To all whom it may concern:

Be it known that I, CHARLES T. BLOOMER, a citizen of the United States, residing at Newark, in the county of Wayne and State of New York, have invented a new and useful Folding Egg-Box, of which the following is a specification.

This invention has relation to improvements in folding egg boxes and is designed to provide a box wherein the partitions which divide the interior of the box into separate compartments for individual eggs are also foldable with the box into a small compact and are, moreover, permanently attached to the box so as not to become lost or displaced in transportation.

In accordance with the present invention the interior of the box is divided into compartments by means of one or more longitudinal partitions and a suitable number of cross partitions, the box being usually designed to hold one dozen eggs. If the box be of the type using a single longitudinal partition there will be five lateral partitions and if the box be of the type where two longitudinal partitions are used then there will be three lateral partitions, in either instance the box being divided into one dozen compartments each of which is of a size to receive one egg.

In order to cause the proper folding of the partition members when the container is in the flat or folded condition, the longitudinal partition in case one only is used, or one of the longitudinal partitions in case more than one is used, is joined to one end of the box or container by means of a double hinged flap so that the longitudinal partition or partitions will lie flat against one of the long sides of the box or container with a portion of the cross partitions interposed and all the partitions will be thus run together in close and substantially parallel relation without being in more extended relation in the direction of the length of the box than when the partition members occupy the full width of the interior of the box or container.

The invention will be best understood from a consideration of the following detailed description taken in connection with the accompanying drawings forming a part of this specification in which drawings Figure 1 is a perspective view of an egg box adapted to contain one dozen eggs disposed in three rows of four each. Fig. 2 is a section through the egg box in the folded condition. Fig. 3 is a view showing the manner of folding the partitions against one of the longitudinal sides of the box. Fig. 4 is a perspective view of the partition members removed from the box or container and showing the cross members in a slightly folded condition. Fig. 5 is a view of a slightly modified form of the construction shown in Fig. 4. Fig. 6 is a perspective view of an egg box having the partition members composed of but one longitudinal member and an appropriate number of cross members. Fig. 7 is a perspective view of the structure shown in Fig. 6 in the partially folded or collapsed condition.

While the exact form of the box or container is not material to the recent invention it is preferred to use a box or container constructed on substantially the lines disclosed in Letters Patent No. 899,644 granted Sept. 29, 1908 to Charles T. Bloomer.

Referring first to Fig. 1 there is shown a box or container 1 provided with front and back members 2 and 3 respectively and end members 4 and a bottom 5 while the back longitudinal member 3 may be continued to form a cover 6 terminating in a flap 7 along the edge remote from that portion of the cover where it joins the rear member 3 of the box.

The end members 4 are foldable along lines indicated at 8 so that when these members 4 are moved inwardly toward the bottom 5 the front member 2 and the rear member 3 will follow and the several members will fold down flat against the bottom 5. The cover 6 is also foldable along a longitudinal line indicated at 9 and the cover may be folded around the front edge of the box when the latter is collapsed so that the whole structure occupies a space of minimum thickness and of no greater extent than substantially that of the bottom 5. This is shown in Fig. 2.

In the form of box or container shown in Fig. 1 there are provided two longitudinal partitions 10 and 11 and three lateral partitions 12. Each longitudinal partition 10—11 is provided with an appropriate number of slots 13 extending from one edge of the respective partition to about the middle thereof and each cross partition 12 is provided with other appropriate slots 14 of like nature so that the longitudinal and cross partitions may be locked together in the usual
manner. To prevent accidental lifting of the partitions 12 from the partitions 10–11, the open ends of the slots 13 may be each provided with a locking tongue 15 normally overriding the respective partition 12.

In the structure shown in Figs. 1 to 5 inclusive, each partition 12 is foldable at a point about midway of its length. In the structures shown in Figs. 1 to 4 this is facilitated by forming a slot 16 partially across the partition 12 at about its middle point and then the partition will readily fold upon lines indicated at 17. The slot 16 may be omitted and the material of the partition 12 may be continuous throughout the length of the fold as indicated at 18 in Fig. 5.

The particular construction of the folding partitions shown in Figs. 1 to 5 forms, in itself, no part of the present invention and is shown in the drawings to illustrate the adaptability of the present invention to different types of partition structures.

