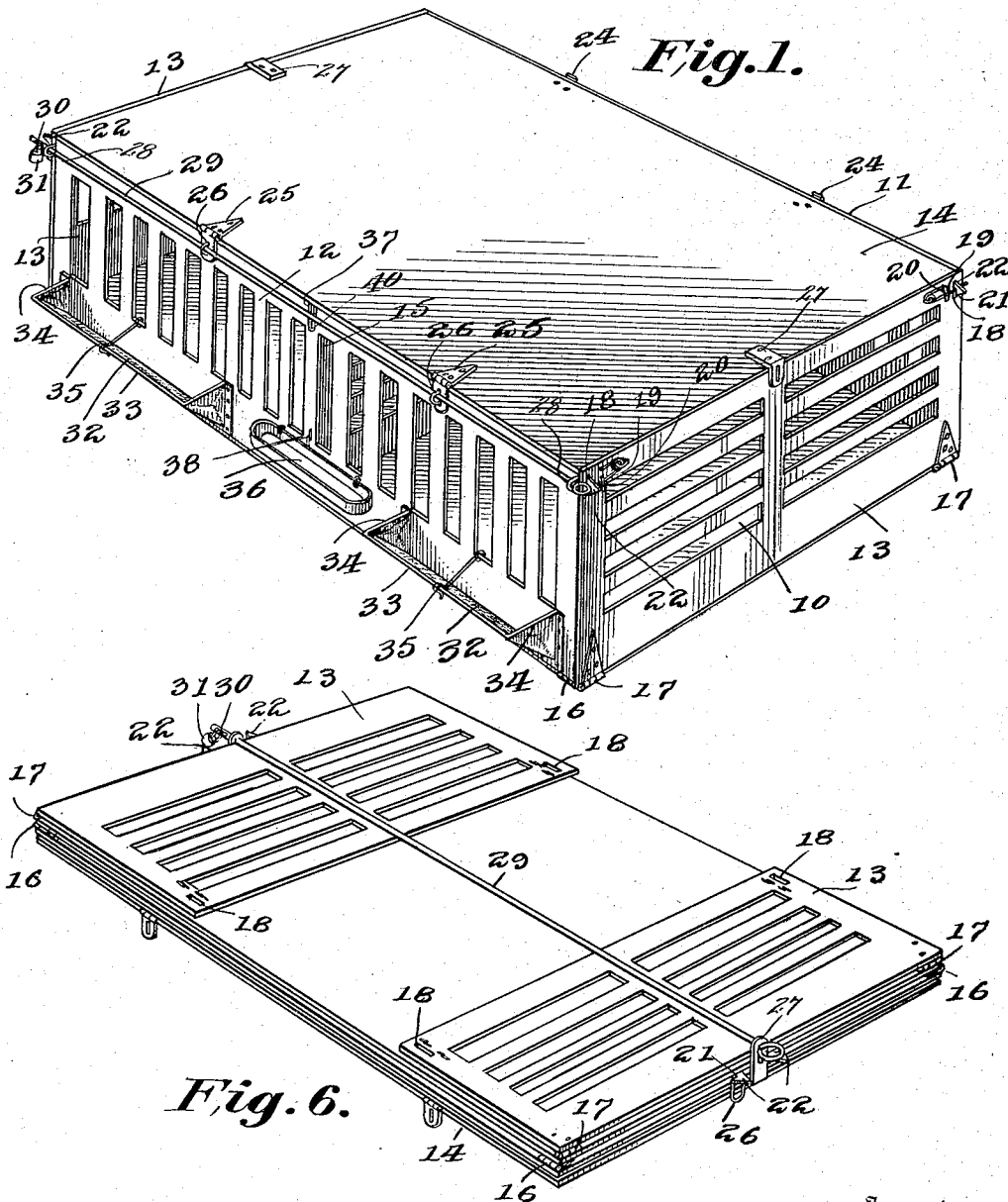


1,217,796.

G. E. McFARLAND.
CRATE.
APPLICATION FILED JULY 1, 1916.

Patented Feb. 27, 1917.
2 SHEETS—SHEET 1.



