No. 696,929. Patented Apr. 8, 1902.

G. C. BIRMINGHAM.

CALF WEANER.

(Application filed Nov. 6, 1901.)

(No Model.)

Fig. 1.

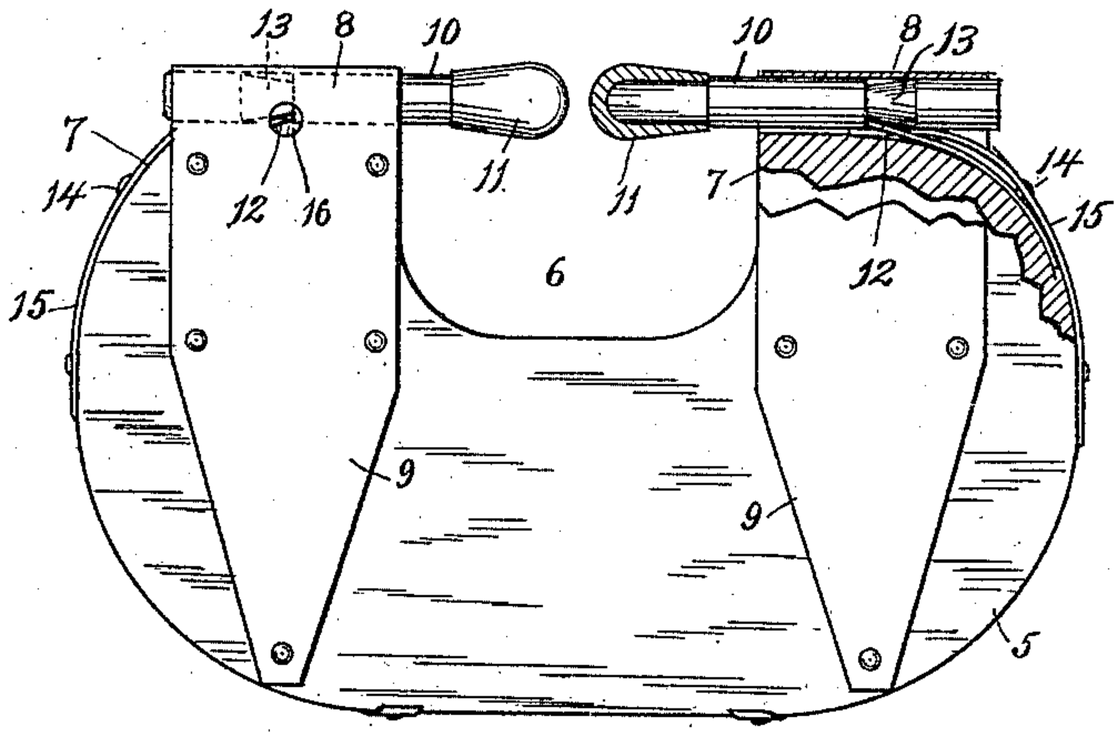


Fig. 2.

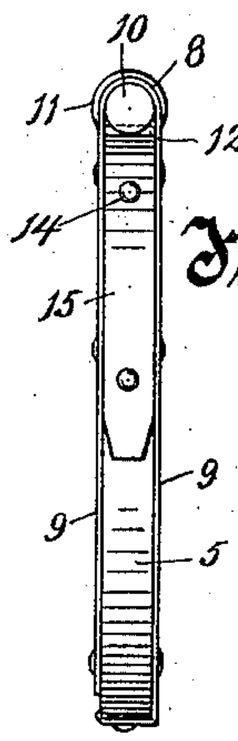


Fig. 3.

