

Feb. 25, 1958

C. KOENIG
CARTON

2,824,641

Filed July 27, 1954

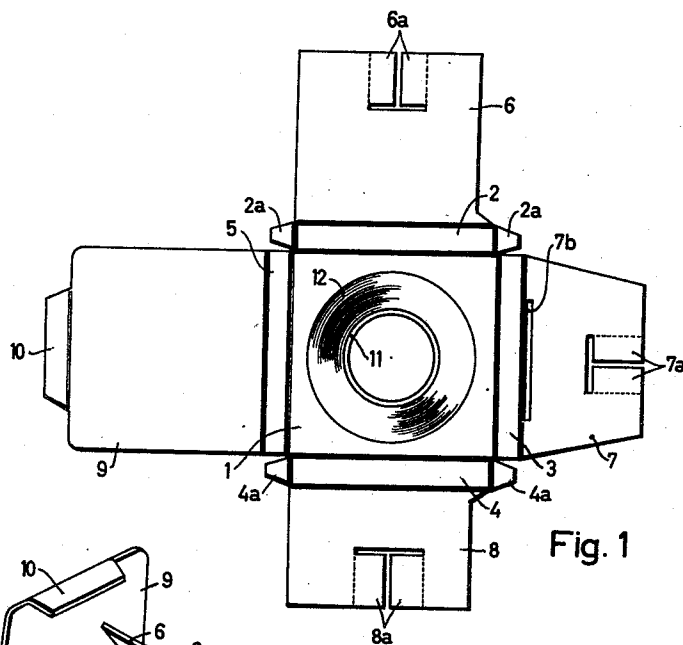


Fig. 1

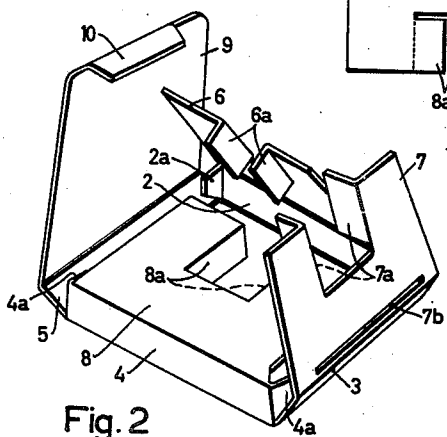


Fig. 2

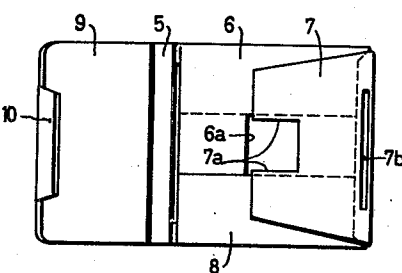


Fig. 4

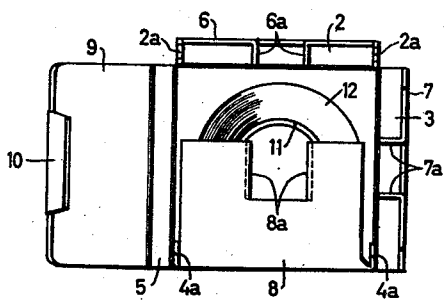


Fig. 3

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2,824,641

CARTON

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Application July 27, 1954, Serial No. 445,998

6 Claims. (Cl. 206—52)

This invention relates to a collapsible carton which is particularly suited for rolls of adhesive tape and the like articles having a central aperture therethrough.

An object of the invention is to provide a carton having flaps with tabs which form a sturdy central hollow support for the article within the carton in order to space the article from the side walls of the carton.

A further object is to provide a carton having additionally a flap serving only as a cover portion.

Further objects are to be seen from the following description and the accompanying drawing.

The drawing shows an example of the novel carton design:

Figure 1 is a plan view showing the carton blank before folding;

Figure 2 is a perspective view showing the partially folded carton;

Figure 3 is a plan view showing the partially folded flaps;

Figure 4 is a plan view showing three flaps folded.

