

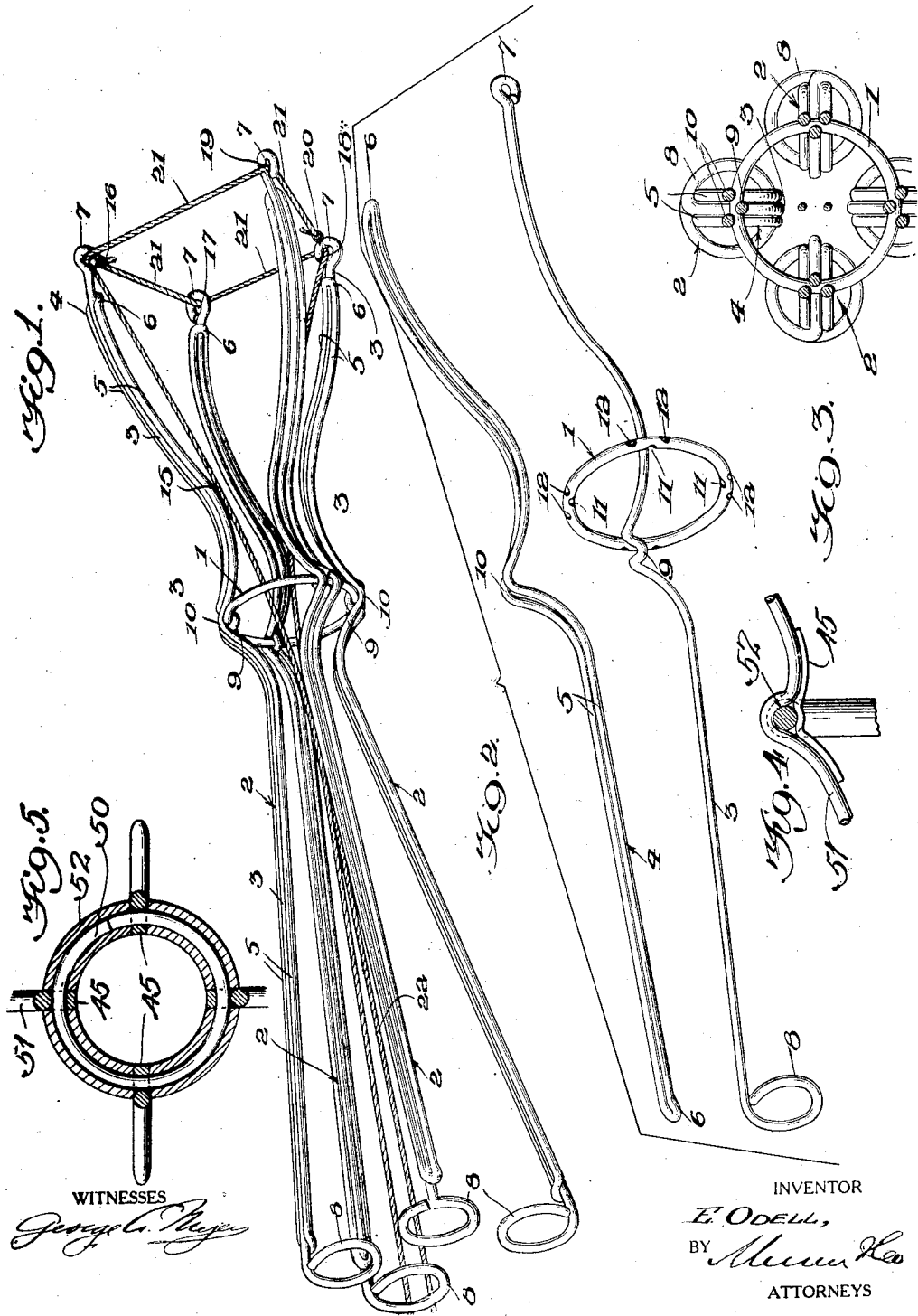
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OBSTETRICAL INSTRUMENT

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OBSTETRICAL INSTRUMENT.

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This invention relates to instruments for use by veterinarians or others in facilitating or bringing about the birth of animals where normal birth is difficult or cannot be had. The instrument is of particular efficacy where it is necessary or desirable to procure the birth of pigs although it is not restricted to this use.

One of the principal objects of the invention resides in the provision of an instrument of this character which may be readily inserted in the vaginal canal of the sow and manipulated to firmly grip the young pig to be brought out in such a way as to insure immediate delivery of the young pig without danger of injury thereto and without lacerating or otherwise injuring the sow or causing the sow undue suffering.

