Feb. 3, 1925. 1,525,366

N. BROWN

HOG RINGING CRATE

Filed Jan. 10, 1923 4 Sheets-Sheet 1

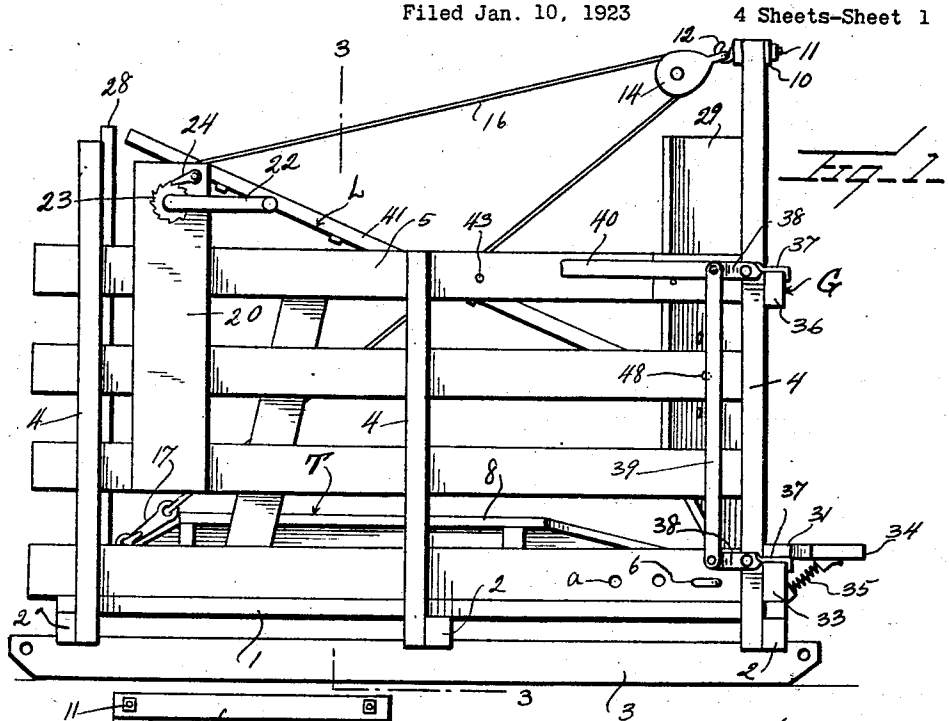


Fig. 1.

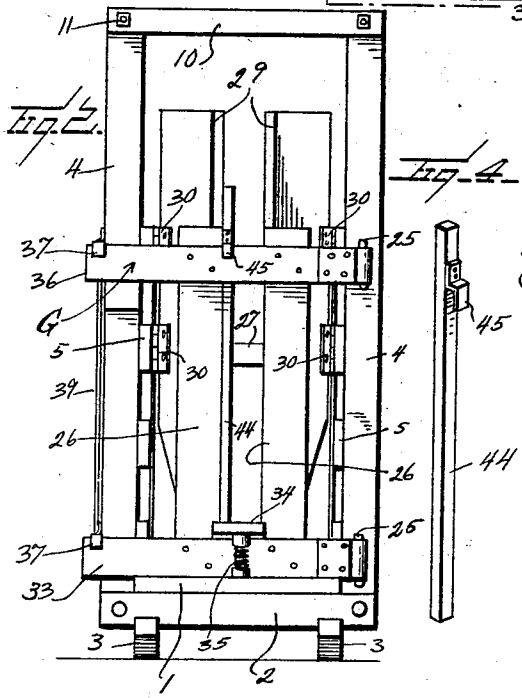


Fig. 2.

Fig. 4.

