

Sept. 14, 1954

C. BUTTS

2,688,949

ANIMAL ENERGIZED ROTATING CALF CRADLE

Filed Sept. 5, 1952

2 Sheets-Sheet 1

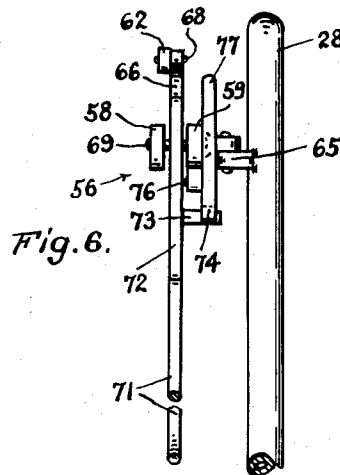
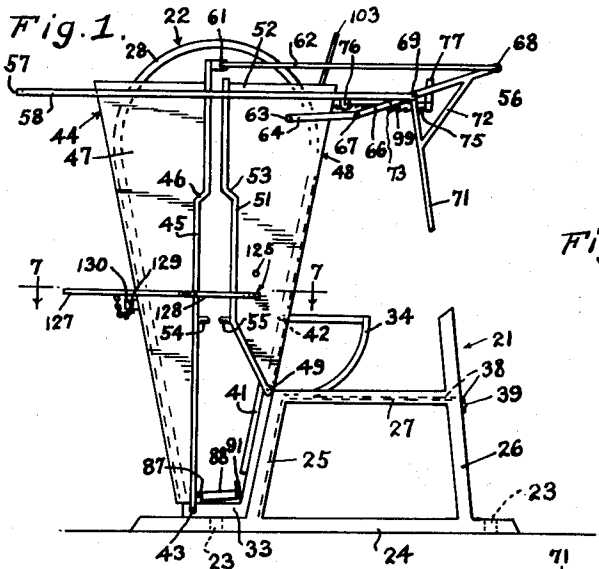


Fig. 2.

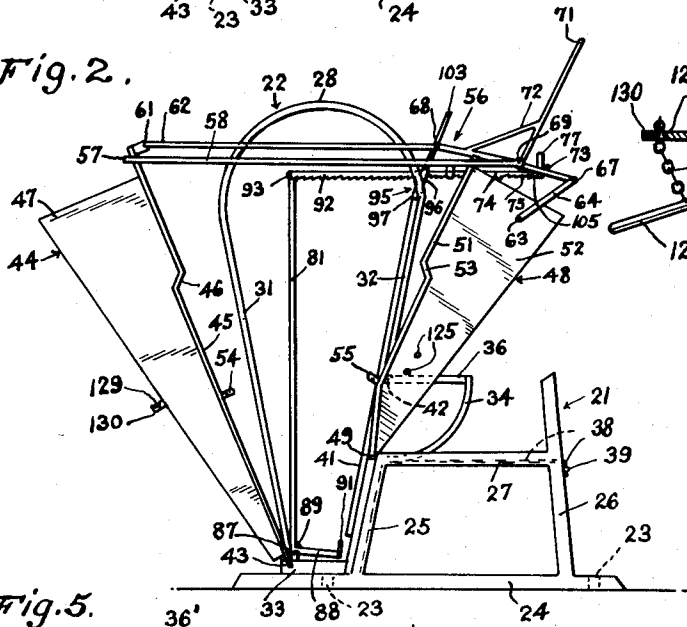


Fig. 7.

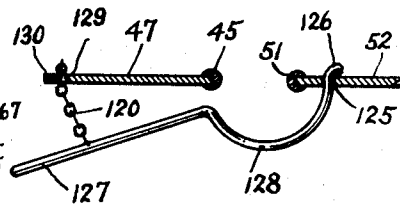


Fig. 5.

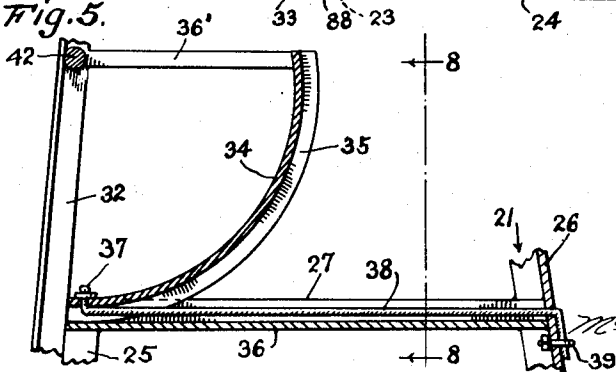
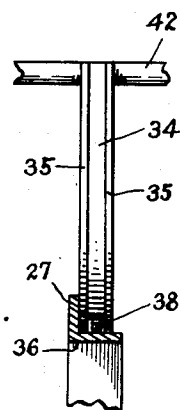


Fig. 8.



