

S. E. SMITH.
FOLDING CRATE.

APPLICATION FILED NOV. 30, 1908.

931,808.

Patented Aug. 24, 1909.

2 SHEETS—SHEET 1.

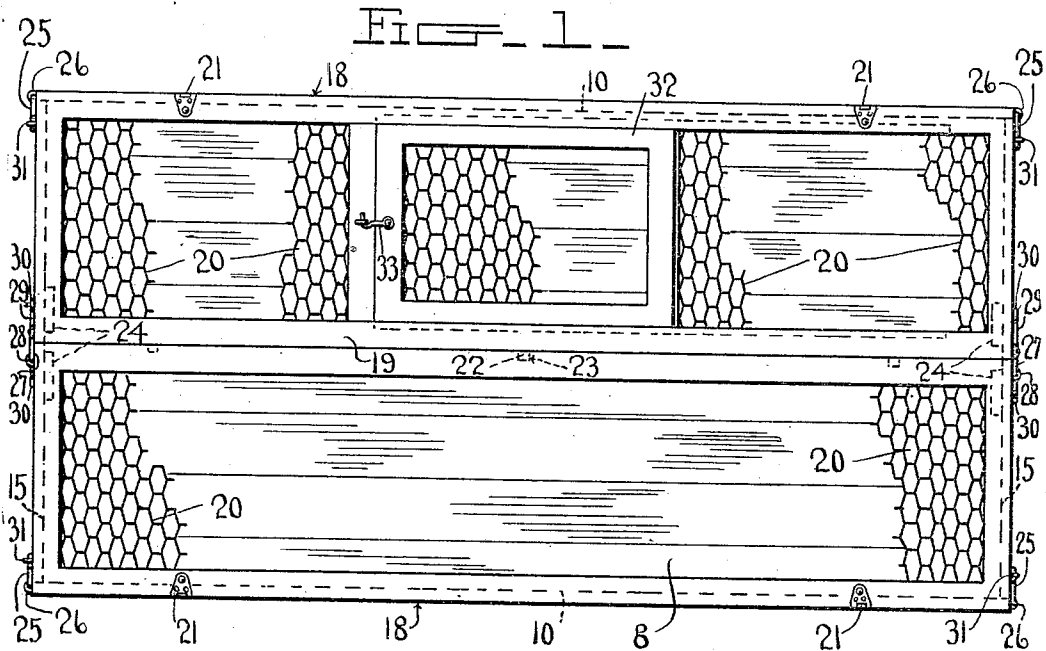
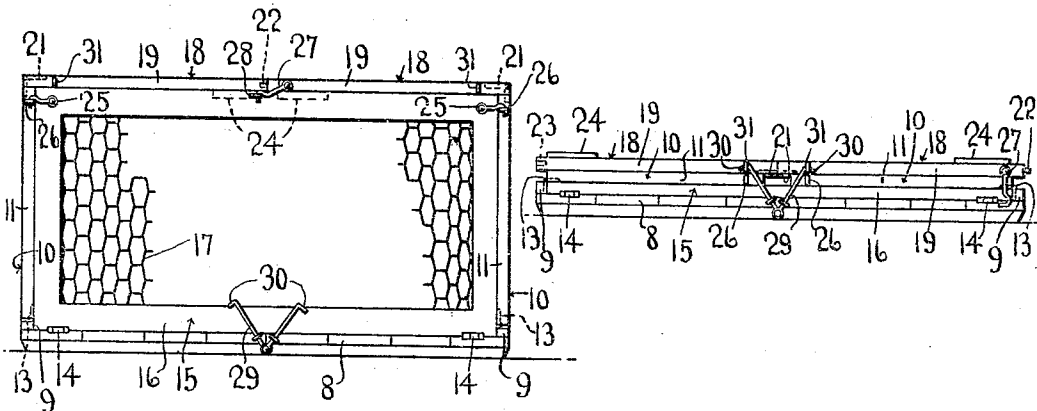