A further object resides in the provision of an instrument having the advantages and capacities specified and which is of simple and durable construction reliable and effective in operation and easy and comparatively inexpensive to manufacture.

Other objects and advantages reside in certain novel features of the construction, arrangement and combination of parts which will be hereinafter more fully described and particularly pointed out in the appended claims, reference being had to the accompanying drawings forming a part of this specification and in which;

Figure 1 is a perspective view showing one embodiment of the invention,

Figure 2 is a fragmentary perspective view of the ring carrier and the parts of one of the arms,

Figure 3 is a view in transverse section on line 3-3 of Figure 1,

Figure 4 is a fragmentary view showing still another way of mounting an arm on a circular type of carrier, and

Figure 5 is a view of another arrangement.

Referring to the drawings and more especially to Figures 1 to 3 inclusive the numeral 1 designates a ring carrier or mounting member which in this embodiment consists of a metal ring. A plurality of arms designated generally at 2 are provided and all of the arms 2 except one are fulcrumed or pivotally mounted intermediate their ends on the ring 1. One arm 2 is fixed to the ring 1.

Each arm 2 consists of two pieces of round wire or light round bar stock, a single piece

3 and a double piece 4 being provided, the single piece 3 being fitted in between the parallel strands 5 of the double piece 4 and resting adjacent its ends on the bights or curved connecting portions 6 of the parallel strands. The double piece 4 is made of a single piece of metal suitably shaped and having its ends welded, soldered or otherwise suitably fastened together. At one end the piece 3 has an eye 7 and at its other end a circular finger piece 8 is provided. Intermediate their ends the pieces 3 and 4 are formed with oppositely deflected bearing portions 9 and 10 respectively; the bearing portions 9 and 10 engaging the notches or seats 11 and 12 on the ring 1 to pivotally support the arm on the ring. The arm 2 which is fixed to the ring 1 has its bearing portions soldered to the ring 1.

A flexible element 15 preferably a cord of suitable strength has one end tied or otherwise fastened to one of the eyes 7 as at 16 and the cord is then trained through two of the remaining eyes as indicated at 17 and 18 in Figure 1 after which it is extended back between and within the arms 2 and through the ring 1 to the rear of the instrument and then brought back the same way and has its other end trained through the eye 7 to which such other end is fastened as indicated at 16 and then through an adjacent eye 7 as indicated at 19 to the next eye 7 to which it is tied as indicated at 20. With this arrangement the runs 21 of the flexible element between the eyes 7 define a closed gripping loop which may be contracted to grip and engage a young pig when the rearwardly extending portions 22 of the cord or flexible elements are pulled rearwardly relative to the arms 2. Such pull on the cord 15 also brings the forward ends of the arms 2 toward each other.

In the embodiment of the invention shown in Figures 4 and 5 the device includes arms, designated generally at 51, mounted on a split carrier ring 50. The arms are made up of outer members, designated at 51^a, and inner members or straps 45, the straps 45 bridging the ring and having its ends soldered or otherwise secured to the arms on the opposite sides of the ring. Spacing sleeves 52 are mounted on the rings between the arms.

In all forms of the invention the instrument may be easily and readily operated to speedily carry out its intended purposes

without injury to the sow or young pig. The gripping loop can close upon and effectively grip any part of the young pig and enable the operator to pull the young pig out without injury. Unlike forceps this instrument will not be liable to bite into and tear the mucous membrane of the sow.

I claim:—

1. In an instrument of the character described, a carrier member, a plurality of arms mounted intermediate their ends on said carrier member, said arms being made up of a single piece and a double piece inter-fitted with each other and having oppositely deflected bearing portions engageable with the carrier member, the single piece of each arm having an eye at its forward end, and a flexible element extended through the eyes and coacting therewith to form a contractible closed gripping loop at the forward end of the instrument, said flexible elements extending rearwardly and said rearwardly extending portion being operable to contour the loop when pulled relative to the arms.

2. In an instrument of the character described, a carrier member, a plurality of

arms, each arm including an outer member and an inner member, said members being secured together and having portions embracing the carrier member to pivotally mount the arm intermediate its ends on the carrier, said arms having eyes at their forward ends, and a flexible element extending through the eyes and co-acting therewith to form a contractible gripping loop at the forward end of the instrument.

3. In an instrument of the character described, a carrier member, a plurality of arms, each arm including an outer member and an inner member, said members being secured together and having portions embracing the carrier member to pivotally mount the arm intermediate its ends on the carrier, the carrier having notch seats for receiving the embracing portions of the arms, said arms having eyes at their forward ends, and a flexible element extending through the eyes and co-acting therewith to form a contractible gripping loop at the forward end of the instrument.

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