No. 657,561. Patented Sept. 11, 1900.

# C. L. & W. A. NEAL.

## FOLDING COOP.

(Application filed Jan. 12, 1900.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1.

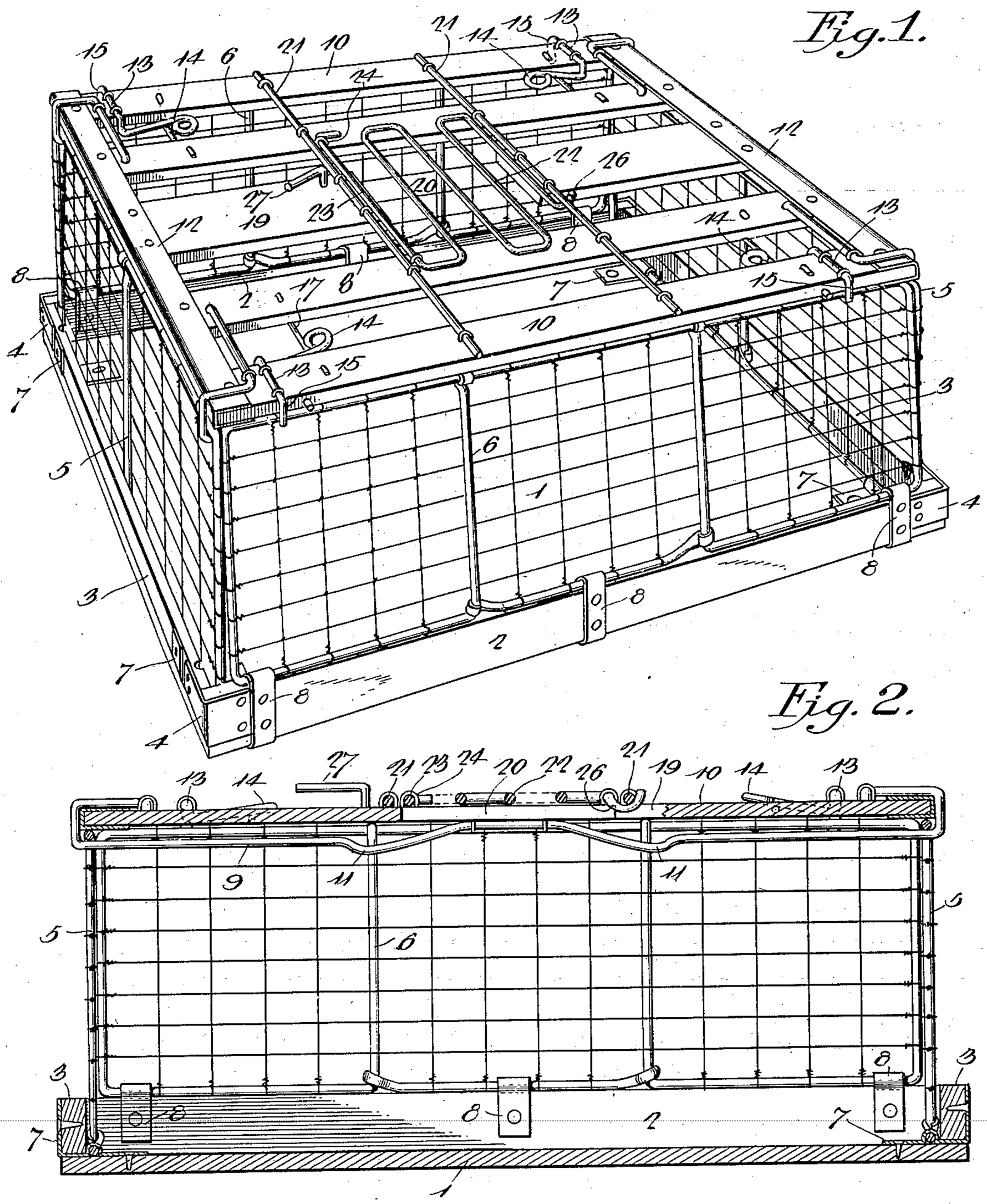


Fig. 2.



