Jan. 8, 1952 G. K. TURNER 2,581,735

CALF BRANDING TABLE

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Fig. 1.

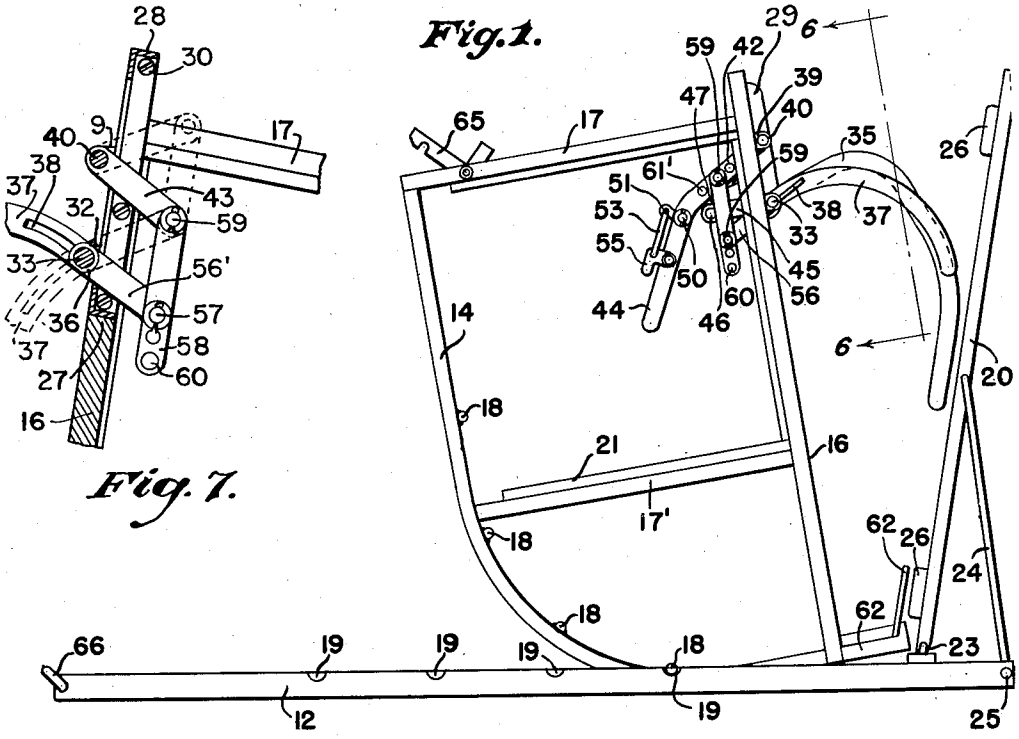
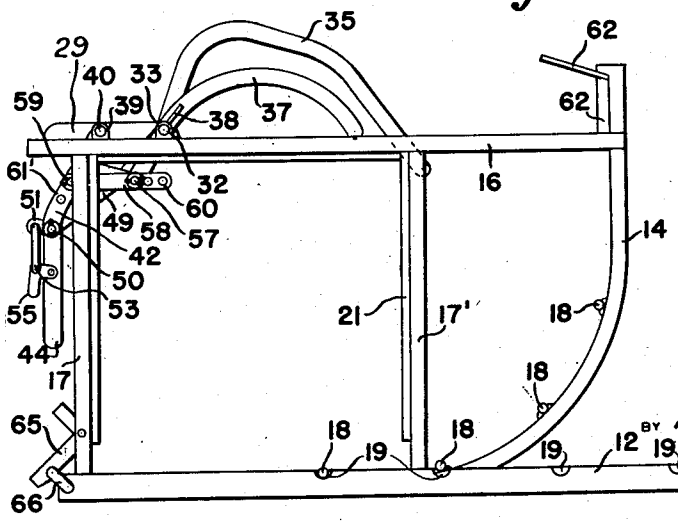


Fig. 7.

Fig. 2.



