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UNIFORMITY IN DEFINITION AND APPLICATION OF THE TERMS POSITION AND PRESENTATION.

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CHICAGO.

Ambiguity in definition and application of terms, more especially of terms of importance, is still a method of expression unfortunately of too frequent recurrence in descriptive obstetrics. Nor are these infelicities of expression of recent date, for, the need of uniformity in definition and nomenclature has long been recognized. Repeatedly, in monograph, in discussion, and in medical congresses, efforts have been made to overcome these and to establish greater clearness in definition and application of term and a more simple, yet accurate nomenclature.

Among the last to treat of this subject was Prof. A. R. Simpson of Edinburgh, with a committee of American obstetric teachers. Preparatory to its consideration, he had sent out the following question to various teachers of obstetrics throughout the world: "Do you consider it desirable to try to attain uniformity in obstetrical nomenclature?" The replies varied from "eminently so" to "certainly, but very difficult." At the meeting of the Ninth International Medical Congress, held in Washington, D. C., in 1887, the association adopted, as suggested by this committee, a nomenclature and application which has since been regarded as the authoritative and most probably is the nomenclature most commonly taught wherever obstetrics is read in the English tongue. The committee cleared up much that needed simplifying, the difficulties being many, but there remained some inequalities.

So far as pertains to uniformity in definition and application of the two terms, "position" and "presentation"

5 Gesellschaft für Kinderheilkunde, Dusseldorf, 1898.

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even a cursory scanning of standard English and American text-books, and for that matter also those of other tongues, will show that such text-book authority is strikingly unanimous in one respect only, viz., a most characteristically classic non-uniformity in definition and application; naturally a confusion in comprehensive results. It follows as a consequence, that one of the most pleasant duties devolving on the obstetric teacher is to try to convey to the student—with this material authoritative but conflicting—a clear and correct idea of position and presentation. He succeeds thus far; show him a chart, try him on the manikin, or clinically, and the student recognizes correctly; but have him paint a word-picture and his confusion in term and application is just as marked as that found in his text-book.

To assist in following this discussion, since the Transactions of that congress may not be at hand in many cases, I cite the report of the committee, as pertains to position and presentation under Sections 3 and 4, as follows:

SECTION 3.—PRESENTATION OR LIE OF FETUS.

The presenting part is the part which is touched by the finger through the vaginal canal, or, which during labor is bounded by the girdle of resistance. Three groups of presentations are to be recognized, two of which have the long axis of the fetus in correspondence with the long axis of the uterus, etc.

1. Longitudinal: *a*, cephalic, including vertex and its modifications, face and its modifications; *b*, pelvic, including breech and feet.

2. Transverse or trunk, including shoulder, or arm and other rarer presentations.

SECTION 4.—POSITIONS OF THE FETUS.

Vertex Positions:

Left occipito-anterior.....occipito-læva-anterior—O.L.A.
Left occipito-posterior.....occipito-læva-posterior—O.L.P.
Right occipito-anterior...occipito-dextra-anterior—O.D.A.
Right occipito-posterior..occipito-dextra-posterior—O.D.P.

Face Positions:

Right mento-posterior.....mento-dextra-posterior—M.D.P.
Right mento-anterior.....mento-dextra-anterior—M.D.A.
Left mento-anterior.....mento-læva-anterior—M.L.A.
Left mento-posterior.....mento-læva-posterior—M.L.P.

Pelvic Positions:

Left sacro-anterior.....sacro-læva-anterior—S.L.A.
Left sacro-posterior.....sacro-læva-posterior—S.L.P.
Right sacro-posterior.....sacro-dextra-posterior—S.D.P.
Right sacro-anterior.....sacro-dextra-anterior—S.D.A.

Shoulder Presentations:

Left scapula-anterior.....scapula-læva-anterior—Sc.L.A.
Left scapula-posterior.....scapula-læva-posterior—Sc.L.P.
Right scapula-posterior..scapula-dextra-posterior—Sc.D.P.
Right scapula-anterior...scapula-dextra-anterior—Sc.D.A.