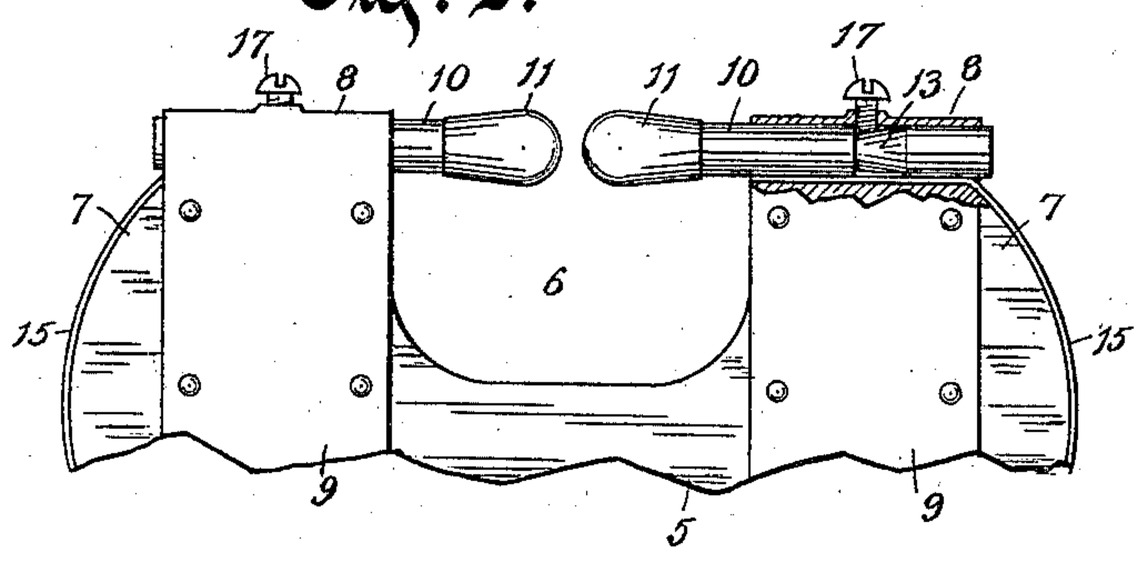
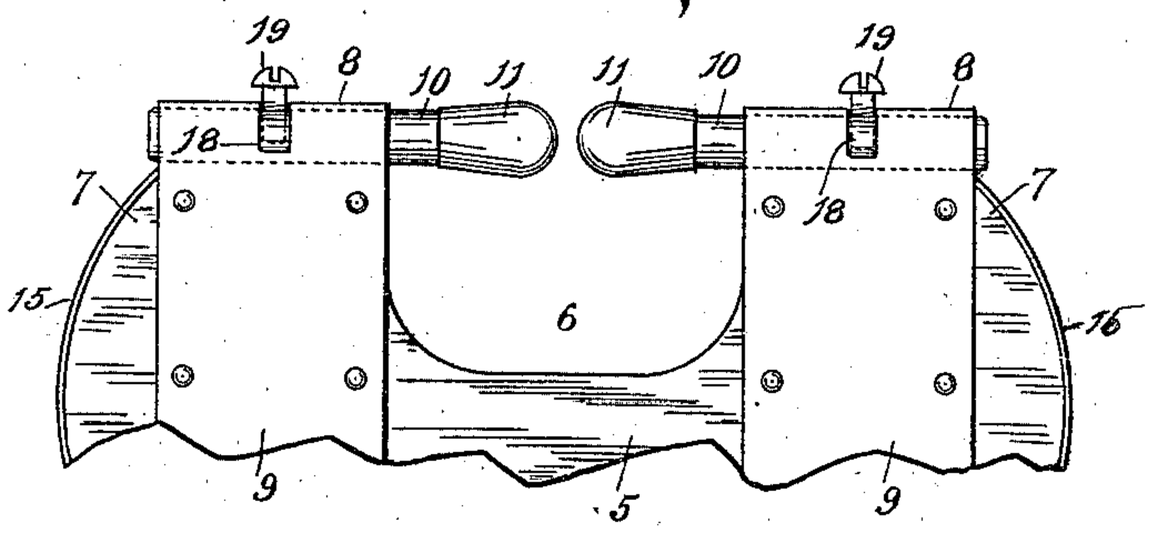


Fig. 4.



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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

GRANT C. BIRMINGHAM, OF MILWAUKEE, WISCONSIN.

CALF-WEANER.

SPECIFICATION forming part of Letters Patent No. 696,929, dated April 8, 1902.

Application filed November 6, 1901. Serial No. 81,292. (No model.)

To all whom it may concern:

Be it known that I, GRANT C. BIRMINGHAM, residing at Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented a new and useful Improvement in Calf-Weaners, of which the following is a description, reference being had to the accompanying drawings, which are a part of this specification.

