

June 13, 1939.

T. W. MAHONE

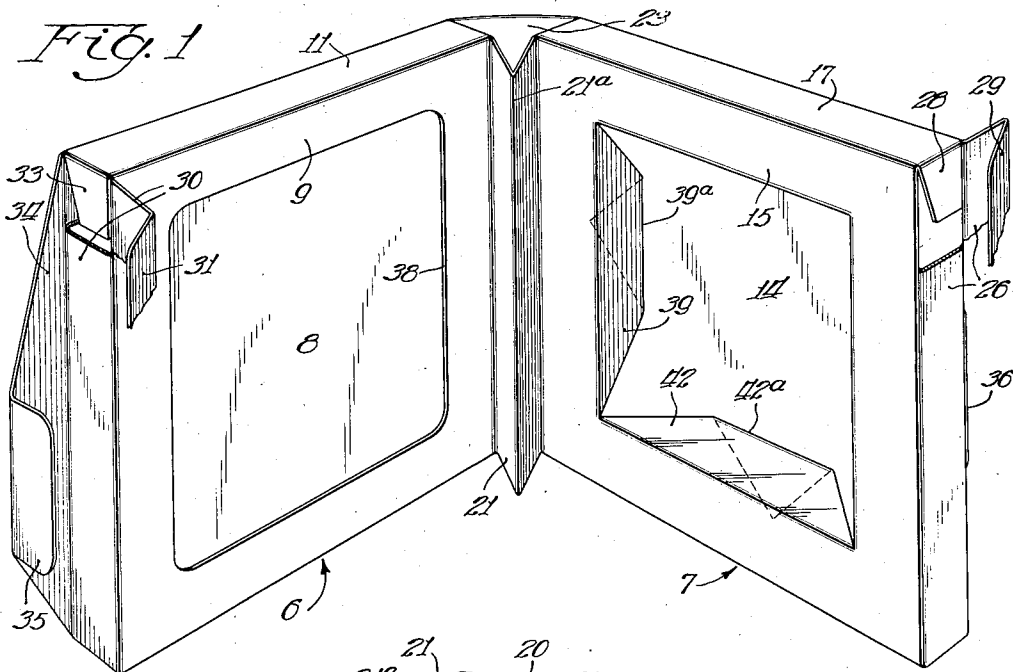
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CARTON

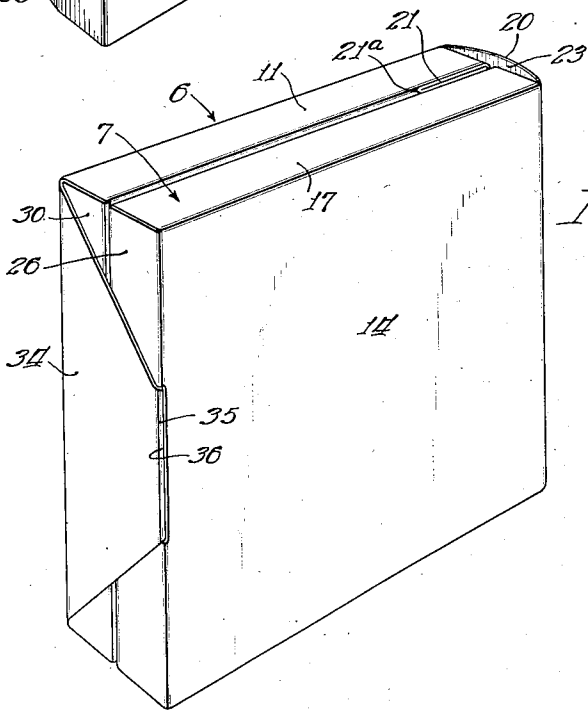
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*Fig. 1*



