Sept. 23, 1958 R. SLATER ET AL 2,853,224

BOX HANDLE AND CLOSURE

Filed Jan. 26, 1956

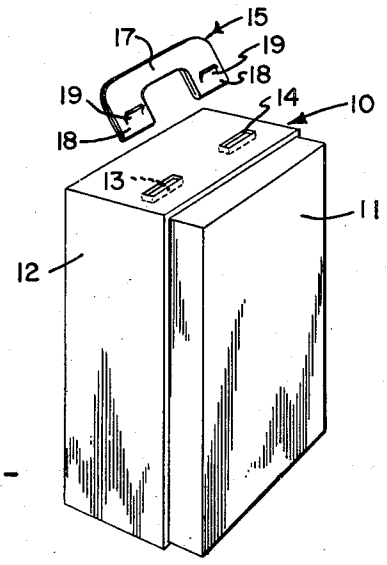


FIG.-1-

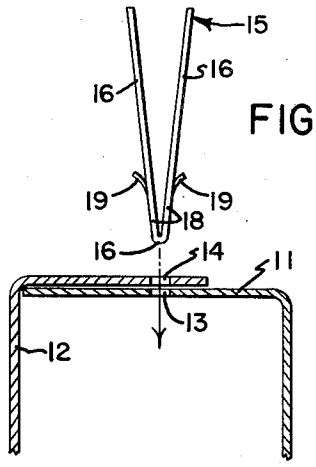


FIG.-2-

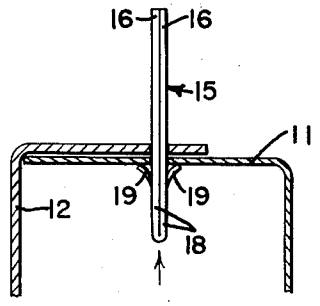


FIG.-3-

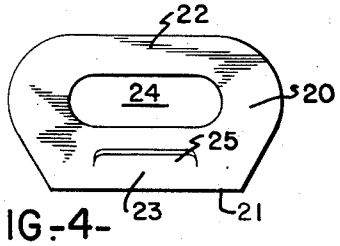


FIG.-4-

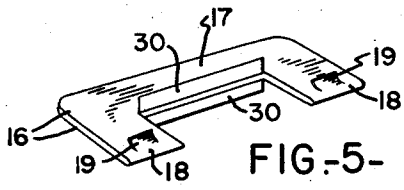


FIG.-5-

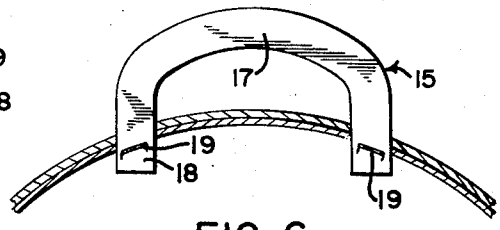


FIG.-6-

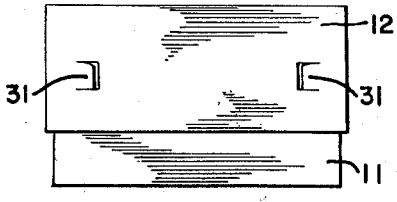


FIG.-7-

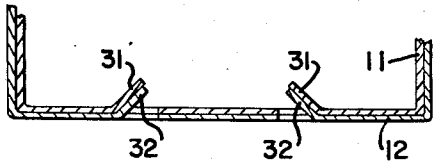


FIG.-8-

United States Patent Office 2,853,224 Patented Sept. 23, 1958

2,853,224

BOX HANDLE AND CLOSURE

Robert Slater and Ella Zach, Wurttemberg, Germany, assignors of one-half to Paul O. Tobeler, Los Angeles, Calif.

Application January 26, 1956, Serial No. 561,589

3 Claims. (Cl. 229—52)

This invention relates to box handles for retail packaging boxes which may be made of cardboard or plastic material and which has for its purpose to provide a simple and neat means for carrying a box after purchase and in addition, if necessary, for holding a lid and box together, said means involving neither gumming nor stitching.

According to this invention, the carrying means consists of a handle made of cardboard or other suitable material, the root or roots of which are inserted through slits in the wall of the closed box. The roots of the handle are prevented from coming out of the slits by tongues which are pressed out from the roots of the handle and point in an outward direction from the roots. The tongues pass easily through the slits and then spring outwards. The roots of the handle are thus held inside the box and are prevented from coming out by the tongues abutting against the inner face of the wall of the box.

