March 17, 1936. T. A. KUNDTS 2,034,679

CARTON

Filed Oct. 14, 1935 3 Sheets-Sheet 1

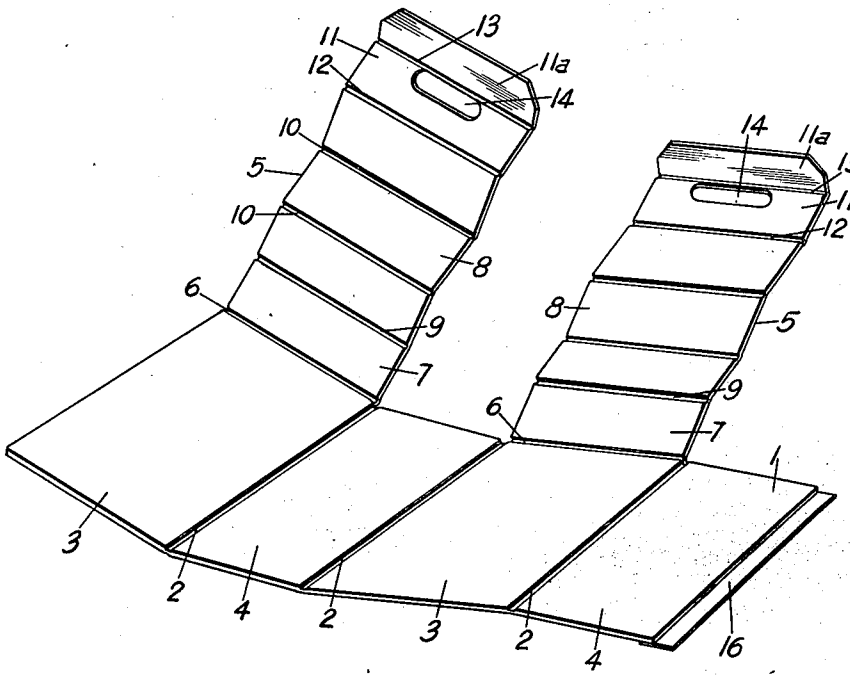


Fig. 1

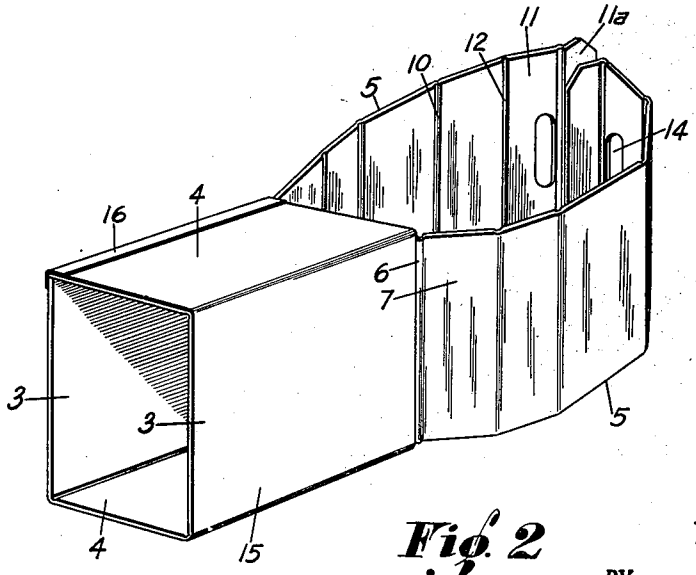


Fig. 2

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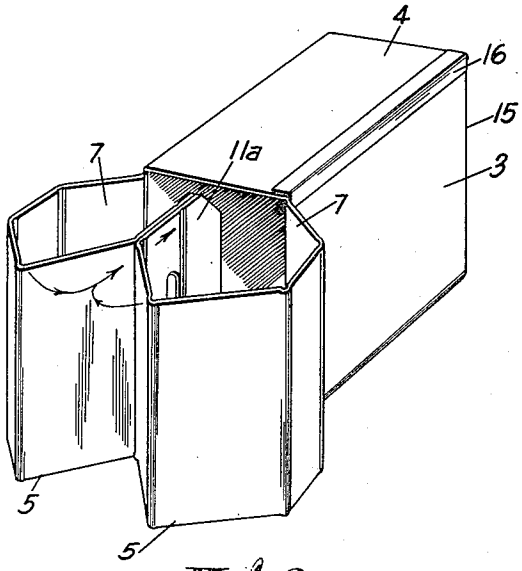


