United States Patent

[11] 3,542,268

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[54] **FILM DISPENSER WITH SERRATED PIERCING BLADE**
2 Claims, 5 Drawing Figs.

[52] **U.S. Cl.** **225/9,** 225/77, 225/91
[51] **Int. Cl.** **B26f 3/02**
[50] **Field of Search** 225/9, 77, 91, 67

[56] **References Cited**

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ABSTRACT: A dispenser for tearing sheets of a desired length from a roll of aluminum foil or plastic wrapping film. The dispenser is constructed of a trough receiving the roll of film and a forward wall with a serrated cutter extending from one side of the wall to the other. The serrated cutter has converging sides so as to present a generally triangular configuration with a central piercing means or point adapted to cut in to the center of the web and start the tear along the serrated teeth. The serrated cutting element is angled with respect to the front wall to provide an acute angle presentation of the web material to facilitate the serrating operation.

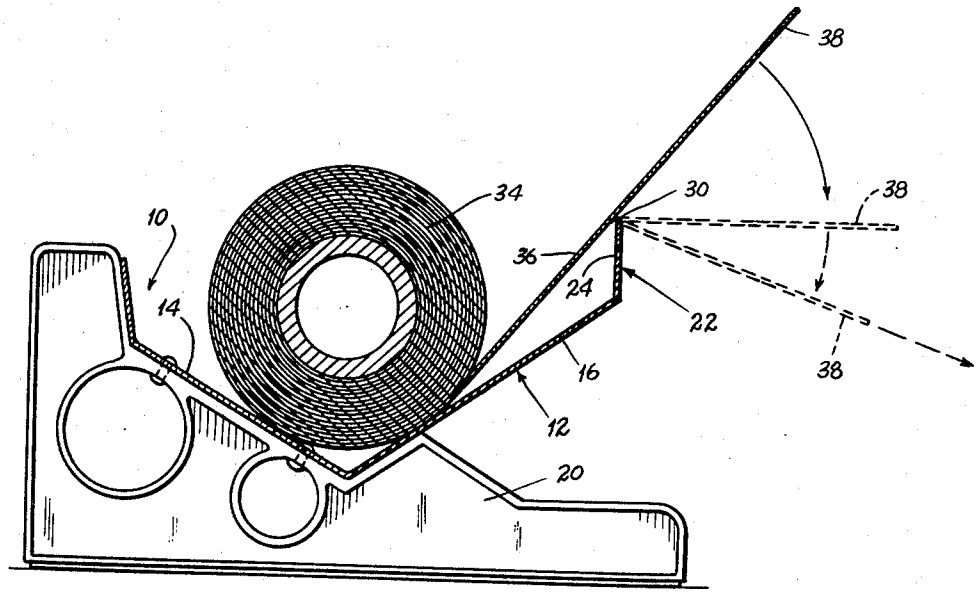


Fig. 1.

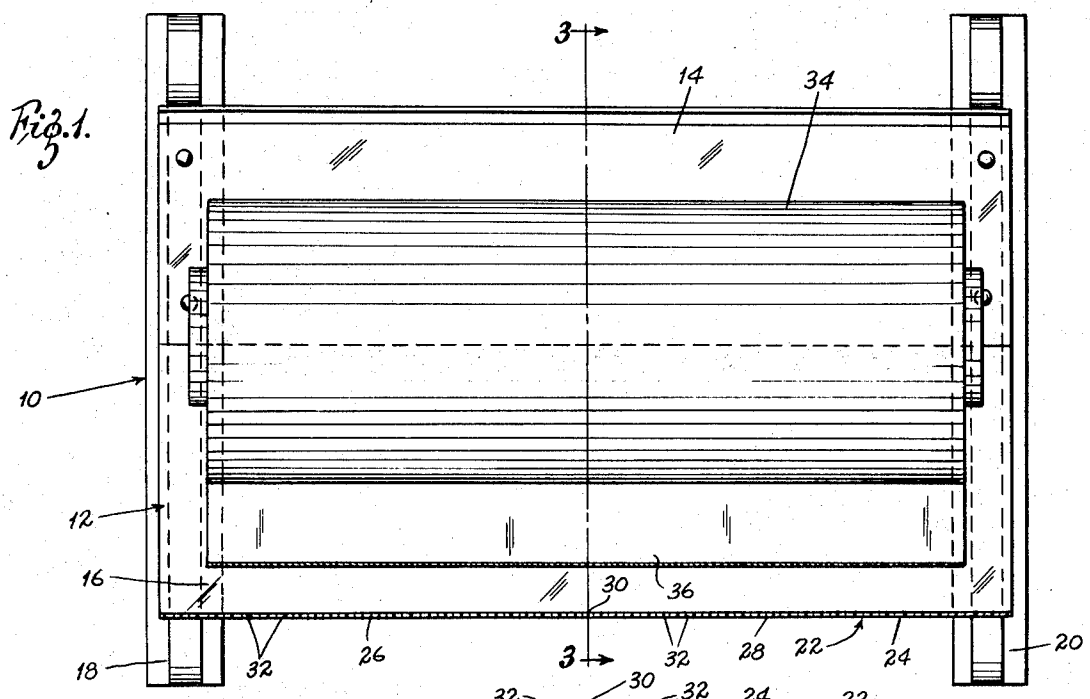


Fig. 2.