This invention relates in particular, but not exclusively, to fairly deep rectangular boxes closed by a comparatively deep close-fitting lid. In such case, the roots of the handle pass through both the wall of the box and the wall of the lid. The handle then serves as a carrying means and also acts to hold the lid and box together. In boxes of this type, if the lid and box are a reasonably good fit they can be held together on only one end or side of the box and will not come apart if the contents of the box are not too heavy. In cases where the lower side or end of the box has a tendency to come open, the lid may be held to the box by any convenient means such as gummed tape or by the added closure means disclosed herein.

It is an object of our invention to provide a box handle which has the advantages of a construction of the type described above including simplicity of manufacture and use, economy and strength.

Our invention also comprises such other objects, advantages and capabilities as will later more fully appear and which are inherently possessed by our invention.

While we have shown in the accompanying drawings preferred embodiments of our invention, it should be understood that the same are susceptible of modification and change without departing from the spirit of our invention.

Referring to the drawings, Fig. 1 is a perspective view showing my handle and box before insertion of the handle;

Fig. 2 is a sectional view taken through one of the slots of the box, showing the handle ready for insertion;

Fig. 3 is a view similar to Fig. 2, showing the handle in operating position;

Fig. 4 is a side elevational view of another embodiment of our invention;

Fig. 5 is a perspective view of a modified embodiment of the handle shown in Figs. 1–3;

Fig. 6 is a sectional view of our handle in use on a round box;

Fig. 7 is an end view of the end of the box opposite from the end having slots therein;

Fig. 8 is a sectional view taken through the flaps in Fig. 7.

A preferred embodiment which has been selected to illustrate our invention comprises a box **10**, which is shown as a box of the type ordinarily used in the retail packaging of shoes. This form of box is selected for purposes of illustration only, since our invention is capable of use with substantially any size or type of container. The box **10** comprises a hollow body portion **11**, which is substantially rectangular in cross section and a lid **12** which is removably fitted in overlapping relationship to the body portion **11**. The body portion **11** and lid **12** are each provided at one end thereof with a pair of narrow elongated identically formed slots **13** and **14** respectively, which slots are aligned when the lid **12** is in closed poistion on the box portion **11**.

The handle **15** is preferably formed from a single substantially oval blank of cardboard or other suitable material which is bent back upon itself along a bisecting line to form a substantially U-shaped handle having a transverse gripping portion **17** and a pair of downwardly directed roots **18** at the opposite ends thereof. The handle **15** comprises two identical closely adjacent leaves **16**, each of which is provided with a pair of outwardly directed tongues **19**, which are disposed adjacent the ends of the roots **18**. The tongues **19** are preferably formed by cuts through the leaves **16** and are pressed out of the material forming the handle so that they are integral therewith and are bent to extend upwardly and outwardly.

In use, the ends of the roots **18** are inserted through the aligned slots **13** and **14**. As the tongues **19** pass through the slots, they flex inwardly to permit the roots to pass into the interior of the body portion **11**. The tongues **19** then flex outwardly again. When upward pressure is exerted on the gripping portion **17**, the tongues **19** engage the inner surface of the body portion **11** on both sides of the slots **13** to prevent removal of the roots **18** back through the slots **13** and **14**.

It will be noted that due to the doubled back formation of the handle **15**, the free ends of the roots **18** are stiff and rounded, thus facilitating their passage through the slots **13** and **14**. The slots **13** and **14** are preferably substantially equal in width to the thickness of the combined leaves **16**, so that the edges of the slots **13** and **14** act to hold the leaves **16** closely adjacent to each other when the handle is in use.

The double-fold handle construction has the further advantage that in case the box is made of decorated cardboard, the handle can be formed of the same material, with the printing or decoration being required on only one face of the handle.

A modified form of our handle is shown in Fig. 4, with the handle **20** being formed from a blank folded along line **21**. The handle is substantially oval, having an upper gripping portion **22** and a single root **23**, which extends parallel to the gripping portion **23** on the opposite side of an oval opening **24**. The root **23** is provided with an upwardly and outwardly directed tongue **25** on each side thereof.