My invention has relation to improvements in calf-weaners.

The object of the device is to provide a simple form of construction which shall permit of the fingers which are passed into the nostrils of the calf and against opposite sides of the septum of the nose being slid inwardly toward each other in order to readily engage opposite sides of the septum and being securely held in such inwardly-adjusted position and also provision for readily sliding the said fingers outwardly in order to disengage the same.

A further object contemplated is the provision of means whereby the fingers are permitted to turn in their bearings to thereby decrease to the minimum friction on the nose and its inner dividing septum or wall.

With the above primary and other incidental objects in view the invention consists of the devices and parts or their equivalents, as hereinafter set forth.

In the accompanying drawings, Figure 1 is a side elevation of one form of my invention, showing a portion broken away. Fig. 2 is an end edge elevation. Fig. 3 is a side elevation of a modified form of construction, a fragment only of the shield being shown; and Fig. 4 is a side elevation of another modified form of construction, also showing only a fragment of the shield.

Referring to the drawings, the numeral 5 indicates the shield, which is adapted to be suspended across the mouth of the calf and which is preferably of wood; but any other desirable light material may be employed. This shield is made sufficiently long as to absolutely preclude the possibility of the calf working the shield longitudinally and getting its mouth beyond one end edge of the shield, and thereby defeating the very object of the device. The upper edge of the shield, medially thereof, is provided with a downwardly-extending recess 6, which forms two upwardly-extending projections 7 7. Upon the upper edges of these projections are provided bearings 8 8, which may be formed in any desirable manner. In the drawings I show these bearings as formed by metallic straps 9 9, looped medially and extending down and secured to opposite sides of the shield, the medial loop of each being above the upper edge of the projection 7, so as to form the bearing 8. As stated, however, these bearings may be formed in any other desirable manner without departing from the spirit and scope of my invention.

The nose-engaging fingers are indicated by the numerals 10 10 and are fitted in the bearings 8 and are sufficiently loose therein so as to provide for being longitudinally and rotatably movable in said bearings. The inner ends of these fingers are advisably rubber-tipped, as indicated by the numerals 11 11, so as to afford yielding bearing-surfaces against opposite sides of the septum of the nose. In the Figs. 1 and 2 form of construction I show for the purpose of holding these fingers in their inwardly-adjusted position spring strips or dogs 12 12, which may be of any desirable form and secured in any desirable manner, so as to engage against the inner shoulders formed by annular recesses 13 13, which are cut in the fingers intermediate of the ends of said fingers. These spring strips or dogs are shown as being in the form of spring-strips, which are let into recesses in the end edges of the shield and which are held in place by means of a pin 14, passing through an outer metallic strip 15 and through the spring, the inner end of each spring being free to engage the recess of the finger. In order to disengage the spring-dogs from the annular recesses of the fingers, I provide an opening 16 through each strap 9, and which opening permits a nail or other small implement to pass therethrough and to engage above the spring. When so engaging, by exerting a downward force on the implement the free end of the spring-dog is depressed, and consequently released from the annular recess of the finger, when of course the said finger is free to be pulled outwardly.

When it is desired to adjust the device to the nose of the calf, both fingers 10 10 are first

adjusted outwardly. The device is then placed over the mouth of the calf and in such position that when the fingers are pressed inwardly they will enter the nostrils of the calf and engage opposite sides of the septum of the nose. When thus positioned, the fingers 10 can be instantly pressed inwardly to engage the nose, as described, and are held in such engagement by the automatic locking of the spring-dogs 12 with the annular recesses 13 of said fingers. When it is desired to disengage the device from the nose of the calf, all that is necessary to be done is to pass nails or other small implements into the openings 16 and press the springs or dogs downwardly, when of course the fingers can be drawn outwardly. The fingers 10 could be of any desirable form in cross-section so long as they are permitted to have a longitudinal movement in their bearings. Inasmuch, however, as they fit loosely in the bearings I prefer that they be circular in cross-section, so as to be capable of rotating in the bearings, and thereby, when the device is engaging the calf's nose, reduce friction to the minimum.