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CALF BRANDING TABLE

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Fig. 3.

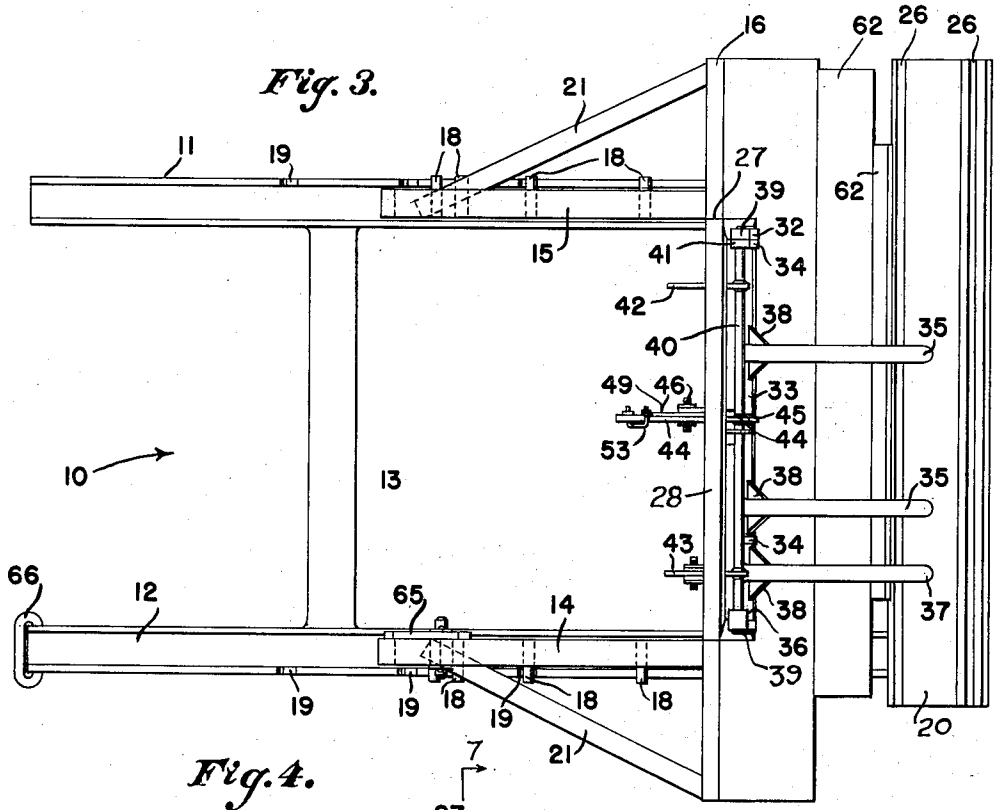

Fig. 4.

