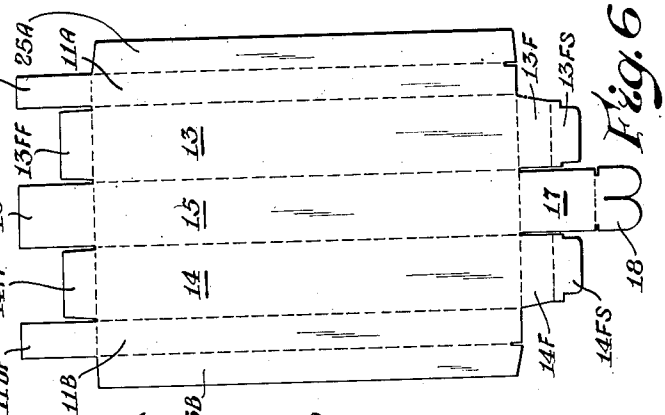

Fig. 6

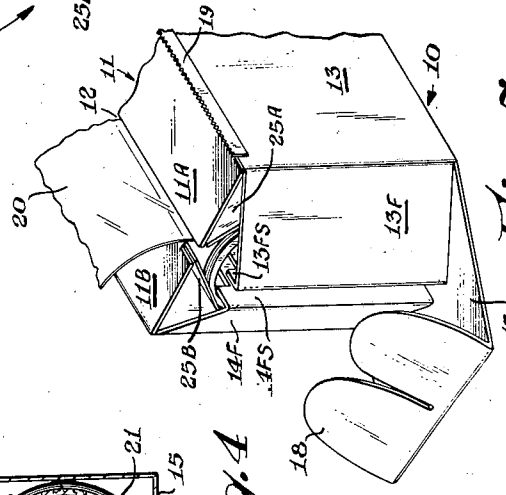

Fig. 5

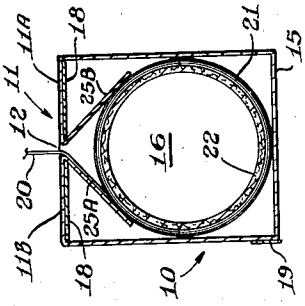

Fig. 4

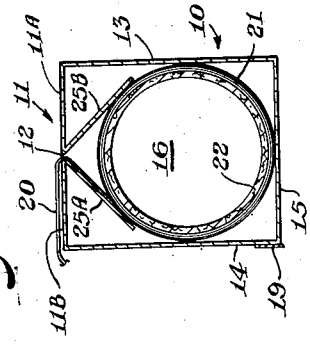

Fig. 2

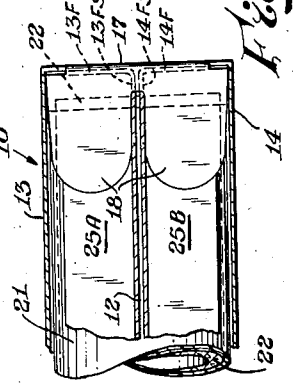

Fig. 3

INVENTOR.
Walter A. Klein

BY

Griswold & Burdick
ATTORNEYS

United States Patent Office 2,799,393 Patented July 16, 1957

2,799,393

CONTAINER FOR DISPENSING SHEET MATERIAL

Walter A. Klein, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

Application July 27, 1956, Serial No. 600,455

5 Claims. (Cl. 206—58)

This invention pertains to a dispensing container 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, the invention has reference to a dispensing container that is adapted to maintain 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.

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 or to prevent recoil or feed back of the withdrawn sheet into the container after a desired length has been severed from the roll. This may engender particular inconvenience and vexation in the use of the container, especially if the sheet material that is provided therein has a pronounced tendency to recoil or feed back into the wound supply roll, as frequently may occur with plastic film wrapping materials.

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 while being positively and efficiently prevented from recoil. This desirable 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, said container having elongate side walls extending between opposite enclosing end walls; a linear longitudinal cleft in one of the side walls of said container, said cleft providing an outlet for said sheet wrapping material that extends in the roll width-accommodating length of said container; a divergent pair of resiliently hinged flap elements depending interiorly in said container from said cleft side, said flap elements being positioned parallel with and near the edges of the outlet formed in said cleft side and being disposed one on each side of said outlet, each of said flap elements being integral with the portion of said cleft side from which it depends, said interiorly depending flap elements being further adapted to diverge over and frictionally snub and brake a supply roll of the sheet wrapping material when it is contained in the container; and means in said container engaging said flap elements to urge said cleft side together so as to restrict the outlet formed therein whereby it is adapted to nip and frictionally clutch sheet material when it is contained in said container and being withdrawn therefrom in emergence through the outlet thereof.

