Jan. 7, 1958 M. PARTY 2,819,133

GANTRIES FOR ACCOUCHEMENT AND GYNAECOLOGICAL PURPOSES

Filed April 6, 1956 2 Sheets-Sheet 1

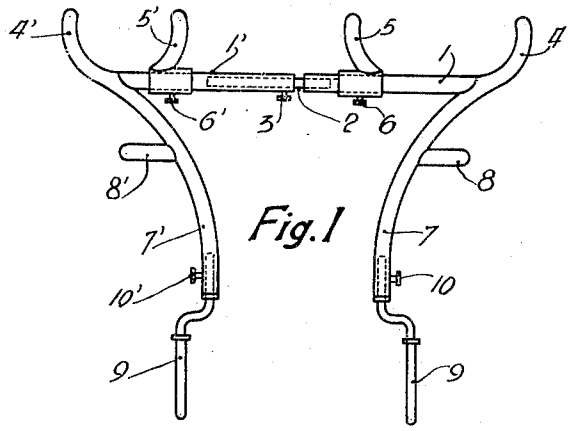



Fig. 1

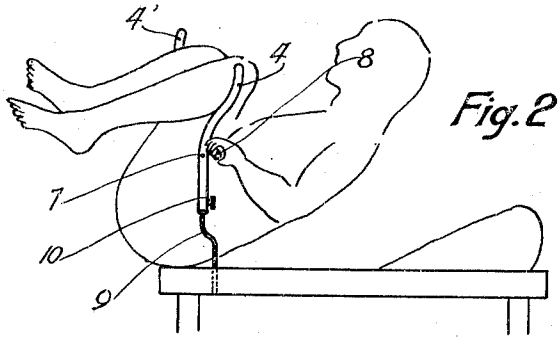



Fig. 2

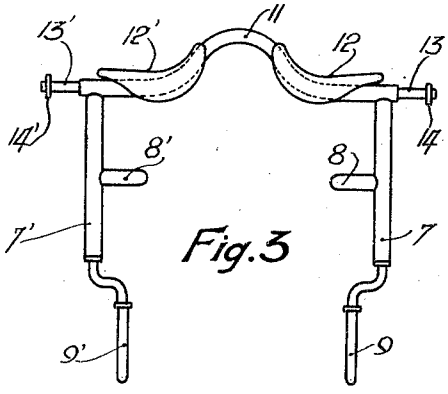



Fig. 3

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GANTRIES FOR ACCOUCHEMENT AND GYNAECOLOGICAL PURPOSES

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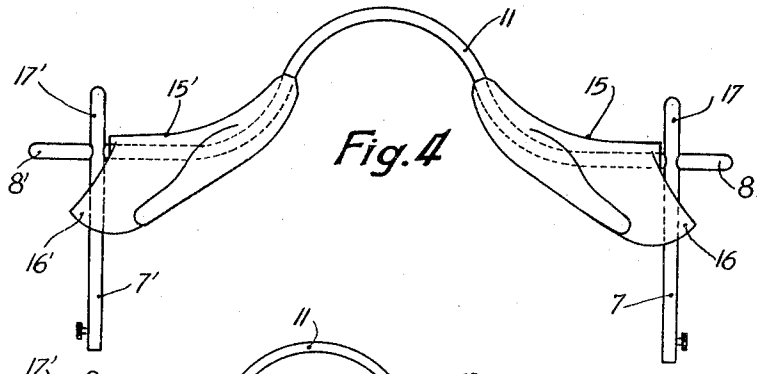



