June 28, 1932. W. A. MORRIS 1,865,268

CARTON FOR FRAGILE OBJECTS

Filed June 24, 1929 2 Sheets-Sheet 1

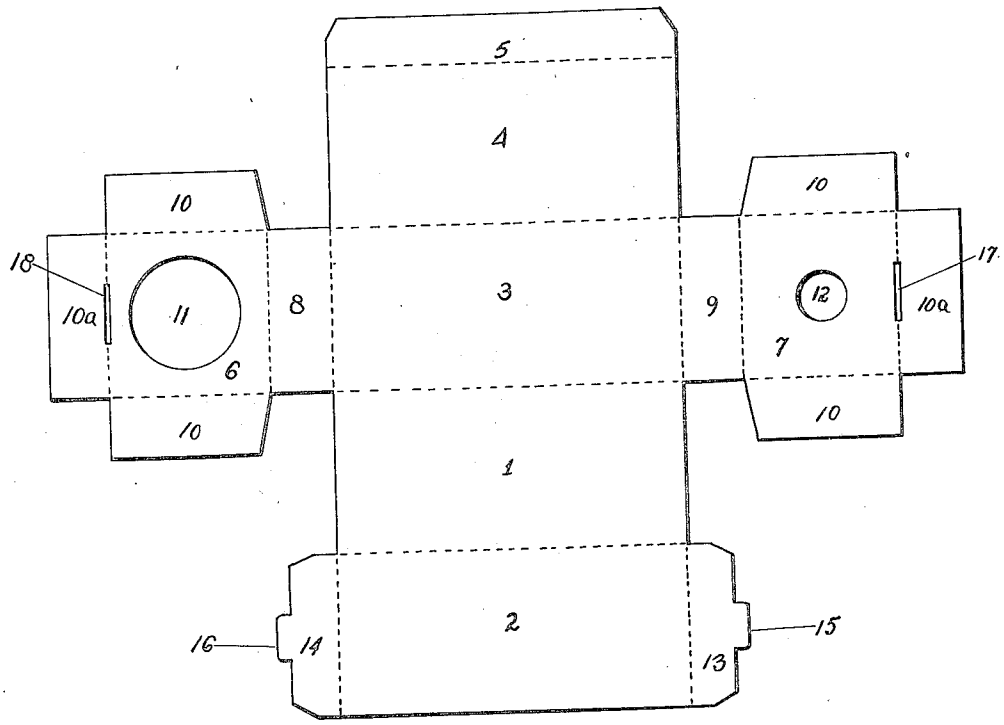


Fig. 1.

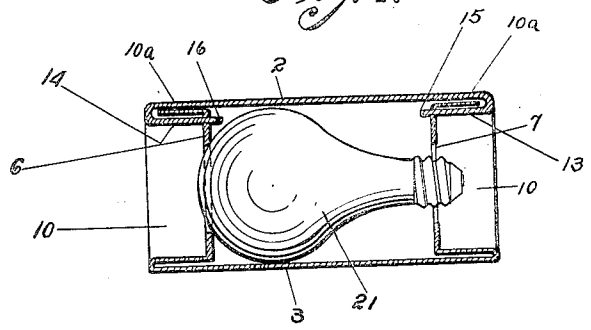


Fig. 5.

INVENTOR.
Warren A. Morris
BY Allen & Allen
ATTORNEYS

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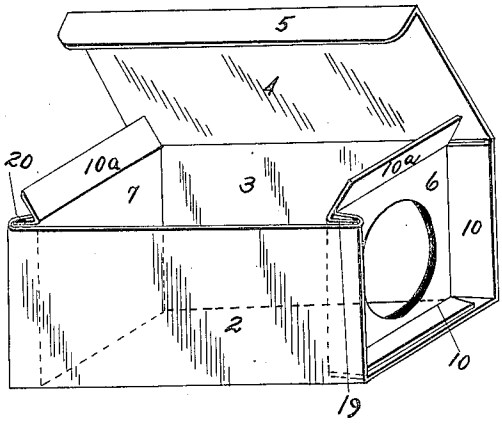


Fig. 3.

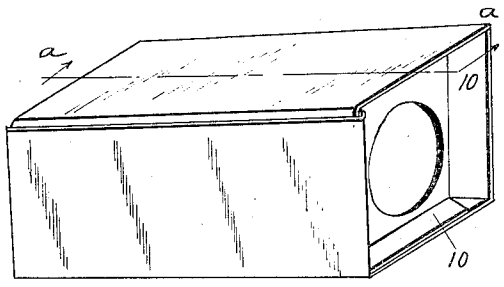


Fig. 4.

