C. F. A. EDDY.

BOX.

APPLICATION FILED DEC. 13, 1909.

973,927.

Patented Oct. 25, 1910.

Fig. 1.

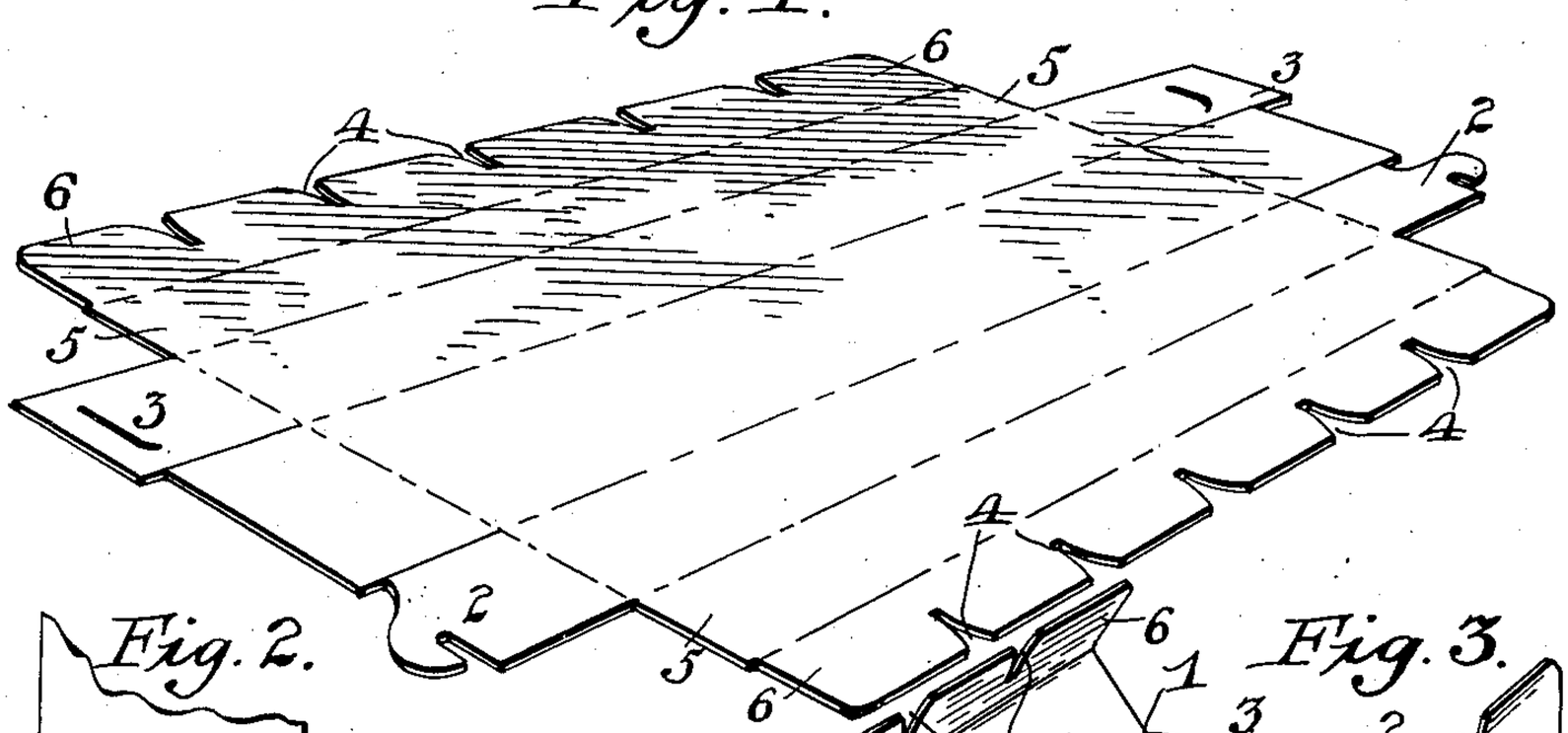


Fig. 2.

