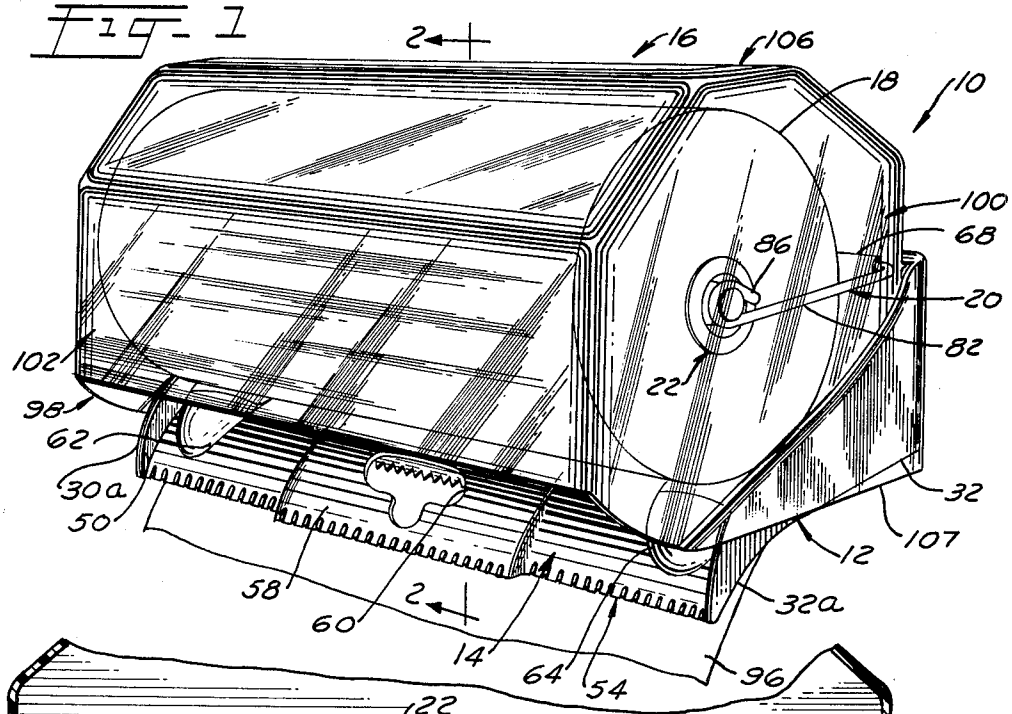
March 16, 1965 E. B. BAHNSEN 3,173,590

DISPENSER FOR ROLLED MATERIAL

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Fig. 1



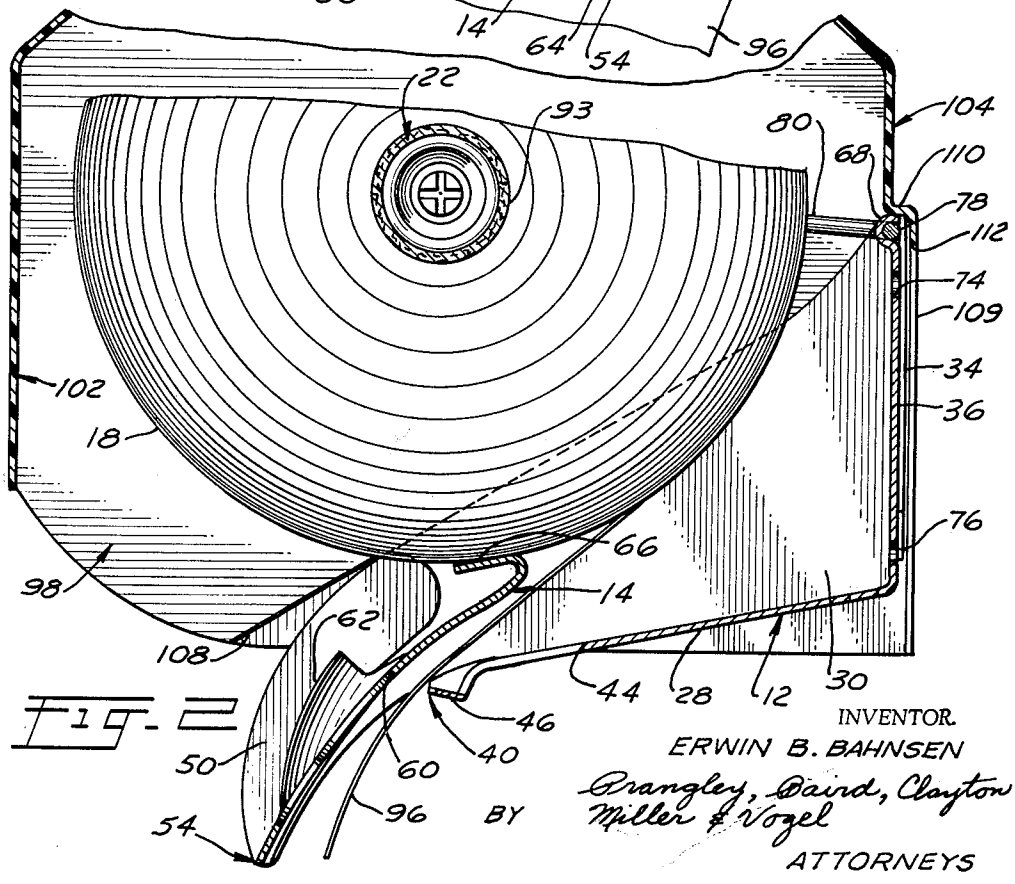


Fig. 2

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DISPENSER FOR ROLLED MATERIAL

