

W. E. NORDEN.
VETERINARY OBSTETRICAL INSTRUMENT.
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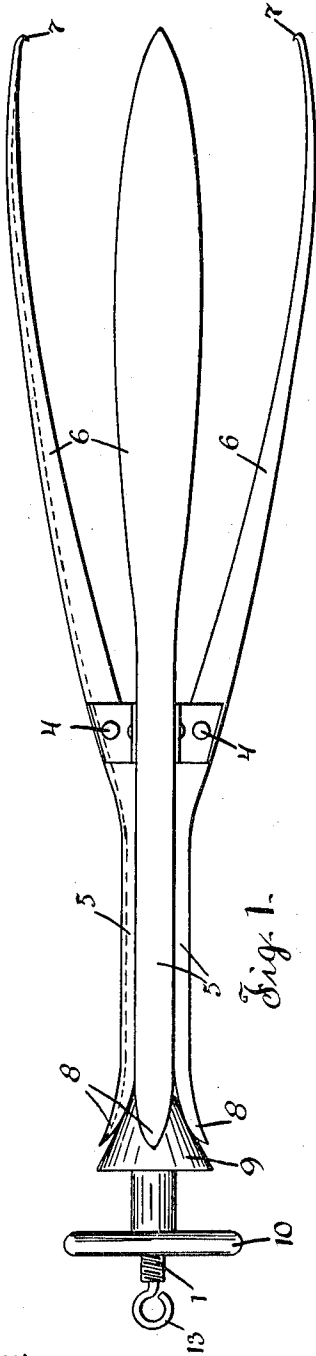


Fig. 1.

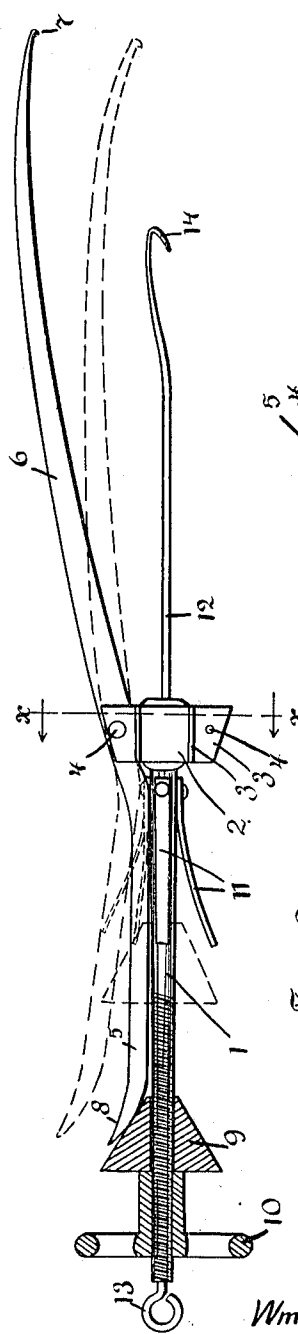


Fig. 2.

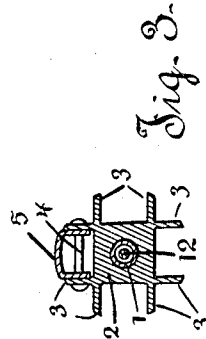


Fig. 3.

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UNITED STATES PATENT OFFICE.

WILLIAM E. NORDEN, OF SHELBY, IOWA.

VETERINARY OBSTETRICAL INSTRUMENT.

1,048,728.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, WILLIAM E. NORDEN, a citizen of the United States, and a resident of Shelby, in the county of Shelby and State of Iowa, have invented certain new and useful Improvements in Veterinary Obstetrical Instruments, of which the following is a specification.

My invention relates to veterinary obstetrical instruments, and it is the object thereof to provide an instrument of the forceps type, capable of use to distend the uterus and having jaws adapted to substantially inclose a fetus, enabling the same to be crushed if necessary to do so in order to remove it.

A construction embodying my invention is shown in the accompanying drawings, in which—

Figure 1 is a side view of the instrument, Fig. 2 is a partial longitudinal sectional view thereof, and Fig. 3 is a transverse sectional view taken on the plane of the line *x-x* of Fig. 2.

