# United States Patent [19]

**Freeman**

[11] **3,753,829**

[45] **Aug. 21, 1973**


[54] **PLASTIC BAG FABRICATING, DISPENSING AND SEALING UNIT**


[76] Inventor: **Max Freeman,** Great Neck, N.Y.



[22] Filed: **Dec. 6, 1971**

[21] Appl. No.: **205,110**

**Related U.S. Application Data**

[63] Continuation of Ser. No. 82,621, Oct. 21, 1970, abandoned.

[52] **U.S. Cl.** ..... **156/367,** 156/515, 206/52 R, 242/55.53

[51] **Int. Cl.** ..... **B32b 31/20**

[58] **Field of Search** ..... 156/515, 359, 367; 242/55.53; 83/171; 206/52 R, 52, 59 F; 219/243



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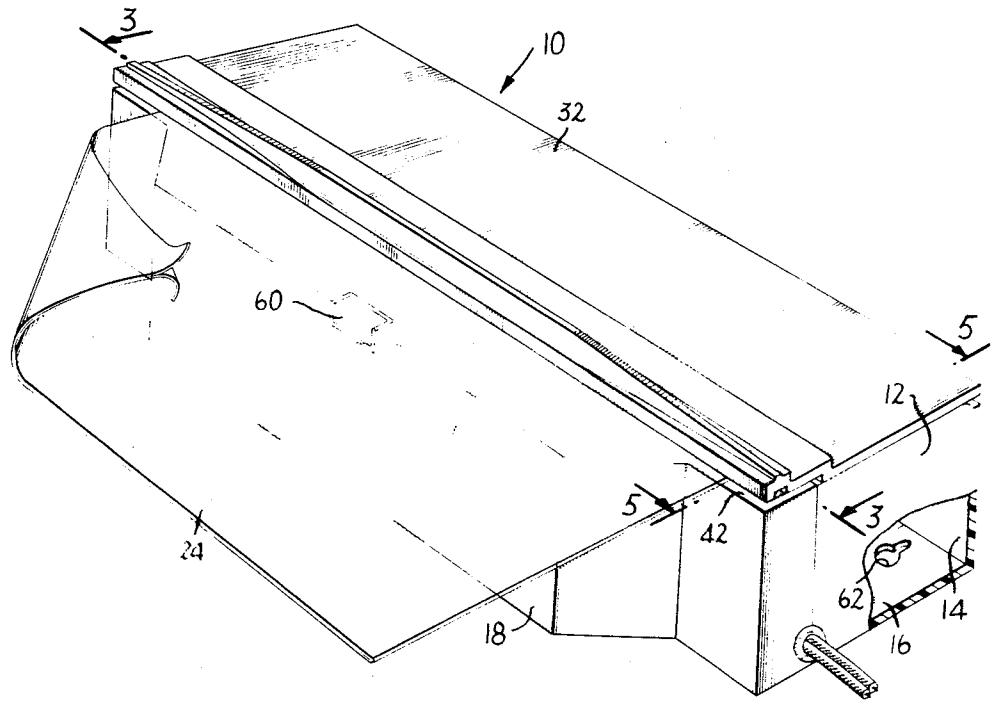
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[57] **ABSTRACT**

A plastic bag fabricating, dispensing and sealing unit includes a housing formed with a compartment and closed with a hinged lid that receives a cartridge containing a roll of double-layered folded plastic film open at one side. A wire mounted on the housing extends along an insulating strip. A circuit to heat the wire is energized by closing and pressing the lid against the housing. An insulating strip on the lid presses the plastic film against the heated wire, thereby severing and sealing and layers of plastic film to form a bag. After filling the bag, the remaining opening therein can be sealed by inserting it between the housing and lid and closing and pressing the lid against the housing.


**17 Claims, 16 Drawing Figures**



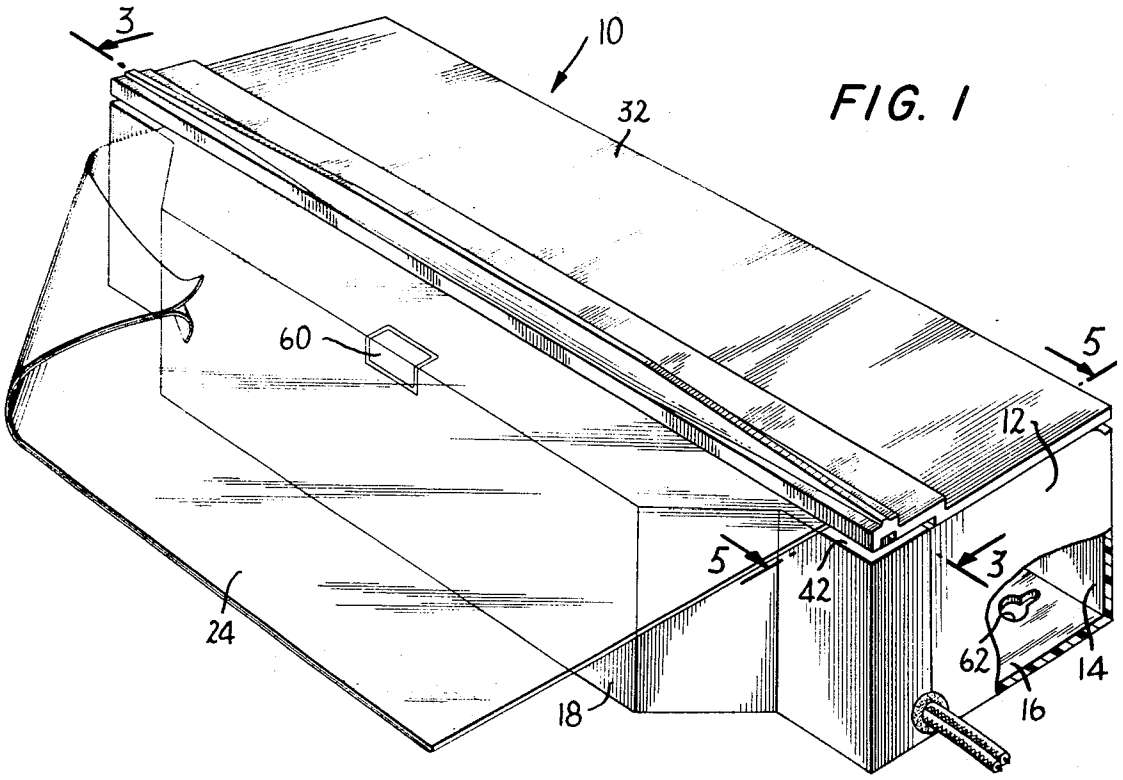
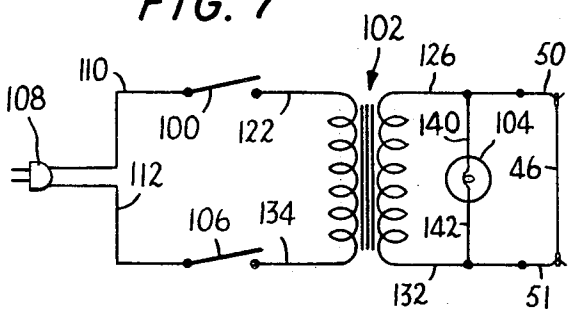