INVENTOR.
Claud Butts
BY

McMurray, Berman & Davidson
Attorneys.

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C. BUTTS

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Fig. 3.

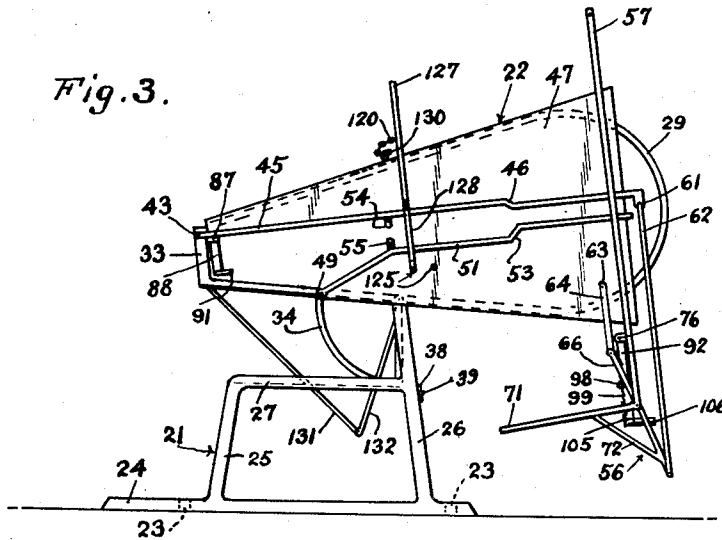


Fig. 9.

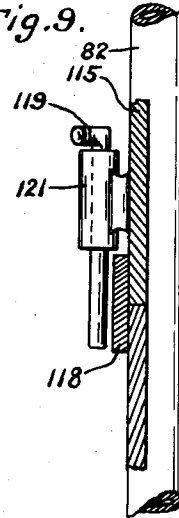


Fig. 4.

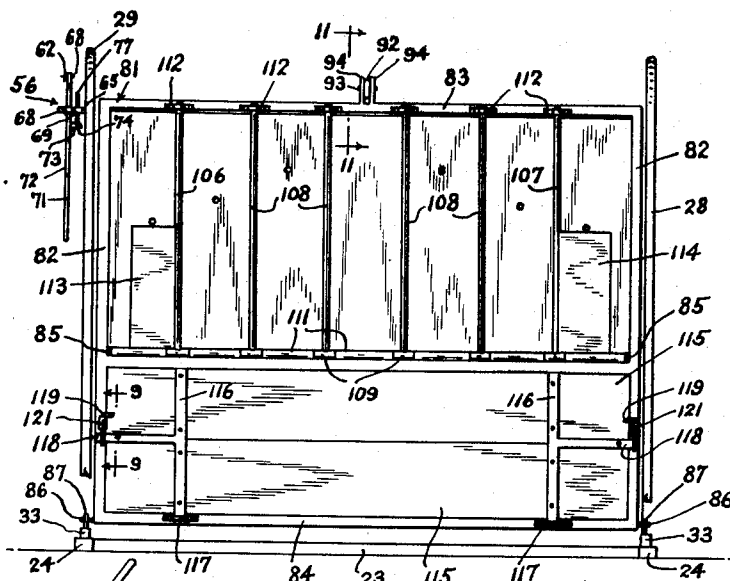


Fig. 11.

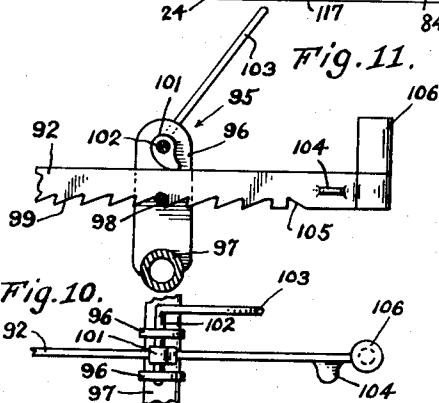
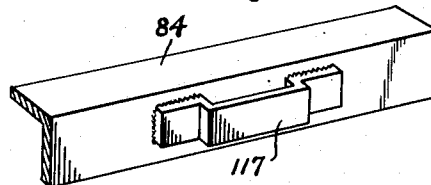


Fig. 12.



