

J. H. CARTER.
FOLDABLE BOX.
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1,136,099.

Patented Apr. 20, 1915.

2 SHEETS-SHEET 1.

Fig. 1.

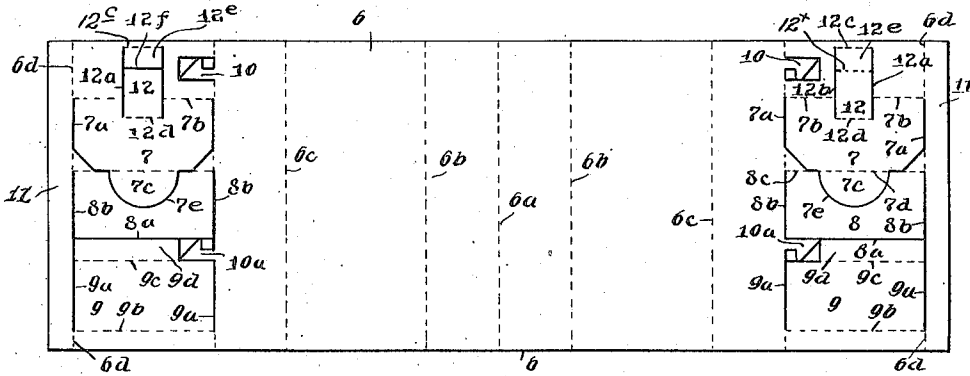
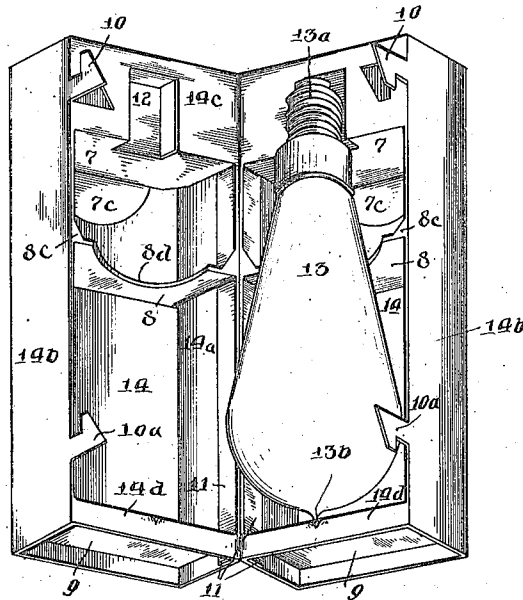


Fig. 2.



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Fig. 1 is a perspective view of a closed container, such as a box or chest, showing its front and top surfaces. The container is divided into two main compartments by a central vertical partition. The top surface is labeled 10, and the front surface is labeled 11. The corners of the front surface are reinforced with triangular pieces labeled 12. A central locking mechanism is visible on the front surface, consisting of a cylindrical body 12a and a handle 12b. The handle 12b is shown in a retracted position, and the locking mechanism is labeled 12c. The container is shown in a closed state.

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UNITED STATES PATENT OFFICE.

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FOLDABLE BOX.

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To all whom it may concern:

Be it known that I, JAMES H. CARTER, citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Foldable Boxes, of which the following is a specification.

My invention relates to improvements in folding and collapsible boxes made from card-board or other suitable material, and especially adapted for use as containers or carriers for incandescent lamps or other fragile articles.

The especial object of my improvements is to provide a box of the character above described made from a single piece of card board cut, scored, folded and pasted in such manner that compartments will be provided for an incandescent lamp, supports will be furnished which will effectively hold the lamp against movement within the compartments and access to the lamp while in the compartments may be had for the purpose of testing it, without being required to remove it from the box.

A further object is to provide a box of the character described which will be self-locking so that it may be used without a wrapper if desired.

Still further objects attained by my invention are the protection of the lamp or other fragile article within the box from impact with the sides of the container in which said boxes may be packed or from contact with other articles that would tend to collapse an ordinary box and thus fracture the contents.

A further object is to provide a box which is adapted to display the contents thereof without removal from the box so that a purchaser may make the necessary examination of the article without handling it.