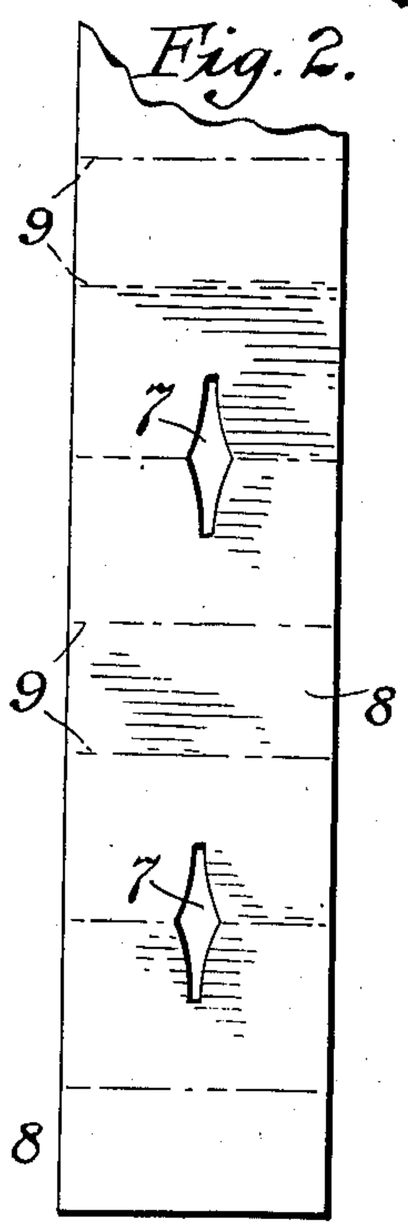


Fig. 3.

