No. 847,806. PATENTED MAR. 19, 1907.

J. H. McGUIRE.

STANCHION.

APPLICATION FILED SEPT. 18, 1906.

2 SHEETS—SHEET 1.

Fig. 1.

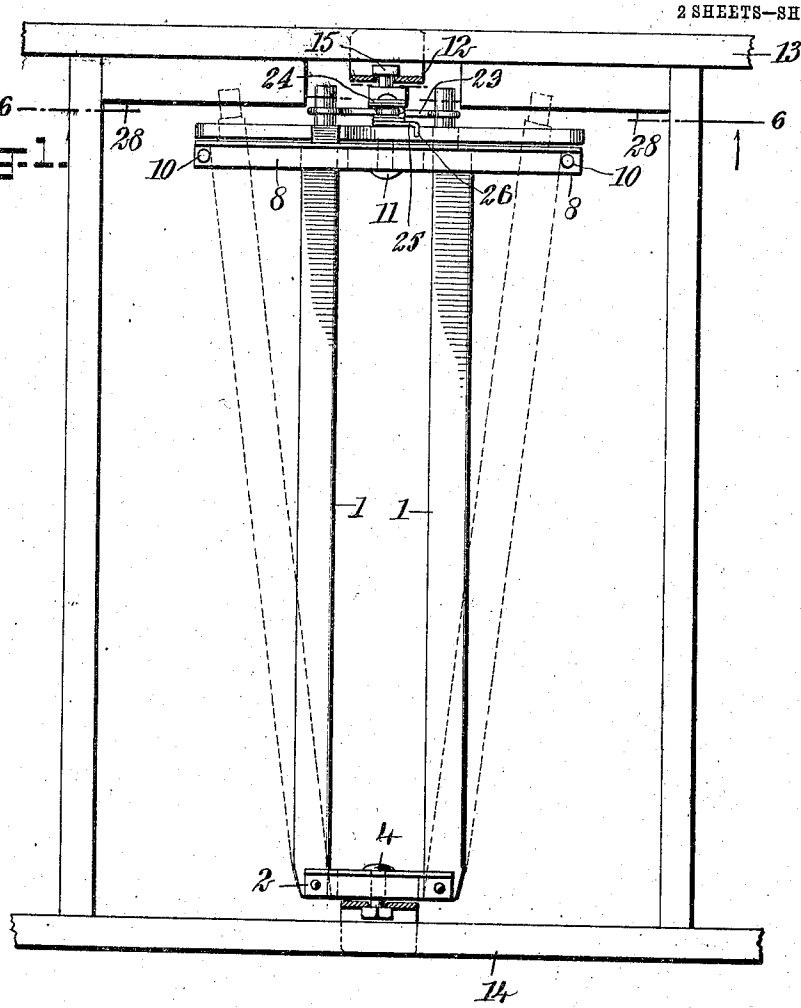


Fig. 2.

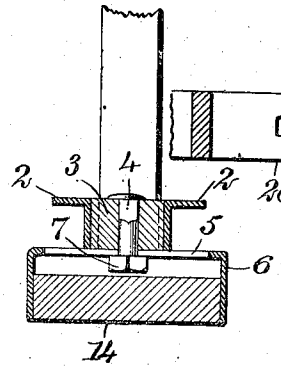
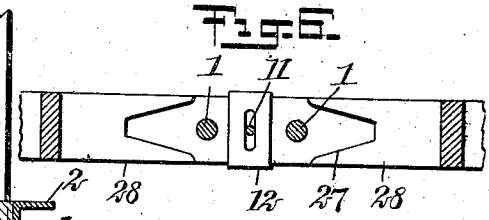


Fig. 6.



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2 SHEETS—SHEET 2.

Fig. 3.

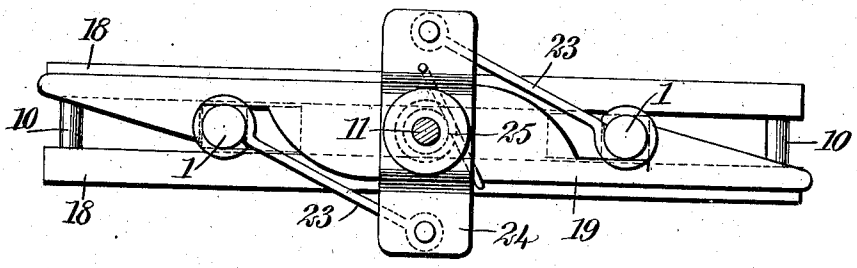


Fig. 4.

