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3,016,056

METHOD OF IDENTIFYING NEWLY BORN INFANTS

Original Filed Nov. 7, 1952

2 Sheets-Sheet 1

Fig. 1.

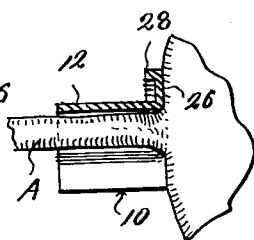
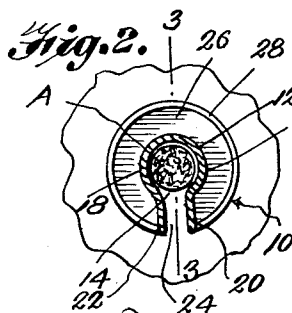
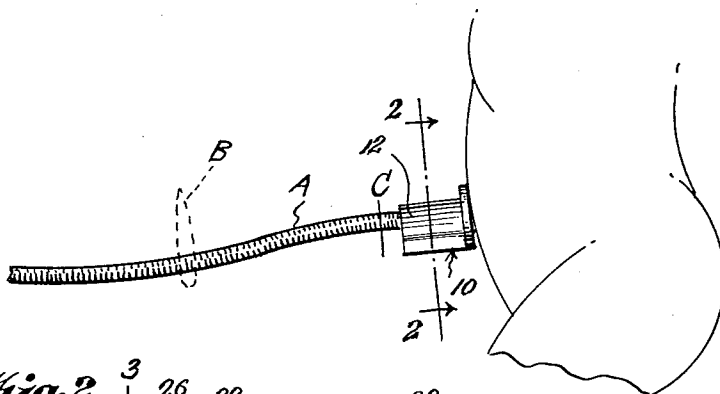
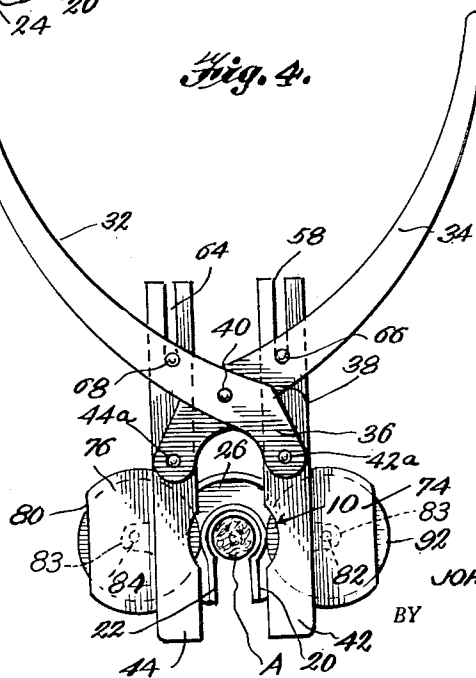


Fig. 4.



