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PART I.
ORIGINAL COMMUNICATIONS.

ART. I.—*A further Reply to Mr. H. Carmichael's Views on the Position of the Placenta, &c., in which is given a Statistical Table of its Situation in 100 Cases, as determined by the Stethoscope, and the Measurements of the Membranes.* By RICHARD DOHERTY, M. D.

THE November Number of the Dublin Journal contains a second essay from Mr. Hugh Carmichael, in which he advocates the same views, with respect to the situation of the placenta, and the mode of growth and contraction of the uterus, as he laid before the Profession in the number for January last, and to which I made some objections, in that of the July following. In this he disclaims the construction I have put upon his observations, and endeavours to prove I misrepresented his opinions. To this charge of misrepresentation, I have already had an opportunity of replying in another periodical, in which he published an article, containing certain unwarrantable allegations against the officers of the Dublin Lying-in Hospital, attribu-

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ting to them, amongst other things, the answer which bore my name, and an intentional misstatement of his meaning, to serve an invidious purpose. All this I should now willingly pass over, but that he still continues, notwithstanding my solemn denial of the truth of his imputation, to make use of phrases, calculated to convey impressions injurious to those gentlemen. For the want of courtesy shewn myself in disbelieving my statement, and in the studied avoidance of my name, in his late rejoinder, although I have distinctly avowed myself the sole author of the paper in question, I care not; but I do think it material, that a contradiction, the most positive, should be given to the implications contained in such expressions, as "a review from the Britain-street Lying-in Hospital," "his Britain-street Hospital critics," &c. now again repeated. I shall, therefore, quote the declaration I have already published in the periodical alluded to, in order that it may remove from the minds of the readers of this Journal all doubt upon the subject.

Having expressed astonishment at the spirit exhibited by Mr. Carmichael, I thus proceeded: "I now most unhesitatingly and unequivocally pledge myself, as a professional man and a gentleman, that his imputations against the Master of the Lying-in Hospital, and its officers, are totally groundless, (I shall not say *false*, as it is my intention to use the most temperate and in-offensive language;) that the paper written in answer to his, was my own sole and unaided production, and that so far from its being encouraged by the Master of the Hospital, he more than once, in conversation, expressed his ignorance of Mr. Carmichael's views, and objected to my reading it at the Obstetrical Society, lest controversy should excite unpleasant feelings in its dawning efforts. If further proof be necessary, let me add, that I had this morning a distinct assurance from the same gentleman, that up to this moment he has not even read Mr. Carmichael's essay, and is unacquainted with the merits of the discussion between us."

To an ingenuous mind one would have supposed this must

have been conclusive, and prevented any misapprehension as to the source from whence the dissent proceeded. Not so, however, in this instance ; for again is the Lying-in Hospital carped at, and again an attempt is made to involve its functionaries in a strife, which they never dreamt of creating. From what the author can have imbibed his mistaken feelings on this subject, I cannot conceive, unless it be, that in my paper I mentioned the names of the superintendents of that institution, as authorities for some of the points I put forward. But I did so because those points—of many of which (as for instance, the place where the placenta was detected during turning) I could have no other evidence—were published for the purpose of refuting statements, made by him with the greatest confidence, and therefore required to be authenticated. At the same time, however, although, in the capacity of clinical clerk to that establishment, it was my duty to receive from those gentlemen the accounts of the cases I made use of, I again protest, they were not given me with the intention of being turned against any theory whatever ; on the contrary, both the Master and assistants were perfectly ignorant of the application I afterwards made of them, and of my motives in thus minutely investigating those particular circumstances.

I shall not further allude, for the sake of the Profession to which we both belong, to the article inserted in the “ Medical Press ;” and with respect to my replication “ The Philippic,” as he designates it in the paragraph dedicated to its consideration, in the last Number of the Dublin Journal, I shall only say, I think it will be a warning to others, to ponder well, before they venture to commit to print charges against any individual, of unprofessional, nay ungentlemanly conduct. Such a proceeding is little calculated to raise the person who adopts it, in public estimation, much less can it decide a scientific question. But as, with the exception of the words which elicited these remarks, the author has at last undertaken to defend his opinions in a rational manner, I shall proceed, without further comment, to

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renew the, on my part at least, amicable contest, with a hope that my present undertaking may meet from my opponent a more charitable construction.

Throughout the whole discussion, Mr. Carmichael puts prominently forward, as his principal means of defence, that I argued on the supposition of his having stated, if the placenta be situated in any other part of the womb, save the lower and back part, in the first place, its growth cannot correspond with that of the uterus, and in the second, the contractions of labour must produce detachment, with its consequences. This he does, be it remarked, not for the purpose of refuting the argument so made use of by me, or shewing the fallacy of such an inference from his observations, but merely to deny, that such can be found distinctly asserted in his paper. He declares he confined his remarks on its want of coincidence in growth, to the fundus alone, and with respect to the contractions, that he spoke of their effects, only supposing them to take place, as now generally believed. A great discrepancy, however, exists between his original statements, and his present commentary upon them. Instead of alluding to the fundus, or *dome* alone, as the place where the expansion is too great, to allow the placenta to keep pace with it, he expressly affirmed, that if it be situated at any point above the Fallopian tubes, “ which are, at the full period of pregnancy, nearly half way down upon the uterine tumour,” that is to say, if it be deposited in the upper part of the uterus, both rupture of its adhesions during the increase, and early separation during its decrease, must ensue.*

* As it is important that this point be substantiated, I shall give the whole passage. “ The fallopian tubes in the unimpregnated state, are situated at the superior part of the uterus, at the cornua, as they are termed, whereas in the fully gravid state they are nearly one-half down upon the uterine tumour. The superficial distance between them, therefore, anterior, and posteriorly, as well as superiorly, must be the measurement of the expansion it undergoes in this position, and is certainly there much greater than elsewhere. Now if the placenta be situated where such expansion goes on, a change of surface must to a greater or less extent, after some

That to this proposition so laid down, I *did* make an addition, namely, that as these changes in the volume of the organ are, in his opinion, confined to the anterior part, the consequences he has predicated from such alterations, if the placenta be *above* the tubes, must with even more certainty follow, if it be *below* the tubes and *anteriorly*, I candidly admit. But, in truth, it appeared to me so obviously deducible from them, that I fell into the error of thinking it his own opinion on the subject. And I consider I was borne out in doing so, firstly by his positive declaration, that the placenta is always to be found, at the full time, on the posterior wall, and secondly by the following passages.

After describing his mode of expansion, and the contrivance by which the placenta is turned over to the back of the womb, he says: "Thus, throughout gestation, during every moment of which disturbance in the uterus is going on, the placenta is secured from it, and the danger it *otherwise* must be exposed to." And in another place, having asked how it comes to pass, that the placenta is not expelled sometimes for fifteen or twenty minutes after the birth of the child, he adds: "There is but one solution of the question; because the contractions which have affected all the other parts, have not yet influenced the placental department; there can be no other reason."* What meaning, I would ask, should be attached to these, and several similar passages in his paper, but that it was the author's opinion gestation could not proceed favourably, nor labour uncomplicated with detachment, and consequently hæmorrhage, if the placenta were formed in *any place* where it was exposed, as in all other situations, but particularly on the anterior wall, to the

time, be constantly occurring between the two, for it is impossible their growth can go on equally together. * * * Admitting, however, that there should be a perfect freedom from untoward consequences, when the contractions of labour set in, I cannot see how they will not occur, and in the most decided manner." Dub. Jour. for Jan. 1839, p. 453.

* Dublin Journal for last January, pp. 475, 479.

expansions and contractions of the womb? However, I will allow in this respect I misunderstood him, and shall now proceed to show, that the deduction I have thus drawn is by no means overstrained, but on the contrary, a most easy and natural conclusion from the granted premises, and one which Mr. Carmichael himself is constrained to admit.