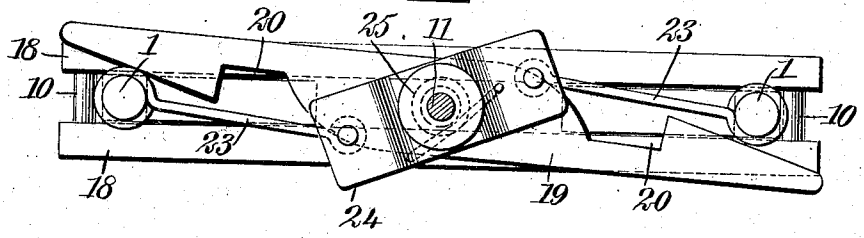
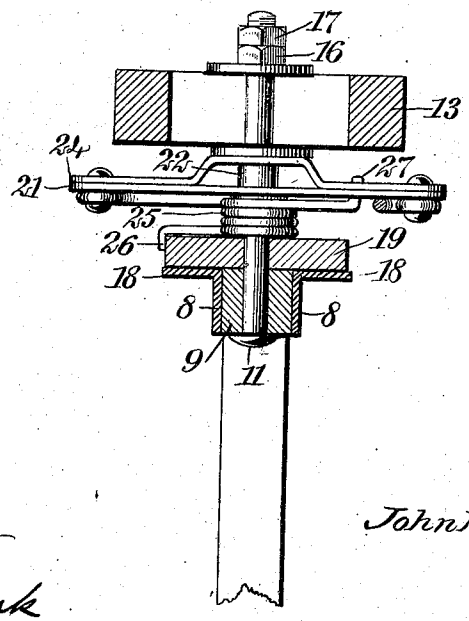


Fig. 5.



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UNITED STATES PATENT OFFICE.

JOHN HENRY McGUIRE, OF HEUVELTON, NEW YORK.

STANCHION.

No. 847,806. Specification of Letters Patent. Patented March 19, 1907.

Application filed September 18, 1906. Serial No. 335,072.

To all whom it may concern:

Be it known that I, JOHN HENRY McGUIRE, a citizen of the United States, and a resident of Heuvelton, in the county of St. Lawrence and State of New York, have invented a new and Improved Stanchion, of which the following is a full, clear, and exact description.

This invention relates to certain improvements in stanchions for cattle; and the object thereof is to provide a stanchion which may be moved backward or forward or rotated upon a pivot by the animal secured therein.

A further object of the invention is to provide certain improvements in the means for holding the bars of the stanchion in an open or closed position and prevent them from being turned on the pivot when in the open position.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures, in which—

Figure 1 is a front elevation of my improved stanchion. Fig. 2 is a detail showing the preferred method of securing the lower end thereof in place. Fig. 3 is a plan view of the stanchion when in the closed position. Fig. 4 is a view similar to Fig. 3, but showing the stanchion in the open position. Fig. 5 is a central vertical section through the parts as shown in Fig. 3, and Fig. 6 is an inverted plan view of one of the overhead pivoted blocks or plates and on the line 6 6 of Fig. 1.

My improved stanchion comprises two substantially vertical bars 1, pivoted at the lower ends thereof between two cross members 2, which latter are rigidly secured to the opposite sides of a central block 3. This block has a vertical pivot-bolt 4 extending downwardly therethrough and through a slot 5 in a metal bar 6, secured to the floor or in any other suitable manner to a stationary part below the stanchion. The bolt 4 is provided with a nut 7 below the slot 5, so that the block 3, carrying the lower ends of the two substantially vertical bars 1, may move forward and backward through the slot to accommodate the stanchion to certain movements of the animal held between the substantially vertical bars 1. Various other means within the scope of the appended claims may be employed for pivotally securing the lower ends and at the same time permitting the ends to be moved forward and backward, although the form illustrated in the drawings is the best form known to myself at present.

