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HAND GRIPS FOR CARTONS

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FIG. 1.

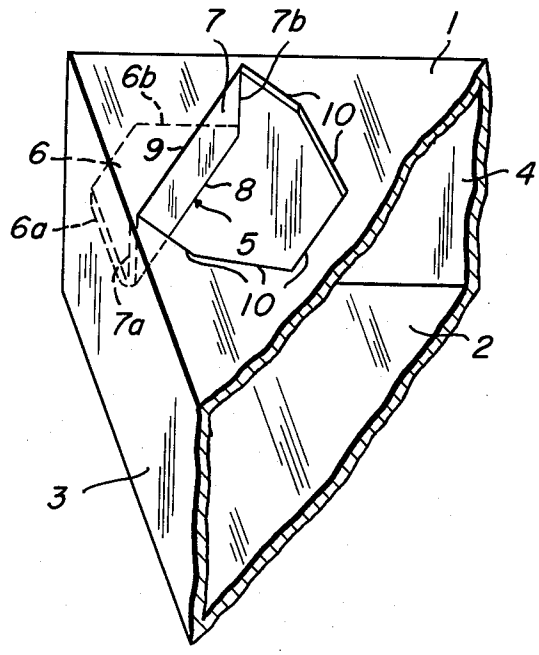
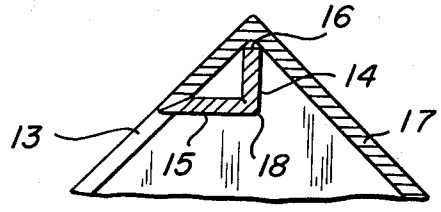


FIG. 2.



INVENTORS
ALBERT M. ANTLIFF
ROBERT A. NESBITT
BY Fetherstonhaugh & Co.
ATTORNEYS.

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HAND GRIPS FOR CARTONS

Albert M. Antliff, Brockville, Ontario, Canada, and Robert A. Nesbitt, Liverpool, England, assignors to Phillips Electrical Company Limited, Brockville, Ontario, Canada

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This invention relates to hand grips for cartons, particularly, though not exclusively, for cartons containing coils of wire.

It has already been proposed to fold in a portion of a carton wall to provide a hole having an edge serving as a hand grip. Such a hand grip, however, was weak and the wall of the carton above the hole had a tendency to tear under the weight of the carton and contents.

It is an object of the present invention to provide a carton with a hand grip of greater strength and to obviate or mitigate tearing of the carton.

According to the invention, there is provided a carton having a hand grip integral with one wall of the carton and formed from said wall, said hand grip comprising inner and outer flaps adjoining along a common fold line, both of said flaps being foldable into the carton, about a fold line at the outer edge of said outer flap, and said inner flap being foldable relative to said outer so that at least one of its edges engages the interior surface of the carton.

The flaps forming the hand grip may be defined in the carton blank before assembly of the carton by providing crease lines and lines of at least partial cut in one wall-forming portion of the blank.

Embodiments of the invention will now be described by way of example, with reference to the accompany drawings, in which:

FIGURE 1 is a perspective view of a corner of a carton showing one form of improved hand grip; and

FIGURE 2 is a sectional elevation of a corner of a carton, illustrating another possible embodiment of the invention.

Referring firstly to FIGURE 1, which illustrates the preferred embodiment of the invention, a corner of a carton is shown comprising a top wall **1**, a bottom wall **2** and the side walls **3** and **4**. A hand grip generally indicated as **5**, is formed from the top wall **1** and consists of a composite flap comprising an inner flap **6** and an outer flap **7** adjoining along a crease line **8**. A crease line **9** is provided at the outer edge of flap **7** and lines of cut **10** are formed in the wall **1** so that the flaps **6** and **7** can be folded into the carton and mutually folded about crease line **8**. FIGURE 1 shows the flaps in their final folded position in which the side edges **6***a* and **6***b* of the inner flap **6** and the side edges **7***a* and **7***b* of outer flap **7** abut against the interior surfaces of walls **3** and **4**, respectively, bracing the outer flap **7** against collapse when the carton is carried. Crease lines **8** and **9** and lines of cut **10** are preferably formed in the carton blank before assembly of the carton and the lines of cut **10** may be formed as complete cuts or as lines of partial cut, that is to say, as lines of perforations.

When the carton is carried by the hand grip the weight of the carton and contents is distributed around the edges of flap **7**, the edge **8** being braced by the inner flap **6** engaging the side walls of the carton, the edge **9** being

braced by the wall of the carton thereabove and the side edges **7***a* and **7***b* being braced by the walls of the carton against which they abut. Thus, there is less pull on the edge **9** than is usual in the case of hand grips formed by folding in a flap of a carton wall and, as a consequence, there is less tendency for the carton wall to tear. Moreover, the braced flap **7** provides a more comfortable grip for a carrier's hand than the sharp edge presented by prior hand grips.

Refering now to FIGURE 2, there is shown the corner of a carton in which the hand grip is formed from a side wall **13**, the grip again consisting of an inner flap **14** and an outer flap **15**. In this case, the inner edge **16** of flap **14** engages in the corner of the carton defined by walls **13** and **17** and again serves as a brace for the inner edge **18** of the outer flap. The side edges of the inner flap **14** need not be convergent in this embodiment, in contradistinction to the FIGURE 1 embodiment.

What we claim as our invention is:

1. A carton having a hand grip integral with and formed from a wall of the carton adjacent the periphery of said wall, said hand grip being foldable into the carton to leave an opening in said wall and in operative position, being housed completely within the carton and comprising first and second flap portions adjoining along a common fold line, said first flap portion extending into the carton from said wall at the upper edge of said opening, and said second flap portion extending upwardly from the inner end of said first flap portion into engagement with the interior surface of the carton adjacent said wall as a brace for the inner end of said first flap portion, said hand grip adjoining said wall along a fold line parallel to one edge of said wall and the upper edge of said second flap portion engaging, in operative position, in an upper internal corner of the carton defined by said wall and an adjacent wall.

2. A carton having a hand grip integral with and formed from a wall of the carton adjacent the periphery of said wall, said hand grip being foldable into the carton to leave an opening in said wall and in operative position, being housed completely within the carton and comprising first and second flap portions adjoining along a common fold line, said first flap portion extending into the carton from said wall at the upper edge of said opening, and said second flap portion extending upwardly from the inner end of said first flap portion into engagement with the interior surface of the carton adjacent said wall as a brace for the inner end of said first flap portion, said hand grip adjoining said wall along a line disposed across a corner of said wall and extending substantially to the edges of said wall which meet at said corner, said first flap portion being of rectangular shape and, in operative position, the sides of said second flap portion converging upwardly at an angle equal to the angle defined by the two walls of the carton adjacent said first mentioned wall and meeting at said corner so that, when the carton is carried by hand with said corner uppermost, the sides of said second flap portion engage said two walls and brace the inner end of said first flap portion.

References Cited in the file of this patent

UNITED STATES PATENTS

2,407,111	Thompson	Sept. 3, 1946
2,586,156	Ferguson	Feb. 19, 1952