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Fig. 3

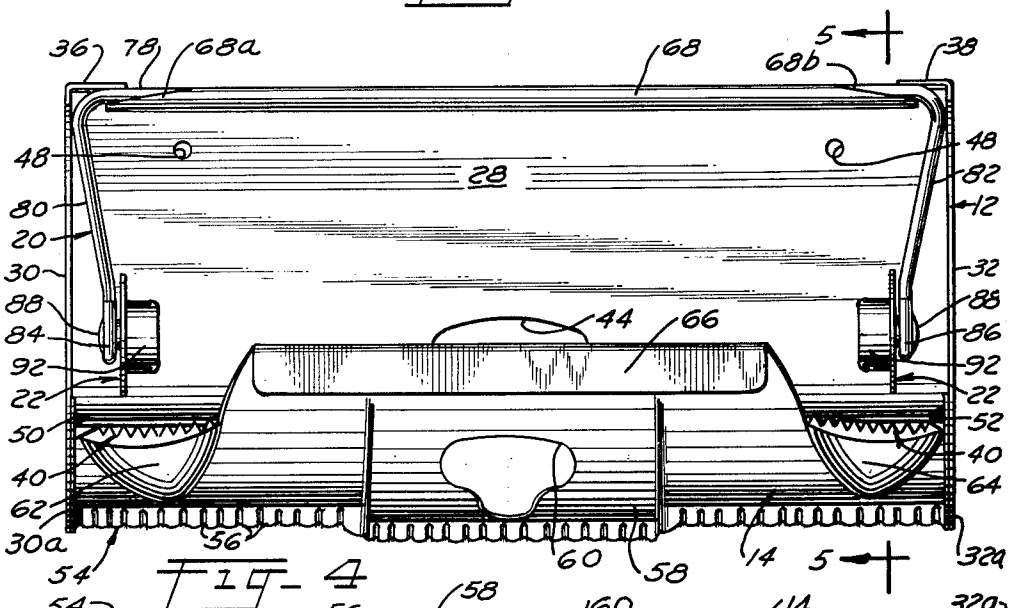


Fig. 4

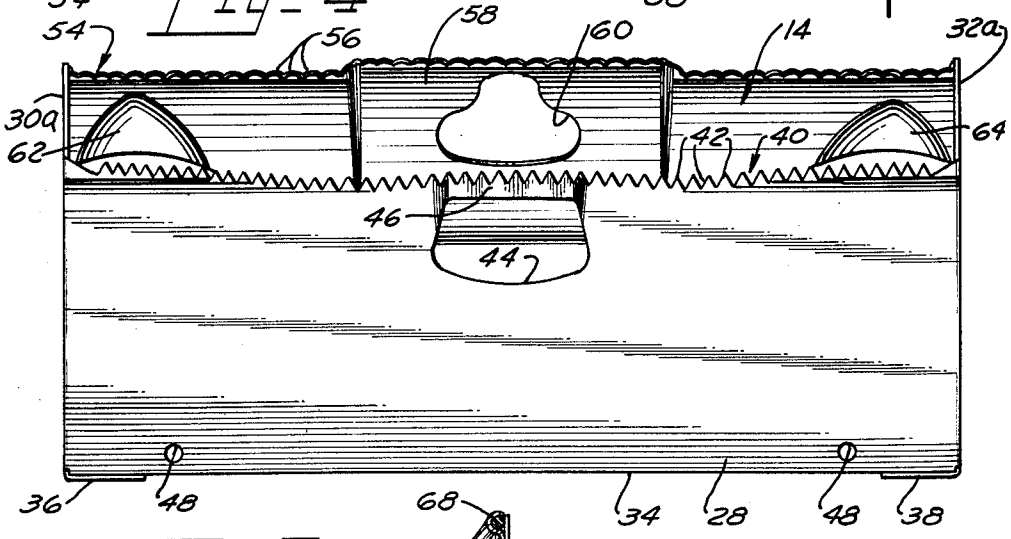
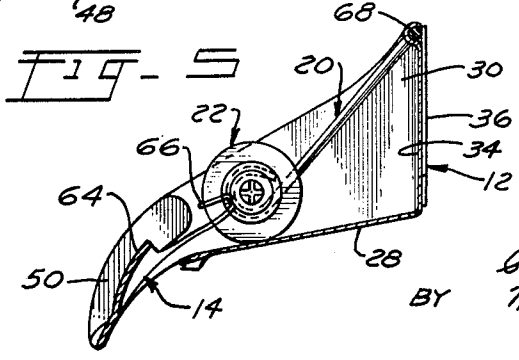


Fig. 5



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DISPENSER FOR ROLLED MATERIAL