When initial letters are employed it is desirable to use the initials of the Latin words.

DISCUSSION.

Under Section 3, "presentation or lie of the fetus" is an anachronism. It is an error to use presentation as the "lie of the fetus," for this latter phrase has reference to the *position* of the fetus as a whole, regardless as to what part presents at the uterine opening. Further, "three groups of presentations are to be recognized," "two of which have the long axis, etc., 1, longitudinal; 2, transverse." This latter double quote again refers to position. This is likewise an error. Position and presentation are not synonyms.

Under Section 4, "positions of the fetus," here position is again incorrectly used synonymously with the term "presentation." The word "position" as used under this section should make way for the word "presentation," for here reference is had to the part found in the uterine opening.

To overcome this embarassment in class work, I have deviated somewhat in nomenclature, definition and application from the usual text-book authority, not from the clinical picture, only in word-picture. I find the students readily master the positions and presentations as I give them.

As remarked, position and presentation are not synonyms and therefore should not be used synonymously. Etymologically considered, *position* refers to "aggregate of spatial relation of a body or figure to other bodies or figures; the situation; the place of a thing." *Presentation* refers to "that which is before; in view; appearance."

POSITION.

To recognize *position* with distinction, the relation of the fetus as a whole to the mother as a whole is as essential to artistic and scientific obstetrics as it is to recognize *presentation* with distinction—the relation of the presenting part to the parturient canal. It is the *position* that determines the *presentation,* and also its mechanism of labor. When speaking of the long axis of the fetus, reference is had to the long axis of its trunk.

To avoid confusion and ambiguity, the term position should be limited to the relation of the fetus as a whole to the mother as a whole, whereas, presentation should be limited to the local relation of the presenting part. Position is general; presentation is local.

In determining nomenclature, so far as pertains to position, Nature assists in suggesting one.

Look in any form or expression of Nature, so far as concerns relation of ovisac to fetus or shell to fruit; there we find one principle ever maintained throughout these various gestational expressions, and that is that the long axis of the fruit is always in the long axis of the ovisac and developing organ.

In the viviparous, the human, the lion, the horse, dog, etc., the long axis of the gestation sac is determined by the long axis of the fetus and is, as a rule, in the long axis of the mater, her longitudinal or vertical axis. Throughout Nature this is the normal relation of the fetus to the sac, and mater. In pleural conditions the apparently broken rule still holds true. Given any form of pluriparous gestation, as twins, triplets, quadruplets, etc., in any form of viviparous expression; as each fetus is expelled, often oblique and transverse to the mother before labor, in labor its long axis conforms to the long axis of the mater, for the long axis of her parturient canal is always in the long axis of the trunk. In the single fetus where the normal vertical relation (position) has deviated into the abnormal oblique or transverse position, to be delivered it must return to the vertical relation.

In the oviparous the egg is so conformed that in labor its long axis corresponds to the long axis of the mater. A critical type of this expression is to be seen in the parallelogram form of the gestation sac, containing the embryos, of the common domestic cockroach.

In the vegetable the same rule obtains, and with equal force. Regard the banana, the peanut, the philopenal almond, in cell-life the nucleus to the cell. Throughout gestational nature, this same relational principle of long axis of ovisac to long axis of fruit is maintained, seemingly a sympathy of relational fitness of outline best conserving opportunity to develop coincidently with greatest safety.

Since the long axis of the fetus determines the long axis of its sac and coverings, in determining the position of the fetus the spatial relation should be to the fixed relation, the mother, as a whole, rather than to its un-

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fixed relation, its sac and the uterus. In the extrauterine forms of pregnancy, the position must of necessity and correctly so refer to the relation of the fetus as a whole to the mother as a whole. Our definition must be so broad, yet accurate, as to include all forms of pregnancy, the uterine and the extrauterine.

