Nov. 19, 1968 R. J. PEARCE 3,411,653

HINGED CLOSURE

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Fig. 1.

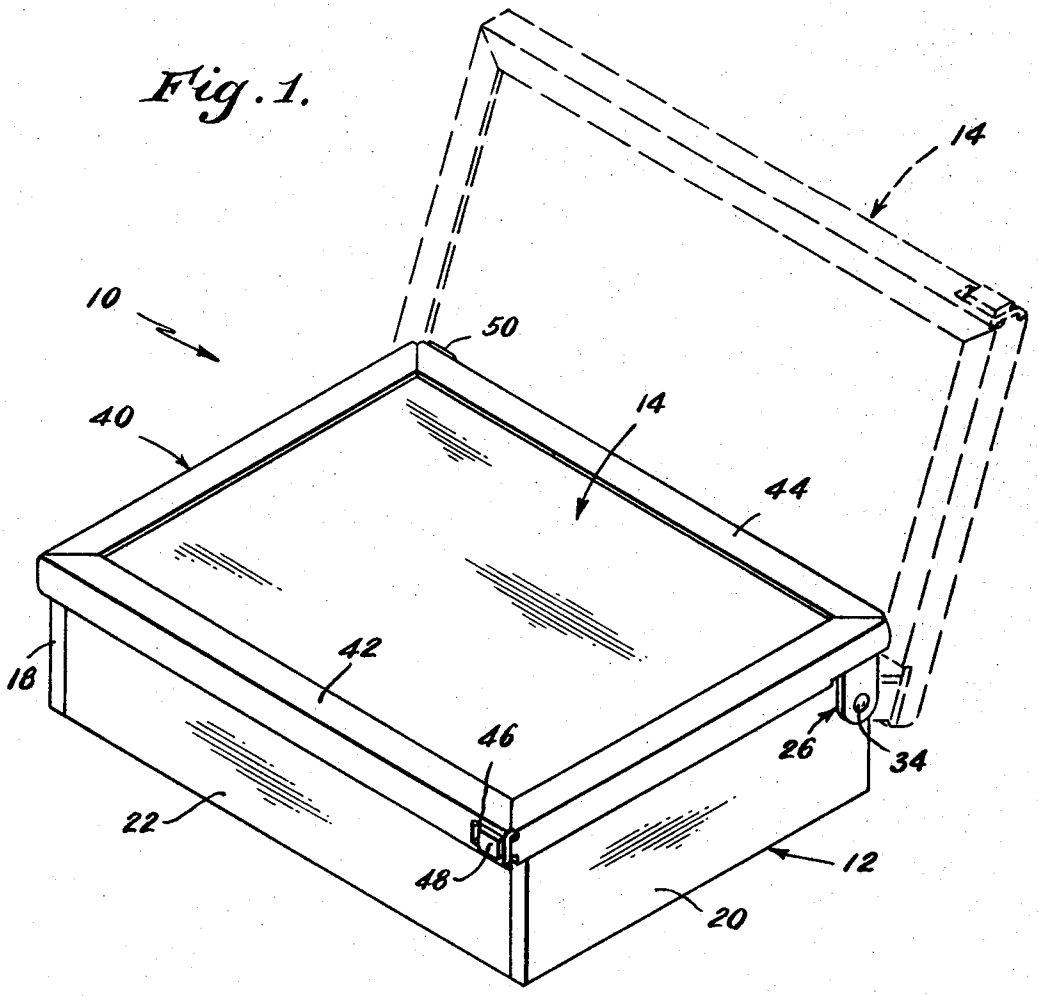


Fig. 2.

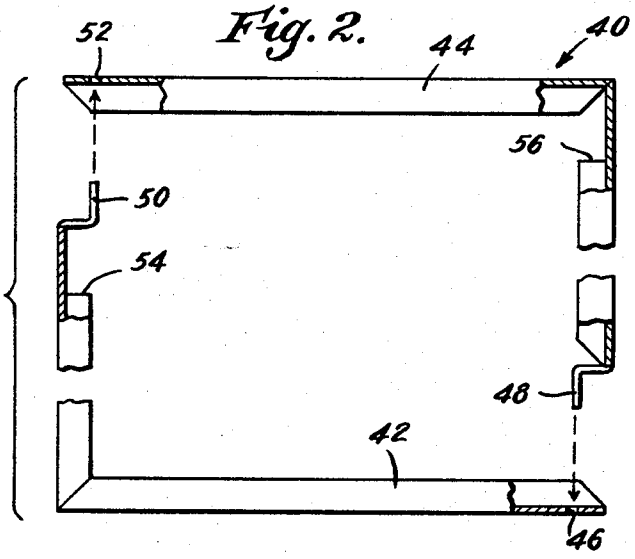
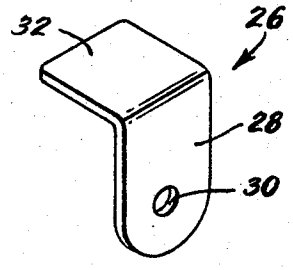


Fig. 7.