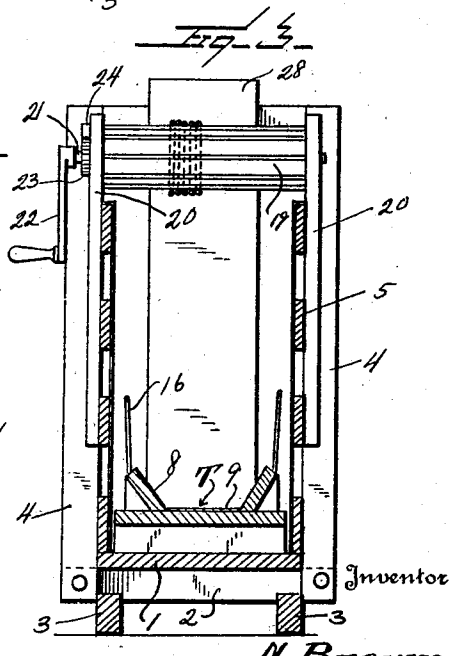


Fig. 3.

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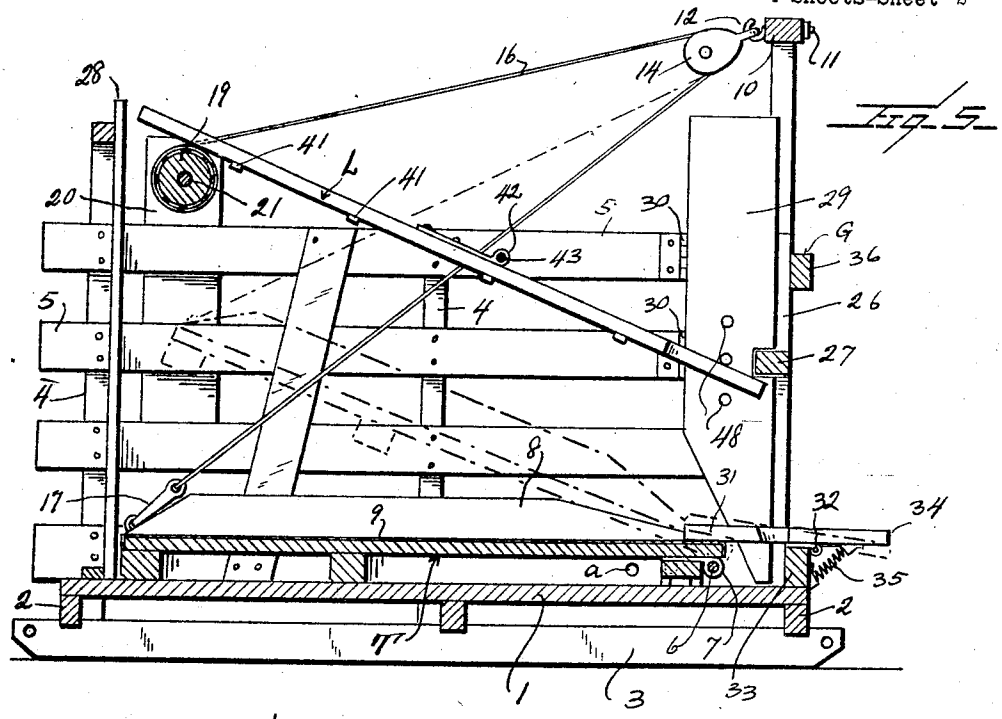


Fig. 5.

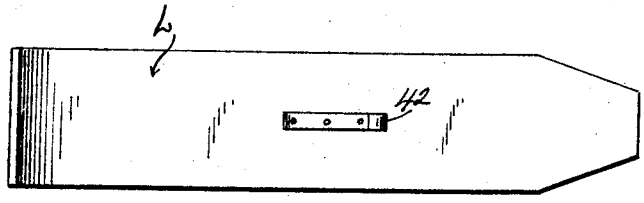


Fig. 7.