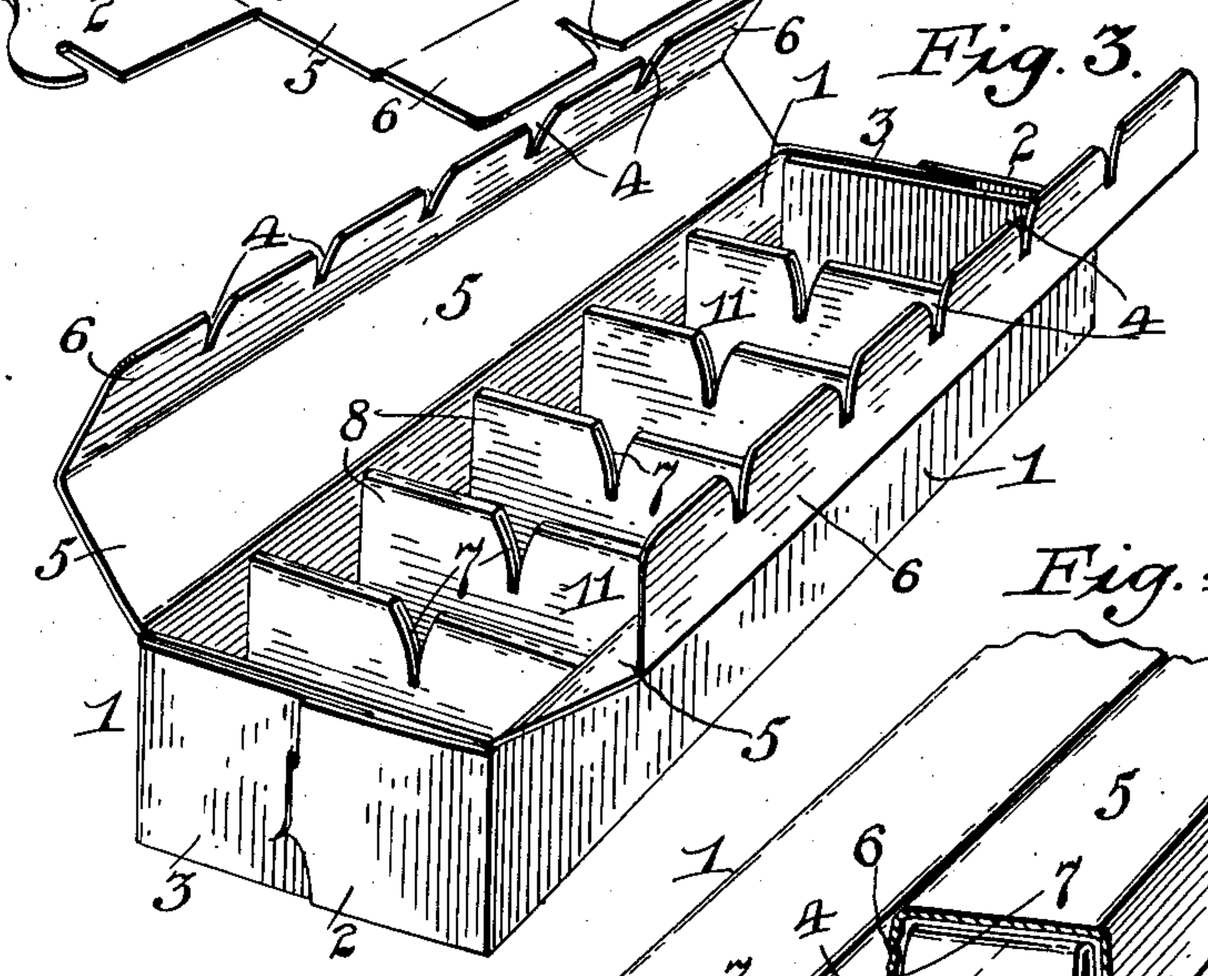


Fig. 4.

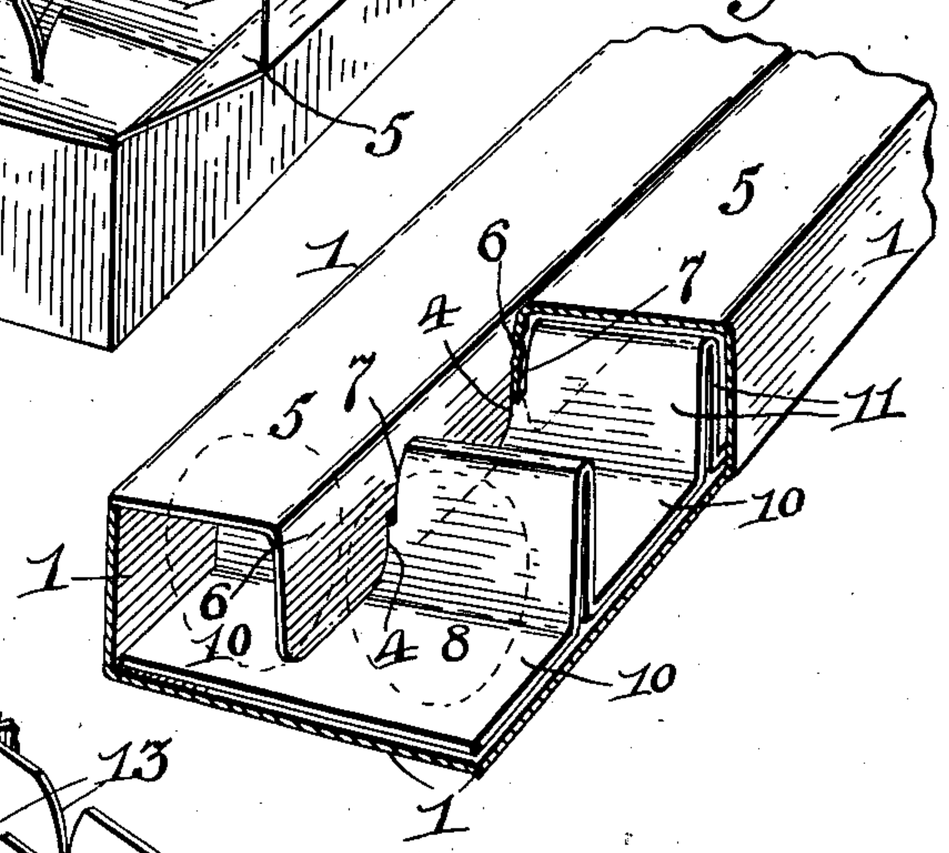
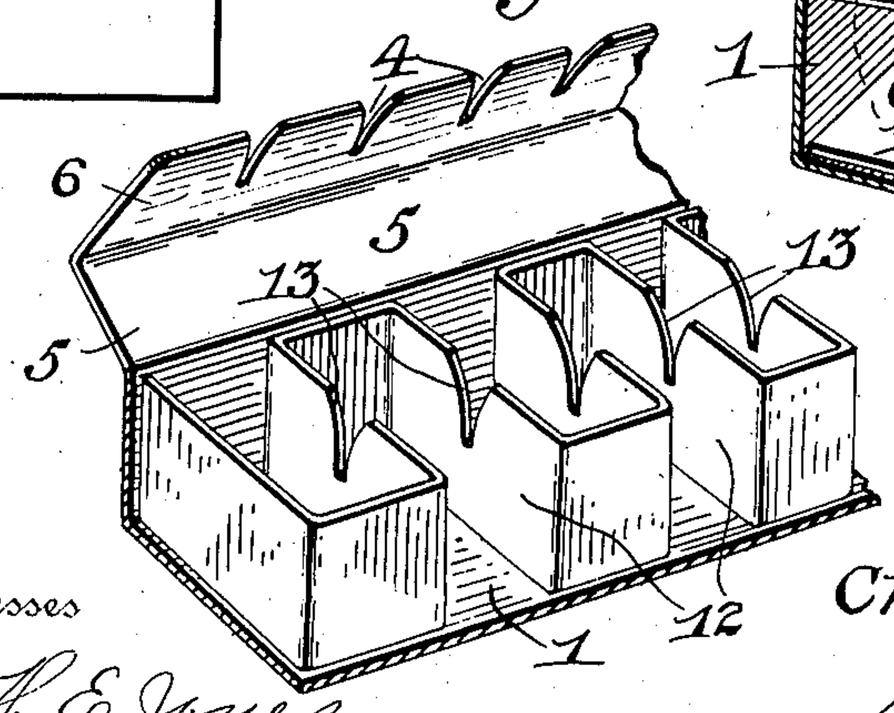