Another form of our handle is shown in Fig. 5 of the drawings, such handle being identical with that shown in Figs. 1–3, except for the addition of a pair of integral anti-chafing flaps **30** adjacent the bottom of the gripping portion. The flaps **30** may be diverted outwardly and/or upwardly and their purpose is to prevent the lower edge of the gripping portion of the handle from cutting into the fingers of hand when the box is carried.

Instead of cardboard, the handle may be formed of any suitable material including plastics such as polyethylene.

In the case of plastics, the outwardly and upwardly directed tongues may be bent into position by heat treatment.

In the case of a round box, the locking tongues may be inclined so that they are disposed tangentially to the curvature of the wall of the box, as shown in Fig. 6 of the drawings.

In order to hold the opposite end of the box from coming open, we may provide additional closure means at the opposite end of the box, as shown in Figs. 7 and 8 of the drawings. Such additional closure means comprise a pair of flaps **31**, which are formed by cuts in the body portion **11** and a second pair of flaps **32**, which are formed by cuts in the lid **12**. The flaps **31** and **32** are aligned with each other when the lid **12** is in closed position in the body portion **11**. The flaps **31** are adapted to be pressed into the body portion **11**, providing an opening behind the flaps **32**. The flaps **32** may be placed into this opening, so that their edges contact the edges of the opening to prevent movement of the lid **12** with respect to the body portion **11**. In practice, the flaps **31** and **32** are simultaneously pressed inwardly by a simple movement of the finger to effect the locking action described.

We claim:

1. A combination box and handle, said box comprising a body portion and a lid removably fitted over said body portion in overlapping relationship thereto, said lid and body portion each having a pair of elongated narrow slots extending through the overlapping portion thereof, the slots in said body portion being aligned with the slots in said lid when said lid is in closed position on said body portion, said handle being formed from a single blank of substantially rigid material, said blank being folded back upon itself at its midportion to provide a pair of identically formed leaves disposed side by side, said leaves comprising a substantially U-shaped handle, the ends of said U-shaped handle comprising a pair of oppositely disposed roots, the fold line of said blank extending along the free ends of said roots, each of the leaves of said blank having a pair of integral tongues pressed therefrom along a substantially horizontal crease, said tongues normally extending upwardly and outwardly in opposite directions from adjacent the ends of said roots, the tongues of each root being in substantial alignment with each other, said tongues being compressible so that the thickness of said handle including said tongues is only slightly less than that of said slots to permit the insertion of said roots through said slots, the ends of said roots extending through said slots, with said tongues engaging the inside of the body portion of the box on opposite sides of said slots to prevent said roots from passing through said slots, said slots holding the leaves of said handle closely adjacent to each other.

2. The structure as defined in claim 1, said body portion and lid each having one or more flaps cut in the opposite end of said box, the flaps of said body portion being in alignment with the flaps of said lid when said lid is in closed position on said body portion, the flaps of said body portion being pressed into said body portion to provide an opening, the flaps of said lid being pressed into said opening so that their edges engage the edges of said opening to prevent the movement of said lid with respect to said body portion.

3. A combination box and handle, said box having an elongated narrow slot extending therethrough, said handle being formed from a single blank of substantially rigid material, said blank being folded back upon itself at its mid-portion to provide a pair of identically formed leaves disposed side by side, said leaves comprising a handle, the bottom of said handle comprising a root, the fold line of said blank extending along the bottom of said root, each of the leaves of said blank having an integral tongue pressed therefrom along a substantially horizontal crease, said tongues extending upwardly and outwardly from adjacent the end of said root, said tongues being in substantial alignment with each other, said tongues being compressible so that the thickness of said handle including said tongues is only slightly less than that of said slot to permit the insertion of said root through said slots, the end of said root extending through said slot, with said tongues engaging the inside of the body portion of the box on opposite sides of said slot to prevent said root from passing through said slot, said slot holding the leaves of said handle closely adjacent to each other.

References Cited in the file of this patent

UNITED STATES PATENTS

454,636	Brown et al.	June 23, 1891
2,128,723	Zettler	Aug. 30, 1938
2,359,298	Brogden	Oct. 3, 1944
2,405,914	Van Rosen	Aug. 13, 1946
2,434,630	Van Rosen	Jan. 13, 1948
2,514,858	Gray	July 11, 1950
2,645,406	Robins	July 14, 1953

FOREIGN PATENTS

24,342/35	Australia	Sept. 17, 1936