FIG. 1

FIG. 7



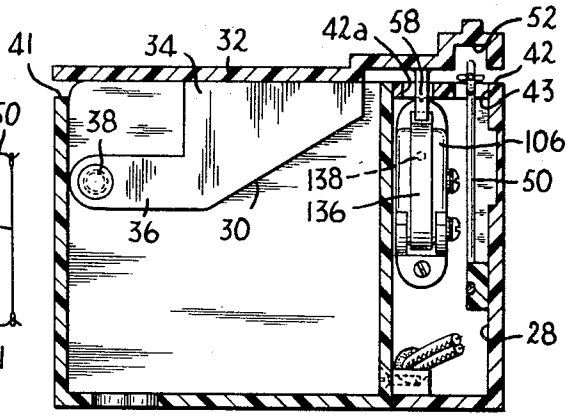




FIG. 5

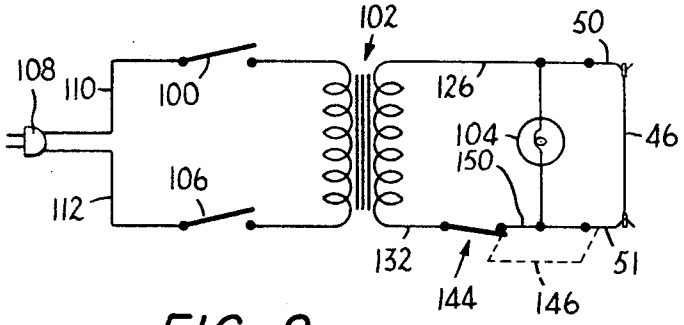



FIG. 9

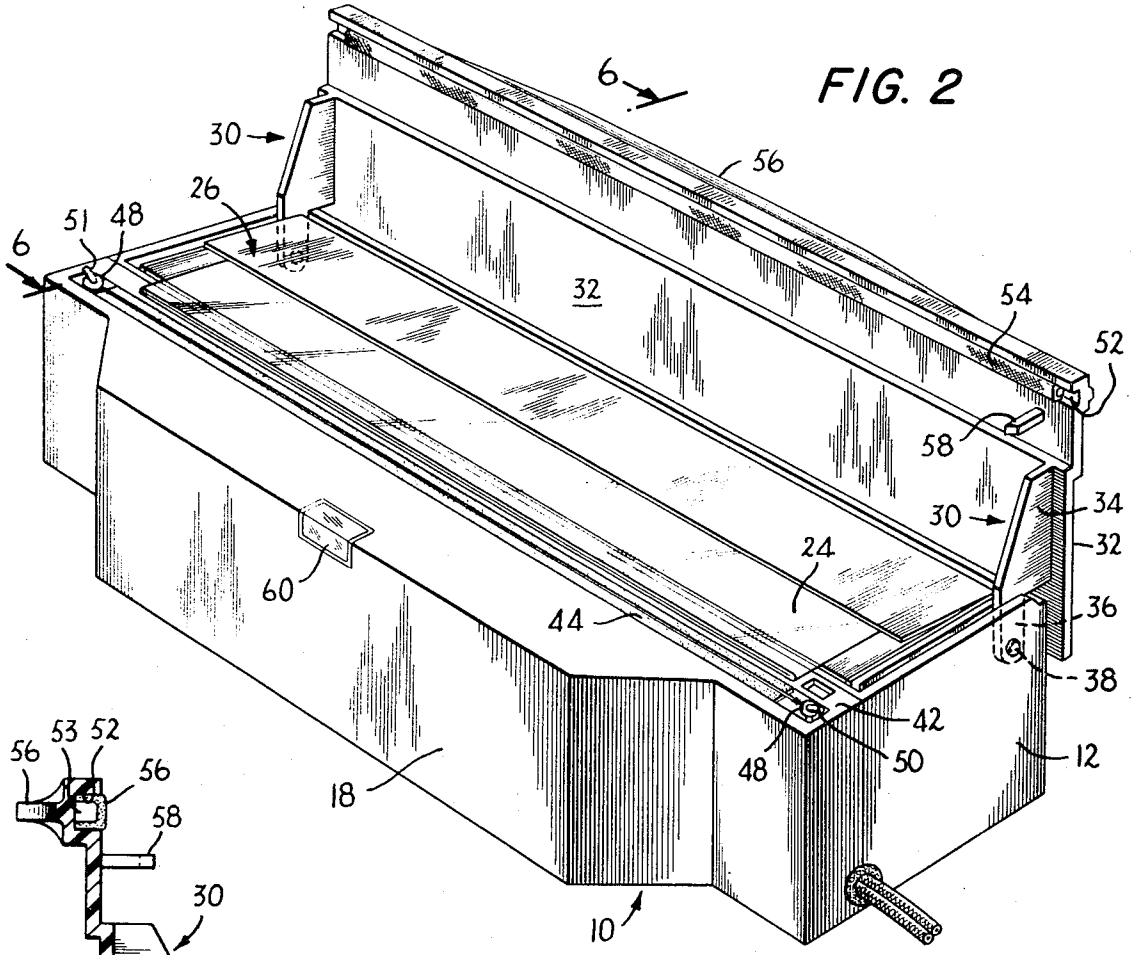
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FIG. 2



