(No Model.)

J. DUNBAR.

VETERINARY SURGICAL INSTRUMENT.

No. 549,904. Patented Nov. 19, 1895

Fig. 1.

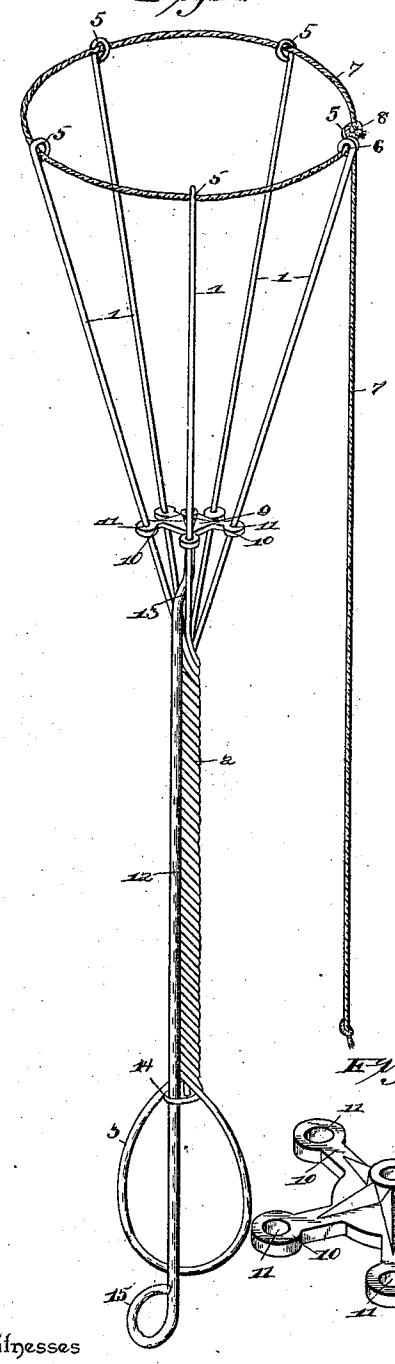

Fig. 3.

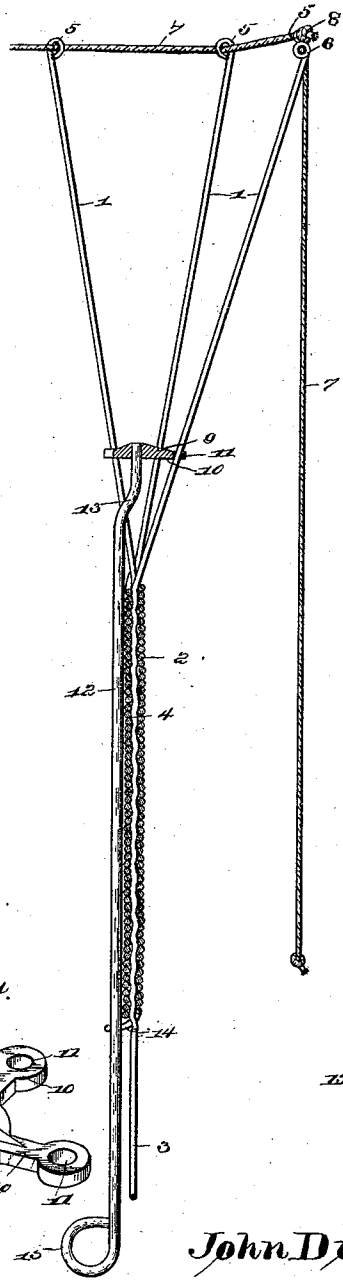

Fig. 2.

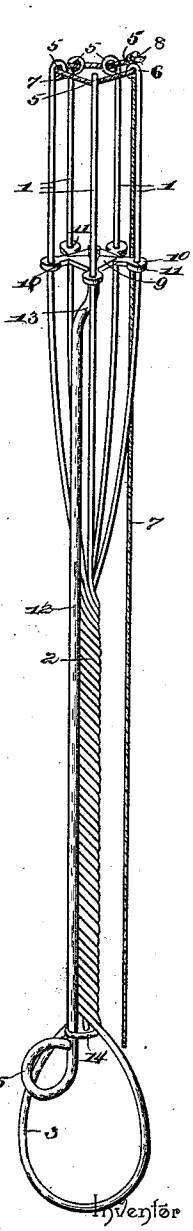

Fig. 4.

Witnesses

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UNITED STATES PATENT OFFICE.

JOHN DUNBAR, OF GUIDE ROCK, NEBRASKA.

VETERINARY SURGICAL INSTRUMENT.

SPECIFICATION forming part of Letters Patent No. 549,904, dated November 19, 1895.

Application filed November 14, 1894. Serial No. 528,783. (No model.)

To all whom it may concern:

Be it known that I, JOHN DUNBAR, a citizen of the United States, residing at Guide Rock, in the county of Webster and State of Nebraska, have invented a new and useful Surgical Instrument, of which the following is a specification.

This invention relates to veterinary surgical instruments; and it has for its object to provide a new and useful construction of veterinary obstetrical forceps having simple and efficient means for safely delivering pigs.

