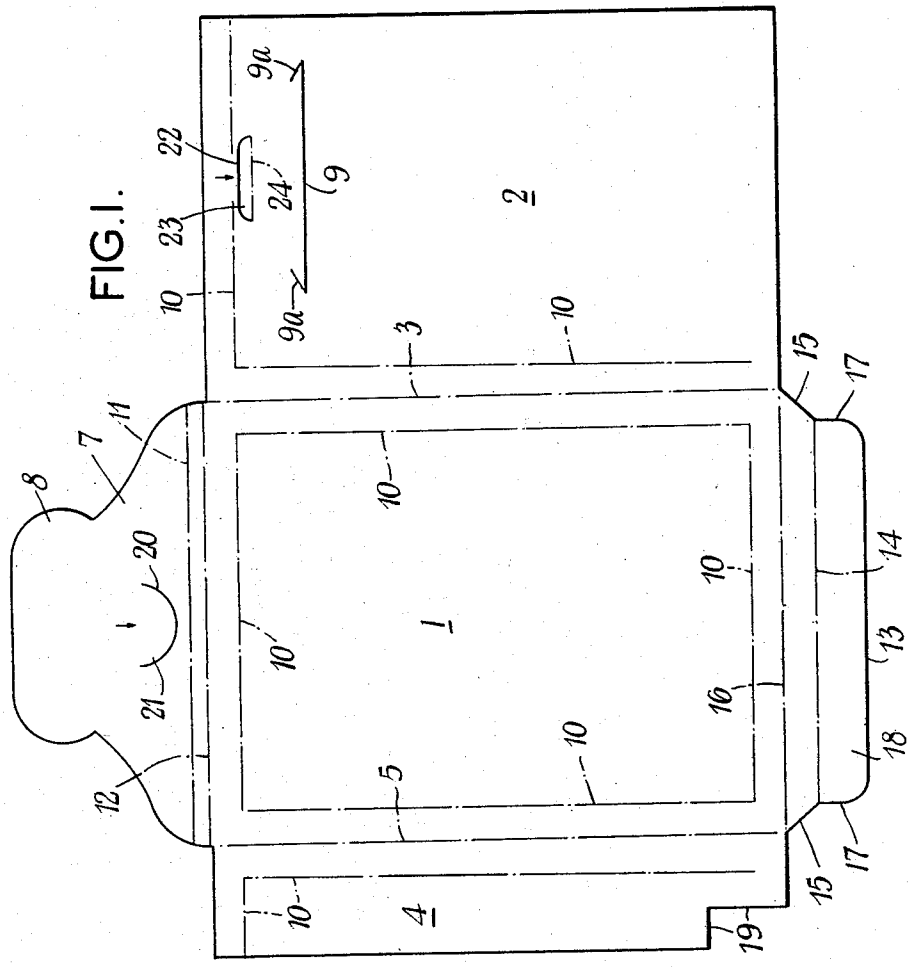
March 17, 1964 J. R. WATTS ETAL 3,125,279

CARDBOARD AND LIKE CARTONS

Filed March 14, 1962 2 Sheets-Sheet 1

FIG. 1.




Inventors
John R. Watts,
Philip Wagman,
John R. Freshwater
by Sommers & Young
Attorneys

