PLASTIC BAG WITH EXTERNAL PATCH CONFINING CLOSURE DEVICE
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ABSTRACT OF THE DISCLOSURE
A flexible plastic bag made of a suitable sheet plastic material such as polyethylene, a patch of like material applied externally to said bag, as by thermo-sealing, to form a pocket confining a closure device, a slot in said patch being engageable by a finger for opening said pocket and removing said device for using in closing said bag.

BACKGROUND OF THE INVENTION
Numerous concepts are reflected in the prior art looking towards supplying, along with a plastic bag, a closure device usable for closing the open neck of the bag. In one of these concepts the closure device is located inside the bag and tightly held adhesively to the bag. In another concept (Ehler, No. 3,233,821) the closure device is thermo-sealed between the opposed lips of the mouth of the bag. In still another concept, disclosed in my copending application Ser. No. 429,441, now Pat. No. 3,417,912, the closure device is adhesively attached along one edge thereof to the outside surface of the bag.

Some of these concepts, such as that of Ehler, supra, are necessarily involved in the closing of the bag to package a product confined therein as by forming a seal across the open end of the bag. Wherever a bag embodying a closure device is sealed closed to package a product, the closure device associated therewith is not used as a closure facility to reclose said bag after the sealed end of the consumer and the bag has been opened as by clipping from the bag the sealed end thereof which is indicated “For Opening.” Following removal of a portion of the contents of the bag, the consumer makes use of the closure device associated therewith to reclose the bag. In such an instance, the closure device is referred to as a “reclosure” device.

SUMMARY OF THE INVENTION
It is a particular object of the present invention to provide an improved plastic bag having a bag closure associated therewith in such a manner as to permit the mouth of the bag to be sealed for packaging a product confined therein so that said closure device may be used as a reclosure facility to reclose said bag after the sealed end of the bag has been opened and a portion of the contents removed.

Another object of the invention is to provide a plastic bag in which the reclosure device is trapped in a pocket which is so formed on the bag as not to endanger a rupture of the bag itself in removing the reclosure device from said pocket.

Yet another object of the invention is to provide such a plastic bag in which there is relatively little danger of the closure device, or the means for securing the same to the bag, catching on other packages in a manner to cause a rupture of the bag or so as to detach any of the closure devices from the bags they are associated with.

A yet further object of the invention is to provide such a plastic bag having a reclosure device which will utilize for assembling the reclosure device with the bag a patch of the same material as the bag is made and the readily available method of heat sealing for associating said patch with the bag so as to form a pocket confining the reclosure facility in close association with the bag and without any reasonable prospect of being separated therefrom and yet in a manner to permit the ready manual separation of the reclosure device from the bag when a necessity for this arises.

BRIEF DESCRIPTION OF THE DRAWINGS
FIG. 1 is a diagrammatic plan view of a preferred embodiment of the bag of the present invention showing the patch of the invention applied as by heat sealing to the bag thereof in the upper right hand corner of the bag and indicating in broken lines the outline of the closure device preferably employed in the invention, that being trapped in the pocket formed between said patch and said bag.

FIG. 2 is a side elevational view of FIG. 1.

FIG. 3 is a fragmentary enlarged sectional view taken on the line 3—3 of FIG. 1 and illustrates the structural details of the closure device holding bag pocket, which is a distinctive feature of the present invention, and shows in broken lines the manner in which said pocket is to be opened in order to remove the closure device.

FIG. 4 is a fragmentary perspective view illustrating the manner in which a preferred type of bag closure employed in the present invention is utilized in closing the plastic bag associated therewith.

DESCRIPTION OF THE PREFERRED EMBODIMENT
As shown in the drawings, the invention embraces a plastic bag 10 which is preferably made of sheet polyethylene or the like such as is commonly used in the making of bags for bagging bread, buns and the like and the bag may be of any construction and will be manufactured in various sizes to suit the needs of the customer using the same. As shown in FIGS. 1, 2 and 3 of the drawings, the bag 10 is of the type used to receive and hermetically seal a quantity of product for packaging the same for shipment to market.