In the July Number of this Journal, I entered into a calculation to prove the author's idea, that the placenta can be outgrown by the uterus, even if situated above the Fallopian tubes, to be unfounded. I pointed out that this region increased in *height*, from half an inch, its measurement at the formation of that substance, to five inches, its measurement at the full term, that is to say, in the ratio, in half inches, of one to ten, while the enlargement of the placenta, during the same period, is as one to twelve. This calculation Mr. Carmichael objects to, and confounding what I have said of the increased altitude of this part, with its development in breadth, states the proportion should be one for the newly formed placenta, twelve for it at its full growth, and twenty-two for the fundus at the full period: "so that the fundus increases on the placenta in a proportion, that will be represented by no less a number than ten." In this calculation, however, he is altogether in error, as he has left out of consideration, the *original* breadth of the uterus between the Fallopian tubes. This it must be at once evident, is an essential ingredient in the problem, and I shall, therefore, without further remark, correct this statement.* At the middle of the second month, when the embryo forms its first connexion with the parent, the tubes are two inches asunder: at the close of gestation, they are eleven inches: this part, therefore, expands in the ratio, taken in inches, of from one to five and a half, while the placenta enlarges as one to six at least. Thus then, even in this direction, the latter must outgrow the former.

* The following measurements are taken from casts in Dr. Montgomery's Museum.

But granting for a moment Mr. Carmichael is correct, and the placenta cannot advance *pari passu* with the uterus, if situated above the Fallopian tubes, how much more forcibly will this observation apply to the anterior wall? "The womb," he says, "in its increase, undergoes it chiefly in its altitude, the supply for which, must therefore, come principally from its anterior part. This portion expands and rises up, each superior part of it arriving at, and occupying the fundus, and then turning over to form a portion of the posterior parietes, until the expansion has gone to the required extent." And again, "What then forms the portion of this posterior part superior to it at the [full] time, namely, all that now above the placenta or Fallopian tubes? That which lay anterior to it, when it was the fundus, that is the superior portion of the anterior wall, which, to arrive at its latter position, must have occupied, and passed over the fundus, in the way I have stated."* From these passages, it is evident, that, to estimate aright the degree of increase the anterior wall undergoes according to this theory, we must first measure that part of it below the tubes, at the period of the formation of the mass, and then at the full term, take the length of a line, passing from the centre of the posterior wall, between the tubes, over the fundus, to the anterior labium of the os tinæ. The anterior wall will thus appear to have increased from two inches and three quarters, to seventeen inches, that is to say, in the ratio of one to six one-fifth, which is much more than the greatest development in any direction above the tubes, which I have shewn not to exceed one to five and a half. The placenta, therefore, ought not, according to his view of the subject, to be able to grow equally with this wall of the womb. And this deduction is still further supported by the hint he has lately thrown out, that "some of those cases of abortion, that occur without any assignable cause, at certain periods of gestation, may owe their cause to some such malposition of it." But I

* Dub. Journal for January last, pp. 468-9.

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adduced cases, and shall hereafter give many more, in which it was so situated, and yet gestation proceeded uninterruptedly, from which I infer *that his theory is not correct.*

This may be taking the author "in a way never intended by him," but I submit it is a fair view of the question, and a rational argument. Nor has he any just grounds of complaint against it. Surely, when he asserts, that the foregoing ill consequences must result, if the placenta be affixed in a situation, where a determined amount of expansion goes on, "whether the expansion takes place according to the present theory, or that he now proposes," he must *a fortiori* admit, that a similar injurious result will follow, if it be situated where a much *greater* change is effected.

What I have stated with respect to the expansion, applies with still stronger force to the contractions of the organ, supposing them to be "in an inverse ratio to each other." This argument also, Mr. Carmichael considers unfair, as he spoke of the placenta only in two situations, namely, on the back and fundus of the womb. I am aware he only mentioned those positions, nay, one of my strongest objections to his paper is, that not only does he pass over unnoticed the possibility of it being ever otherwise disposed, but positively asserts it is invariably on the posterior wall. He forgets, however, he made such a statement as the following. "In what possible way can we account for the uterine contractions taking place, up to almost the very last act of labour, *without the circulations being impeded*, which are so essential to the life of the child? clearly, on the grounds alone, that the part where the placenta is attached, the back of the womb, not only is not submitted to these contractions during the labour, until after the birth of the child, but is likewise by some means preserved from the effects *which the contractions in other parts would have on it*, [compression,] without some such means being in operation."* We must also recollect that he

* Dub. Journal, January Number, p. 473.

gives cases of hæmorrhage, which he refers alone to the placenta being situated rather high on the posterior wall, where similar "rectilinear contractions" as on the anterior occur, but with double force. I do, therefore, again assert, that, according to Mr. Carmichael's positions, hæmorrhage and a still-birth must result, if the placenta be situated in *any other part* of the uterus, than low down on the posterior wall.

Nor is such a statement calculated "to exhibit a writer on midwifery in a ridiculous point of view." If indeed he had admitted, that the placenta may be attached to *any* point of the uterine surface, and had stated, or I had made him state, that hæmorrhage should follow from every position but the one, *then* his theory would have been so refuted by every day's experience, as to deserve being ridiculed, instead of being met by serious argument. But as he assigned to it only one place, unless in rare instances, however incorrect he may have been in doing so, (and his soreness on this point, I have raised, shows he is not yet satisfied in his mind, that the anterior position *is* a very unusual one,) he might without any absurdity have asserted, all other arrangements gave rise to hæmorrhage: in fact I have demonstrated, that to be in keeping with himself he *should* have done so. But the cases I published, according to his own admission, and others I shall hereafter give, prove such a consequence (though a necessary one according to his views) does *not* follow from what he considers an unnatural disposition, from which also I infer *that his theory is not correct.*

Nor will I even admit I misinterpreted him, as to the period at which hæmorrhage should under these circumstances occur. Having been pointed out the dilemma into which he had fallen, he now attempts to get over the difficulty, by assuring his readers he never meant hæmorrhage while the child is in utero. In answer, I shall just refer to the following passage. "I have further stated my reasons for supposing, as the contractions of the womb necessary for the expulsion of the child, appear to be confined to the superior and anterior part,

that when the placenta is situated above its usual position on the lower part of the back of the uterus, it comes within the range of *those early contractions*, and is thus partially detached with the consequences thereof; in fact, labours complicated with hæmorrhage may possibly be the result of such partial malposition, and I am of opinion, that future experience will prove the correctness of this statement.”* If this observation does not apply to hæmorrhage, whilst the child is still in the womb,—a meaning which the author now labours to disclaim,—I know not the signification of words. And if it be not so, what, let me ask, is the value of his new motion, or when does he intend the patient to be thereby saved from hæmorrhage? Perhaps he means during the separation of the after-birth. But as the action; which begins to detach it, however performed, will, by continuing, separate it completely, (at least I can see nothing to prevent it,) why should more loss be sustained? The only bearing his argument seems now to have, since the former statement has been indignantly disowned, is, that if the placenta be situated within the region, which he has set apart for expulsive action, it will be earlier detached, and with more hæmorrhage than elsewhere, a fact, which does not correspond with my experience, as shewn by the subsequent table, from which also I argue *that his theory is not correct*.

Having now occupied sufficient space in support of my original review of his opinions, I shall proceed to take the author on his present shewing, for it is by no means my wish to force his meaning, and prove both his premises and conclusions incorrect. He sets out with two propositions, with both of which I totally disagree. On these his mode of expansion and contraction of the uterus is founded, and from these he infers a necessity for such an explanation, and the impossibility of any other being the true one. “If the premises I have assumed be correct and admitted,—firstly, that the placenta is formed and attached at the fundus, or somewhere near it; secondly, that it

* Dub. Journal for January, 1839, p. 477.

remains, throughout pregnancy, on the same identical portion of the womb it was first attached to; and lastly, that at the close of gestation, it is low down on the posterior part of it, I cannot see in what other manner we can account for this change of position.”*

Now, with respect to its early attachment, I know not upon what he founds his opinion, but that it is erroneous, references to preparations and plates will fully prove. If we examine an ovum after the middle of the second month, it will be found that the cord, from which the placenta springs, is inserted, not into its roof, if I may so call it, but into some part of its walls, at a higher or lower elevation. Many representations of this arrangement are to be seen in Velpeau's and in Davis's † plates. I would particularly direct attention to Granville's Illustrations of Abortion, (page 9,) where two specimens of miscarriage between the second and third month, are delineated and described. In the one, “the placental cotyledons are at the *posterior* part of the figure, mossy, in groups, and some of them covered with their *membrana proper*.” In the other, “the connexion to the inner cavity of the womb is accomplished by means of the placenta, which is seen at the *posterior* part of the preparation, and appears quite compact, and one-twentieth of an inch thick.” This is also well displayed in several preparations in Dr. Montgomery's Museum, particularly in that marked 251, an abortion at the tenth week, in which the placental rudiments are altogether confined to the *back* of the ovum. In fact, few instances can be pointed out, where the foetus hangs from that portion which corresponds to the fundus uteri. If now we look into the authorities on the subject, instead of such a statement being made, they one and all inform us, that the embryo may connect itself to any part of the uterus. Even Burns himself, who most inclines to Mr. Carmichael's position, has this pas-

* Dub. Jour. for Jan. 1839, p. 469.