Hence, *position* has reference to the relation of the fetus as a whole to the mother as a whole, and is determined by the relation the long axis of the fetus bears to the long axis of the mother.

The *variety* of position is determined by the relation which the important landmark of the fetus as a whole, the back (in the vertical positions), the head (in the oblique and transverse positions), bears to the important landmarks of the mother as whole, the (her) left side, the right side, anteriorly (to the abdomen), posteriorly (to the back).

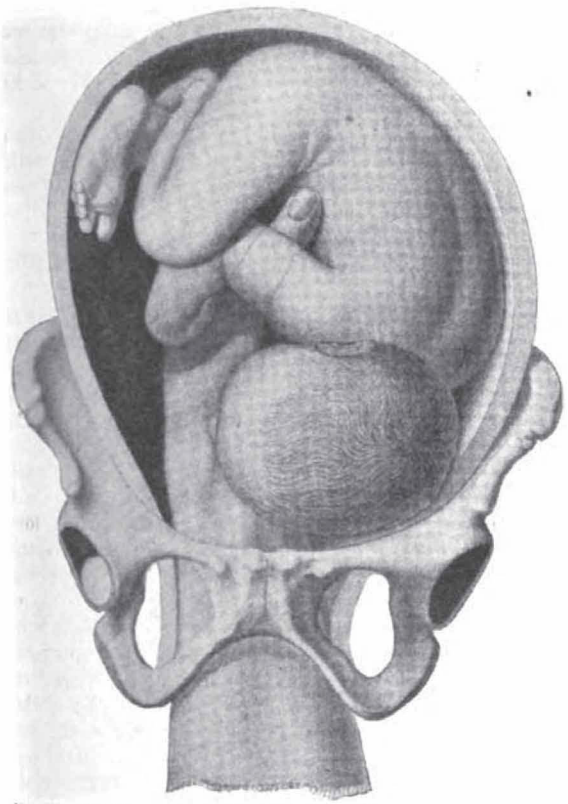

Fig. 1.—Position: First vertical (*a*). Presentation: right occipito posterior.
In making bipolar or podalic version, the non-advisability of passing the hand and forearm over the occiput and back—dorsum—of the fetus is well shown.

The positions as suggested by their frequency of occurrence are:

1, vertical—normal.
2, oblique—abnormal.
3, transverse—abnormal.

1. Vertical position: where the long axis of the fetus is in the long axis of the mother, the position is longitudinal or, better, vertical. This is the normal position for the fetus.

2. Oblique position: where the long axis of the fetus is in the oblique axis of the mother, the position is oblique. The oblique like the transverse is abnormal.

3. Transverse position: where the long axis of the fetus is in the transverse axis of the mother, the position is transverse. The transverse position is seldom a fixed or determinative position. It bears the same relation to the other positions that the brow presentation does to the occipital and face presentations. The transverse position is as a rule but a transitory midway relation in the mechanism of a normal vertical position changing into an abnormal oblique position, or an abnormal oblique position changing to a normal vertical position.

These positions are also subdivided, as suggested by their frequency of occurrence, as follows:

1. Vertical[1] positions:

Position.		Presentation—Superior Strait
First Vertical.....	*a.*	L.O.A. or L.S.A. or R.M.P.
	b.	L.O.P. or L.S.P. or R.M.A.
Second Vertical....	*a.*	R.O.A. or R.S.A. or L.M.P.
	b.	R.O.P. or R.S.P. or L.M.A.

First vertical position is where the long axis of the fetus is in the long axis of the mother, with the back of the fetus toward the left side of the mother: *a*, back to the left and rotated anteriorly toward abdomen of mother; *b*, back to the left and rotated posteriorly toward back of mother.

Second vertical position is where the long axis of the fetus is in the long axis of the mother, with the back of the fetus toward the right side of the mother; *a*, back to the right and rotated anteriorly toward abdomen of mother; *b*, back to the right and rotated posteriorly toward back of mother.

