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CARTON

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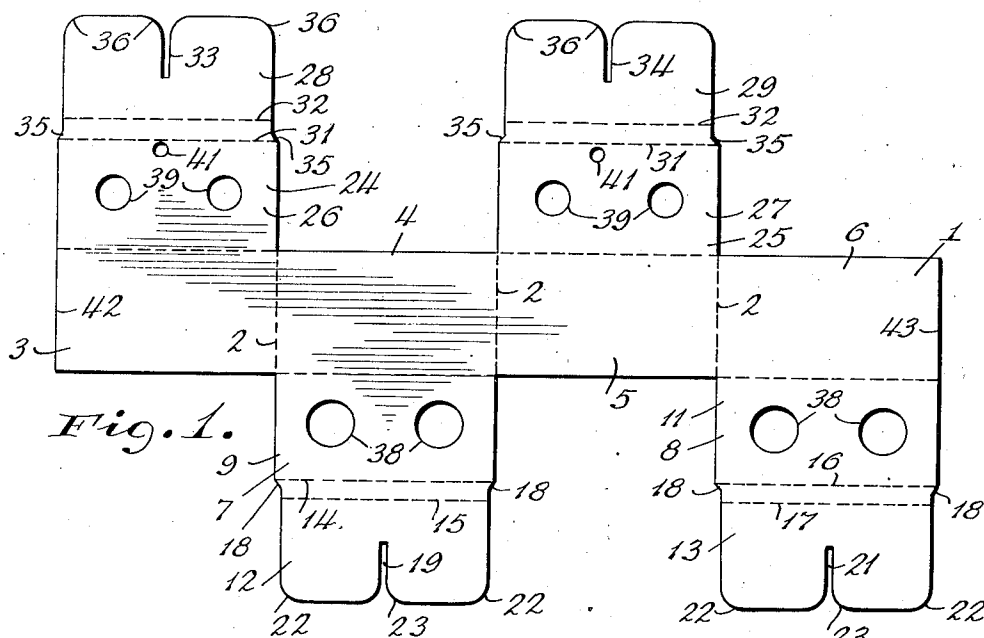


Fig. 2.

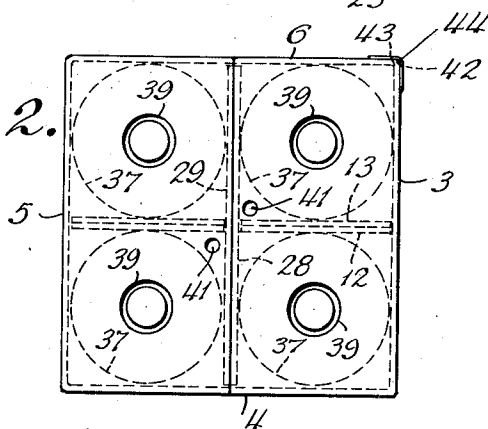
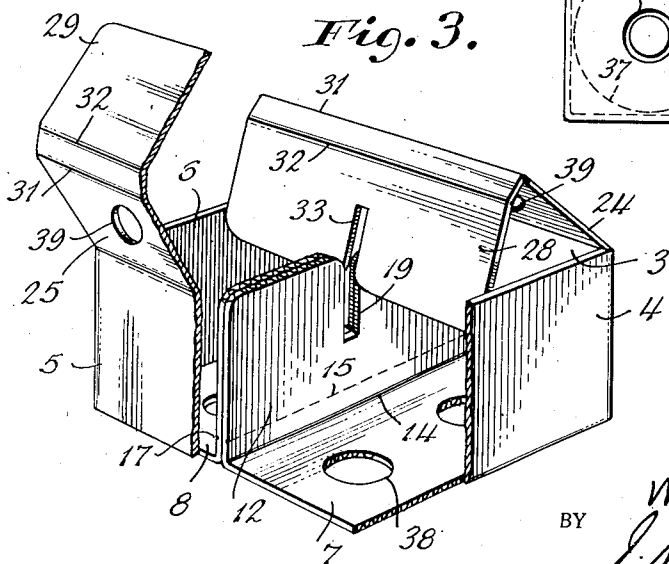


Fig. 3.



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CARTON

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7 Claims. (Cl. 229—28)

This invention relates to cartons, and relates more particularly to cartons for packing cones or cheeses of yarn.

An object of this invention is to provide a carton for cones or cheeses of yarn which will protect the same during shipping or storing.

Another object of this invention is the provision of an improved carton that is easily manufactured and readily filled.

A further object of this invention is to provide a collapsible partitioned carton which may quickly be arranged in its operative form and which maintains a fully closed order without the use of staples, adhesive tape or similar expedients.

Other objects of this invention will appear from the following detailed description and drawing.

