Dec. 26, 1944. T. F. LIND 2,365,887

BOX

Filed Sept. 7, 1942

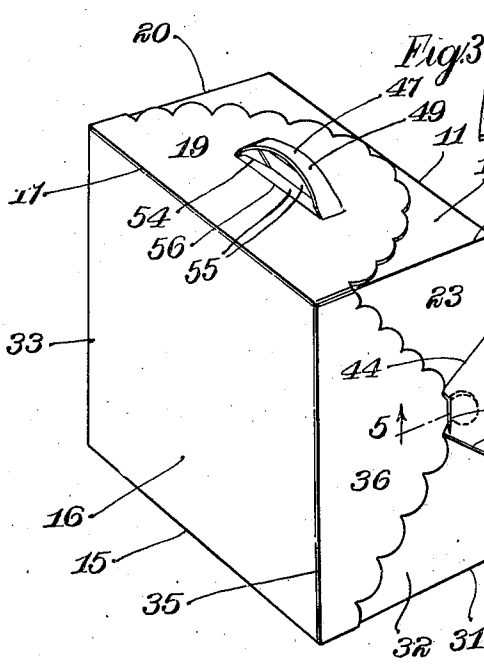


Fig. 1

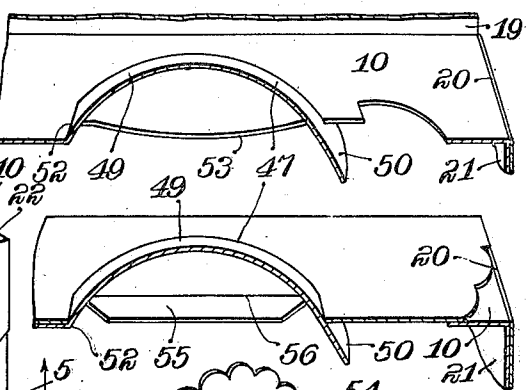


Fig. 3

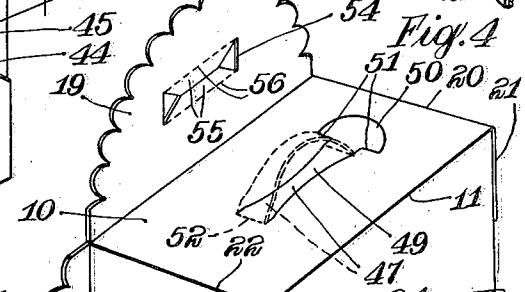


Fig. 4

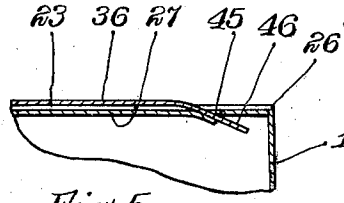


Fig. 5

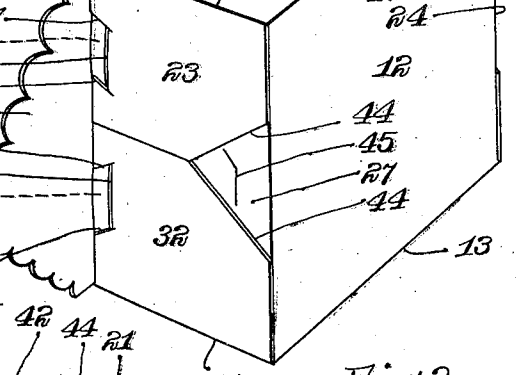


Fig. 2

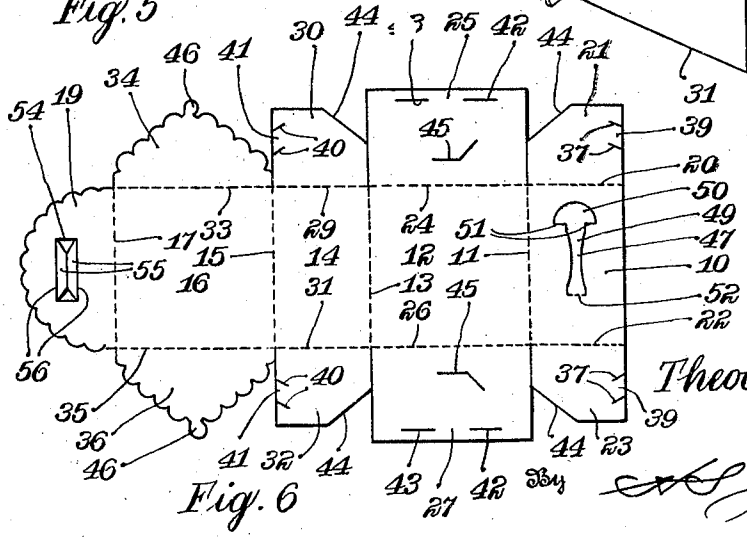


Fig. 6

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UNITED STATES PATENT OFFICE

2,365,887

BOX

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Application September 7, 1942, Serial No. 457,550