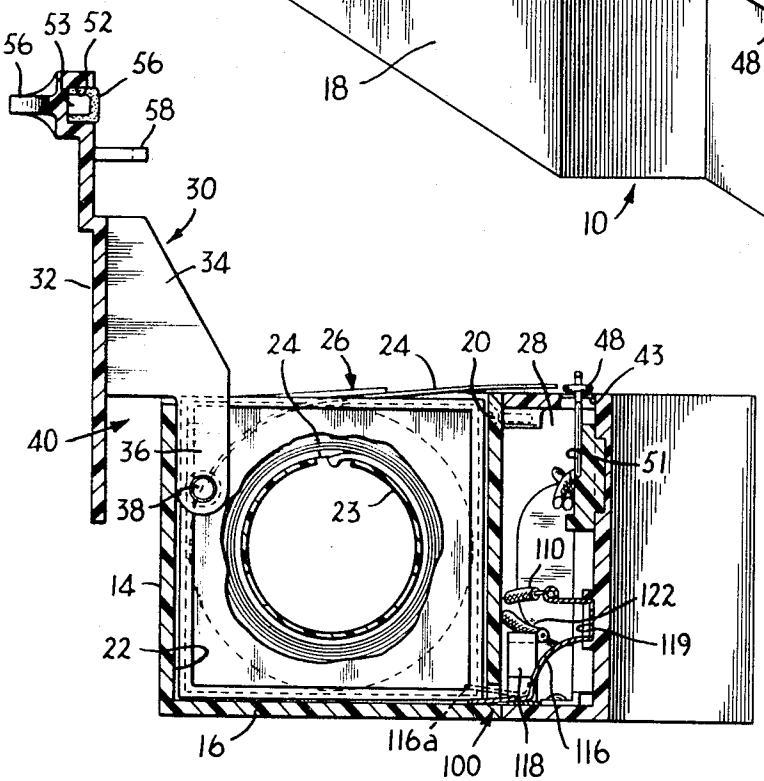




FIG. 6

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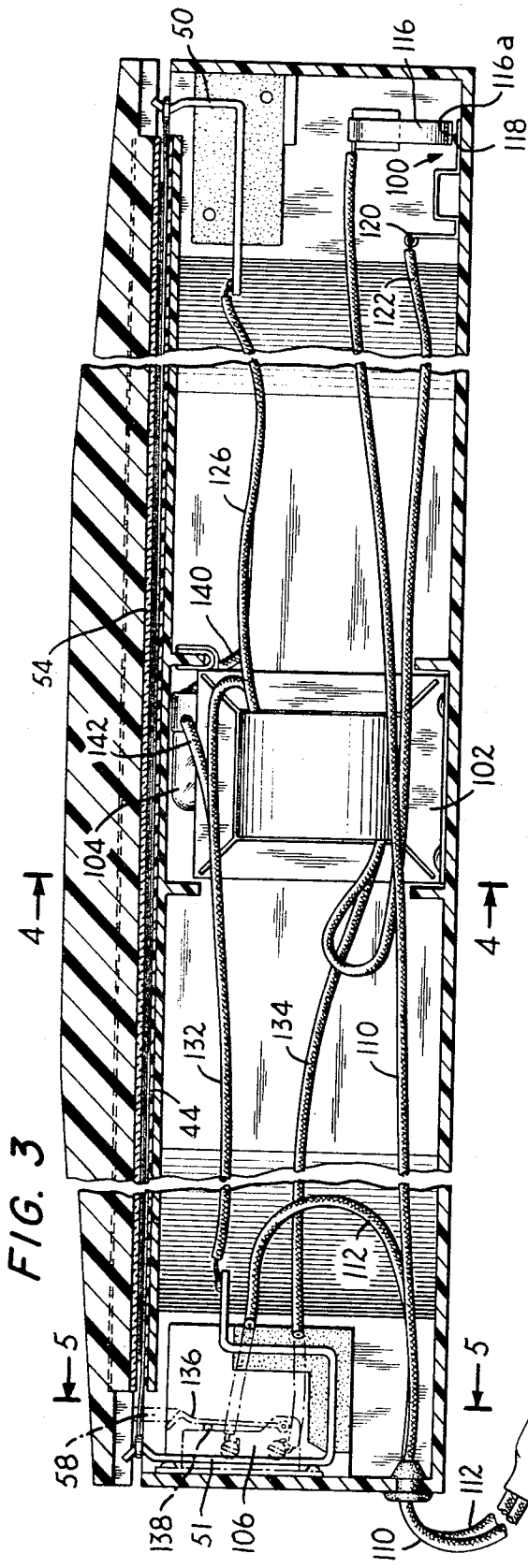



FIG. 3

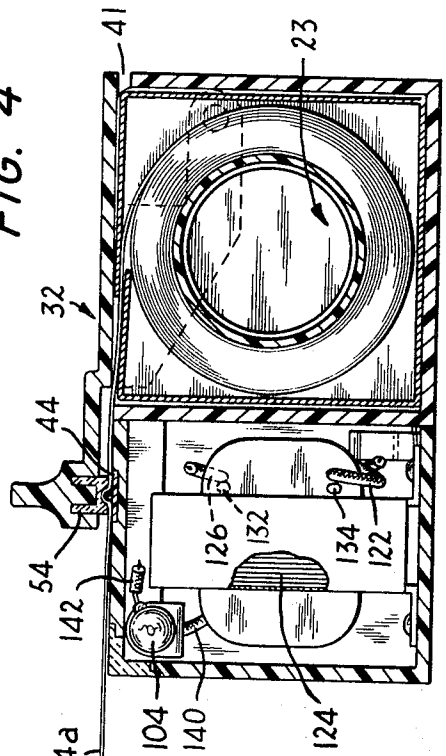



FIG. 4

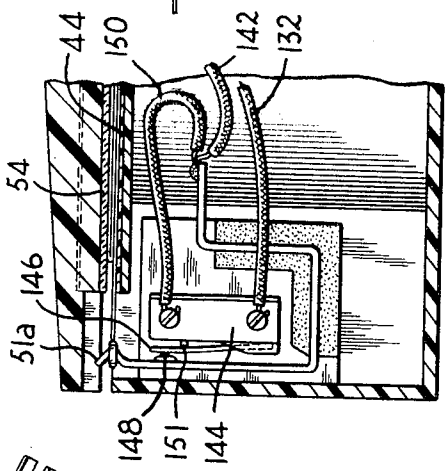



FIG. 8

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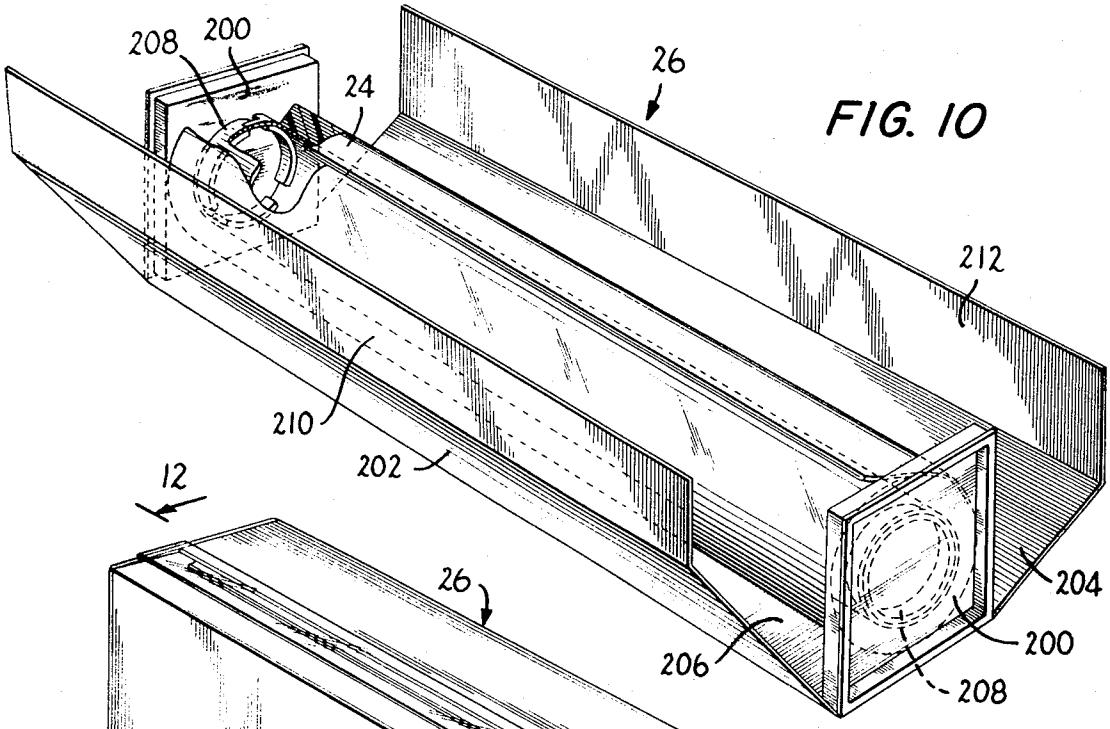



