Sept. 26, 1950 R. V. WELLS 2,523,459

STANCHION

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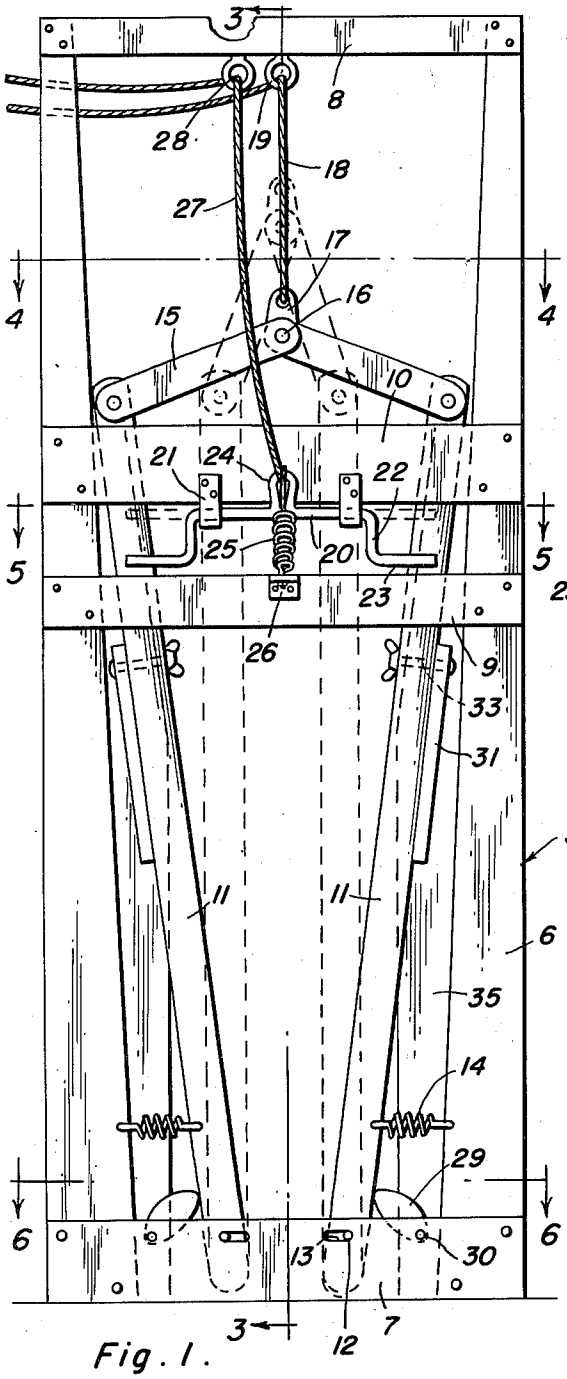


Fig. 1.

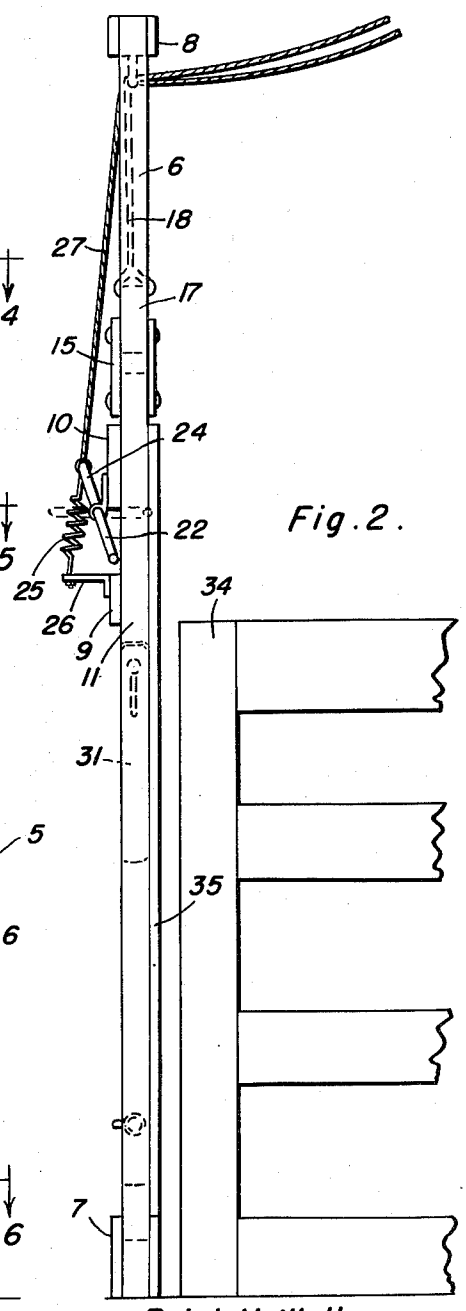


Fig. 2.

