

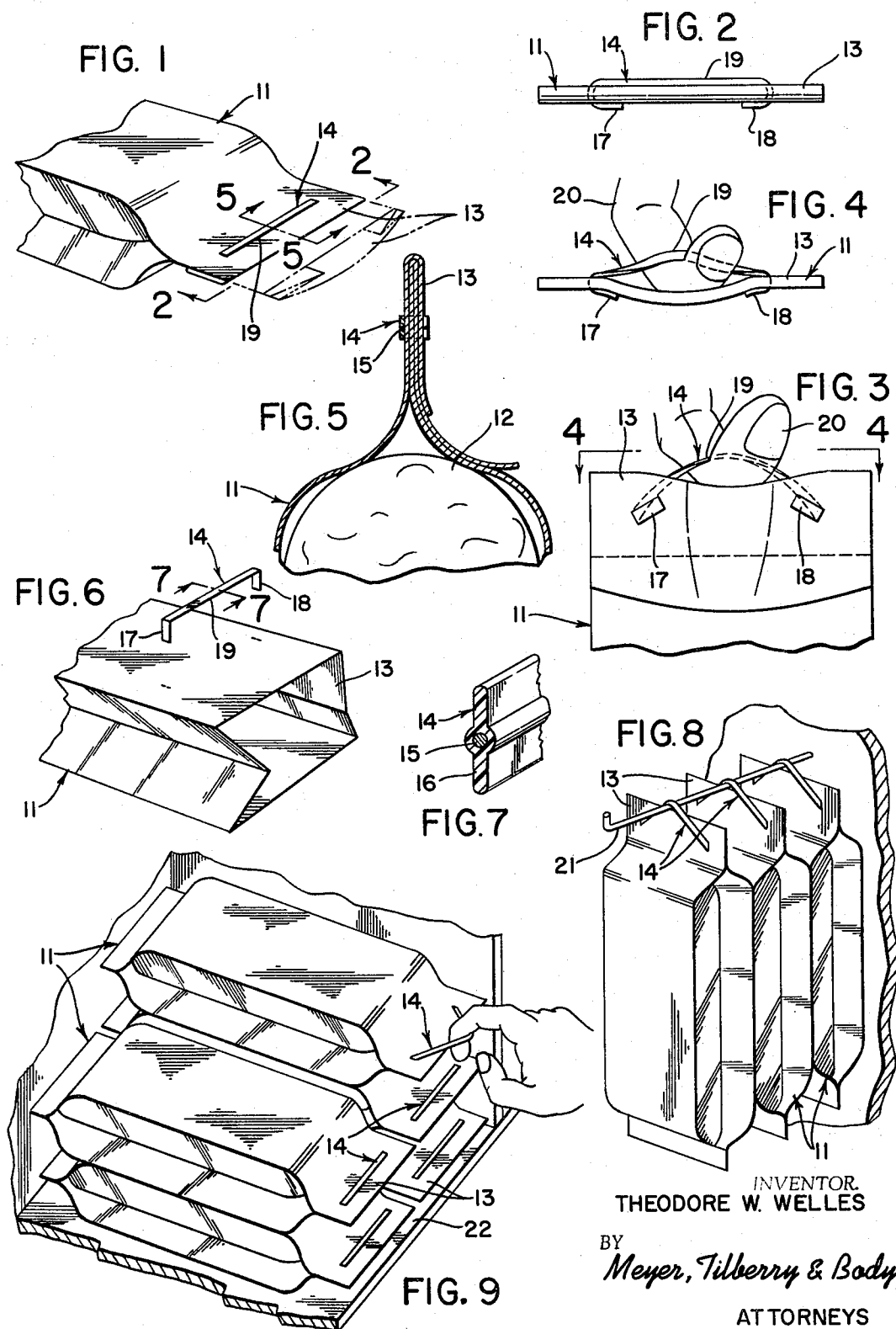
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FASTENER AND HANDLE FOR PACKAGES

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FASTENER AND HANDLE FOR PACKAGES
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ABSTRACT OF THE DISCLOSURE

There is disclosed herein a device for fastening and carrying small packages having a wrapping formed of flexible sheet material. This device utilizes plastic coated wire whose ends are placed through openings in the thin, flexible material, such as, paper, cellophane, or other plastic film formed into a package or a bag, and then bent inward so as to form a handle for carrying light-weight articles, such as loaves of bread.

Disclosure

This invention relates to devices for fastening and carrying small packages having a wrapping formed of flexible sheet material.

More particularly the invention relates to a novel, dual-purpose fastening device and carrying handle adapted for use in combination with thin flexible wrapping material such as paper, cellophane, and other plastic film formed into a package or bag for small light-weight articles such as loaves of bread.