FIG. 10

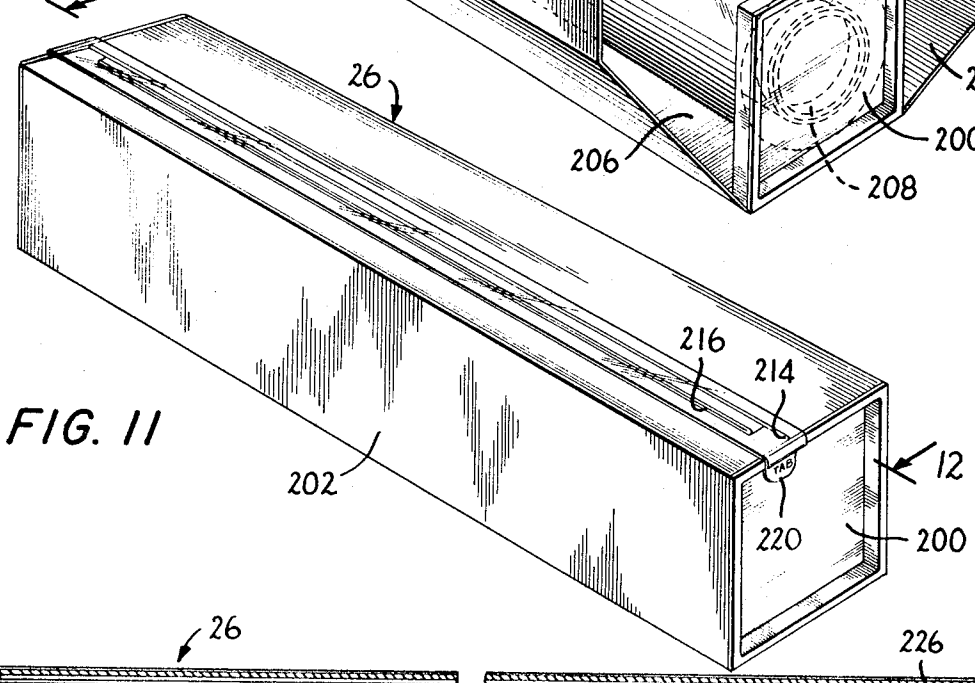



FIG. 11

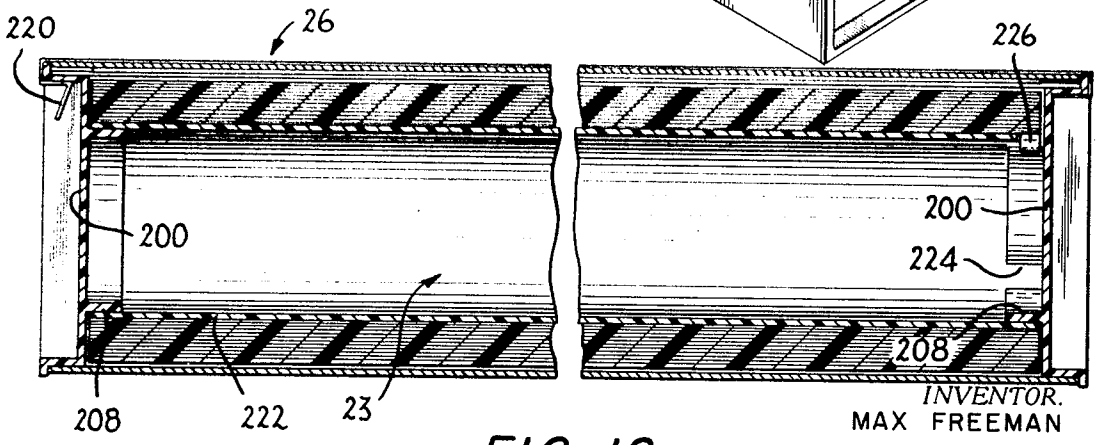



FIG. 12

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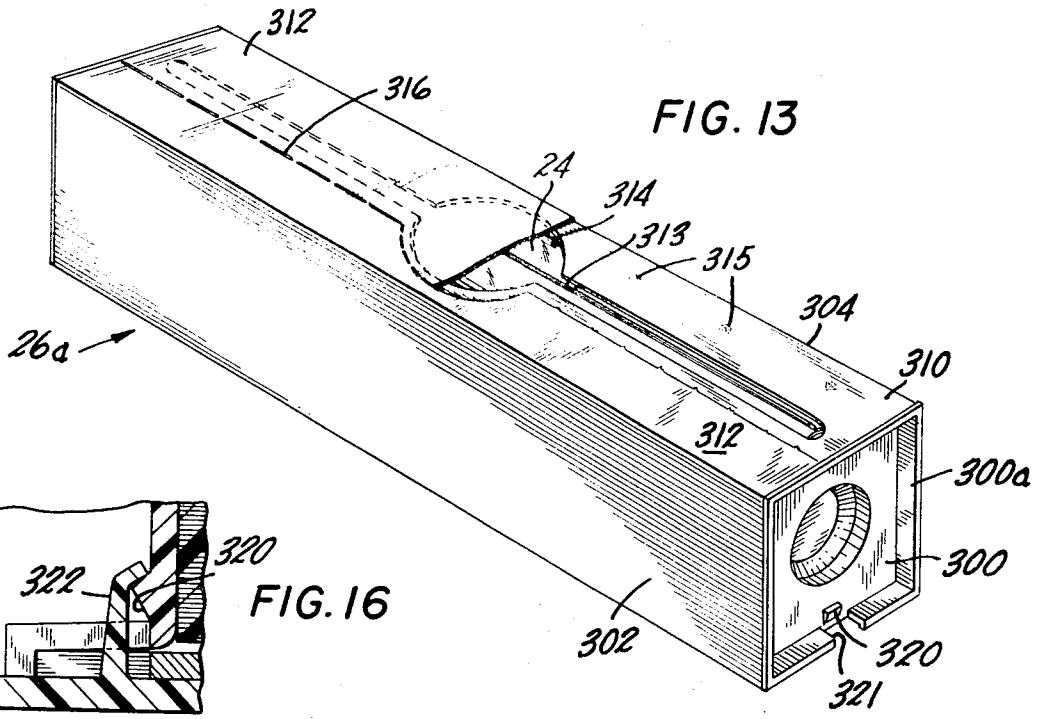



