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LIVESTOCK WOMB REPLACING TOOL

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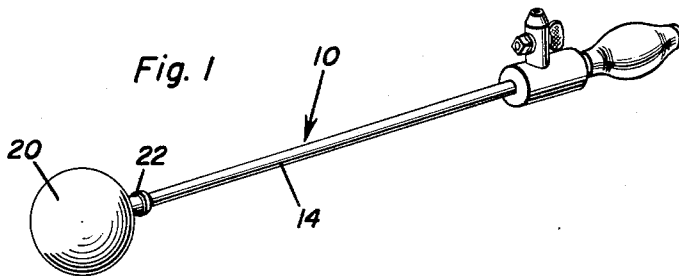


Fig. 2

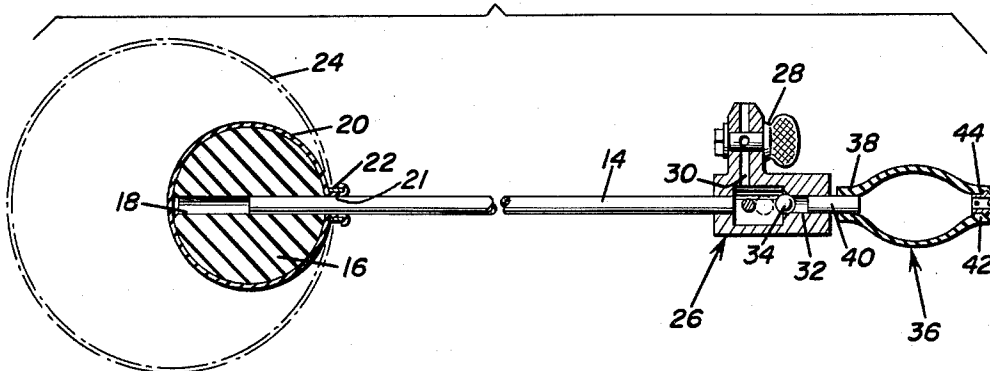
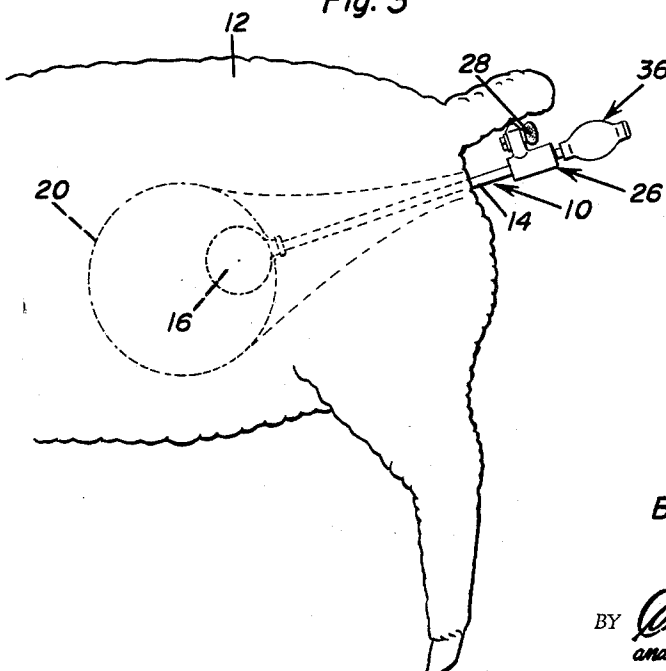


Fig. 3



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LIVESTOCK WOMB REPLACING TOOL

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5 Claims. (Cl. 128—303)

This invention relates to a novel and useful livestock tool and more particularly to a tool which is specifically adapted for replacing wombs which have been thrown from sheep and the like.

Although the tool of the instant invention has been specifically adapted for use with ewes which frequently throw their wombs while giving birth to offspring, it is to be understood that the tool may be constructed of varying dimensions and of different materials if it is desired to use the tool to assist in the replacement of wombs into other animals.

During the lambing season, a ewe will sometimes "throw" its womb while giving birth to offspring and a livestock owner must take care to insure that the ewe's womb is replaced before the lamb incurs injury which could prevent it from having additional offspring. Heretofore, the womb has been replaced by hand or with the assistance of a tool having an enlarged portion on one end of the handle which is adapted to be inserted into the womb after which the womb may then be replaced within the ewe by means of the handle. However, inasmuch as the womb has contracted a substantial amount as a result of the ewe having given birth to offspring, the womb has a tendency to fold or crease and it is extremely difficult to replace the womb within a ewe in a manner which will insure that the creases and folds will not cause complications and make it impossible for the ewe to give birth to additional offspring.

The tool of the instant invention is provided with a resilient insert in the form of an enlargement on one end of a handle which is adapted to be placed within a "thrown womb" prior to replacing the womb within the ewe. The resilient insert is surrounded by an expander which is not unlike a conventional rubber balloon and the handle on which the insert is secured is hollow having its interior in communication with the interior of the expander. The end of the handle remote from the insert and the expander is provided with a means for supplying compressed air to the interior of the handle so that the expander may be expanded after the womb has been replaced within the lamb. It is to be understood that the expander shall be capable of expanding the womb to any size which is necessary to remove any wrinkles or folds. The expander serves a dual function and, in addition to affording a means for expanding the womb after it has been replaced within the ewe, it provides a means for facilitating the removal of the insert from within the womb, as will be hereinafter more fully set forth.

The main object of this invention is to provide a tool for replacing a "thrown womb" within a ewe whereby the womb will be positioned in substantially the correct position within the animal and will be free from any creases or folds which could possibly cause complications and render it impossible for the lamb to give birth to further offspring.