In the drawing, wherein the preferred embodiments of my invention are shown,

Figure 1 is a plan of a carton blank constructed in accordance with my invention,

Figure 2 is a plan view of a closed carton, with cones of yarn therein, made from the blank shown in Figure 1, and

Figure 3 is a perspective view, partially cut away to show the interior thereof, of a partially closed carton formed from the blank shown in Figure 1.

Like reference numerals indicate like parts throughout the several views of the drawing.

Referring to Figures 1, 2 and 3 of the drawing, there is shown a modification of my invention which is particularly suitable for use in packing and shipping cones of yarn. In the carton illustrated in these figures, the cones of yarn are rigidly supported and packed so that they do not rub against each other, which rubbing would spoil or mar at least the outer convolutions of the yarn. The carton is arranged in a plurality of compartments in each of which a cone is positioned centrally thereof and held rigidly so as to prevent movement of the cone.

The blank for the cartons shown in Figures 1, 2 and 3 may be cut from paper, cardboard, thin metal or the like in any suitable manner as, for example, by a die of the desired configuration, and the desired fold-lines are impressed therein during the cutting or in a subsequent operation, which operations are well known in the box-making art. This blank comprises a rectangular portion 1 which when bent along fold-lines 2 form the four sides 3, 4, 5 and 6 of the carton. The dimensions of sides 3, 4, 5 and 6 will be such as to yield a carton of the desired size and con-

figuration. Extending from a longitudinal edge of side sections 4 and 6 are members 7 and 8, respectively, which consist of rectangular sections 9 and 11 which together form, in this modification, the bottom of the carton. The bottom sections 9 and 11 have integral therewith flaps 12 and 13, respectively, which bend along fold-lines 14 and 15 and 16 and 17 to form in the completed carton contiguous partitions which also act as bracing members. The flaps or partitions 12 and 13 are narrower than the cover sections 9 and 11 as is shown at 18 in Figure 1 of the drawing. The flaps or partitions 12 and 13 are provided with slots 19 and 21, respectively, which slots in the assembled carton are registered with each other and have a purpose which will hereinafter be described. To aid in assembling the carton the corners of the free longitudinal edge of flaps 12 and 13 are rounded as shown at 22, as are the corners of slots 19 and 21.

The longitudinal edges of side sections 3 and 5 have integral therewith members 24 and 25, respectively, which are similar to members 7 and 8 and consist of rectangular sections 26 and 27 which together form the top of the carton. The top sections 26 and 27 have integral therewith flaps 28 and 29, respectively, which bend along fold-lines 31 and 32 to form in the completed carton contiguous partitions which also act as bracing members. The flaps or partitions 28 and 29 are provided with slots 33 and 34, respectively, which slots register with each other when the cover is closed. The flaps or partitions 28 and 29 are narrower than the top cover sections 26 and 27 as is shown at 35 in Figure 1 of the drawing. The corners of the free longitudinal edge of flaps 28 and 29 are rounded as shown at 36 to facilitate the assembling and closing of the carton.

As is shown in Figure 3 of the drawing, when the carton is closed the slots interlock and the flaps form crossed bracing members which cooperate to produce a substantially rigid construction.

When it is desired to employ the carton for the packaging of articles having protruding ends, such as cones of yarn shown by dotted lines 37 in Figure 2, holes 38 of substantially the same diameter as the large end of a cone core are provided in the bottom sections 7 and 8 and holes 39 of substantially the same diameter as the small end of a cone core are provided in the top rectangular sections 24 and 25. These holes may be of any desired shape and suitably positioned in the top and/or bottom rectangular sections to accommodate any article being packed. The carton

shown in the drawing is particularly adapted to the packaging of cones of artificial silk yarns. If, however, a carton for packaging cheeses of yarn is desired, the carton is made similar to the one shown on the drawing but with no holes in the bottom sections 7 and 8 and with larger holes than those shown in the top sections 24 and 25. For aiding in the opening up of the carton, holes 41 may be provided into which the operator can hook his finger. Tabs or pulls may be employed as an alternative for the holes 41.

In the first assembling of the carton the side wall edges 42 and 43 may be joined by an adhesive or gummed tape 44. After the first assembling of the carton the same may be packed, unpacked and collapsed many times without disturbing the joint. No other stapling or gummed tape is necessary in the employment of the carton. In order to complete the assembly of the carton, the members 7 and 8 are bent along the fold-lines along the longitudinal edge of side walls 4 and 6 until they are at right angles thereto and then the flaps 12 and 13 are bent along fold-lines 14 and 15 and 16 and 17 until they are at right angles to cover sections 9 and 11 at which position the flaps 12 and 13 are contiguous and slots 19 and 21 register with each other. After the cones are put in position with bottoms of the core thereof in openings 38, the top covers are folded in a similar manner as the bottom covers in which case the holes 39 register with the tops of the cores of the cones being packaged.