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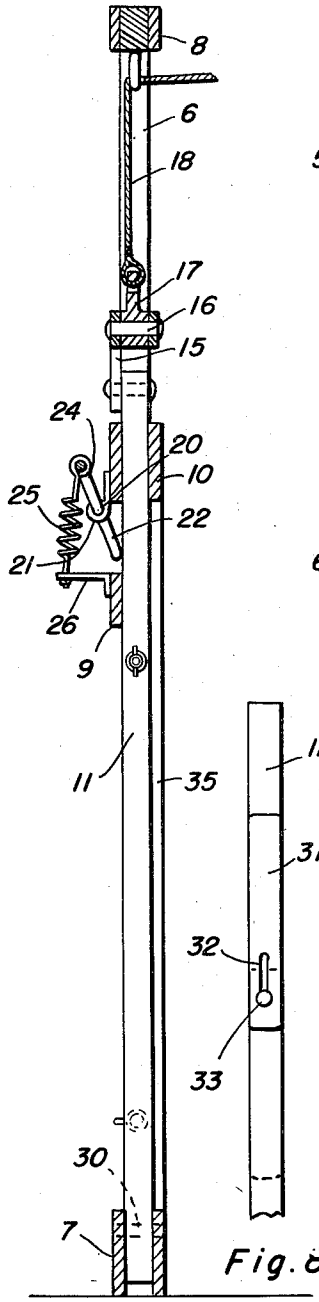


Fig. 3.

Fig. 8.

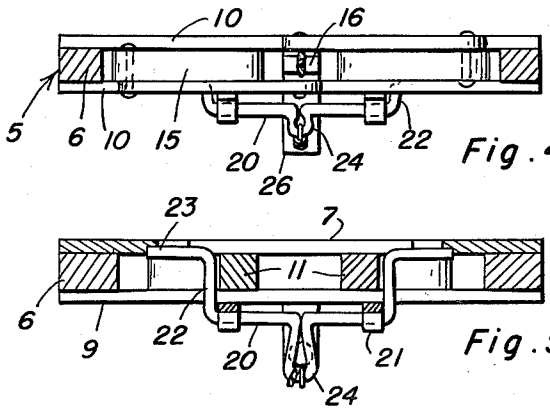


Fig. 4.

Fig. 5.

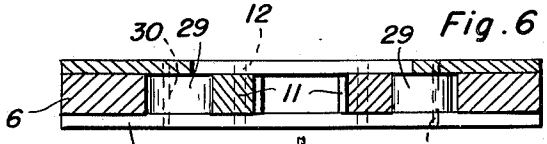


Fig. 6.

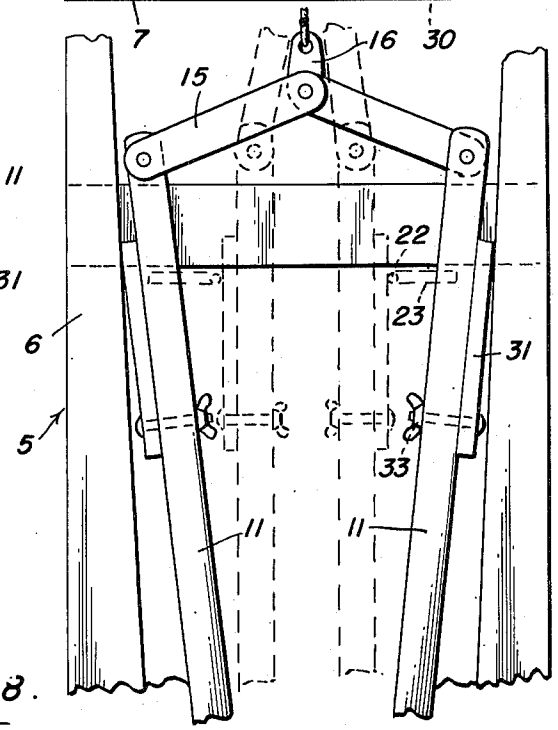


Fig. 7.