As can be seen from Figure 1, the cut or stamped carton blank comprises the bottom portion 1, the four side walls 2, 3, 4 and 5 together with the extensions 2a and 4a, the three flaps 6, 7 and 8, and the cover portion 9 with tongue 10.

As already mentioned, the novel carton forms a support core which serves to retain the roll of tape. For this purpose, pairs of tabs 6a, 7a and 8a, respectively, are cut in each of the three flaps 6, 7 and 8 as seen in Figure 1; these tabs henceforth being referred to as core tabs. In flap 7 a slit 7b is provided, into which the tongue 10 is inserted.

When the carton is in the closed position, the side walls 2 to 5 are at right angles to the bottom portion 1 and the extensions 2a and 4a are at right angles to the side walls 2 and 4, while the flaps 6, 7 and 8 and the cover portion 9 are parallel to the bottom portion 1; in the closed position, the tongue 10 is inserted in the slit 7b and the core tabs 6a to 8a are at right angles to the flaps 6 to 8. The lines along which the various parts of the carton are folded are normally provided with flutes, as seen in principle from the drawings, in particular Figure 1.

The roll of tape to be received in the carton can be seen fully in Figure 1 and partially in Figure 3. The hollow core of the roll of tape is marked 11, while the rolled tape is marked 12. The novel carton is particularly suitable for self-adhesive tape; rolls of adhesive tape must be packed in such a way that they are adequately protected from pressure which could cause the successive layers of tape to set and harden.

The roll of tape 11, 12 can be placed on the flat carton blank as seen in Figure 1. Then, after bending the core tabs 8a at right angles to flap 8, flap 8 can be folded inwardly as shown in Figures 2 and 3. After bending the core tabs 6a in like manner, flap 6 is folded inwardly as seen in Figure 2 (intermediate position). The lengths

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of the core tabs 8a and 6a are so chosen or graded that, after folding flap 8 to the closed position, flap 6 can be folded to the closed position without effort. The same applies to the dimensions of core tabs 7a, i. e. the width and length of these core tabs are such that, after folding flaps 6 and 8 to their closed positions, flap 7 together with the core tabs 7a (which are previously to be folded at right angles to flap 7) can be folded to the closed position without meeting resistance or without excessive resistance. The closed positions of flaps 6, 7 and 8 with their respective core tabs can be seen in Figure 4. It should also be mentioned that the dimensions of the core tabs are adapted to the inner diameter of the hollow core 11 of the roll of tape, so that when in their closed positions they retain the hollow core 11 without much play, or even with a slight tension. The roll of tape 11, 12 is thus securely held against relative movement within the carton. By means of the hollow core 11 the core tabs 6a to 8a are held together as by a ring fitted over them.

Finally the cover portion 9 is folded over the flaps 6, 7 and 8, the tongue 10 being inserted in the slit 7b.

Naturally, when the flaps 6 to 8 and the cover portion 9 are folded, the side walls 2 to 5 are raised upright and the extensions 2a and 4a are inserted in such a way that they are covered by the side walls 5 and 3 when the carton is in the closed position.

The third flap 7 can also be substantially dispensed with by reducing its size to be just short of the slit 7b. The design shown, however, has the advantage of strengthening the supporting core formed by the core tabs 6a to 8a. It should be noted that, in their closed positions, the core tabs 7a are at right angles to the core tabs 6a and 8a and thus prevent the core tabs 6a and 8a from leaving their closed positions; in this way the core tabs 7a help to strengthen the supporting core formed by the core tabs. This is clearly seen in Figures 2 and 4.