Fig. 3

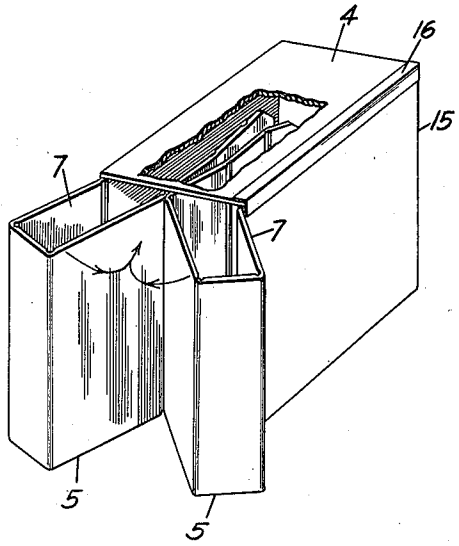


Fig. 4

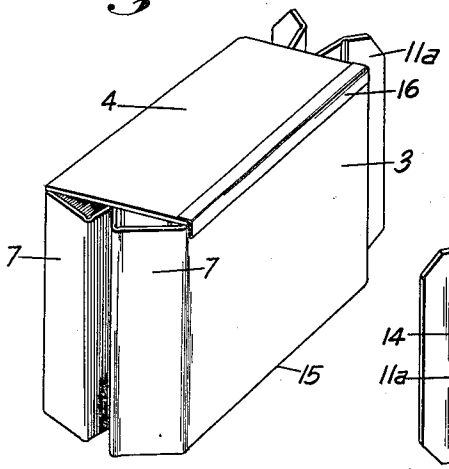


Fig. 5

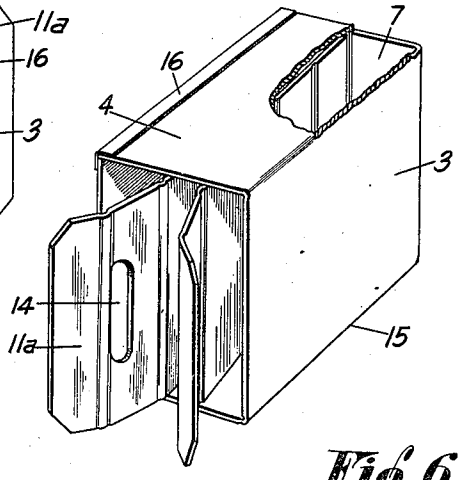


Fig. 6

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CARTON

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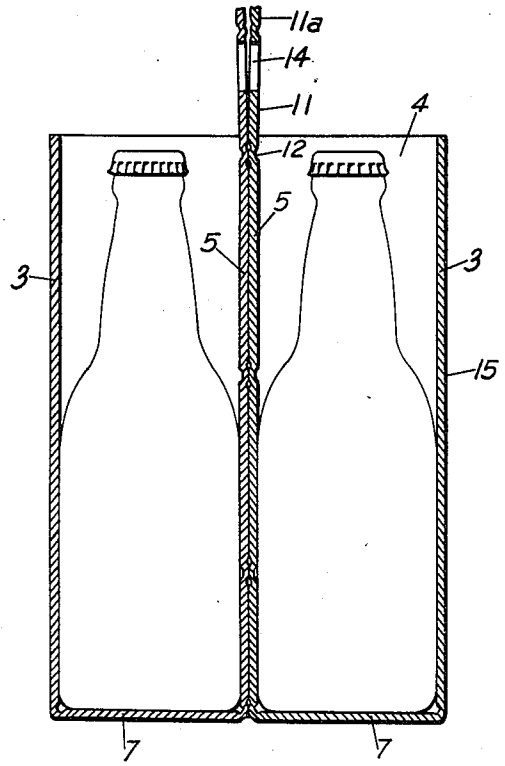


