Feb. 27, 1951 F. A. VOOS 2,543,681

PULL-TAPE DISPENSING DEVICE

Filed Sept. 8, 1949

FIG. 1

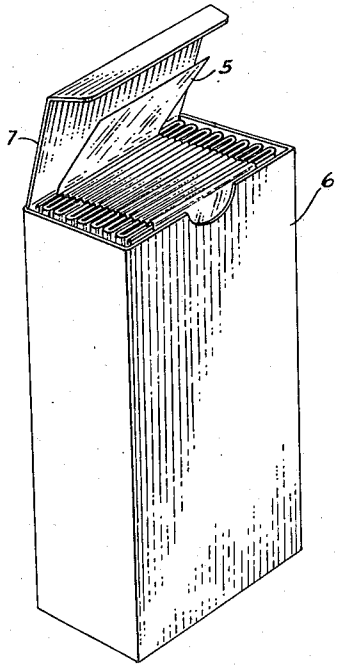


FIG. 2

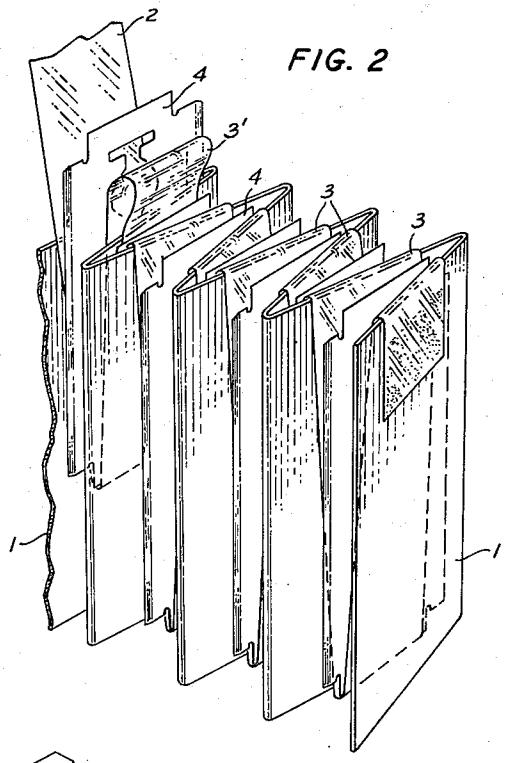
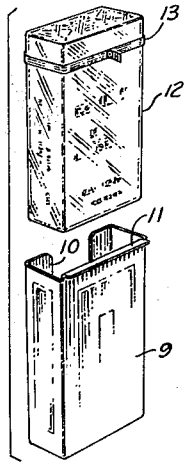


FIG. 4



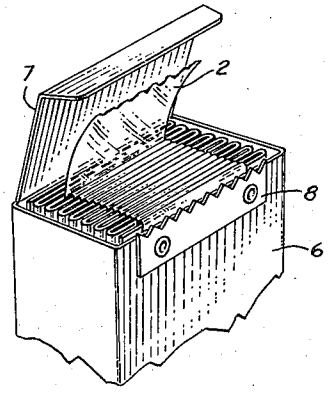


FIG. 3

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PULL-TAPE DISPENSING DEVICE

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2 Claims. (Cl. 206—16)

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This invention relates to dispensing devices, and more particularly to a dispenser for relatively thin, flat objects, such as razor blades.

It is an object of the invention to provide a dispenser which is convenient to use, which may be made of inexpensive materials, which is extremely compact and will thus serve as a carrier for a large number of dispensable items while maintaining a minimum cubic volume, and which will provide adequate protection against damage to its contents during shipment and handling.

A feature of the invention resides in the use of two strips of low cost, pliable material such as cardboard, paper, cellophane, woven fabric or the like as the basic materials of construction.

A further feature of the invention results from an organization of parts whereby the dispenser may be assembled without the use of mechanical fasteners, or fasteners of any sort, the dispenser being established and maintained in operative condition by merely inserting it into a suitable container, which may be cardboard, plastic, or metal.

The invention may be understood from the following detailed description, reference being had to the accompanying drawings.

Fig. 1 is a perspective view of an assembled dispensing device;

Figure 2 is a perspective view showing the essential parts of the device in expanded form and illustrates the relation of the various parts to each other and to the packaged articles;

Fig. 3 is a perspective view illustrating the appearance of the device after some of the articles have been dispensed and includes a showing of a tape-cutting edge applied to the container; and

Fig. 4 shows a commercial form of the device.