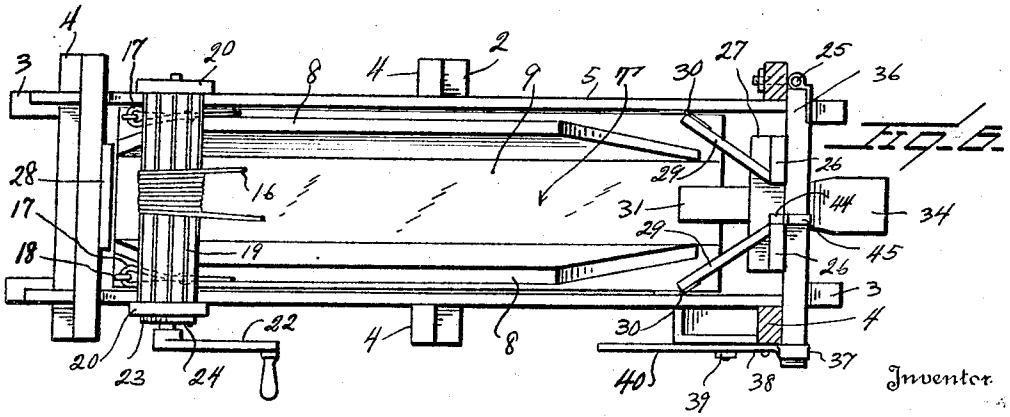


Fig. 6.

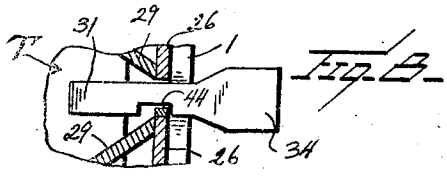


Fig. 8.

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HOG RINGING CRATE

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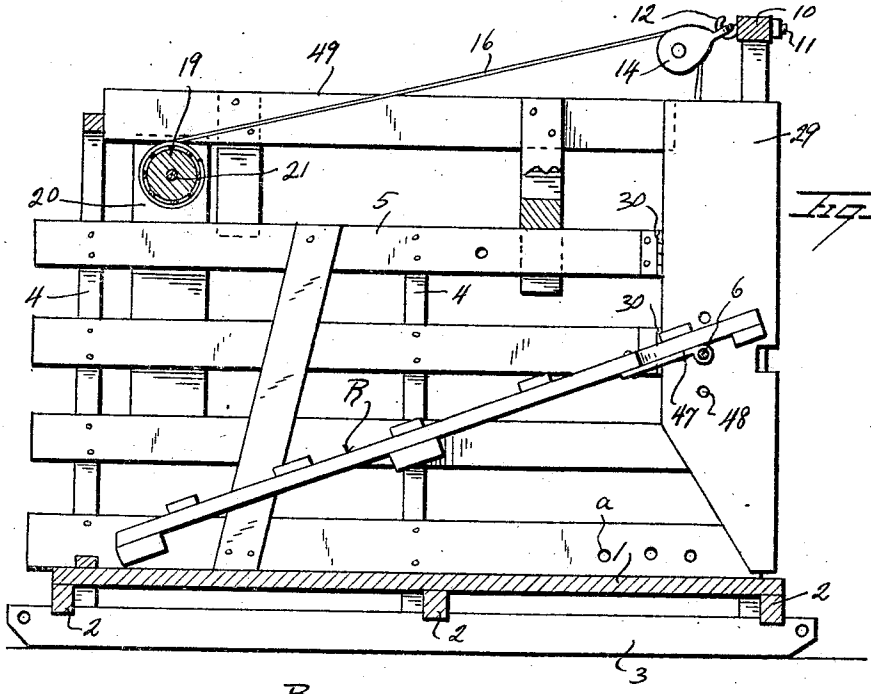