Fig. 7

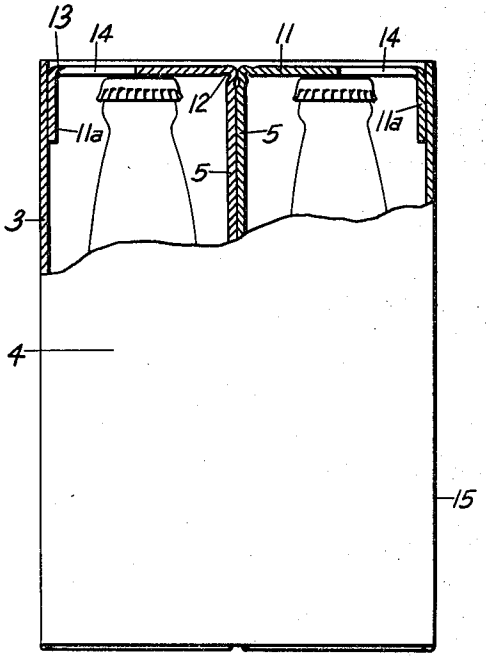


Fig. 8

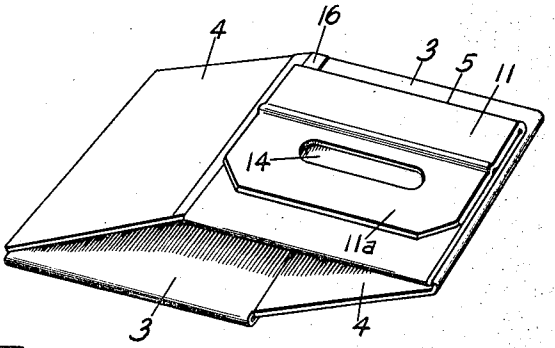


Fig. 9

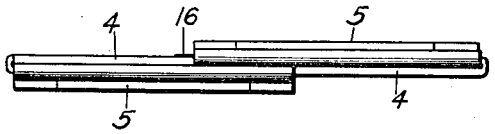


Fig. 10

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Patented Mar. 17, 1936

2,034,679

UNITED STATES PATENT OFFICE

2,034,679

CARTON

Theodore A. Kundts, Columbus, Ohio, assignor to The Federal Glass Company, Columbus, Ohio, a corporation of Ohio

Application October 14, 1935, Serial No. 44,862

3 Claims. (Cl. 229—27)

My invention relates to a carton. It has to do, more specifically, with that type of carton which is particularly useful for carrying a number of bottles, such as beer bottles, and which is provided with a handle for facilitating carrying of the carton.

There have been a number of cartons devised in the past of the general type indicated. One type has been made from a plurality of blanks of material, such as fiberboard, strawboard, pasteboard or the like, and has consisted of an outer casing and an inner handle unit. This type of carton has a number of advantages but in some instances the inner handle unit and the outer casing have been so constructed and assembled that there is a tendency for the handle unit to pull out of the outer casing.

Cartons of the general type indicated have also been made from a single blank. However, this type of carton, as made heretofore, has been possessed of certain disadvantages. In the first place, a carton of this type is usually quite complicated being provided with a number of cover flaps and a number of bottom flaps which are intended to fit between the middle partition member, that extends upwardly and forms the handle member, and the side walls to maintain the partition and the side walls in proper spaced relation. However, I have found that none of these flaps are necessary or desirable and merely serve to complicate unduly the structure of the carton and make it more difficult to assemble. It is important that the carton be of such a type that it may be shipped in collapsed condition and be readily and quickly assembled by the average person. The large number of flaps, both cover and bottom flaps, provided heretofore make the carton difficult to assemble and in most instances if it is shipped in collapsed condition, the person who assembles it must use adhesive tape to maintain it in assembled condition. I have found that the cover flaps serve no useful purpose, and that the bottom spacer flaps are not necessary because the bottles themselves adequately serve to maintain the middle partition member in proper spaced relation to the side walls.

