

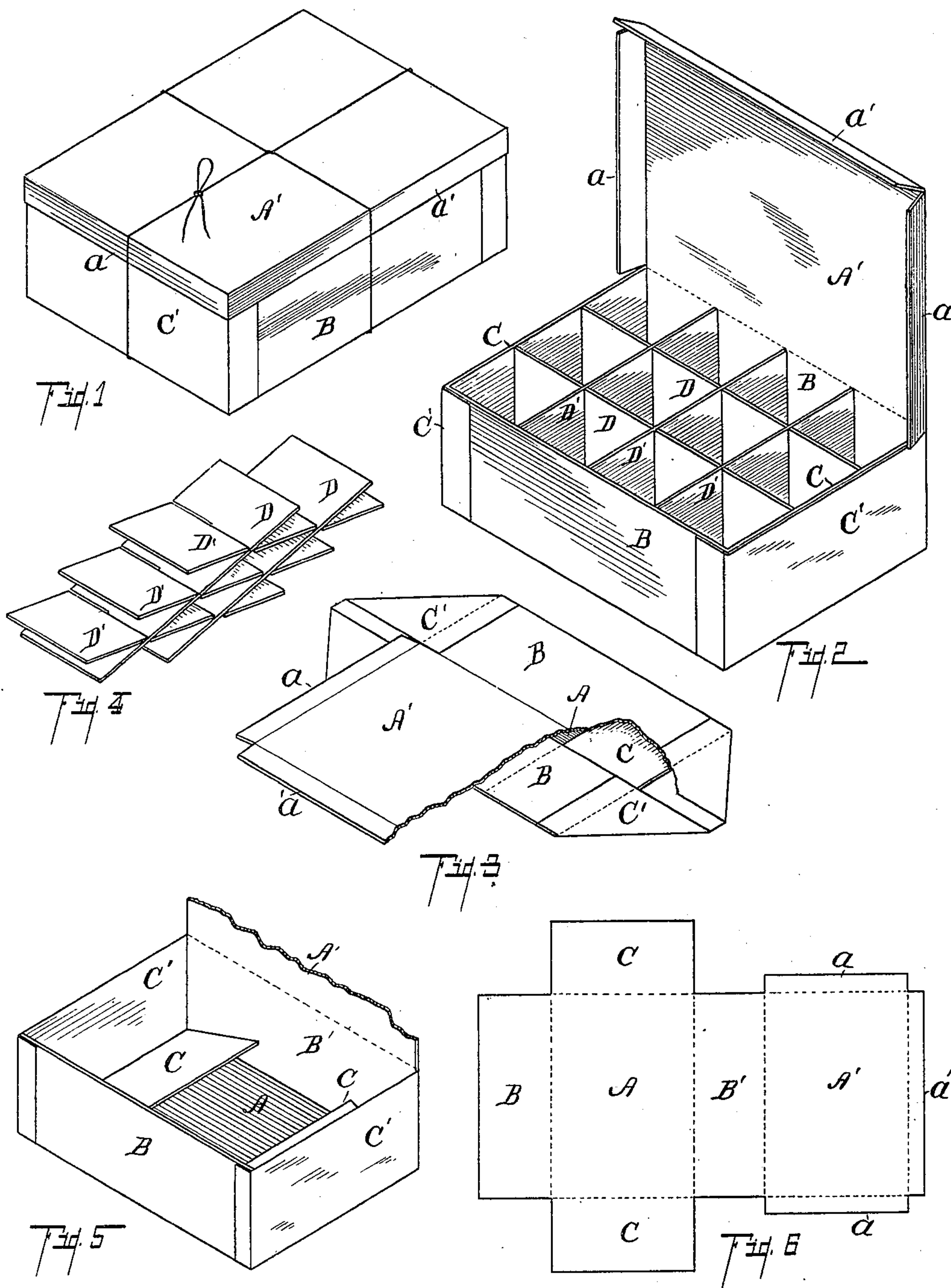
No. 670,169.

Patented Mar. 19, 1901.

L. ALLEN.
FOLDING BOX OR EGG CRATE.

(Application filed Apr. 28, 1900.)

(No Model.)



Witnesses:

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Inventor,

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Att'y.

UNITED STATES PATENT OFFICE.

LYNN ALLEN, OF KALAMAZOO, MICHIGAN, ASSIGNOR TO ALLEN MANUFACTURING COMPANY, OF SAME PLACE.

FOLDING BOX OR EGG-CRATE.

SPECIFICATION forming part of Letters Patent No. 670,169, dated March 19, 1901.

Application filed April 28, 1900. Serial No. 14,770. (No model.)

To all whom it may concern:

Be it known that I, LYNN ALLEN, a citizen of the United States, residing at the city of Kalamazoo, in the county of Kalamazoo and State of Michigan, have invented certain new and useful Improvements in Folding Boxes or Egg-Crates, of which the following is a specification.

This invention relates to improvements in folding boxes, and particularly to improvements in a folding box provided with compartments for use as an egg carrier or case, although the box itself is adapted for use for many other purposes.

The objects of the invention are, first, to provide a folding box or egg-crate which is very cheap and economical to manufacture, and, second, to provide in a box of this character an improved arrangement of parts whereby the operation of particular attaching and securing devices is avoided, it being merely necessary to unfold the parts.

Further objects will definitely appear in the detailed description to follow.

I accomplish the objects of my invention by the devices and means described in this specification.

