March 5, 1957 R. L. HAGGARD 2,783,740

CALF WEANER

Filed Jan. 12, 1956

Fig. 1.

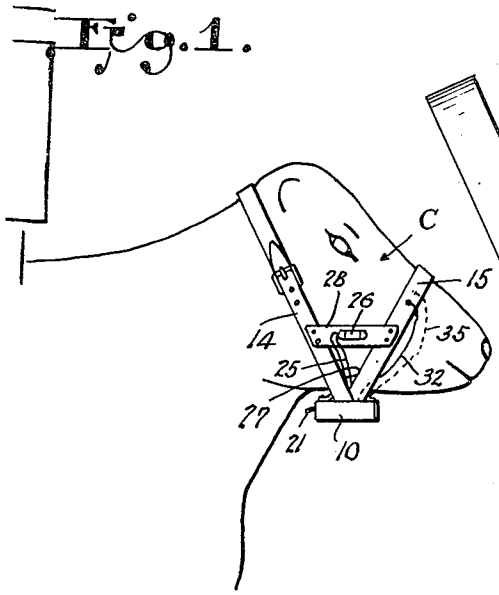


Fig. 3.

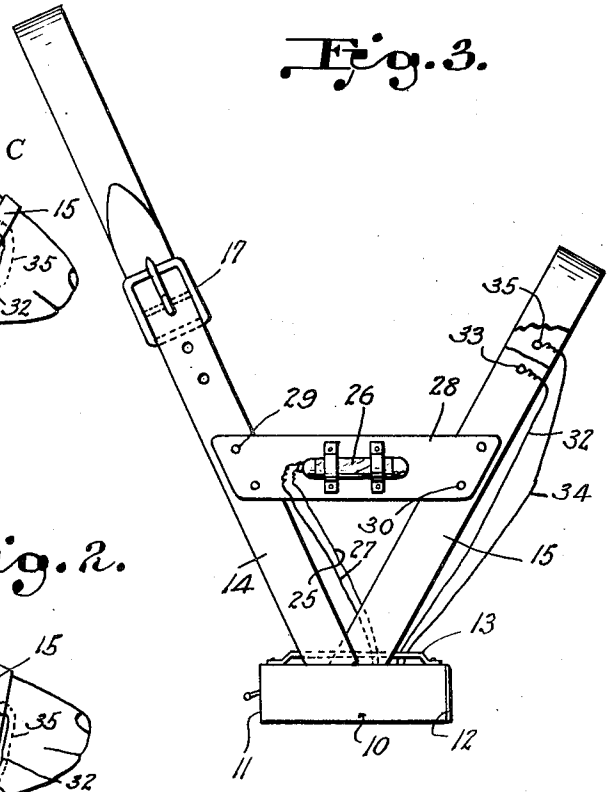


Fig. 2.

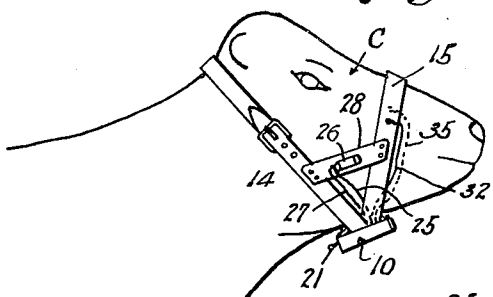


Fig. 4.

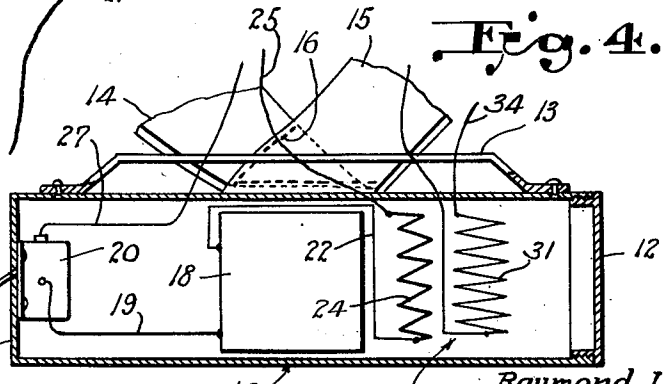
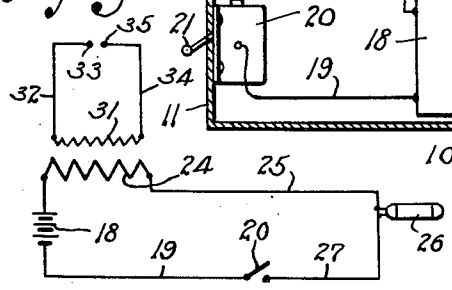


Fig. 5.



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CALF WEANER

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1 Claim. (Cl. 119—130)

This invention relates to calf weaners.