FIG. 13




FIG. 16

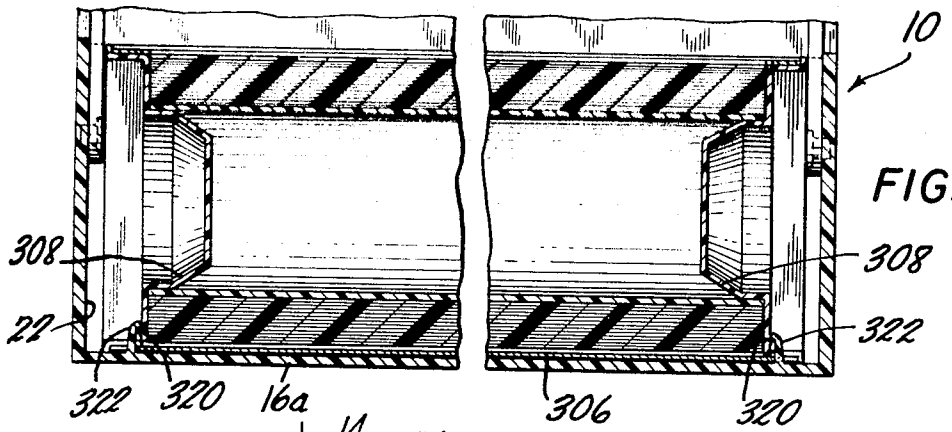



FIG. 14

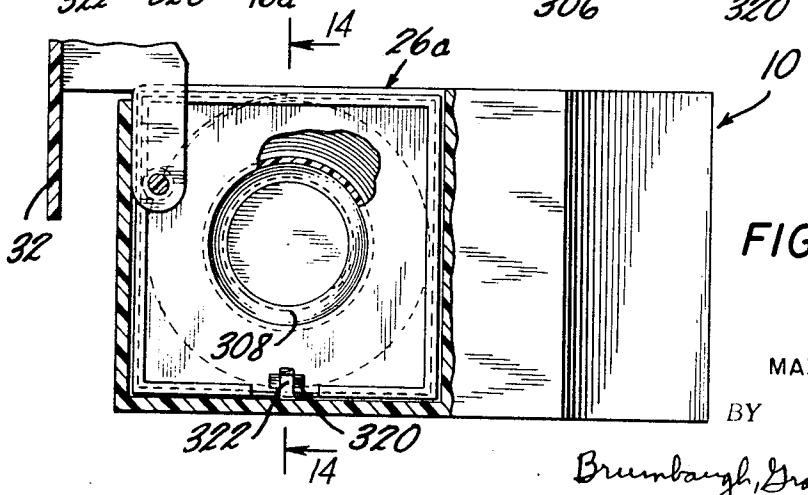



FIG. 15

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# PLASTIC BAG FABRICATING, DISPENSING AND SEALING UNIT

This is a continuation, of U.S. Pat. application Ser. No. 82,621 filed Oct. 21, 1970.

## BACKGROUND OF THE INVENTION

This invention relates generally to fabricating, dispensing and sealing units for plastic bags that may be used to fabricate the bags in a size desired by the user. The easily operated portable unit utilizes a heated wire for simultaneously sealing and serving the dispensed bags and includes safety features that are desirable for home use.

A mojor problem faced by the modern homemaker is that of finding suitable packaging for storing or disposing of any number of consumer goods. A material found to be inexpensive and effectively liquid-tight for packaging is plastic film formed of polyethylene, polypropylene, or other partially crystalline thermoplastics. Increasingly popular and almost indispensible items in today's society for home use are bags fabricated from such material. Because of the many practical uses to which such bags can be put, more than one bag size is essential.

One method to supply desired sizes of bags involves prefabricating a number of bags of different sizes and packaging those bags in a separate container for each size, or including a number of different sized bags in a single container. Whichever method is used, the consumer is still forced to purchase bags that are pre-sized and that do not necessarily fit every use to which the bags may be put. A desirable alternative to supplying presized bags is that of providing a unit from which bags of any desired size can be selected.

Thermal sealing of adjacent edges of separate plastic sheets is the simplest and least expensive method to fabricate bags from plastic film. In mass production, a continuous web of plastic films is normally used, with sealing or severing means operating to produce either separate bags or a plurality of connected bags in a single web.

In the prior art the primary method of heat sealing is to combine heat and pressure to form a tight seal along the edges of two adjacent sheets of plastic film. In the general application of this method, pressure is applied to the plastic sheets either directly or indirectly in conjunction with the heat. One form of this method is known as impulse sealing, in which heat and pressure are applied simultaneously by a single element. Heat at a sufficiently high temperature is applied directly across a web of plastic sheets, the temperature and exposure time being critical factors for providing a tight seal and for separating the fabricated bag from the web. Another form of prior art heat sealing uses a dielectric means operating in conjunction with a pressure element. A high frequency electromagnetic field surrounds the portion of the sheets to be sealed, thereby applying heat at those points while pressure is simultaneously applied. In this latter method there is no direct contact between the heating means and the plastic sheets.

The most commonly used method for sealing plastic sheets is the impulse method even though it usually requires complicated equipment for closely controlling the exposure time and the temperature of the directly applied heat. The impulse method is desirable because



of its speed of operation and utilization of a single element for both the heating and pressure stages.

In conventional prior art devices that are used for prefabricating and dispensing bags, tubular rolls of plastic film are unwound a certain distance before the bag-making process can begin. If such an unwound roll is dropped, which can frequently happen during the loading operation, the plastic film unwinds further and must be wound again. Such a procedure is time consuming, especially since the roll must be rewound carefully.

Oftentimes the leading end of the web is difficult to grasp on an unwound roll, because the plastic sheets are formed from thin material. Also, a roll that is exposed during the loading process can easily become contaminated.

The optimum dispensing device for plastic bags must be simple, as fool-proof as possible in operation, and include ample safety features to prevent the dispensing unit from being actuated at unwanted times. It may also advantageously include means to prevent overheating of the heating element if the device is inadvertently maintained in operating position for too long a period of time.

## SUMMARY OF THE INVENTION

There is provided, in accordance with the invention, a novel and improved unit for fabricating, dispensing and sealing plastic bags of a desired size. A housing is formed of plastic or other suitable material that is lightweight, durable and attractive. In essence, the housing includes a compartment enclosed by a lid to receive a cartridge which contains a roll of plastic film. A wire included in an electric circuit is energized by switches closed by insertion of the cartridge and closure of the lid. If desired, an additional switch may be used to prevent the wire from being heated above a predetermined maximum temperature.

The invention utilizes the impulse method of sealing for fabricating plastic bags. However, as a result of the unique design of the unit the advantages of this method are incorporated into the unit without the normal accompanying complicated equipment for controlling the temperature of the wire and the length of time the plastic film is exposed to the wire. In the unit the electric circuit employs a simple switch to energize the wire with the operator of the unit acting as the timer.

In one embodiment of the invention, the electric circuit includes a readily replaceable high resistance wire, preferably wire sold under the trademark "Nichrome," mounted on a resilient strip on the housing and engaged by another resilient strip on the lid. Two switches are provided for controlling the flow of electric current, a safety switch and a lid actuated sealing switch. The safety switch is normally open, but is closed when the cartridge containing the roll of plastic film is inserted into its compartment. The actuator for the safety switch is located at a point in the compartment not easily accessible, thereby effectively preventing current from flowing through the heating device when the cartridge is removed from the compartment and the lid closed.

The normally open sealing switch is closed when the lid is moved to its compartment closing position and pressed against the housing. The normally open sealing switch prevents the heating wire from being energized until the operator has unwound enough plastic film for

fabrication of a bag of the desired size. When the lid is closed and pressed against the housing, electric current flows through the wire which then seals portions of the plastic film along both sides of the wire and severs those portions to form a bag.

In a modified form of the invention, a normally closed limit switch is opened by expansion of the wire when it reaches a predetermined maximum operating temperature. In this manner, the heat level of the wire is maintained between desired limits, thereby preventing a hazardous condition from arising due to overheating.