Fig. 9

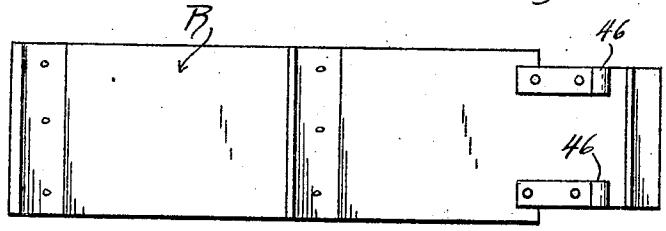


Fig. 10

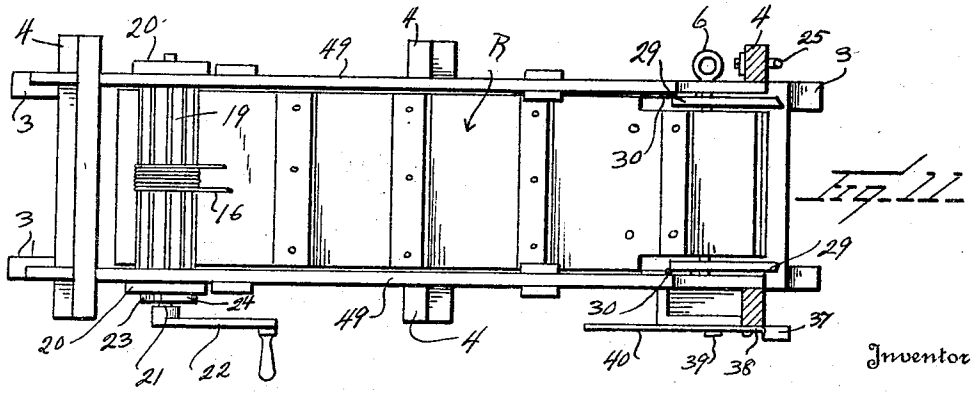


Fig. 11

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HOG RINGING CRATE

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Fig. 12.

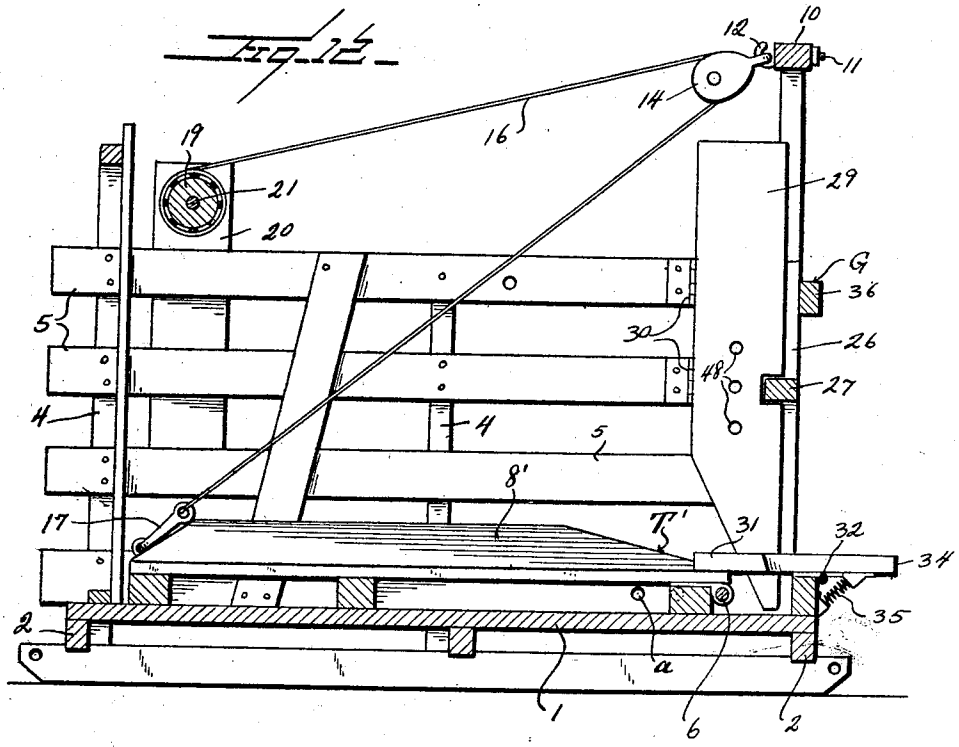


Fig. 13.