The cartons described above are suitable or may be readily made suitable for the packaging of all sorts of articles including electric light bulbs.

It is to be understood that the foregoing detailed description and drawing is given merely by way of illustration and that many variations may be made therein without departing from the spirit of my invention.

Having described my invention, what I desire to secure by Letters Patent is:

1. A carton for packaging of articles, comprising four side walls formed of a rectangular piece, bottom flaps extending from only two opposite side walls a distance substantially equal to half the length of the other two sides and the height of the sides, only two top flaps extending in an opposite direction to the bottom flaps and from the side walls adjacent to the side walls having the bottom flaps, said top flaps extending a distance substantially equal to one-half the length of the side walls having the bottom flaps and the height of the side walls, and means on said bottom flaps and top flaps for holding themselves in fixed relationship to each other in the closed carton.

2. A carton for packaging of articles, comprising four side walls formed of a rectangular piece, bottom flaps extending from two opposite side walls a distance substantially equal to half the length of the other two sides and the height of the sides, top flaps extending in an opposite direction to the bottom flaps and from the side walls adjacent to the side walls having the bottom flaps, said top flaps extending a distance substantially equal to one half the length of the side walls having the bottom flaps and the height of the side walls, slots in said bottom flaps and said slots in said top flaps registering and adapted to interlock with the slots on said bottom flaps for holding themselves in fixed relationship to each other in the closed carton.

3. A carton for packaging of articles, comprising four side walls formed of a rectangular piece, bottom flaps extending from two opposite side walls a distance substantially equal to half the length of the other two sides and the height of the sides, top flaps extending in an opposite direction to the bottom flaps and from the side walls adjacent to the side walls having the bottom flaps, said top flaps extending a distance substantially equal to one-half the length of the side walls having the bottom flaps and the height of the side walls, slots centrally located in said bottom flaps and extending from the outer edge inward a distance less than the height of the side walls, slots in said top flaps registering with the slots on said bottom flaps for holding said bottom and top flaps in fixed relationship to each other and to the side walls of the carton in the closed carton.

4. A carton for packaging of articles, comprising four side walls formed of a rectangular piece, bottom flaps extending from two opposite side walls a distance substantially equal to half the length of the other two sides and the height of the sides, top flaps extending in an opposite direction to the bottom flaps and from the side walls adjacent to the side walls having the bottom flaps, said top flaps extending a distance substantially equal to one-half the length of the side walls having the bottom flaps and the height of the side walls, slots centrally located in said bottom flaps and extending from the outer edge inward a distance less than the height of the side walls, slots in said top flaps registering with the slots in said bottom flaps for holding said bottom and top flaps in fixed relationship to each other and to the side walls of the carton in the closed carton and rounded corners on said flaps and slots.

5. A carton for packaging of articles, comprising four side walls formed of a rectangular piece, bottom flaps extending from two opposite side walls a distance substantially equal to half the length of the other two sides and the height of the sides, top flaps extending in an opposite direction to the bottom flaps and from the side walls adjacent to the side walls having the bottom flaps, said top flaps extending a distance substantially equal to one-half the length of the side walls having the bottom flaps and the height of the side walls, article positioning holes in said bottom and top flaps, slots centrally located in said bottom flaps and extending from the outer edge inward a distance less than the height of the side walls, slots in said top flaps registering with the slots on said bottom flaps for holding said bottom and top flaps in fixed relationship to each other and to the side walls of the carton in the closed carton.

6. A carton for packaging of articles, comprising four side walls formed of a rectangular piece, bottom flaps extending from two opposite side walls a distance substantially equal to half the length of the other two sides and the height of the sides, top flaps extending in an opposite direction to the bottom flaps and from the side walls adjacent to the side walls having the bottom flaps, said top flaps extending a distance substantially equal to one-half the length of the side walls having the bottom flaps and the height of the side walls, article positioning holes in said top flaps, slots centrally located in said bottom flaps and extending from the outer edge inward a distance less than the height of the side walls,

slots in said top flaps registering with the slots in said bottom flaps for holding said bottom and top flaps in fixed relationship to each other and to the side walls of the carton in the closed carton.

7. A carton for packaging of articles, comprising four side walls formed of a rectangular piece, bottom flaps extending from two opposite side walls a distance substantially equal to half the length of the other two sides and the height of the sides, top flaps extending in an opposite direction to the bottom flaps and from the side walls adjacent to the side walls having the bottom

flaps, said top flaps extending a distance substantially equal to one-half the length of the side walls having the bottom flaps and the height of the side walls, finger holes in said top flaps, slots centrally located in said bottom flaps and extending from the outer edge inward a distance less than the height of the side walls, slots in said top flaps registering with the slots in said bottom flaps for holding said bottom and top flaps in fixed relationship to each other and to the side walls of the carton in the closed carton.

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