Any flat object may be dispensed or ejected by this handling device. It was, however, primarily designed for the packaging of safety razor blades and accordingly razor blades have been illustrated in the drawing.

The device consists of two major elements, a pliable foundation strip and a pull tape so interleaved with the foundation strip that the packaged items may be ejected singly in succession. As may be best seen in Fig. 2, a foundation strip 1 is folded back and forth upon itself in zig-zag fashion so that openings are formed between each fold. Another strip of flexible material 3 is folded over each upper edge of the folded base strip 1 in the manner clearly shown in Fig. 2. Loops are formed between the sides of the base member 1, there being such a loop included in

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the angular space or V produced by each fold of the base member 1. It is obvious that the width of each fold of base member 1 is slightly in excess of the width of a razor blade. The width of the strip 1 is slightly in excess of the length of a razor blade and each loop formed by strip 3 will be of a depth slightly in excess of the length of a razor blade but somewhat less than the width of strip 1. A razor blade 4 is inserted into each loop developed in each of the angular spaces generated by the zig-zag or accordion folding of strip 1. The entire assembly is then compressed and inserted in a suitable container which may be a cardboard box 6 provided with a flat cover 7 as shown in Fig. 1. The free end 5 of the pull tape is allowed to project as shown in Fig. 1 to provide material which may be gripped in order to eject a razor blade.

Referring again to Fig. 1, it will be seen that by pulling on end 2 of the tape 3 a razor blade 4 is lifted from the angular space by the action of the tape loop which generates a free loop as shown at 3'.

If desired, the cover 7 of the container 6 may be folded back upon itself so as to provide a rounded edge over which the pull tape may slide smoothly. If desired, a cutting edge 8 may be provided to assist in tearing off excess lengths of the pull tape as the blades are ejected.

If desired, the container 6 may be eliminated entirely and the compressed assembly may be enclosed in a suitable wrapper 12 of paper, cellophane or the like, for which an opening pull tape 13 may conveniently be provided. If desired, a container 9 for the wrapped package may be supplied. This container is preferably provided with wings or flaps 10 on its under surface. It may be molded from plastic material or formed from any suitable metal. It should be of sufficient weight to protect the assembly. The aperture between the flaps permits the assembly to be gripped by the thumb or fingers for convenient removal from the container. The friction on the razor blades is sufficient to hold them securely in place until needed. A turned-back edge 11 may be provided for the container 9 so that the pull tape may slide smoothly thereover.

The width of strip 3 is somewhat less than the width of a razor blade with the result that the cutting edges of the blades extend beyond the sides of the strip loops and are maintained out of contact with the base member 1, being spaced therefrom by the thicknesses of the pull tape 3. This provides an important advantage, as it is

essential that the sharp edges of the blades be protected during shipment and handling.

It is obvious that a wide variety of materials may be used both for the base member and for the pull tape 2. A light-weight cardboard is very satisfactory for member 1 and a waxed paper of medium weight provides a very satisfactory pull tape. The wax on the paper has good self-lubricating qualities and unwanted portions may be easily torn off as excess material is generated.

If desired, either end, or both ends of the assembly may be moisture-proofed by the application of a light coating of wax, paraffin or any suitable sealing composition. Obviously the mechanical strength of the seal at the working end of the assembly must be low enough so as to permit easy rupture of the seal when the tape is pulled.

It is to be understood that the above-described arrangements are illustrative of the application of the principles of the invention. Numerous other arrangements may be devised by those skilled in the art without departing from the spirit and scope of the invention.

What is claimed is:

1. A container, a foundation member consisting of a strip of pliable material folded back and forth in zig-zag fashion, said strip after being compressed and inserted in said container forming a series of open-ended pockets, an operating member consisting of a strip of pliable material so folded over each upper edge of said folded foundation member that a series of loops is formed in said series of pockets, a plurality of flat objects to be dispensed, one of said objects being disposed in each of said loops, and means to eject said objects successively from said container.

2. A container, a foundation member consisting of a strip of pliable material folded back and forth in zig-zag fashion, said strip after being compressed and inserted in said container forming a series of pockets, a pull tape consisting of a strip of pliable material so folded over each upper edge of said folded foundation member that a series of loops is formed in said series of pockets, a plurality of razor blades to be dispensed, one of said blades being disposed in each of said loops with the cutting edge or edges of said blade parallel to the longitudinal axis of the pull tape, the width of said tape being less than the width of said razor blades whereby the cutting edges of said blades are spaced from said foundation member by the thicknesses of said tape loops, and means to eject said blades successively from said container by pulling on said tape.

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