The roll of plastic film contained in the cartridge consists of two layers of film formed by folding a single-layered sheet along its longitudinal axis and winding the resulting double-layered plastic film. As will be described in more detail below, bags are thus formed with three closed edges and one edge open, ready to receive any number of consumer items for storage or disposal.

The lid includes a unique hinge arrangement that provides a slot between the rear portion of the lid and the housing when the lid is both open and closed. This feature permits bags being sealed to protrude out the rear of the housing, thereby facilitating closure and severing of plastic film, and fabrication of bags from plastic film other than that contained in the cartridge.

The electirc circuit may include both audible and visible indicators to indicate to the operator when electric current is actually flowing through the heating wire, i.e., when the safety switch and sealing switch are closed.

As mentioned above, the roll of plastic film is preferably prepackaged in a disposable cartridge, which can be fabricated from an inexpensive but rigid material such as cardboard or plastic which also functions to package the film. The cartridge is sealed to prevent contamination of the plastic film, the lead end of which is passed through a slot in the cartridge and removably adhered to the outer surface thereof in a desired manner, for example by a strip of adhesive tape which also covers the slot. Alternatively, the slot may be covered by an overlying flap that is adapted to be torn from the cartridge. In this manner, a dust-proof pollution-proof container is provided, with the lead end of the plastic film being easily grasped. Cartridges carrying film of different widths can be used for the unit, thereby facilitating the fabrication of bags of different depths as well as bags of different lengths.

Within the cartridge the plastic film may be mounted on a core formed of a rigid material such as polyethylene plastic. An indexing device provided in conjunction with the core indicates to the operator when a specified length of plastic film has been unwound. Retaining menas in the cartridge compartment and on the cartridge may also be provided to releasably hold the cartridge in position.

These and other objects of this invention and advantages and capabilities thereof will be apparent from the following description of the preferred embodiments, appended claims, and accompanying drawings, in which:

FIG. 1 is a perspective view of a plastic bag fabricating, dispensing and sealing unit embodying the invention in which the lid is in its closed position, one side of the housing being partially cut away;

FIG. 2 is a perspective view similar to that of FIG. 1 but with the lid in its open position;

FIG. 3 is a sectional view taken along the line 3—3 in FIG. 1;

FIG. 4 is a sectional view taken along the line 4—4 in FIG. 3;

FIG. 5 is a sectional view taken along the line 5—5 in FIG. 3;

FIG. 6 is a sectional view taken along the line 6—6 in FIG. 2;

FIG. 7 is a schematic circuit diagram of an electric circuit included within the unit;

FIG. 8 is a partial sectional view similar to that in FIG. 3 and showing a modified switching arrangement for the electric circuit;

FIG. 9 is a schematic circuit diagram of the electric circuit shown in FIG. 8;

FIG. 10 is a perspective view of a cartridge which is inserted into the plastic bag fabricating, dispensing and sealing device, the cartridge being illustrated in open position;

FIG. 11 shows the cartridge of FIG. 10 in closed position;

FIG. 12 is a sectional view of the cartridge taken along the line 12—12 in FIG. 11;

FIG. 13 is a perspective view of another cartridge in accordance with the invention;

FIG. 14 is a longitudinal section of the cartridge of FIG. 13 in position in the plastic bag fabricating, dispensing and sealing device, the section being taken along the view line 14—14 in FIG. 15;

FIG. 15 is an end view of the plastic bag fabricating, dispensing and sealing device with the cartridge of FIG. 13 in place and partially broken away to illustrate certain details; and

FIG. 16 is an enlarged detailed view of a portion of the cartridge and plastic bag fabricating, dispensing and sealing device showing structure for retaining the cartridge in position.

## DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

The bag fabricating and dispensing device as generally shown in FIGS. 1 and 2 comprises a main housing generally designated by the numeral 10. Side panels 12, back panel 14, bottom panel 16, and front portion 18 form the housing 10. As best illustrated in FIG. 2 and 6, the side panels 12, the back panel 14, the bottom 16, and an inner front wall 20 define a compartment 22.

Located within compartment 22 is a cartridge 26 in which a roll 23 of plastic film 24 is prepackaged, a more detailed description of which will be presented below. Between the wall 20 and the inner wall of the front portion 18 is the electric circuit compartment 28, best shown in FIGS. 5 and 6.

Attached to the housing 10 by means of hinges 30 is a lid 32. Each hinge includes a flange member 34 which projects inwardly from and perpendicular to the bottom face of the lid 32. Each flange member 34 includes an extension 36 integral therewith that projects transversely across the lid and is connected by a pivot pin 38 to the inner face of the side panel 12. By utilizing this type of hinge arrangement, a slot 40, as best illustrated in FIG. 6, is provided between the inner face of the lid 32 and the outer rear face of the back panel 14 when the lid 32 is open position. In addition, the back panel 14 is slightly shorter in height than the other compartment walls, as best illustrated in FIG. 5, thereby providing a slot 41 between the lower face of the rearward

end of lid 32 and back panel 14 when lid 32 is closed, as best illustrated in FIG. 5.

By means of the slots 40 and 41, dispensed bags can be sealed, and bags other than those dispensed from the unit can also be sealed, such bags being able to protrude through the slot and from the rearward portion of the unit.

As illustrated in FIG. 1, the hinges 30 also enable the lid 32 to be closed flush against the upper edges of the housing 10, thereby providing for easy operation and storage and for a pleasing aesthetic appearance.

Along the upper front edge 42 of the housing 10 in a groove 43 extends a resilient insulating strip or platen 44, which can be a type of thermal insulated tape formed for example of a silicone elastomer material. The strip 44, for best operation, should combine the properties of flexibility, resilience, and tensile strength over a wide temperature range. Extending along the strip 44, substantially down its center line, is a wire 46 which, preferably, is a high resistance wire formed of a material sold under the trademark "Nichrome."

The roll 23 of plastic film 24 is encased in the cartridge 26 and formed of a single web of plastic film that has been folded in half along its longitudinal axis, thereby providing a double-layed plastic film open at one side. In order to fabricate bags in an efficient manner from a plastic film so formed, both edges adjacent to the point of film separation must be sealed in the same manner. In this manner, both the trailing edge of the severed bag and the leading edge of the plastic film are sealed simultaneously, thereby providing a bag with one opening at the top (the nonsealed edge of the double-layered plastic film).

As best illustrated in FIGS. 2 and 6, the heating wire 46 is attached with metal ring connectors 48 at each end, the ring connectors fitting over resilient posts 50 and 51 that are included in an electric circuit that operates to energize and heat the wire 46. The wire 46 may readily be removed and replaced in case of wear or damage.

A resilient strip 54 extends along the front end of the lid 32 and fits in a groove 52 over a longitudinal projection 53. When the lid is closed, the strip 54 engages the wire 46 and strip 44, which extends along the upper front edge of the housing 10. To facilitate closure of the lid, a handle or grip 56, as best illustrated in FIG. 6, extends along the lid 32. As best illustrated in FIG. 4, when the lid 32 is pressed against the housing, the plastic film will be held between the strips 44 and 54. When the wire is heated, as described below, a plastic bag will be severed from the roll of plastic film 24.