March 17, 1964 J. R. WATTS ETAL 3,125,279

CARDBOARD AND LIKE CARTONS

Filed March 14, 1962 2 Sheets-Sheet 2

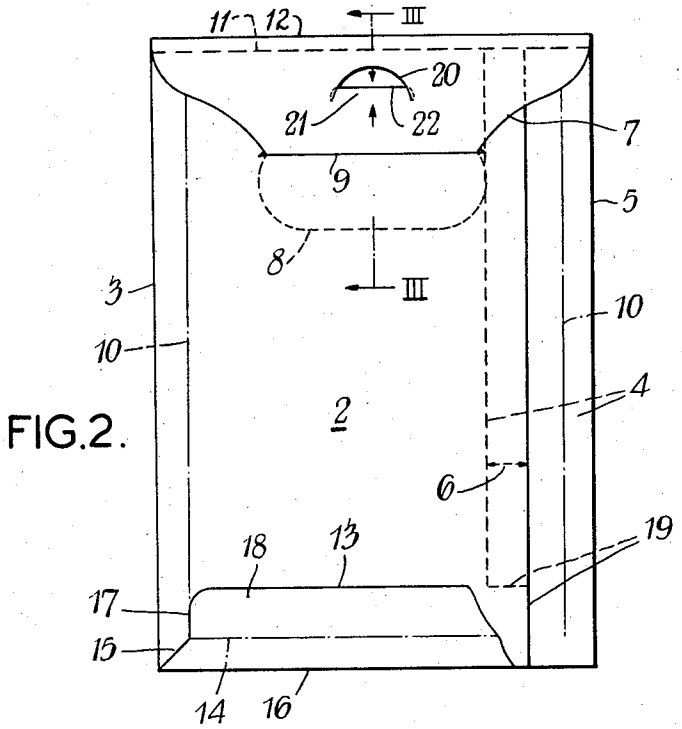



FIG.2.

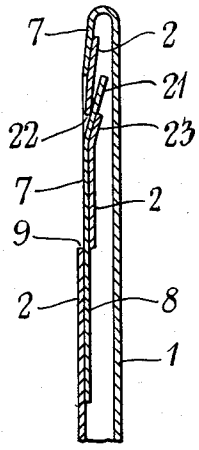



FIG.3.

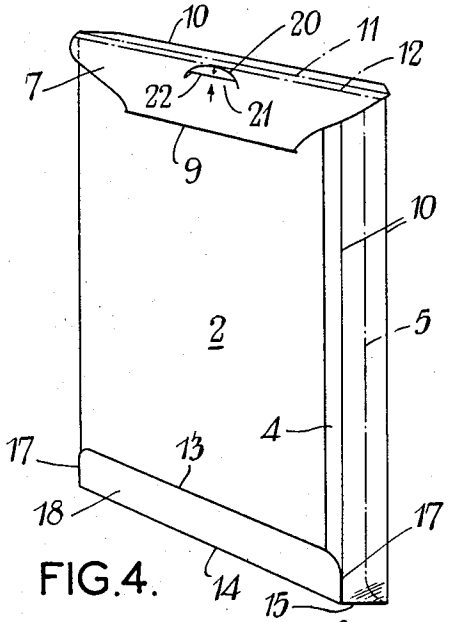



FIG.4.

Inventors
John R. Watts,
Philip Wagman,
John R. Freshwater
By Sommers & Young
Attorneys

United States Patent Office 3,125,279 Patented Mar. 17, 1964



3,125,279

# CARDBOARD AND LIKE CARTONS

John Robert Watts, Hornchurch, and Philip Wagman and John Robert Freshwater, London, England, assignors to M. Petrushkin Limited, London, England

Filed Mar. 14, 1962, Ser. No. 179,592
Claims priority, application Great Britain Mar. 15, 1961
3 Claims. (Cl. 229—40)

This invention concerns improvements relating to cardboard and like cartons and has for an object to provide a construction advantageous, when charged with an article or articles, to make a substantially flat package convenient for handling and transport without likelihood of the goods unintentionally slipping out of the carton.

According to the present invention, a cardboard or like carton is a flat object comprising front and back, and a closure flap at one or more of the sides of the carton, the flap or each flap having a locking tongue such as can be pressed by the finger to engage in a slit or slot or a recess in or on the body of the carton beneath such flap and prevent unintentional opening of the flap when engaged after usual manner in a slit or slot of the body.

As made, the body of the carton suitably is of single fold construction between front and back, and preferably is grooved or scored at a short spacing from its edges to allow boxing at such edges to facilitate reception of an article or articles in the carton. In the latter case, a permanent closure of the carton at an edge opposite the flap edge, by means of a fold-over portion, suitably has this portion cut away at the ends substantially as far as the grooving or scoring at opposite sides of the back, so as to avoid loose projecting parts of the fold-over portion at the ends of this portion, when the edge parts of the carton are boxed or expanded to enable the carton to receive a relatively thick article or a plurality of thinner articles.