Fig. 4

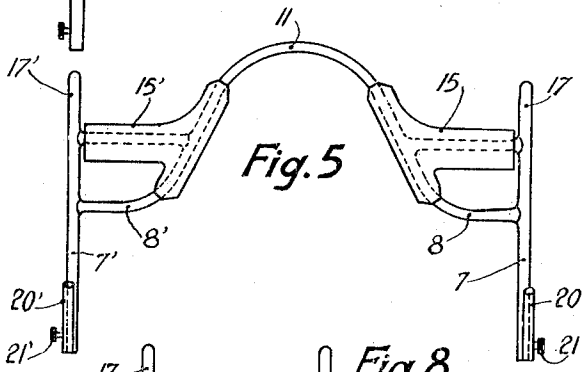



Fig. 5

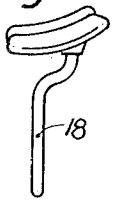



Fig. 6

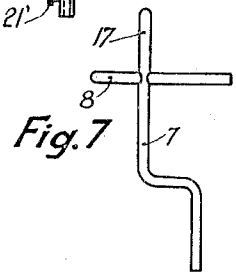



Fig. 7




Fig. 8

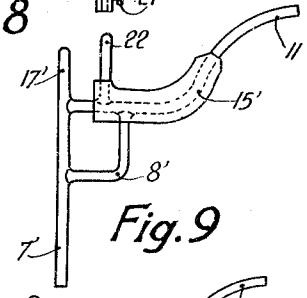



Fig. 9

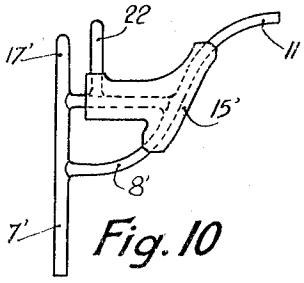



Fig. 10

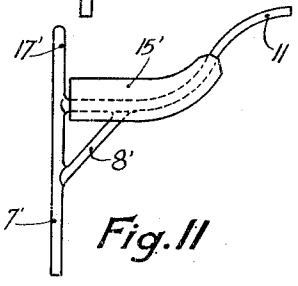



Fig. 11

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# GANTRIES FOR ACCOUCHEMENT AND GYNAECOLOGICAL PURPOSES

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Application April 6, 1956, Serial No. 576,563

Claims priority, application Tunis April 9, 1955

5 Claims. (Cl. 311—11)

The present invention relates to gantries for accouchement and gynaecological purposes.

The methods at present commonly in use for restraining the lower limbs in accouchements are uncomfortable and poorly adapted to the fundamental principles of obstetric physiology. In fact, the stirrups or leg-supports used at present do not allow the parturient to adopt the instinctive posture, which posture has a marked similarity to that which a woman adopts during urination and defecation. Moreover, they do not make full use of the possibility of enlargement of the dimensions of the pelvis arising from the relaxed state of the joints which occurs in pregnancy.

One object of the present invention is therefore the provision of a gantry, the use of which allows these disadvantages to be obviated or, at least, reduced.

Another object of the invention is to provide apparatus which allows the parturient to adopt the most suitable position during the final stage of accouchement and to maintain this position in a stable manner.

A further object of the invention is to provide apparatus which permits movement of the sacroiliac joints and increase of the dimensions of the pelvis, by avoiding having a fixed point of application of the posterior.

Yet another object of the invention is to provide apparatus in which a gripping device is provided for the upper limbs so as to facilitate instinctive synchronisation and increase of effort during the expulsion stage.

Yet another object of the invention is to provide apparatus which allows various obstetric and gynaecological operations to be carried out in the best conditions of stability even without the help of qualified persons.

A still further object of the invention is to provide apparatus which allows the pelvis to be freed from the resistant surface upon which it has usually rested hitherto, during accouchement, so as to facilitate synchronisation and increase of expulsive effort.

The invention will now be described in greater detail with reference to the accompanying drawings in which are shown, by way of example only, various constructional forms thereof. In the drawings:

Fig. 1 shows one form of the gantry viewed in elevation;

Fig. 2 shows the posture which the said gantry permits the parturient to adopt during the final stage of accouchement;

Figs. 3 to 5 show various modified constructional forms of the invention;

Fig. 6 shows a movable leg support;

Fig. 7 shows an upright for a narrow table;

Fig. 8 shows a cranked fitting rod and

Figs. 9 to 11 show various forms of hand-grip.

In the various figures, parts which have a similar function are indicated by the same reference numerals.

Referring now to Figure 1, the gantry shown therein comprises a horizontal bar formed by two tubes **1**, **1'** connected by an inner rod or spigot **2** which is fixed in



the tube **1** but is capable of sliding in the tube **1'**. A set-screw **3** allows the spigot **2** to be locked at any chosen point relatively to the tube **1'**, so as to obtain the spacing which it is desired to impart to the two leg-supporting members **4** and **4'** which extend from the ends of the tubes **1** and **1'**.

Two other members **5** and **5'** which are complementary to the members **4** and **4'** are slidable on the tubes **1** and **1'** and can be locked relatively to the latter by means of set-screws **6** and **6'**.

The members **4** and **4'** are extended downwardly in the form of branches **7**, **7'** which are provided with lateral grips **8**, **8'** and in which supporting rods **9**, **9'** can be inserted for the mounting of the gantry upon an operating table or any other table which is provided with sockets adapted to receive the rods **9**, **9'**. The branches **7**, **7'** are slidable on the rods **9**, **9'**, being locked in position by means of set-screws **10** and **10'**. The height of the branches **7** and **7'** can thus be adjusted.