A further object is to provide a box from a single piece of material so cut as to avoid waste, and to accomplish the advantages set forth with the minimum amount of labor and expense in the manufacture of the completed article.

In the accompanying drawings which form a part of this application, I have illustrated my improved folding box in a preferred form in the following views.

Figure 1 is a plan view of the blank from which my improved box is constructed, with the various lines of fold and cut indicated thereon; Fig. 2 is a perspective view of my

improved box in completed form and open position, showing an incandescent lamp displayed therein; Fig. 3 is an enlarged vertical section taken through one of the halves of my improved box; Fig. 4 is a view of one end of the box with a lamp in position, and Fig. 5 is a perspective view of my improved box in collapsed form.

Referring to the details of the drawing, 6 represents generally a piece of card board in the form of a parallelogram, which is transversely scored at 6^a, 6^b, and 6^c, the lines of said scores being parallel and spaced as indicated. For purposes of description it may be said that the box is divided into two complementary halves which, as they correspond in nearly all details, may be described by reference to one side or section. Between the scored line 6^c and the right hand end of the blank, an upper partition 7 is formed by cuts 7^a and scores 7^b, and a tongue 7^c is provided on said partition by a score 7^d and a semicircular cut 7^e. A middle partition 8 is formed by cuts 8^a, 8^b, and the section thus provided is bent inwardly at right angles along the scored line 8^c. The lower partition or bottom section 9 is formed by the cut 8^a the parallel side cuts 9^a and the scored folding lines 9^b. The section 9 is also scored transversely along the line 9^c to provide a flange 9^d which abuts against the rear wall of the compartment when the box is in its operative relation. Hook shaped tongues 10, 10^a, are cut from the blank adjacent the partitions 7 and 9, the tongues at one end of the blank having their hooks reversed from the tongues of the opposite end of the blank, so that when the box is in its completed form the tongues will interlock and hold the two halves or sections in closed position.

By scored lines 6^a adjacent to and parallel with the ends of the blank, I provide flanges 11 which when folded at right angles to the body of the blank, are adapted to be pasted to the adjacent wall of the box.

Above the partition section 7, and midway the width of said partition, by cuts 12^a, 12^b, and scored lines 12^c, 12^d, I provide tongues 12 and 12^e which when bent form, together with the adjacent edges left by said cuts, pockets for the reception of the plug 13^a of the lamp 13. In lieu of the cut 12^f which separates the portions 12, 12^e, into relatively movable tongues for purposes, to be described, I may substitute a bend along the scored line 12^g as shown at the right hand

of Fig. 1. With this exception the two end portions of the blank correspond exactly.

Referring now to the other figures of the drawing which show the blank which has been cut and scored as above indicated, with the various partitions and tongues folded in operative position, it will be seen that my improved box consists of two compartments connected along the scored folding line 6^a, which forms a hinge for said compartment. Each compartment has a back 14, opposite side walls 14^a, 14^b, an upper front wall 14^c, and a lower front wall 14^d, said upper and lower walls forming the connection between the two side walls 14^a, 14^b.

The partition member 7 is bent inwardly at right angles to the front wall member 14^c so as to bring the tongue 7^c parallel with and against the back wall 14, thus affording a wide bearing for the member 7, which may be secured in this position if desired when the box is made up, by applying a suitable adhesive to the rear face of the tongue or flap 7^c. The partition member 8 is bent inwardly along the scored line between the members 7 and 8 until the inner edge of said member 8 bears against the rear wall 14, the triangular portions 8^c forming the connections between said partition 8 and the side walls 14^a, 14^b. The cut out portion 8^a formed by cutting the tongue 7^c on the line 7^c, is adapted to form a bearing for the side of the globe of the incandescent lamp 13. The partition 9 or bottom member is bent inwardly along the line 9^b, and the flange 9^a is formed by bending up at right angles the margin of the member 9 along the scored line 9^c, thereby bringing the flange 9^a parallel to and in contact with the rear wall 14, as clearly shown in Fig. 3.