Witness
H. N. Lybrand

Inventor
G. E. McFarland
By *Victor J. Evans*
Attorney

APPLICATION FILED JULY 1, 1916.

2 SHEETS—SHEET 2.

Fig. 5.

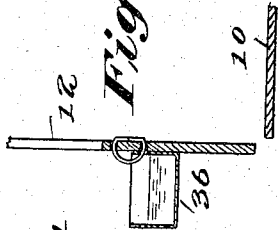


Fig. 4.

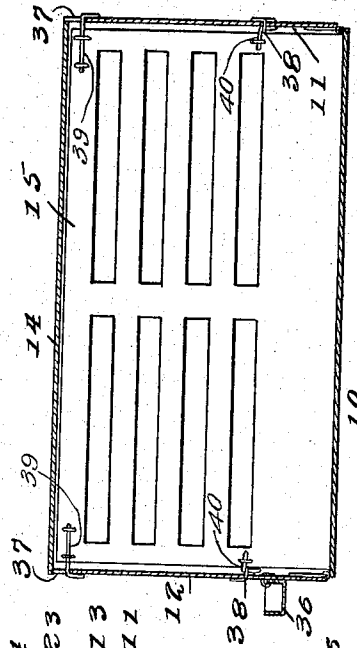
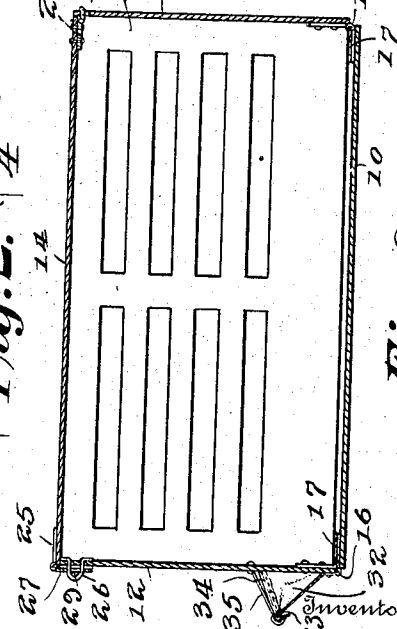


Fig. 3.



G. E. McFarland

By Victor J. Evans

Attorney

UNITED STATES PATENT OFFICE.

GUY E. McFARLAND, OF OLLIE, MONTANA.

CRATE.

1,217,796.

Specification of Letters Patent.

Patented Feb. 27, 1917.

Application filed July 1, 1916. Serial No. 107,177.

To all whom it may concern:

Be it known that I, GUY E. McFARLAND, a citizen of the United States, residing at Ollie, in the county of Fallon and State of Montana, have invented new and useful Improvements in Crates, of which the following is a specification.

The present invention relates to improvements in the construction of knock-down crates or coops, and an object of the invention is to produce a device of this character which may be easily set up to provide a firm structure wherein all of the parts may be readily locked together and which likewise can be readily collapsed and the parts locked in such collapsed condition to produce a comparatively small bundle for storage or for return shipment.

Another object of the invention is to produce a collapsible crate or coop primarily designed for holding and transporting fowls and which shall have associated therewith foldable feed troughs and a foldable water trough.

A further object of the invention is to produce a device of this character which shall embody the desirable features of simplicity in construction, cheapness in manufacture and strength and efficiency in operation.

With the above and other objects in view the improvement resides in the construction, combination and arrangement of parts set forth in the following specification and falling within the scope of the appended claims.

In the drawings:

Figure 1 is a perspective view of a coop or crate constructed in accordance with the present invention.

Fig. 2 is a side elevation of the same,

Fig. 3 is a transverse sectional view approximately on the line 3—3 of Fig. 2,

Fig. 4 is a similar sectional view approximately on the line 4—4 of Fig. 2,

Fig. 5 is a sectional view approximately on the line 5—5 of Fig. 2,

Fig. 6 is a perspective view of the crate or coop in its collapsed or knocked down condition, and

Fig. 7 is an approximately central vertical longitudinal sectional view through the device illustrated in Fig. 6.