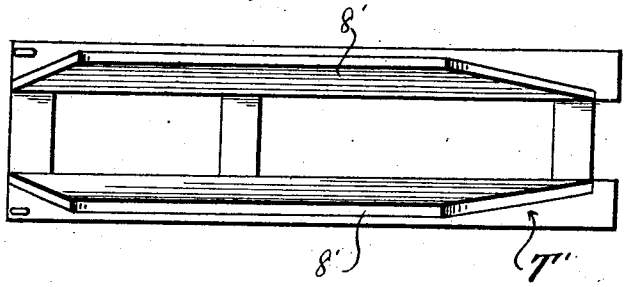
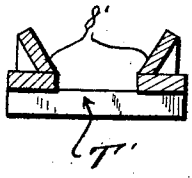


Fig. 14.



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Patented Feb. 3, 1925. 1,525,366

UNITED STATES PATENT OFFICE.

NEWELL BROWN, OF SELMA, IOWA.

HOG-RINGING CRATE.

Application filed January 10, 1923. Serial No. 611,752.

To all whom it may concern:

Be it known that I, NEWELL BROWN, a citizen of the United States, residing at Selma, in the county of Van Buren and State of Iowa, have invented certain new and useful Improvements in Hog-Ringing Crates, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to certain improvements in hog ringing crates and it is an object of the invention to provide a device of this general character having novel and improved means whereby a hog may be held effectively in a position to facilitate the application of a ring to the snout of the animal.

Another object of the invention is to provide a novel and improved device of this general character comprising an entrance at one end and an exit at the opposite end, the exit being provided with means to facilitate the application of a ring to the nose or snout of a hog, said means being adjustable to a position to permit unhindered exit of the animal after the ringing operation.

Furthermore it is an object of the invention to provide a novel and improved device of this general character embodying a manually operated trip to engage the head of the animal from below to hold the nose or snout upwardly to facilitate the applying of a ring.

The invention also has for an object to provide a novel and improved device of this general character embodying a crate structure provided with means for raising a hog forwardly with its nose or snout in a position to have a ring applied thereto, together with a top or lid associated with the crate and operating to provide additional means for maintaining the hog in a position to facilitate the application of a ring to the nose or snout of an animal.

It is a further object of the invention to provide a novel and improved device of this general character including a crate having associated with an end portion thereof a gate provided with an opening through which the nose or snout of a hog is adapted to be inserted, together with means to assure the passage of the nose or snout through such opening in the gate.

A still further object of the invention is to provide a novel and improved device of this general character having certain of its parts removable, said removable parts permitting the proper mounting of means to facilitate the loading of a hog or the like upon a vehicle.

The invention consists in the details of construction and in the combination and arrangement of the several parts of my improved hog ringing crate, whereby certain important advantages are attained and the device rendered simpler, less expensive and otherwise more convenient and advantageous for use, as will be hereinafter more fully set forth.

The novel features of my invention will hereinafter be definitely claimed.

In order that my invention may be the better understood, I will now proceed to describe the same with reference to the accompanying drawings, wherein:—

Figure 1 is a view in side elevation of a crate constructed in accordance with an embodiment of my invention;

Figure 2 is an end elevational view of the device as illustrated in Figure 1;

Figure 3 is a sectional view taken substantially on the line 3—3 of Figure 1;

Figure 4 is a view in perspective of the removable member associated with the gate for increasing the size of the opening in said gate, said member being unapplied;

Figure 5 is a longitudinal vertical sectional view taken through the structure as illustrated in Figure 1, a second position of the trough being indicated by dotted lines;

Figure 6 is a view in top plan of the device as illustrated in Figure 1;

Figure 7 is a view in top plan of the lid or cover member in the position shown in either Figure 1 or 5;

Figure 8 is a fragmentary view partly in section and partly in plan of the manually operated trip for raising or lifting the nose or snout of a hog or the like;

Figure 9 is a longitudinal vertical sectional view taken through my improved crate when employed for the purposes of loading;

Figure 10 is a view in bottom plan of the runway in the position illustrated in Figure 9;

Figure 11 is a view partly in top plan and partly in section of the crate illustrated in Figure 8;

Figure 12 is a longitudinal vertical sec-

tional view taken through the device illustrating a further form of trough for use in vaccination;

Figure 13 is a top plan of the trough as disclosed in Figure 12 detached; and

Figure 14 is a sectional view taken transversely of the trough.