I claim:

1. A carton constructed of bendable material and suitable for containing an annular object, comprising a rectangular bottom portion, a first pair of upwardly-extending side portions attached one each to a first pair of opposing edges of said bottom portion, a second pair of upwardly-extending side portions attached one each to the second pair of opposing edges of said bottom portion, a first flap portion extending inwardly from the outer edge of one of said first pair of side portions and in spaced parallel relationship with respect to said bottom portion, a second flap portion extending inwardly from the outer edge of one of said second pair of side portions and disposed in overlapping face-to-face relationship with respect to said first flap portion, each of said first and second flap portions being cut inwardly from its outer edge and cross-wise at the base of said inward cut to provide a pair of opposed rectangular tabs, said pairs of tabs being bent inwardly in the direction of said bottom portion, the bent tabs of the second flap portion extending transversely of and adjacent the ends of the bent tabs of the first flap portion, to provide a substantially rectangular interior post for supporting the core of the annular object contained, and a third flap portion extending inwardly from the outer edge of the other of said first pair of side portions and overlying said first and second flap portions to form a top cover for the container, and means for securing said top cover flap in place in substantially spaced parallel disposition with respect to said bottom portion.

2. A carton constructed of bendable material and suitable for containing an annular object, comprising a rectangular bottom portion, a first pair of upwardly-extending side portions attached one each to a first pair of

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opposing edges of said bottom portion, a second pair of upwardly-extending side portions attached one each to the second pair of opposing edges of said bottom portion, a first flap portion extending inwardly from the outer edge of one of said first pair of side portions and in spaced parallel relationship with respect to said bottom portion, a second flap portion extending inwardly from the outer edge of one of said second pair of side portions and disposed in overlapping face-to-face relationship with respect to said first flap portion, each of said first and second flap portions being cut inwardly from its outer edge and cross-wise at the base of said inward cut to provide a pair of opposed rectangular tabs, said pairs of tabs being bent inwardly in the direction of said bottom portion, the bent tabs of the second flap portion extending transversely of and adjacent the ends of the bent tabs of the first flap portion, to provide a substantially rectangular interior post for supporting the core of the annular object contained, and a third flap portion extending inwardly from the outer edge of the other of said first pair of side portions and overlying said first and second flap portions to form a top cover for the container, and a tongue portion extending from the outer end of said third flap portion and adapted to be bent into a slot in said first flap portion for securing said top cover flap in place in substantially spaced parallel disposition with respect to said bottom portion.

3. A carton constructed of bendable material and suitable for containing an annular object, comprising a rectangular bottom portion, a first pair of upwardly-extending side portions attached one each to a first pair of opposing edges of said bottom portion, a second pair of upwardly-extending side portions attached one each to the second pair of opposing edges of said bottom portion, a pair of first and second flap portions extending inwardly from one each of the outer edges of said first pair of side portions in spaced parallel relationship with respect to said bottom portion, a third flap portion extending inwardly from the outer edge of one of said second pair of side portions, each of said flap portions being cut inwardly from its outer edge and cross-wise at the base of said inward cut to provide a pair of opposed rectangular tabs, said pairs of tabs being bent inwardly substantially perpendicular to extend in the direction of said bottom portion, the first, second and third flap portions overlapping each other, the tabs thereof interfitting, the bent tabs of the first and second flap portions extending substantially parallel to each other and transversely to the outer edges of said first pair of side portions, the tabs of the third flap portion extending transversely to the tabs of the first and second flap portions whereby they cooperate to provide a substantially rectangular interior post for supporting the core of the annular object contained, and a fourth flap portion extending inwardly from the outer edge of the other of said second pair of side portions and overlying said pair of flap portions and said third flap portion and forming a top cover for the container, and means for securing said top cover flap in place in substantially spaced parallel disposition with respect to said bottom portion.

