Feb. 4, 1969 W. J. BURKE 3,425,606

INTEGRAL PLASTIC ROLL DISPENSER

Filed Sept. 21, 1966

Fig. 1.

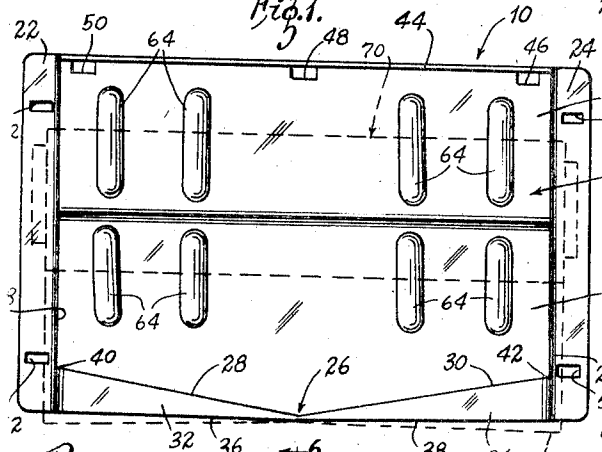


Fig. 5.

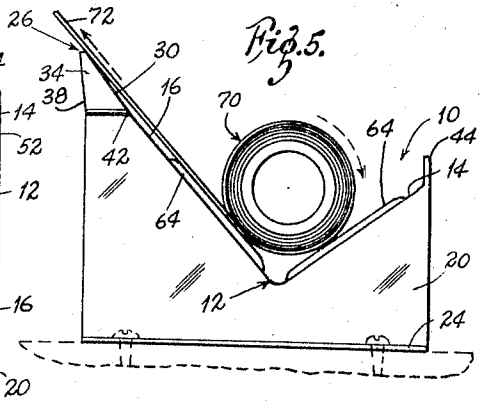


Fig. 2.

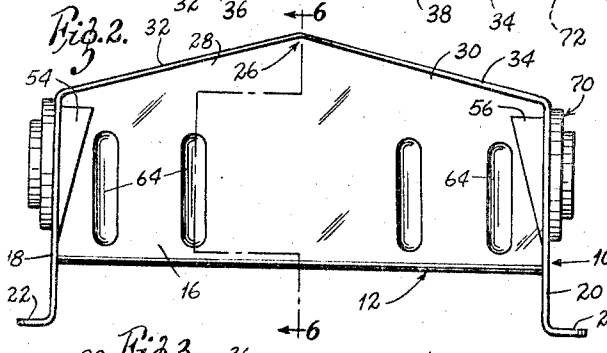


Fig. 6.

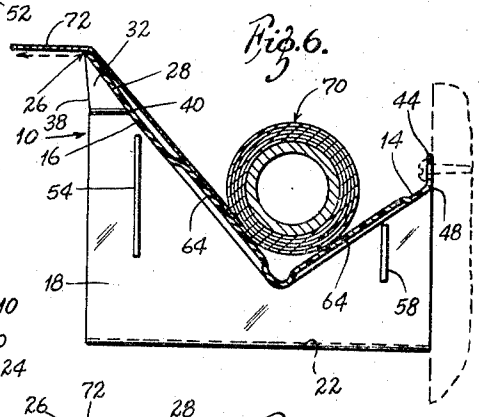


Fig. 3.

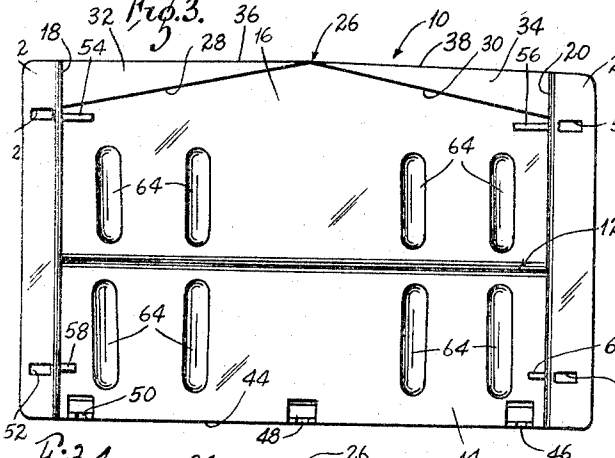


Fig. 7.