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Fig. 3.

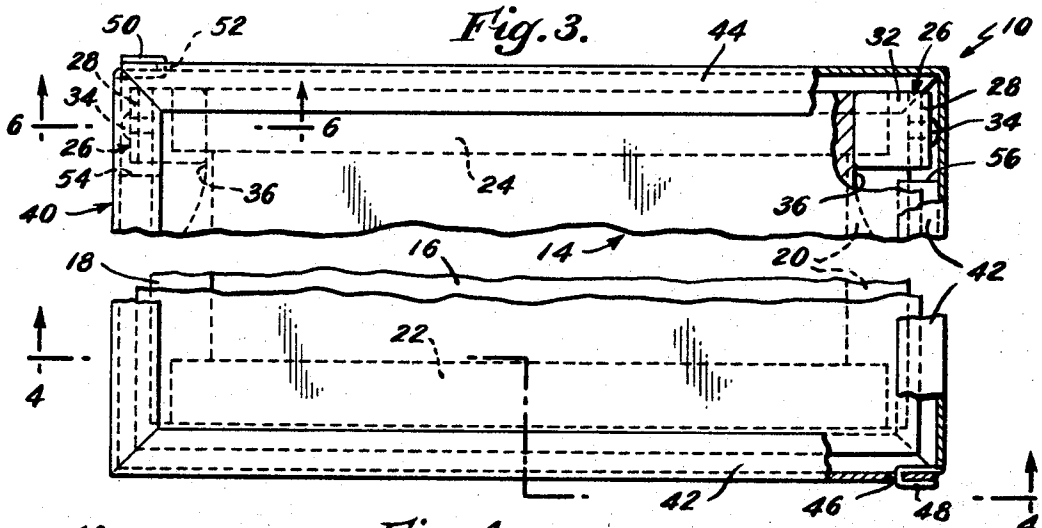
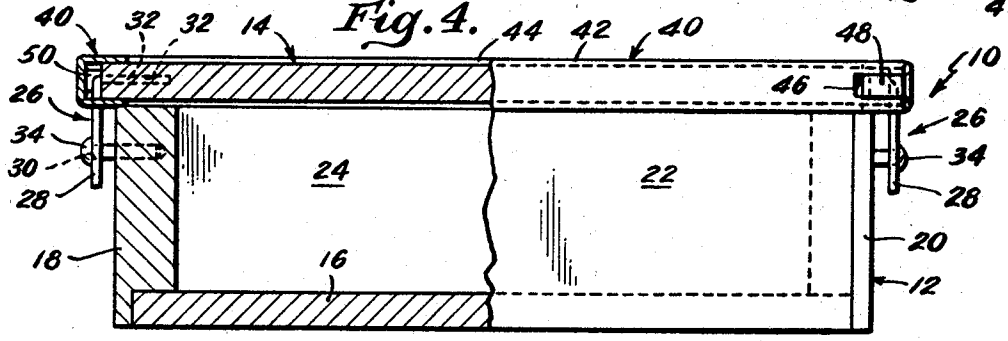


Fig. 4.



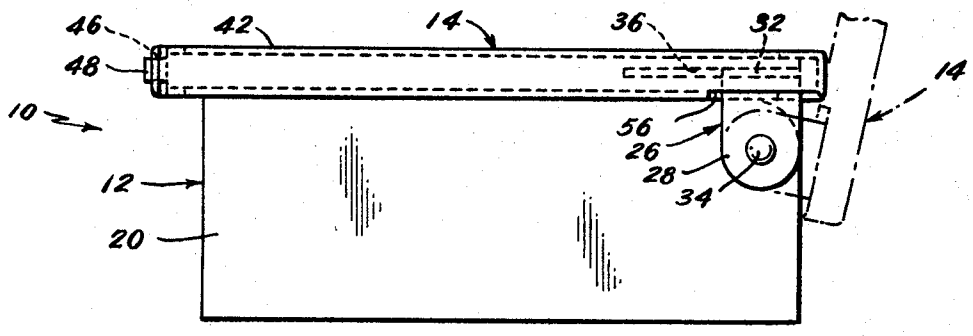


Fig. 5.