Extending downwardly from the lid 32 is an actuating rod 58 which, as will be described below, is capable of closing the electric circuit and energizing the wire 46 upon closure of the lid 32. A pilot light window is also provided in the lid to make visible an indicating light that is energized when the unit is in operation, as will be described below.

The electrical heating circuit used to energize the wire 46, shown in FIG. 7, includes a plug 108 attached by conductors 110 and 112 to switches 100 and 106, respectively. The primary of a transformer 102 is connected by lines 122 and 134 to the switches 100 and 106, and the transformer secondary is connected by lines 126 and 132 to the posts 50 and 51, respectively, on which the wire 42 is mounted. An indicator light 104 is connected in parallel with the wire 46 by lines 140 and 142 across the conductors 126 and 132.

Referring to FIGS. 3 and 6, the safety switch 100 includes a contact arm 116 joined to the line 110 and held in a recess 119 in the compartment 28. A resilient actuator 116*a* of the contact 116 extends into the plastic film compartment 22 so that insertion of the cartridge 26 bends the actuator 116*a* into engagement with a contact 118 to close the safety switch 100. Since the switch 100 is located in a remote and not readily accessible position, the unit cannot be inadvertently energized before one of the cartridges 26 is inserted into the compartment 22.

The sealing switch 106, shown in FIGS. 3 and 5, preferably comprises a conventional microswitch having a contact arm 136 that actuates a plunger 138 to close the switch. The rod 58 attached to the lid 32 extends through an opening 42*a* in the housing, when the lid is closed, to engage the arm 136 and close the switch when the lid is pressed against the housing. This results en energization of the heating wire 46, the indicator light 104, and buzzing of the transformer 102. Such buzzing is caused by forming the transformer 102 with loosely clamped core pieces, whereby the magnetic effects of the alternating current causes a buzzing action.

A modified electric heating circuit for the wire 46 is shown in FIGS. 8 and 9. The circuit is similar to that described above but, in addition, a limit or timing switch 144, preferably a microswitch, is inserted between the conductor 132 and a movable post 51*a*. The switch 144 includes an arm 146 engaging a cam-like protrusion 148 on the post 51*a*. The arm 146 operates a switch plunger 151. With the wire 46 in position, a movable post 51*a*, normally biased laterally outwardly, is urged laterally inwardly to cause the switch arm 146 to depress the plunger 151 and maintain the switch 144 closed, as shown in FIGS. 8 and 9. After the wire has been heated to a predetermined temperature, it expands and permits the post 51*a* to move outwardly, thereby opening the switch 144 and opening the circuit to the wire 46. The length of the wire 46 and the bias of the post 51*a* is adjusted so that a sealing and severing operation will occur prior to opening of the switch 144. After interruption of the circuit by the switch 144, the transformer will cease buzzing and the indicator light will go out, thereby advising the operator that the plastic bag has been severed and sealed. If the lid 32 is not opened, the electric circuit will recycle but no damage is possible.

Referring in greater detail to FIGS. 10 through 12, the cartridge 26 contains a pre-packaged roll 23 of plastic film 24. The cartridge 26 includes end walls 200, and the side walls 202, 204, 206 and 210, 212. Mounted on the inner surfaces of the end walls 200 are annular flanges or stub axles 208 on which rotate the roll of plastic film 24.

Three of the side walls are integral portions of a single piece of cardboard or plastic material, with the fourth side wall being formed by a top flap 210 extending from the front side wall 202 and a top flap 212 extending from the back side wall 204. When the cartridge is in final assembled form, as best illustrated in FIG. 11, the flaps 210 and 212 together form the top side wall and overlap to form a slot 214. Through the slot 214 extends the lead end 216 of the roll 23. A strip of adhesive material 218 overlies the slot 214 and lead end 216 to retain the lead end in a fixed position and

seal the cartridge **26.** A tab **220** is provided at one end of the strip **218** so that a user can easily grasp the tab and pull the strip of material off to expose the lead end **216** of the plastic film. With this arrangement, to begin fabricating bags, the cartridge **26** is inserted into the compartment **22,** the tab **220** pulled to remove the strip **218,** and the lead end **216** grasped to draw as much of the plastic film **24** as desired from the roll **23.**

The plastic film **24** is wound around a core **222,** forming a part of the roll **23,** the ends of which fit in telescopic relation over the annular flanges **208.** The core **222** is preferably formed of a rigid material such as polyethylene. On the surface of one of the annular flange members **208** is provided one or more indentations **224.** Extending from the inner surface of the core **222** in corresponding relation to the indentations **224** is a resilient detent **226.** As the plastic film **24** is unwound, the detent **226** is urged outwardly by the outer surface of the annular flange member **208.** However, when the detent **226** reaches an indentation **224,** it snaps back to its normal unbiased position causing an audible "click" and catching in the indentation **224** to indicate generally to the operator when a specified length of plastic film **24** has been unwound, thereby indexing the roll.

Referring to another plastic film cartridge **26*a*** as shown in detail in FIGS. **13** through **16,** the cartridge **26*a*** includes end walls **300** and side walls **302, 304, 306** and **310, 312.** Formed integrally with and extending inwardly from the end surfaces **300** are stub axles **308** on which rotate a pre-packaged roll **32*a*** of the plastic film **24.** While indexing elements have not been shown in the cartridge **26*a*** to facilitate measurement of the plastic film **24** withdrawn therefrom, it will be understood that such elements may be provided as described in connection with FIGS. **10** through **12.**

The side walls are integral portions of a single piece of cardboard or plastic material with a top flap **310** extending from the back side wall **304** and a top flap **312** extending from the front side wall **302** and overlying the flap **310** to form the top side wall. Formed in the flap **310** is a slot **313** having an enlarged opening **314** to enable a user to grasp and withdraw the plastic film **24.** To cover the slot **313** and prevent entry of dirt into the cartridge, the flap **312** is releasably affixed by glue portions **315** to the flap **310.** By perforations or other suitable means, the flap **312** is weakened along line **316.** The portion of flap **312** adjacent to the side wall **302** is securely glued to the underlying flap **310.**

A protrusion **320,** formed integrally with each end wall **300** adjacent its lower edge, is positioned above a slot **321** in a flange **300*a*** extending peripherally around the end wall. Flexible hook-like prongs **322** extending upwardly from the bottom panel **16** of the main housing, and preferably formed integrally with the panel, are adapted to pass through the slots **321** and be sprung outwardly by the protrusions **320,** and then to hook over such protrusions to releasably hold the cartridge **26*a*** in position.

With the foregoing arrangement, to begin fabricating bags the cartridge **26*a*** is inserted into the compartment **22** and the prongs **322** will extend through the slots **321** and hook over the protrusions **320** to accurately position and hold the cartridge **26*a*** in the compartment. The user may then grasp the flap **312** and tear it along the weakened line **316** to expose the slot **313** and opening **314.** The plastic film **24** may then be grasped and pulled from the cartridge.

Note that both cartridges **26** and **26*a*** function as packages for the film **24.** In other words, additional packaging is unnecessary, and instructions and advertising may be printed directly on the side walls of the cartridges.

For convenience, the fabricating, dispensing and sealing unit may be hung on a wall by means of holes **62** provided in the bottom **16** of the housing **10,** as illustrated in FIG. **1.** Or the device may rest on its bottom **16** on a kitchen counter or table.