8 Claims. (Cl. 206—52)

My invention relates to an improvement in box and deals more particularly with that type of box which may be used for carrying hats, or other articles of wearing apparel and the like.

Most hat boxes which have previously been constructed have been provided with a handle of some type, by means of which the box could be readily carried. These handles were usually formed of metal or cord and were fastened to the box by a separate operation, thus considerably increasing the cost of the finished container.

An object of the present invention resides in the provision of a box which may be used to carry hats and the like, and which is provided with a handle which is cut from the material forming the box. As a result the handle need not be separately added, thereby reducing the cost of the box without changing the appearance or leaving off any element which has previously been provided.

A feature of the present invention lies in the provision of a handle which is in the form of an elongated strap with an enlarged head on one end thereof. This strap is connected to the body of the container along a fold line across the end thereof opposite the head. By pushing the head of the strap into the interior of the container, the strap may be bowed upwardly while the enlarged head engages beneath the portion of the container to either side of the strap. As a result an upwardly bowed handle is constructed from the material of which the container is formed.

A further feature of the present invention lies in the shape of the strap portion of the handle. This strap portion is narrower near the center portion thereof than at the ends. The wider ends provide the necessary strength for holding the handle onto the container, while the narrow central portion provides a more convenient grip which will fit the hand more readily than if the strap were wider throughout its length. Furthermore, by narrowing the central portion of the strap handle the enlarged end of the handle is prevented from sliding beyond a certain point in the aperture formed by cutting the strap.

A further feature of the present invention lies in the provision of a strap handle formed by cutting out a section of the top wall of the container and an overlying flap on the container designed to lie over this top container wall. The flap is provided with an aperture therethrough registered with the strap handle when the same is upwardly bowed. This handle extends through the apertue and the flap. The aperture in the flap is of such a length that the head of the strap handle can not become disengaged from beneath the container top wall. Tongues are provided extending into the aperture in the flap which prevents the ends of the strap handle from sliding together as the box is carried.

A further feature of the present invention lies in the particular manner in which the container is assembled. Side flaps are foldably connected to the top and bottom walls of the container and overlie the side walls of the container. A tongue defined by lines extending angularly from the edge of the side flaps is provided on each side flap to engage through a slot in the side wall. The formation of this angularly extending tongue to prevent accidental opening of the box is a feature of the present invention.

An additional feature of the present invention lies in the fact that the closing panel of the box, which forms the front wall of the box while the same is carried, is held in closed position by means of the container handle. As a result when the container handle is in use it is impossible for the box to open without tearing.

These and other objects and novel features of my invention will be more clearly and fully set forth in the following specification and claims.

In the drawing forming a part of my specification:

Figure 1 is a perspective view of my box in closed position.

Figure 2 is a perspective view of the box in partially open position.

Figure 3 is a perspective view sectionally through the top wall of the container showing the manner in which the strap handle is cut from the material forming the container top wall.

Figure 4 is a view similar to Figure 3 showing the top closure flap extending over the top container wall.

Figure 5 is a sectional view through a detailed portion of the box.

Figure 6 shows the box in died-out formation before folding.

With reference first to Figure 6 of the drawing, it will be noted that the top wall 10 of the box is connected along a fold line 11 to the rear box panel 12. This rear box panel 12 is connected along a fold line 13 to the bottom panel 14. This bottom panel 14 is in turn connected along the fold line 15 to the front closure panel 16. This front closure panel 16 is connected along the fold line 17 to the top closure panel 19. The top closure panel 19 is designed to overlie the top wall 10 in closed position of the box.

The top wall 10 is connected along the fold

line 20 to the side flap 21 and is also connected along the fold line 22 to the side flap 23. The rear panel 12 is connected along the fold line 24 to the side wall 25 and is also connected along the fold line 26 to the side wall 27. The bottom panel 14 is connected along the fold line 29 to the side flap 30 and along the fold line 31 to the side flap 32. The front panel 16 is connected along the fold line 33 to the closure side flap 34 and along the fold line 35 to the closure side flap 36.