† Prin. and Pract. of Obst. Med. plate 28, p. 840.

sage. "The placenta *may be formed at any part of the uterus*, but in general it is found near the fundus."* The opinion of the latest writer is as follows. "*For the most part the ovule attaches itself to the naked surface of the womb, in the vicinity of the orifice of the Fallopian tube*, through which it entered; but it certainly does, in a good many instances, move to the fundus, or to the anterior or posterior surface of the organ, or it may even fall downwards into the vicinity of the upper opening of the cervix and attach itself there."† From these evidences it will be seen, how much reliance should be placed on Mr. Carmichael's assertion, that it is an admitted fact, the placenta always first attaches itself to the fundus. This "admitted fact" depends, as far as I can see, on his own testimony alone, and cannot be received without a considerable degree of reservation.

But he asks, how can the placenta be found low down on the posterior wall, if the expansion does not take place as he describes? Nothing more easy to explain. The place at which the embryo attaches itself, I have in my former paper endeavoured to show, depends in a great measure on two circumstances, the greater or less obliquity of the uterus at this period, and the quantity of fluid it contains. To these I have added the degree in which the decidua reflexa yields, or rather grows before the ovum. If that membrane be rapid in its growth, or perhaps of such tenuity, as to allow the weight of the ovum to prolong it to an unusual extent, that substance arrives in the lower region of the uterus, before the embryo forms an attachment to it, (and this is facilitated by the length of time which elapses from its arrival, till it forms its connexion,) and accordingly, in the lower region of the uterus, will its attachment be found at a later period. No necessity exists for entertaining, on the one hand, the absurd supposition, that the placenta can shift its adhesions

* *Princ. of Midwifery*, p. 201. London, 1832.

† *Philadelphia Practice of Midwifery*, by Chas. D. Meigs, M.D. Philadelphia, 1838, p. 102.

to the uterine surface, or on the other, that the expansion of the womb is confined to any one part. Wherever the placenta forms, there it grows, and there throughout intra-uterine life will it remain, whether it be on the posterior wall, or on the anterior, or (in much rarer cases) on the fundus. But it may be inquired, why should the fundal position be so unusual a one? The reason, I think, is obvious. The ovum enters the womb *below* the fundus, and the foetus, to connect itself to it, should send its vessels, not only upwards against gravitation, but from the natural obliquity of the organ, somewhat forwards too. And it appears to me rational to suppose, it is only, when from some extraneous cause the womb is maintained in an upright position, so that the germ is pressed or supported directly against it by the fluids, which the uterine cavity then contains, it can shoot its vessels into this particular part. At least, it seems to me a plausible explanation of the infrequency of its attachment there, that to arrive at it, the vessels under any other circumstances must proceed not only against gravity, but with an exactness of lateral inclination, which one may well imagine difficult to attain. So much for the formation of the mass, the first chain in Mr. Carmichael's argument, the fallacy of which affords me an additional reason for considering *that his theory is not correct*.

Let us now turn to his opinion, with respect to its situation at the termination of gestation, and contrast it with those to be found in the standard works of the day, and here, I think, we shall again see, that he stands alone in opposition to an array of the highest authorities, and brightest luminaries of our Profession.

The author states: "I have adduced proofs sufficient to satisfy most minds, that at the close of pregnancy, the placenta is low down on the posterior part of the womb."* More recently he adds: "I believe, since the appearance of my essay, atten-

* Dublin Journal of Medical Science for January, 1839, p. 467.

tion has been very much drawn to the examination of the secundines ; and I believe, I need not observe what tale they (I shall not say in every instance) tell, inasmuch as one or two exceptions may be found in the hundred ; but for those who cavil with my doctrines, let them, if they can, deny this assertion, as to the proportion of instances, in which it is found low down on the posterior wall, and if they be forced to admit it, or what is the same thing, be silent on it from an unwillingness to admit it, let them say, either that Nature has no object in thus almost so invariably placing the placenta in that situation, 'or if she had, let them give a better solution of it than I did.'* Here then is a distinct and regular challenge, in words which cannot be mistaken. Upon this point, I join issue with Mr. Carmichael, and if I do not prove to demonstration, that this, his strong assertion, is devoid of foundation, I shall be satisfied that his theory be received, and I overwhelmed with all the odium of persisting in an opposition, which is "both frivolous and vexatious." I shall first quote passages from the most distinguished writers, and then give, in a statistical form, my own researches on the subject.

"It is seldom found attached to the same part of the uterus in two successive births, and though it most frequently adheres to the *anterior* part, it is occasionally fixed to any other, even to the os uteri."—Denman.† "There is no particular part of the uterus, to which Nature seems constantly and uniformly to fix the placenta."—Rigby.‡ "I believe the placenta is most frequently connected to the back part of the body of the uterus, *rather above its centre* ; but there is no one spot of the whole internal surface of the womb to which it may not be appended."—Ramsbotham.§ The situation of the placenta is generally in the *upper part* of the uterus, either in front or laterally

* Dublin Journal of Medical Science for November last, p. 217.

† Introduction to Midwifery, p. 116. Lond. 1824.

‡ Essay on Uterine Hæmorrhage, p. 13. Lond. 1822.

§ London Medical Gazette, vol. xiii. p. 615.

behind.”—Blundell.* “ The attachment of the placenta is not invariable ; it may unite itself to any point of the internal surface of the womb.”—Gardien.† “ The placenta may be situated on any part of the uterine surface. It may be found upon the fundus, on one of the Fallopian orifices, on the *bas-fond*, in front, on either side, or upon the inner os uteri.”—Meigs.‡ Dr. Lee states, that it is generally attached to the posterior and lateral parts of the fundus and body of the uterus. According to Maygrier, it occupies oftenest the *middle* and posterior part of the womb, and more rarely the fundus.§ “ The placenta does not always adhere to the same part of the uterus, in general it connects itself to the *superior* part of the womb.”—Davis.|| Thus, not one of these authors corresponds with Mr. Carmichael in the position he has allotted it ; but lest he should object that these opinions were formed on the evidence afforded by the introduction of the hand, after the expulsion of the child, when he fancies it has undergone a change in its relative situation, Velpeau comes seasonably to my aid, with the result of the inspection of thirty-four cases, who died during pregnancy, or recently delivered : in twenty instances, the placenta was found over the orifice of the Fallopian tube, in three placed anteriorly ; in two posteriorly ; in six at the fundus, and in three towards the cervix, at the side just beneath the tube.¶ My friend, Dr. Edward W. Murphy, has informed me of a woman, who died of phthisis, undelivered at the eighth month, to whom he was called while Assistant Physician to the Lying-in Hospital, for the purpose of extracting the child. On performing the Cæsarean section, the placenta was found adhering to the left side of the fundus. In Dr. Montgomery’s Museum, is a gravid uterus at the full term, in which the pla-

* Lectures, p. 224.

† *Traité Complet d’Accouchemens*, tome deuxième, p. 162. Paris, 1824.

‡ *Opt. Cit.* p. 118.

§ *Tom. i.* p. 143.

|| *Prin. and Pract. of Obstetric Med.* vol. ii. p. 835. Lond. 1836.

¶ *Embryologie*, p. 69. Paris, 1835.

centa may be seen on the upper and anterior part of the womb. The preparation marked B, a. 1. in Dr. Kennedy's Museum, also exhibits a gravid uterus with its contents at the full time. The anterior wall has been divided, and the placenta is seen partially detached from it. Against all this evidence, Mr. Carmichael sets his *four* cases of deaths before delivery, wherein the placenta was low down on the posterior wall. Therefore, forsooth, this must be its natural position, and all other observers are in error!!