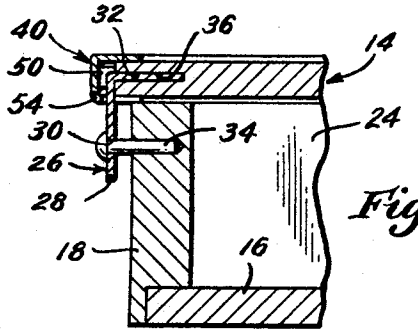


Fig. 6.

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HINGED CLOSURE

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8 Claims. (Cl. 217—57)

ABSTRACT OF THE DISCLOSURE

A box construction having a top cover secured to a bottom section by hinge members, each of which includes a tongue that extends through a slit formed in a rear corner of the top cover, and a channel-shaped rim received on the peripheral edge of the top cover and locking the hinge members to the top cover.

The present invention relates to a box construction. More particularly, the present invention relates to a box construction and a unique hinge assembly for use in the mounting of a top cover on a bottom section of the box construction.

In the construction of wooden boxes or the like, it has been the usual practice to hinge the top cover of the box to the bottom section by a conventional metal hinge, or, in some instances, by the use of a paper-type hinge. The metal type hinge has been found to be generally satisfactory in use but when they have been employed in inexpensive box constructions, the cost thereof has been relatively high in comparison to the overall cost of the box. The paper-type hinge, on the other hand has not been satisfactory in use because of the lack of durability and limited application thereof.

The present invention has particular application in a box construction wherein wood or plastic materials are employed and is intended for use in a relatively inexpensive box for packaging articles such as cigars and other items of an inexpensive variety. In carrying out the concept of the present invention, the box construction embodied herein includes a bottom section to which a top cover is hingedly connected. In place of the usual type of metal hinge normally associated with box constructions, the present invention incorporates a unique hinge assembly that includes a pair of hinge members, each of which is joined to a side wall of the bottom section of the box. Each hinge member further includes a tab portion that is received in a slit formed in the side edge of the top cover that is secured to the bottom section. The top cover is thus pivotally mounted on the bottom section by securement of the hinge members to the top cover and the side walls of the bottom section. Since the tab portions of the hinge members are loosely received in the slits formed in the edges of the top cover, a rim member is provided that is formed in a channel configuration for receiving the peripheral edge of the top cover. The rim member thus overlies the hinge members for locking the hinge members in place. A unique locking detail is further provided for securing the rim member on the peripheral edge of the top cover.

Accordingly, it is an object of the present invention to provide a box construction having a unique hinge assembly for connecting a cover to a bottom section of the box.

Another object of the invention is to provide hinge members for securing the top cover of a box to the bottom section thereof, the hinge members being secured to the side walls of the bottom section and including tabs that are received in slits formed in the side edges of the top cover.

Still another object is to provide a box construction wherein hinge members are employed for securing the top cover of the box to the bottom section thereof and a rim member is received on the peripheral edge of the top cover for locking the hinge members in position.

Other objects, features and advantages of the invention will become apparent as the description thereof proceeds when considered in connection with the accompanying illustrative drawings.

In the drawings which illustrate the best mode presently contemplated for carrying out the present invention:

FIG. 1 is a perspective view of the box construction embodied in the present invention showing the top cover in the closed position in full lines and in the open position in dotted lines;

FIG. 2 is a plan view with portions broken away and shown in section of the rim member of the box construction;

FIG. 3 is a top plan view with portions broken away and shown in section of the box construction with the cover located in the closed position thereof;

FIG. 4 is a sectional view taken along lines 4—4 in FIG. 3 and with a portion of the box shown in elevation;

FIG. 5 is a side elevational view of the box construction with the cover shown in the open position in dotted lines;

FIG. 6 is a sectional view taken along lines 6—6 in FIG. 3; and

FIG. 7 is a perspective view of one of the hinge members that secure the top cover to the bottom section.

Referring now to the drawings and particularly to FIG. 1, the box construction embodied in the present invention is generally indicated at **10** and includes a bottom section generally indicated at **12** and a top cover generally indicated at **14**. The bottom section **12** is conventional in construction and may be formed of any convenient material, such as wood, plastic or metal. As shown, the bottom section **12** is formed of a wood material and includes a bottom wall **16** to which are secured side walls **18** and **20**, a front wall **22**, and a rear wall **24**. Any convenient means such as fastener or an adhesive may be employed for securing the side walls **18** and **20**, front wall **22**, and rear wall **24** to the bottom wall **16** and to each other.