A structure embodying the features of my invention is illustrated in the accompanying drawings, forming a part of this specification, in which—

Figure 1 shows my improved box or egg-crate in its closed form. Fig. 2 shows a perspective view of the same with the lid or cover raised up. Fig. 3 is a detail perspective view, one end of the cover and a portion of the box being broken away, showing the box portion collapsed or folded. Fig. 4 indicates the partition structure folded and collapsed for convenience in packing, storing, and shipment. Fig. 5 is a detail perspective view of the box with the cover broken away, illustrating the method of folding the parts. Fig. 6 is a detail view of the blank from which the entire box and the cover is formed.

In the drawings similar letters of reference refer to similar parts throughout the several views.

Referring to the lettered parts of the drawings, A is the bottom portion of the box; CC, are the ends, which are rectangular in form, and B B' are the sides of the box, which are

also rectangular in form. These parts are preferably formed of a single blank, the corners being cut away to permit the sides and ends being folded to form the box, the material being scored between the bottom and the sides and ends, as indicated by the dotted lines in Fig. 6.

The sides B B' of the box are connected by a flexible strip C' at each end, retaining the sides in the vertical position when the box is opened and permitting the sides to be folded inwardly on the bottom when the ends CC are folded down, as indicated in Fig. 5, or when the entire structure is folded together, as indicated in Fig. 3.

A' is the cover, preferably formed of a continuous piece with the bottom portion, and is preferably provided with flaps *a a a'*, separated from the cover by suitable scoring to shut down over the box portion. These are held by a suitable cord or retaining means. Within the box I place the division-strips D D' D' D', which are kerfed to fit the one into the other to form the sections for receiving eggs, as is usual in egg crates or holders. These are of course retained in position when placed within the box and also serve to hold the box open and ready for use.

The box is capable of use for other purposes than for carrying eggs, in which instance the section-strips D D' D' D' may be omitted. The contents of the box would of course hold the same distended when the box is filled, and the box is easily collapsed, as shown in Fig. 3, when it is empty.

I have shown the cover hinged to the box and made of a piece continuous with the side of the box, but desire to remark that the cover can be made of a separate piece and placed upon the box, it only being necessary to divide it upon the line which is scored, or it can be made of a piece entirely separate.

It will be observed that all that is necessary with this style of box to prepare it for use is to open up the folds in the only manner in which it is possible to open them, it being impossible to go wrong in opening the parts and securing them in position for use.

I desire to remark that in an egg-crate I use a cheap strawboard, and that the boxes can be manufactured for a very small sum. I am aware, however, that the principle is

adapted for use in the manufacture of expensive boxes, and that they may be finished in an elaborate manner and yet be stored in a folded position and easily made ready for use at any time. I also desire to remark that I prefer under ordinary circumstances to make the ends of paper, which is flexible and easily folded; but where great strength is desired other material, as a strip of firm cloth or canvas or even leather, could be substituted, depending, of course, on the strength desired or required or the finish necessary. I have shown the box without any finishing of any kind. It is obvious that it could be covered with fancy paper, or the same could be coated over or decorated in any way desired. Other stiff material might be used for the bottom and sides than pasteboard, although the structure is especially well adapted for use with pasteboard in this relation.

The flexible strips C' need not be the full width of the sides or ends. They may connect the sides and embrace the ends, as shown, or the ends might be connected and embrace the sides.

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

1. In a folding box or egg-crate the combination with the bottom A; sides B, B', thereto adapted to fold thereon; end pieces connected to said bottom portion and adapted to fold thereon; flexible paper connections C' C' connecting the sides together around each end to hold the box in position, and permit the same to be collapsed; a cover A' connected to the side B' adapted to fold thereon, and having suitable flaps *a, a, a'* to close over the sides of the box; and collapsible partition-strips to be placed within the box to hold it in the open position, all coacting substantially as described, for the purpose specified.

2. In a folding box, the combination with the bottom A; sides B, B', thereto adapted to fold thereon; end pieces connected to said bottom portion and adapted to fold thereon; flexible paper connections C' C' connecting the sides together around each end to hold the box in position, and permit the same to be collapsed; a cover A' connected to the side

B' adapted to fold thereon, and having suitable flaps *a, a, a'* to close over the sides of the box, all coacting substantially as described for the purpose specified.

3. In a folding box, the combination with the bottom A; sides B, B', thereto adapted to fold thereon; end pieces connected to said bottom portion and adapted to fold thereon; flexible paper connections C' C' connecting the sides together around each end to hold the box in position, and permit the same to be collapsed; a cover A connected to the side B', adapted to fold thereon, all coacting substantially as described, for the purpose specified.

4. In a folding box, the combination with the bottom A; sides B, B' thereto adapted to fold thereon; end pieces connected to said bottom portion and adapted to fold thereon; flexible paper connections C' C' connecting the sides together around each end to hold the box in position, and permit the same to be collapsed, all coacting substantially as described, for the purpose specified.

5. In a folding box, the combination with the bottom A; sides B, B' thereto adapted to fold thereon; end pieces connected to said bottom portion and adapted to fold thereon; flexible connections C' C' connecting the sides together around each end to hold the box in position, and permit the same to be collapsed, all coacting substantially as described, for the purpose specified.

6. In a folding box the combination of a bottom; sides and ends of comparatively stiff material such as strawboard connected thereto adapted to fold thereon, and a flexible connection such as paper or fabric connecting either the sides or ends respectively together and adapted to receive either the ends or sides between the same when folded together outwardly to fold the box and retain the same in position to allow the parts to be folded inwardly for the purpose specified.

In witness whereof I have hereunto set my hand and seal in the presence of two witnesses.

LYNN ALLEN. [L. S.]

Witnesses:

S. ALICE EARL,

OTIS A. EARL.