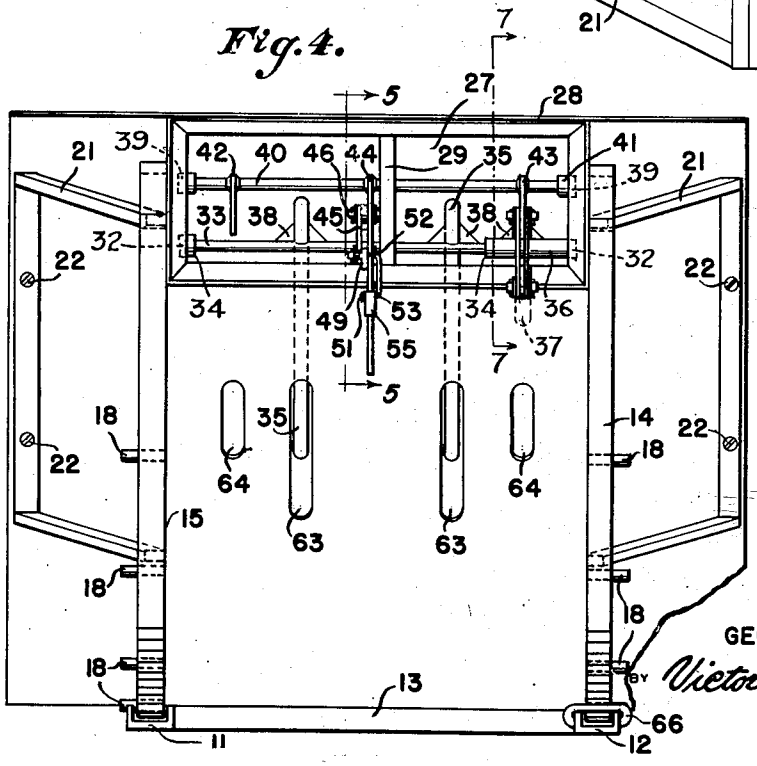

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Fig. 5.

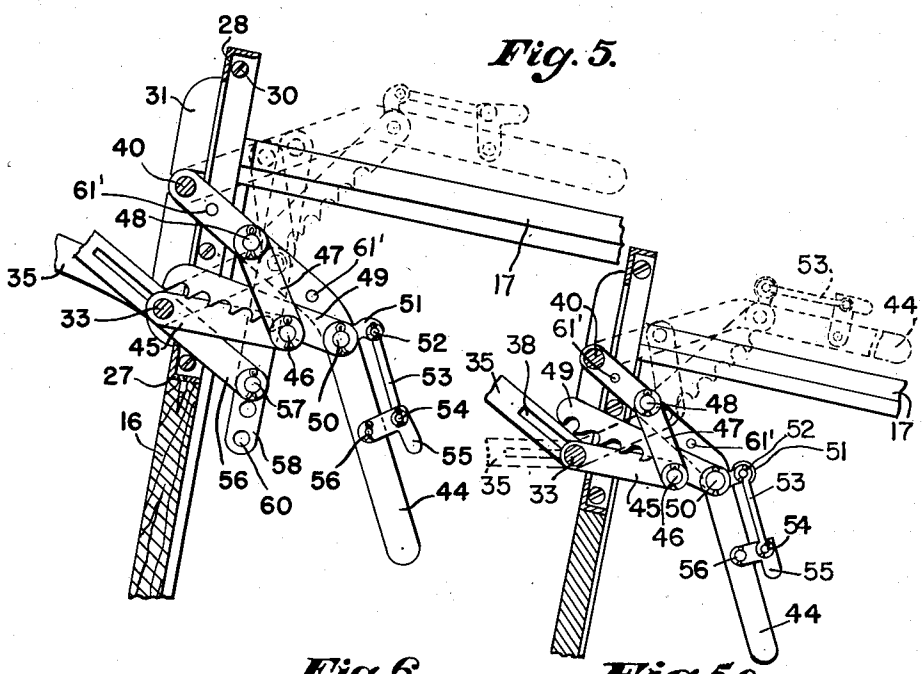
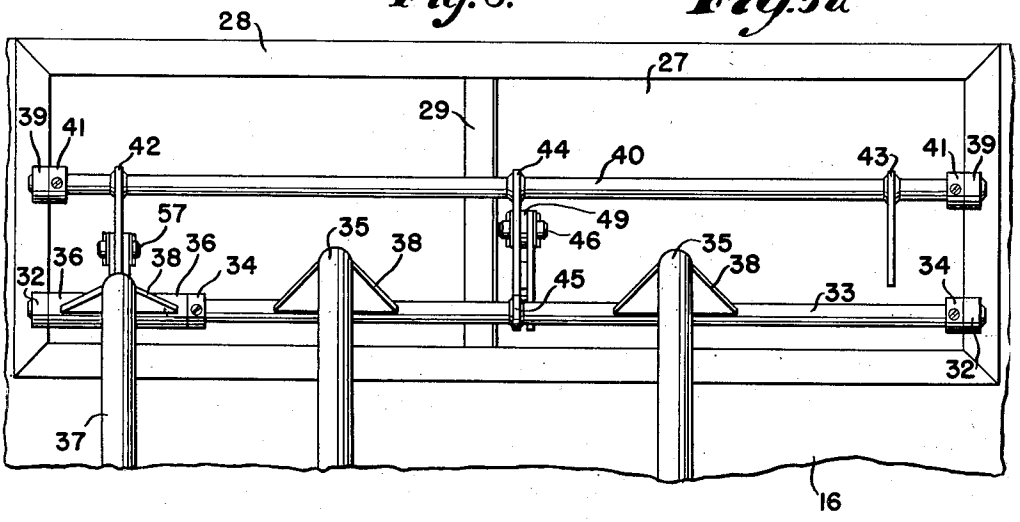