4. A package comprising a carton and an annular object contained therein, the carton being constructed of bendable material and suitable for containing an annular object, comprising a rectangular bottom portion, a first pair of upwardly-extending side portions attached one each to a first pair of opposing edges of said bottom portion, a second pair of upwardly-extending side portions attached one each to the second pair of opposing edges of said bottom portion, a pair of first and second flap portions extending inwardly from one each of the outer edges of said first pair of side portions in spaced parallel relationship with respect to said bottom portion, a third flap portion extending inwardly from the outer edge of one of said second pair of side por-

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tions, each of said flap portions being cut inwardly from its outer edge and cross-wise at the base of said inward cut to provide a pair of opposed rectangular tabs, said pairs of tabs being bent inwardly to extend in the direction of said bottom portion, the first, second and third flap portions overlapping each other, the tabs thereof interfitting, the bent tabs of the first and second flap portions extending substantially parallel to each other and transversely to the outer edges of said first pair of side portions, the tabs of the third flap portion extending transversely to the tabs of the first and second flap portions whereby they cooperate to provide a substantially rectangular interior post extending into and supporting the core of the annular object contained, and a fourth flap portion extending inwardly from the outer edge of the other of said second pair of side portions and overlying said pair of flap portions and said third flap portion and forming a top cover for the container, and a tongue portion extending from the outer end of said fourth flap portion and adapted to be bent into a slot in said third flap portion for securing said top cover flap in place in substantially spaced parallel disposition with respect to said bottom portion.

5. A package comprising a carton and an annular object therein, the carton being constructed of bendable material and comprising a rectangular bottom portion, a first pair of upwardly-extending side portions attached one each to a first pair of opposing edges of said bottom portion, a second pair of upwardly-extending side portions attached one each to the second pair of opposing edges of said bottom portion, a first flap portion extending inwardly from the outer edge of one of said first pair of side portions and in spaced parallel relationship with respect to said bottom portion, a second flap portion extending inwardly from the outer edge of the other one of said first pair of side portions and disposed in overlapping face-to-face relationship with respect to said first flap portion, each of said first and second flap portions being cut inwardly from its outer edge and crosswise at the base of said inward cut to provide a pair of opposed rectangular tabs, said pairs of tabs being bent inwardly in the direction of said bottom portion, the bent tabs extending transversely to the first pair of side portions, the tabs of the second flap portions extending lengthwise of and overlapping at least the major part of the tabs of the first flap portion, to provide two opposite faces of a substantially rectangular opening, said opposite faces extending into and supporting the core of the annular object contained, and a third flap portion extending inwardly from the outer edge of one of the second pair of side portions and overlying said first and second flap portions to form a top cover for the container, and means for securing said top cover flap in place in spaced disposition with respect to said bottom portion.

6. A package comprising a carton and an annular object therein, the carton being constructed of bendable material and comprising a rectangular bottom portion, a first pair of upwardly-extending side portions attached one each to a first pair of opposing edges of said bottom portion, a second pair of upwardly-extending side portions attached one each to the second pair of opposing edges of said bottom portion, a first flap portion extending inwardly from the outer edge of one of said first pair of side portions and in spaced parallel relationship with respect to said bottom portion, a second flap portion extending inwardly from the outer edge of the other one of said first pair of side portions and disposed in overlapping face-to-face relationship with respect to said first flap portion, each of said first and second flap portions being cut inwardly from its outer edge and crosswise at the base of said inward cut to provide a pair of opposed rectangular tabs, said pairs of tabs being bent inwardly in the direction of said bottom portion, the bent tabs extending transversely to the first pair of side portions, the

tabs of the second flap portions extending lengthwise of and overlapping at least the major part of the tabs of the first flap portion, to provide two opposite faces of a substantially rectangular opening, said opposite faces extending into and supporting the core of the annular object contained, and a third flap portion extending inwardly from the outer edge of one of the second pair of side portions and overlying said first and second flap portions to form a top cover for the container, and a slotted fourth flap portion extending inwardly from the outer edge of the other one of the second pair of side portions, and a tongue section extending from the outer end of said third flap and adapted to be bent into the slot to hold the carton in set-up condition.

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