*Fig. 2*



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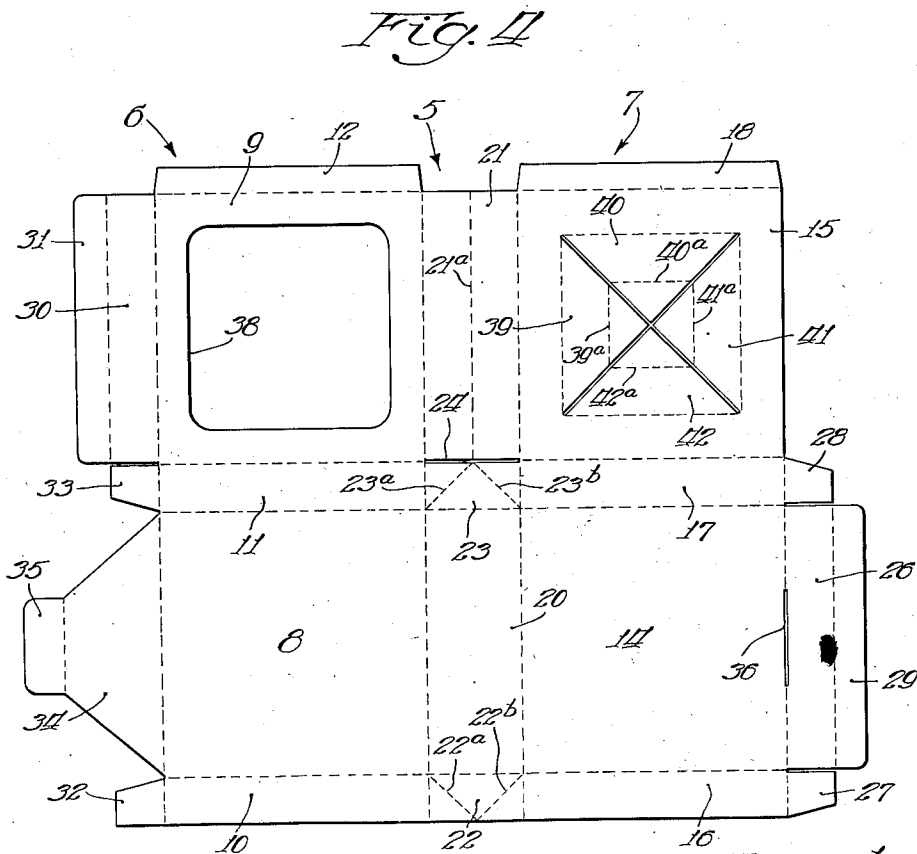
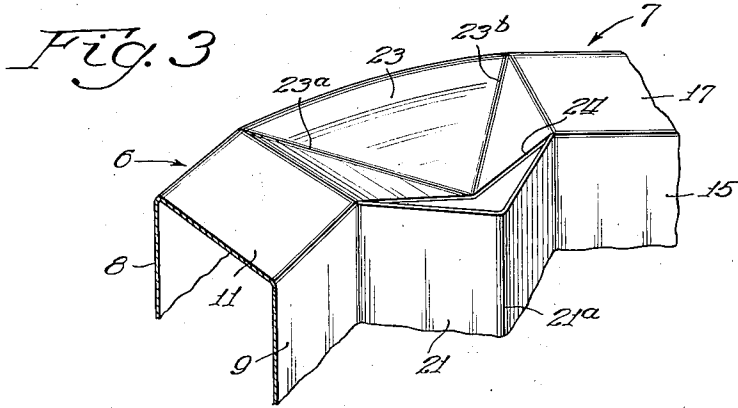
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# UNITED STATES PATENT OFFICE

2,162,094

## CARTON

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Application August 18, 1937, Serial No. 159,686

1 Claim. (Cl. 229—27)

This invention relates to cartons and more particularly to a form of carton adapted to simulate a book.

One object of the invention is to provide an effective carton of this character which is simple and easy to assemble and retain in set-up condition by a convenient form of locking or retaining means.

Another object of the invention is to provide a carton of this character which presents a neat and attractive appearance either when folded to simulate a book or when opened and laid out flat.

A further object is to provide article retaining openings or pockets in sections of the carton so as to retain articles therein and to display them effectively.

To these and other ends the invention resides in certain improvements and combinations of parts, all as will be hereinafter more fully described, the novel features being pointed out in claim at the end of the specification.

In the drawings:

Fig. 1 is a perspective view of a carton, made in accordance with the present invention, illustrating same as it appears in a set-up condition and partially opened;

Fig. 2 is a perspective view of the carton in closed condition and in the form in which it simulates a book in appearance.

Fig. 3 is a fragmentary perspective view illustrating the construction at the connected edges of the separate sections; and

Fig. 4 is a view of the carton blank.

The carton of the present invention is preferably formed of a single blank 5 of folding box-board, see Fig. 4. The carton, as illustrated, is suitably cut and scored to provide parts forming two tubular shaped sections 6 and 7. Section 6 comprises an outer side wall panel 8, and inner side wall panel 9, and edge wall panels 10 and 11 separated by score lines as indicated. Inner side wall panel 9 is preferably provided with an attaching flap 12 which may be joined, as by means of adhesive, to edge wall 10 to form section 6 into tubular form.