Witnesses
J. Traufbulverwell.
H. F. Riley

Charles L. Neal and Inventors.
By their Attorneys, William A. Neal.
Cashow & Co.

No. 657,561. Patented Sept. 11, 1900.

# C. L. & W. A. NEAL.

## FOLDING COOP.

(Application filed Jan. 12, 1900.)

(No Model.) 2 Sheets—Sheet 2.

Fig. 3.

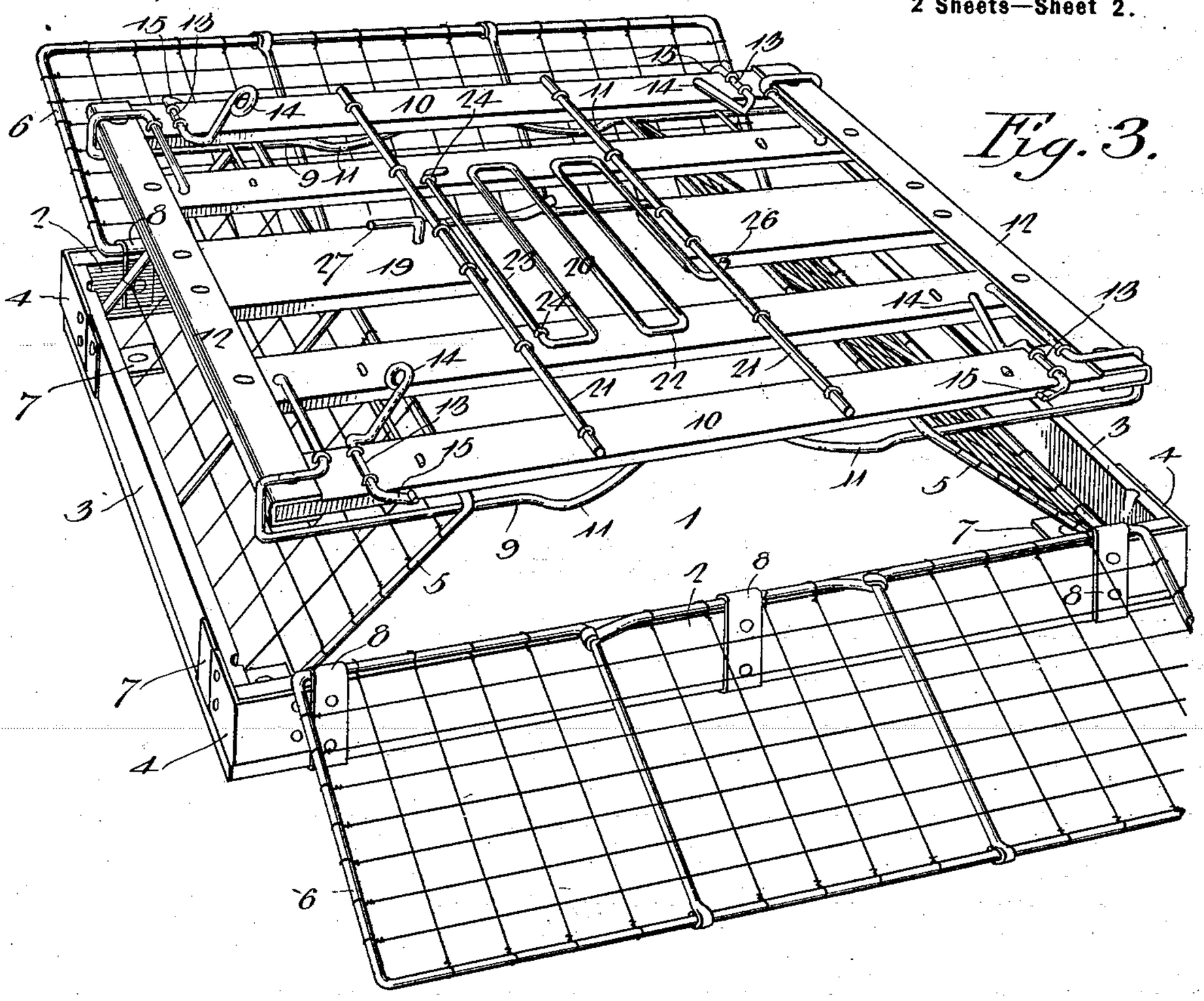
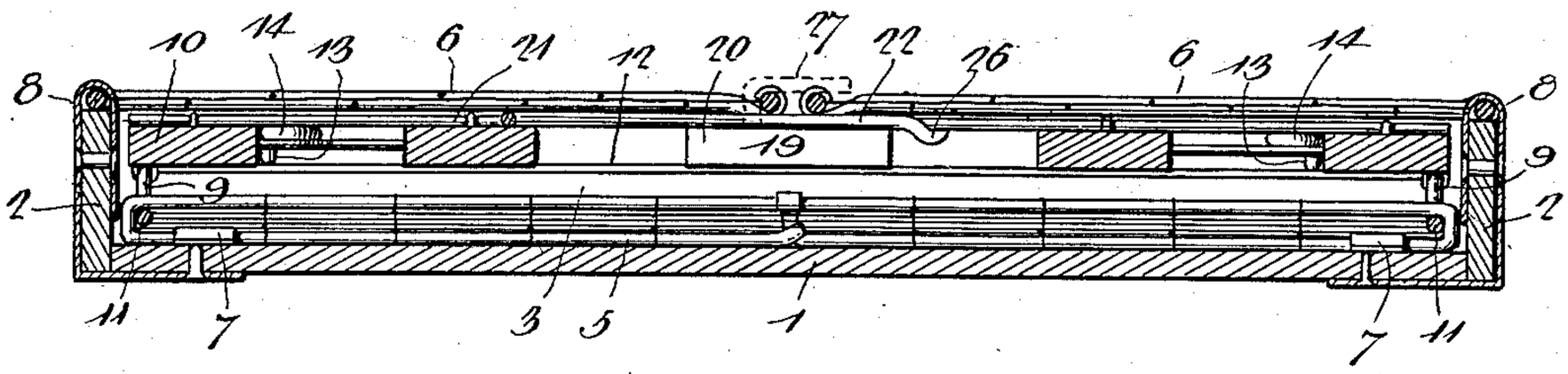


