

F. E. STERRETT.
FOLDING BOX.
APPLICATION FILED JAN. 7, 1908.

923,725.

Patented June 1, 1909.

2 SHEETS—SHEET 1.

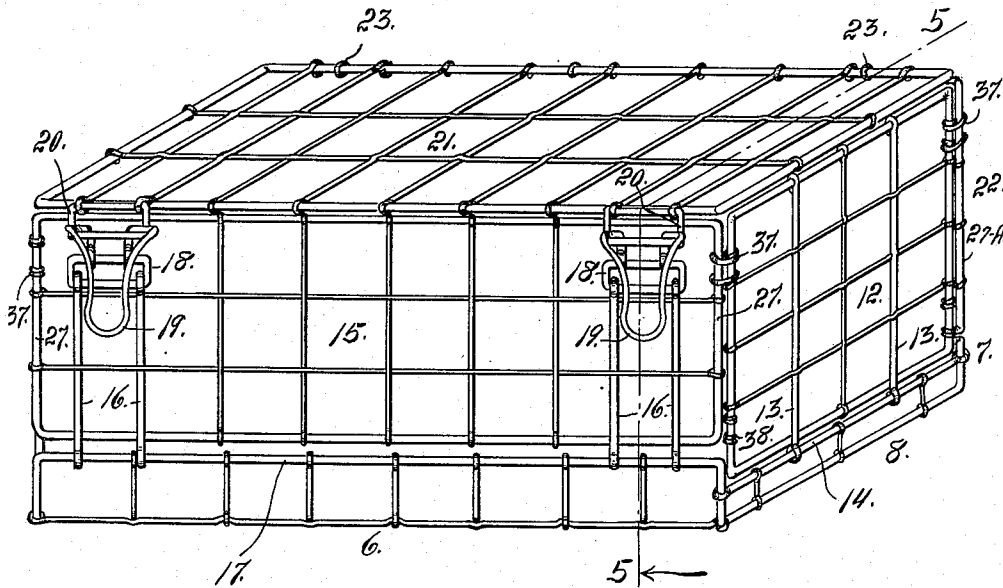


Fig. 1.

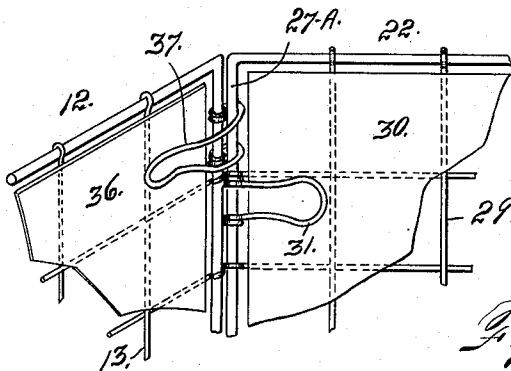


Fig. 2.

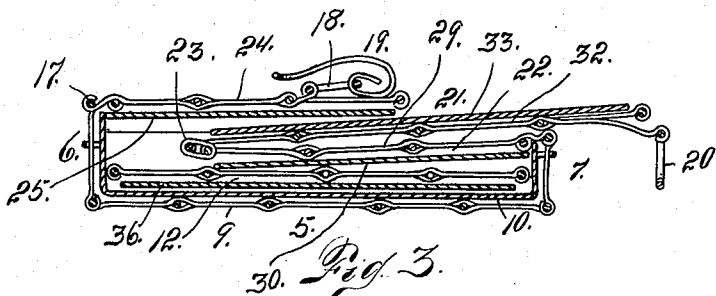


Fig. 3.