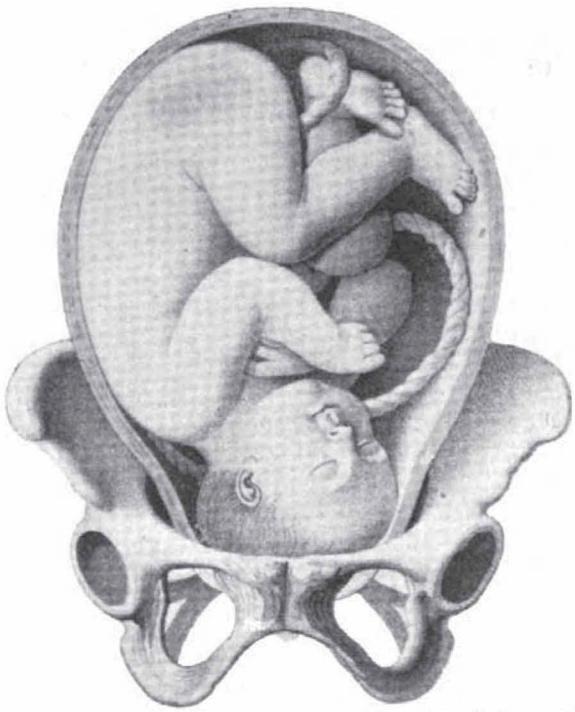

Fig. 2.—Position: Second vertical (*b*). Presentation: right occipito-posterior.
In applying forceps in this case, the low condition of the cord would invite special attention, to avoid its inclusion within the blades.

In those cases where the back of the fetus is directly to the left of the mother, or to the right, or to the anterior or to the posterior of the mother, it is unnecessary to designate them with a separate term. These positions are exceptional, and but transitory. As it is natural for the long axis of the fetus, its greatest length, to determine and be in the long axis of the uterus, its greatest length, its longitudinal or vertical diameter, so is it natural for the greatest breadth of the fetus, its bisacromial or transverse diameter to be in a favorable greater

[1] Vertical is co-ordinate with oblique and transverse; whereas, longitudinal is co-ordinate with diagonal and horizontal.

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breadth of the uterus, one of its oblique diameters. Consequently it is natural, and the rule, for the back to be to the left anteriorly or posteriorly, or to the right anteriorly or posteriorly.

2. Oblique[2] positions:

Position.	Presentation.
First Oblique	*a*. right shoulder.
	b. left shoulder.
Second Oblique	*a*. left shoulder.
	b. right shoulder.

The first oblique position is where the long axis of the fetus is in the oblique axis of the mother, with the head below in the left iliac fossa, the breech above toward the right iliac fossa, the trunk extending obliquely from the left below to the right above: *a*, back of fetus rotated anteriorly toward abdomen of mother—the right shoulder (and arm) presents; *b*, back of fetus rotated posteriorly toward back of mother—left shoulder (and arm) presents.

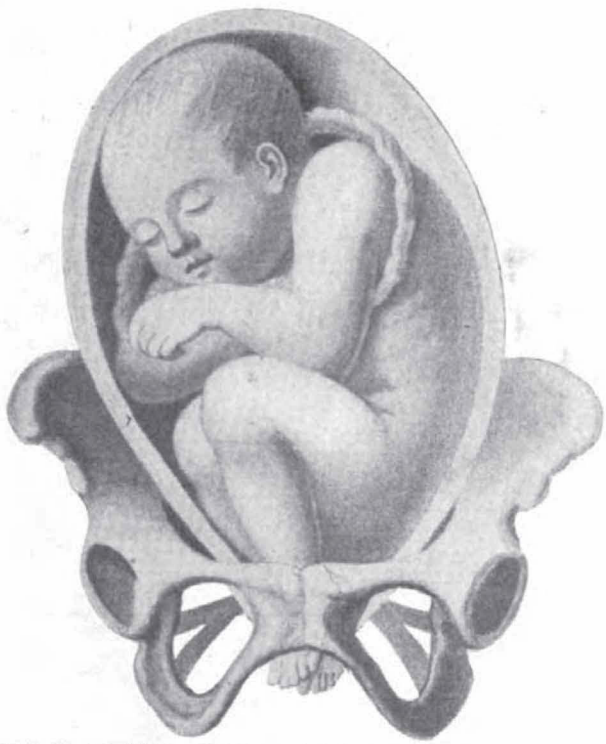

FIG. 3.—Position: First vertical (*b*). Presentation: complete footling. L. S. P.