Fig. 6.

Fig. 5a



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CALF BRANDING TABLE

George K. Turner, Cimarron, N. Mex.

Application February 19, 1947, Serial No. 729,586

3 Claims. (Cl. 119—103)

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This invention relates to improvements in calf branding tables, and the primary object of the invention is to provide a device into which the calf can be driven, and is provided with mechanical means for catching the calf and clamping it to the vertically standing table so that the table can then be turned to a horizontal position carrying the calf with it, so that the calf will be held securely on the table in order that operations such as branding, vaccinating, castrating, dehorning and similar operations can be performed with the greatest convenience and efficiency.

Another object of the invention is to provide a device wherein it can be adjusted to have a calf driven in from either side thereof.

With the above and other objects and advantages in view, the invention consists of the novel details of construction, arrangement and combination of parts more fully hereinafter described, claimed and illustrated in the accompanying drawings in which:

Figure 1 is a side elevational view of an embodiment of the invention in position for catching a calf;

Figure 2 is the same partly broken away in position for performing one of several operations on the calf;

Figure 3 is a top plan view of the device with its parts in the positions shown in Figure 1.

Figure 4 is a rear view of the device with its parts in the positions shown in Figure 1;

Figure 5 is an enlarged sectional view on the line 5—5 of Figure 4;

Figure 5a is a view similar to Figure 5 with parts broken away to more clearly show the clamping means;

Figure 6 is an enlarged sectional view on the line 6—6 of Figure 1 and

Figure 7 is a sectional view on the line 7—7 of Figure 4 with parts broken away to more clearly show the operation of the clamping fingers.

Referring more in detail to the drawings, the reference numeral 10 designates the base which comprises the longitudinally extending parallel channel shaped members 11 and 12 respectively which are bridged by a cross bar 13 which is secured to the inner sides of the members 11 and 12 by welding or the like.

Mounted in the channel members 11 and 12 are the rocking members 14 and 15 which support the table 16 at one end. The opposite end of the table is supported by the uprights 17 secured at their lower ends to the ends of the rocking members 14 and 15, and uprights 17' intermediate uprights 17 and the forward ends of the rocking

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members, and U-shaped brace members 21 are secured to the rear of the table adjacent the outer sides thereof by bolts 22, and to the rocking members 14 and 15 by welding, for the bracing of the table during movement thereof.

The rocking members on their inner sides are provided with relatively spaced outwardly extending lugs 18 which are adapted to engage in the notches 19 in the upper outer edge of the channel members 11 and 12, so that the table will always assume the same position with relation to the standing wall 20 in both the standing and operating positions. The standing wall 20 is pivotally mounted at 23 to the channel members 11 and 12 respectively, and rods 24 pivoted at one end at 25 to the outer ends of the members 11 and 12 engage the wall at their upper ends to support the wall in standing position. The standing wall is provided at its top and bottom with pads 26 to protect the calf from harming itself while it is in the apparatus.