The upper ends of the bars extend between two metal plates 8, which latter are spaced apart a distance equal to the thickness of the bar by means of a centrally-located block 9 and by spacing-pins 10 at the outer ends of the plates. A pivot-bolt 11 extends through the central spacing-block 9 and up through a slot in a plate 12, similar to the bottom plate 6. The plate 12 is preferably secured to an overhead support 13 in the same manner as the plate 6 is secured to the floor or lower support 14, and the nut 15 on the bolt may move backward and forward through the slot in the plate. In Fig. 5 I have shown a slightly-modified form of construction, in which the pivot-bolt 11 extends through a slot in the overhead support 13 and is provided with washers above and below said support and a nut 16 and locking-nut 17 above the upper washer, whereby the bolt may freely rotate and at the same time may be moved backward and forward through the slot.

The plates 8 are provided at their upper edges with horizontal flanges 18, which form a support for the locking-bar 19. This locking-bar 19 is pivoted on the bolt 11, and its ends are provided with notches 20, adapted to engage the bars 1 adjacent their upper ends and hold the bars at a definite distance apart. The end portions of the locking-bar 19, which extend beyond these notches, are tapered, as clearly indicated in Figs. 3 and 4, so that as the two bars 1 1 are brought together the locking-bar is pushed aside until the ends of the bars drop into the notches 20.

For causing the two bars 1 1 to move simultaneously and to force the locking-bar 19 into engagement therewith when they are brought a sufficient distance together, I provide a plate 21, pivoted on the bolt 11 or upon a loose collar 22, mounted on said bolt, and the ends of this plate 21 are pivotally connected to connecting-links 23, having loops at their outer ends which inclose the vertical bars 1. As one of the vertical bars is forced toward the center the link 23 causes the rotation of the plate 21, and this rotation draws on the opposite link 23 and

results in a similar movement of the other bar 1, so that whichever one of the two vertical bars is moved in any direction a similar movement is given to the opposite bar. For preventing the plate 21 from twisting sidewise or becoming distorted by one end rising and the other end lowering, I provide a reinforced bracing-plate 24 of substantially the same shape as the plate 21 and bolted at the ends by means of the rivets to which the links 23 are pivoted but the central portion of the plate 24 is bowed upward and pivoted on the pivot-bolt 11 or the collar 22 at a point somewhat above the point at which the plate 21 is pivoted. This bulged portion preferably supports the lower washer when the form disclosed in Fig. 5 is employed. The plate 21 rests upon the upper end of a coil-spring 25, which latter rests upon the locking-bar 19. One end 26 of the spring-coil engages with the locking bar 19, and the other end 27 engages with the plates 21 and 24. This spring tends to rotate the locking-bar 19 in respect to the plate 24, so that said bar is always forced into engagement with the upper ends of the bars 1, and the plates 21 and 24 are normally rotated to the position shown in Fig. 4, so that as soon as the locking-bar 19 is moved aside the bars 1 automatically separate to permit the animal to remove its head from between the bars; but as soon as the bars are forced together after the animal has inserted its head between the bars the spring forces the locking-bar into such engagement with the vertical bars that the notches 20 engage with the latter and hold them rigidly secured together.

As both the upper and the lower ends of the stanchion are pivoted to the stationary supports, it is of course evident that the animal may turn the stanchion at will, and thus freely move its head and shoulders. At the same time the stanchion may be moved backward and forward to permit the greatest freedom when the animal desires to lie down.

The overhead support 13 is preferably provided with blocks or plates 28 at each side of the support for the pivot-pin, and each of these blocks or plates is provided with a divergent slot 29, as shown in Fig. 6, into which the upper ends of the bars 1 may move when they are separated. As the inner ends of the blocks or plates 28 are farther apart than the upper ends of the bars 1 when the latter are in the closed position, the stanchion may be freely rotated upon the pivot-pin 11; but when the stanchion is opened the upper ends of the bars 1 slide back within the grooves or slots in the plates or blocks 28 and the stanchion cannot then be rotated. Thus the stanchion when open is always in such a position that the animal may freely insert its head between the bars, and it is impossible for the stanchion to become accidentally rotated to a point where the animal cannot insert its head.

When the animal is once secured with its head between the vertical bars, no action on its part can possibly open the bars and allow it to escape; but when it is desired to open the bars all that is necessary is to move the locking-bar 19 a slight distance to one side, so that the notches 20 are freed from the ends of the vertical bars 1, and the action of the spring then forces them apart into the open position.

