No. 617,371. Patented Jan. 10, 1899.

H. J. TOTTEN.

PIG FORCEPS.

(Application filed Apr. 27, 1898.)

(No Model.)

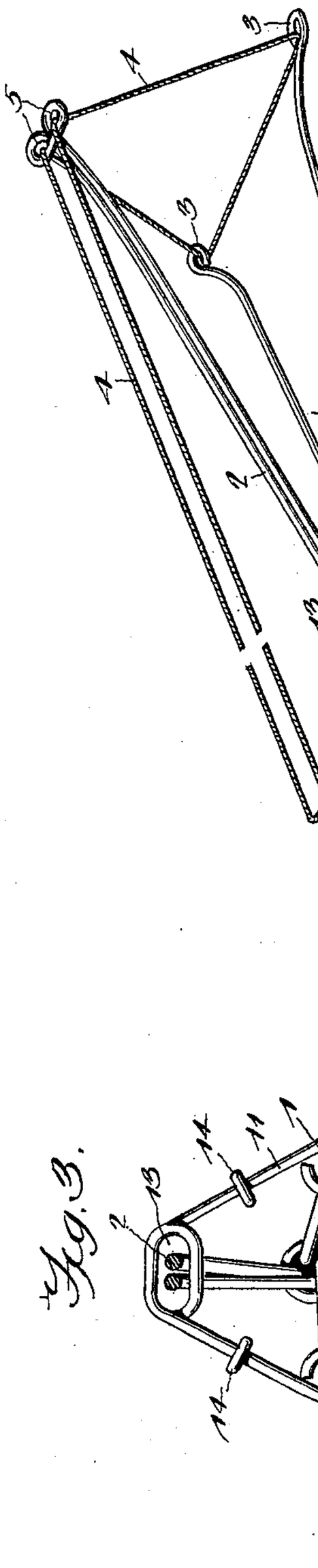

Fig. 1.

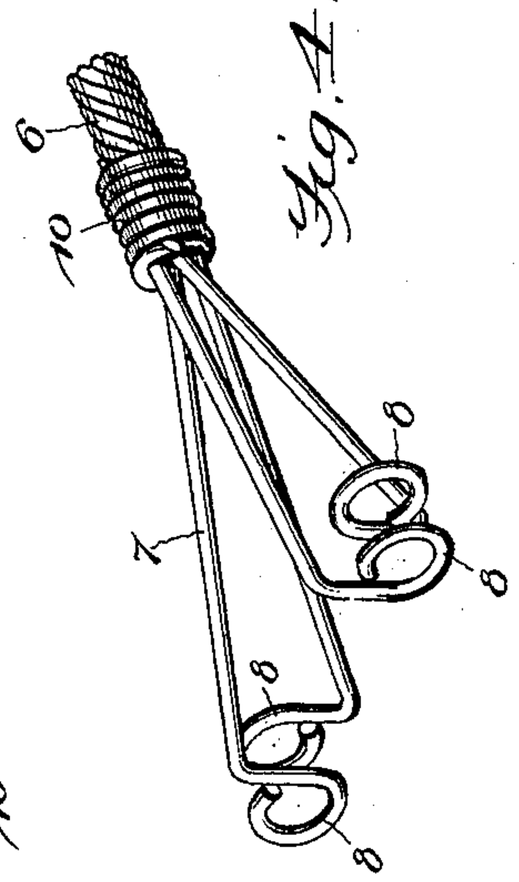

Fig. 4.

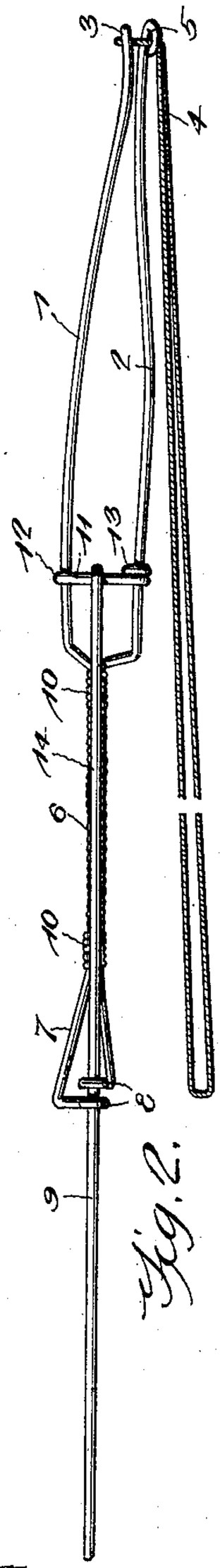

Fig. 2.

Fig. 3.

Witnesses
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By his Attorneys,
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UNITED STATES PATENT OFFICE.

HARLEY J. TOTTEN, OF DIXON, NEBRASKA.

PIG-FORCEPS.

SPECIFICATION forming part of Letters Patent No. 617,371, dated January 10, 1899.

Application filed April 27, 1898. Serial No. 678,977. (No model.)