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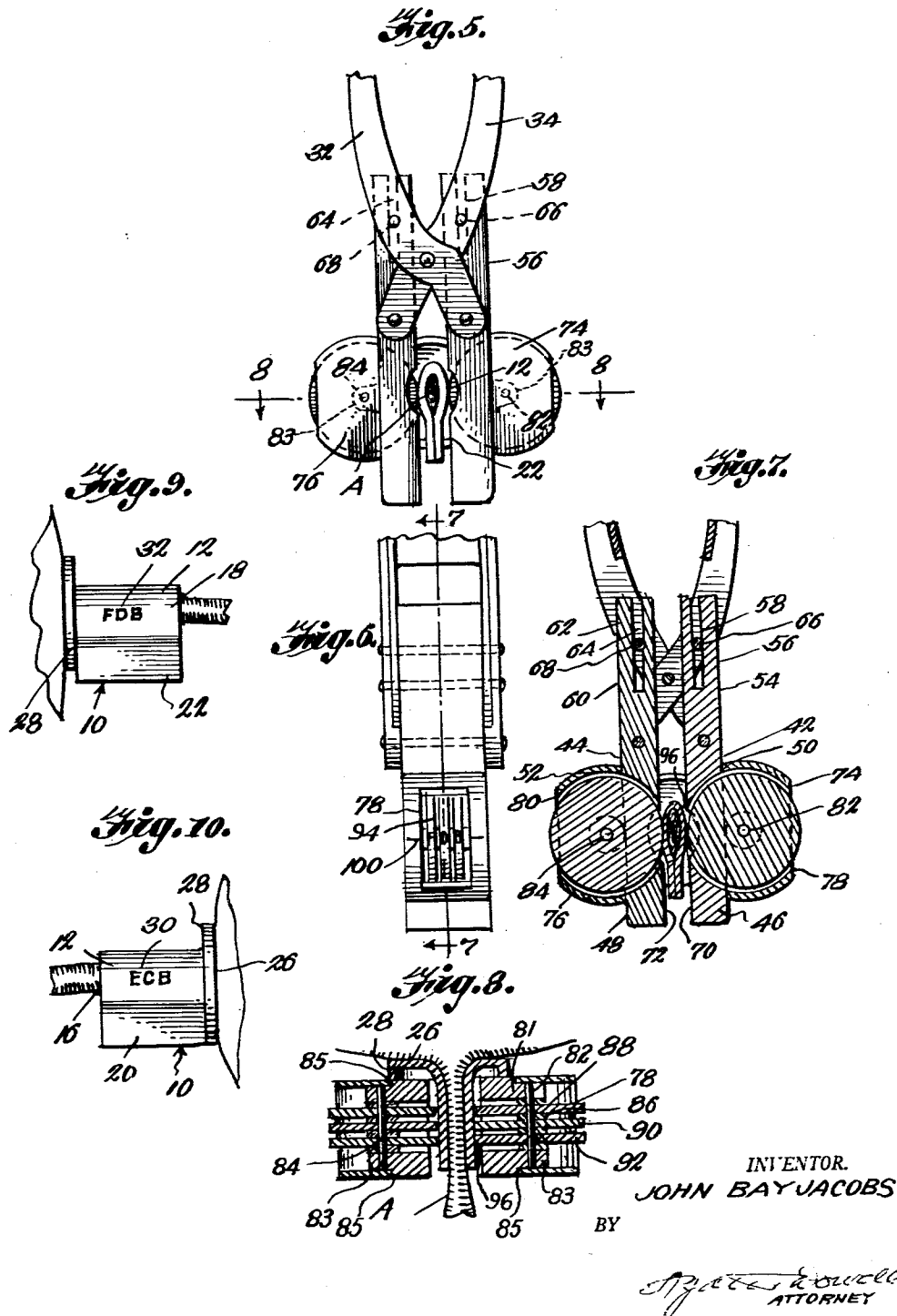
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3,016,056 METHOD OF IDENTIFYING NEWLY BORN INFANTS

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Divided and this application Jan. 25, 1956, Ser. No.
561,189

1 Claim. (Cl. 128—346)

The present invention relates to improvements in the art of obstetrics and especially relates to a method for identifying newly born infants and is a divisional application of Serial No. 319,369, filed November 7, 1952, now abandoned.

The primary object of this invention is to provide a method for clamping off the umbilical cord to permit the severance thereof and for simultaneously positively and accurately identifying the infant prior to the severance of the umbilical cord.

In the present obstetric practice, the umbilical cord is severed at a point in proximity to the abdomen of the newly born infant after hemostats are applied to the cord on opposite points of the line of severance. The stump outward of the abdomen may then be dressed with gauze and eventually falls off.

Part of this practice is obviated by this invention, which also avoids the delays and fallibilities of present identification methods. In the latter respect some of the present methods are either (1) to take the foot prints of the infant and thumb prints of the mother, or (2) to place an identification bracelet of beads spelling out the surname of the infant, around the wrist of the infant. All of these modes of placing identification markers on the infant or of recording a print of a part of the infant's anatomy are carried out sometime after delivery, before or after the infant has been prepared for the nursery. In other words, all of the present practices are performed after a lapse of time and are, therefore, subject to human mistake so that they cannot be absolutely relied upon, though they are generally accurate.

But to obviate any possibility of mistake, this invention comprehends the placing of an identification and clamping element upon the umbilical cord, while it is still attached to the placenta and before it is severed. Therefore, there can be no possible mistake in identifying the offspring of a mother.

The identification element is stamped with identifying characters or markings by a tool that also clamps it on the cord to check the flow of blood.

These and ancillary objects are attained by this invention, the preferred embodiment of which is set forth in the following description and illustrated in the accompanying drawings, wherein:

FIGURE 1 is a side elevational view of an identification element positioned on the umbilical cord in and prior to being clamped in place.