The upper end of the table 16 is provided with cutout 27 in which is mounted by means of screws 30 the angle iron rectangular shaped frame 28, which is bridged at its center with the cross-bar 29 for the strengthening thereof. The frame is provided with bearings 32 for journalling the ends of the finger shaft 33 therein, and collars 34 on the shaft 33 retain the shaft in position in the bearings. Rigidly secured to the shaft 33 are body clamping fingers 35 which clamp the body of the calf while it is in the apparatus. A sleeve 36 is loosely mounted on the shaft 33 intermediate one of the bearings 32 and collars 34. The neck clamping finger 37 is secured to the sleeve 36 and the neck clamping finger 37 is used for clamping the neck of the calf. The body clamping fingers 35 are braced at their connection with the shaft 33 and the neck clamping finger 37 is braced at its connection with the sleeve 36 by triangular shaped brace plates 38. Bearings 39 above the bearings 32 on the frame 28 journal the operating shaft 40 therein, and collars 41 on this shaft retain it in position.

Secured to the shaft 40, adjacent the outer ends thereof, are the rearwardly extending downwardly inclined arms 42 and 43 respectively, and secured to this shaft intermediate the arms is the operating lever 44. An arm 45 secured to the shaft 33, intermediate the fingers 35, is pivotally connected at 46 to a link 47 which is pivotally connected at 48 to the lever 44, and a ratchet bar 49 is pivotally connected at 50 to the lever 44 and is provided with the projection 51 to which is pivotally connected at one end thereof at 52, the operating rod 53 which is pivotally connected

at 54 to the operating handle 55, pivoted at 56 on the lever 44, and the bar 49 engages the pivot 46 for the retaining thereof in fixed position.

Secured to the sleeve 36 is the arm 56', which is similar to arm 45, and this arm is pivotally connected at 57 to the link 58 which is pivotally connected at 59 to one of the arms 42 or 43, depending on which end of the shaft the sleeve is mounted, as shown in Figure 4 or Figure 6, for receiving the calf with its head at either end of the apparatus. The link 58 is provided with spaced openings 60 at its lower end for adjustably receiving the pivot 57, and the spaced openings 61' in the lever 44 to adjustably receive the pivot 48 will with the adjustment of the pivot 57 in the openings 60 permit adjustment of the arms 42 and 43.

The forwardly projecting ends of the members 14 and 15 support a floor 62 thereon, and elongated slots 63 receive the ends of the fingers 35 and shortened slots 64 outwardly of the slots 63 receive the ends of the fingers 37 when the fingers are operated to clamp the calf.

With the device in position, as shown in Figure 1, the calf is driven onto the floor 62 intermediate the standing wall 20, and table 16. As the calf comes under the clamping fingers 35 and 37, the operating lever 44 is raised, carrying the fingers to swing downward and rearward into the slots 63 and 64 to encircle the calf's body and neck, to draw it against the table 16. Since the calf's neck is only about one-half the size of the calf's body, it is necessary that the neck clamping finger 37 move about one and one-half times faster than the body clamping finger 35, so that the finger 37 may swing inward far enough to securely clamp the neck during the time that the body clamping fingers are moving to clamp the body. This is accomplished by having the sleeve 36 to which the finger 37 is secured pivotally mounted on shaft 33, and the pivot point 59 on the link 58 for the arms 42 or 43 the same distance from shaft 40 as the pivot point 57 on the link 58 for the arm 56' is from shaft 33. The distance from shaft 33 to the pivot point 46 on the link 47 for the arm 45 is one and one-half times the distance from shaft 40 to the pivot point 48 for the link 47 on lever 44. Therefore, since the arms 42 and 43 and lever 44 are rigidly secured to their respective shaft 40, the neck clamping finger 37 must move the same speed as lever 44, while body clamping fingers 35, which are fixed to shaft 33, will move slower because of the greater distance of the pivot point 46 on the link 47 for the arm 45 from shaft 33. Thus this arrangement allows the operator to clamp both the body and neck of the calf instantly and with only one movement of one lever.