One of the longitudinal partitions, say the partition 10 is, in accordance with the present invention, formed at one end with an extension 19 capable of folding at its junction with the partition 10 and also at an intermediate point indicated at 20. The outer end of the extension 19 beyond the fold 20 is designed to be secured to the corresponding end 4 of the box near the point of junction of that end with either the front 2 or the back 3, the junction point of the end 4 with the front 2 being the point near which the outer end of the extension 19 is shown in Figs. 1 and 3. Any suitable means of securely joining the double hinge member 19 to the corresponding end 4 may be employed. In Fig. 1 staples 21 are shown, but it will be understood that the portion of the hinge member 19 outside the fold 20 may be glued or otherwise attached to the end 4 instead of being stapled thereto.

The hinge member 19 is a double hinge member folding at the lines 20 and also at the point of junction with the end of the partition 10 so that the portion of the hinge member between the line 20 and the partition 10 may be brought directly against the portion of the hinge member which is attached to the box end 4 in parallel relation therewith and the partition 10, though substantially as long as the front member 2, may be brought into close parallel relation to the latter while still permitting the folding in onto the bottom 5 of both end members 4 and also of the front members 2.

The cross partitions 12 move about an axis which is coincident with the point of intersection of these partition members with each longitudinal partition 10 and 11, which axis is perpendicular to the bottom of the box.

It will be observed that when the partition members are folded together the two ends of the cross partitions 12 fold against the respective longitudinal partitions 10 and 11 in opposite directions, the cross partitions 12 folding upon themselves at the middle point. The result of this is that the two partitions 10 and 11 lie in parallel relation to one another with their ends substantially coincident, when the other partition members are folded together, and when these partition members are extended the longitudinal partitions 10 and 11 occupy the same relative positions as when folded except that they are separated to a greater extent. This compactness of the partitions when in the folded condition is due to the double hinge connection 19 between the end of the partition to which it is connected and the point of junction thereof with the box and in the structure where more than one longitudinal partition is used the compactness is further due to the fact that the cross partitions fold upon themselves about a median point.

In Figs. 6 and 7 there is shown a folding box 22 having the same general features of collapsibility within the area of the bottom of the box as are present in the structure shown in Fig. 1. In the particular form of box shown in Figs. 6 and 7 the eggs are assumed to be disposed in two rows of six each and there is but one longitudinal partition indicated at 23. There is shown an appropriate number of cross partitions 24 extending equally on each side of the longitudinal partition 23 and each capable of moving about an axis coincident with the crossing point of the partitions 24 and the longitudinal partition 23, which axis is perpendicular to the bottom of the box 22.

The partition 23 is joined at one end to the corresponding end 20 by a double hinge flap 19 formed as a continuation of the partition 23 and this hinge flap is capable of folding on the line 20 as in the structure shown in Fig. 1. The portion of the flap 19 beyond the line 20 is shown as connected to the corresponding end of the box 22 by staples 21, but it will be understood that glue or other fastening means may be employed instead of the staples 21.

When it is desired to fold the structure shown in Figs. 6 and 7 to the collapsed position, the cross partitions 24 are moved about their axes until flat against the partition 23 and then the latter may be moved about the hinge extension 19 until it lies parallel with and in close relation to the corresponding side of the box 22, this side being the rear side in the structure shown in the drawings.

In the structures shown in Figs. 6 and 7 the partition 23 has the same general relation to the back of the box whether in the folded or in the extended position.

By having the partition members joined
to the box against removal therefrom the box may be used over and over again without danger of the partitions becoming lost or displaced.

What is claimed is:

1. A folding egg box having side and end members collapsible against the bottom of the box, longitudinal and cross partition members collapsible against one side of the box and with the said side against the bottom of the box within the confines of the said side and bottom of the box, said partition members being joined to the box against removal by a longitudinal partition member.

2. A folding egg box having partition members capable of being disposed longitudinally and transversely of the box and a double hinge connection between a longitudinal partition member and one end of the box.

3. A folding egg box having a longitudinal partition member with an end extension in one piece therewith and having a portion secured to the box and another portion between the secured portion and the partition member foldable onto said secured portion.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

CHARLES T. BLOOMER.

Witnesses:

CARL R. VAN ETten,

ERNEST F. FOX.