Fig. 4.



Witnesses
J. Kaufleuleverwell.
J. F. J. Riley

Inventors.
Charles L. Neal and
By their Attorneys.
William A. Neal,
C. A. Snow & Co.

# UNITED STATES PATENT OFFICE.

CHARLES L. NEAL AND WILLIAM A. NEAL, OF BUNGERS, WEST VIRGINIA.

## FOLDING COOP.

SPECIFICATION forming part of Letters Patent No. 657,561, dated September 11, 1900.

Application filed January 12, 1900. Serial No. 1,236. (No model.)

*To all whom it may concern:*

Be it known that we, CHARLES L. NEAL and WILLIAM A. NEAL, citizens of the United States, residing at Bungers, in the county of Greenbrier and State of West Virginia, have invented a new and useful Folding Coop, of which the following is a specification.

The invention relates to improvements in folding coops.

One object of the present invention is to improve the construction of poultry-coops and to provide a simple and comparatively-inexpensive one capable of being compactly folded upon its bottom, so that it will not occupy any more floor-space when folded than when in use.

Further objects of the invention are to enable the coop to be securely locked in its unfolded or operative position, to prevent it from accidentally collapsing, to afford ready means of access to its interior, and to enable it to be conveniently cleaned.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a perspective view of a folding coop constructed in accordance with this invention and shown in position for use. Fig. 2 is a longitudinal sectional view of the same. Fig. 3 is a perspective view illustrating the manner of folding the coop. Fig. 4 is a transverse sectional view, the parts being folded.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates a solid bottom provided at its side and end edges with bars 2 and 3, forming marginal flanges or walls, which strengthen the coop and retain the feed and prevent the feet of the poultry from protruding through the sides and ends of the coop. The side and end bars 2 and 3, which are nailed or otherwise secured to the bottom, are connected and supported at their ends by corner-irons 4, which prevent them from separating or splitting; but they may be reinforced in any other suitable manner. The ends 5 of the coop, which may be constructed of stout wire or other suitable material, are hinged to the bottom 1, at the upper face thereof, and are adapted to abut against and be supported by the inner faces of the end bars 3 when they are in a vertical position, and they are held against inward or downward movement by the sides 6, which are hinged to the upper edges of the side bars 2 and which are preferably constructed of wire, similar to the ends 5. The sides and ends when constructed of wire will consist of a stout wire frame and a woven-wire covering secured to the frame by being coiled around the same. The ends are hinged by means of metal straps or plates 7, bent to form eyes for the reception of the bottom wires of the ends 5 and extended beneath the lower edges of the end bars 3. The lower portions of the straps or plates 7 are secured to the upper face of the body, and their outer portions are fastened to the outer faces of the end bars 3. By this construction the straps or plates 7 not only hinge the ends to the bottom, but they also support the end bars and strengthen the coop.

The sides are hinged to the upper edges of the side bars by straps or leaves 8, having substantially U-shaped upper portions and horizontal bottom portions, which are extended inward on the lower face of the bottom of the coop. The upper U-shaped portions embrace the side bars 2 and are secured to the inner and outer faces thereof, the bends of the U-shaped portions forming eyes for the reception of the bottom wires of the sides. When the sides are swung upward to arrange the coop for use, their upper portions fit between the adjacent portions of the ends 5 and form stops which prevent the latter from collapsing. The inner swing of the sides is limited by longitudinal guides 9, arranged on the inner or lower face of the top 10, at the side edges thereof. These longitudinal guides consist of wires centrally secured to the lower face of the top and extended upward and inward at the ends of the top, and their end portions are offset from the lower face of the top to form guides for the ends of the coop. The top wires of the ends 5 of the coop extend between the guide-wires and the top of the coop, and the said ends are adapted to fold inward and downward, and they carry with them the top, which is adapted to fit within the space inclosed by the side and end bars, as clearly

illustrated in Fig. 4 of the accompanying drawings. The guide-wires are provided at opposite sides of the center with bowed portions 11, which permit the necessary play of the ends in folding and unfolding the coop.

The top of the coop, which may be constructed of any suitable material, is principally composed of longitudinal slats or bars, which are connected by end bars 12, constructed of sheet metal and folded longitudinally to form two sides for embracing the upper and lower faces of the slats or bars. The terminals of the guide-wires are substantially L-shaped and extend inward and transversely of the top 10, being stapled or otherwise secured to the end slats or bars and having their extremities embedded in the adjacent slats.

The sides are locked against outward movement by fastening devices 13, arranged in pairs at the ends of the coop and each consisting of a single piece of stout wire or other suitable material, which is bent to form a transverse pintle and inner and outer arms 14 and 15. The transverse pintle, which extends across the face of the end slat or bar, is hinged to the same by staples or other suitable means, and the outer arm extends downward and engages the outer face of the adjacent side 6. The inner arm 14, which is substantially L-shaped, constitutes a handle and is adapted to be readily grasped to swing the outer arm upward out of engagement with the side, the upward movement of the outer arm being limited by a stop or projection mounted on the outer edge of the adjacent slat or bar, as clearly illustrated in Figs. 1 and 3 of the accompanying drawings. The inner arm, which is arranged within the space between the outer side slat or bar and the adjacent slat or bar, frictionally engages the former, and its downward movement is limited by a transverse supporting-wire 17, extending across the space in which the arm 14 is arranged and having its terminals extended upward and embedded in the adjacent slat, the terminals being preferably passed through the slats or bars and clenched against the upper faces thereof. The inner arm 15 is extended outward slightly, so that the space or distance between the inner and outer arms is less than the width of the outer slat or bar when they are out of engagement with the same, whereby when the fastener is brought to its engaging position it will exert a spring clamping action on the slat or bar and be thereby prevented from becoming accidentally disengaged therefrom. By this construction there is no liability of the coop accidentally collapsing after it has been arranged in position for use. Also as the arm 15 of the fastener is arranged below the plane of the top 10 of the coop another coop or other object above it and resting upon the top 10 will effectually prevent it from releasing the sides.