Another object of this invention is to provide a tool which will be simple to operate in the process of replacing a "thrown womb."

A final object to be specifically enumerated herein is to provide a tool which will be of simple construction and which will conform to the conventional forms of manufacture so as to provide a device that will be durable and economically feasible.

These together with other objects and advantages which will become subsequently apparent reside in the details

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

5 FIGURE 1 is a perspective view of the womb replacing tool showing the expander in a collapsed state;

FIGURE 2 is a longitudinal vertical sectional view on somewhat of an enlarged scale taken substantially along the longitudinal center line of the tool; and

10 FIGURE 3 is a side elevational view of the tool with the expander, the insert and a portion of the handle being shown in dotted lines and inserted within a ewe during the process of replacing the womb of the ewe.

Referring now more specifically to the drawings, the numeral 10 generally designates the livestock womb replacing tool comprising the present invention which is shown in FIGURE 3 of the drawings inserted within a ewe 12 to replace the womb (not shown) of the latter.

The tool 10 includes a handle 14 which is tubular and has a resilient insert 16 secured to one end thereof. The resilient insert is substantially spherical although slight variations of shape may be utilized and the insert 16 is provided with a diametrically extending bore 18 in which one end of the hollow handle 14 is secured.

20 A resilient expander 20 has a neck portion 21 secured about the insert 16 and to the handle 14 by means of a clamp 22. It will be noted therefore that the interior of the handle 14 is in communication with the space between the expander 20 and the insert 16 so that when increased air pressure is supplied to the interior of the handle 14 the expander 20 will be expanded as shown by the phantom lines 24 in FIGURE 2.

A valve mechanism generally referred to by the reference numeral 26 is secured to the end of the handle 14 remote from the insert 16 by any convenient means and is provided with a release valve 28 of any convenient construction for releasing the air pressure within the handle 14 and the expander 20.

40 The valve mechanism 26 is provided with an outlet opening 30 in which the adjacent end of the handle 14 is secured and an inlet opening 32 in which there is disposed a check valve element 34 for restricting the passage of air out of the inlet passage 32 and into the hand pump generally designated by the reference numeral 36. The hand pump 36 is provided with an outlet opening 38 which is in communication with the interior of the valve mechanism 26 by means of a connecting conduit 40. The hand pump 36 is also provided with an inlet opening 42 which is provided with a check valve element 44 for restricting the passage of air out of the inlet opening 42.

50 In operation, the resilient insert 16 and its surrounding expander 20 are first inserted within a "thrown womb" and then the womb is replaced within the ewe 12 in a manner illustrated in FIGURE 3 of the drawings. The valve 28 is closed and the hand pump 36 is operated to increase the air pressure within the handle 14 and between the resilient insert 16 and the resilient expander 20. When the expander 20 has been expanded to the desired size, a slight pull can be effected on the tool 10 to partially withdraw it from within the ewe 12 as the release valve 28 is opened slightly to slowly reduce the air pressure within the expander 20. Inasmuch as the womb (not shown) is expanded, it will resist withdrawal from within the lamb 12 and as the tool 10 is withdrawn from the ewe 12 the resilient expander 20 will yield under slight pressure to enable the insert 16 to be withdrawn from the womb while the expander is still in an expanded state because of the resilient expander 20. That is to say, the insert 16 is withdrawn from the womb first while the expander 20 is still in an expanded state whereupon the contraction of the expander 20 may then be effected

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and the tool 10 may be removed from the ewe 12 without effecting the removal of the ewe's womb.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

1. A livestock womb replacing tool for replacing thrown wombs, said tool comprising an elongated handle, an insert adapted to be received within a thrown womb, means fixedly securing said insert to one end of said handle, said insert being diametrically enlarged relative to said handle and having a smooth external surface throughout the entire extent thereof, an expander enclosing said insert for expanding the womb after the latter has been replaced within an animal, means connected to the other end of said handle for expanding and contracting said expander relative to said insert, said expander including means for snugly embracing said insert and for conforming to the smooth external surface of said insert when said expander is contracted to permit the insertion of said expander into said womb in an uncrinkled condition and adapted to conform to the internal shape of a womb when expanded.

2. The combination of claim 1 wherein said expander is resilient, means communicating said expanding means with the interior of said expander, said expander means including means for compressing air and for releasing air contained within said expander, said handle being hollow and comprising said communicating means, said compressing means comprising a hand pump having inlet and outlet openings, a one-way check valve disposed in said inlet opening restricting the passage of air outwardly of said inlet opening, valve means including a one-way check valve for restricting air passage through said out-

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let opening and into said pump disposed between the outlet opening of said pump and the other end of said handle, said valve means also including a release valve for releasing air pressure within said expander.

3. A livestock womb replacing tool for replacing thrown wombs, said tool comprising an elongated handle, a generally spherical insert adapted to be received within a thrown womb, means fixedly securing said insert to one end of said handle, said insert being diametrically enlarged relative to said one end of said handle, said insert having a bore formed therethrough, said handle including longitudinally extending passage means opening at one end through said one end of said handle and into one end of said bore, a generally spherical, flexible and resilient expander normally snugly embracing said insert and including an outwardly projecting neck portion through which said one end of said handle projects, means securing said neck portion about said handle in fluid tight sealing engagement therewith, and means carried by the other end of said handle and communicated with the other end of said passage means for inflating said expander and expanding all but the portions thereof immediately adjacent said neck portion outwardly away from said insert.

4. The combination of claim 3 wherein said inflating means comprises a hand air pump having an outlet communicated with said other end of said passage means.

5. The combination of claim 4 wherein said passage means comprises a longitudinal bore formed in said handle.

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