INVENTOR.
Claud Butts
 BY

McMorrow, Porman & Davidson
 Attorneys.

UNITED STATES PATENT OFFICE

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ANIMAL ENERGIZED ROTATING CALF
CRADLE

Claud Butts, Baker, Oreg.

Application September 5, 1952, Serial No. 308,043

3 Claims. (Cl. 119-103)

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This invention relates to new and useful improvements in a calf cradle, and more particularly to a new and improved calf cradle which may be tilted to support the calf in a horizontal position.

It is the principal object of this invention to provide a device of the character described for receiving and firmly holding a calf or other animal while the animal is being branded, inoculated, dehorned, or otherwise treated.

It is a further object of this invention to provide a device of the character described into which an animal may be admitted and secured, and the device thereafter rotated to support the animal on its side in a substantially horizontal position.

It is a still further object of this invention to provide a device of the character described which is simple in construction, convenient in operation, and which can be operated by a single person.

It is an additional object of this invention to provide a calf cradle which is economical to manufacture, which is rugged in construction, and which permits of ready access to any part of an animal.

Further objects and advantages of the invention will become apparent from the following specification and claims, and from the accompanying drawings, wherein:

Figure 1 is a front elevational view of an improved calf cradle according to the present invention with the stanchions thereof in closed positions.

Figure 2 is a front elevation showing the stanchions in open positions.

Figure 3 is a front elevation showing the cradle in a horizontal position.

Figure 4 is a side elevational view of the improved device of the present invention, showing the improved clamp member employed therein.

Figure 5 is an enlarged view, partly in cross section, showing the improved tilting means of this invention.

Figure 6 is an enlarged view showing the stanchion-operating means in side elevation.

Figure 7 is a section taken on the line 7-7 of Figure 1.

Figure 8 is a section taken on the line 8-8 of Figure 5.

Figure 9 is a section taken on the line 9-9 of Figure 4.

Figures 10 and 11 are elevation and plan views of the lock means for the clamp member.

Figure 12 is an enlarged perspective view of a portion of the improved clamp member.

Referring now to the accompanying drawings, 55

wherein like reference characters are used to designate like parts throughout the several views, it will be seen that the device comprises a base structure generally designated 21, having mounted for tilting movement thereon the cradle structure generally designated 22.

As may be best seen in Figures 1 to 4, the base structure 21 comprises a pair of spaced frames interconnected by members 23 (Figure 4). Each frame comprises a horizontal member 24 having the upwardly directed members 25, 26 secured thereto, as by welding or the like. The members 25 and 26 are inclined toward each other and are interconnected by a horizontal rail 27. The respective frame members may be formed of suitable structural shapes, such as channels, angles or the like.

The cradle 22 comprises a pair of similar inverted, substantially U-shaped yoke members 28, 29, formed of pipe or the like. The downwardly directed leg portions 31, 32 of member 28 are directed inwardly, one toward the other, and are connected at their lower ends by a cross member 33. As may best be seen in Figure 2, leg 32 is angularly disposed to engage frame member 25 along the length of said member when said yoke member 28 is vertically disposed. Yoke member 29 is similar to yoke 28 and is spaced therefrom by a distance equal to the space between the frame members 21.

An arcuate rocker 34 is secured to each of the yokes 28 and 29 at a height to support the yoke above the ground. As best shown in Figures 5 and 6, rocker 34 is channel-shaped in section and has outwardly extending flanges 35 which engage the horizontal flange 36 of rail member 27. A brace 36' is secured to the upper end of the rocker 35 and to leg 32 of the yoke 28. Secured to the rocker 34 at one end in any suitable manner, as at 37, is a flexible cable 38. Cable 38 retains the cradle on the rail and extends along the top of the rail 36 and between the flanges 35 of rocker 34. The other end of the cable 38 is secured to the frame member 26 as by bolt 39. It will be understood that a similar rocker is secured to yoke 29 and rests on the corresponding rail of the base frame 21 adjacent yoke 29.