But he tells us the stethoscope, in ninety-eight cases out of a hundred, testifies, that this is its situation. What is Kilian's observation on this subject? "On ausculting the different parts of an abdomen, which is distended by the gravid uterus, two species of pulsation will be distinguished: they are essentially different from each other, and are heard at different parts of the abdomen. In the first place, we shall hear, about the middle of the gravid uterus, a little to one side, and generally the left, distinct double pulsations, which follow each other very rapidly, and are mostly, although not always, in perfect rythm, and secondly, *in various parts of the uterus, but most distinctly towards the fundus*, and especially on the left, we shall also perceive very audible single pulsations, accompanied with a peculiar tone or murmur. The first sound is from the pulsations of the foetal heart, the second is from the murmur of the circulation through the gravid uterus."* Hohl, speaking of the placental bruit, says: "This sound is only heard in the gravid uterus, and may be perceived in most parts of the *anterior wall*; it is most distinct at those spots, where the vessels have undergone the greatest increase of size, and degree of contortion, viz. *about the fundus*, and especially at its sides."† Naegelé states, that the souffle may always be heard in one or both inguinal regions. "From this part it usually extends, although mostly on one

* British and For. Med. Review, vol. i. p. 89.

† British and For. Rev. v. i. p. 90.

side, towards the hypochondrium, or more forwards towards the umbilicus, and the limits within which it can be heard cannot be marked very exactly. In the majority of cases, they at any rate correspond to the circumference of the placenta; in some, it extends from both groins over the whole uterus; in others, it is more confined to the lower portion—*there is no part of the uterus*, which can be reached by the stethoscope, in which we have not heard it.*

All this weight of authority Mr. Carmichael passes by, as if unworthy of notice, and without alluding to any writer on the subject, even for the purpose of contradicting him, pronounces *ex cathedra* his *ipse dixit*, that it is in one of the iliac fossæ the sound is always detected by the stethoscope, shewing that “there the placenta is always in its immediate vicinity, nay immediately under it.”† I shall hereafter point out, that the murmur being heard in this situation, is not necessarily an indication of the situation of the placenta. But I forget, that since my cases were published, he has had the ingenuousness to own himself in error, in this particular, and admit that in *one* instance, the uterine bruit was heard at the fundus. I cannot but feel grateful for the candour he exhibits, in believing my statement on this occasion, particularly as he refused to credit my solemn declaration on one of more importance: but I shall here now, once for all, reply to his boast, that several months were consumed in seeking out cases to controvert his opinions, and after all, only the few I related could be obtained. This is not at all the fact. In no place have I stated these to have been the only ones I met with; on the contrary, I have elsewhere informed the author, I could adduce several similar in addition, a pledge I shall just now redeem. But having recorded cases, which he himself has since allowed were sufficient to support my objections to his argu-

* British and For. Rev. vol. xvi. p. 366. See also Dr. West's Translation of Naegelé's Treatise on Obstetric Auscultation, p. 14. Lond. 1839.

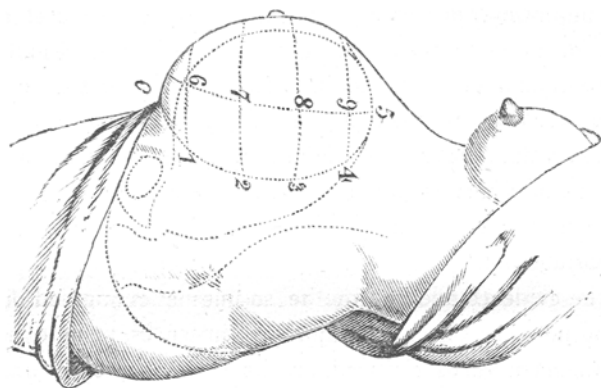
† Dublin Journal for January, 1839, p. 461.

ments, I was satisfied with doing so, without lengthening the paper by others, which probably would have been looked upon as unnecessary and tedious. This is a sufficient answer to this oft repeated, and loudly vaunted charge.

I have now to lay before the Profession, my researches on the position of the placenta, tested by the stethoscope, by actual measurement of the secundines, and in a few instances, by the introduction of the hand. I have been induced, in order to set all argument at rest on this score, to make a statistical table of one hundred cases, most of which occurred in the wards of the Dublin Lying-in Hospital. In order that reliance may be placed on my account of the stethoscopic phenomena, I may be permitted to observe, that in that institution I had, before the commencement of these observations, long and ample opportunities, of which I fully availed myself, of becoming familiar with the use of the instrument in obstetric practice. The table exhibits firstly, the name of the patient, and date of her admission; secondly, the evidences afforded of the position of the placenta, by auscultation; thirdly, the dimensions of the placenta and membranes; fourthly, the period at which the secundines were thrown off; and fifthly, the insertion of the cord. And in notes appended, I have stated any thing remarkable that may have occurred in the progress of the labour. In describing the extent of the souffle, I have adopted for the sake of brevity, the accompanying diagram. Thus, if I wish to express that it was heard along the edge of the uterus in the groin, I say it was audible in 0; if that it reached from that to the highest point of the lateral edge, I say it was heard from 1 to 4. When I wish to point out the part of the anterior wall it could be distinguished in, I note that it was heard in 6, for instance, or from 1 to the median line, as the case may be. The letters R and L stand for right and left sides.

The following cases were taken indiscriminately, and without reference to any particular circumstance connected with them, from amongst the many which were admitted into the

Dublin Lying-in Hospital during the period embraced in these reports, according as I had an opportunity of examining them with the stethoscope previous to the completion of labour, and afterwards of inspecting the secundines.



In examining for the souffle, I may beforehand remark, that when it is audible only along the margin of the uterus, the placenta is invariably placed on the posterior wall; and as it generally approaches one side more than the other, the side it is nearer to will be that, at which the murmur is loudest and most extensive, at the other side it will probably be heard not at all, or over a small space only, (unless when the placenta is large, in comparison with the uterus), where the wall forms, as it were, a tangent to the circle. In the following cases, it may be observed, that though it was generally detected in one or both iliac fossæ, the placenta in several was situated at a much higher point. The fact is, a souffle almost always exists here, arising from the disposition of the vessels of the uterus, but it is feeble, and wants the prolonged bellows sound, unless the edge of the placenta reaches this region, when it will be even louder here, than under other circumstances, it is in any other part of the tumour; so much so, that I have then often persuaded myself, I could

even distinguish from the whiz a rush as of the blood, synchronous with the pulse. When the bruit can in the least be detected at any point of the anterior wall, we may rest assured the placenta is applied to it. However, it should be recollected, that though the placenta be so affixed, we may remain ignorant of the fact, unless we examine twice or three times; for strange to say, the murmur often ceases for a while, (sometimes even at the edges of the mass, but frequently over its substance), and after an uncertain interval returns in full force. When it can only be heard over a part of the anterior wall, it shows the placenta is wrapped round that side of the uterus. These observations will, perhaps, be sufficient to render this table intelligible. I shall, at a future time, take an opportunity of entering more fully into its consideration.