As herein disclosed, my improved crate comprises a floor 1 suitably secured to the transversely directed sills 2. The sills 2 are mounted upon and supported by the parallel runners 3. The runners 3 provide means whereby the device in its entirety may be readily transported from one location to another as the necessities of practice may require, the adjacent end portions of the runners 3 being adapted to have connected thereto in any desired manner a suitable draft rigging (not shown).

The sills 2 extend beyond the runners 3, and suitably secured to the extended portions of said sills 2 are the lower end portions of the upstanding standards 4. The standards 4 are arranged in transversely aligned pairs with the pairs of standards of different heights. The standards 4 at the receiving end of the crate terminate above the intermediate standards, while the standards 4 at the discharge or delivery end of the crate terminate a desired distance above the first mentioned standards. The standards 4 disposed along each side of the crate have secured thereto the longitudinally directed and vertically spaced slats or side boards 5. The lower side boards 5 are immediately adjacent to the floor 1, and removably disposed through said lowermost cleats or side boards 5 immediately adjacent to the delivery or discharge end of the crate is a pin 6 which is also disposed through the bearings or sleeves 7 depending from an end portion of the bottom of the trough T.

The trough T is of a width to snugly fit between the slats or side boards 5, yet having free swinging movement in a vertical plane about the pin 6 as a pivot. The trough T is also of a length to terminate in relatively close proximity to the receiving end of the crate, which is normally open. The trough T is provided with the upstanding side boards 8, each disposed on an upward and outward incline with the inner surface or face thereof smooth and unobstructed. The upper face of the trough T, between the side boards 8, has applied thereto a covering 9 of tin or the like which serves to provide a slippery surface, the purpose of which will be hereinafter more particularly referred to.

The upper end portions of the standards 4, at the delivery or discharge end of the crate, are connected by a cross beam 10 through the instrumentality of the bolts 11 provided with the hook heads 12 arranged inwardly of the beam 10. Engaged with the hooks 12 are the guide pulleys 14 around which pass the flexible members 16. Similar extremities of the members 16 are provided with the hooks 17 having detachable connection with the upstanding eye members 18 carried by the end portion of the trough T adjacent the receiving or entrance end of the crate. The opposite extremities of the members 16 are suitably engaged with a winding drum 19 rotatably supported by and between the upstanding arms 20 secured to certain of the cleats or side boards 5 adjacent to the receiving or entrance end of the crate. The drum 19 is fixed to a shaft 21 which extends to one side of the crate, and to said extended portion is adapted to be engaged an operating handle 22, or the like, whereby requisite rotation may be imparted to the drum 19, to wind the flexible member 16 thereon to swing up or raise the trough T relative to the pivot pin 6.

The extended portion of the shaft 21 has fixed thereto a ratchet wheel 23, with which coacts a pawl 24 to hold the drum 19 against retrograde rotation or against rotation under the influence of the trough T.

G denotes a member or gate which coacts with the discharge or delivery end of the crate and is hingedly connected as at 25 with a standard 4. The gate or member is provided at substantially its transverse center with an opening 26 herein disclosed as provided by a pair of spaced upstanding strips and a cross member 27 connected to said strips and bridging the space therebetween, said member being positioned a desired distance above the lower end of the gate or member G. The hog to be ringed is caused to enter the crate with the trough T in its lowermost position after which a board 28 is applied to partially close the entrance end of the crate to prevent the hog from backing out. The drum 19 is then rotated to effect a raising or upward swinging movement of the trough T and due to the slick or slippery surface of the trough T and the side boards 8 the animal will slide toward the gate G and with his snout extended through the opening 26, whereby the application of the ring may be effected.

