

957,275.

Fig. 1.

Inventors:
Robert Trumpold,
Edwin Koerner,
by J. L. Rippey,
atty.

UNITED STATES PATENT OFFICE.

ROBERT TRUMPOLD AND ALBIN KOERNER, OF ST. LOUIS, MISSOURI.

FOLDING COOP OR CRATE.

957,275.

Specification of Letters Patent.

Patented May 10, 1910.

Application filed June 21, 1909. Serial No. 503,314.

To all whom it may concern:

Be it known that we, ROBERT TRUMPOLD and ALBIN KOERNER, citizens of the United States, residing at St. Louis, Missouri, have invented a new and useful Folding Coop or Crate, of which the following is a specification.

This invention relates to folding crates or coops, and it has for its object to provide a device of the character referred to which shall be possessed of maximum strength and durability and of economical construction, and which, in its collapsed or folded adjustment occupies a minimum amount of space.

With these general objects in view we have embodied our invention in one form as shown in the accompanying drawings in which—

Figure 1 is a plan view of the completed crate or coop, showing the construction and arrangement of the central movable slat by removal of which access may be obtained to the interior. Fig. 2 is a vertical longitudinal sectional view taken approximately on the line 2—2 of Fig. 1. Fig. 3 is an end elevation of the crate or coop in its open adjustment. Fig. 4 is a side view of the coop or crate in its folded adjustment. Fig. 5 is an end view of the folded coop or crate. Fig. 6 is an enlarged detail view showing the latch device whereby the movable slat or door piece is held in its closed adjustment. Fig. 7 is a detail sectional view taken approximately on the line 7—7 of Fig. 1. Fig. 8 is a sectional view following approximately the line 8—8 of Fig. 1.

The bottom of the coop or crate comprises a series of longitudinal members 10, which may be assembled in close adjustment, or spaced apart, this arrangement to be determined by the purposes for which the article is to be used. When it is to be used as a poultry coop, or for analogous purposes, the bottom is preferably closed. Transverse parts 11 are attached to the under side of the members 10, one at each end, and one or more intermediate of the end parts whereby sufficient reinforcements are obtained. Along each side of the bottom a sill member 12 is attached, said sill members extending from end to end of the bottom and being of substantial dimensions and strength. To these side sills the side walls are hinged, each side wall being composed of folding sections hinged together. Each side section

comprises a number of vertical members 13 to which are attached the longitudinal strips 14, there being two of said sections so constituted on each side of the coop or crate. The hinge plates 15 have their lower ends extending under and secured to the bottom supports 11, and extend upwardly along the outer sides of the sills 12 and over the upper surfaces of said sills to the inner sides thereof, being securely fastened in place. The inner ends of the plates 15 have hinge connection with plates 16 attached to the outer sides of the strips 14 and extending from the lower edges to the upper edges of the lower side wall sections. The upper sections of the side walls are similarly constructed, and have metallic plates 17 attached thereto whose lower ends are hinged to the upper ends of the plates 16, and whose upper ends are extended inwardly and are hinged to the inwardly projecting ends of the plates 18 which extend entirely across the top of the coop or crate. The top includes the transverse members 19 of which there is one at each end and one at the middle. A series of longitudinal strips 20 rest upon and are attached to the cross members 19, and the plates 18 extend crosswise over and are attached to said strips by fastening devices 21.

From the foregoing description it will be seen that the side sections may be raised to vertical adjustment, one above the other, to form the side walls of the coop or crate, as shown in Fig. 3; or these side wall sections may be folded inwardly one upon the other, and the top of the coop or crate on the uppermost, as shown in Fig. 5. In the form shown we provide a central strip 22 between whose ends and the ends of the adjacent strips 20 retaining blocks 23 are secured by the fastening devices 21. Between these blocks the strip 22 is movable longitudinally. To the middle cross piece 19, at one side of the strip 22, a latch block 24 is attached under the central hinge plate 18, the surface of said block which is toward said strip 22 being arcuate in plan elevation. A metallic plate 25 is attached to the rounded surface of the block 24 and has its ends bent to embrace said block, thereby being securely held in position. A block 26 is attached to the middle cross piece 19 at the opposite edge of the strip 22, said block 26 being narrower than the retaining blocks 23 so as to leave a space 27 separating the same from the