When not in use and with or without one of the cartridges **26** or **26*a*** being positioned within the compartment **22,** the unit may be stored with its lid **32** in open or closed position because the sealing switch will not operate without additional pressure on the lid **32** to cause the rod **58** to actuate the switch arm **136.**

In operation, when the cartridge **26** is inserted into the compartment **22,** the actuator **116*a*** of the safety switch **100** is forced against the contact **118.** A desired amount of the double-layered plastic film **24** is then drawn from the cartridge **26** and the lid **32** closed and pressed against the housing. The rod **58** then urges the contact arm **136** against the switch plunger **136** to close the sealing switch **106,** and electric current flows through the sealing and severing wire **46.** At the same time, the resilient strip **54** presses the film **24** against the wire **46** and the resilient strip **44** and in a few seconds, during which the light **104** and the buzzing transformer **102** indicate current flow, the film **24** is sealed and severed. The bag formed by this operation is then removed from the unit and the lid **32** is released. With little experience, the operator learns the optimum time for the sealing and severing operation, especially due to the helpfulness of the audio-visual indicators.

After filling the bag, the open edge may be placed along the strip **44,** the lid **32** again closed and pressed against the housing, and the bag sealed by the heated wire **46.**

In operation of the modified embodiment of FIGS. **8** and **9,** the wire **46** heats to a predetermined temperature and then expands to enable the post **51*a*** to move outwardly (FIG. **8**), thereby opening the switch **144** and interrupting the flow of current through the wire **46.** The bag may then be taken from the unit.

While the invention has been described in connection with different embodiments thereof, it will be understood that the plastic bag fabricating and dispensing unit is capable of further modification. This application is intended to cover any variations, uses, or adaptations of the invention following, in general, the principles of the invention and including such departures from the present disclosure as come within known or customary practice in the art to which the invention pertains. Variations of the invention that may be applied to the essential features hereinbefore set forth and that fall within the scope of the invention or within the limits of the appended claims are also contemplated within this application.

I claim:

**1.** A plastic bag fabricating, dispensing and sealing unit comprising a housing adapted for portability and use in a home environment, a first insulating strip on the housing, a wire adapted to be heated by the flow of electrical current therethrough mounted on the first insulating strip, means holding the wire taut, a lid for the

housing, hinge means between the lid and the housing, a second insulating strip on the lid and positioned to overlie the first strip and wire when the lid is closed, at least one of the first and second insulating strips being resilient, electrical circuit means for heating the wire adapted to be connected to a household outlet, a switch normally interrupting the electric circuit means, means associated with the switch and the lid to close the switch and energize the wire when the lid is closed and then pressed against the housing to compress the resilient insulating strip against the other insulating strip with the energized and heated wire in between the two strips, a compartment in the housing, a cartridge sized to fit in the compartment, first retaining means secured to said housing and adapted to engage and releasably hold the cartridge in the compartment, said cartridge being adapted to contain a roll of double-layered plastic film open at one side in the cartridge, a slot in the cartridge for withdrawing the film therefrom to a position overlying the wire, so that closing the lid and pressing it against the housing will heat the wire and seal and sever the plastic film to form a plastic bag.

**2.** A plastic bag fabricating, dispensing and sealing unit in accordance with claim **1**, in which is provided switching means interrupting the electric circuit when the compartment is empty, and the switching means being closed by the insertion of a cartridge into the compartment.

**3.** A plastic bag fabricating, dispensing and sealing unit in accordance with claim **2**, wherein the switching means includes an actuator in the compartment, and the cartridge when inserted into the compartment engages the actuator to close the switching means.

**4.** A plastic bag fabricating, dispensing and sealing unit in accordance with claim **1**, in which a pair of posts are provided to hold the wire taut.

**5.** A plastic bag fabricating, dispensing and sealing unit in accordance with claim **4**, in which the wire has mounting rings at each end, so that the wire can be mounted on the first strip by placing one of the mounting rings on each post.

**6.** A plastic bag fabricating, dispensing and sealing unit in accordance with claim **1**, wherein the means associated with the switch and lid includes an arm on the switch and an actuating rod on the lid, the rod engaging and actuating the switch arm to close the switch when the lid is closed and pressed against the housing.

**7.** A plastic bag fabricating, dispensing and sealing unit in accordance with claim **1**, in which indicating means are energized in response to energization of the wire.

**8.** A plastic bag fabricating, dispensing and sealing unit in accordance with claim **7**, wherein the indicating means comprises a pilot light.

**9.** A plastic bag fabricating, dispensing and sealing unit in accordance with claim **7**, in which a transformer is included in the electric circuit, and loosely clamped core pieces in the transformer that buzz when the electric circuit and wire are energized comprise the indicating means.

**10.** A plastic bag fabricating, dispensing and sealing unit in accordance with claim **1**, in which the cartridge is formed by two end walls and four side walls, mounting means on the inner sides of the end walls for rotatably supporting the roll of plastic film, and second retaining means on the cartridge cooperating with the first retaining means to accurately position and releasably hold the cartridge in the compartment.

**11.** A plastic bag fabricating, dispensing and sealing unit in accordance with claim **10**, in which the first retaining means comprises flexible hooks extending from the floor of the housing compartment, and the second retaining means comprises protrusions cooperating with the flexible hooks to snap the cartridge into position and releasably hold it in the compartment.

**12.** A plastic bag fabricating, dispensing and sealing unit in accordance with claim **11**, in which slots are provided in the cartridge, and the flexible hooks extend through the slots to accurately position the cartridge in the compartment.

**13.** A plastic bag fabricating, dispensing and sealing unit in accordance with claim **10**, in which indexing means are included in the roll mounting means to facilitate measurement of the plastic film withdrawn from the cartridge.

**14.** A plastic bag fabricating, dispensing and sealing unit in accordance with claim **1**, in which the cartridge is formed by two end walls and four side walls, mounting means on the inner sides of the end walls for rotatably supporting the roll of plastic film, and indexing means included in the mounting means to facilitate measurement of the plastic film withdrawn from the cartridge.

**15.** A plastic bag fabricating, dispensing and sealing unit in accordance with claim **14**, wherein the mounting means includes annular flanges on the inner sides of the end walls, a core member around which plastic film is wound to form the roll, and the indexing means comprises indentations on one of the annular flange and the core member and detent means on the other of the annular flange and the core member.

**16.** A plastic bag fabricating, dispensing and sealing unit in accordance with claim **1**, wherein the hinge means is arranged to provide a slot between the lid and the housing in all positions of the lid to permit plastic film to extend through the slot to facilitate sealing of plastic bags.

**17.** A plastic bag fabricating, dispensing and sealing unit in accordance with claim **4**, in which one of the posts is movable laterally inwardly and outwardly of the housing and is resiliently urged outwardly of the housing, and a limit switch operatively associated with the movable post, the limit switch being in the electric circuit and interrupting the circuit when open, the limit switch being open in the absence of the wire and being activated and closed by inward movement of the movable post when the wire is mounted on the housing, heating of the wire to a predetermined temperature resulting in its expansion to permit the movable post to move outwardly and open the limit switch, the limit switch being reclosed as the wire cools and contracts and the movable post moves inwardly.

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