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Improvement in or relating to a dispenser for
sheet materials.

5 THE PRESENT INVENTION relates to a dispenser for
sheet materials.

10 Several types of dispensers for dispensing and
tearing or cutting desired lengths from a roll of sheet
material such as aluminium foil or plastics wrapping
film are known. Exemplary of this art are U.S. Patents
2,657,873; 3,221,586; 3,542,268; 3,567,087; and
15 4,043,519. An example of a typical prior art dispenser
comprises a paper box which contains a roll of sheet
material to be dispensed and has a rigid tooth cutting
edge attached to an edge of the box. The sheet material
is unrolled to the desired length and torn by pressure
20 across the rigid cutting edge. Such a dispenser often
produces an uneven cutting or tearing of the sheet
material or a ripping effect caused by pulling of the
sheet material at the same time as cutting occurs. The
box containing the sheet material is often not of
sufficient strength to withstand the forces created
25 by tearing the sheet material and can collapse before
the entire roll of sheet material has been dispensed.
In addition, such prior art dispensers often must be
handheld while cutting or dispensing the sheet material,
making the cutting operation cumbersome and further
increasing the risk of an uneven or ragged cut.

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An object of the present invention is to provide

a new and improved dispenser for dispensing a sheet of a desired length from a roll of sheet material.

In one aspect, the invention provides a dispenser for sheet material, comprising a housing that defines at least one compartment for receiving a roll of such sheet material; a cover pivotally mounted on said housing, at a rear edge thereof, and pivotable from a first position covering said compartment to a second position exposing said compartment; a rib defined within said compartment and spaced from a front wall of the compartment to form a slot; and a cutting edge on said cover that is spaced from said rear edge and is positioned to cooperate with said rib and said front wall to hold and sever said sheet material as said cover moves from its second position to said first position.

Desirably, the compartment defines first and second sub-compartments for receiving respectively, first and second rolls of sheet material. In this case, a dividing wall may separate said first sub-compartment and said second sub-compartment.

Preferably, a pair of spaced-apart ribs are positioned on said cover and depend therefrom to hold sheet material from said second roll between said dividing wall and said cover while said sheet material is being severed by said cutting edge.

Advantageously said cutting edge comprises alternating short and long cutting teeth. Alternatively said cutting edge may comprise a triangular, serrated edge. Conveniently said cutting edge is positioned proximate a front edge of said cover and, preferably the axis of rotation of said cutting edge is generally parallel to said cutting edge. Advantageously said

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sheet material is pinched by the cutting edge and the

(b)
r1b.

In order that the invention may be more readily understood, and so that further features thereof may be appreciated, embodiments of the invention will now be described by way of example and with reference to the accompanying drawings, in which:

FIGURE 1 is a perspective view of a dispenser in accordance with the present invention;

FIGURE 2 is a perspective view of the dispenser of Figure 1 mounted on a wall or door;

FIGURE 3 is an enlarged partial cross-sectional view taken generally along the line 3-3 in Figure 2, but showing one door of the dispenser in its open position;

FIGURE 4 is an enlarged, partial plan view of the embodiment shown in Figure 1, showing both doors open;

FIGURE 5 is an enlarged partial cross-sectional view showing a roll of sheet material about to be cut; and

FIGURE 6 is a view of another embodiment of a cutting device useful with the present invention.

Referring to the drawings, a dispenser constructed in accordance with the present invention is generally indicated at 10. The dispenser 10, conveniently made by conventional plastics moulding techniques, may be employed as a permanent dispenser for dispensing sheets of a desired length from one or more rolls of sheet material, such as aluminium foil or plastics

wrapping film. The dispenser 10 may be placed horizontally on a counter, as shown in Figure 1, or may be mounted vertically on the back on a door or on a wall 12, as shown in Figure 2.

5 As shown in Figures 1 to 5, the dispenser 10 includes a generally rectangular housing 14 having a front wall 16, a rear wall 18, a first side wall 20, a second side wall 22 and a bottom. A wall 24 divides the rectangular housing 14 into first and second compartments. In addition, parallel walls 26 and 28 respectively divide each of the first and second
10 compartments, defined by the wall 24, into two more compartments resulting in four equally sized compartments 30, 32, 34 and 36. It should be understood, however, that any number of compartments may be provided through the employment of walls or partitions similar to walls 24, 26 and 28 and that these compartments may be of the same or differing sizes.
15 Apertures 38 are defined in the bottom of the housing 14 to allow mounting of the housing 14 onto a wall or door 12. Rolls of various types of sheet material may be received within each of the compartments 30, 32, 34 and 36.

20 A first cover 42, that is adapted to cover the compartments 34 and 36, is pivotally mounted on the side walls 20, 22 of the housing 14 in the region of the junction between the wall 24 and these side walls. The first cover 42 is mounted on the side walls 20, 22 by means of extensions 46 and 48, respectively, that receive pivot pins 50. Similarly, a second cover 44,
25 that is adapted to cover the compartments 30 and 32, is mounted on the housing 14, in the region of the rear wall 18, by extensions 52 and 54 and pivot pins 56.