Witnesses
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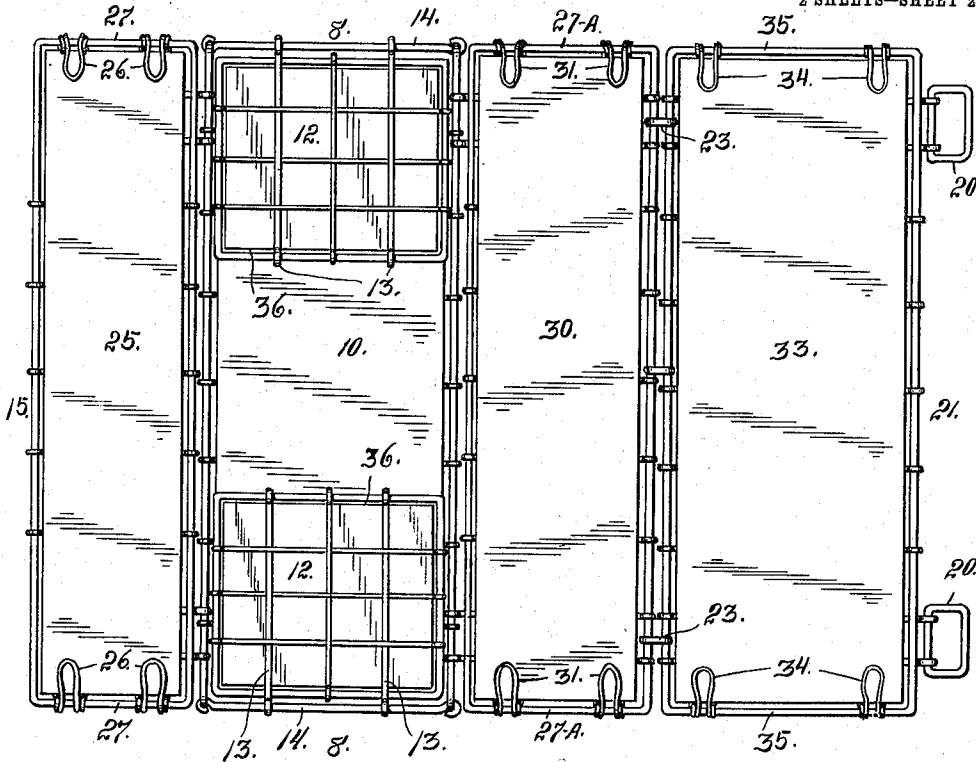


Fig. 4.

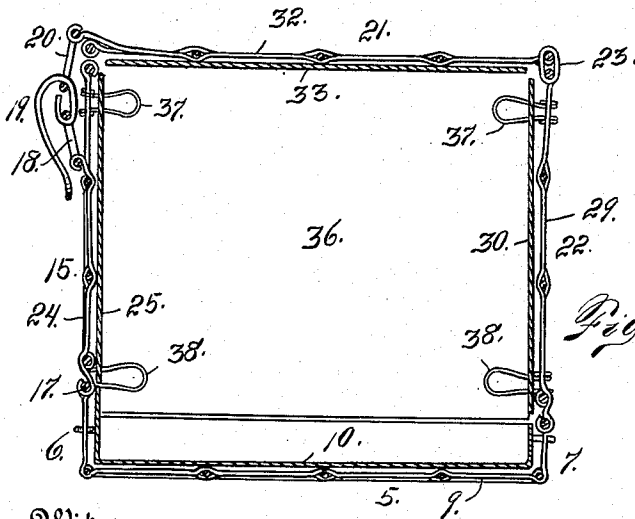


Fig. 5.

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UNITED STATES PATENT OFFICE.

FRANK E. STERRETT, OF DENVER, COLORADO.

FOLDING BOX.

No. 923,725.

Specification of Letters Patent.

Patented June 1, 1909.

Application filed January 7, 1908. Serial No. 409,694.

To all whom it may concern:

Be it known that I, FRANK E. STERRETT, a citizen of the United States, residing in the city and county of Denver and State of Colorado, have invented certain new and useful Improvements in Folding Boxes; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in folding boxes or crates, my object being to provide a shipping box or crate adapted when not in use, to be folded into small compass whereby it becomes practicable to return the box to the consignor in order that it may be reused for shipping purposes. By virtue of this construction the same box or crate may be used indefinitely.

This invention has some features in common with that covered by my application with a similar title filed Dec. 26th, 1907, Serial No. 408,045. My present invention, however, is specific to a construction composed of coarse wire mesh, whereby the articles contained therein may be subjected to thorough ventilation when this becomes necessary or desirable. Provision is made, however, for applying to each member of the construction, a sheet of paper or other thin board, thus closing the apertures in the fabric of the members and concealing the contents of the box. Provision is made after the box has been filled, for fastening the hinged top member to one of the hinged side members, in such a manner that the box will remain in the secured position until opened by design.

Having briefly outlined my improved construction, I will proceed to describe the same in detail reference being made to the accompanying drawing in which is illustrated an embodiment thereof.

In this drawing, Figure 1 is a perspective view of my improved shipping crate or box shown in the upright position or the position when it is filled for shipping purposes. Fig. 2 is a fragmentary view of the same looking toward one corner from the inside, thus disclosing the thin board members and the manner of fastening the same and means for connecting the sides and ends of the box

when unfolded. Fig. 3 is a cross section of the box shown in the folded position and taken approximately on a vertical plane whose location is indicated by the line 5—5 Fig. 1. Fig. 4 is a top plan view of the structure with the folding members extended except the ends which are folded inwardly. Fig. 5 is a cross section taken on the line 5—5 Fig. 1.