In order to pivotally mount the top cover **14** to the bottom section **12**, a unique hinge assembly is provided and includes hinge members generally indicated at **26** that are secured to the rear corners of the bottom section **12** and top cover **14**.

As shown particularly in FIG. 7, each of the hinge members **26** includes a tongue portion **28** in which an opening **30** is formed and a tab portion **32** joined to the tongue portion **28** and disposed at right angles with respect thereto. As shown in FIGS. 4 and 6, the hinge members **26** are secured to the bottom section **14** by inserting a pin **34** through the opening **30** formed in each of the tongue portions **28** and into a side wall of the bottom section. As will be more clearly described hereinafter, the hinge members **26** are joined to the side walls **18** and **20** at the upper rear corners thereof so as to be located for securement to the rear corners of the top cover **14**.

The top cover **14** is preferably formed in a relatively flat plate-like construction and is dimensioned to overhang the upper edges of the side walls and front and rear walls of the bottom section to define a peripheral flange with respect thereto. In order to receive the tab portions **32** of the hinge members **26** for pivotally mounting the top cover on the bottom section **12**, corner slits **36** are formed in the rear corners of the top cover **14**. As more clearly shown in FIGS. 4 and 5, the tab portions **32** as located in the slits **36** are disposed in parallel relation with respect to the top cover and extend outwardly from the side edges thereof so that the tongue portions **28** of the hinge members **26** are located in parallel rela-

tion with respect to the side walls to which they are secured. By locating the hinge members **26** in the manner as described, the top cover is pivotally mounted on the bottom section, the pins **34** defining the hinge axis therefor and the hinge members **26** pivoting with the top cover **14** as it is moved to either an open or a closed position on the bottom section **12**.

In order to positively lock the hinge members **26** to the top cover **14** and to further provide an ornamental effect for the box construction **10**, a channel-like rim member generally indicated at **40** is provided and, as illustrated, is adapted to be received on the peripheral edge of the top member **14**. The rim member **40** is formed in two separate sections indicated at **42** and **44**, the sections **42** and **44** being bent at right angles at the midpoint thereof and cooperating to define a configuration such as that formed by the peripheral edge of the top cover **14**. Both of the rim sections **42** and **44** have a channel configuration and are adapted to be inserted over the peripheral edge of the top cover **14** to form a decorative edge therefor.

In securing the rim member **40** on the peripheral edge of the top cover **14**, the channel shaped rim section **42** is located on the front edge of the top cover and the side edge thereof that is adapted to overlie the side wall **18**. Similarly, the channel-shaped rim section **14** is mounted on the rear peripheral edge of the top cover **14** and on the edge of the top cover that overlies the side wall **20**. The rim sections **42** and **44** are secured in place on the peripheral edges of the top cover by providing an opening **46** in the end of the rim section **42** that is adjacent to the side wall **20** (see FIG. 2) and by forming a locking finger **48** on the end of the rim section **44** that overlies the side wall **20**. Thus, when the rim sections **42** and **44** are mounted in place on the peripheral edges of the top cover **14**, the locking finger **48** is inserted within the opening **46** and bent thereover as illustrated in FIG. 1 to a locking position. Similarly, the portion of the rim section **42** that overlies the side wall **18** is formed with a locking finger **50** while the portion of the rim section **44** that overlies the rear wall **24** has an opening **52** formed therein for receiving the locking finger **50**. Since the rim member **40** is adapted to lock the hinge members **26** in place on the top cover, the rim sections **42** and **44** are each provided with notches indicated at **54** and **56** respectively that accommodate the tongue portions **28** of the hinge members **26** when the rim member is secured in position. As further illustrated in FIG. 6, the rim member **40** as mounted on the peripheral edge of the top cover **14** not only effectively locks the tab portions **32** of the hinge members **26** in the slits **36** but by so doing, insures that the top cover **14** is affixed to the bottom section **12** in hinged relation thereon.

It is seen that the box construction as embodied herein comprises a minimum number of parts, yet is relatively durable and also ornamental. Further, the box construction **10** is simple to assemble since the hinge members **26** are easily secured to the top cover by projecting the tab portions **32** within their respective slits **36** formed in the edges of the top cover and then mounting the rim member **40** on the peripheral edges of the top cover **14** to lock the hinge members thereto. The rim member **40** is locked in place by locating the locking fingers **48** and **50** in their respective openings **46** and **52** and turning the locking fingers over to a locking position. The rim member **40** thus not only defines an effective means for locking the hinge members **26** in place but further forms an attractive and ornamental edge for the box construction. The top cover **14** is thereafter pivotally mounted in place on the bottom section **12** by inserting the pins **34** through the tongue portion **28** of the hinge members **26** and into the side walls **18** and **20**. The hinge members **26** together with the top cover are thus mounted for pivotal movement about pins **34** which define the hinge axis therefor.