The form of construction illustrated in Fig. 3 is similar to the Figs. 1 and 2 form of construction, excepting that the spring-dogs 12 are omitted altogether and set-screws 17 17 employed in lieu thereof, said set-crews engaging threaded openings in the bearings and turned downwardly in the openings, when the fingers are adjusted inwardly to engaging position to such an extent as to enter the annular recesses 13 of the fingers. Of course in this form of construction when it is desired to withdraw the fingers it is necessary to turn the screws outwardly to such an extent as to free their lower ends from engagement with the annular recesses.

In the Fig. 4 form of construction the bearings 8 are provided transversely thereof with elongated slots 18 18, and the nose-engaging fingers instead of having annular recesses 13 are provided with threaded sockets which the lower ends of set-screws 19 engage, said set-screws extending upwardly between the side edges of the slots 18. In the use of this form of construction the set-screws are removed and the fingers 10 forced inwardly to properly engage the nose of the calf or other animal to be weaned. The threaded sockets are so located on the fingers 10 that when the fingers are adjusted inwardly the said sockets will lie between the side edges of the slots 18. The set-screws 19 are now turned into the sockets, and hence while it is impossible for the fingers to work longitudinally in the bearings, yet said fingers are capable of a rocking movement in said bearings in order to relieve friction. When it is desired to remove the fingers 10 from engaging position, it is necessary to turn out the screws 19 in order to permit said fingers to be forced outwardly.

While I prefer that the nose-engaging fingers shall be adjustable longitudinally in bearings therefor, as this is the more desirable construction, yet I do not wish to be understood as restricting myself thereto, inasmuch as said fingers could be arranged along the upper edges of the projections 7 and held in adjusted position thereto by any means—as, for instance, a set-screw or equivalent device. I furthermore do not wish to be understood as restricting myself to both fingers being adjustable, inasmuch as only one of said fingers might be made movable longitudinally and the other non-adjustable and successful results obtained.

What I claim as my invention is—

1. In a calf-weaner, the combination of a guard or shield having upwardly-extending projections with a space therebetween, nose-engaging fingers along the upper edges of the projections, and having their inner ends adapted to extend into the space between the projections, one of said fingers provided with a circumferential recess, a bearing at the upper edge of one of the projections into which bearing the recessed finger is adapted to lie, a spring-dog adapted to extend into the bearing for said finger to contact with the inner wall of the recess of the finger when said finger is in position within its bearing, and an opening into said bearing through which said spring-dog may be released to permit the removal of said finger from said bearing.

2. In a calf-weaner, the combination of a guard or shield having upwardly-extending projections with a space therebetween, nose-engaging fingers along the upper edges of the projections having their inner ends adapted to extend within the space between the projections, one of said fingers provided with a circumferential recess, a bearing at the upper edge of one of the projections, in which the recessed finger is adapted to lie, a spring-dog extending into the bearing for said finger and adapted to engage a wall of the recess of the finger when the finger is in its inward position and an opening into said bearing through which a suitable implement may be inserted to move said dog from engagement with said wall to permit the removal of said finger from its bearing.

3. In a calf-weaner, the combination with a guard or shield having upwardly-extending projections with a space therebetween, of nose-engaging fingers arranged along the upper edges of said projections so as to extend into the space between said projections, a bearing member secured to one of said projections for loosely encircling one of said fingers, a circumferential recess in said encircled finger and a stop member adapted when said finger is in operative position to lie in said recess to prevent outward movement of said finger without preventing the same from rotating within its bearing.

4. In a calf-weaner, the combination of a guard or shield having upwardly-extending projections with a space therebetween, bearing members secured to the upper edges of the projections, nose-engaging fingers loosely

mounted in the bearing members, a slot in each bearing member extending a distance around the same and removable means secured to each finger and adapted to extend through said slot to prevent longitudinal movement of said fingers without preventing the same from rocking in their bearings.

5. In a calf-weaner, the combination of a guard or shield having upwardly-extending projections with a space therebetween, bearing members secured to the upper edges of the projections, a nose-engaging finger provided with a circumferentially-extending recess loosely mounted in each bearing and means extending into said recess for preventing longitudinal movement of said finger, without preventing the same from rotating in its bearing.

In testimony whereof I affix my signature in presence of two witnesses.

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