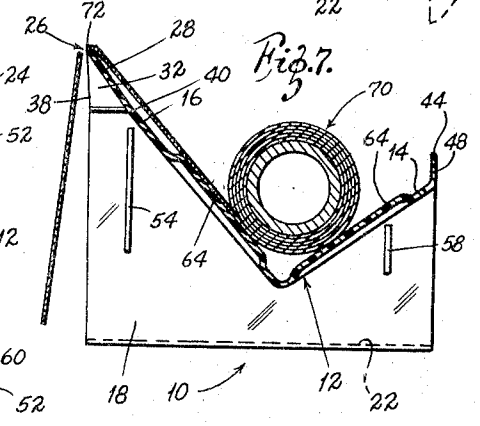
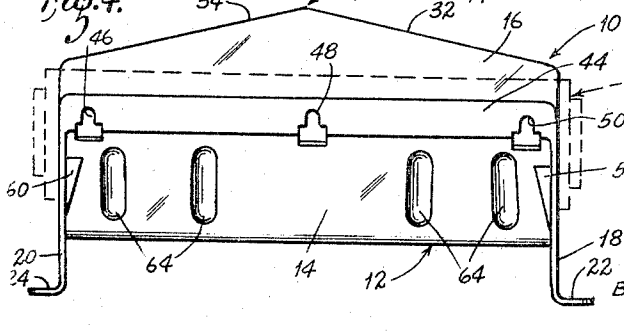


Fig. 4.



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INTEGRAL PLASTIC ROLL DISPENSER

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Int. Cl. B26f 3/02

ABSTRACT OF THE DISCLOSURE

An integral plastic dispenser for dispensing transversely scored rolls or film or foil in the form of sheets. The dispenser has a trough having converging front and rear walls receiving a roll of material in web form with an elevated point for piercing the web as it is pulled out of the trough away from the roll. Support means for the trough are provided comprising flat vertical end walls integrally connecting the front and rear walls of the trough to forwardly extending flanged extensions at the front wall of the trough. The front and rear walls of the trough are provided with longitudinally extending ribs projecting above the top surfaces of the trough walls to serve as a reinforcing means and to reduce friction on the roll. A plurality of inwardly extending ribs connect the bottom surfaces of the trough wall to the inside surfaces of the vertical support walls for reinforcement and support.

Summary of the invention

Through this invention there has been provided an integral plastic roll dispenser that can be made from conventional rigid organic plastics to provide a simple dispenser that can be supported upon a table or attached to a wall. The dispenser is provided with special rib reinforcing means that also provides a minimum of friction and a bearing surface for the roll of perforated plastic film used in the dispenser. There are special rib reinforcing means and the wall structure provides a secure box-like frame that is strong and durable and can be used with various wrapping operations in retail stores or the home, as desired. The present invention is an improvement over Patent No. 3,045,883, granted July 24, 1962.

The invention takes the form of a standard or base which may be supported upon a table or affixed to a wall as desired. The standard supports a trough comprised of two converging walls receiving the roll of sheet material, which is supported upon upwardly protruding reinforcing ribs that also provide a minimum of friction for a bearing surface to provide for easy rotation of the roll when the web is withdrawn. Piercing means is provided at the front end of the trough together with a rest flange upon which the last web rests with the protruding portion of the web for easy finding of the film in the next tearing operation. In handling very thin materials, such as saran and polyethylene films, which have a tendency to stick and adhere to flat surfaces, this film finding provision is of advantages and provides an efficient means for grasping the film in the sheet tearing operation.

The simple plastic construction whereby the dispenser is made of an integral construction, and the reinforcing means provided in the construction, presents a box-like structure which is rugged and yet simple and inexpensive in production. The dispenser can be used by untrained operators either in a household or retail store, such as

supermarkets and the like, and can be set up to a wall surface or used upon a table surface with no difficulty.

The above features are objects of this invention and further objects will appear in the detailed description which follows and will be otherwise apparent to those skilled in the art.

For the purpose of illustration, there is shown in the accompanying drawings a preferred embodiment of this invention. It is to be understood that these drawings are for the purpose of example only, however, and that the invention is not limited thereto.

In the drawings:

FIGURE 1 is a top plan view of the dispenser with a roll of film shown in dotted lines;

FIGURE 2 is a view in front elevation of the dispenser;

FIGURE 3 is a bottom plan view of the dispenser;

FIGURE 4 is a view in rear elevation of the dispenser with a roll of film shown in dotted lines;

FIGURE 5 is a view in side elevation of the dispenser taken from the left side of FIGURE 1 showing the dispenser mounted upon a flat base and further showing a first stage of the film tearing operation;

FIGURE 6 is a view in section taken on the line 6—6 of FIGURE 2 showing the dispenser mounted on a wall with the film in a second stage of tearing across the piercing means; and

FIGURE 7 is a view taken similarly to FIGURE 6 after a sheet of film has been torn apart from the roll.