Advantageously, one of the end walls of the container

may be openable and provided with a bifurcated tuck flap which is adapted to fit about and compressively contact the roll engaging flap elements when the end wall is closed. This may conveniently provide the means for urging the cleft, outlet-forming side together. Core supporting inserts may also be advantageously provided at the openable end of the container by additional tuck flaps that are adapted to extend within and engage the core of the wound supply when it is contained in the container. It is usually desirable to provide a sheet cutting means on one of the exterior edges of the container to facilitate severing withdrawn lengths of the sheet wrapping material.

There is shown in plan view in Figure 1 of the accompanying drawing a dispensing container, indicated generally by the reference numeral **10**, that is in accordance with the present invention. It is usually preferable for the container **10** to be in the form of a generally rectangular, roll-accommodating box made of cardboard, paperboard, fiberboard or like material of construction. If greater permanence is desired, however, all or portions of the container may also be fabricated of wood, metal or plastic materials. The upper or dispensing side of the container between the end walls **16** and **17** is comprised of a cleft side, generally indicated by the reference numeral **11**, that consists of the separate upper side portions **11A** and **11B** which form an outlet **12** for the sheet material **20** extending the length of the container parallel with a supply roll (not shown in Figure 1) of sheet wrapping material contained therein. A cutting strip **19** may advantageously be provided at or along one of the longitudinal edges of the container to permit severing withdrawn lengths of the sheet material on the container. The cutting strip **19** may be of any desired material and it may have a serrated or straight cutting edge, as may be preferred. It is frequently beneficial for the cutting strip to be mounted on one of the furthest edges of the container **10** from the outlet **12** to permit maximum withdrawn portions of the sheet material to be exposed from the container.

As depicted in the cross-sectional view of the container **10** in Figure 2, taken along the line **2—2** in Figure 1, a pair of divergent, resiliently hinged flap elements **25A** and **25B** depend from the cleft outlet-providing side **11** into the container. The flap element **25A** depends from the portion **11A** of the cleft side **11** and the flap element **25B** from portion **11B**. Advantageously, the flap elements **25A** and **25B** may be formed by folding over the portions **11A** and **11B** of the cleft side **11**, particularly when a cardboard container is employed, so that the flaps are integral with the container side while being positioned parallel with and near the edges of the outlet **12**. As indicated in Figure 2, the divergent flap elements **25A** and **25B** are adapted to extend over and flatly contact a supply roll **21** of the sheet material **20** wound on a suitable core **22** so as to frictionally snub and brake the supply roll when it is contained in the package. The flap elements **25A** and **25B** may also be provided for and mounted to depend from the outlet side of the container in other ways, as by the resilient hinged attachment of separate strips, as will be apparent to those skilled in the art.

An expedient means for urging the cleft side portions **11A** and **11B** together so as to restrict the outlet **12** is illustrated in the several views of the container depicted in Figures 3 through 5: Figure 3 being a fragmentary broken out plan view of the container with the cleft side **11** removed; Figure 4 being a cross-sectional view taken along the line **4—4** in Figure 1; and Figure 5 being a fragmentary perspective view of the openable end of the container in open position showing the outlet compressing means in clear perspective. Figure 6 is a plan view of the

container blank. The means, as indicated, may conveniently consist of a bifurcated tuck flap **18** on the openable end wall **17** of the container. The bifurcated tuck flap **18** is adapted to fit about and compress the depending flap elements **25A** and **25B** when the container is closed so as, in effect, to urge the portions **11A** and **11B** of the cleft side **11** together, thereby restricting the opening **12** along its length to provide the desired sheet nipping effect. The bifurcated tuck flap **18** also provides the beneficial ancillary effect, through a downward forcing action of the flap elements **25A** and **25B** that causes their more positive engagement with the wound supply package of sheet material in the container.

It is also beneficial, as mentioned, for additional core supporting tuck flaps to be available at the openable end of the container **10**. Thus, the openable tuck flaps **13F** and **14F**, which may be folded extensions of the side walls **13** and **14**, respectively, of the container, may be provided with core supporting end portions **13FS** and **14FS**, respectively, which are adapted to be folded into and fit snugly within the open end of the core **22**. Such an arrangement provides more positive support for the wound roll of sheet material in the container. In addition, it serves not only to maintain the snubbing effectiveness of the flap elements **25A** and **25B** on the wound roll, regardless of diameter changes therein due to withdrawal of the sheet material, but may also be formed to exert an individual supplemental locking and braking effect upon the supply package. The employment of such core supporting tuck flaps is an optional matter and, even when they have been provided, it is not an absolute essential to insert the ends within the core in order to achieve the satisfactory function of the container. It is usually preferable for the outlet **12** to be positioned about centrally in the cleft side **11** of the container although, if desired, it may be arranged to be at or near one of its longitudinal edges. In such cases it may be convenient for the bifurcated tuck flap to be angularly folded in the longitudinal direction of the box to better accommodate the edge position of the outlet.