Arranged at opposite sides of the crate, immediately adjacent to the delivery or discharge end thereof, are the elongated and vertically disposed wings 29 having their inner longitudinal marginal portions hingedly connected as at 30 to certain of of the side boards 5 whereby the wings 29 are supported for swinging movement laterally of the crate. The wings 29 are adapted to be swung into converging relation with respect to the openings 6 as is illustrated in Figures 2 and 6 to serve as guides to assure the snout of a hog passing through the opening 26.

Under certain conditions it is necessary to

lift or raise the head of the animal to apply a ring, and as herein disclosed, I provide for this purpose the trip 31 which extends within the crate through the lower portion of the opening 26. The trip 31 is hingedly connected as at 32 with the cross member 33 comprised in the crate structure for vertical swinging movement and the trip 31 is of a length to overlie the adjacent hinged portion of the trough T. The trip 31 is provided with a forward extension 34 providing a foot piece or treadle so that when pressure is imposed upon said foot piece or treadle the trip 31 will swing upwardly to raise the snout of a hog when desired. The trip 31 is normally maintained in its lowered position through the medium of an expansible member 35 herein disclosed as a coiled spring, interposed between the foot piece or treadle 34 and the cross member 33, hereinbefore referred to.

After the ring has been properly applied to the snout of a hog the gate G is swung into open position, whereupon the animal may have ready exit or escape from within the crate. The gate G may be held in closed position in any referred manner, but as herein disclosed, said gate is provided at a side remote from its hinged connection with the extensions 36 which extend over the adjacent standard 4 when the gate is in closed position. When the gate is closed the extensions 36 are engaged by the vertically swinging hook members 37 herein disclosed as engaging the extensions 36 from above. The hook members 37 are provided with the rearward extensions or tail pieces 38 which are connected by the length 39 for unitary swinging movement. The rear extension of the upper hook member 38 is of material length to provide an operating lever 40.

L denotes a lid or top for the crate, having secured to and disposed transversely of its under face, cleats 41. Secured to the top face of the lid or cover L at a desired point thereon, intermediate the ends thereof, is a sleeve or barrel 42 through which is directed a pin 43, the pin being also disposed through the upper slats or side boards 5, whereby the lid or cover will be held in applied position. The rear portion of the lid or cover L, when applied, extends over the drum 19 with the lid or cover disposed on a downward and forward incline, terminating in close proximity to the opening 26. This lid or cover L further facilitates the proper positioning of the hog for ringing.

44 denotes a removable strip provided adjacent one end with an inwardly projecting hook member 45. This member 45 provides means whereby the member 44 may be supported by the gate G in position to reduce width of the opening 26 as the requirements of practice may necessitate.

My improved crate can also be employed with facility as a loading device. When so employed the gate G, together with the lid or cover L is removed, and the wings 29 swung to lie against the sides of the crate. The hooks 17 are then detached from the eye members 18 of the trough T and the pin 6 is removed so that the trough T can be taken out of the crate. The runway R is then applied within the crate on a forward and upward incline. The upper end portion of the runway, when applied, is provided with the sleeves or barrels 46 through which the pin 6 is inserted, said pin 6 being also disposed through suitably arranged openings 48 in the wings 29 and also in certain of the slats or side boards 5. The openings 48 in the wings 29 are vertically spaced so that the runway R may be held at different elevations as the requirements of practice may necessitate.

When the crate is employed as a loading device I find it of advantage to mount upon the upper portion of the side walls of the crate the brackets 49. When the hog has been driven into the crate and upon the runway R, the board 28 may be applied, and after the hog has passed up and over the runway a similar board may be applied at the front end of the crate to prevent the hog from returning.

While I have particularly stated that my crate can be employed for ringing purpose, or as a loading device, I also wish it to be understood that the same assembly employed for ringing can be used for vaccinating, the idea being that the vaccination should be behind the ear or behind the front shoulder. The crate can also be used for a breeding crate or a castrating crate.