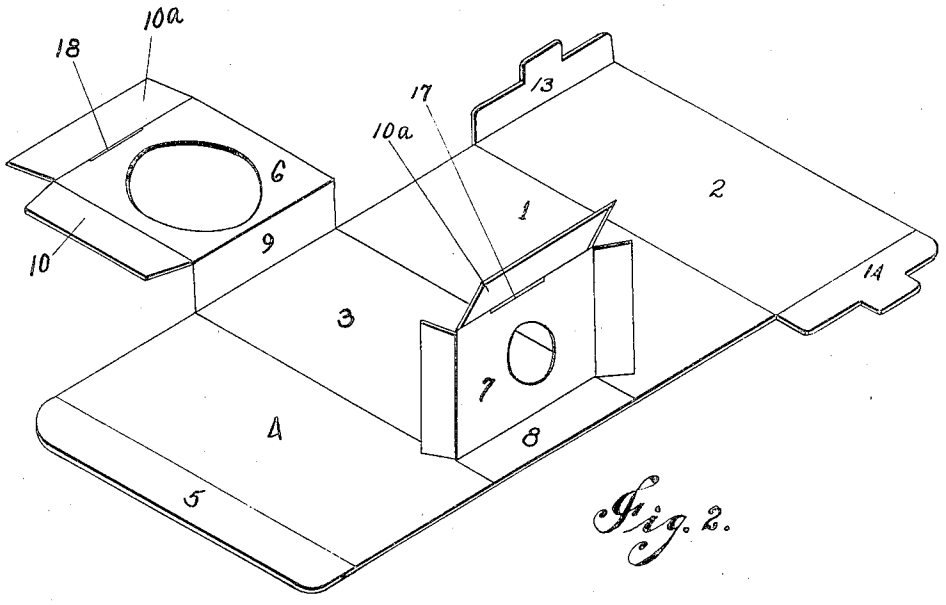


Fig. 2.

INVENTOR.
Warren A. Morris
BY Allen & Allen
ATTORNEYS.

Patented June 28, 1932 1,865,268

UNITED STATES PATENT OFFICE

WARREN A. MORRIS, OF WYOMING, OHIO, ASSIGNOR TO THE RICHARDSON COMPANY, OF LOCKLAND, OHIO, A CORPORATION OF OHIO

CARTON FOR FRAGILE OBJECTS

Application filed June 24, 1929. Serial No. 373,123.

My invention is addressed to the provision of cartons with recessed platforms adapted to hold resiliently such a fragile object as an incandescent electric lamp.

The platforms are usually cut out to accommodate a part of the bulb portion of the lamp and also a portion of the base. Platforms have been placed or pasted into ordinary cartons, but the number of parts and the number of operations, and the expense incident to the use of such cartons has made it advisable to provide a structure in which the platforms are integral. In a co-pending application in my name, Serial No. 284,341, filed June 11, 1928, I have described a type of lamp carton with integral platforms. The carton is suitable for machine formation and pasting. So far as I am aware, however, there has never been a type of carton with integral recessed platforms which could be set up by a hand or machine operation without pasting, and which, when so set up would present a stable structure having a tuck end flap for closing and ready to receive a fragile article.

Primarily, the object of my invention therefor, is to provide a carton with integral recessed panels, which may be set up without any pasting at all, and when set up holds its shape and is not subject to losing its form upon the opening of a single flap.

These and other objects of my invention, which I shall hereinafter set forth or which will be apparent to one skilled in the art upon reading these specifications, I accomplish by that certain construction and arrangement of parts of which I shall now describe a preferred embodiment.

In the drawings:

Figure 1 gives a plan view of my carton blank.

Figure 2 is a perspective view thereof, showing one of the recessed platforms in partially set up position

Figure 3 is a view of my set up carton in open position.

Figure 4 is a view of the closed carton.

Figure 5 is a sectional view through the carton taken along the lines *a*, *a* in Figure 4.

In my carton I provide a blank having articulated members consisting of a bottom, side members 2 and 3, and a top 4, the top having a tuck end flap. Lines of cut in Figure 1 are indicated as solid, and lines of score as dotted. To one of the sides I hinge platforms 6 and 7 by means of articulated platform holding members 8 and 9, and about the platforms on the remaining three sides are platform flaps 10 and 10*a*. The platforms may be perforated by suitable holes 11 and 12, as shown.