In order to enable the invention to be readily understood, reference is directed by way of example to the accompanying drawings, in which:

FIGURE 1 is an elevation of a blank from which to prepare a carton according to this invention,

FIGURE 2 an elevation of the completed and closed and locked carton,

FIGURE 3 a fragmentary section on the line III—III of FIGURE 2, and

FIGURE 4 a perspective view of the carton substantially as it appears in use with its edge parts boxed or expanded as aforesaid.

The embodiment of the invention illustrated by way of example in the drawings is a carton of rectangular form made from a blank which, as shown in FIGURE 1, comprises two rectangular main portions 1, 2, the latter one slightly narrower than the other. These portions are hinged together by a single fold 3 and at the edge of the wider portion 1, opposite to such fold, is a narrow strip-like portion 4 likewise hinged by a single fold 5. The portion 1 forms the front of the carton which, in general, is somewhat like a known form of correspondence envelope. The other two portions 2, 4 combine to form the back of the carton, as will be apparent from FIGURE 2. As shown, the portion 4 is first folded over against the inner surface of the front and the portion 2 folded over so as to overlap the former on the outside, the two being stuck together by adhesive over the region indicated by 6. At the top of the front part of the carton is a fold-over flap 7 which, after usual manner, is tongued, as at 8, to enter a transverse, and slightly sloping, slit or slot 9 in the back, for closure of the carton.

The back and front of the body of the carton are grooved or scored, as at 10, along and at a short distance from all their edges (if desired except the lower edge of the back as shown), to allow the edge boxing of the carton aforesaid. The closure flap 7 also is grooved or scored, as at 11, along and at a short distance from its root part which is hinged at 12 to the front. At the bottom of the front, the blank has a relatively narrow fold-over part 13 grooved or scored, as at 14, similarly to the front and back of the carton. This narrow part 13 is chamfered off inwardly, as at 15, at about 45° from the ends of its fold 16 to its groove or score 14 and from the outer end of the chamfer is straightened off, as at 17, and then rounded off at its outer corners, to give it a flat tongue-like form 18.

When the front and back parts have been folded over relatively to one another from the blank at the folds 3 and 5 and secured by adhesive as aforesaid, the bottom flap 13 is folded over at 16 on to the back and also secured by adhesive, thereby completing the formation of the body of the carton.

In order, substantially, to avoid treble thickness of the back when the back parts 2, 4 and the bottom flap 13 are thus folded over and secured, the narrow fold-over part 4 of the body may be rectangularly cut away at the bottom, as at 19, beneath the adjacent end of such flap and the part of the back over which that end is folded. In FIGURE 2, the flap 13 is broken away partly to show the situation of 19 in the completed carton.

The grooving or scoring at 10 and 11 allows of the boxing of the edges of the carton, hereinbefore mentioned, substantially after the manner shown at the top and righthand sides of FIGURE 4 and, as will be seen, the bottom flap 13 will present no loose parts laterally projecting beyond 15 and 17, in spite of the boxing between the vertical grooves or scores 10 adjacent the vertical side edges of the carton. The closure of the carton, after packing, is effected by engaging the flap 7 by its tongue 8 in its slit or slot 9 in the back of the carton as shown in FIGURE 2 (cf. also FIGURE 4).

In order to prevent the closure flap 7 from being unintentionally opened, this flap is slit or slotted approximately semi-circularly near its root and centrally of its width as shown at 20. This forms a tab-like locking tongue 21 within it which, when the flap is folded down normally to close it, projects upwardly of the carton in the plane of the flap as will be understood from FIGURE 1. Beneath this tongue 21 and adjacent to the root thereof (which extends between the ends of the semi-circular slit or slot 20), the back part 2 of the carton is formed with a slit or slot 22 extending transversely to receive such tongue. This transverse slit or slot 22 is slightly longer than the root of the tongue 21 and curved off a little at the ends as shown in FIGURES 1 and 2. Thus, with the closure flap 7 closed, if the forefinger of the hand is applied to the tongue 21, the latter can be entered through the slit or slot 22, finishing up still directed upwardly of the carton, cf. FIGURE 3. It is thought that the small arrows adjacent 21 and 22 in FIGURES 1, 2 and 4 will indicate the operation. In this way, effective provision is made for the closure flap 7, 8 to be retained closed against unintentional opening though at the same time allowing the carton to be readily opened by hand.