In the delivery or the extraction, the cord thus twisted about the back of the head and around under the axillæ greatly increases the dangers to the fetus from asphyxia uterinæ. Early recognition of this condition is of prime importance.

The second oblique is where the long axis of the fetus is in the oblique axis of the mother with the head below in the right iliac fossa, the breech above, toward the left iliac fossa, the trunk extending obliquely from the right below to the left above: *a*, back of the fetus rotated anteriorly toward abdomen of mother—the left shoulder (and arm) presents; *b*, back of fetus rotated posteriorly toward back of mother—right shoulder (and arm) presents.

3. Transverse positions:

Position.	Presentation.
First transverse	*a*. trunk back anteriorly.
	b. trunk back posteriorly.
Second transverse	*a*. trunk back anteriorly.
	b. trunk back posteriorly.

[2] Hohl suggested this division, accepted by Hecker preferably to that of Mme. Lachapelle:

1. Right shoulder presenting *a*, head to the left; *b*, head to the right
2. Left shoulder presenting *a*, head to the left; *b*, head to the right.

In division, nomenclature, and relation these follow those of the oblique positions; their presentations are *not* like the oblique. The shoulder, with or without an arm, presents in an oblique position, but not in a transverse one. Here the presentation is some part of the trunk—thorax or abdomen—between the shoulders proper and the breech, excepting where the abdomen of the fetus is directly to the abdomen of the mother, when the small extremities lying on and along the trunk may present with the latter. Nor is it correct to speak of a "transverse presentation," including thereunder oblique and transverse positions with shoulder, arm, and trunk

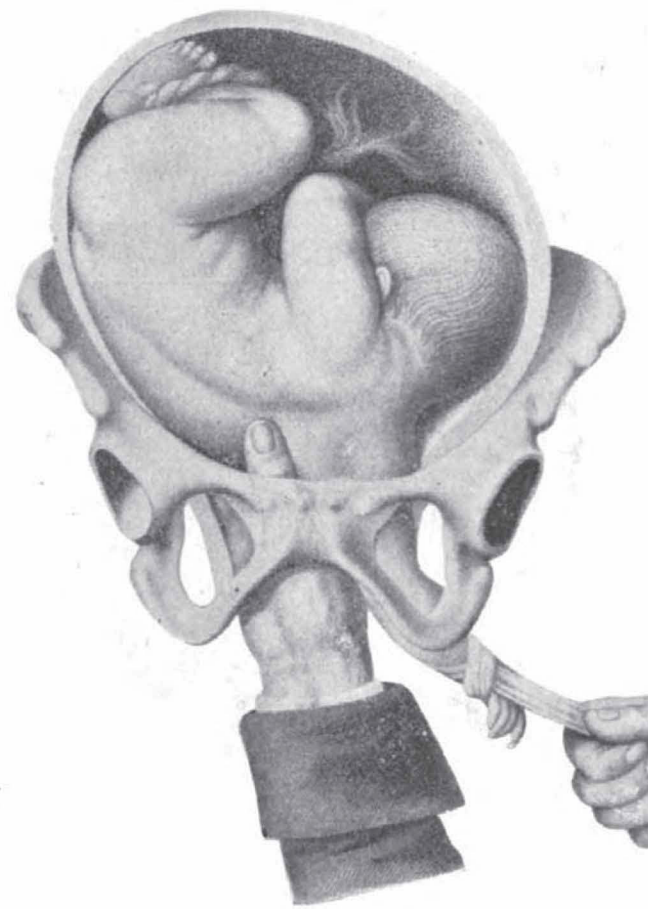

FIG. 4.—Position: First oblique (*a*). Presenation: right shoulder.