FIGURE 2 is a transverse sectional view taken on line 2—2 of FIGURE 1,

FIGURE 3 is a longitudinal vertical sectional view taken on line 3—3 of FIGURE 2;

FIGURE 4 is a front elevational view of the tool, showing the same in position for use, with the identification element shown in front elevation and the umbilical cord in section,

FIGURE 5 is a fragmentary plan view of the tool shown compressed against the identification element;

FIGURE 6 is a side elevational view of the jaw and of the tool,

FIGURE 7 is a vertical sectional view taken on line 7—7 of FIGURE 6,

FIGURE 8 is a transverse sectional view taken on line 8—8 of FIGURE 5,

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FIGURE 9 is an elevational view of one side of the identification element, and

FIGURE 10 is a view of the other side from that shown in FIGURE 9.

With more particular reference to the accompanying drawings, attention is first directed to FIGURES 1—3 and 9 and 10 for a detailed description of one type of identification and clamping element 10. The element 10 may be formed from a suitable ductile material and includes an open cylindrical or tubular body section 12 that has a radial opening 14 extending axially through the ends. The opening 14 is formed at the bottom of the body section and the opposite sides 16 and 18 have flat parallel flanges 20 and 22 formed on their free edges. The flanges are coextensive in width and length and extend from one end of the body section to the other.

It will be particularly noted that the flanges 20 and 22 define a passage 24 which communicates with the interior of the body section 12 through the opening 14 and that the passage 24 is of a width approximating the external diameter of the umbilical cord. The diameters of umbilical cords vary considerably but this is not critical since the body section is of ductile material and will be clamped onto the cord. Therefore, the body section will be made to fit the larger umbilical cords and the clearance in using it on smaller diameter cords will be taken up in attaching it to the cord in the manner to be described; also, the flanges 20 and 22 can be spread if necessary.

A continuous flange 26 radiates from one end of the body section and adjoining ends of the flanges 20 and 22 and has an opening registered with the passage 24. The flange 26 forms a guard at one end of the body section and may be fitted against the abdomen of the infant to protect the infant. A peripheral rib 28 extends laterally from the flange 26 to engage the tool, used in attaching the element 10 to the cord.

The outer surfaces of the sides 16 and 18 are preferably smooth and, as seen in FIGURES 9 and 10, the flanges 20 and 22 have their inner ends adjoining the flange integral with the ends of the projection 28. The sides 16 and 18 are adapted to have identifying indicia formed on their outer surfaces.

Preferably, such indicia are by way of the initials of the father, as at 30, and the initials of the obstetrician, as at 32, one being on one side and the other on the opposite side. Such indicia or identifying marks may be of any desired type and may even include, by way of code, pertinent facts concerning the physical characteristics or malformations of the infant.

It is preferred that the indicia be impressed into the sides of the identification clamp during the act of squeezing the sides together onto the umbilical cord. In this manner, two results will stem from the same squeezing or clamping action, under the force of a tool namely, the identifying indicia will be permanently placed on the body section 12 and the body section will function as a hemostat to check the flow of blood from the blood lines in the cord.

In FIGURES 4 and 6—9, one type of tool used in obtaining the above results is illustrated and it comprises a pair of handles 32 and 34, which terminate in inner bifurcated ends 36 and 38. The branches of the ends 36 and 38 are offset from the handles and the ends of the handle 32 overlie the ends of the handle 34 and are pivoted thereto, by a pivot pin 40 that extends transversely therebetween.

A pair of complementary jaws 42 and 44 are pivotally carried by the ends 36 and 38, as seen in FIGURE 4 with the jaws secured by pivot pins 42a and 44a between the branches of the ends. The jaws include outer

solid ends 46 and 48 of rectangular cross-sectional shape and are formed with transverse openings 50 and 52.

The inner end 54 of the jaw 42 is bifurcated; the bifurcation 56 is defined by an axial slot 58 extending through the outer extremity of the end 54. Similarly, the inner end 60 of the jaw 44 is bifurcated, the bifurcations 62 being defined by the axial slot 64. The bifurcations 56 slidably hold a pin 66 disposed transversely therebetween in the slot 58, the pin being secured at its ends to the branches of the end 36 of the handle 34 in line with the pivot pin 42a. A pin 68 is transversely disposed between the branches of the end 38 of the handle 32 and is slidably disposed within the slot 64.

The inner face 70 of the jaw 42 is flat, as is the complementary face 72 of the jaw 44. The openings 50 and 52 are concaved from the outer faces to the inner faces of the jaws 42 and 44, so that the openings at the outer faces are larger than they are at the inner faces 70 and 72. The openings 50 and 52, at the inner faces, extend through the side walls of the jaws while also extending through the outer faces of the jaws.