The slit or slot 9 may optionally have slightly inclined receding parts 9a at the ends to facilitate entry of the tongue 8 of the closure flap 7 into it when closing the carton.

Additionally, the part of the back portion 2 of the carton forming a tongue 23 may have a scoring 24 at its root to enable it to bend easily and facilitate entry of the locking tongue into and through the slit or slot 22 after the carton is closed.

It will be understood that the degree of the so-called boxing of the edges of the carton will vary according to the nature of the contents of the carton. Little or prac-

tically no such boxing may appear if only a thin object is placed in the carton. An advantage of the carton, however, is that it may receive relatively thick or bulky objects and yet allow efficient action of the locking tongue 21, due to the provision made for the boxing of the edges of the carton.

The carton of the invention is particularly intended for the packing therein of literary matter such as pamphlets and books, of wads of paper sheets, of advertising matter, of sets of programmes, cards or tickets, of personal articles or presents such as handkerchiefs and scarves and of many other articles almost too numerous to mention completely.

It is to be noted, too, that as the carton is of envelope-like form, it is easy or familiar, to close and open it.

Moreover, the filled carton can be subjected to a good deal of rough treatment e.g. in transmission by post, without the closure flap becoming opened and the contents lost or misplaced.

The carton may be made in various sizes according to circumstances and instead of being made of cardboard (or the equivalent paperboard) may be made of any other suitable semi-stiff material.

Finally, the invention is not restricted to the embodiment above particularly described because modifications are possible without departing from its scope. For example, the carton could be made with openable closure flaps at opposite ends, either or each being associated with a locking tongue as above described. The carton, moreover, need not be rectangular but may be made in other suitable shapes for particular requirements.

We claim:

1. A cardboard or like carton in the form of a flat envelope-like object having a front panel and a back panel, a closure flap hinged along an edge of said front panel so as to be foldable flatwise on to the outside of said back panel, said back panel having a transverse slit and said closure flap being engageable with said slit by inserting its free end thereinto in one direction to close said carton, said back panel also having a second transverse slit located therein between the one first-mentioned and said edge, and a locking tongue formed in said closure flap in a manner for such tongue to enter into said second transverse slit in direction opposite to the direction in which the free end of said closure flap is engaged with the slit first-mentioned to close said carton.



2. A carton according to claim 1, wherein the said front and back panels have single-fold connection with each other and both have score lines on them equally spaced from and parallel to all the outer edges of the carton to allow boxing at such edges, and a permanently closed fold-over flap is extended over the outside of said back panel from that outer edge of the carton which is opposite the one along which the closure flap is hinged, such permanently closed flap bearing one of the score lines appertaining to said opposite outer edge, this flap being chamfered inwardly substantially at an angle of 45° from the ends of said opposite outer edge to said one score line and then being extended substantially in coincidence with the two adjoining of said score lines on said back panel.

3. A carton according to claim 2, wherein the back panel comprises overlapped parts lying adjacent to and parallel to one of the two adjoining score lines, the outer one of said overlapped parts extending beneath the permanently closed flap and the other of said overlapped parts being cut away so as substantially to terminate short of said permanently closed flap.

**References Cited** in the file of this patent

UNITED STATES PATENTS

| | | |
|---|---|---|
| 1,690,883 | Ziegler | Nov. 6, 1928 |
| 2,281,452 | Ottinger | Apr. 28, 1942 |
| 2,675,165 | Roshkind et al. | Apr. 13, 1954 |
| 3,004,699 | Stires | Oct. 17, 1961 |

FOREIGN PATENTS

| | | |
|---|---|---|
| 557,376 | France | May 2, 1923 |
| 217,128 | Great Britain | July 12, 1924 |