An accouchement or gynaecological gantry constructed in this way facilitates the adoption of the ideal posture shown in Figure 2.

Obviously the form of gantry shown in Figure 1 can be modified in many ways. For instance, the horizontal bar **11** (Fig. 3) can be constituted by a single tube, bent at its centre so as to be clear of the operating field. The leg supports **12**, **12'** can be moved at a high speed along the straight end portions of the bar **11**, by means of screws **13**, **13'** rotated by hand wheels **14**, **14'**. Each screw **13** or **13'** engages in a nut connected to the corresponding leg-support **12** or **12'** by a stud working in a longitudinal slot formed in the bar **11**.

The tubular bar **11** is carried by two uprights **7**, **7'** having fixed thereon hand-grips **8** and **8'** which are gripped by the parturient in order that she may control her expulsive efforts.

In the modified construction shown in Figure 4, the tubular bar **11** is extended beyond each of the uprights **7**, **7'** in order to form hand grips **8**, **8'**. On the bar **11**, at either side of the central bent portion, are arranged leg-supports, each constituted by a pad **15** or **15'** having a projection **16** or **16'**. Similarly, the uprights **7** and **7'** are extended upwardly in order to form two other grips **17**, **17'**.

Figure 5 shows another modification in which the bar **11** is made double at its ends in order to form hand-grips **8**, **8'** and leg-supports provided with padding **15**, **15'**.

Alternatively, each leg-support may be constituted by a member **18** (Figure 6) whose crook-like upper part is provided with padding **19**. Supports constructed in this way can be introduced into tubes **20**, **20'** soldered to the lower portions of the vertical uprights **7**, **7'**. Set-screws **21**, **21'** enable the height of the leg supports **18** to be adjusted.

Figure 7 shows a special form which is given to the uprights **7** in order that the desired spacing of the thighs may be obtained even when the gantry has to be mounted on a table of very much reduced width.

Figure 8 shows a cranked rod **9''** which can also be used in place of the members **9** and **9'** of Figure 1, so as to permit the fitting of the gantry shown in that figure to a narrow table.

Figures 9 to 11 show parts of various constructional forms of the invention as applied to a gantry of the kind shown in Figure 5, but in which the hand grips are differently constructed. The supplementary grips **22** have been added to the bar **11** with the object of offering the woman different points at which to pull during labour.

These modifications are, however, in no way limitative and other modifications can be made without departing from the scope and spirit of the invention as defined by the claims.

What is claimed is:

1. A gantry for accouchement and gynaecological purposes, comprising, in combination, a pair of elongated uprights, each of said uprights including each at least one handle and one leg-rest and having at one end thereof a lateral extension for joining said uprights transversely by connecting said extensions with each other; means for varying the connection between said lateral extensions for adjusting the spacing between said leg-rests and uprights; and attachment means connected to the other end of each of said uprights for setting up said gantry in substantially vertical position on a base having spaced receptacles for engagement by a portion of said attachment means, each of said attachment means having receptacle-engaging portions independently adjustable transversely to the length of the pertaining upright so that said uprights can be set up with said leg-rests at a selected spacing from each other by accordingly adjusting the spacing between said uprights and leg-rests, while said attachment means can be adjusted independently so as to be aligned with said receptacles in said base irrespective of the spacing of the uprights and leg-rests.

2. A gantry for accouchement and gynaecological purposes as set forth in claim 1, wherein said lateral extensions are provided with means for being adjustably joined in a telescoping manner.

3. A gantry for accouchement and gynaecological purposes as set forth in claim 1 wherein a portion of said leg support on each of said uprights is slidable along said lateral extension for adjusting the width of said leg support.



4. A gantry for accouchement and gynaecological purposes as set forth in claim 1, wherein said attachment means are rotatably connected to the adjacent end of the particular upright and are formed as a crank with a free end extending substantially parallel with the axis of rotation of said attachment means, said offset end being adapted to engage said receptacle in said base.

5. A gantry for accouchement and gynaecological purposes as set forth in claim 1, wherein said lateral extensions are provided with means for being adjustably joined in a telescoping manner, and wherein said attachment means are rotatably connected to the adjacent end of the particular upright and are formed as a crank with a free end extending substantially parallel with the axis of rotation of said attachment means, said offset end being adapted to engage said receptacle in said base.

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