The side flaps 21 and 23 are provided with a pair of parallel slits 37 extending inwardly from an edge thereof to define a tongue 39 therebetween. The side flaps 30 and 32 are provided with a pair of parallel slits 40 extending inwardly from an edge thereof to define a tongue 41 therebetween. Slots 42 are provided in the side walls 25 and 27 to receive the tongue 39 while slots 43 are provided in the side walls 25 and 27 to receive the tongue 41. In the assembly of the box the tongues 39 and 41 are inserted in the slots 42 and 43. It will be noted that the angular slots slope from the edge of the flaps toward the center of the side walls so that the tongue, when once engaged, can not readily become disengaged from the side walls 25 and 27.

In certain constructions it is desirable to form the tongues 41 at a greater distance from the fold lines 29 and 31, and to form the tongues 39 at a greater distance from the fold lines 20 and 22. This may be accomplished by forming the tongues 39 and 41 between a single slot 37 or 40 and the free end of the flap in which it is formed. The same locking result is attained in this construction.

The side flaps 21, 23, 30, and 32 are each provided with a cut away corner 44 which exposes a portion of the side walls 25 and 27 in folded position of the box. An angularly cut slot 45 is cut in each of the side walls 25 and 27 in the exposed portion thereof. A locking tongue 46 of the shape illustrated is provided on each of the closure side flaps 34 and 36 and these tongues 46 are designed to engage in the corresponding slot 45 with a pivoting motion due to the mounting of the tongues integral with the closure 16, as best illustrated in Figures 1 and 5 of the drawing.

In the top box wall 10 I provide a handle 47 by means of which the box may be carried about. This handle 47 is in the form of an elongated strap 49 having an enlarged head 50 which is connected to the body of the strap 49 by shoulders 51. These shoulders 51 are designed to engage beneath the top wall 10 when the handle is bowed upwardly, as illustrated in Figures 1, 3, and 4 of the drawing. Therefore, by merely forcing the head 50 downwardly and pulling upwardly on the strap portion 49 an upwardly bowed handle is provided which is secured to the top wall 10 along a fold line 52 at one end of the handle, and which is secured beneath the cover 10 by the shoulders 51 of the head 50 at the other end thereof.

The sides of the handle strap 49 are preferably inwardly bowed as illustrated in order to narrow the width of the strap handle intermediate its ends. This construction makes the handle more convenient to hold in the hand without sacrificing strength at the ends of the handle strap and also limits the slidable movement of the handle with respect to the aperture 53 formed by cutting the handle from the top wall 10.

The top closure flap 19 is provided with a substantially rectangular aperture 54 therein which is in registry with the handle 47 when the top closure flap is folded down into overlying relation with the top wall 10. It will be noted in Figures 3, 4, and 6 of the drawing that the aperture 54 is not as long as the aperture 53 formed by cutting out the handle 47 so that the ends of the aperture 54 limit the outward sliding of the headed end of the handle 47. In other words, the headed end 50 of the handle 47 can not slide outwardly in its aperture 53 until the head 50 is disengaged from beneath the top wall 10, while the top closure flap 19 is in place, because of the length of the aperture 54.

A pair of opposed ears or tongues 55 are foldably connected to the flap 19 along fold lines 56. These tongues 55 extend between the ends of the handle strap 49 when this strap is in upwardly bowed position, as illustrated in Figure 1, thereby preventing the headed end 50 of the handle 47 from sliding toward the foldably connected end 52. As a result the handle strap 49 is held in its upwardly bowed position by the aperture 54 and by the tongue 55 so that the handle 47 is always in readiness for use.

It will be noted that in folded position of the box, as illustrated in Figure 1, the closure 16 is held closed by engagement of the handle 47 through the aperture 54. It will also be noted that the side flaps 21, 23, 30, and 32 are held in place to the side walls 25 and 27 by angularly extending tongues which can not accidentally disengage from the slots 42 and 43. The box is not only attractive, and useful, but may be formed of a single piece of material, the handle and the entire body being formed of this material.

In accordance with the patent statutes, I have described the principles of construction and operation of my box, and while I have endeavored to set forth the best embodiment thereof, I desire to have it understood that obvious changes may be made within the scope of the following claims without departing from the spirit of my invention.