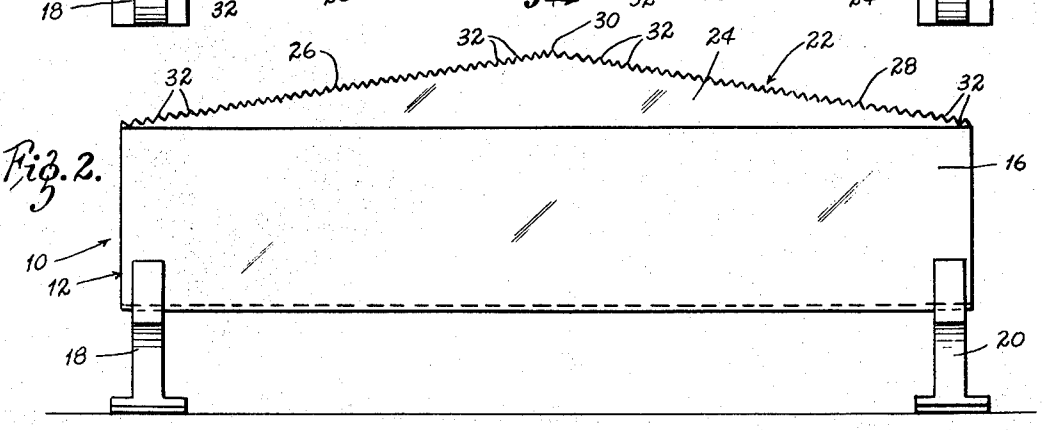


Fig. 4.

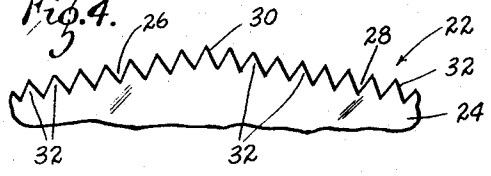


Fig. 3.

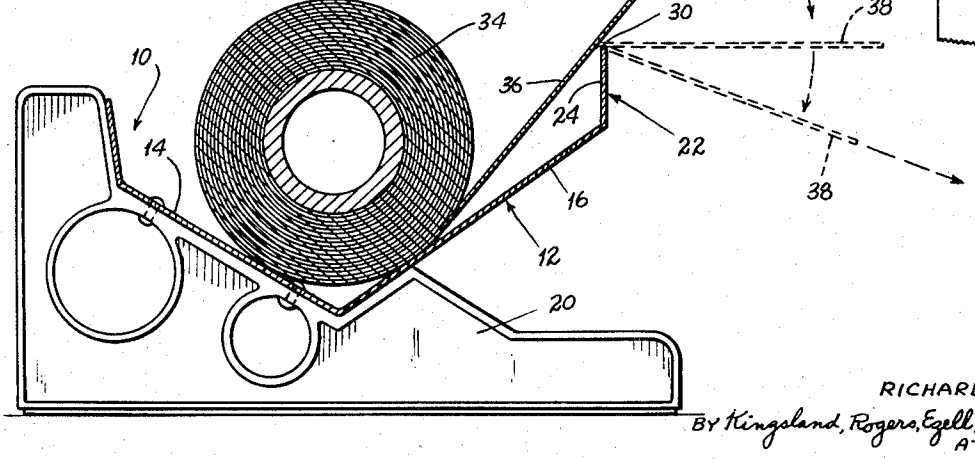
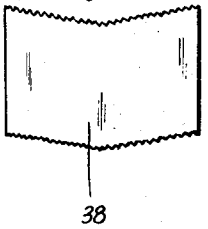


Fig. 5.



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FILM DISPENSER WITH SERRATED PIERCING BLADE

SUMMARY OF THE INVENTION

In the past, various dispensers have been provided for dispensing web material in the form of sheets from aluminum foil or plastic film. One such dispenser for rolls of sheet material is shown in U.S. Pat. No. 3,045,883 in which sheets of plastic film material are separated along perforation lines by means of a pointed piercing means. Such dispensers are limited to usage with rolls of film having preperforated transverse lines to define sheets of a set size. Thus, sheets of different lengths cannot be dispensed due to the rigidity of the size of the sheet defined by the perforation lines.