The evidence afforded by the secundines is founded on the fact of the placenta, in the majority of instances, being expelled with the membranes reversed, and its foetal surface downwards. When this is the case, it is obvious, the upper edge must, in its separation, have been momentarily earlier than the lower, and thrown towards the wall opposite that on which the mass was implanted; a direction the membranes, which usually remain longer adherent, tend still further to give it. But as the membranes arising from the upper edge pass over the fundus, and down the opposite wall to the os tincæ, they must be much longer than at the inferior edge, and the length of the latter will shew, how far from the os the placenta was actually situated. As this, however, will not be sufficient to tell us to what wall it was appended, I adopt the expedient of inserting a pin (as it lies on the bed fully expelled) into the margin close to the patient's thigh. Thus I am able to distinguish the anterior from the posterior part, when removed for examination, a point, which I shall afterwards shew, Mr. Carmichael must altogether have neglected. Recollecting now, that the upper edge is thrown towards the opposite wall, it must be evident, if the long membrane be found at the pubal margin, the placenta must have

been on the posterior wall ; if at the perinæal, on the anterior. The same will hold good with respect to the lateral parietes. But, frequently, the membranes, being early detached,* come down in their natural relation, unreversed, or only one-half inverted ; still I have satisfied myself, the separation of the placenta, in by far the greatest proportion of cases, takes place from above downwards, which indeed is proved by the fact, that the foetal surface is still the first to make its appearance. In a very few, the uterine surface is first seen, and then it follows, the secundines will tell an exactly opposite tale to what they ought. For instance, if the placenta be on the posterior wall, and the lower edge is first or simultaneously detached, it may be directed by the perinæum towards the pubis ; and the short membrane will then be there found, after it is expelled. This error, however, can be easily guarded against, by watching which surface descends foremost, or in other words, which remains directed towards the vulva : indeed, it is principally, I might almost say only, when it has been on the posterior wall, and con-

* Denman notices, that the placenta mostly descends with the membranes reversed, and adds : " Yet not always, as the separation of the placenta is in some cases so speedy, that it drops into the vagina, and pushes the membranes before it." I perfectly agree as to the fact, but I think the explanation erroneous, as if the placenta be first detached, it has to peel the membranes from the uterus, and must therefore invert them. About fourteen months ago, a curious case of preternatural adhesion of the membranes occurred in the Hospital. The child was born alive, after a natural labour of two hours. The placenta being retained for one hour, and hæmorrhage coming on, pressure was made on the uterus, and the placenta expelled, but the funis was found to remain at its central part in the cavity of the uterus, while both its extremities were without the labia. On looking at the placenta, the foetal surface was found stripped of the transparent membranes, which the finger being passed detected still adhering to the internal surface of the uterus. They were then removed by the introduction of the hand. Examination of the whole of the secundines revealed a very unusual condition. The chorion, which was throughout thicker than natural, had here and there, projecting from its surface, small vascular substances, resembling the placentulæ of the cow. The funis played in a pulley, formed by the membranes in the situation corresponding to the former position of the placenta.

sequently had the perinæum to slide along, I have observed it so detruded. If the membranes be of equal length, or nearly so all round, the placenta was of course on the fundus.

For example sake, I shall take the first case, that of O'Connor. Here the souffle is noted, as being audible from 1 to 4 R, that is to say, it was heard from the inferior spine of the right ilium, along that edge of the uterus to the commencement of the fundus, and no where else. The prognosis made, therefore, was that the placenta was attached to the middle of the posterior wall at the right side, and this was verified by the membranes, which were three inches long at the perinæal or posterior margin, and ten at the opposite edge. In the third case, that of Rooney, almost similar observations were made,[‡] and their correctness proved by the introduction of the hand, which found the placenta still adhering to the upper and back part of the womb. In the case of Reilly, (No. 11,) on the contrary,[‡] the souffle was not only heard from 1 to 3 R, but at 6 and 7, or half way towards the median line: thus pointing out that the placenta was low down on the right side of the uterus, and extended to some distance anteriorly. And the membranes confirmed the fact, by being two inches on the anterior and right side, and twelve and a half in the opposite directions.

TABLE
Demonstrating the Position of the Placenta.

Number.	Date.	Name.	Placental Souffle where heard.	Prognosis of Situation of Placenta.	Measurement of Membranes.	Diameters of Placenta.	When expelled.	Insertion of the Cord.
1	Sept. 17	O'Connor.	1 to 4 R.	Middle of post. wall.	3 in. post. 10 in. ant.	6½ inches.	1 h.	Within 2 in. of ant. edge at its centre.
* 2	„ 17	Glover.	At 5, 4, 3, both sides, and across abdomen between them; no souffle in iliac fossæ.	On fundus reaching to both an. and post. walls.	8 in. post. 7 in. ant.	7 in. ant. post. 6 in. laterally.	1½ h.	Centre.

* Labour lasted three hours; child alive, no hæmorrhage.

Number.	Date.	Name.	Placental Souffle where heard.	Prognosis of Situation of Placenta.	Measurement of Membranes.	Diameters of Placenta.	When expelled.	Insertion of the Cord.
* 3	Sept. 17	Rooney.	1 to 5 R. at 3 L.	High on post. wall.	Membranes torn. Hand introduced.	7 in.	..	Centre.
4	" 17	Canning.	2 to 5 R.	High on post. wall.	5 in. post. 9 in. ant.	6 in.	15 m.	Rather nearer ant. edge, than centre.
5	" 18	Ward.	1 to 4 both sides.	Middle of post. wall.	3 in. post. 12 in. ant.	7 in. ant. p. 7½ laterally.	1 h.	Centre.
6	" 18	Dickinson	0 to 3 R.	Low on post. wall.	1½ in. post. 12 in. ant.	6 in. a. p. 6½ laterally.	5 m.	Within ½ in. of ant. edge, centre.
7	" 18	Meredith.	1 to 4 L.	Middle of post. wall.	4 in. post. 10 in. ant.	7 in.	11 m.	Centre.
† 8	" 18	Whelan.	No time for examination after admission.	Membranes proved it to have been on fundus.	8½ in. post. 9 in. ant.	6 in.	2 h.	Centre.
9	" 18	Smyth.	1 to 4 both sides.	Low on post. wall.	1½ in. post. 14 in. ant.	7 in. a. p. 6 in. lat.	..	Within 1 in. of ant. edge, centre.
† 10	" 19	Conolly.	2 to 3 both sides.	Middle of post. wall.	3 in. post. ant. torn.	6 in.	17 m.	Within 1½ in. of ant. edge, centre.
11	" 20	Reilly.	1 to 3 R. and at 6, 7, R.	Right side extending to ant. wall.	12½ in. post. 2 in. ant. and R.	6 in.	30 m.	Within 1 in. of post. edge, L. side.
12	" 20	Hanlon.	1 to 3 L.	Low on post. wall.	2 in. post. 11 in. ant.	6 ant. p. 7 lat.	5 m.	Within ½ in. of ant. edge, centre.
§ 13	" 20	Wheeler.	Loud at 1 to 3 and 6, 7 L. feeble 1 to 2 R	Low on left side and ant.	14 in. post. 1½ in. ant. and L.	6½ ant. p. 5½ lat.	10 m.	1 in. nearer ant. edge than centre
14	" 20	Walsh.	1 to 4 R. 1 to 4 and at 7 L.	Middle of post. wall, extending to ant. at left.	3½ in. post. 6½ in. L. 8 in. ant. 8 in. R.	7 in.	10 m.	Right cord close to ant. edge at R. Left cord separated on the membranes close to ant. edge.
15	" 20	Kellett.	1 to 4 L. 1 to 2 R. and across abdomen. Loud at umbilicus.	On anterior wall.	11½ in. post. 1½ in. ant.	7 ant. post. 6½ laterally.	5 m.	Close to post. edge on left side.
16	" 20	Dooley.	1 to 3 L.	Low on post. wall.	2½ in. post. 9 in. ant.	7 in.	30 m.	½ in. nearer ant. edge than centre.

* Lever case, hæmorrhage before the expulsion of placenta, hand introduced, placenta found on upper part of posterior wall.

† Labour lasted fourteen hours, placenta retained two hours, removed by pressure without hæmorrhage. Child alive.

‡ Forceps case.

§ In this case it is evident that the feeble souffle heard from 1 to 2 R. did not depend on the position of the placenta, but on the uterine vessels.

|| Twins at the eighth month. Single placenta.