Preferably the pivot-bolt which passes through the lower end of each upright is located at one side of the central line of the upright and a portion of each upright at its upper end where it is engaged by the locking-bar is cut away, as indicated in the drawing. By this means the entire stanchion may be adjusted to three different sizes to accommodate different-sized animals without adding to or taking from the original stanchion. The smaller size is made by having the larger side of each of the upright parallel bars turned inward or toward the animal's neck. The next larger size is made by removing the bolt at the bottom of one of the parallel upright bars and taking said bar out and replacing said bar with the opposite side toward the inside or animal's neck. The largest size is made by removing the bolt at the bottom of both upright parallel bars and taking both bars out and turning the outer side of each bar inward or toward the animal's neck.

It is evident that the stanchion shown in the drawings involves only one embodiment of my invention and that various changes may be made without departing from the spirit of the same.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A stanchion, comprising two substantially vertical bars, the upper ends of said bars being movable in the plane of the bars, means for supporting the lower ends thereof, guides between which the upper ends of said bars are moved, a locking-bar pivoted adjacent the guides and having notches in its opposite sides adapted to engage with the upper ends of the bars when the latter are in their closed position, and means whereby movement of one bar causes a simultaneous movement of the other.

2. A stanchion, comprising an upper support, a lower support, a member slidably secured to the lower support, stanchion-bars pivoted thereto, a member laterally movable in respect to the upper support, means connecting the upper ends of said stanchion-bars to said last-mentioned member, and oppositely-disposed members adapted to receive the upper ends of said bars and prevent lat-

eral movement thereof when said bars are in their open position, each of said members having a V-shaped recess within which said bars operate and whereby the stanchions may be rotated as the bars are moved to their open position.

3. A stanchion, comprising two substantially vertical stanchion-bars, means for supporting the lower ends thereof, guides inclosing the upper ends, a pivot-pin supporting said guides, a locking-bar mounted on said guides and having notches on its opposite sides and adapted to engage with the upper ends of the stanchion-bars, and means for normally pressing said bars apart and forcing the locking-bar into engagement therewith.

4. A stanchion, comprising two stanchion-bars, means for supporting the lower ends thereof, guides inclosing the upper ends of said bars, a locking-bar pivotally mounted on said guides, a plate pivotally mounted upon said locking-bar, means connecting the opposite ends of the plate to the ends of the bar, and a spring in operative engagement with the plate and the bar and adapted to cause their relative rotation, so as to force the stanchion-bars apart and force the locking-bar into engagement therewith.

5. A stanchion, comprising a support having a slot therein, a pivot-pin mounted in said slot, whereby the pin may be moved in a lateral direction, guides mounted on the lower end of said pivot-pin, two stanchion-bars, each having one end thereof inclosed between said guides, means for supporting the opposite ends of said bars, a locking-bar pivotally mounted upon said pivot-pin and having notches in its opposite sides adapted to engage with the upper ends of the bars, a plate mounted on the pivot-pin, means connecting the ends thereof with the ends of the bars, and resilient means in engagement with the plate and locking-bar tending to force the upper ends of the bars apart and force the locking-bar into engagement therewith to prevent outward movement when in their closed position.

6. A stanchion, comprising two stanchion-bars having their upper ends movable in the plane of the bars, means for supporting the lower ends thereof, guides between which the upper ends of said bars are moved, a locking-bar pivoted upon the guides and having tapered ends and notches in its opposite sides adjacent said tapered portions, the tapered portions of said locking-bar adapted to engage with the ends of said bars to force them apart, and the notches of said locking-bar adapted to engage with said bars to hold them in their closed position, and means whereby the movement of one stanchion-bar causes a simultaneous movement of the other stanchion-bar.

7. A stanchion, comprising two stanchion-bars having their upper ends movable in the plane of the bars, means for supporting the lower ends thereof, guides between which the upper ends of said bars are moved, a locking-bar pivoted upon the guides and having tapered ends and notches in its opposite sides adjacent said tapered portions, the tapered portions of said locking-bar adapted to engage with the ends of said bars to force them apart, and the notches of said locking-bar adapted to engage with said bars to hold them in their closed position, means whereby the movement of one stanchion-bar causes a simultaneous movement of the other stanchion-bar, and resilient means tending to force said bars apart and force the locking-bar into engagement therewith.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN HENRY McGUIRE.

Witnesses:

WILLIAM M. STEPHENS,

FRED J. GRAY.