Cutter boxes have been provided for plastic film rolls or aluminum foil rolls, which have generally been a straight serrated cutting edge whereby the sheet of material is cut in a straight line. Such cutting operations require the material to be started and be cut at one edge and a considerable amount of technique employed in completing the cutting operation.

By means of the instant invention there has been provided a dispenser for rolls of sheet material with a serrated cutting means for simply cutting the sheets at any desired length. The dispenser is provided with a trough receiving the roll of film and a specially constructed triangularly designed serrated piercing means, which starts the cut at the middle of the web of material where the greatest tension can be applied to spread the cut on either side. The cut sheet of material has somewhat of a chevron shape, which finds advantage in wrapping through easily obtainable corners.

The dispenser of this invention can be simply used for cutting rolls of aluminum foil or plastic film in any length desired. The dispenser can be used by unskilled operators and is rugged and simple in construction.

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

In the drawings:

FIG. 1 is a top plan view of the dispenser of this invention;

FIG. 2 is a view in front elevation of the dispenser;

FIG. 3 is a view in cross section taken on the line 3–3 of FIG. 1;

FIG. 4 is an enlarged fragmentary plan view of the serrated piercing blade showing the converging edges of the piercing means; and

FIG. 5 is a plan view of a dispensed sheet.

THE DESCRIPTION

Referring now to the drawings, the dispenser of this invention is generally indicated by the reference number **10** in FIGS. **1**, **2** and **3**. As there shown, it is comprised of a dispenser trough **12**, having a converging rear wall **14** and front wall **16**, supported upon vertical supports **18** and **20** at the left and right sides of the trough. A serrated cutting element **22** is provided at the forward edge of the front wall **16**.

The serrated cutting element **22** is best shown in FIGS. **1**, **2**, **3** and **4**. As there shown it is comprised of a flat triangular element **24** connected at the forward edge of the front wall **16** at an obtuse angle, best shown in FIG. **3**. The cutting element has a generally triangular configuration formed by converging edges **26** and **28** mating in a piercing point **30**. The edges **26** and **28** are serrated by a multiplicity of teeth **32**.

USE

The dispenser of this invention is simply employed by placing a roll **34** of aluminum foil or plastic film in the dispenser trough in the position shown in FIGS. **1** and **3**. The end of the web is then extended over the cutting element **22** as shown in the full bodied lines in FIG. **3**. When the desired length of web has been extended over the cutting element **22**, the web **36** is then moved in the direction of the full bodied arrow and the dotted arrow in FIG. **3**. The pressure of the piercing point **30** of the cutting element on the center of the web causes the serrating or cutting of the web at the position of the cutting element to cut a sheet **38** as shown in FIG. **5**. The cut is started at the center of the web and extended to both sides by the continued pressure exerted when the extended web is moved downwardly in the direction of the arrows shown in FIG. **3**.

The separated sheet **38** can be used in the conventional fashion. Shorter or longer sheets can be cut as will be obvious by extending the web **36** to the desired length and then performing the cutting operation as described.

The cutting operation, through the dispenser of this invention, is particularly enhanced by the obtuse angled position of the cutting element **22** with respect to the front wall **16** of the dispenser trough. Thus, the presentation of the web to the dispenser cutting element **22** is provided at angle, approximating half way between 0 and 90° , which may be varied somewhat to place the greatest amount of piercing pressure on the web to assist in the cutting operation consistent with the dispensing of the web of material when it is pulled out from the roll. In this fashion the greatest pressure can be exerted upon the middle of the web to perform the piercing operation followed by the tearing on both sides of the piercing point. The cutting operation can be performed by those unskilled in the art without any special training, and the dispenser can be simply used in a variety of fashions for different wrapping purposes, or otherwise, as will be readily apparent.

Various modifications and changes 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.

I claim:

1. A dispenser for dispensing and cutting material in the form of chevron shaped sheets; said dispenser comprising means receiving a roll of material in web form, the means receiving the roll of material comprising a trough having converging front and rear walls, said front wall being connected at an obtuse angle to said piercing means, web piercing means forwardly positioned with respect to said roll, said piercing means comprising an upwardly directed cutting and piercing means having a piercing point positioned intermediate the ends of said roll, said piercing point being defined by upwardly converging serrated cutting edges.

2. The dispenser of claim **1** in which the means receiving the roll of material comprises a trough having converging from and rear walls, said front wall being connected at an obtuse angle to said piercing means and in which the piercing means is positioned above the center of the roll of material and extends perpendicularly upwardly.