The bag 10 thus is formed of a section of a tube, the lower end of which is closed by a heat seal 11 and the upper end of which is closed by a heat seal 12. At some step in the manufacture of the bag 10 and preferably before the bag is separated from the plastic tube utilized in making the bag, a patch 13 of plastic material which is thermoplasticly compatible with the material of said tube (and preferably of the same material as the tube) is applied to the tube and secured thereto in overlapping relation with a bag closure device 14 by the formation of a rectangular heat seal 15 to produce a pocket within the confines of said seal, and between said plastic tube and said patch, in which said closure device is confined.

The patch 13 preferably is provided, near one end thereof, with a slot 16 which is too small to have a tendency to snag on other packages which the bag 10 may be pressed against in packing and handling the same but will be large enough for the entrance of a finger nail into the slot whereby the plastic material of the patch 13 may be engaged and torn lengthwise of the patch to readily provide an opening through which the device 14 may be removed when the time comes for using the same.

The operation of tearing out such a strip 17 of the plastic material of the patch 13 is shown in broken lines in FIG. 3.

The bag closure device 14 which is preferably employed in the present invention is the widely known bag closure manufactured under the trademark “Kwik Lok” by the Kwik Lok Corporation of Yakima, Wash., and comprises a flat, stiff, but springy clip formed of sheet polystyrene of about .030 inch thickness and having a central bag neck capturing aperture 19 admission to which
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is had through a narrow slit or edge opening 20 which
divides the adjacent edge 21 of the closure to form jaws
22 and 23 which may be flexed apart in applying the
 closure to the twisted neck of a bag 10 so that said jaws
will separate and pass around said neck and trap the
latter in the aperture 19.

In any event, the patch 13 will be applied to the tube
utilized in forming the plastic bag 10 while said bag is in
flat form, and which means prior to the filling of the bag
with a product to be packaged therein.

While sheet polyethylene has been indicated as a suit-
able material for use in the manufacture of the plastic
bag 10 and patch 13 of the present invention, it is to be
understood that the invention is not limited to this specific
material and that any of the many chemical and physical
equivalents of this material in the plastic field may be
utilized for manufacturing these elements of the inven-
tion.

It is further to be understood that while this invention
preferably employs the general type of bag closure device
shown and described herein that various forms of bag
closing devices may be confined in the pocket formed
by the patch 13 and released for use in closing the bag 10
by tearing open the patch as shown in FIG. 3 and above
described.

It is further to be noted that while the patch 13 is
preferably secured to the bag 10 by a rectangular heat
seal 15, it is not essential that this heat seal comprise a
continuous rectangle so long as it is serviceable in form-
 ing a pocket which will confine the closure device 14 in
close association with the bag 10 until the purchaser of
the product packaged in the bag undertakes to deliberate-
ately open the patch and remove the closure therefrom.

Furthermore, in its broader aspects, the invention is not
limited to any particular shape of patch in forming the
patch 13 or any particular shape in the heat seal 15 pro-
viding that these two elements accomplish the pocketing
of the bag closure device.

In conclusion it is to be noted that the foregoing
disclosure of one specific embodiment of the invention is
illustrative only and that the invention is not limited
to the specific details of said disclosure but is subject to
many changes and modifications all within the spirit
of the invention and the scope of the appended claims.

I claim:
1. A plastic bag associated with a bag neck closing
device and having a pocket formed by the application
of a patch of plastic material to the outside of said bag,
said patch being peripherally welded to the outside of
the bag to form a pocket between said bag and said patch in
which said bag closure is confined.

2. A combined plastic bag and closure device as re-
cited in claim 1 wherein said closure device comprises
a flat clip lying between said bag and said patch, said clip
having a bag neck confining aperture admission to which
is had through a narrow opening connecting said aperture
with one edge of said clip and dividing said edge into
two jaws which are adapted to be sprung apart in applying
said closure to the twisted neck of said bag for closing the
latter when the time comes for employing said closure
for this purpose.

3. A combined plastic bag and closure device as re-
cited in claim 1 wherein a slot is provided in said patch
which is adapted to be engaged by the finger nail to start
tearing a strip of material from said patch and thereby facilitat-
ing the opening of the pocket formed by said patch and
the removal of said bag closure device therefrom.

4. A combined plastic bag and closure device as re-
cited in claim 3 wherein said closure device is approxi-
mately rectangular in shape and said patch and said heat
seal for securing said patch to said bag are approximately
rectangular in shape.

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