Fig. 5.



Witnesses

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UNITED STATES PATENT OFFICE.

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BOX.

973,927. Specification of Letters Patent. Patented Oct. 25, 1910.

Application filed December 13, 1909. Serial No. 532,778.

To all whom it may concern:

Be it known that I, CHARLES F. A. EDDY, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented certain new and useful Improvements in Boxes, of which the following is a specification.

This invention relates to improvements in boxes or similar receptacles and particularly to the folding type of boxes, such for instance as are much used in packing and transporting certain kinds of goods where light, inexpensive and yet reasonably strong closures are required.

It is the object of the invention to provide such a box or receptacle and form it with a folding cover, which is adapted to engage and interlock with a suitable cell forming filler.

With this and other objects in view, the invention consists in certain novel constructions, combinations and arrangements of parts as will be hereinafter fully described and claimed.

In the accompanying drawing forming a part of this specification:—Figure 1 is a perspective view of a blank cut from any suitable material, the blank being so shaped as to produce when folded, the box or receptacle of the present invention, Fig. 2 is a plan view showing a portion of the preferred form of the filler used in the box, the material thereof being flattened out to show the manner in which it is produced as a blank. Fig. 3 is a perspective view of my improved box, the folding cover portions being thrown open to disclose the interior of the box and the cellular filler arranged therein. Fig. 4 is a fragmentary perspective view of the box with the cover closed, portions of the box being broken away to show how the cover interlocks with the cellular filler, and, Fig. 5 is a fragmentary perspective view showing a portion of the box and a modified form of the cellular filler arranged upon the bottom thereof.

The box forming the subject matter of the present invention is designed to afford an improved receptacle or closure of the folding type which is particularly adapted for the packing and transportation of goods which are best mounted or inclosed in a cellular structure.

The invention is particularly suited to the packing of eggs and other articles liable to breakage, as for instance electric light bulbs, fragile ornaments and the like.

In the accompanying drawing is illustrated a practical embodiment of the invention, the box shown being especially well adapted for the reception of eggs and the invention will now be described, reference being had to such drawing.

The box 1 proper, is made of a single piece of material and with proper machinery can be struck from the said material at a single operation. While the box can be made from various materials, when forming egg boxes, paste board of suitable thickness is usually employed. As illustrated in Fig. 1, the blank is cut of the desired configuration to provide the proper end fastenings for the box as indicated at 2 and 3 while the side portions of the blank are formed with inwardly cut notches as at 4. The blank is usually lightly scored as indicated by dotted lines at the points where it is to be folded to form the box or closure. As the locking end portions form no important part of the invention and may be varied as desired, the said end portions need no further description. When the body portion of the box is folded as shown in Fig. 3, the cover portions 5 extend along the upper side edges of the box and each of said portions 5 is provided with an inwardly bent notched edge portion 6 which is adapted to extend into the box when it is closed as shown in Fig. 4. The cover edges 6 carry the notches 4 that are cut in the blank as heretofore described. The cover of the box 1, is usually made in two sections so that the inwardly turned edges 6 thereof are applied together, when the cover is closed and form one of the partitions for the cellular structure within the box. The notches 4 in the edges of the covers are important as they engage and interlock with whatever form of cellular filler is employed within the box. The notches are preferably flared at their outer ends so that they can be easily brought into engagement with the partitions or other cell forming structures used in the box.