Upon the ends of the other side member, which in Figure 1 is the side 2, I provide flaps 13 and 14 which are locking flaps to hold the carton in assembly. These flaps are provided with tongues 15 and 16, and the platforms in the line of score adjacent the outermost platform flaps are provided with cuts or slits 17 and 18, into which the tongues 15 and 16 are adapted to enter.

Referring now to Figure 2 it will be seen how the platforms are adapted to fold inwardly in setting up the box.

In a companion case, Serial No. 392,451, filed Sept. 13, 1929, I have described a machine suitable for the setting up of this carton, which is adapted to perform, in the same or in a different sequence, the steps which I shall now describe. Reference is made to this application; but my carton is adapted to hand setting up, if desired, and need not be set up on a machine. Figure 2 shows the platform 7 extending at right angles to the side 3, the platform support 8 lying along the said side. Similarly, the platform 6 will be folded into position with the support 9 lying along the side 3, the bottom 1 will be bent up to lie along the bottom edges of the platforms 6 and 7, and afterward the side 2 will be folded over parallel with the side 3. The platform flaps 10 and 10*a* will lie along and parallel to the respective side and bottom portions of the carton, and among other functions serve to stiffen the platforms. Then the flaps 13 and 14 are bent over so as to extend along the outermost platform flaps in such a way that the platform flaps 10*a* lie between the flaps 13 and 14, and the side 2 of the carton. The tongues 15 and 16 will then be caused to enter the slits 17

and 18, and the set up carton when placed over upon its bottom 1, will have the appearance shown in Figure 3. It will be seen that the carton retains a stable, set up shape even though the top is open. This is not characteristic of any unglued platform carton of which I have knowledge. Furthermore, it will be observed that spaces 19 and 20 lie between the side 2 and the adjacent platform flaps. These spaces are adapted to receive and bind the tuck end flap 5, when the carton is closed as shown in Figure 4.

In the sectional view of Figure 5 may be seen to somewhat better advantage the relation of the parts which hold the platforms 6 and 7 in position. It will be clear how the flaps 13 and 14 overlie and enclose the platform flaps 10 adjacent the side 2, and how the tongues 15 and 16 extend through the slots, locking the structure in shape. A lamp or other article 19 renders the lock more effective by preventing the inward collapse of the platforms.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is:—

1. In a carton, a blank comprising a bottom, two sides, a top, and a tuck end flap thereon, recessed platforms hinged to either end of the side adjacent said top by means of platform supporting members, platform flaps on the other sides of said platforms, locking flaps on the ends of the opposite side of said carton, said locking flaps adapted to lock said recessed panels in position when said carton is set up, and to leave spaces between the platform flaps and said opposite side for the insertion and holding of said tuck end flaps.

2. In a carton blank comprising a bottom, two sides, a top, and a tuck end flap thereon, recessed platforms hinged to either end of the side adjacent said top by means of platform supporting members, platform flaps on the other sides of said platforms, locking flaps on the ends of the opposite side of said carton, said locking flaps adapted to lock said recessed panels in position when said carton is set up, and to leave spaces between the platform flaps and said opposite side for the insertion and holding of said tuck end flaps, said locking means comprising tongues on said locking flaps and slots in the line of articulation between said platforms and said platform flaps.

3. In a carton, a bottom, sides joining opposite lateral edges of the bottom, platform members each having a foldable attachment to a respective end edge of one of said sides and having flaps at its other three edges, a lid hinged to the upper lateral edge of said side, a flap along the outer edge of said lid, and locking flaps joining the respective end edges of the opposite side, locking across the adjacent platform edges and flaps, said lid having its flaps entering behind platform flaps at corners adjoining the locking by said locking flaps.

4. In a carton, a bottom, sides joining opposite lateral edges of said bottom, platform members each having a foldable attachment to a respective end edge of one of said sides and having flaps at its other three edges, a lid hinged to the upper lateral edge of said side, a flap along the outer edge of said lid, and locking flaps joining the respective end edges of the opposite side, locking across adjacent platform flaps, the outer platform flaps having slits at their junctions with the platforms, and the locking flaps having tongues entering said slits, the lid flap entering behind platform flaps at corners adjoining the locking flaps and their tongues.

WARREN A. MORRIS.