A sheet-like table member 41 extends between the leg 32 of yoke 28 and the corresponding leg of the yoke 29 and is suitably secured to each of these legs, as by welding or the like. A horizontal strut 42 (Figures 1 and 5) extends between the legs of the yokes 28 and 29 and serves to reinforce member 41, which serves as the table for supporting a calf or the like when the frame is rocked

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to a horizontal position in a manner subsequently to be described. Other suitable reinforcing means may be provided for the table as may be necessary, as for example, member 97 adjacent the top thereof.

A stanchion member, designated generally by the numeral 44, comprises a rod 45 having an offset portion 46. Secured to rod 45, as best shown in Figure 7, is a sheet-like shield 47, substantially triangular in shape. A second stanchion, designated generally by 48, comprises a rod-like member 51 pivoted as at 49 to leg 32 of yoke 28 at an intermediate point on the length thereof. The member 51 has an offset portion, as at 53, and a substantially triangular sheet-like shield 52 extends outwardly therefrom. The stanchions 44 and 48 may be simultaneously moved from the position shown in Figure 2 to the position shown in Figure 1, in which latter position they engage about the neck of a calf or the like, with the head of the animal projecting forwardly from the cradle, as viewed in Figure 1. Offset portions 46 and 53 engage above the neck of the calf and prevent upward movement of the head. A pair of lugs 54 and 55, on the stanchions 44 and 48 respectively, engage beneath the neck and prevent downward movement of the head when the stanchions are closed. The shields 47 and 52 serve to close the open end of the cradle and restrain an animal therein.

For simultaneously closing the stanchions there is provided the mechanism designated generally at 56. This mechanism comprises a horizontal frame 57 comprising the spaced bar members 58 and 59 suitably secured at their ends. Bar 59 is secured to yoke 28 at spaced points, as shown at 65. Between members 58 and 59 are slidably mounted the upper ends of stanchions 44 and 48. Pivoted to the upper end of rod 45 of stanchion 44, as at 61, is a link 62. Pivoted to the shield 52 of the stanchion 48, as at 63, is a link 64. A link 66 is pivotally connected at its ends to the links 62 and 64, as at 67 and 68 respectively, and is pivoted intermediate its ends to the ends of the bar members 58 and 59, as at 69. A handle 71 extends at substantially right angles to link 66 adjacent the pivot 69 and is rigid therewith, being suitably braced by a brace 72 extending diagonally between link 66 and handle 71 and rigidly secured to each. A detent 73 extends from link 66 in a position to engage beneath a rack bar 74 and engage the ratchet teeth 75 thereof when the stanchions are in closed positions. Rack bar 74 is pivoted to bar member 59, as at 76. Upwardly inclined portion 77 of rack bar 74 rides over detent 73 as it moves from the position of Figure 2 to the position of Figure 1 and serves as a handle to release the rack bar, whereby the stanchions may be opened.

In order to securely hold a calf on the table 41 there is provided a clamp 81 (Figures 2 and 4). Clamp 81 comprises a rectangular frame structure having spaced vertical side members 82 and interconnecting top members 83 and bottom member 84. An intermediate rod member 85 interconnects members 82 intermediate the top and bottom thereof. Clamp 81 is pivoted, as at 86, to lugs 87 suitably secured to the respective members 83. A floor 88 is welded or otherwise rigidly secured to clamp 81, as shown at 89. The floor 88 is coextensive with the clamp and has an upstanding flange 91 to prevent a calf from slipping to that side.

A rack bar 92 is pivotally mounted on clamp 81, as at 93, between spaced lugs 94 secured to

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member 83, as best shown in Figure 4. The other end of the rack bar is slidably mounted between lugs 96 of lock structure 95. As shown in Figures 10 and 11 lock 95 comprises a pair of spaced upstanding lugs 96 suitably secured to cross member 97 adjacent the top of table 41. A detent member 98 extends between the lugs 96 in a position to engage the ratchet teeth 99 of rack bar 42. A cam 101, journaled between the lugs 96, as at 102, is rotatable by means of lever 103 to engage the rack bar 92 and retain the teeth 99 in locking relation with detent 98. A stop 104 limits the movement of the rack bar and a ratchet tooth 105, facing in a direction opposite to that of teeth 99, serve to retain the clamp 81 in its open position to admit the calf. When the calf steps on the floor 88, the weight of the animal urges the clamp 81 in a direction to engage the calf's body and press him against the table 41. Tooth 105 prevents movement of the clamp 81 until the calf is fully in the cradle and held by the stanchions 44 and 48, whereupon handle 106 may be grasped to lift the racks to release the clamp 81. The weight of the calf urges the clamp 81 firmly against the calf's body and thereupon lever 103 is rotated to cause cam 101 to engage rack bar 92 and lock it securely in engagement with detent 98. Clamp 81 comprises the vertical bars 106 and 107, adjacent the end members 82, and intermediate bars 108. Each of the bars is fixed to a sleeve 109 journaled on rod member 85 and held in spaced relation thereon by sleeves 111. Ratchets 112 detachably secure the ends of the bars to the member 83, whereby the bars may be released and rotated downwardly out of the way, thus permitting access to any part of the animal's body. Guards 113 and 114 are secured to the bars 106 and 107, respectively, adjacent the bottoms thereof to prevent the animal from thrusting his feet between the bars.