While the cell forming filler employed in the box may be of various forms, I preferably use a filler of simple structure which can be made of a single piece of material and which folds in such a manner as to afford substantial partitions in the box and

which will also coöperate with the edges of the cover portions to complete the cellular formation inside the box. In Figs. 2, 3, and 4 I have shown the prefererd form of filler which consists of a single piece of material cut from a flat piece as indicated in Fig. 2 and having apertures 7 formed therein which become cover receiving notches after the filler 8 is put in place in the box. The blank strip is scored as at 9 at the places where it is to be bent and folded. This blank strip is folded to form alternate bottom sections 10 and double partitions 11 as clearly shown in Figs. 3 and 4. The strip is made of such a length that when it is folded, it will just fit into the box, the sections 10 thereof lying flat upon the bottom of the box and reinforcing the same. By doubling the intermediate portions 11 and allowing them to project upwardly in the box, strong cell partitions are formed and the apertures 7 cut in the blank become upwardly flaring notches in the upper edges of said partitions. When the covers are folded so as to close the box, the notches 4 thereof engage the notches of the partitions and thus interlock the parts and properly space the partitions with respect to each other. The use of flaring notches is advantageous not only in making it easy to assemble the parts and properly close the box, but operates to tie the cellular structure most rigidly at the central height of the partitions, thus leaving a chance for the upper edges of the partitions to yield somewhat when the contents of the box is being removed or when the box is being filled. This is of great advantage in the handling of eggs.

Although I prefer to use the style of cellular filler just described, it will be evident that I may use various other forms within the spirit of the invention. As shown in Fig. 5 for instance, I may make the filler of a single strip of material set upon edge and folded in zigzag form, as shown at 12, the upper edges of the partition forming folds being kerfed or notched as at 13 to receive the edges of the cover. With this form of filler, the structure produced is practically the same as heretofore described, the notched edges of the cover sections engaging the intermediate laps of the filler and locking them in position to form the cells in the box. It will thus be understood that my improved box with its cellular engaging cover sections, is adapted for use with any kind of a filler that can be spaced and interlocked by the notched or recessed edges of the cover, all within the spirit of the present invention.

While I have illustrated my improved box structure as made from card board or paste board, it will be evident that the box can be made of any other material capable of being folded or of material which can be formed in sections and suitably hinged together so that the covers may be folded in place to interlock interior partitions or cell formations. It will also be evident that the cellular partitions may be made of any desirable material and in various forms and I wish it understood that I consider all such variations in material and structure as within the scope and spirit of my invention.

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

1. A box having top folding cover portions provided with inwardly extending notched edges, forming cell partition walls, and a separable cellular filler arranged in the box and engaging the said notched edges of the cover for completing the cell formation within the box.

2. A box having hinged cover portions provided with edges arranged to meet and extend as a double partition into said box and an interlocking cellular filler in the box held in place by said double partition.

3. A collapsible receptacle comprising a folding box portion formed from a single sheet of material, the said sheet having top cover portions with notched edges adapted to be turned inwardly, and a folding filler for said receptacle formed of a single piece of material having notches cut therein, the notched portions being capable of folding to form partitions within the receptacle, the said partitions being engaged and locked in place by the notched portions of the cover edge.

4. A folding cellular structure comprising a body portion having inwardly folding cover sections carrying notched partition forming edges, the notches of said edges being flared outwardly, and a cellular filler arranged in the structure and having notched partition forming portions, the notches of said partitions being flared outwardly and arranged to receive and interlock with the flaring notches of the cover.

5. A box formed with a cover having an inwardly extending partition forming and filler interlocking portion, a filler for said box formed of a single strip of material creased for folding, and having notches formed therein, the filler when folded and engaged by the cover of the box forming cells therein.

In testimony whereof, I have hereunto set my hand, in presence of two witnesses.

CHARLES F. A. EDDY.

Witnesses:

E. H. Lewis,

Cassell Severance.