The improved crate or coop can be constructed of any desired material, wood or metal preferred, and the same includes a flat substantially rectangular bottom or base

member 10, sides 11 and 12, ends 13—13, a top 14 and if desired a central partition 15.

The sides and ends are slatted as is also the partition 15, while the top and bottom members preferably comprise solid plates. The sides 11 and 12 are hingedly secured upon their inner faces to the upper portion of the bottom 10, as indicated by the numerals 16, while the ends 13 are hingedly secured to the underface of the bottom 10 as indicated by the numeral 17. This arrangement permits of the sides being folded over the bottom and the ends under the bottom when the crate is collapsed. The ends 13 adjacent the upper corners thereof are provided with elongated slots or openings 18, while secured to said ends, at the outer faces thereof, are spring arms 19 which extend over the said slots 18, and the numerals 20 designate substantially U-shaped bails providing guides for the spring members 19 to limit the swinging movement of the said springs. The spring members in reality provide locks to engage with the notched under-faces 21 of the keeper plates 22 which are provided upon the sides 11 and 12 and which have their ends substantially V-shaped so as to freely pass through the slots in the ends, when the sides are swung vertically of the bottom and the ends are swung inwardly against the sides. The V-shaped ends of the keeper plates 22 also ride over the spring lock members 19 to direct the same to within the notched portions 21 of the said keeper plates, and by this means it will be noted that the sides and ends may be easily and quickly sustained in a set up position.

The side 11, adjacent its edge opposite its hinged connection with the bottom 10 is provided, at spaced intervals, with longitudinally arranged slots or grooves 23 which are adapted to receive the ends of substantially L-shaped tongue members 24 provided upon the top 14. The top 14, at approximately diametrically opposite points from the tongues 24 (which it will be noted are arranged upon the underface of the said top), has secured to its outer face hinged hasp members 25 and the slotted leaf of each of said hasps is adapted to be swung over the side 12 and to receive staple members 26 provided upon the said side 12. The ends of the top 14 are approximately centrally provided with slotted plates 27 and these plates when the device is in its set up position contact with the ends 13 to more effec-

tively sustain the said ends in their set up position.

The ends 13 have one of their edges provided with staples 28, and these staples are arranged in a line with the staples 26 arranged on the side 12, and through these alining staples is adapted to be passed a headed rod 29. The rod 29 has its end slotted, as at 30, and this end of the said rod projects beyond one of the staples on one of the end members 13 of the crate and is adapted to receive the hasp of a lock 31. By this arrangement it will be noted that the top 14 is effectively locked upon the crate proper so that access thereto cannot be obtained by unauthorized persons.

In order to provide for the comfort of the fowls when the device is employed as a poultry crate, I arrange upon the side 12, at the lower end thereof, and at a suitable distance from the ends of the said side, troughs 32. Each of these troughs is constructed from a single strip of suitable textile material, such as canvas and the same is cut so that its end and lower edge is secured to the side 12, while the upper edge of each of the canvas troughs is stitched to provide a rolled edge which is adapted to receive the longitudinal portion 33 of a rod member, the said rod having its ends bent downwardly, as at 34, so as to engage with the canvas trough and as a consequence reinforce the corners of the same when the said trough is moved to its open position. The trough it will be noted is thus substantially V-shaped in cross section and to sustain the same in its open position, I secure to the said side 12 suitable hook members 35 which are adapted to engage with the beaded edge and the reinforcing rod of the trough and consequently hold the said trough in its open position. It will be apparent that when the rods are disengaged the troughs may be readily folded against the side 12. Between the troughs 32 I hingedly secure a tray or cup 36 which is adapted to receive water for the fowls, the said tray or cup being so arranged that when swung outwardly of the side 12, the inner side of the said top or tray will contact with the outer surface of the side member of the trough and so sustain the top or tray in a horizontal position, while when the cup or tray is not in use the same may be readily folded against the side member 12.