The bottom of the clamp 81 between horizontal member 84 and rod 85 is closed by a side board 115 which is secured in position by the brace 116 secured thereto and having a downwardly depending portion engaging in lug 117. A portion 118 of each brace 116 extends at right angles thereto and engages behind pin 119, slidably mounted in a lug 121 secured to members 82. As is apparent, raising pins 119 will release the side boards 115 and permit removal thereof, thereby giving access to the calf's feet for treatment, if this be desired.

In order to securely hold the calf's head against movement, as when dehorning for example, a plurality of holes 125 are provided in the shield 52, in either of which selectively may be hooked the end 126 of restraining means 127. The semi-circular portion 128 thereof is engaged around the face of a calf to securely hold his head. A chain 129 engages in a slot 129 in a lug 130 mounted on shield 47 and serves to hold the restraining member 128 against the animal's head and restrain movement thereof.

In operation, a calf is admitted into the improved cradle and when his head projects beyond stanchions 44 and 48, lever 71 is actuated, thus closing and locking the stanchions about the calf's neck. Thereupon, the rack 92 is released and the calf's weight on floor 88 urges the clamp 81 into engagement with the animal's body and securely presses it against the table 41. Lever 103 is actuated to lock the clamp, and thereupon the cradle structure is caused to rotate to a horizontal position on rocker 34. In order to assist the operator in rotating the

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cradle, a foot pedal 131, suitably braced, as at 132 is provided. By grasping the top of the cradle and pressing upon the pedal 131, the cradle may be easily rotated and will remain in rotated position until righted by the operator, since a major portion of the weight of the animal lies to the right of support 21, as viewed in Figure 3.

While a specific embodiment of an improved calf cradle has been disclosed in the foregoing description, it will be understood that various modifications within the spirit of the invention may occur to those skilled in the art. Therefore, it is intended that no limitations be placed on the invention except as defined by the scope of the appended claims.

What is claimed is:

1. In a device of the character described, a base, a cradle mounted on said base for tilting movement from a vertical position to a substantially horizontal position, a table forming a side of said cradle, a clamp member in spaced relation to said table and forming the other side of said cradle, said clamp member being pivoted on said cradle adjacent the lower end thereof for movement toward and away from said table, and a substantially horizontally extending floor member rigidly secured to said clamp member, whereby the weight of an animal on said floor member serves to urge said clamp member toward said table, thereby to secure the animal against said table.

2. In a device of the character described, a base, a cradle mounted on said base for tilting movement from a vertical position to a substantially horizontal position, a table forming a side of said cradle, a clamp member in spaced relation to said table and forming the other side of said cradle, said clamp member being pivoted on said cradle adjacent the lower end thereof for

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movement toward and away from said table, a substantially horizontally extending floor member rigidly secured to said clamp member, whereby the weight of an animal on said floor member serves to urge said clamp member toward said table, thereby to secure the animal against said table, and means for locking said clamp member in said last-named position.

3. In a device of the character described, a base, a cradle mounted on said base for tilting movement from a vertical position to a substantially horizontal position, a table forming a side of said cradle, a clamp member in spaced relation to said table and forming the other side of said cradle, said clamp member being pivoted on said cradle adjacent the lower end thereof for movement toward and away from said table, a substantially horizontally extending floor member rigidly secured to said clamp member, whereby the weight of an animal on said floor member serves to urge said clamp member toward said table, thereby to secure the animal against said table, means for locking said clamp member in said last-named position, and a pair of stanchions secured to one end of said cradle, said stanchions engaging about the neck of the animal and preventing movement of the animal outwardly of said cradle.

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