The contracting tape passed about the wrist is held here by the right hand of an assistant to turn; the operator enters the uterine cavity with his right hand. The effect conveyed by the assistant's hand is to hold the tape quite taut, as though to prevent slipping up of the arm and trunk. In the lying-in room, of course, this effect is lost; on the contrary, the tape is held quite loosely to encourage ease of rotation, especially in those cases where the fetus is large-sized.

presentations. It is not only incorrect but very indefinite.

To assist the student in fixing the detail of these various positions, it will be convenient for him to associate:

1. First with left: as first vertical, back to left; first oblique, head in the left iliac fossa; the first transverse, head higher in left iliac fossa; the first blade of the forceps to be inserted is usually the left one—as taught; the first in frequency is the left occipito-anterior presentation.

2. Second with right: as second vertical, back to the right, etc.

3. *a*, with abdomen of mother; first and second vertical

Subsequently Winckel, from personal investigation, was led to adopt and recommend the classification of Hohl as the best, because, etiologically, it can be best vindicated.—Winckel, Edgar: p. 398-400.

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(a) and first and second oblique, *(a)* all with back of fetus toward abdomen of mother.

4. *b*, with back of mother; first and second vertical *(b)* and first and second oblique, *(b)* all with back of fetus toward back of mother.

5. Back of fetus with back of fetal head: in position, as the back of the trunk is directed, so in presentation is, as a rule, the direction of the back of the head, i. e., if the back is directed to the left and anteriorly, a first vertical (*a*) position, as a rule the occiput or naturally the sacrum, is to the left anteriorly; therefore there is either a left occipito-anterior, a right mento-posterior, or a left sacro-anterior presentation. The exceptions to this rule are those few cases of excessive rotation of the head—these exceptions are so few that they constitute the proof of the rule. It is this rule that enables careful external before internal examination, to forecast the diagnosis of the most probable presentation, so successfully practiced in the hands of the careful diagnostician.

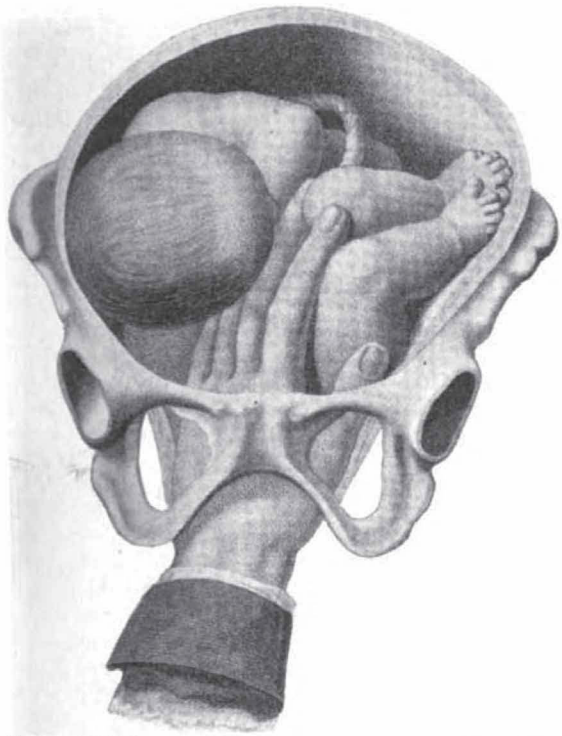

Fig. 5.—Position: Second transverse (*b*). Presentation: right side of trunk with right arm and thigh. This condition is easily corrected, as shown, by introducing the left hand, to bring down one or both feet and extract.

PRESENTATION.