Small light-weight goods available for customer purchase in retail stores frequently are fragile and must be loosely packaged in wrapping paper or other flexible sheet material formed into a bag. The access end of bags formed of these materials is often difficult to close or seal after the goods have been inserted and expensive complicated fastening equipment is usually not practicable since the goods are either packaged a few at a time in accordance with daily consumption or are packaged individually for the customer only after the goods have been selected for purchase.

Many perishable packaged goods such as bread and other baked goods must be very carefully handled both prior to and after sale to avoid injury and are also bulky and awkward to carry without squeezing.

Retail stores selling baked goods and dairy products frequently place their merchandise in individual paper bags for customers after an item has been selected for purchase. The access end of the package or bag is normally tightly folded or stapled with a stapling gun to close and seal the bag after the goods have been inserted. The purchaser must then carry the package in typical "loaf of bread" fashion or in some other awkward manner requiring careful gripping by the hand or arm.

Ordinary metal staples while providing a convenient, inexpensive fastening means can easily tear most wrapping materials if the package or bag is not carefully handled. Adhesive coated paper tape is another conventional means for sealing packages of this type, however, this method is time consuming and cumbersome.

The present invention provides a new and improved fastener for packages of the type described which meets all of the above objections and which provides additional advantages heretofore not obtainable.

The fastener and carrying handle of the present invention is used in combination with a bag or package and comprises a flexible length of wire annealed to a dead soft condition and embedded in a ribbon or relatively soft material to provide an elongated fastening member having a generally flat cross section. The end portions of the

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member are extended through flattened layers of wrapping material at the access end of the package or bag and turned in sharply or convoluted to form a loop. The central span between the sharply bent end portions of the member must be sufficient to permit at least one and preferably two or three fingers of a purchaser to be inserted between the member and the wrapping material so that the device may be used as a handle, the member being sufficiently flexible that it curves and twists about its longitudinal axis to conform to the curvature of the finger so that a flat surface of the member bears against the skin.

The wire is preferably nonresilient or annealed to a dead soft condition so that when the end portions of the member are folded into a sharp bend or hook, they will hold the material tightly and firmly. The material in which the wire is embedded is preferably a plastic and is formed by extrusion through a die having a desired flat cross section so that the member has sufficient width to avoid an uncomfortable concentration of pressures on the skin.

The plastic material may be color coded if desired to provide a convenient means for placing certain information on the package. For example, in the case of bread, the color could indicate the day of the week on which the bread was baked.

Another novel feature of the device is that it may be reused once the bag or package on which it was applied has been opened. In other words the device may be used as often as desired either to refasten the bag to which it was initially applied or to fasten the access end of other bags or packages.

When the goods are placed in bags prior to purchase, the device may be used as a handle for suspending the goods on a hanger rod for display or for use in pulling horizontally stacked bags off a shelf, for example, where there is insufficient space to reach in and grab the package with the hand.

It is among the objects of the invention to provide a new and improved fastening and carrying device for packages of the type described, which is easily applied without elaborate equipment and which serves as a convenient carrying handle or as a means for suspending the packages on a hanger rod for display.

Another object of the invention is to provide an easily applied, low-cost fastener for bags formed of flexible wrapping material which may be unfastened and reused again when desired.

It is also an object of the invention to provide a carrying handle for light-weight goods packaged in bags formed of paper or plastic film and the like, which may be easily gripped by the finger of a purchaser and which is comfortable and convenient to use.

Other objects, uses, and advantages of the invention will be apparent from the following detailed description and drawings wherein like parts are indicated by like numerals and wherein:

FIGURE 1 is a perspective view of a paper bag for packaging loaves of bread and showing the access end of the bag in an unfastened condition in dashed lines and in a fastened condition according to the present invention in solid lines;

FIGURE 2 is a transverse sectional view taken on the line 2—2 of FIGURE 1;

FIGURE 3 is a fragmentary elevational view showing the fastening and sealing device gripped by a finger for carrying the bag;

FIGURE 4 is a sectional view taken on the line 4—4 of FIGURE 3;

FIGURE 5 is a section taken on line 5—5 of FIGURE 1 shown with the bag in upright position;

FIGURE 6 is an exploded fragmentary perspective view of a bag for packaging bread and showing the access end of the bag in an open condition;

FIGURE 7 is a cross-sectional view of a fastening device embodying the invention taken on the line 7—7 of FIGURE 6;

FIGURE 8 is a perspective view showing bags of the type shown in FIGURE 1 suspended on a hanger rod by means of a fastening and carrying device of the type embodying the invention; and

FIGURE 9 is a perspective view of bags of the type shown in FIGURE 1 stacked horizontally on a shelf for display and having the access ends fastened with a fastening and carrying device embodying the invention.