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Fig. 6

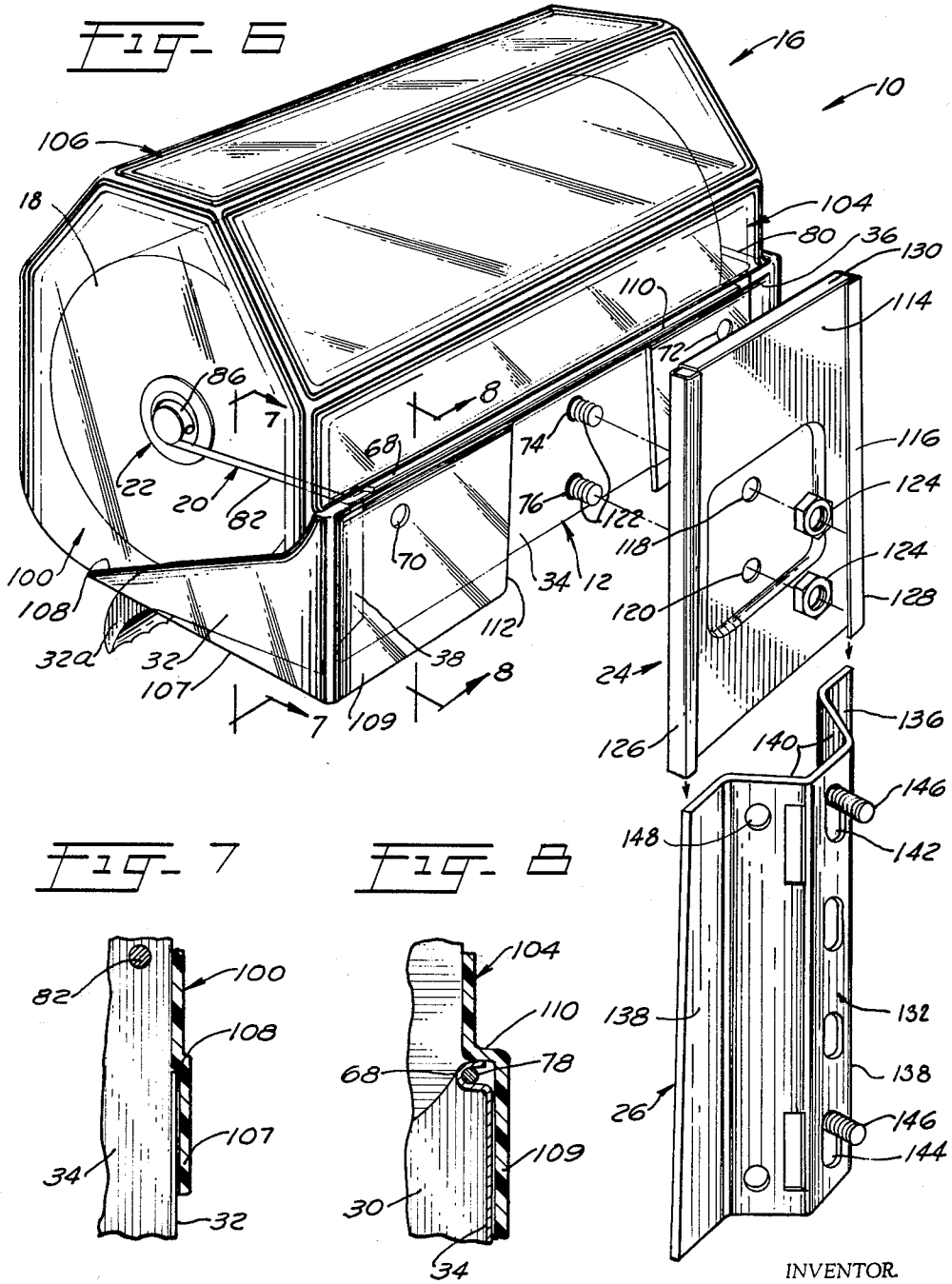


Fig. 7

Fig. 8

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DISPENSER FOR ROLLED MATERIAL

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4 Claims. (Cl. 225—33)

This invention relates to a dispenser for rolled sheet material such as, for example, absorbent material which may be severed into lengths for use as paper towels and the like.

An important object of the invention is to provide a very inexpensive yet serviceable dispenser for rolled sheet material such as rolls of absorbent paper.

Another object is to provide a dispenser for rolled material which is suited for use in homes, offices, shops, filling stations, and other places where a convenient source of paper toweling or other sheet material is desirable, which is relatively small and compact while holding a sizable roll of material, which is easily and rapidly mounted at any desired location, and which is portable in nature and may be moved from one location to another without difficulty.

An additional object is to provide a dispenser which functions to dispense lengths of material from a roll of the material, easily and reliably, while being constructed of relatively few parts. More particularly, it is an object to provide a dispenser constructed of parts which may be stamped, bent, molded, or otherwise formed in one piece, including parts which perform multiple functions.

A further object is to provide a dispenser adapted for severing lengths of sheet material from a roll thereon, and particularly, having cutting means disposed for severing the material by pulling upwardly or downwardly on a portion of the material extending from the dispenser.

These and other objects, advantages, and functions of the invention will be apparent on reference to the specification and to the attached drawings illustrating a preferred embodiment of the invention, wherein like parts are identified by like reference symbols in each of the views, and wherein:

FIGURE 1 is a front perspective view of a dispenser with a roll of paper toweling mounted therein;

FIG. 2 is an enlarged partial cross-sectional view thereof taken on line 2—2 of FIG. 1;

FIG. 3 is a top plan view of the dispenser with its cover removed;

FIG. 4 is a bottom plan view thereof;

FIG. 5 is a cross-sectional view thereof taken on line 5—5 of FIG. 3, on a reduced scale;

FIG. 6 is a partly exploded rear perspective view showing the dispenser, a roll of sheet material mounted therein, a mounting plate therefor, and a mounting bracket;

FIG. 7 is an enlarged fragmentary sectional view taken on line 7—7 of FIG. 6; and

FIG. 8 is an enlarged fragmentary sectional view taken on line 8—8 of FIG. 6.