In speaking of a presentation the thought applies to the part in touch or before, and not to the relation it bears as a whole to its environment as a whole, i. e., position. To speak of the position of the presenting part is needless and will only lead to continued confusion. If we do so, our nomenclature must retrograde to that useless redundancy of the past, of which the fifth left occipito-transverse, and the sixth right occipito-transverse (Lachapelle); the third occipito-pubic, the sixth, occipito-sacral (Baudelocque); the fifth occipito-anterior, the sixth occipito-posterior presentations of to-day are types. As Professor King says, these are "exceptional" presentations; they are transitory, not determinative, in character. As well invite a special nomenclature for an occipito-anterior presentation where the head in rare cases is so tilted that, comparatively speaking, the ear can be felt more prominently than the occiput.

In fixing on the four cardinal presentations, left anterior, left posterior, right anterior, and right posterior, as of occiput, breech, etc., the committee most judiciously adopted the suggestions offered by the four cardinal mechanisms of labor, established by Nature for all cases. The advancing part, for example the occiput, however it may start out as a presentation—it may be occipito-directly anterior or posterior, or to the left, or to the right—to be delivered, must pass through one of the four cardinal mechanisms, as a left occipito-anterior or posterior, or a right occipito-anterior or posterior, in its delivery. Again, in defining the term "presentation," it must be so broad, yet accurate, as to meet the requirements of a presentation, often changing from its original form and relation: in the uterus; without the uterus; at the superior strait; in the cavity, or at the vaginal outlet.

Hence, *presentation* has reference to the part of the fetus which presents or is found in the parturient opening. In the normal uterine pregnancy it refers to the part found in the cervical opening; in the Cesarean section or in the extrauterine section, to the fetal part found in the artificial parturient opening.

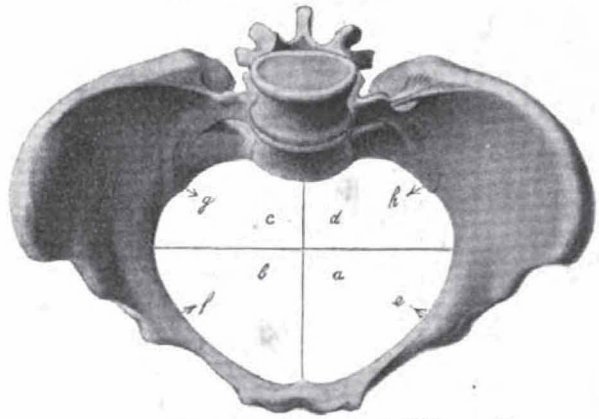

Fig. 6.—*a*, left anterior compartment; *b*, right anterior compartment; *c*, right posterior compartment; *d*, left posterior compartment; *e*, *f*, *g*, *h*, the cardinal points of the pelvic compass.

The *variety* of presentation is determined by the relation which the important landmark of the presenting part bears to the important landmarks of the parturient canal. In the fetus the occiput, the brow, the chin, the sacrum, shoulder, and in transverse positions, the trunk are the important fetal landmarks.

In the normal uteropelvic canal the four points of Capuron, the four cardinal points of the pelvic compass, the left and right iliopectineal prominences, and the right and left sacro-iliac synchondroses have been fixed as the maternal landmarks; or, again, another method which I have noticed, so far as the students are concerned, seems easy to grasp, is to divide the parturient canal by an antero-posterior plane, and at right angles to this, by a transverse plane; this will divide the canal into four compartments, as above:

About the center of the circumference of each arc will be found one of the four cardinal points of Capuron.

If the fetal part presents so that its most prominent landmark, for example, the occiput, is in the left anterior compartment, it is also toward the plane of the left ilio-pectineal prominence; naturally the brow would be in the right posterior compartment toward the right sacro-iliac synchondrosis; therefore, the variety of presentation is a left occipito-anterior. Again, in a breech

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presentation, the important fetal landmark is the sacrum if this is in the left posterior compartment, it is also toward the left sacro-iliac synchondrosis; the variety of presentation is therefore left sacro-posterior.