When the compartments are made up, the hook shaped tongues 10, 10^a, lie in the same plane with the sides 14^b, and by reason of their reverse shape they are readily engaged with each other when the compartments are in the closed position. The flanges 11 being gummed when the box is made up, to the adjacent sides of the walls 14^a, serve to stiffen or reinforce the sections along their hinged connection, which as above mentioned is formed by bending the card board along the line 6^a.

If desired, the member 12 which is formed by the parallel cuts 12^a, 12^b, and the scored lines 12^c, 12^d, may be divided into separable portions by a cut 12^e, thereby forming a separate flap 12^e which may be bent up for the purpose of permitting access to the end of the lamp so that the latter may be tested by a suitable instrument applied to the exposed end, such arrangement being indicated in Fig. 4. The upper edge of the front members 14^d, is slightly notched at its center to provide a seat for the tip of the lamp bulb.

It will be noted that the bottom member 9

is countersunk from the lower edges of the surrounding back, side and front members, as clearly shown in Figs. 2 and 3, thus leaving the projecting portions of the back and side members to serve as spacers whereby other objects cannot come in direct contact with the bottom member 9. It is also obvious that the person making up my improved box may apply an adhesive to the flange 9^b and thus permanently secure it to the rear wall 14, thus preventing any liability of the bottom member 9 being pushed upwardly by some object small enough to fit between the projecting walls of the front, side and back members of the box. It will also be obvious that the compartment or recess formed by the members 12, 12^a, is below the upper edges of the side and rear walls of the compartment and any object placed in said recess is therefore protected by the extension of said wall.

It will be seen that when the box is made up of the form shown in Fig. 2, a lamp such as 13, or other article as a lamp chimney for instance, may be placed in the one half or single compartment and the other half or complementary compartment folded over against said article and the opposed tongues 10, 10^a, readily interlocked. When thus arranged, the lamp or chimney or other article placed within the box would be thoroughly protected on all sides and ends by contacting walls and edges which by reason of the various bends and the nature of the material of which the box is constructed, will have more or less resiliency and thereby afford a cushion contact which will relieve the article from impact with things likely to destroy or injure it. It is also obvious that when the two pairs of tongues 10, 10^a, are disengaged and the compartments separated by swinging them apart, the articles placed therein can be fully inspected as all parts will be exposed to view.

It will be understood that in adapting my improved box to articles of different shapes that the recesses and partitions will be cut so as to conform to such shapes but with this modification my improved box will be constructed and arranged substantially as described.

Should it be desired to prevent the contents of the box from being tampered with and particularly, the substitution of a burned out lamp for a good one, it will be only necessary to apply sealing wax or other suitable medium to the interlocked tongues, 10, 10^a, and the breaking of the seal thus provided would be evidence of the fact that the package had been tampered with.

The box will be manufactured with various cuts and scored lines indicated and with the flanges 11 pasted to the adjacent walls 14^b and the various partitions 7, 8 and 9, tongues 10, 10^a, and partially severed

members 12, will be left in the flat so that they will be in the same plane with the walls 14^c, 14^d, and when in this position the box may be collapsed as indicated in Fig. 5 which shows said box in partially collapsed form. When thus collapsed the box will occupy but little space and a large number of them can be packed in a comparatively small shipping case.

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

1. A box consisting of two complementary hingedly connected rectangular compartments, each compartment comprising an outer wall, two side-walls, an inner wall, top and bottom walls and a partition between the top and bottom walls, said top and bottom walls being countersunk relative to the ends of the compartment and having portions contacting and parallel with the outer walls, and said inner wall of each compartment having a recess therein extend-

ing into the space between said top wall and the adjacent end of the compartment. 25

2. A box formed of a single piece of material and consisting of two complementary hingedly connected rectangular compartments, each compartment comprising an outer imperforate wall, two imperforate side walls, an inner wall and top and bottom walls, said top and bottom walls being countersunk relative to the ends of the compartment and having free ends bent to engage and lie parallel with the rear wall, and said top wall and the portion of the inner wall adjacent thereto having a recess therein whereby articles entering said recess may project into the space between the top wall and the end of the compartment. 30 35 40

In testimony whereof I affix my signature in the presence of two witnesses.

JAMES H. CARTER.

Witnesses:

G. W. HILTABRAND,
M. A. MILORD.