30 In order to enable desired lengths of sheet material to be cut from a roll 40 located in either of the compartments 34 and 36, a cutting edge 58, conveniently arranged generally perpendicularly to its cover 42, and generally parallel to the axis of rotation of the cover, is provided near the forward or free edge of the cover 42. The cutting edge 58 conveniently includes alternating long teeth 60 and short teeth 62, as is best seen in
35 Figures 1 and 4. By providing the cutting edge 58 with alternating teeth 60 and 62 less pressure is required to be applied to the cover 42 in order to cut the sheet material on the rolls 40. This is due to the fact that initially the

long teeth 60 cut into the sheet material and once these teeth 60 have punctured the sheet material, the shorter teeth 62 start to puncture the sheet material, thus distributing the force required over two steps. In an alternative embodiment illustrated in Figure 6, the cutting edge 58A may be triangular in shape having a serrated cutting surface 65.

A rib 66 extends between the side walls 20 and 22 of the housing 14 and is spaced slightly from the front wall 16 at the upper edge thereof. The cutting edge 58, upon closing of the cover 42, is received between the front wall 16 and the rib 66. The rib 66 provides a pinching and holding surface against which a sheet of material may be pinched and held during a cutting operation. This assures that the sheet material does not slip as pressure is applied to it by the cutting teeth 58, thus avoiding a ragged and uneven cut edge of the sheet material. Similarly, the cover 44 is provided with a cutting edge 64 having alternating long and short teeth 60, 62 that co-operate with a rib 68, provided in the compartment 32, in the same manner as described above.

The cover 42 also includes a pair of downwardly projecting parallel ribs 70 and 72 that are so positioned as to lie adjacent opposite sides of the wall 26 when the cover 42 is closed upon the housing 14. The ribs 70 and 72 function to hold and pinch a sheet material pulled from a roll 40 contained in the compartment 34 during the cutting operation of that sheet material by the cutting edge 58. The ribs 70 and 72 provide a function similar to the rib 66 in preventing a jagged or uneven cut edge of the sheet material and also act to frictionally secure the cover 42 in its closed position. Similarly, cover 44 includes ribs 74 and 76 that co-operate with the wall 28 in the same way that the ribs 70 and 72 co-operate with the wall 26 to ensure an even cut line along a sheet material dispensed from the roll 40 contained in the compartment 30. As shown in Figure 5, contact between the wall 28 and ribs 74 and 76 or between the wall 28 and ribs 70 and 72 conveniently does not occur until a short time after the cutting edge 58 contacts the sheet material and begins to enter the gap between the rib 66 and the front wall 16 which receives the cutting edge 58.

If desired, inserts (not shown) may be provided to engage the ends of the rolls 40 and act as stub axles to facilitate rotation of the rolls 40 while

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preventing them from falling out of the compartments 30, 32, 34 and 36, for example when the housing is vertical as shown in Figure 2.

5 The dispenser 10 has been found to provide a structure that provides a straight, even cut line when a sheet of material is dispensed from a roll. The dispenser 10 may be placed on a counter or secured to a wall or door or similar structure for easy use. In addition, during the tearing operation, the covers 42 and 44 of the dispensing device 10 hold the rolls 40 in their respective compartments 30, 32, 34 and 36 thus preventing the rolls from
10 being pulled out from their respective compartments by the force of the cutting operation.

 A complete dispensing operation may comprise the following steps: initially with cover 44 or 42 open, the free edge of a sheet material is fed
15 from a compartment 30 or 34 over the wall 28 or 26 and over the rib 68 or 66, as shown in Figure 5, until the desired length of material extends outwardly of the housing 14; the cover 44 or 42 is then closed causing the cutting edge 58 to engage and then shear the sheet material between the rib 68 and wall 24 or the rib 66 and wall 16. The sheet material is held
20 stationary by the pinching action of by the rib 68 or 66. Shortly afterward the ribs 74, 76 or 70, 72 pinch the sheet material intermediately along its extension from its roll 40, on a wall 28 or 26.

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CLAIMS:

1. A dispenser for sheet material, comprising a housing that defines at least one compartment for receiving a roll of such sheet material; a cover pivotally mounted on said housing, at a rear edge thereof, and pivotable from a first position covering said compartment to a second position exposing said compartment; a rib defined within said compartment and spaced from a front wall of the compartment to form a slot; and a cutting edge on said cover that is spaced from said rear edge and is positioned to cooperate with said rib and said front wall to hold and sever said sheet material as said cover moves from its second position to said first position.
2. A dispenser according to Claim 1, wherein said compartment defines first and second sub-compartments, a first sub-compartment for receiving a first roll of sheet material and a second sub-compartment, for receiving a second roll of sheet material.
3. A dispenser according to Claim 2, wherein a dividing wall separates said first sub-compartment and said second sub-compartment.
4. A dispenser according to Claim 3, wherein a pair of spaced-apart ribs are positioned on said cover and depend therefrom to hold sheet material from said second roll between said dividing wall and said cover while said sheet material is being severed by said cutting edge.
5. A dispenser according to any one of Claims 1 to 4, wherein said cutting edge comprises alternating short and long cutting teeth.



6. A dispenser according to any one of Claims 1 to 4, wherein said cutting edge comprises a triangular, serrated edge.
 7. A dispenser according to any one of Claims 1 to 6, wherein the axis of rotation of said cutting edge is generally parallel to said cutting edge.
 8. A dispenser according to any one of Claims 1 to 7, wherein said sheet material is pinched by the cutting edge and the rib.
 9. A dispenser according to any one of Claims 1 to 8, further comprising two or more such compartments, a ~~said~~ cover being associated with each compartment.
 10. A dispenser substantially as herein described with reference to, and as shown in, Figures 1 to 5 of the accompanying drawings.
 11. A dispenser according to Claim 9, modified substantially as herein described with reference to, and as shown in, Figure 6 of the accompanying drawings.
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