An object of this invention is to provide an electrically operated means for mounting on the head of the calf to discourage the calf in feeding from the mother cow.

Another object of the invention is to provide an improved electrically operated calf weaner which can be readily mounted on the head of a calf and will not injure the calf.

A further object of this invention is to provide a calf weaner which is of simple construction so that it will not readily get out of order.

With the foregoing and other objects in view which will appear as the description proceeds, the invention consists of certain novel details of construction and combinations of parts, hereinafter more fully described and pointed out in the claim, it being understood that changes may be made in the construction and arrangement of parts without departing from the spirit of the invention as claimed.

Referring to the drawing:

Figure 1 is a detail side elevation of a calf weaner constructed according to an embodiment of this invention showing the device mounted on the head of a calf with the device in inoperative position.

Fig. 2 is a view similar to Fig. 1, but showing the device in operative position.

Fig. 3 is a detail side elevation partly broken away on an enlarged scale showing the weaner removed from the animal.

Fig. 4 is a fragmentary vertical section showing the means for producing an electrical impulse when the head of the calf is tilted upwardly.

Fig. 5 is a diagrammatic view showing the electric circuit embodied in this invention.

Referring to the drawing, the reference character C designates the head of a calf. In order to provide a means whereby the calf will be discouraged from feeding from the mother cow, I have provided an electrical impulse means which includes a housing **10** having end walls **11** and **12**. The housing **10** has secured to the upper side thereof an elongated suspension strap **13** and a pair of housing supporting straps **14** and **15** which are threaded through the spaces defined by the strap **13**. These straps **14** and **15** are preferably formed of leather and are stretched together in upwardly converging relation by stitching **16**. Strap **14** which is formed with a buckle **17** is adapted to engage over the back of the head of a calf C, as shown in Figs. 1 and 2. The strap **15** is substantially shorter than strap **14** and is adapted to engage over the nose portion of the calf, as shown in Figs. 1 and 2. A battery **18** is mounted in the housing **10** and one side of the battery **18** is connected by means of a conductor **19** to one side of a manually operated switch **20**. The switch **20** is secured to the inner side of end wall **11** and a switch operating lever **21** extends through wall **11**. The other side of battery **18** is connected by means of a conductor **22** to one end of a step-up transformer generally indicated at **23**. The transformer **23** includes a primary coil **24** which is connected with conductor **22**. The other end of primary **24** is connected by means of a conductor **25** to a mercury switch **26**. A conductor **27** is connected between mercury switch **26** and the other side of switch **20**.

Switch **26** is supported between the straps **14** and **15** on a connecting strap **28** secured by fastening means **29** and **30** to the straps **14** and **15** respectively. The transformer **23** includes a secondary coil **31** and one end of coil **31** has a conductor **32** connected therewith extending upwardly to a contact member **33** carried by the forward strap **15** adjacent the upper portion of the latter. A second wire or conductor **34** is connected to the opposite end of secondary coil **31** and is extended upwardly and connected to a contact **35** carried by the strap **15** on the side of the head of the animal opposite from contact **33**.

In the use and operation of this weaner the device is mounted on the head of the calf, as shown in Figs. 1 and 2. When it is desired to effect operation of the device switch **20** is moved to a circuit closing position thereby to energize step-up transformer **23**, when the head of the calf is tilted forwardly. When the head is inclined downwardly or in substantially the position shown in Fig. 1 with mercury switch **26** horizontal the circuit to the transformer **23** will be broken. When the animal raises its head upwardly as shown in Fig. 2, mercury switch **26** will be closed, thereby energizing transformer **23**. The animal will then receive an electrical impulse of sufficient intensity to cause the animal to move its head and when the head is again downwardly inclined or in a position with the mercury switch **26** horizontal, the electric circuit to the transformer will be broken. This device will operate inwardly when the calf rocks its head up and down and will have a tendency to cause the calf to lower its head and to stay away from the cow when it desires to feed.

What is claimed is:

An electric calf weaner comprising a housing, a strap fixed to said housing adjacent the ends of the latter, the intermediate portion of said strap being offset from said housing, a halter formed of a pair of upwardly divergent straps engageable about the head of the calf, the convergent lower portions of said pair of straps being threaded between said first named strap and said housing, a horizontal strap secured between said pair of straps upwardly from the lower portions thereof, a step-up transformer formed of a primary and a secondary disposed in said housing, a current source in said housing, an electrical circuit connected to said source and said primary, a manual switch in said circuit, a mercury switch in said circuit, means securing said mercury switch to said horizontal strap whereby said mercury switch will be in normal circuit breaking position when the head of the calf is downwardly inclined, upward inclination of the head disposing said switch in circuit closing position, a pair of contacts fixed to said halter in a position to contact with the head of the calf, and a pair of conductors connected between said contacts and the ends of said secondary.

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