Referring more particularly to the drawings, there is shown a paper bag 11 which serves as a wrapping for a loaf of bread 12. The bag 11 has an access end 13 which may be closed and fastened by means of a fastening member 14 after the loaf of bread 12 has been inserted. The closure at the access end 13 of the bag 11 is formed by flattening the walls of the bag in accordion fashion as shown in dashed lines in FIGURE 1. The bag 11 is usually creased as best shown in FIGURE 8 to facilitate the flattening. Normally the flattened end of the bag is then folded over as shown in solid lines in FIGURES 1 and 5 and the fastening member 14 applied to complete the closure.

The member 14 is in the form of an elongated band comprising a length of small diameter wire 15, e.g. 0.5 mm., which is annealed to a dead soft condition and embedded in the center of a narrow ribbon 16, e.g. 4.00 mm. by 0.5 mm., of a soft plastic material to provide a relatively flat cross section. Polyethylene is a suitable material for this purpose.

The end portions 17, 18 of the member 14 are initially bent perpendicular to the central span 19 of the device in the general form of a staple as best shown in FIGURE 6 and then driven through the flattened walls of the bag 11. Small holes may be prepunched in the bag if desired. When this is accomplished, the protruding ends 17, 18 are turned inwardly and flattened against the wall of the bag as best shown in FIGURE 2 to form a sharp bend or loop which tightly and firmly fastens the flattened walls together. The wire 15 has sufficient rigidity and lack of resilience to provide a firm clamping of the walls of the bag and yet the device 14 has sufficient width and softness due to the plastic 16 that there is very little tendency to tear the paper.

As an important part of the present invention, the end portions 17, 18 and any prepunched holes must be spaced apart a distance such that a finger can easily be inserted under the central span 19. A minimum length of the span is 1½ inches. Thus the member 14 is more than a closure, it is also a handle.

While the preferred method of closing the access end 13 of the bag 11 includes the doubling back or folding over of the bag walls as shown in FIGURES 1 and 5, this step may be eliminated if desired. For some applications, this modified method would be sufficient and would afford a time saving.

FIGURES 3 and 4 illustrate the use of the fastening member 14 as a carrying handle. The central span 19 is of a sufficient length to permit a finger 20 to be easily slipped between the member 14 and the wall of the bag 11 to facilitate carrying of the goods in the manner shown. The length of the central span 19 is preferably about 3 inches, the total length of the member 14 is generally being about 4 inches. Each end portion 17, 18 should be at least ½ inch in length. The member 14 is sufficiently flexible and capable of twisting about its longitudinal axis to permit the central span 19 to conform somewhat to the curvature of the finger and also to lie flat against the skin during the carrying of the bag.

Sufficient surface area is in contact with the skin to prevent undue concentration of pressure due to the weight of the goods which might otherwise cause discomfort.

Due to the physical characteristics of the fastening member 14, it may be easily removed from the bag by merely bending the ends 17 and 18 outwardly to a substantially perpendicular position and then withdrawing them from the paper. If it is necessary to refasten the access end 13 of the bag, the member 14 is reusable and may be easily reapplied. Alternatively, the open end of the bag may be necked in and the member 14 used as a tie by wrapping it once or twice around the neck and then intertwisting the ends.

FIGURES 8 and 9 illustrate different uses of the fastening member 14 in applications where the goods are packaged prior to selection by the purchaser. As shown in FIGURE 8, the fastening members 14 are slipped over the end of a hanger rod 21 with the bags 11 suspended therefrom. This application is particularly suitable in the case of bread and other baked goods because the goods may be displayed for purchasers in individually hung packages with no danger of crushing which could result when they are stacked one on top of the other.

FIGURE 9 shows several of the bags 11 stacked horizontally on a shelf 22. With this arrangement a purchaser need not reach in and grab the body of the package with the hand but need merely slip a finger into the member 14 and pull the bag off the shelf. In this way there is no danger of squashing or otherwise damaging the bread or other packaged product.

The member 14 may be used with many types of wrapping or packaging materials such as cellophane, polyethylene, polypropylene, and other plastic sheet materials. The member 14 may also be used in connection with plastic bags in which the access end has been closed and heat sealed initially. In this instance, the principal function of the member 14 is to provide a convenient carrying handle as described above.

While the invention has been described with reference to a specific device, other modifications and variations will occur upon a reading and understanding of the specification. Accordingly, changes and modifications may be made without departing from the spirit of the invention.

Having thus described my invention, I claim:

1. In combination, a bag formed of thin flexible packaging material and having an access end, and a fastener and carrying handle therefor comprising a flexible length of wire annealed to a dead soft condition and embedded in a ribbon of relatively soft material to provide an elongated member having a generally flat cross-section, said member having a central span and end portions and having the same cross-section, said end portions adapted to be driven through said packaging material at the access end of said bag in a direction generally perpendicular to said central span and bent sharply inwardly to form tight loops for securing said member to said packaging material, said central span having sufficient length and flexibility to permit gripping by a finger when said member is secured to said bag by said end portions.

2. A combination as defined in claim 1 wherein said length of wire is embedded in an extrudable plastic material.

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