One of the objects of my invention is to provide a carton particularly useful for carrying a number of bottles or the like which is provided with a handle member, and which is made from a single blank of material.

Another object of my invention is to provide a carton of the type indicated which is of a very simple structure and is devoid of all unnecessary flaps so that it may be easily and quickly assembled.

Another object of my invention is to provide a carton of the type indicated which is so constructed that only one joint need be secured together by adhesive tape and this may be done at the place where the carton is made, the carton being so constructed that even after the tape is applied thereto, it may be collapsed and folded into a neat and compact unit and may be supplied in such condition to the user who may easily and quickly assemble it without employing adhesive tape or other securing means.

Various other objects and advantages will be apparent from the following description.

The preferred embodiment of my invention is illustrated in the accompanying drawings wherein similar characters of reference designate corresponding parts and wherein:

Figure 1 is a view of a blank which has been properly cut and scored to form my carton.

Figure 2 is a perspective view showing the portion of the blank which forms the outer casing properly folded and secured together but with the handle and partition members not yet positioned therein.

Figure 3 shows how the partition and handle members may be bent preparatory to passing them upwardly into the main casing.

Figure 4 is a similar view but partly broken away, showing the handle and partition members extending further upwardly into the main casing.

Figure 5 is a similar view showing the handle and partition members extending above the upper end of the carton.

Figure 6 is a view, partly broken away, similar to Figure 5 but showing the top of the carton with the handle flaps projecting therefrom.

Figure 7 is a vertical section showing how the bottle members adequately serve to maintain the middle partition member in spaced relation to the side walls of the carton.

Figure 8 is a side elevation, partly broken away, showing how the handle flaps may be folded downwardly within the upper end of the carton when desired, for example, to facilitate stacking of a number of cartons.

Figure 9 is a perspective view showing the carton partially collapsed.

Figure 10 is a view showing the carton in complete collapsed condition, it being folded into a neat compact unit.

With reference to the drawings, in Figure 1 I have illustrated a single blank 1 which is adapted to form the complete carton. This blank 1 com-

prises an elongated substantially rectangular section which is scored at spaced intervals along the lines 2. The elongated section is adapted to form the main casing of the carton and the score lines 2 are so located as to form a pair of side walls 3 and a pair of end walls 4. On one edge of the elongated section of the blank I provide a pair of handle and partition members 5. Each of the members 5 is hingedly secured as at 6 to one of the edges of one of the side walls 3.

Each member 5 comprises a bottom flap 7 which will serve as half of the bottom for the carton and which is hingedly connected to the main section 8 of the member 5 as at 9. The main section 8 of member 5 is provided with a pair of scorings or weakened portions 10 so that the main portion of member 5 may be bent to facilitate insertion into the main casing, as will be explained more in detail hereinafter. The member 5 also includes a handle flap 11 which is hingedly connected to the main portion 8 thereof as at 12. This handle flap 11 is provided with a tab or auxiliary flap 11*a* hinged thereto as at 13. The main portion of the handle flap 11 is provided with a slot 14 through which the fingers may be passed. It will be apparent that there are no flaps on one edge of the elongated section of the blank, which forms the body portion of the carton, and that on the other edge there are no flaps with the exception of the handle and partition members 5. This makes the carton extremely simple and makes it very easy to assemble.

In assembling this carton, the elongated section of the blank is bent at the score lines 2 to form a rectangular main casing 15 as illustrated in Figure 2. The top of this casing 15 is open but the portions 5 extend from the lower end of each side wall 3 thereof. The free edge of one of the end walls 4 is secured to the free edge of one of the side walls 3 by means of an adhesive securing strip 16. However, other securing means may be employed.