Semi-circular housings 74 and 76 are mounted on the jaws at the outer faces thereof and enclose the openings 50 and 52, the outer sections of the housings having transverse openings 78 and 80, which are aligned with the openings 50 and 52. The jaws are formed with integral laterally outstanding apertured ears 81 and 83 over which the sides of the casings fit. The sides of the casing are attached to the ears by pins 82 and 84 and abut shoulders 85 on the jaws so that the sides are flush with the outer sides of the jaw. Mounted on each pin and spaced apart by fixed spacers 86 are rotatable discs 88, 90 and 92. The number of discs is three, for exemplary purposes only, since one or any number can be employed, dependent upon the nature and type of indicia or characters to be inscribed on the sides 16 and 18 of the body section 12.

By way of example, the three discs 88, 90 and 92 are shown, each of which is identically constructed and as shown in FIGURES 7 and 5, the discs have opposing peripheral portions 94 and 96. The portions 94 are disposed through the openings 78 or 80 and are adapted to be engaged by the finger of the obstetrician. The portions 96 extend through the openings 50 or 52 for selective engagement with the sides of the body section 12 of the identification element or marker 10. On the peripheral portion 96, raised letters are formed, which correspond to the diametrically placed letters on the portion 94. Thus, the discs are set by positioning the desired letter on the portion 94, of each disc, in alignment with the line 100 on the casings, as shown in FIGURE 6. The corresponding raised letter will then be disposed on the inner face of the jaw carrying the discs.

To lock the discs in set positions, ratchet means may be provided and comprise a pivoted spring urged pawl carried by the spacers and engageable with teeth formed on each disc.

In carrying out the method of this invention, the identification element or marker 10 is placed on the umbilical cord A so that the flange 26 may abut the abdomen of the infant. It is to be particularly noted that the marker 10 is passed laterally over the cord A, the cord A moving through the passage 24 and opening 14, when the cord is still connected between the placenta of the mother and the infant. Thus there is no possibility of

mistake. The discs 88, 90 and 92 on each jaw 42 and 44 are set by positioning a finger through the openings 78 and 80 and rotating the discs until the desired letters are lined up with the line 100. The jaws are then passed down over the sides 16 and 18 of the body section 12 with the jaws being limited in their spreading movement by the pins 66 and 68.

The jaws assume the position relative to the marker 10 as shown in FIGURE 4 and the handles 32 and 34 are squeezed together to force the discs against the sides 16 and 18 and impress the sides with the raised letters. The outer or free ends of the inner faces 70 and 72 of the jaws squeeze the flanges 20 and 22 together as shown in FIGURES 5 and 7, to lock the marker 10 tightly on the cord. In its clamped position, the marker 10 also serves as a hemostat and, thus, after a hemostat B is secured to the umbilical cord, the cord is severed at C.

The clamping and identification element 10 is left on the stump of the cord and the baby thus has positive identification means securely affixed to it. After a while, depending upon the positioning of the element 10 relative to the abdomen of the baby, the stump will fall off but, by that time, other identification means will have been attached to the baby.

The method of the present invention thus ensures that the baby will be accurately and positively identified before the umbilical cord is severed. Simultaneous with the act of identifying the baby, the cord is clamped off to enable it to be severed. Thus, the invention provides a method which comprehends simultaneously clamping off of the cord and the forming of identification markings on the stump of the cord.

Obviously, there may be as many discs for marking the clamp as may be desired on each side of the tool, but it may be satisfactory to have a limit of three. It is also preferable that the characters on the periphery of the disc be outstanding so that they can be easily engaged by the fingers. Another feature that might be taken into consideration is that the covers for the discs may have their windows bevelled so that fingers can be easily inserted.

While not shown in the drawings, some suitable dent means may be provided for the discs so that when they are properly set, they will remain in place.

Having thus described this invention, what is claimed is:

The method of identifying a newly born baby comprising the steps of placing a deformable element over the umbilical cord in proximity to the abdomen of the baby while the cord still forms a connection between the baby and the mother, and clamping the deformable element tightly on the cord in a manner to check the flow of blood through the cord while concomitantly, and as a direct result of said clamping, applying identifying initials on the outer surface of the deformable element, and then severing the umbilical cord on the placental side of the element.

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