Referring to the drawings, especially FIGS. 1 and 6, the preferred illustrative embodiment of the dispenser 10 is made up of a holder or container including a tray 12, an apron or partition 14 secured on the tray, and a cover 16 seated on the tray. A roll 18 of absorbent paper or other sheet material is revolvably supported on the partition within the holder. The roll is held in dispensing position by a bail 20 and hubs 22 rotatable thereon. The dispenser 10 is adapted to be secured to a mounting plate 24. The mounting plate is engageable with a mounting bracket 26, which may be secured in any desired location for mounting the dispenser thereon.

Referring also to FIGS. 2–4, the tray 12 includes a bottom wall 28, a pair of spaced parallel upstanding side walls 30 and 32, and an upstanding back wall 34. The bottom wall is inclined downwardly and forwardly in the normal position of the holder, wherein the back wall extends vertically adjacent to a suitable support. The tray is formed integrally in one piece of rigid material such as sheet metal or other suitable material of construction. Thus, in the illustrative embodiment, the side walls 30 and 32 and the back walls 34 are bent upwardly from the bottom wall 28. Rear marginal portions 36 and 38 of the respective side walls 30 and 32 are bent inwardly to overlap the back wall, and they are secured to the back wall by suitable means such as welding or brazing.

The bottom wall 28 is provided with a slightly undulated forward cutting edge 40 extending from one side wall 30 to the opposite side wall 32. The cutting edge is composed of a continuous succession of saw teeth 42. A finger-receiving opening 44 is formed in the bottom wall, and it is disposed centrally between the side walls and adjacent to the cutting edge. The marginal wall portion 46 between the opening and the cutting edge is depressed and inclined upwardly and forwardly. Two small holes 48 are also provided in the bottom wall, adjacent to the back and side walls, and they may be used to receive fastening means for mounting the dispenser if desired.

The side walls 30 and 32 extend downwardly and forwardly along their upper edges. They terminate in respective relatively narrow downwardly curved front portions 30*a* and 32*a* of crescent shape at their ends, which extend forwardly beyond and downwardly from the bottom wall cutting edge 40. The partition or apron 14 extends over the bottom wall 28 in spaced apart relation thereto so as to provide a throat through which the sheet material from the roll 18 is led. The partition 14 extends forwardly from a position overlying part of the finger-receiving opening 44 in the bottom wall, to the front margins of the side wall portions 30*a* and 32*a*. The partition curves downwardly and forwardly adjacent to the lower edges of the side wall portions 30*a* and 32*a* and having a similar curvature, and extends below the bottom wall cutting edge 40. The partition is constructed of a single piece of rigid sheet metal or other suitable material of construction. Opposite side marginal portions 50 and 52 of the partition are bent upwardly and secured to the inner surfaces of the front side wall portions 30*a* and 32*a*, respectively, by suitable means such as welding or brazing.

The partition 14 is provided with a cutting edge 54 extending along its front margin from one side wall 30 to the opposite side wall 32. The margin is crimped to provide a continuous succession of cutting teeth 56 therealong. A central portion 58 of the partition extending rearwardly from the front margin is elevated with respect to the adjacent portions. The elevated portion is aligned with and somewhat wider than the depressed portion 46 and the adjoining finger-receiving opening 44 in the bottom wall 28. A finger-receiving opening 60 is formed centrally in the elevated portion of the partition and is adjacent to its cutting edge 54. Convex elevated rear marginal portions 62 and 64 are formed on the partition, having their greatest curvature at the rear margin thereof and converging forwardly to merge with the front marginal portions. The central section of the partition extends rearwardly beyond the elevated marginal portions, and is bent back over itself to form a downwardly and forwardly inclined supporting flange 66.

The back wall 34 of the tray terminates at its upper margin in a rearwardly directed channel 68 (see especially

FIG. 8), which is formed by bending the marginal portions. As seen in FIG. 3, the channel wall includes side marginal portions **68***a* and **68***b* which taper inwardly and towards the sides. As seen in FIG. 6, the back wall is provided with two small horizontally aligned mounting holes **70** and **72** disposed near the respective upper corners of the wall, and with two vertically aligned spaced mounting holes **74** and **76** disposed centrally with respect to the opposite sides of the wall.