Fig. 2

Fig. 4



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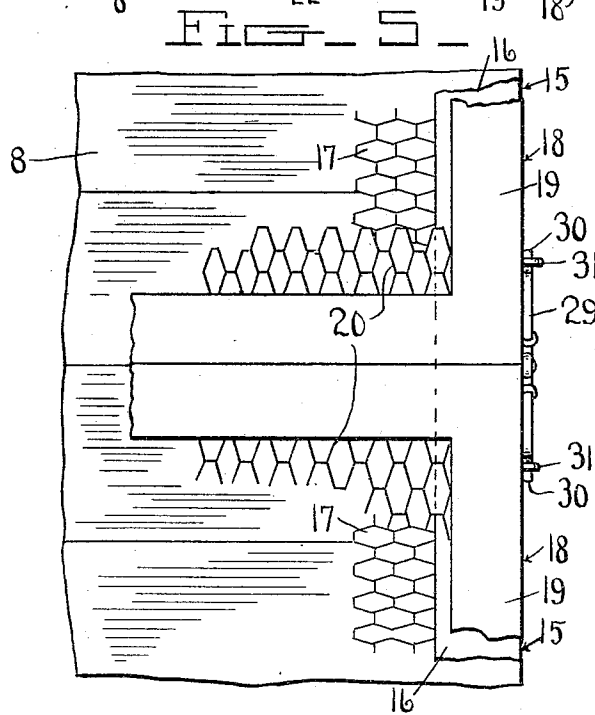
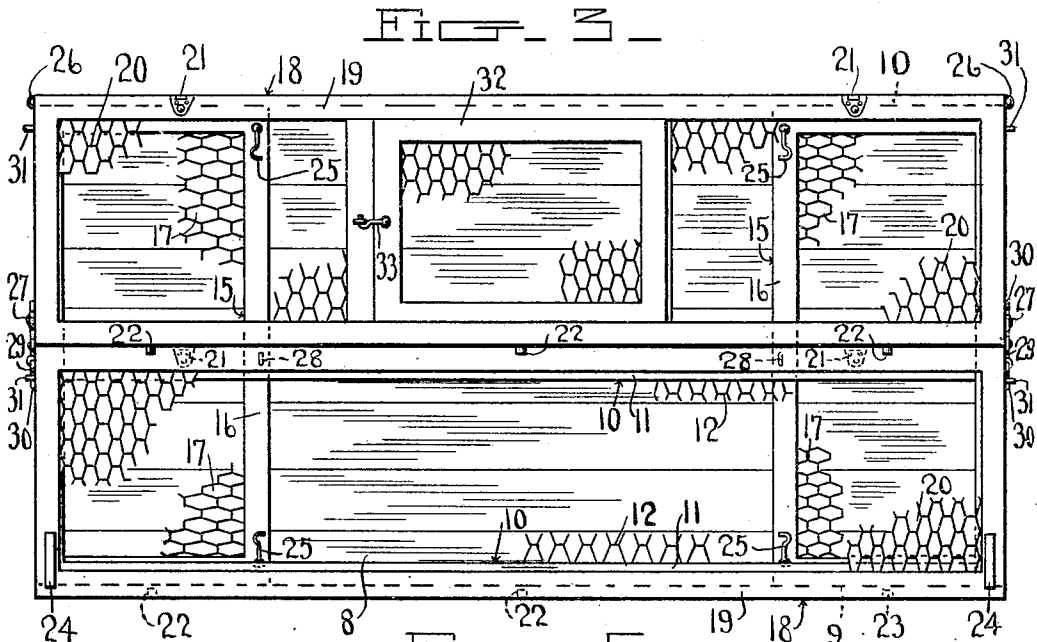
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UNITED STATES PATENT OFFICE.

SARAH ESTELLA SMITH, OF VANDERVOORT, ARKANSAS.

FOLDING CRATE.

931,808.

Specification of Letters Patent.

Patented Aug. 24, 1909.

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To all whom it may concern:

Be it known that I, SARAH ESTELLA SMITH, a citizen of the United States, residing at Vandervoort, in the county of Polk, State of Arkansas, have invented certain new and useful Improvements in Folding Crates; and I do hereby 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.

The invention relates to a folding crate and more particularly to the class of folding or knockdown boxes or crates for use as chicken coops in the shipment of poultry.

The primary object of the invention is the provision of a folding or knockdown box or crate which can be readily set up for use and which can be quickly knocked down or folded for transportation or shipment and when in a knocked down or folded position it will occupy a very small space due to the compactness when it is folded for return shipment.

Another object of the invention is the provision of a box or crate in which the end walls are held in a vertical position and prevented from folding inwardly but at the same time permitted to fold for compactness of shipment when the sides and said end walls are knocked down or folded and means carried by the bottom of the box or crate to lock the folded side and end walls in a rigid position.

Another object of the invention is the provision of a folding crate or box provided with hinged connections between the bottom, side and end walls and its top whereby the same can be folded in a compact manner for return shipment and also permitted to be set up or erected for receiving poultry or the like for transportation, and means carried by the bottom of the box or crate for locking or securing its folded parts against displacement, the said side and end walls provided with means, for locking the same together when in an upright position and to materially increase the rigidity of the box or crate.

With these various objects in view the invention consists in the peculiar construction, combination and arrangement of elements which will be more fully hereinafter described, illustrated in the accompanying drawings which disclose the preferred form of embodiment of the invention and as brought out in the claim hereunto appended.

It is to be understood that changes, varia-

tions and modifications may be resorted to such as come properly within the scope of the appended claim without departing from the spirit of the invention.