It is here, in the obtaining of a clear and distinct outline of definition and application, and in mastering the method of how to determine the positions and presentations, and their varieties, that the beginner experiences his greatest trials. These successfully overcome, his subsequent labor with the various mechanisms becomes much simplified, for then he has a clear and accurate basis to work on; it is hardly necessary to add that with increased accuracy in conception, there is increased power in creation, for obstetrics is primarily an art.

In an article containing suggestions for teaching purposes, detail in explanation is required and prolongs the article, creating the impression that the method is a long one; but not so, for instructional purposes a brief résumé only is necessary, which I have found is of ready comprehension and fixation to the students; these are important qualities.

RÉSUMÉ.

Position has reference to the relation of the fetus as a whole to the mother as a whole, and is determined by the relation the long axis of the fetus bears to the long axis of the mother.

POSITIONS.

- Vertical. Long axis of fetus in long axis of mother (normal).
  - 1. Back of fetus to left side of mother with
    - (a) Back rotated anteriorly.
    - (b) Back rotated posteriorly.
  - 2. Back of fetus to right side of mother with
    - (a) Back rotated anteriorly.
    - (b) Back rotated posteriorly.
- Oblique. Long axis of fetus in oblique axis of mother (abnormal).
  - 1. Head in left iliac fossa, breech higher above in right iliac fossa.
    - (a) Back rotated anteriorly toward abdomen of mother.
    - (b) Back rotated posteriorly toward back of mother.
  - 2. Head in right iliac fossa, breech higher above, in left iliac fossa.
    - (a) Back rotated anteriorly.
    - (b) Back rotated posteriorly.
- Transverse. Long axis of fetus in transverse axis of mother.
  - 1. Head in left iliac fossa, breech lower in right iliac fossa, trunk directly transverse. — Presentation, some part of the trunk.
  - 2. Head in right iliac fossa, breech lower in left iliac fossa, trunk directly transverse. — Ditto.

Presentation has reference to the part of the fetus which presents or is found in the parturient opening, and is determined by the relation the important landmark of the presenting part bears to the important landmark of the parturient canal.

PRESENTATIONS.

General Divisions:

- Superior pole.
  - Cephalic.
    - Occiput.
    - Face.
    - Brow.
  - Shoulder.
    - Right.
    - Left.
- Inferior pole (or pelvic). — Rare.
  - Breech.
  - Kneeling.
    - Incomplete.
    - Complete.
  - Footling.
    - Incomplete.
    - Complete.

VARIETIES OF PRESENTATION (as adopted by the committee):

Occipital Presentations—Normal:

Left occipito-anterior.....L.O.A.
Right occipito-anterior.....R.O.A.

Occipital Presentations—Abnormal:

Right occipito-posterior.....R.O.P.
Left occipito-posterior.....L.O.P.

Face Presentations—Abnormal:

Right mento-posterior.....R.M.P.
Right mento-anterior.....R.M.A.
Left mento-anterior.....L.M.A.
Left mento-posterior.....L.M.P.

Pelvic Presentations—Abnormal:

Left sacro-anterior.....L.S.A.
Left sacro-posterior.....L.S.P.
Right sacro-posterior.....R.S.P.
Right sacro-anterior.....R.S.A.

Shoulder Presentations—Abnormal:

Left scapula-anterior.....L.Sc.A.
Left scapula-posterior.....L.Sc.P.
Right scapula-posterior.....R.Sc.P.
Right scapula-anterior.....R.Sc.A.

The committee recommended: "Where initial letters are employed it is desirable to use the initials of the Latin words." In English-speaking countries would it not be well to retain in instruction and later in description, the English left and right? *Læva* and *dextra* can not add perspicuity, but rather create a barbarism, and always more or less confusion. The German and French retain purity in style; for their *links und rechts, sinistre et droit* are never as a rule evidenced by *læva* or *dextra*. Will not these foreignisms in description mar the purity in style without adding any to its force? After all, are we not already in the age where English is cosmopolitan?

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