edge of said strip 22. A lug or projection 28 attached to the middle portion of the strip 22 is arranged to engage in a hole 29 in the plate 25 and block 24 thereby to hold the strip 22 against accidental displacement. The edges of the blocks 23 and the surface of the plate 25 are in alinement, while the inner edges of the blocks 23 on the opposite side of the strip 22 occupy a plane inwardly from the inner edges of the block 26, thereby permitting the strip 22 to be bent or flexed laterally a distance sufficient to disengage the latch pin 28 from the latch block 24 and plate 25. This will permit the strip 22 to be moved longitudinally in either direction a distance sufficient to permit access to the interior of the coop or crate for insertion or removal of objects. The movement of the strip 22 will be stopped by engagement of the pin 22 against the retaining blocks 23, so that there is no likelihood of said strip 22 becoming detached from the coop or crate to which it belongs. The plates 18 extending over the ends and central part of the strip 22 constitute reinforcements and guides to prevent accidental breakage.

The ends of the coop or crate comprise the vertical pieces 30 at the sides, and a central member 31 to which are attached the horizontal strips 32. The lower ends of the side members 30 carry pins 33 which extend into the sill parts 12, thereby hinging the ends to the bottom of the coop or crate. The lower ends of the members 30 and 31 are rounded on their inner sides so as to permit the ends to be folded inwardly onto the bottom, as shown in Fig. 5. A depending abutment strip 34 is attached to each end member 19 as abutments to receive the upper edges of the ends when the latter are raised to their vertical positions, as shown in Fig. 2. Spring latches 35 are carried by each end member 19 to latch the ends in their vertical adjustments. An eye 36 connected to each abutment member 34 supports a hook 37 adapted to engage with eyes 38 secured to the ends, thereby to assist in holding the parts in open adjustment. When the parts are folded together the hooks 37 engage with eyes 39 secured to the ends of the bottom, and thereby prevent material movement of the parts until the coop or crate is manually opened.

Registering holes 40 are formed through the plates 18, the end cross members 19, and the ends of the movable strip 22. When the coop or crate is open wires 41 may be threaded through these holes and formed into closed loops, thereby effectively binding the coop in open position, and preventing accidental folding of the ends.

We are aware that there may be modifications within specific limits without departure from the spirit and scope of this invention as set forth in the appended

claims. We do not restrict ourselves to specific details except as indicated in the appended claims, but

What we claim and desire to secure by Letters Patent is—

1. In a folding coop or crate, a top comprising cross pieces, a series of longitudinal strips attached to said cross pieces, plates extending over said longitudinal strips, a longitudinally movable strip mounted between said cross pieces and said plates, guide blocks preventing lateral movement of the ends of said longitudinally movable strip, a latch block secured to one of said cross pieces at one side of said movable strip and having a hole in one side thereof, a metallic plate attached to said latch block and provided with a hole registering with the hole in the block, a latch pin rigidly connected to said movable strip and arranged to engage in said holes in said plate and block, and a stop block on the side of said movable strip opposite from said latch block and at a distance from said strip sufficient to permit movement of the latter to disengage said pin from said plate and block, substantially as specified.

2. A crate or coop comprising a bottom, sides, ends, cross members extending from side to side, strips attached to said cross members, retaining blocks secured to certain of said cross members, plates extending over said strips and blocks, a strip movably mounted between said cross members and said plates within the space between said blocks, a latch block attached to another of said cross members, a latch pin on said movable strip engaging with said latch block, and a stop block attached to the same cross member to which said latch block is attached at a distance from said movable member sufficient to permit movement of the latter as required to disengage said latch pin from said latch block, substantially as specified.

3. A coop or crate comprising a bottom, sides, pivotally mounted ends, cross members at the upper edges of the sides, a latch block attached to one of said cross members, a movable strip, a latch device on said strip engaging with said latch block, strips attached to said cross members at a distance from said movable strip sufficient to permit movement of the latter as required to disengage said latch device from said latch block, plates secured to said last-named strips and extending over said movable strip, and devices connected to said movable strip whereby said strip will be held in position and whereby said pivotally mounted ends will be held in open position, substantially as specified.

4. In a coop or crate having sides, a bottom, and a top, the combination with ends supported in pivotal relation to the bottom, a movable strip mounted in and forming

part of the top, and a latch device holding said movable strip, of devices binding said movable strip and said ends together whereby said strip is held in position independently of said latch device and said ends are held in proper open adjustment, substantially as specified.

In testimony whereof we have hereunto

set our hands and seals this 19th day of June, 1909, in the presence of two subscribing witnesses.

ROBERT TRUMPOLD. [L. S.]

ALBIN KOERNER. [L. S.]

In presence of—

J. D. RIPPEY,

L. C. KINGSLAND.