This arrangement also provides a leverage advantage in the movement of body clamping fingers 35 to apply more pressure than fingers 37.

As the lever 44 is raised, the ratchet bar 49 engages the notches on the pivot 46, thus locking both the body and neck clamping fingers in the holding position at any point throughout their travel, so that any size calf will be held securely. The ratchet bar 49 operates by gravity to engage its notches, thus eliminating the need for springs, and is so designed that it engages perfectly with the table 16 in both the standing and horizontal positions. Pressing down on handle 55 raises the ratchet bar from the pivot 46, allowing the lever to be lowered and the fingers raised to open position. The curved clamping fingers hold the calf much better and more gently than the flat squeeze type of clamp, because the curved fingers fit the contour of the calf's body closely at all points, without undue pressure at any point. Also, the curved fingers eliminate the necessity for horizontal bars between the fingers, thus giving unobstructed access to all parts of the calf. Also the curved finger design eliminates the necessity for adjustable back rests which are necessary with the flat squeeze type of clamp. When the calf is clamped to the table 16, the entire table is rocked back to the position shown in Figure 2. The rocker design provides the most efficient means of carrying the calf to a horizontal position at table height, and because of the great amount of leverage provided by this design for the initial tilting, the whole operation is accomplished with much less effort than is possible with other types of apparatus. The standing wall can thus be used for greater facility in getting calves into the devices.

The table rolls away from the standing wall, affording plenty of room for working at the foot of the table when in operating position. Flapper gates are also not necessary on this type of apparatus. As stated, the sleeve 36 can be used at both ends of shaft 33 for branding the calf on either side, and when in horizontal position, the latch 65 engages with the ring 66 at the rear end of members 12 to retain the table in this position.

There has thus been provided a highly efficient branding table, and it is believed that the operation and construction thereof will be apparent to those skilled in the art. It is also to be understood that changes in the minor details of construction, arrangement and combination of parts may be resorted to, provided they fall within the spirit of the invention, and the scope of the appended claims.

Having thus described the invention, what is claimed as new and desired to be secured by Letters Patent is:

1. In a calf branding table having base members and a table having rocking engagement with said base members with a wall pivoted at one end of said base members coacting with said table at one extreme rocking movement thereof, the improvement comprising a shaft journalled on said table body clamping means fixed to said shaft and adapted for pivotal movement with relation to said table, and a second shaft journalled on said table, neck clamping means pivotally mounted on said first shaft, link means connecting both of said shafts for simultaneous operation of said shaft, link means connecting said second shaft to said neck clamping means, and adjustable pivot means on said last link means for pivotally connecting said neck clamping means to said last link means so that said last link means can be adjusted whereby the operation of the neck clamping means is faster than the operation of the body clamping means during the simultaneous operation of both shafts.

2. A device of the character described comprising a table, a pair of uprights secured to each side of said table, rocker members for said table secured to the opposite ends of said uprights and to said table, channel shaped members for said rocker members to rock in, a standing wall pivotally secured to said channel shaped members at one end thereof, said channel shaped members having relatively spaced notches in one longitudinally extending edge thereof, relatively spaced lugs on each rocker member adapted to engage in the notches to retain the rocker members at selected positions in relation to said wall, a frame member mounted on said table, a shaft journalled in said frame, and body clamping

members fixed to said shaft, for clamping a calf on said table after it has been moved into position between said table and said standing wall.

3. The invention as in claim 2 wherein a second shaft is journalled in said frame, a neck clamping member pivotally mounted on said first shaft, rearwardly inclined arms are fixed to said second shaft, and one of said arms is pivotally connected to the neck clamping member, an operating lever connected to said second shaft intermediate of said arms, a third arm connected to said first shaft and operating linkage between said operating lever and said third arm to cause the operation of said first shaft and said neck clamping

member through movement of said operating lever.

GEORGE K. TURNER.

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The following references are of record in the file of this patent:

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