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Number.	Date.	Name.	Placental Souffle where heard.	Prognosis of Situation of Placenta.	Measure-ment of Membranes.	Diameters of Placenta.	When expelled.	Insertion of the Cord.
17	Sept. 20	Byrne.	In 2 R. 0 to 3 L.	On posterior wall.	4 in. post. 10 in. ant.	5 in. an. p. 6 in. lat.	30 m.	Close to ant. edge, centre.
18	" 21	Cunniue.	2 to 4 R. 3 to 4 and 8 L.	High on ant. wall.*	10 in. post. 4 in. ant.	6½ in.	2 h.	Opposite centre close to right edge.
19	" 24	Hix.	1 to 4 both sides.	On posterior wall.	3 in. post. 10 in. ant.	6½ an. p. 7 lat.	1 h.	Centre.
20	" 24	Morris.	No time for examination.	Membranes proved it on ant. wall.	11 in. post. 2½ in. a nt.	7 in.	2 h.	Nearer post. edge than centre.
21	" 26	Mellia.	0 to 3 R.	Low on post. wall.	3 in. post. 11 in. ant.	7 in.	10 m.	Close to ant. edge at centre.
22	" 26	Keegan.	1 to 3 both sides loud.	Low on post. wall.	2 in. post. 10 in. ant.	8 in. an. p. 7 in. lat.	15 m.	Centre.
*23	" 26	Dunn.	1 to 4 both sides.	Posterior wall.	4 in. post. 9 in. ant.	7 in.	45 m.	Right close to anterior edge. Left at centre.
24	" 25	Rochford.	2 to 4 and 7 L. 3 and 8 R. loud at umbilicus.	Anterior wall.	12½ in. post. ant. torn.	7 in.	15 m.	Centre.
25	" 25	Marlow.	2 to 4 L.	Posterior wall.	1½ in. post. 12 in. nt.	7 in.	1 h. 5 m.	Centre.
26	" 27	Vickery.	In 1 L. only.	Posterior wall.	2½ in. post. 11 in. ant.	7 in.	8 m.	Centre.
†27	" 25	McDonald.	No examination.	Hand introduced; plac. on ant. wall.	11 in. post. 4 in. ant.	7 in.	Immediate-ly.	Nearer post. edge than centre.
‡28	" 27	Reilly.	..	Membranes shewed it to have been on fundus.	9 in. post. 8½ in. ant.	6 in.	2 h.	Centre.
§29	Oct. 3	Glennon.	1 to 4 L. and to med. line.	Ant. wall left side.	8 in. post. 2 in. ant. and L.	6 in.	35 m.	Nearer ant. edge than centre.
30	" 3	Jones.	1 to 4 L. 1 to 3 R.	On posterior wall.	2 in. post. 12 in. ant.	6 in.	10 m.	Centre.
31	" 6	Fagan.	1 to 4 both sides.	On posterior wall.	1 in. post. 13 in. ant.	7 in.	15 m.	Nearer ant edge than centre.

* Twins at seventh month.

† Ruptured uterus: delivered with the crotchet. Placenta brought away by the hand. Found adhering to anterior wall.

‡ Labour lasted five hours. Child born alive. No hæmorrhage. Deposit of lymph between the membranes and placenta, a quarter of an inch thick, in a circular form around the cord, at the distance of an inch and a half. I regret much not having had an opportunity of examining this woman with the stethoscope. The pupil on duty reported the souffle to have been heard all over the abdomen.

§ An hour after delivery, some hæmorrhage, hour glass contraction, part of placenta protruding through it. The hand being introduced, the placenta was found still attached to the fundus and anterior wall.

<i>Number.</i>	<i>Date.</i>	<i>Name.</i>	<i>Placental Souffle where heard.</i>	<i>Prognosis of Situation of Placenta.</i>	<i>Measure-ment of Membranes.</i>	<i>Diameters of Placenta.</i>	<i>When expelled.</i>	<i>Insertion of the Cord.</i>
32	Sept. 6	Woogan.	1 to 4 and at 6, 7, 8, R. feebly 2 L.	Right side of uterus and anteriorly.	10 in. post. and L. 2 in. ant. and R.	7 in.	10 m.	Within 1 in. of posterior edge.
33	" 6	Costello.	1 to 2 L.	On posterior wall.	12 in. post. 2 in. ant. uterine surface downwards.	6 in.	50 m.	Nearer post. edge than centre.
34	Oct. 6	Barrett.	2 to 4 R.	On post. wall.	4 in. post. 10 in. ant.	7 inches.	25 m.	Near anterior edge.
35	" 6	Deagle.	1 to 3 L.	On post. wall.	2 in. post. 10 in. ant.	6 inches.	2 h.	Within 1 in. of ant. edge at centre.
36	" 6	Rafter.	1 to 3 L. and at 6, 7, L.	On ant. wall and left side.	12 in. post. 2 in. ant. and L.	6 inches.	4 m.	Nearer post. edge than centre.
37	" 8	Donaghan	1 to 3 both sides.	On post. wall.	2 in. post. 10 in. ant.	Placenta triangular, 7 inches long, base below 6 inches.	30 m.	Centre.
38	" 11	Nolan.	In 6 R. and 1 to 4 L.	On post. wall.	Introduction of hand to remove placenta.	6 in.	2 h.	Centre.
39	" 12	Kavenagh	1 to 3 both sides and across abdomen.	On ant. wall.	7 in. post. 1½ in. ant.	5 in.	Immediate-ly.	Centre.
40	" 12	Doyle.	1 to 4 R. 3 to 4 L. and across abdomen.	On ant. wall.	12 in. post. 3 in. ant.	7 in.	10 m.	Near anterior edge.
41	" 12	Cleary.	1 to 2 R. feebly, 2 to 4 R. loudly.	On post. wall.	2 in. post. 10 in. ant.	6 in.	50 m.	Near posterior edge.
42	" 12	Dignam.	1 to 4, and at 6, 7, 8, L.	On ant. wall left side.	Post. torn, 3 in. ant. and L.	7 in.	Immediate-ly.	Centre.
43	" 13	M'Evooy.	0 to 4, and at 6, 7, 8, L. feebly at 1 R.	Left side and ant.	12 in. post. ½ in ant. and L.	7 in.	1 h.	Centre.
44	" 13	Shaw.	0 to 3 both sides and across abdomen.	On ant. wall.	Post. torn, ½ in ant.	7 in.	5 m.	Centre.
45	" 13	Reilly.	1 to 4 L. and to median line.	Left side and ant.	12 in. post. 2 in. ant. and L.	5 in.	1½ h.	Centre.

* Placenta removed by pressure.

† Tedious labour succeeded by spasmodic action; pressure failed to bring away placenta; slight hæmorrhage; hand introduced; about two inches of placenta adhered firmly to posterior and superior part of the uterus; child still-born and putrid.

‡ Some hæmorrhage after expulsion of placenta, checked by ergot.

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Number.	Date.	Name.	Placental Soufte whereheard.	Prognosis of situation of Placenta.	Measure-ment of Membranes.	Diameters of Placenta.	When ex-pelled.	Insertion of the Cord.
*46	Oct. 13	Brown.	2 to 3 R. and at 2 L.	On post. wall.	2 in. post. ant. torn.	7 in.	2 h.	Centre.
*47	" 14	Lynch.	0 to 2 L. 0 to 3 R.	On post. wall.	2 in. post. 12 in. ant.	6 in.	2 h.	Centre.
†48	" 14	Burke.	At 1 both sides and across.	On ant. wall.	6 in. post. ant. wanting.	4 in.	15 m.	Centre.
49	" 15	Shannon.	1 to 3 L.	On post. wall.	$\frac{1}{2}$ in. post. 14 in. ant.	6 $\frac{1}{2}$ in.	1 $\frac{1}{2}$ h.	Near anterior edge.
‡50	" 17	Newery.	0 to 2 both sides and across abdomen.	On ant. wall.	12 in. post. ant. wanting.	7 in.	20 m.	$\frac{1}{2}$ in. from centre nearer p. edge.
51	" 18	Bradley.	Feebly from 1 to 2 both sides. Loud 2 to 4 both sides and across between them.	High on ant. wall.	12 in. post. 4 in. ant.	7 in.	20 m.	Opposite centre at right side.
52	" 18	Parker.	1 to 3 both sides and across abdomen.	On anterior wall.	12 in. post. ant. wanting.	7 in.	10 m.	Opposite centre at right side.
53	" 19	Scott.	0 to 4 L. and to median line; feebly in 0 R.	On left side and anteriorly.	10 in. post. 2 in. ant. and L.	7 in.	30 m.	Centre.
54	" 19	Murphy.	2 to 4 both sides and across ant. wall.	On anterior wall.	14 in. post. 1 $\frac{1}{2}$ ant.	7 in.	30 m.	Opposite centre at right side.
55	" 19	Tracey.	1 to 4 both sides and across abdomen.	On anterior wall.	12 in. post. 2 in. ant.	6 $\frac{1}{2}$ in.	12 m.	Centre.
56	" 19	Murray.	1 to 4 R. and to median line.	On right side and anteriorly.	12 in. post. 2 in. ant. and R.	4 in. ant. post. 7 in. laterally.	10 m.	Centre.
‡57	" 19	Kelly.	1 to 4 both sides, loudest in 4 R.	High on posterior wall.	4 in. post. ant. torn.	7 in.	5 m.	Centre.
58	" 19	M'Cormick.	Loud 0 to 3 and at 6 L. Feeble at 0 to 3 R.	Left side and anteriorly.	12 in. post. 1 in. ant. and L.	7 in.	5 m.	Within 1 in. of posterior edge.
59	" 21	Elrington.	0 to 2 R. 1 to 4 L. Loudest 2 to 4.	High on Posterior wall.	4 in. post. 10 in. ant.	7 in. ant. post. 7 in. laterally.	3 m.	Centre.