The sides 11 and 12, at the outer edges thereof, are centrally notched, as at 37, and the said sides, upon their inner faces and in a line with the said notches are provided with eye members 38. The partition 15 has its upper corners formed with hooks 39 and the ends of said partition are likewise provided with similar hooks 40. The outer hooks 39 are adapted to be received in the notches 37 in the sides 11 and 12 while the lower hooks 40 are adapted to engage with

the eyes 38 of the said sides 11 and 12 when the said partition is arranged in the crate. It is to be noted that the top member 14 overlies and contacts with the upper edge of the partition so that danger of the same being accidentally removed when the crate is in its set-up position will be thus overcome.

In folding or collapsing the crate the partition member is removed and arranged upon the upper face of the bottom member 10, the sides 11 and 12 are swung over the said partition and the said bottom, the troughs and water tray being swung against the side 12, while the end members 13 are swung under the bottom. The top 14 is arranged over the folded sides 11 and 12, and the slotted plates 27 are disposed between the keeper plates 20 of the respective sides 11 and 12. The slotted plates project beyond the folded ends 13, and the headed rod is passed through the said slotted plates 27 to overlie the folded ends 13, and the lock is arranged in the slotted end of the said rod. It will thus be noted that the device when collapsed or folded provides only a small bundle which will occupy small space for either storage or transportation, and that the parts are effectively locked so that the loss of any of the parts or the disassociation of any of said parts will be effectively overcome.

Having thus described the invention, what I claim is:

1. A crate comprising a bottom, sides and ends which are hingedly secured to the bottom, and a removable top disposed over the said sides and ends, notched keeper plates projecting from the sides adapted to pass through openings in the ends when the ends are swung against the sides, lock members secured to the ends, each of said locks including a spring arm disposed over the opening in the side and adapted to be contacted by the keeper plates and guided by such contact to within the notches of the said keeper plates, and U-shaped guides for the spring locks.

2. A crate comprising a bottom having sides and ends hingedly secured thereto and foldable thereupon and a removable top, notched keeper plates projecting from the sides disposed to pass through openings in the ends, when the said ends are swung against the sides lock members secured to the ends, each of said locks comprising a spring arm which is adapted to be contacted by the keeper plates and be guided thereby to engage in the slots in the said keeper plates, means for hingedly connecting the top to the sides, and means for locking said top to one of said sides.

3. A crate comprising a bottom, having sides and ends hingedly secured thereto and foldable thereupon, notched keeper plates projecting from the sides and passing through openings in the ends when the ends

are folded against the sides, spring lock members carried by the ends to engage in the notches of the keeper plates, the sides upon their outer edges having each a parallel notch and an eye member disposed below the notch, a partition having its ends provided with hooks which engage in the respective notch and eye of each of the sides, a top member for overlying the sides and ends and partitions, tongue members upon the top to engage in grooves in the sides, hinged hasps upon the top, staples upon one of the sides to receive the hasps, staples upon the ends registering with the staples on the sides, and a headed rod having a slotted end passing through the alining staples, and the slotted end of the said rod adapted to receive a lock.

4. A crate comprising a bottom having sides and ends hingedly secured thereto and said sides adapted to be swung over one of the faces of the bottom when the crate is collapsed and the ends adapted to be swung over the other face of said bottom when the crate is collapsed, notched keeper plates projecting from the sides and adapted to be received in openings in the ends when the ends

are swung against the sides and the crate set up, spring arms upon the ends contacted by and guided by contact into the notches of the keeper plates, guide members for the spring arms, a top, tongue members upon the top, one of the sides having grooves to receive the said tongues, hinged hasps upon the top adapted to be swung over the other side when the crate is set up, staples upon the last-mentioned side to receive the slotted members of the hasps, staples upon the ends alining with the first mentioned staples, a headed rod having a slotted end adapted to be passed through said alining staples to retain the crate in a set up position, slotted plates upon the ends of the top engaging with the ends when the crate is set up, and said top adapted to be disposed over the sides when the sides and ends are folded upon the bottom to arrange the slotted plates upon the said tops centrally between the keeper plates at the ends and to permit of the rod being passed through the central slots to contact with the folded ends.

In testimony whereof I affix my signature.

GUY E. McFARLAND.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."