In Figure 12 the construction is substantially the same as hereinbefore described with respect to Figures 1 to 6 inclusive except that the trough T′ has its central portion, or that portion between the side boards 8′ open.

The trough T′ is adapted to be pivotally connected with the crate by the pin 6. This pin 6 is selectively engaged through the longitudinally spaced openings *a* that may be determined by the size of the animal.

In vaccinating a hog, the trough T′ is initially in its lowermost position and the animal is driven in from the front end of the crate after which the member or gate G is closed. The trough T′ is then elevated in the same manner as for ringing and as the trough T′ rises the hog will assume a substantially perpendicular position with his back against the gate or member G′ and feet and legs projecting through the central opening in the trough T′, thus affording easy access for the purpose of vaccination. When the vaccination is completed the trough T′ is lowered and the hog

permitted to escape through the rear end of the crate. It is to be understood however that if preferred the hog can be placed in the crate in the same manner as hereinbefore set forth with respect to the breeding of a hog and which method is employed if it is desired to vaccinate the animal in the vicinity of the neck.

The holes *a* permit an adjustment of the trough T′ relative to the gate or member G′, as before stated in accordance with the size of the hog and also to assure sufficient space for the hog to assume a sitting position.

From the foregoing description it is thought to be obvious that a hog ringing crate constructed in accordance with my invention is particularly well adapted for use by reason of the convenience and facility with which it may be assembled and operated, and it will also be obvious that my invention is susceptible of some change and modification without departing from the principles and spirit thereof and for this reason I do not wish to be understood as limiting myself to the precise arrangement and formation of the several parts herein shown in carrying out my invention in practice except as hereinafter claimed.

What is claimed is:—

1. A crate of the class set forth provided with an entrance and an exit, a gate for closing the exit and provided with an opening, a trough supported in position within the lower portion of the crate and having means for pivotally supporting an end portion of the trough at a point adjacent the exit of the crate, means for raising the trough, guide means carried by the sides of the crate adjacent the sides and converging toward the opening in the gate, and lifting means carried by the crate adjacent the exit and at the lower portion of the opening of the gate when the gate is closed said lifting means overlapping the adjacent end portion of the trough.

2. A crate of the class set forth provided with an entrance and an exit, a gate for closing the exit and provided with an opening, a trough supported in position within the lower portion of the crate and having means for pivotally supporting an end portion of the trough at a point adjacent the exit of the crate, means for raising the trough, and guide means carried by the sides of the crate adjacent the sides and converging toward the opening in the gate, a trip member carried by the exit end of the crate, an end portion of the trip overlapping the adjacent end portion of the trough, said trip being positioned adjacent the lower portion of the opening in the gate when the gate is closed and means for supporting the trip member intermediate its end for swinging movement in a direction toward or from the trough.

3. A crate of the class set forth provided with an entrance and an exit, a gate for closing the exit and provided with an opening, a trough supported in position within the lower portion of the crate and having means for pivotally supporting an end portion of the trough at a point adjacent the exit of the crate, means for raising the trough, guide means carried by the sides of the crate adjacent the sides and converging toward the opening in the gate, a trip member carried by the exit end of the crate, an end portion of the trip overlapping the adjacent end portion of the trough, said trip being positioned adjacent the lower portion of the opening in the gate when the gate is closed, means for supporting the trip member intermediate its end for swinging movement in a direction toward or from the trough and means for constantly urging the inner end portion of said member toward the trough.

4. A crate of the class set forth provided with an entrance and an exit, a gate for closing the exit and provided with an opening, a trough supported in position within the lower portion of the crate and having means for pivotally supporting an end portion of the trough at a point adjacent the exit of the crate, means for raising the trough, guide means carried by the sides of the crate adjacent the sides and converging toward the opening in the gate, a lid for the crate, means substantially midway the ends of the lid for pivotally supporting the lid, and means for maintaining the lid on an incline disposed downwardly toward the exit of the crate.

In testimony whereof I hereunto affix my signature.

NEWELL BROWN.