The same reference characters indicate the same parts in all the views.

Let the numeral 5 designate the bottom of my improved box which is provided with upright side members 6 and 7 and similar end members 8. The members 6, 7 and 8 are rigidly connected with the bottom of the box, the member 6 being somewhat higher than the member 7; while the end member 8 are of equal height. The bottom and upright members 6, 7 and 8 are composed of coarse wire mesh material 9 which as shown in the drawing is reinforced by a thin board 10 which may consist of paper card board, thin wood fiber board or any other suitable material adapted to reinforce the wire mesh and at the same time perform the function of closing the interstices or meshes of the wire fabric.

To each upright end member 8 of the box, is hinged a folding end member 12, two of the rods 13 of the wire mesh being hinged at one extremity to the upper rod or wire 14 of the member 8. To the upright side member 6, is hinged a folding side member 15, by means of two pairs of rods 16, the lower extremities of these rods being formed into eyes and engaging the upper rod 17 of the member 6. To the upper extremity of each pair of hinged rods 16 is attached a metal loop 18 to which is hinged a spring hook 19, this hook being adapted to pass through a similar link 20 hinged to the adjacent edge of the folding top member 21 of the box.

To the upright side member 7 of the box is hinged a folding side member 22. To the upper edge of this folding side member 22, is hinged the folding top member 21, as shown at 23.

The folding member 15 as shown in the drawing is composed of coarse wire mesh 24 reinforced by a piece of thin board 25, this board being held in place by means of spring hooks 26 which hooks are attached to the end rods 27 of the said side member.

The folding side member 22 as shown in

the drawing is composed of coarse wire mesh 29 and card board 30 held in place by spring hooks 31 of substantially the same construction and which perform the same function as the spring hooks 26 heretofore described.

The folding top member 21 of the box is composed, as shown in the drawing, of coarse wire mesh material 32 reinforced by a sheet of card board 33 held in place by spring hooks 34 attached to each end rod 35 of the said member.

Each folding end member in addition to its wire mesh fabric, is provided with a layer 36 of cardboard held in place by upper and lower hooks 37 and 38. The lower hooks 38 simply perform the function of holding the cardboard 36 in place upon the end members. The upper hooks 37, however, in addition to this function, interlock with the vertical rods 27 of the side member 15 on one side, and with vertical end rods 27^A of the corresponding side member on the opposite side. The interlocking function of these hooks 37 is best illustrated in Fig. 2 of the drawing in which one of the interlocking hooks is shown. These hooks are made somewhat larger than the hooks 26, 31 and 34 which are only employed for holding the cardboard in place. This is best illustrated in Fig. 2 as heretofore explained. In the other views, however, little attempt has been made to distinguish these interlocking hooks, from the hooks which simply perform the function of holding the cardboard in place except in Fig. 1 at the right hand extremity of the view where the interlocking hooks are designated.

If we assume that the box is in the position shown in Fig. 4, that is to say with the end members 12 folded inwardly and the side and top members extended, it is only necessary to complete the folding function, to first fold the side member 22 down upon the end members 12, after which the top member 21 is folded back on top of the side

member 22. The said member 15 is then folded down upon the top member 21 (see Fig. 3).

Now if it is desired to prepare the box for shipping purposes it is unfolded in the reverse order of the folding operation heretofore described. After the end members 12 are raised to the vertical position, the side members 15 and 22 are also raised, and the hooks 37 of the end members interlocked with the side members in the manner heretofore explained. The four vertical walls of the box will thus be held in the upright position. The top member of the box is then placed in position and the spring hooks 19 connected with the side member 15 as heretofore explained, passed through the links 20 of the top members, the said hooks being then in the position shown in Figs. 1 and 5.

Having thus described my invention, what I claim is:

A folding box or crate composed of a bottom having short upright side and end members, folding end members hinged to the upright end members, folding side members hinged to the upright side members, a top member hinged to one of the side members, removable cardboard reinforcement secured to the inside of each of the said members, means for fastening the free edge of the top member with the upper edge of the outer side member, the end members being provided with spring hooks adapted to interlock with the side members at one extremity whereby the sides and ends are held in a vertical position, and adapted to engage the cardboard reinforcement at their opposite extremity for holding the same in place, substantially as described.

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

FRANK E. STERRETT.

Witnesses:

DENA NELSON,
JESSIE HOBART.