A container that is in accordance with the present invention may be prepared readily by utilizing for its assembly a blank, particularly one that is comprised of cardboard or the like, which is similar or equivalent to the blank that is indicated generally by the reference numeral **10B** in Figure 6. In the blank **10B**, the flap elements **25A** and **25B** are provided as foldable lateral extensions of the portions **11A** and **11B**. These, upon assembly of the blank into the container **10**, constitute the cleft side **11**. The openable end wall **17** is an extention of the bottom portion **15** of the container and the bifurcated tuck flap **18** may be bent along the dotted lines indicated so as to fit within the assembled container about the interiorly depending flap elements **25A** and **25B**. Likewise, the core supporting tuck flaps **13F** and **14F** with the insertable ends **13FS** and **14FS** are delineated in the blank **10B**. The dotted lines, which are obviously drawn in Figure 6 to illustrate the folding operations that are required on the blank **10B** when assembling the container **10** therefrom, also define the opposite end wall **16** and the tuck flaps **11AF**, **11BF**, **13FF** and **14FF** that extend from the cleft side portions **11A** and **11B** and the sides **13** and **14**, respectively, which may conveniently be folded over and glued or stapled to one another and the end wall **16** upon assembly of the container.

Containers in accordance with the invention may be employed to completely enclose the fresh supply package of sheet material until it is ready to be used. The wound roll of sheet material in the container may be easily prepared for dispensing purposes by removing it from the container through the openable end wall, unwinding the loose end of sheet material from the roll in the container while threading the loose end through the outlet, and closing the container with the bifurcated tuck flap engaged about the roll engaging flap elements and, advantageously, with the ends of the core engaging tuck flaps inserted within the core ends of the wound supply roll. The unwinding direction of the roll is an immaterial factor in the utilization of the container.

As is apparent, the container arrangement of the present invention prevents recoil (or inadvertent withdrawal without positive tractile effort) of the withdrawn sheet material to insure that an extending portion of the sheet will remain in an accessible exposed condition after a desired length has been withdrawn and severed from the roll. In addition, the inserting operations to prepare the roll for dispensing are relatively simple and do not require a precise or critical initial disposition or preparation of the wound roll in the container to achieve advantageous subsequent results. Furthermore, the container of the present invention also assists in obtaining a better cutting or tearing action of the sheet material withdrawn from the package on the cutting means that may be associated with the container due to the positive snubbing and nipping effect exerted by the container on the contained supply of sheet material.

Dispensing containers in accordance with the present 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 great favor as a wrapping material for domestic and other uses.

What is claimed is:

1. A dispensing container for packaging a wound supply roll of sheet wrapping material, said container having elongate side walls extending between opposite enclosing end walls; a linear longitudinal cleft in one of the side walls of said container, said cleft providing an outlet for said sheet wrapping material that extends in the roll width-accommodating length of said container; a divergent pair of resiliently hinged flap elements depending interiorly in said container from said cleft side, said flap elements being positioned parallel with and near the edges of the outlet formed in said cleft side and being disposed one on each side of said outlet, each of said flap elements being integral with the portion of said cleft side from which it depends, said interiorly depending flap elements being further adapted to diverge over and frictionally snub and brake a supply roll of the sheet wrapping material when it is container in the container; and means in said container compressively engaging said flap elements to urge said cleft side together so as to restrict the outlet formed therein whereby it is adapted to nip and frictionally clutch sheet material when it is contained in said container and being withdrawn therefrom in emergence through the outlet thereof.

2. In the container of claim 1, one of the end walls being openable and said flap element engaging means being a bifurcated tuck flap on said openable end wall that is adapted to fit about and contact the roll engaging flap elements depending from said cleft side.

3. A container in accordance with the container set forth in claim 2 and including additional tuck flaps from the side walls of said container at the openable end wall thereof, said additional tuck flaps being adapted to extend within and supportingly engage the core of a wound supply package when it is contained in the container.

4. The container of claim 1 and including a sheet cutting means along one of its longitudinal exterior edges.

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

References Cited in the file of this patent

UNITED STATES PATENTS

2,115,867	McConnell	May 3, 1938
2,327,878	Ezrol	Aug. 24, 1943