The next step in assembling the carton is illustrated in Figure 3. The sections 5 are bent in such a manner that the cover flaps 11 thereof are in back-to-back relation, as illustrated in this figure. The score lines 10 or weakened portions in the main portions 8 of the sections 5 permit bending of these sections in the manner illustrated in this figure. The sections 5 may then be pushed upwardly into the casing 15, as illustrated in Figure 4, and then pushed still farther upwardly into the casing 15, as illustrated in Figure 5, until the cover flaps extend above the upper edge of casing 15 as illustrated in Figure 6. Because of the score lines or weakened portions 10 of the main sections of members 5 and because of the hinged connections 6, 9, 12, and 13, it is possible to bend each section 5 readily in such a manner that the two sections 5 may be brought into back-to-back relationship and passed upwardly into the main casing 15. The two sections 5 will serve to form a vertical partition member which serves to divide the carton into two chambers. The bottom flaps 7 of the sections 5 cooperate to close the bottom of the casing 15. These bottom flaps 7 are of such a size that they completely close the bottom of the casing 15 and cause the lower ends of the partition-forming members to firmly frictionally engage each other, as illustrated in Figure 7.

When the carton is assembled in this manner the handle flaps 11 extend upwardly above the top edge of the casing 15, as illustrated in Figure 7. The slots 14 in the handle flaps 11 will be in coincidence with each other so that the fingers may be passed therethrough. By means of the upwardly projecting handle member thus formed, the carton may be carried. It will be apparent from an inspection of Figure 7 that the bottles placed in the carton will maintain the vertical partition member in spaced relation to the side walls of the casing 15. Thus, it is not necessary to provide bottom spacer flaps which fit between the partition member and the side walls of the carton. In fact, it is more desirable not to have such flaps not only because it greatly simplifies the structure of the carton and makes it more easily assembled but also because it causes the bottles to be more tightly held in the carton. It will be apparent that upon pulling upwardly on the handle member the bottles will be tightly wedged between the partition member and the side walls 15.

In case it is desired to stack the cartons, or for other reasons, the handle flaps 11 may be folded downwardly as indicated in Figure 8. The hinge connections 12 thereof are substantially in line with the top edge of the casing 15. Also, the hinge connections 13 of the auxiliary flaps or tabs 11*a* are so located that when the main portions of the handle flaps are folded downwardly into contact with the upper ends of the bottles, the tabs 11*a* may be extended downwardly into the carton and will firmly frictionally engage the side walls 3 thereof.

It will be apparent from Figure 9 that when the sections 5 are withdrawn from the casing 15, this casing may be collapsed as indicated without injury to the joint connection made by the adhesive strip 16. Because of the score lines 10, the sections 5 may be folded neatly against the outer surfaces of the casing 15 as indicated in Figures 9 and 10. Thus, in collapsed condition, the carton will be a neat and compact unit as illustrated in Figure 10. Consequently, the cartons may be collapsed for shipping to the user and may be shipped in great numbers without occupying much space. When they reach the user, they may be readily assembled since it will only be necessary for the user to open up the main casing into box-like form and then pass the sections 5 upwardly therethrough, as previously explained. It will not be necessary for the user of the carton to employ adhesive strips or other securing means to keep the carton in proper condition for use. The only securing means employed, viz., the adhesive strip 16, may be applied to the carton at the place where it is made. It is possible to pass the sections 5 upwardly through the casing even after the adhesive strip 16 is applied, because of the weakened portions in the sections 5 which facilitate bending thereof as illustrated in Figures 3, 4, and 5.

It will be apparent from the above description that I have provided a carton having a number of advantages. One of the most important features of this carton is its extreme simplicity which facilitates manufacture and, especially, assembly thereof. It is devoid of all unnecessary top and bottom flaps which complicate assembly thereof. Another important feature resides in the fact that it may be shipped to the user in great numbers in collapsed condition without occupying much space and the user may readily assemble it without difficulty and without employing any securing means for maintaining it in assembled condition.