* Placenta removed by pressure.

† Partial placenta presentation at the sixth month. Rupture of the membranes sufficed.

‡ Placenta partially exposed by the dilatation of the os in its last stage. Head, hand, and funis presented; turning resorted to; child saved.

§ Long forceps case.

<i>Number.</i>	<i>Date.</i>	<i>Name.</i>	<i>Placental Sufflu where heard.</i>	<i>Prognosis of Situation of Placenta.</i>	<i>Measure- ment of Membranes.</i>	<i>Diameters of Placenta.</i>	<i>When ex- pelled.</i>	<i>Insertion of the Cord.</i>
60	Oct. 22	Slane.	0 to 4 and at 6, 7, R. 0 to 2 L.	Right side and anteriorly.	10 in. post. 2 in. ant. and R.	7 in.	1 h.	Within 1 in. of posterior edge.
61	" 22	McClean.	0 to 3 both sides and across ant. wall.	Anterior wall.	12 in. post. 2 in. ant.	7 in.	3 m.	Centre.
*62	" 22	Pearson.	0 to 2 both sides.	Posterior wall.	2 in. post. 14 in. ant.	6 in.	2 h.	Centre.
*63	" 22	Conolly.	1 to 4 R. and to me- dian line.	Right side and anteriorly.	11 in. post. 4 in. ant. and R.	6½ in.	2 h.	Centre.
64	" 24	Burgess.	0 to 2 and at 6 L. Feebly in 0 R.	Left side and anteriorly.	12 in. post. 2 in. ant. and L.	6 in.	30 m.	Centre.
65	" 26	Neil.	1 to 4 R. 1 to 2 L. and across ab- domen.	Anterior wall.	14 in. post. 2 in. ant.	7 in. ant. post. 7½ in. laterally.	5 m.	Centre.
66	" 26	Whelan.	1 to 4 L. 2 R.	Posterior wall.	3 in. post. 10 in. ant.	5 in.	Im- me- di- ately.	Near upper edge right side.
67	" 26	Boyce.	0 to 3 both sides.	Posterior wall.	12 in. post. 2 in. ant. Uterine sur- face down- wards.	7 in.	10 m.	Near an- terior edge at left side.
68	" 26	Johnson.	0 to 3 R. 0 to 4 L.	Posterior wall.	1 in. post. 12 in. ant.	7 in.	1 h.	Centre.
69	" 26	Baggs.	1 to 2 both sides and across pubic region.	Anterior wall.	12 in. post. ½ in. ant.	7 in.	5 m.	Close to upper edge right side.
70	" 27	Heron.	1 to 2 both sides and across pubic region.	Anterior wall.	Post. torn. 2 in. ant.	6 in.	10 m.	Centre.
71	" 27	Connell.	1 to 3 both sides.	Post. wall.	3 in. post. 12 in. ant.	6 in.	5 m.	Centre.
72	" 30	Ryan.	1 to 3 R. 1 to 4 L.	Post. wall.	1 in. post. 13 in. ant.	6½ in.	2 h.	Centre.
73	" 30	Brown.	1 to 3 L. 1 to 4 R.	Post. wall.	Post. want. 12 in. ant.	6 in.	2 h.	Close to post. edge.
74	" 30	Moore.	1 to 4 L. 3 R.	Post. wall.	2 in. post. 12 in. ant.	7 in.	15 m.	Centre.
75	" 30	Myers.	2 to 4 R.	High on post. wall.	4 in. post. 10 in. ant.	6 in.	10 m.	Centre.
76	Nov. 1	Gilcreest.	0 to 3 L. and at 6 L.	Left side and an- teriorly.	13 in. post. 1½ in. ant. and L.	6 in.	10 m.	Within 1 in. of ant. edge opposite centre.

* Placenta removed by pressure.

† Placenta removed by pressure.

28 Dr. Doherty's further Reply to Mr. H. Carmichael's

Number.	Date.	Name.	Placental Souffle where heard.	Prognosis of Situation of Placenta.	Measure-ment of Membranes.	Diameters of Placenta.	When ex-pelled.	Insertion of the Cord.
77	Nov. 1	Brien.	1 to 4 R. 2 L.	Post. wall.	2 in. post. 14 in. ant.	7 in. a. p. 6 in. lat.	15 m.	Near post. edge right side.
78	" 1	Gibson.	1 to 4 and at 6, 7, 8, R. feebly in 1 L.	Right side and anteriorly.	14 in. post. 2 in. ant. and R.	7 in.	1 h.	Rather to left side of centre.
79	" 1	Deegan.	1 to 4 L. 3 to 4 R.	Post. wall.	1 in. post. 12 in. ant.	7 in.	20 m.	Centre.
*80	" 2	Daly.	1 to 2 both sides.	Post. wall.	12 in. post. 2 in. ant. uterine surface downwards.	6 in.	2 h.	Centre.
81	" 2	Sykes.	1 to 4 L.	Post. wall.	3 in. post. 12 in. ant.	6½ in.	15 m.	Opposite centre at right side.
82	" 3	Low.	1 to 2 L. 3 to 5 R.	Upper part post. wall.	6 in. post. 10 in. ant.	7 in.	1½ h.	Centre.
83	" 4	Kenny.	0 to 1 both sides and across abdomen.	Anterior wall.	14 in. post. ½ in. ant.	7 in.	15 m.	Rather nearer ant. edge than centre.
84	" 4	Meehan.	0 to 4 R. 0 to 4 L.	Post. wall.	2 in. post. 10 in. ant.	6½ in.	30 m.	Centre.
†85	" 5	Allen.	1 to 4 and 6, 7, 8, 9, R.	Anteriorly at right side.	12 in. post. 1 in. ant. and R.	7 in.	45 m.	Within 1 in. of ant. edge.
‡86	" 6	Largeir.	2 to 4 L. loud; feebly in 1 R.	Posterior wall.	2 in. post. 10 in. ant.	6½ in.	2 h.	Centre.
87	" 6	Buckley.	2 to 4 both sides and across abdomen.	Anterior wall.	14 in. post. 3 in. ant.	6½ in. ap. 6 in. lat.	1 h.	Near anterior edge right.
88	" 7	Crowley.	1 to 3 both sides and across abdomen.	Anterior wall.	Post. torn. 1 in. ant.	6½ in.	10 m.	Nearer anterior edge.
§89	" 7	Kelly.	1 to 4 R. 1 to 3 L. and across abdomen.	Anterior wall.	15 in. post. ½ in. ant.	7½ in.	1 m.	Both cords close to posterior edge.
90	" 7	Dickson.	1 to 3 both sides.	Posterior wall.	1½ in. post. 12 in. ant.	6 in.	2 h.	Nearer post. edge than centre.
91	" 7	Walsh.	1 to 4 both sides, and at 7, 8, both sides.	Anterior wall.	Post. torn. 2½ in. ant.	7 in.	20 m.	Nearer ant. edge than centre.
92	" 8	Beggs.	4 to 3½ R.	Posterior wall.	Post. 2 in. 12 in. ant.	6 in. a. p. 5½ in. lat.	1 h.	At right side of centre.