The dispenser is generally indicated by the reference numeral **10**. It is comprised of a trough **12**, consisting of a rear wall **14** and a front wall **16**, which converge together to form the trough. Side walls **18** and **20** are connected to the trough and depend downwardly to form a flat bottom edge which serves as a base. This base is further reinforced or stabilized by means of side flanges **22** and **24**.

A piercing means, generally indicated by the reference numeral **26**, is formed by converging front edges **28** and **30** of the front wall of the trough, which form a point that provides the piercing means. This piercing means is further augmented by film finding means, which is comprised of two rest members connected to the side walls of the dispenser and to the front wall. These members are in the form of flanges **32** and **34**, which, as viewed perpendicularly, fall in a vertical plane at their leading edge, as well shown in FIGURE 1, by the edges **36** and **38**, respectively. The connection of the film finding flange members to the front wall of the trough and to the side wall members at the intersecting points **40** and **42**, respectively, serves further to provide a rigid box-like structure and prevent bending or breakage of the integral plastic dispenser.

As best shown in FIGURES 4 and 6, the rear wall of the trough is provided with an upwardly extending flange extension member **44**, which has openings **46**, **48** and **50** to receive a bolt or screw or the like for affixation to a vertical wall surface. Likewise, the side flange members **22** and **24** that provide an extension of the base of the dispenser are provided with a plurality of openings as shown by the reference numeral **52** in FIGURES 1 and 3 so that permanent affixation to a table surface may be provided, where desired (FIGURE 5), although it is to be understood that the dispenser itself can simply rest upon a table surface.

The dispenser is further provided with reinforcing ribs 54 and 56 that integrally connect the bottom of the front wall of the dispenser with the side wall members, as shown in FIGURES 2, 3 and 6. Likewise, there are additional reinforcing rib members 58 and 60 that connect the bottom of the rear wall of the dispenser trough with the side walls, as best shown in FIGURES 3, 4 and 6.

The reinforcing ribs on the trough that provide a friction reducing rest or bearing surface for the roll of material are generally indicated by the reference numeral 64. These ribs, which are in the nature of upwardly protruding members that are grooved on the bottom, extend perpendicularly from the axis of the trough and have a convex upper configuration, which, by the nature of its curvature, provides a point contact for support of the roll of film to reduce friction when it is moved or rotated within the trough by pulling upon the web which extends over the piercing means in the sheet perforation operation, as will be later described. The roll is shown resting upon the ribs in FIGURES 5, 6 and 7.

Use

The dispenser is shown ready for use in FIGURE 1 with the roll of film and the extended web shown in dotted lines. It will be noted that the roll of film, generally indicated by the reference numeral 70, has the web extension 72 drawn over the piercing means 26 with the leading edge protruding beyond the leading edges 36 and 38 of the film finding members. This provides for ready grasping of the protruding edge of the film so that the web can be readily grasped and then withdrawn. In the withdrawing operation, the web is pulled away from the roll in the direction of the arrows shown in FIGURE 5 and the roll of film rotates upon the rib members 64 with a minimum of friction. The sheet is withdrawn until a transverse scoring line or perforation, which divides the roll of film into sheets, is drawn over the piercing means in the manner shown in FIGURE 6. When this occurs, the tension placed upon the web in this area tears the sheet in the operation shown in FIGURE 7 and the sheet is then separated from the roll of film. The end of the web is then left in the position shown in FIGURE 1 for ready grasping in the next operation.

The dispenser may be simply connected to a table surface, as shown in FIGURE 5, where screws are connected to the flanges 22 and 24, alternatively, the dispenser may be connected to a vertical wall surface as shown in FIGURE 6 by attachment to the vertical support flange at the rear of the trough, identified by the reference numeral 44.

It will be noted that the front wall 16 of the trough extends higher than the rear wall 14 of the trough by a substantial amount. This aids in the operation of the tearing of the perforation and the separation of the sheet from the web of roll material, since tension is increased by this relative positioning of the walls of the trough. Since the piercing means is located substantially above the roll of material, a pull in a generally horizontal direction or a direction below the plane of the front wall of the trough places a great amount of tension as the web of material passes over the piercing means.