Having thus described my invention, what I claim is:

1. A carton of the type described made from a single blank of material, said blank of material comprising an elongated section of substantially rectangular form which is scored at spaced intervals to form a pair of side walls and a pair of end walls, said elongated section being adapted to be bent along the score lines to form a main casing of substantially rectangular cross-section which is open at its upper and lower ends, means for securing the free ends of the elongated section of the blank together, a handle and partition forming member hingedly secured to the lower edge of each side wall of the main casing the main casing being devoid of other flaps at the bottom edge thereof and being completely devoid of all flaps at the top edge thereof, each of said handle and partition members comprising a bottom flap and a main section hingedly connected together and a cover flap hingedly connected to the main section, said cover flap comprising a main portion and a tab hinged thereto, the main portion of the cover flap being provided with a finger-receiving slot, the main section of the handle and partition member being provided with weakened portions to permit bending thereof, the two handle and partition members being adapted to be bent and to be passed upwardly into the main casing, the two bottom flaps thereof cooperating to close the bottom of the main casing, the two main sections thereof being disposed in back-to-back relation so as to serve as a vertical partition for dividing the carton into two chambers and the two handle flaps thereof projecting above the upper end of the casing and being disposed adjacent each other with the slots thereof in coincidence so that they will serve as a handle portion by which the carton may be carried, the hinged connections of the handle flaps to the main portions of the handle and partition members being located substantially level with the top edge of the main casing and the hinged connections of the tabs to the main portions of the handle flaps being so located that the handle flaps may be folded downwardly with the tabs bent substantially at right-angles thereto and in frictional engagement with the inner surfaces of the side walls of the main casing.

2. A carton of the type described made from a single blank of material, said blank of material comprising an elongated section of substantially rectangular form which is scored at spaced intervals to form a pair of side walls and a pair of end walls, said elongated section being adapted to be bent along the score lines to form a main casing of substantially rectangular cross-section which is open at its upper and lower ends, means for securing the free ends of the elongated section of the blank together, a handle and partition forming member hingedly secured to the lower edge of each side wall of the main casing, the main casing being devoid of other flaps at the bottom edge thereof and being completely devoid of all flaps at the top edge thereof, each of said handle and partition members comprising a bottom flap and a main section hingedly connected together and a cover flap hingedly connected to the main section, said cover flap comprising a main portion provided with a finger-receiving slot and a tab hinged thereto, the two handle and partition members being so disposed that the main sections thereof are within the main casing in back-to-back relation so as to serve as a vertical partition for dividing the carton into two chambers and the two bottom flaps thereof cooperating to close the bottom of the main casing, the two handle flaps thereof projecting above the upper end of the casing and being disposed adjacent each other with the slots thereof in coincidence so that they will serve as a handle portion by which the carton may be carried, the hinged connections of the handle flaps to the main portions of the handle and partition members being located substantially level with the top edge of the main casing and the hinged connections of the tabs to the main portions of the handle flaps being so located that the handle flaps may be folded downwardly with the tabs bent substantially at right-angles thereto and in frictional engagement with the inner surfaces of the side walls of the main casing.

3. A carton of the type described made from a single blank of material, said blank of material comprising an elongated section of substantially rectangular form which is scored at spaced intervals to form a pair of side walls and a pair of end walls, said elongated section being adapted to be bent along the score lines to form a main casing of substantially rectangular cross-section which is open at its upper and lower ends, means for securing the free ends of the elongated section of the blank together, a handle and partition forming member hingedly secured to the lower edge of each side wall of the main casing, each of said handle and partition members comprising a bottom flap and a main section hingedly connected together, the main section of the handle and partition member being provided with weakened portions to permit bending thereof, the two handle and partition members being adapted to be bent and to be passed upwardly into the main casing, the two bottom flaps thereof cooperating to close the bottom of the main casing and the two main sections thereof being disposed in back-to-back relation so as to serve as a vertical partition for dividing the carton into two chambers, the two handle and partition members having handle-forming portions at their upper ends by which the carton may be carried.

THEODORE A. KUNDTS.