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2,523,459

STANCHION

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Application July 6, 1948, Serial No. 37,207

4 Claims. (Cl. 119—98)

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The present invention relates to new and useful improvements in stanchions and embodying the provision of a stanchion supporting frame which may be set up at the end of a chute or in an opening in a barn or other structure to receive the head of an animal and providing vertically swingable clamping bars in the frame for holding the animal in a restrained position.

An important object of the invention is to provide novel means for automatically locking the clamping bars in closed position to hold the animal in the stanchion.

A further object of the invention is to provide novel means for regulating the width of the opening between the clamping bars to accommodate animals of various sizes.

A still further object is to provide a device of this character of simple and practical construction, which is efficient and reliable in operation, relatively inexpensive to manufacture and otherwise well adapted for the purposes for which the same is intended.

Other objects and advantages reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming part hereof, wherein like numerals refer to like parts throughout, and in which:

Figure 1 is a front elevational view;

Figure 2 is a side elevational view;

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

Figures 4, 5 and 6 are transverse sectional views taken respectively on the lines 4—4, 5—5 and 6—6 in Figure 1;

Figure 7 is a fragmentary front elevational view showing the upper adjusting member for the clamping bars in a raised position for reducing the opening between the bars, and;

Figure 8 is a fragmentary side elevational view of one of the clamping bars with the upper adjusting member shown in its raised position.

Referring now to the drawings in detail wherein for the purpose of illustration I have disclosed a preferred embodiment of the invention the numeral 5 designates the stanchion frame generally and which is composed of a pair of vertical side frame members 6 secured in vertically substantially spaced parallel relation with respect to each other by a pair of lower cross bars 7 and a pair of upper cross bars or beams 8. Vertically spaced apart cross bars or beams 9 and 10 are also suitably secured to the side frame members 6 intermediate the upper and lower ends thereof.

The lower cross bars 7 and the beams 9 and 10

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are arranged in pairs and between which a pair of vertical clamping bars or stanchion bars 11 are positioned, the lower ends of the clamping bars being provided with pins 12 positioned in horizontal slots 13 in the lower cross bars 7 for pivotally supporting the clamping bars for opening and closing movements of the upper ends thereof toward and away from each other and for slidably adjusting the lower ends of the clamping bars in the slots 13.

Coil springs 14 connect the lower portion of the clamping bars 11 to the side frame members 6 to hold its ends 12 in the outer end of slots 13 and with the bars 11 in a wider adjusted position with respect to each other. Links 15 are pivoted to the upper ends of the clamping bars 11 with the inner ends of the links pivoted to each other by means of a pin 16 to which is also attached an upwardly extending connector 17 with a rope or cable 18 attached to the connector and through an eye or pulley 19 supported by the upper cross bars 8. A substantially U-shaped locking bar 20 is rockably supported at its bight portion in bearings 21 secured to one of the beams 10 to provide a pair of locking arms 22 at each end of the locking bar for swinging into and out of engagement behind the clamping or stanchion bars 11 when the latter are swung inwardly into a closed position as shown by the dotted lines in Figure 1 of the drawings.

The ends of the locking bars 20 project laterally outwardly as shown at 23 to engage the sides of the clamping bars 11 to hold the arm 22 against inward swinging movement when the clamping bars are moved into their outward or open position as shown by the full lines in Figure 1.

The center of the locking bar 20 is formed with a forward projection 24 to which one end of a coil spring 25 is attached, the spring extending downwardly its other end attached to a bracket 26 suitably secured to one of the beams 9. A rope or cable 27 is also attached to the projection 24 and extends upwardly through an eye or pulley 28 secured to the upper cross bar 8.

Substantially elliptical or cam shaped dogs 29 are pivoted at their lower ends on pins 30 carried by the lower cross bar 7 and with their upper ends swingable inwardly behind the clamping bars 11 to adjust the latter inwardly toward each other in the slots 13 whereby the reduce the width of the opening at the lower end of the clamping bar when the device is used for smaller animals.