In the operation of the dispenser of this invention it has been made particularly advantageous for the separation of very thin sheets of material such as polyethylene from the roll material. Such sheets as polyethylene, for example, are well known as being difficult to separate from the roll because of the tendency to cling to flat surfaces. There are a number of explanations for this including the attraction caused by static electricity, the thinness of the material, and other reasons. However, suffice it to say, this material is quite difficult to separate into sheet form from roll material or to pick up from flat surfaces and the roll dispenser of the instant invention has provided a very simple device for this operation.

Various changes and modifications may be made within this invention as will be readily apparent to those skilled in the art. Such changes and modifications are within the scope and teaching of this invention as defined by the claims appended hereto.

What is claimed is:

1. An integral organic plastic dispenser for dispensing transversely scored material in the form of sheets, said dispenser comprising a trough having converging front and rear walls for receiving a roll of material in web form, said trough having means elevated with respect to the trough for piercing the web along a transverse scoring as the web is pulled out of the trough and across the piercing means, said piercing means comprising converging front edges on the front wall defining a point over which the web is pulled to pierce it along a transverse scoring line, and support means for said trough comprising flat vertical support walls at each end of the trough and integrally connecting the front and rear walls of the trough, said support walls extending beyond the side portions of the front edges of the front wall and connected to forwardly extending flanged extensions at the front edge of said front wall, said extensions being oppositely disposed and serving as a film rest for the front end of the web portion connected to the roll while leaving the end exposed for ready handling in the next sheet tearing operation.

2. An integral organic plastic dispenser for dispensing transversely scored material in the form of sheets, said dispenser comprising a trough having converging front and rear walls for receiving a roll of material in web form, said trough having means elevated with respect to the trough for piercing the web along a transverse scoring as the web is pulled out of the trough and across the piercing means, said piercing means comprising converging front edges on the front wall defining a point over which the web is pulled to pierce it along a transverse scoring line, and support means for said trough comprising flat vertical support walls at each end of the trough and integrally connecting the front and rear walls of the trough, said front and rear walls of the trough being provided with longitudinally extending ribs projecting above the top surfaces of the walls to serve as a reinforcing means and to reduce friction on the roll.

3. The dispenser of claim 2 in which the ribs are formed from the integral wall material with a groove on the bottom surface of the wall underlying an upwardly protruding longitudinally extending rib having a cross-section of a convex configuration.

4. An integral organic plastic dispenser for dispensing transversely scored material in the form of sheets, said dispenser comprising a trough having converging front and rear walls for receiving a roll of material in web form, said trough having means elevated with respect to the trough for piercing the web along a transverse scoring as the web is pulled out of the trough and across the piercing means, said piercing means comprising converging front edges on the front wall defining a point over which the web is pulled to pierce it along a transverse scoring line, and support means for said trough comprising flat vertical support walls at each end of the trough and integrally connecting the front and rear walls of the trough, said support walls having outwardly extending flanges to provide an extensive rest surface for the dispenser when supported on a table or the like.

5. The dispenser of claim 1 in which the flanged extensions extend from the point to the vertical wall support at each end of the trough and a strong joint is formed by the junction of the front wall of the trough, the vertical wall support and the flanged extension at each end of the trough.

6. The dispenser of claim 5 in which the front and rear walls of the trough are provided with longitudinally extending ribs projecting above the top surfaces of the walls to serve as a reinforcing means and to reduce friction on the roll, said ribs being formed from the integral wall material with a groove on the bottom surface of the wall underlying an upwardly protruding longitudinally extending rib having a cross-section of a convex configuration,

said dispenser being further provided with a plurality of inwardly extending ribs connecting the bottom surfaces of the trough walls to the inside surfaces of the vertical support walls.

7. An integral organic plastic dispenser for dispensing transversely scored material in the form of sheets, said dispenser comprising a trough having converging front and rear walls for receiving a roll of material in web form, said trough having means elevated with respect to the trough for piercing the web along a transverse scoring as the web is pulled out of the trough and across the piercing means, said piercing means comprising converging front edges on the front wall defining a point over which the web is pulled to pierce it along a transverse scoring line, and support means for said trough comprising flat vertical support walls at each end of the trough and integrally

connecting the front and rear walls of the trough, said dispenser being provided with a plurality of inwardly extending ribs connecting the bottom surfaces of the trough walls to the inside surfaces of the vertical support walls.

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JAMES M. MEISTER, *Primary Examiner.*

U.S. Cl. X.R.

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