With these and other objects in view, which will readily appear as the nature of the invention is better understood, the same consists in the novel construction, combination, and arrangement of parts hereinafter more fully described, illustrated, and claimed.

In the drawings, Figure 1 is a perspective view of a veterinary obstetrical instrument constructed in accordance with this invention, showing the spring-wire jaws open. Fig. 2 is a similar view with the spring-wire jaws closed ready for insertion into the vagina. Fig. 3 is a longitudinal sectional view of the instrument. Fig. 4 is a detail in perspective of the spider-adjusting head for the spring-wire jaws.

Referring to the accompanying drawings, 1 designates a series of diverging spring-wire jaws closely twisted together at one end to form a twisted-wire handle-shank 2, at one end of which shank is formed a circular handle-loop 3, that provides for the convenient handling of the instrument. One of the spring-wire jaws 1 is bent out from one end of a single wire 4, the straight shank of which is longitudinally crimped from end to end and is adapted to be closely engaged by the wires that are wrapped or twisted around the same to form the twisted-wire handle-shank 2. By reason of twisting the wires of the several jaws together into a handle-shank it will be obvious that no supplemental fastenings are necessary to bind the wires together, and in this construction the odd wire employed to make provision for one of the spring-wire jaws must necessarily be secured against loosening or slipping out of place, as provided for by crimping the shank of this wire.

The several wire jaws 1 that diverge from one end of the handle-shank 2 are normally sprung apart from each other, and are provided at their outer extremities with the integral rounded loop-eyes 5, and one of said wire jaws is further provided adjacent to its terminal loop-eyes 5 with a second guide-eye 6, formed by a coil of the wire, and said second coil guide-eye 6 of one of the wire jaws and the terminal eyes 5 of the other jaws are adapted to loosely receive therein the circular loop of the flexible draw-cord 7. The draw-cord 7 is knotted or otherwise made fast at one end, as at 8, to the loop terminal of the jaw with two eyes, and the free end of the cord passes through the guide-eye 6 and is longer than the entire instrument, so that it can be conveniently grasped by the operator to contract and expand the jaws of the forceps.

Arranged to slide within the circularly-grouped and divergent series of spring-wire jaws is a spider-adjusting head 9. The spider-adjusting head 9 consists of a suitably-sized casting that will freely work inside of the group of spring-jaws and will easily enter the vagina, and the said head is provided with a series of radial lugs or arms 10, having circular wire-openings 11 therein to loosely receive the spring-wire jaws 1, so that as the head 9 is moved over the wire jaws the latter will be compelled to assume positions that will bring the entire series of jaws within the compass of the head 9, which latter therefore provides auxiliary means in connection with the normal spring of the jaws and the draw-cord 7 for the contraction and expansion of the spring-wire jaws.

The sliding spider-adjusting head is fitted to one end of a longitudinally-movable adjusting rod or wire 12, that is provided adjacent to the head 9 with an offset 13, which disposes the greater portion of the rod or wire outside of the spring-wire jaws and the twisted-wire handle-shank, and said adjusting rod or wire 12 is arranged to pass loosely through a guide-loop 14, looped out from the handle-shank wires at one end of said handle-shank. At the end opposite the head 9 the rod or wire 12 is provided with a finger-loop 15, that provides means for easily manipulating the same and also forms a stop by engaging at one side

of the loop 14 to limit the adjustment of the adjusting-head in one direction.

Normally the spring-wire jaws 1 are sprung apart, and to collapse the jaws the adjusting rod or wire 12 is moved to slide the head 9 toward the outer ends of the jaws, which movement causes the latter to close up within the compass of the head 9 and to remain rigidly in this position without bulging or twisting out of shape. After adjusting the head 9 the draw-cord 7 is pulled to bring the terminal ends of the wire jaws closely together, after which the instrument can be readily and safely inserted into the vagina. As soon as the fetus is reached the draw-cord is released and the adjusting-head 9 drawn back toward the handle-shank of the forceps, thereby allowing the wire jaws to spring open, so as to receive therebetween the fetus. With the jaws open, as described, the instrument is now gently pushed in with a slight rotary or twisting motion until a convenient part of the fetus is embraced, and the draw-cord is then pulled to contract the jaws and secure a firm grip, and it is then only necessary to pull out the instrument by the handle-shank and draw-cord, as the animal labors, to bring out the fetus.

Changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

Having thus described the invention, what is claimed, and desired to be secured by Letters Patent, is—

In an obstetrical surgical instrument, a handle-shank provided at one end with a guide loop and at its opposite end with a circular group of divergent normally separated spring-wire jaws having terminal loop eyes, a draw cord loosely passed through said loop eyes, a spider adjusting head arranged to work entirely within the group of wire jaws and provided with a series of radially extending perforated lugs slidably engaging the wire jaws, and an adjusting rod or wire connected at one end to said adjusting head, and arranged to pass through the guide loop at one end of the handle-shank, said adjusting head being adapted to collapse the spring-wire jaws within a prescribed compass and to hold the same rigid during insertion substantially as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JOHN DUNBAR.

Witnesses:
JNO. E. JONES,
S. C. CANE.