The width of the opening at the upper portion of the clamping bars 11 is regulated by ad-

justing blocks 31 having vertical slots 32 adjacent one end and in which bolts and wing nuts 33 are received for securing the blocks 31 to the outer edges of the clamping bars 11. The adjusting blocks 31 are of suitable length for swinging upwardly at the outer edges of the clamping bars 11 as shown in Figure 7 of the drawings and held in raised position by the bolts and wing nuts 33 whereby the locking arms 22 of the locking bar 20 will be swingable against the block 31 when the clamping bars 11 are moved into their closed position, the adjusting block 31 thus increasing the width of the clamping bars 11 to reduce the width of the opening between the clamping bars at their upper portions when locked by the arm 22 of the locking bar 20.

In the operation of the device the stanchion frame 5 may be suitably secured in a position at one end of a chute 34, or in an opening in a barn or other structure and any position whereby the head of an animal may be inserted between the clamping bars 11. The springs 14 normally hold the upper end of the clamping bars in an open position as shown by the full lines in Figure 1 of the drawings and an upward pulling force on rope or cable 18 will raise links 15 and pull the upper ends of the clamping bars toward each other for clamping against the opposite sides of the neck of the animal.

After the bars 11 have been closed the locking arm 22 of the locking arm 20 will be swung upwardly by spring 25, after being freed by the inward movement of the clamping bars 11 so that the arm 22 will swing behind the clamping arms 11 as shown by the dotted lines in Figure 1 to thus lock the bars 11 in their closed position.

To release the animal the rope or cable 27 is pulled upwardly which rocks the locking bar 20 in its bearing 21 and releases the arm 22 from behind the bars 11 whereby the spring 14 will then open the clamping bars.

Guards 35 are secured to the sides 6 of the frame to prevent animals catching their feet between the bars 11 and the frame.

In view of the foregoing description taken in conjunction with the accompanying drawings it is believed that a clear understanding of the device will be quite apparent to those skilled in this art. A more detailed description is accordingly deemed unnecessary.

It is to be understood, however, that even though there is herein shown and described a preferred embodiment of the invention, the same is susceptible to certain changes fully comprehended by the spirit of the invention as herein described and the scope of the appended claims.

Having described the invention, what is claimed as new is:

1. In a cattle stanchion having a pair of vertical stanchion bars pivoted at their lower ends to a supporting structure for swinging movement toward and away from each other into an open or closed position, a single rockable locking member movable into a position behind both bars to hold the same in closed position, said locking member comprising a substantially U-shaped bar having locking arms at each end swingable into a locking position behind the bars.

2. In a cattle stanchion having a pair of vertical stanchion bars pivoted at their lower ends to a supporting structure for swinging movement toward and away from each other into an open or closed position, a single rockable locking member movable into a position behind both bars to hold the same in closed position, said locking member comprising a substantially U-shaped bar having locking arms at each end swingable into a locking position behind the bars, spring means moving the bar into its locking position and a rope attached to said bar for releasing the same.

3. A cattle stanchion comprising a frame, a pair of vertical stanchion bars having lower ends pivotally and slidably connected to a part of the frame for movement of the bars toward and away from each other into an open or closed position, spring means connecting the bars to the frame for holding the bars in open position, a pull rope connected to the bars for closing the same, spring actuated locking means for the bars and carried by the frame for automatically locking the bars in a closed position, means connected to the locking means for releasing the same, and width adjusting means carried by the bars and movable into and out of position for engagement by the locking means for regulating the size of the opening formed by the bars when in closed position.

4. A cattle stanchion comprising a frame, a pair of vertical stanchion bars having lower ends pivotally and slidably connected to a part of the frame for movement of the bars toward and away from each other into an open or closed position, spring means connecting the bars to the frame for holding the bars in open position, a pull rope connected to the bars for closing the same, spring actuated locking means for the bars and carried by the frame for automatically locking the bars in a closed position, means connected to the locking means for releasing the same, and upper and lower adjusting means for regulating the size of the opening formed by the bars when in closed position, said upper adjusting means comprising pivoted blocks carried by the bars and swingable into and out of position for engagement by the locking means and said lower adjusting means comprising pivoted dogs carried by the frame and engaging the bars to slide the lower ends thereof inwardly.

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