Section 7 comprises an outer side wall panel 14, an inner side wall panel 15, and edge wall panels 16 and 17. Inner side wall panel 15, as in the case of inner side wall panel 9, is provided with an attaching flap 18 adapted to be joined to edge wall 16 whereby this section may also be formed in tubular shape.

The sections 6 and 7 are suitably joined together in a manner to prevent unsightly edges from showing and at the same time to enable the

sections to be readily folded one upon the other. For this purpose a joining panel 20 is provided between the outer wall sections 8 and 14; and a joining panel 21 is provided between the inner wall sections 9 and 15. As shown in Figs. 1 and 2, the joining panel 20, between the outer side walls 8 and 14, forms a part simulating the back edge of a book when the sections are partially or completely folded upon each other. The joining panel 21 is preferably scored at 21a to divide this panel into two parts which are adapted to fold upon each other when the sections 6 and 7 are brought into facial contact. The joining panel 21 is separated from the inner side wall panels by the fold lines indicated.

The edge walls 10 and 16 of the sections 6 and 7 are joined by portion 22 preferably integral therewith and with the joining panel 20. This portion 22 is preferably separated from the edge walls 10 and 16, as well as from the joining panel 20 by means of the score lines indicated.

In order to accommodate the folding of section 6 and 7 together, the portion 22 is provided with converging score lines 22a and 22b, extending from the adjacent corners of the outer side wall panels 8 and 14 and terminating at a central point in the outer edge of the portion 22. In a similar manner the edge walls 11 and 17 are joined with a portion 23, integral with the edge walls and with the joining panel 20 and separated therefrom by the score lines indicated. The portion 23 is provided with converging score lines 23a and 23b to enable this portion to accommodate the folding of one section of the carton upon the other as described above in connection with portion 22. A slit 24 is formed between the portion 23 and the joining panel 21 providing for independent movement between the adjacent edges of the portion 23 and panel 21.

As viewed in Fig. 4, the outer edges of portion 22 and the panel 21 will be unconnected so as to allow independent movement therebetween when the carton is formed in the shape of a tube. For this purpose the connecting flaps 12 and 18 terminate at the adjacent extremities of the inner side walls 9 and 15 and the connecting panel 21 is devoid of any projection.

For the purpose of enabling the outer end of section 7 to be closed there is provided on the outer side wall portion 14 a flap 26 equal in width to the width of the edge walls 16 and 17. Additional flaps 27 and 28 are provided at the end of edge walls 17 and 16. A tuck flap 29 is

formed on the flap 26 and is defined therefrom by means of the score line indicated.

For the purpose of closing section 6 of the carton there is provided on the inner side wall panel 9 a flap 30, forming an end closure for this section. A tuck flap 31 is provided on the flap 30 and edge flaps 32 and 33 are provided respectively on the outer ends of the edge wall panels 10 and 11.

In order to retain the sections 6 and 7 in a folded-over condition in which they will lie in facial contact, there is provided, on the outer side wall panel 8 of the section 6, a flap 34 having a length substantially equal to the sum of the widths of the edge walls of the sections 6 and 7. See particularly Fig. 2. A tuck flap 35 is provided at the end of flap 34 and is defined therefrom by means of the score line indicated. To accommodate tuck flap 35 there is formed along the fold line, between the outer side wall panels 14 and its joining edge wall panel 26, a slit 36. When the sections are in face-to-face contact this flap 35 will be inserted into slit 36 so as to retain the sections in fixed position.

In order to accommodate articles within the carton the inner side wall panels 9 and 15 of sections 6 and 7 are preferably provided with suitable pockets or openings. In the present instance, the inner side wall section 9 is illustrated as having an opening 38 of considerable size formed therein so that the panel 9 is in nature of frame surrounding the opening.

The inner side wall panel 15 is, in the present instance, illustrated as being provided with triangular, inwardly extending tabs 39, 40, 41, 42. Each of these triangular tabs is separated from the edge of the panel 15 by means of score lines and another score line is impressed in each tab at a distance equal to the depth of the section, that is, equal to the width of the edge walls. These latter score lines are indicated as 39a, 40a, 41a, 42a respectively. When section 7 is to be prepared for the reception of articles the tabs 39, 40, 41 and 42 are folded so that the main sections thereof will lie substantially at right angles to the surface of panel 15 and the extensions on the ends of these tabs will lie folded against the rear face of the outer side wall panel 14. See particularly Fig. 1. When these tabs are folded down in position indicated in Fig. 1, they will form a pocket which is substantially equal in size to the size of the opening formed in the panel 15.