I claim:

1. A container having a pair of overlying laminations of material, an aperture in the upper lamination, a strap handle cut from the lower of said laminations leaving an aperture therein coinciding with the upper aperture, one end of said strap handle being integrally connected to said lower lamination along a fold line and having a head at the other end designed to engage beneath said lower lamination while said handle is bowed upwardly therefrom out of the plane of said lower lamination extending through said upper aperture, the said upper aperture being of a length substantially equal to the distance between the extremities of said handle in bowed position.

2. A container having a pair of overlying laminations of material, an aperture in the upper laminations, a strap handle cut from the lower of said laminations leaving an aperture therein coinciding with the upper aperture, one end of said strap handle being integrally connected to said lower lamination along a fold line and having a head at the other end designed to engage beneath said lower lamination when said handle is bowed upwardly therefrom out of the plane of said lower lamination extending through said upper aperture, the said upper aperture being of a length substantially equal to the distance between the extremities of said handle in bowed position, and means engaging said handle adjacent the head thereupon to prevent the ends of said handle from drawing together.

3. A container having a pair of overlying laminations of material, an aperture in the upper lamination, a strap handle cut from the lower of said laminations leaving an aperture therein coinciding with the upper aperture, one end of said strap handle being integrally connected to said lower lamination along a fold line and having a head at the other end designed to engage beneath said lower lamination while said handle is bowed upwardly therefrom out of the plane of said lower lamination extending through said upper aperture, the said upper aperture being of a length substantially equal to the distance between the extremities of said handle in bowed position, and means on said lower lamination engageable with the sides of said handle adjacent the head thereupon to hold the ends of said handle in spaced relationship.

4. A container having a pair of overlying laminations of material, an aperture in the upper lamination, a strap handle cut from the lower of said laminations leaving an aperture therein coinciding with the upper aperture, one end of said strap handle being integrally connected to said lower lamination along a fold line and having a head at the other end designed to engage beneath said lower lamination while said handle is bowed upwardly therefrom out of the plane of said lower lamination extending through said upper aperture, the said upper aperture being of a length substantially equal to the distance between the extremities of said handle in bowed position, and means on the upper of said laminations engageable with said handle adjacent the head thereof to hold the ends of said handle in properly spaced relationship.

5. A container having a pair of overlying laminations of material, an aperture in the upper lamination, a strap handle cut from the lower of said laminations leaving an aperture therein coinciding with the upper aperture, one end of said strap handle being integrally connected to said lower lamination along a fold line and having a head at the other end designed to engage beneath said lower lamination while said handle is bowed upwardly therefrom out of the plane of said lower lamination extending through said upper aperture, the said upper aperture being of a length substantially equal to the distance between the extremities of said handle in bowed position, said handle and the aperture in the lower lamination being narrower intermediate its ends than adjacent its ends, the wider portion of said handle adjacent said head end being held in spaced relation from the integrally connected end of said handle by the narrower portion of said aperture in said lower lamination.

6. A container having a pair of overlying laminations of material, an aperture in the upper lamination, a strap handle cut from the lower of said laminations leaving an aperture therein coinciding with the upper aperture, one end of said strap handle being integrally connected to said lower lamination along a fold line and having a head at the other end designed to engage beneath said lower lamination while said handle is bowed upwardly therefrom out of the plane of said lower lamination extending through said upper aperture, the said upper aperture being of a length substantially equal to the distance between the extremities of said handle in bowed position, a wider portion in said handle end in said aperture in said lower lamination adjacent said head, a narrower portion on said handle and said aperture in said lower lamination adjacent said wider portion, said wider portion of said handle engaging against said narrower portion in said aperture in said lower lamination to hold the ends of said handle in spaced relationship.

7. A container having a body panel of sheet material, a strap handle cut from said body panel leaving an aperture therein, one end of said strap handle being integrally connected to said body panel along a fold line and having a head at the other end designed to engage beneath said body panel while said handle is bowed upwardly therefrom out of the plane of said body panel extending through said aperture, and means engaging said handle near said head end thereof to hold the ends of said handle in spaced relation.

8. A container having a body panel, a strap handle cut from said body panel leaving an aperture therein, one end of said strap handle being integrally connected to said body panel along a fold line and having a head at the other end designed to engage beneath said body panel while said handle is bowed upwardly therefrom out of the plane of said body panel extending through said aperture, said handle and said aperture including a relatively wide portion adjacent said head and a narrower portion adjacent said wide portion, said wide portion of said handle engaging against said narrower portion of said aperture to hold the ends of said handle in spaced relationship.

THEODORE F. LIND.