While there is shown and described herein certain specific structure embodying the invention, it will be manifest to those skilled in the art that various modifications and rearrangements of the parts may be made without departing from the spirit and scope of the underlying inventive concept, and that the same is not limited to the particular forms herein shown and described, except insofar as indicated by the scope of the appended claims.

What is claimed is:

1. In a box construction, a bottom section including a bottom wall, side walls, a front wall and a rear wall, a top cover having a relatively thin peripheral edge and having slits formed therein adjacent to the rear corners thereof, and hinge members including a tongue portion that is connected to a side wall and a tab portion joined to the tongue portion, said tab portion of each hinge member being received in a slit in said top cover and cooperating with the tongue portion to which it is secured for hingedly connecting said top cover to said bottom section, and a rim having a channel shape being received on the peripheral edge of said top cover for locking said tab portions in said slits and said top cover to said bottom section.

2. In a box construction, a bottom section including a bottom wall, side walls, a front wall and a rear wall, a top cover, hinge members hingedly connecting said top cover to said bottom section, and a rim member secured to said top cover for locking said hinge members to said top cover, said hinge members connecting said top cover to the side walls of said bottom section, each of said hinge members including a tongue that is secured to a side wall of said bottom section and a tab that is joined to the tongue and engages said cover, said top cover having slits formed therein adjacent to the rear edges thereof, each of said slits receiving a tab therein, the plane of said tabs being disposed in perpendicular relation to the plane of said tongues, and pins extending through said tongues for joining said tongues to the side walls of said bottom section, said pins thereby defining the hinge axis about which said cover pivots during the opening and closing movement thereof, said top cover being defined by a relatively thin plate, and said rim member having a channel shape into which the peripheral edges of said top cover are received, said rim member overlapping the tongues of said hinge members and the slits in said top cover to effectively lock said hinge members to said top cover.

3. In a box construction as set forth in claim **2**, said rim member being formed in two sections, each section being bent at right angles and cooperating with the other section to define a configuration corresponding to that of said top cover for receiving the entire peripheral edge of top cover in the channel thereof.

4. In a box construction as set forth in claim **3**, each of said rim member sections having a finger formed on one end and an opening formed in the other end, the finger of each rim section being received in the opening of the other rim section to lock the rim member on the peripheral edge of said top cover.

5. In a box construction, a bottom section including a bottom wall, side walls, a front wall and a rear wall, a top cover, hinge members hingedly connecting said top cover to said bottom section, and a rim member secured to said top cover for locking said hinge members to said top cover, each of said hinge members including a tongue and a tab joined to said tongue and extending at right angles with respect thereto, the tab of each hinge member engaging said top cover and a pin extending through the tongue of each hinge member and into a side wall for securing the tongue thereto, said pins thereby defining the hinge of said top cover, said rim member having a channel configuration and receiving the peripheral edge of said top cover therein, said rim member overlapping the tongue of each hinge member and enclosing said tongues in said top cover to lock said hinge members in position, the top cover having slits formed therein adjacent to said hinge members and receiving said tabs therein, said rim member

overlapping said slits to lock said tabs therein and a locking finger formed on one end of said rim member and an opening formed in the other end thereof, said locking finger being received in said opening for locking said hinge member on the peripheral edge of said top cover.

6. In a box construction as set forth in claim 5, said hinge members connecting said top cover to the side walls of said bottom section, each of said hinge members including a tongue that is secured to a side wall of said bottom section.

7. In a box construction as set forth in claim 6, the plane of said tabs being disposed in perpendicular relation to the plane of said tongues, and pins extending through said tongues for joining said tongues to the side walls of said bottom section, said pins thereby defining the hinge axis about which said cover pivots during the opening and closing movement thereof.

8. In a box construction, a bottom section including a bottom wall, side walls, a front wall and a rear wall, a top cover, hinge members hingedly connecting said top cover to said bottom section, and a rim member secured to said top cover for locking said hinge members to said top cover, said top cover having a relatively thin peripheral edge in which slits are formed in the rear corners thereof, said hinge members including tabs that extend into said slits for securing said top cover to said hinges, said rim member having a channel configuration into which the peripheral edges of said cover are received, said rim member thereby overlapping said hinge members to effectively lock said tabs in said slits and said hinge members to said top cover.

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