To all whom it may concern:

Be it known that I, HARLEY J. TOTTEN, a citizen of the United States, residing at Dixon, in the county of Dixon and State of Nebraska, have invented a new and useful Pig-Forceps, of which the following is a specification—

This invention relates to veterinary instruments for assisting parturition of viviparous animals and ensuring a safe delivery of the fetus.

The invention consists of veterinary obstetrical forceps particularly designed for delivering pigs, the purpose being the provision of an instrument of this character which will enable the operation to be quickly and safely performed, and which will be positive in action and of a simple and light construction.

For a full understanding of the merits and advantages of the invention reference is to be had to the accompanying drawings and the following description.

The improvement is susceptible of various changes in the form, proportion, and the minor details of construction without departing from the principle or sacrificing any of the advantages thereof, and to a full disclosure of the invention an adaptation thereof is shown in the accompanying drawings, in which—

Figure 1 is a perspective view of the instrument. Fig. 2 is a side view showing the spring-arms closed prior to placing the instrument in position. Fig. 3 is a detail section showing the relation of the spreader and arms. Fig. 4 is a detail view of the outer end of the handle or shank portion of the forceps.

Corresponding and like parts are referred to in the following description and indicated in the views of the drawings by the same reference characters.

A series of spring-arms 1 and 2 constitute the active parts of the instrument. The arms 1 terminate in eyes 3, through which a cord 4 passes, and are located at the same side of the instrument and are outwardly divergent. The arm 2 is composed of two wires extending in parallel relation and touching throughout their length, so as to mutually strengthen and brace each other. These wires are members of a single wire which is doubled upon itself, the folded portion being spread and bent back, forming eyes 5 at the sides of the outer end of the arm 2, through which the cord 4 passes. This construction, besides providing the eyes 5, secures an expanded end to the arm 2, thereby enabling the arm to pass beneath the nose of the fetus. The end portion of the arm 2 is curved outwardly, so as to facilitate its passage beneath the nose and head of the fetus when adjusting the instrument to produce parturition. The end portions of the wires are twisted together to form a shank or handle 6, and the terminal portions are spread, as shown at 7, and bent inwardly and formed into eyes 8, which receive the side members 9 of the slide. Short wires 10 are coiled about the end portions of the twisted shank 6 to prevent a separation of the wires.

A spreader 11 is slidably mounted upon the arms 1 and 2 and is of V form, being constructed of a wire bent into the shape shown. The terminals of the spreader have eyes 12, through which the arms 1 pass, and a flattened eye 13 is located at the angle and receives the arm 2. The slide 14, consisting of an oblong frame formed from a length of wire bent upon itself at an intermediate point, has its side members 9 looped around the arms of the spreader 11 between their ends and is the means for operating the slide to spread the arms 1 and 2.

When it is required to produce a parturition of the fetus, the slide is drawn back and the cord 4 pulled upon to bring the outer ends of the arms 1 and 2 together, as shown in Fig. 2, so that the instrument may be easily and safely introduced into the vagina. The cord is now released and the slide pushed in, thereby spreading the outer contracted ends of the arms sufficiently to permit the nose of the fetus to pass between them. The slide is now drawn back and the instrument advanced until the cord clears the head of the fetus, after which the cord is pulled upon to close its inner end about the head of the fetus, which latter is delivered by withdrawing the instrument, the cord being held taut all the while.

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

1. In a veterinary obstetrical instrument, a handle-shank having extended from one end a pair of spring-arms provided with terminal eyes, and a third spring-arm lying opposite the space between said pair of arms and having its outer end curved outwardly and provided with a pair of laterally-projecting eyes, and a draw-cord strung through all of said eyes and having its separate side portions sliding through the lateral eyes of said third arm, substantially as set forth.

2. In a veterinary obstetrical instrument, a handle-shank provided at one end with a pair of spring-arms having terminal eyes, and a third spring-arm lying opposite the space between said pair of arms and formed of a single length of wire doubled upon itself and having the end portions extending parallel, the folded or doubled outer end of said third arm being expanded laterally to form oppositely-located eyes, and a draw-cord strung through the eyes of all of said arms, substantially as set forth.

3. In a veterinary obstetrical instrument, a handle-shank having a plurality of normally-divergent spring-arms at one end, and at its other end oppositely-located guide-eyes, a spreader having terminal and intermediate eyes slidably receiving the separate spring-arms, a slide having separate parallel members sliding through said guide-eyes and respectively connected to opposite side portions of the spreader, and a draw-cord connection with the outer terminals of the spring-arms, substantially as set forth.

4. In a veterinary obstetrical instrument, a handle-shank provided at one end with a plurality of normally-divergent spring-arms, and at its other end with a plurality of outwardly-divergent strands terminating in opposite pairs of alined guide-eyes, a spreader provided with terminal and intermediate eyes loosely receiving said spring-arms, a slide having separate parallel members sliding through the opposite pairs of guide-eyes and respectively connected to opposite side portions of the spreader, and a draw-cord connection with the outer terminals of the spring-arms, 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.

HARLEY J. TOTTEN.

Witnesses:
J. C. ECKER,
AL FRAZIER.