The central slat 19 is preferably of greater width than the other slats or bars of the top, in order that when its central portion is cut away, as illustrated in Figs. 1 and 3 of the drawings, a door-opening 20 of sufficient size will be provided. The slats or bars are supported at opposite sides of the opening 20 by transverse rods 21, which are stapled or otherwise secured to their upper faces. The door is preferably constructed of a single piece of stout wire bent to form a series of reversely-arranged approximately U-shaped loops and forming a compressible door 22, which is adapted to be readily grasped by the operator and compressed to lock and unlock it. The sides of the loops form parallel rods, and one end rod 23 passes through staples or eyes 24 and forms a pintle for the door. The other end rod has its terminal 26 bent outward at right angles to form an arm for engaging the adjacent transverse rod 21, which forms a keeper. The transverse portions or rods of the resilient compressible door form a convenient grip and are adapted to be readily grasped by the hand of the operator.

The coop is folded by swinging the ends inward and downward after the sides have been unfastened, and the latter are swung inward over the top 10, which is provided with a pivoted fastening device 27. This pivoted fastening device, which is substantially L-shaped, consists of a vertical shank and a horizontal arm which is adapted to engage both of the hinged sides. The coop is unfolded and arranged for use by swinging the ends upward and outward and locking the sides against the top.

It will be seen that the coop is exceedingly simple and inexpensive in construction, that it possesses great strength and durability, and that it may be compactly folded in a solid form which does not occupy more floor-space than the coop when unfolded and in use. It will also be apparent that the marginal side and end bars not only reinforce and strengthen the coop, but that they also form walls to retain the feed and prevent the feet of poultry from projecting beyond the coop and that a simple and efficient door is provided. Furthermore, it will be clear that the sides and ends of the coop are securely locked in position for use and that only one fastening device is employed for retaining the parts in their folded position.

What is claimed is—

1. A device of the class described comprising a bottom, ends hinged to the bottom, the hinged sides arranged to swing upward between the ends, a top having the ends slidingly connected with it, and fastening devices mounted on the top and consisting each of a transverse pintle portion, an outer arm for engaging the side, and an inner arm forming a handle, said fastening devices being resilient and adapted to clamp the adjacent portions of the top between the inner and outer arms, substantially as described.

2. A device of the class described compris-

ing a bottom, sides and ends hinged to the bottom, a top composed of slats or bars spaced apart, said top being slidingly connected with the ends, fastening devices mounted on the top and provided with inner and outer arms adapted to clamp the adjacent slats or bars, the outer arm being also adapted to engage the side of the coop and the inner arm forming a handle, projections extending from the side edges of the top to limit the upward movement of the outer arms, and transverse wires arranged to support the inner arms, substantially as described.

3. A device of the class described comprising a bottom, sides, ends, a top provided with an opening, and a compressible resilient door hinged to the top at one side and provided at its opposite side with means for detachably engaging the top, substantially as described.

4. A device of the class described comprising a coop provided with an opening, and a resilient compressible door hinged at one side of the opening and constructed of a continuous wire or rod and provided at the opposite side of the opening with means for engaging the coop, said wire or rod being bent or looped to form a compressible resilient door, substantially as described.

5. A device of the class described comprising a coop having a slatted top provided with an opening, said top being also provided with transverse rods located at opposite sides of the opening, and a resilient compressible door hinged at one side of the opening and provided with an arm arranged to engage the arm at the opposite side of the opening, substantially as described.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in the presence of two witnesses.

CHARLES L. NEAL.
WILLIAM A. NEAL.

Witnesses:
A. M. McLAUGHLIN,
AQUILA LIPPS.