The bail **20** has a generally U-shaped configuration, and includes a cross piece **78** and two arms **80** and **82** integral with opposite ends thereof and converging therefrom towards each other (see FIG. 3). The arms terminate in respective loops **84** and **86**. The cross piece is pivotally mounted in the back wall channel **68**, being snapped in place between the tapered portions **68***a* and **68***b* of the channel and the adjacent upper ends of the bent side wall portions **36** and **38** overlying the back wall. Mounting pins **88** on the hubs **22** are revolvably received in the loops **84** and **86** at the outer ends of the bail arms. The hubs include inwardly extending circular tubular supporting sections **92** which are received in frictional engagement within the usual core tube **93** of the roll **18**, as illustrated in FIGS. 1, 2 and 6. In this manner, the roll is revolvably held by the bail.

As seen in FIG. 2, the roll **18** rests on the partition flange **66** and turns thereon while the flange provides frictional resistance to turning. The axis of the hubs **22** and of the roll is located forwardly of the rear margin of the flange **66** when in use, and the flange is downwardly and forwardly inclined, so that the roll remains in position on the flange as sheet material is dispensed and until the roll is consumed. FIGS. 3 and 5 illustrate the rest positions of the bail **20** and the hubs **22** with no roll thereon.

Sheet material **96** from the roll **18** is inserted between the partition **14** and the bottom wall **28**, as seen in FIG. 2. The material may be moved along by inserting a finger from beneath through the bottom wall opening **44**, and pressing the material against the back of the partition while moving the finger. The sheet material may be pulled farther out by inserting one finger under the protruding material, inserting another finger from above into the partition finger opening **60**, and then engaging the material between the fingers and pulling. The depressed marginal bottom wall portion **46** and the elevated central partition portion **58** serve to prevent the front edge of the sheet material from catching on their edges adjacent the respective finger openings **44** and **60**. In some cases, the edges of the roll **18** may be found to be wavy or torn as a result of handling. The rear marginal elevated portions **62** and **64** of the partition accommodate such irregularities, and they channel the edges evenly between the partition and the bottom wall.

With the sheet material **96** extending from the dispenser between the cutting edges **40** and **54**, the loose end of the material is grasped and pulled either downwardly or upwardly, to sever a length of material alternatively on either of the cutting edges. The material may be neatly severed on the bottom wall edge **40**. The close spacing of the partition **14** and the cutting edge **40** on the bottom wall, and the downturned projecing portion of the partition cooperate to provide clean severance of a length of material on the partition edge **54**. Additional material is removed in the same manner by grasping the loose end which remains on the roll, making use of one or both of the finger openings **44** and **60**.

The cover **16** is employed for protective and decorative purposes. However, it may be dispensed with when the the holder is mounted in enclosed places. The cover is a multi-sided one-piece structure which substantially completely covers the roll **18** while affording clearance for severing sheet material pulled upwardly against the partition cutting edge **54**. In the illustrative preferred embodiment, the cover is constructed of molded plastic material. The cover seats on top of the side walls **30** and **32** and the back wall **34**, to provide a covering and surrounding enclosure for the roll and the tray. The cover includes a pair of spaced parallel upstanding side walls **98** and **100**, an upstanding front wall **102**, and an upstanding back wall **104** which is generally parallel to the front wall. The upstanding walls are integrally joined by a three-sided top wall **106**.

As seen most clearly in FIG. 7, the side wall **100** of the cover, and similarly the opposite side wall **98**, includes an outwardly extending shoulder or ledge **108** and an outwardly offset lower section **107** below the shoulder. The shoulder follows the contour of the upper edge of the tray side wall **32**, up to the curving forward portion **32***a* thereof. Consequently, the side walls of the cover may be seated on the upper edges of the tray side walls, while the lower sections of the cover overlie the tray. Similarly, as seen most clearly in FIG. 8, the back wall **104** of the cover includes an outwardly extending shoulder **110** and an outwardly offset lower section **109** below the shoulder. The shoulder seats on the upper wall of the channel **68** on the tray back wall **34**, while the lower section overlies the tray. The cover is mounted on the tray simply by lowering the cover until it seats on the tray in the foregoing manner. The cover is removed by lifting it off of the tray.