The carton of the present invention is preferably prepared in the box factory by folding over the inner panels 9 and 15 on the outer panels 8 and 14 and joining the panels 9 and 15 to the edge walls 10 and 16 by means of the attaching flaps 12 and 18. The carton as thus described is then in knock-down shipping form and is ready for shipment to the user, or packer. When the packer desires to set up and fill the carton, the first step is to expand the sections into tubular form by bending along the fold line connecting the edge walls and side wall panels. It is then preferable to break or prefold the score lines in portions 22 and 23 as well as in the joining panel 21. The section 6 may be closed at its outer end by folding the tabs 32 and 33 inwardly, then folding down the flap 30 thereover and at the same time tucking in the tuck flap 31 between the edges of flaps 32 and 33 and the inner face of panel 8.

The section 7 may then be closed by folding inwardly the tab 27 and 28, then folding the end

wall 26 thereover, after which the tuck flap 29 is inserted between the edges of flaps 27 and 28 and the inner surface of the panel 15.

The next step is to fold the sections 6 and 7 together and, in so doing, the central part of the portions 22 and 23 is moved inwardly towards the inner surface of the joining panel 20 which simulates the back edge of a book. At the same time the joining panel 21, between the inner panels of the sections, is folded, along the score line 21a, inwardly of the sections, as indicated in Fig. 1. The sections will then be permitted to come into facial contact with each other and the joining panel 21 will lie between the adjacent faces of the inner panels 9 and 15, see Fig. 2.

When the sections 6 and 7 are brought together, as just described, they may be retained in facial contact by inserting the flap 35 into the slit 36, as shown in Fig. 2.

Due to the resistance of the portions 22 and 23 to complete folding or collapsing the joining panel 20 will be caused to assume a rounded condition, very definitely simulating the back edge of a book.

When the carton is in form illustrated in Fig. 2 with articles contained therein, the sections 6 and 7 may be laid out flat by releasing the flap 35 from slit 36. In this position the carton will be in a condition simulating an open book and the contents thereof will be effectively displayed. Due to the construction of the parts of the carton no unsightly edges will be exposed to view and the carton will present a very neat and attractive appearance. In open position of the sections panel 21 will assume a position in substantially the same plane as the inner panels of the sections and the connecting portions 22 and 23 will retain substantially a plane position, but with the edges of these portions lying beneath and being hidden by connecting panel 21.

From the foregoing it is apparent that the present invention provides a very neat and attractive carton which can be made up into collapsed tubular form at the carton factory, after which it may be set up for packing by the user with a minimum amount of effort and without requiring special machinery or equipment.

While the present description sets forth a preferred embodiment of the invention, numerous changes may be made in the construction without departing from the spirit of the invention, and it is therefore desired that the present embodiment be considered in all respects as illustrative and not restrictive, reference being had to the appended claim rather than to the foregoing description to indicate the scope of the invention.

I claim:

A carton adapted to simulate a book, said carton comprising two sections each comprising an outer and an inner side wall, opposed edge walls and an end closure, the outer side walls being connected together by a joining panel simulating the back edge of a book, the joining panel being of a width substantially equal to the combined width of two edge walls, said inner panels being connected together by a joining panel substantially equal in width to said first mentioned joining panel, said last mentioned joining panel being centrally scored along a line parallel to the edges of said inner side walls to permit said joining panel to fold and lie between the adjacent inner side walls when said carton is folded into the form of a closed book, and edge wall joining

5 portions on each end of said first mentioned joining panel, each of said portions being connected with the ends of the adjoining edge walls and being of equal width thereto, each of said portions also being provided with converging score lines extending from the outer edges of said portions, where said portions meet said first mentioned joining panel, to a central point in the inner edge of said portions, whereby, when said carton sections are folded together, said end portions will fold along said converging score

10

lines to form compact triangular portions, limited to double thickness, lying along the inner surface of said first mentioned joining panel at substantially right angles to said edge walls and, when the carton sections are laid out to simulate an open book, the edge wall joining portions and the inner side wall joining panel will substantially meet each other in edge to edge relation.

5

THOMAS W. MAHONE. 10