In the drawings: Figure 1 is a top plan view of the invention showing the crate or box in its erected position. Fig. 2 is a view looking toward one end of the same. Fig. 3 is a top plan view with the ends and one side wall in a folded position. Fig. 4 is an end view showing the crate or box in a completely folded position and locked. Fig. 5 is a fragmentary top plan view of a portion of the crate or box in folded position.

Similar reference characters indicate corresponding parts throughout the several views in the drawings.

In the drawings, the folding box or crate comprises a bottom or base board 8 preferably formed of wood and of rectangular shape, however it may be of any other suitable material and shape, and in this instance is solid although may be otherwise if deemed desirable.

Secured contiguous to opposite longitudinal edges of the bottom 8 and rising a distance from the upper face thereof are spacer bars or ledges 9 to which are connected side sections or walls 10 each formed of an open frame 11 carrying a wire woven panel 12 and the said side sections are connected to the said bars or ledges by hinges 13 which permit the sections to fold freely inwardly and also maintains them in an upright or vertical position.

Connected to opposite ends of the bottom 8 by hinges 14 are end walls or sections 15 each formed of an open frame 16 carrying a wire woven panel 17 and the hinges 14 connecting the said end walls with the bottom to permit them to fold freely inwardly into contact with the bottom and also maintains them in an upright or vertical position.

Mounted upon the side sections or walls are top sections 18 the same forming the top or cover to the crate or box and each is formed of an open frame 19 carrying a wire woven panel 20 and which frames are connected to the side sections or walls by strap hinges 21 the latter permitting the top sections to fold freely inwardly or outwardly when the occasion demands.

Projecting from one longitudinal edge of the frame of one top section 18 are spaced lugs 22 which latter are adapted to engage or enter recesses 23 in alinement therewith and

formed in the longitudinal edge of the frame of the other top section, so as to hold the top sections in a closed position. At opposite ends of the frames of the top sections 18 and
 5 projecting from the inner faces thereof are stop blocks 24 so that when the said sections are in a closed position the frames of the end walls or sections 15 will contact or abut against said stop blocks when they are in a
 10 vertical position to prevent the said end sections or walls from swinging inwardly.

Pivoted to the frames or the end walls or sections 15 exteriorly thereof are catch members 25 the latter adapted to be brought into
 15 locked engagement with eyes 26 mounted in opposite end edges of the side walls or sections 10 when both the end and side walls are in a vertical position. Carried by one of the top sections 18 are pivotal catch members 27
 20 the latter adapted to engage eyes 28 mounted in the frames of the end walls or sections 15 so as to maintain the said top sections in a closed position.

Secured centrally in the opposite end
 25 edges of the bottom or base 8 are double spring catch members 29 the latter having hook ends 30 to engage eyes 31 mounted in opposite ends of the top sections 18 so that when the end, side and top sections are in a
 30 folded or knock down position the same will be held locked against displacement for ready and compact reshipment or transportation when the crate is in disuse.

In one of the top sections 18 is formed a
 35 sliding door or gate 32 so that poultry or the like can be readily placed within the crate when in a set up or upright position and which door or gate is locked by a latch member 33 of the ordinary construction.

40 When it is desired to knock down or fold the crate or box the end walls or sections 15 are freed from the side walls as well as from the top sections and the same are swung inwardly onto the bottom or base 8, then the
 45 side walls or sections 10 are swung inwardly

onto the said end walls and the top sections are swung in a reverse direction to lie upon the said side sections 10 and the double catch members 29 are brought to engagement with
 50 the eyes 31 to lock or maintain the crate or box in its collapsed or folded condition to permit the transportation or shipment thereof.

What is claimed is—

A folding crate comprising a bottom section, end sections hinged to said bottom section and adapted to fold inwardly from vertical to horizontal position and lie flatwise thereon, side sections hinged to said bottom and adapted to fold inwardly from vertical
 60 to horizontal position in superposed relation upon said end sections, top sections having their edges hinged to the upper edges of said side sections, dowel projections arranged at intervals throughout the length of the inner
 65 edge of one of said top sections, the other top section having recesses in its longitudinal inner edge for receiving said dowel projections for interlocking engagement of the top sections when in a closed position, bearing
 70 blocks secured to said top sections for holding the end sections against inward movement, eyes arranged at opposite extremities of the said sections adjacent their upper
 75 edges, pivotal catches carried by the end sections and adapted to engage said eyes, and double spring catch members secured centrally to opposite extremities of the bottom section, and terminating in hooked ends and
 80 eyes mounted at opposite extremities of the top sections adjacent the outer edges thereof and adapted to be engaged by the hooked terminals of the catch members when the crate is in a knocked down position.

In testimony whereof, I affix my signature, 85
 in presence of two witnesses.

SARAH ESTELLA SMITH.

Witnesses:

MARK WHAYNE,
 J. N. PORTER.