Referring to FIG. 6, a central slot or opening **112** is provided in the lower section **109** of the back wall of the cover. The slot exposes the mounting holes **74** and **76** in the tray back wall **34**. The mounting plate **24** includes a rectangular body **114** having a central protruding rectangular section **116**. Two mounting holes **118** and **120** are provided in spaced vertically aligned relation in the section. The protruding section is received within the slot **112** in the cover, with the respective tray and mounting plate holes **74** and **118**, and **76** and **120** in register. Bolts **122** are inserted through the openings and secured by nuts **124**, to connect the mounting plate to the dispenser **10**.

The mounting plate **24** also includes vertical channels **126** and **128** along the opposite side edges thereof, extending rearwardly from the body **114**, and facing inwardly. The body is surmounted by a horizontal rearwardly extending stop flange **130**. The channels and the flange are integrally formed in one piece with the body **114**.

The mounting bracket **26** is an elongated shaped plate member which includes a transversely arched multi-sided body section **132** and integral rectangular side sections **134** and **136**. The arched section includes a central rectangular section **138** in a plane parallel to the side sections, and diverging rectangular sections **140** on opposite sides thereof. Mounting holes as indicated at **142** and **144** are provided in the central section **138**, and bolts or screws as represented at **146** may be inserted therethrough for securing the mounting bracket to a suitable support, not shown. Alternatively, other mounting holes and slots on the body section **132**, such as indicated respectively at **148** and **150**, may be employed for securing the mounting bracket on support means.

The dispenser **10** with the mounting plate **24** fastened thereto is securely mounted on the mounting bracket **26** merely by lowering the mounting plate on the bracket to receive the edges of the side section **134** and **136** in the respective channels **126** and **128**. The stop flange **130** on the mounting plate limits the relative movement of the plate and bracket. The dispenser is removed by lifting it to slide the mounting plate off of the bracket. The dispenser can be moved to another location provided with mounting means such as the bracket **132**, and if desired, the bracket also can be moved with ease.

The invention thus provides a dispenser for paper toweling and the like which is uncomplicated and inexpensive while performing its functions conveniently and reliably. The dispenser holds a large supply of material and yet is very compact. It is well suited for use in homes, offices, and various other places, where it may be

installed in any desired location and moved about at will.

While a preferred embodiment of the dispenser has been illustrated and described, various changes and modifications may be made therein while still accomplishing the objects of the invention. It is intended that such changes and modifications be included within the scope of the appended claims.

I claim:

1. A dispenser for dispensing sheet material, such as paper toweling, from a roll thereof, comprising: a bottom wall having a forwardly projecting first cutting edge thereon; a first finger opening in said bottom wall spaced rearwardly of said first cutting edge; an apron overlying at least a portion of said bottom wall and said first cutting edge and spaced therefrom to provide a throat through which said sheet material may be dispensed, said apron having an imperforate rear portion overlying said first finger opening and having a front portion extending well ahead of said bottom wall and said first cutting edge; a second cutting edge on the forward extremity of said front portion of said apron; a second finger opening in said front portion of said apron, said second finger opening being spaced rearwardly of said second cutting edge and forwardly of said first cutting edge; and means for rotatably supporting the roll of sheet material in position wherein the sheet material therefrom may pass through said throat, said first finger opening serving to permit the operator to feed a desired length of the sheet material through said throat by working the sheet material, with his finger, forwardly and against said imperforate rear portion of said apron, and said second finger opening permitting the operator to withdraw the sheet material by

gripping the same between a pair of his fingers, whereupon the operator may sever the withdrawn sheet material across either said first cutting edge or said second cutting edge.

2. The combination set forth in claim 1, wherein said means for supporting the roll includes a surface on said apron upon which the roll rests by gravity, the friction between said surface and the roll serving to brake the rotation of the roll during withdrawal of the sheet material.

3. The combination set forth in claim 1, wherein that portion of said bottom wall defining the forward edge of said first finger opening is depressed with respect to adjacent portions of said bottom wall, and the area of said front portion of said apron about said second finger opening is elevated with respect to adjacent areas of said front portion of said apron, thereby to prevent the sheet material from catching in said openings during the feeding of said sheet material past said openings.

4. The combination set forth in claim 1, wherein said apron is provided with a pair of spaced apart convex forwardly convergent elevated rear marginal portions for accommodating irregularities that may be encountered in the lateral edges of the sheet material.

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