In carrying out my invention I provide a tubular rod 1 of which one end is threaded and the other carries a head 2 provided with pairs of outwardly extending lugs 3. Between each pair of the lugs 3 one of the jaw-members is pivotally mounted by means of a pin 4. There are, in the instrument shown, four of said jaw-members and each has a handle-portion 5 which extends back alongside the rod 1, and an outwardly curved jaw-portion 6 extending forwardly from the head 2. The jaw-members are preferably stamped from sheet metal of a suitable thickness and formed into a U-shaped section, as shown in Fig. 3, so as to secure the greatest strength with a minimum of weight. The ends of the jaw-portion are turned inwardly to form hooks 7. The rearward ends 8 of the handle-portions 5 are inclined outwardly, adapting the same to fit against the expander-cone 9 which is slidably mounted on the rod 1. Behind the expander-cone is a hand-wheel 10 which is screwed onto the threaded part of the rod 1 and may be employed to force the expander-cone forwardly to spread outward the handle-portions 5 and close the jaw-portions 6. Springs 11 are secured to the rod 1 near the head 2 and engage the inner sides of the handle-portions 5 to yieldably expand the same. Through the tubular rod 1 is extended a small rod or wire 12, made of comparatively flexible material such as spring steel,

the rearward end of the same being formed into a loop 13 and the front end being formed into a pointed hook 14.

In the use of the instrument for the removal of a fetus, the hand-wheel is first screwed back toward the end of the rod 1 so that the expander-cone may move back far enough to permit the opening of the jaws 6 by squeezing the handle-portions 5 with the hand. The jaws are then held closed merely by the outward pressure of the springs 11, so that as the instrument is inserted the jaws may be opened more or less by varying the pressure of the hand upon the portions 5, the operator, in effect, feeling his way during the introduction of the instrument. When the insertion of the instrument is completed the uterus may be distended by squeezing the handle-portions so as to open the jaws to the desired extent. The wire 12 may then be pushed in far enough to engage the hook 14 with the fetus so that the same may be pulled up into the space between the jaws. Then the jaws may be forcibly closed by screwing the hand-wheel forward and forcing the expander-cone up under the handle-portions 5 as indicated by dotted lines in Fig. 2. If necessary the jaws may be closed with a force sufficient to crush the fetus and reduce it to a size such that it can be easily removed. When it is unnecessary to crush the fetus in order to remove it, the instrument may be used in practically the same manner as ordinary forceps, the hooks 7 enabling any part of the fetus to be grasped and securely held.

Now, having described my invention, what I claim and desire to secure by Letters Patent is:

1. In an instrument of the class described, a head, jaw-members pivotally connected therewith, means connected with the head for forcibly closing the jaws, and a hook movable longitudinally within the space inclosed by the jaws, for the purpose described.

2. In an instrument of the class described, a rod, a head carried thereby, members pivotally connected with the head and having handle-portions extending alongside the rod and curved terminally-hooked jaw-portions extending beyond the head opposite the handle-portions; means for yieldably spreading the handle-portions to close the jaw-portions, and a part movable longitudinally of the rod for forcibly spreading the handle-portions.

3. In an instrument of the class described, a tubular rod, a head carried at one end thereof, members pivotally connected with the head, said members having handle-portions extending alongside the rod and jaw-portions extending beyond the head opposite the rod, an expander-cone movable longitudinally upon the rod to force the handle-portions outward, a threaded part screwed upon the rod and adapted to actuate the expander-cone, and a hooked member movable longitudinally through the tubular rod for the purpose described.

4. In an instrument of the class described, jaw-members having curved portions adapted to inclose a fetus, a head with which the jaw-members are pivotally connected, a rod connected with the head, screw-threaded adjusting means connected with the rod for forcibly closing the jaw-members, and a member movable longitudinally within the space inclosed by the jaws for pulling a fetus into said space.

5. In an instrument of the class described, a head, jaw-members pivotally connected with said head, said members having handle-portions extending adjacent to each other and jaw-portions at the ends opposite the handle-portions, the jaw-portions being openable by pressing the handle-portions toward each other, and means yieldably pressing the handle-portions outward to close the jaw-portions.

6. In an instrument of the class described, a tubular rod having a threaded end portion, a head carried at the opposite end of said rod, members pivotally connected

with the head, said members having handle-portions extending adjacent to the rod and jaw-portions extending beyond the head opposite the rod, springs for pressing the handle-portions yieldably outward to close the jaw-portions, an expander-cone slidably disposed on the rod, a hand-wheel screwed on the threaded portion of the rod and adapted to engage the expander-cone for moving the same, and a flexible rod extending slidably through the tubular rod and having a hook working within the space inclosed by the jaw-portions.

7. In an instrument of the class described, a head, jaw members connected to said head and movable relative thereto, means connected with the head for forcibly closing the jaws, and a hook movable longitudinally within the space inclosed by the jaws.

8. In an instrument of the class described, jaw members having curved portions adapted to inclose a fetus, a head with which the jaw members are movably connected, a rod connected with the head, screw threaded adjusting means connected with the rod for forcibly closing the jaw members, and a member movable longitudinally within the space inclosed by the jaws.

In testimony whereof I have hereunto subscribed my name in the presence of two witnesses.

WILLIAM E. NORDEN.

Witnesses:

J. H. LANGE,
JOHN BEEBEE.