* First pregnancy. Labour lasted thirteen hours. Child gasped, but life could not be maintained. Placenta removed by pressure.

† The expulsion of the placenta was followed by a smart gush of hæmorrhage, a recurrence of which took place about an hour after. Cold, ergot, and padding were resorted to with success.

‡ Placenta removed by pressure.

§ Twins at the full period. Single placenta.

|| Placenta retained two hours; removed by pressure; slight hæmorrhage.

Number.	Date.	Name.	Placental Souffle where heard.	Prognosis of Situation of Placenta.	Measure-ment of Membranes.	Diameters of Placenta.	When ex-pelled.	Insertion of the Cord.
93	Nov. 8	Dooley.	1 to 3 both sides loud.	Posterior wall.	1½ in. post. 10 in. ant.	6 in. ant. p. 5 in. lat.	1 h.	Within one inch of posterior edge.
94	" 8	Windsor.	0 to 3, and at 6, 7, R.	Right side and ant.	10 in. post. ½ in ant. and R.	7 in. ant. p. 6 in. lat.	10 m.	Centre.
95	" 11	Watson.	0 to 3 both sides and across.	Anterior wall.	11 in. post. ½ in. ant.	6½ in.	5 m.	Centre.
96	" 22	Walsh.	2 to 4 R. 1 to 4 L.	Posterior wall.	3 in. post. 10 in. ant.	6 in.	1½ hr.	Centre.
97	" 22	Mahony.	In 2 L. abrupt, F.H. inaudible.	Post. wall. low down.	1 in. post. ant. torn.	..	10 m.	..
98	" 23	Kenny.	1 and 2 R. 1 to 5 L.	Posterior wall.	½ in. post. 12 in. ant.	7 in.	15 m.	One inch from centre nearer posterior edge.
99	" 27	Ryal.	2, 3, and 7 L. 1 to 4, and at 6 R.	Anterior wall.	Membranes torn.	6 in.	20 m.	Centre.
100	Dec. 2	Wright.	0 R. feeble, 0, 1 L. loud, less distinct in 2 L.	Posterior wall.	2½ in. post. 10 in. ant.	6½ in.	10 m.	Within one inch of edge at right side opposite centre.

From the foregoing Table it appears, that out of these one hundred cases, in twenty-five the placenta was attached to the anterior wall; in eight to the right side, below the Fallopian tubes; in ten to the left side, below the tubes; in three to the fundus; in fifty-four to the posterior wall; and of these only twenty-seven came "within two inches of the lowest part of the cyst." What opinion, then, should we entertain of a theory, proposed by an author, who, in contradiction to this mass of evidence, as great as perhaps was ever brought to bear on any disputed point, and regardless of the great names I have mentioned,

* This woman was delivered after a labour of four hours of a still-born child affected with dropsy throughout all its tissues. The skin was abraded, and the cord infiltrated. Hemorrhage having followed its expulsion, the hand was passed, and the placenta found occupying the whole of the left side of the uterus. It was spread out to a great extent, so as to fill a basin when removed, and when thrown into water its radicles floated, as if they had undergone long maceration.

† Tedious labour from early rupture of membranes; some projection of the promontory of the sacrum. When an attempt was made to remove the placenta by pressure, spasmodic action was found to have occurred. Hand introduced, and afterbirth separated from the anterior wall. Child still-born.

dogmatically announces, that the placenta is always low down on the posterior wall, and challenges his reviewer to deny it if he can. "Will any person tell me," he says,* "that has attended to the position of the placenta by the means I have pointed out, that out of every one hundred cases, in ninety-seven at least, the place at the close of gestation is not where I have located it; and has any person, who has been obliged at any time to take away a placenta, ever found it there, low down on the back part, or where has he found it?" To this flourish, I shall only further reply by referring to page 458, January Number, where he recalls to his recollection a case, in which he himself introduced his hand for the removal of a retained placenta, and found it "not at the fundus, but low down at the posterior part."†

The above Table is not altogether a matter of curiosity, or devoid of practical utility. It proves what has been doubted by some writers, that the stethoscope is capable of pointing out the exact situation of the placenta, a point, which may be of service, if we afterwards are obliged artificially to remove it. A knowledge of its position will direct us, which hand to employ, and enable us to pass it without hesitation in the proper direction, separating the membranes from the uterus as we proceed, and thus obviating the embarrassment they often afford, while detaching a morbidly adherent placenta. In every case, Gooch directs us to observe, before the detachment of the after-birth, which way the cord leads, whether to the front, sides, back, or fundus of the uterus, to which last situation, by the way, he is of opinion, the placenta is most generally attached. "By attention to these particulars," he observes, "you may generally know where the placenta is affixed; and as you would place your finger on the orifice of a spouting vessel, so introduce your hand, and with your closed fist within, opposed by the other hand on the outside, compress the bleeding surface."‡ With the directions here inculcated, I cannot at all coincide, as a ge-

* *Dub. Jour.* for Nov. last, p. 218. † *Dub. Jour.* for Jan. 1839, p. 458.

‡ *Practical Compendium*, p. 164. London, 1831.

neral rule, or even one which can often be adopted with advantage, as they are, I may say, incompatible with the true principle upon which the treatment of hæmorrhage should be conducted, namely, that of obtaining a speedy and permanent contraction of the uterus. Still I can conceive that a case might occur, in which benefit would be derived from adopting this plan; as for instance, where the uterus, notwithstanding the introduction and movement of the hand, remains perfectly flaccid, and while we are waiting until the other measures we employ shall have roused the organ into renewed action. Under these circumstances, it might perhaps be advisable to follow this recommendation as a temporary expedient. But the cord is an uncertain mode of determining the position of the placenta, it is so liable to be turned in a different direction, by irregular contraction of the uterus, a clot within its cavity, or the collapsed state of the os tinæ. The stethoscope affords a far more certain indication, and if we think fit to adopt this line of practice, will have informed us to what place our pressure should be directed. Above all, this Table exhibits how egregiously mistaken is Mr. Carmichael in his hypothesis, that nature assigned to it any one position, even where no complication exists. Here, independent of other variations, is not one case alone, but three perfectly natural cases, in which the membranes proved it to have been implanted on the very fundus.* The incorrectness of the author in this particular, then, affords me another strong argument for insisting *that his theory is not correct.*†

* It is extraordinary that Mr. Carmichael labours under the impression that the prevalent doctrine at the present day is, that the placenta is usually at the fundus. (See Dublin Journal for November last, p. 213, &c.). The quotations I have made show that this is *not* the modern opinion; and moreover, this error, which is as great as that of his own allocation, was exploded almost a century ago. "Formerly," says Smellie, "it was taken for granted by many, that the placenta always adhered to the fundus uteri; but this notion is refuted by certain observations, in consequence of which we find it as often sticking to the sides, back, and fore-parts, and sometimes as far down as the inside of the os uteri."—*Treatise on Theory and Prac. of Mid.*: Lond. 1752, p. 137.

† Mr. Carmichael certainly has the merit of pointing out that the membranes

But even his explanation of *the mode of growth* of the uterus (the anterior wall rising up, passing over the fundus, and occupying part of the posterior wall) is refuted by an argument, which he himself brings forward ; namely, that the relative position of the Fallopian tubes, must be thereby altered towards the close of pregnancy ; and he takes care to tell us, that in two of his dissections, he found them on the posterior aspect, and in the other two they were at the sides. In fact, we should always have the greatest volume of the womb at the full period situated anteriorly, but on the contrary, if we pass a line around the uterus where the tubes penetrate its substance, we shall observe three-fifths situated behind them, and two-fifths anteriorly. In opposition to the author, I am here again able to bring forward, it will be admitted, not a bad authority on the subject. " The fundus and body of the uterus," observes Dewees, " not only yield before the neck, but some one part contributes more than another to the room necessary to the comfort of the foetus, and these are *the posterior portions* ;—hence they are found thicker in the unimpregnated state, and hence the Fallopian tubes are always found, at the last period of pregnancy, *in advance of the uterus* ; a fact of much importance in performing the Cæsarian section."*—I would, while on this part of the subject, propose a simple question to Mr. Carmichael. If the placenta be originally at the fundus, and if the expansion be confined to the front of the womb, how is it possible the placenta can ever be found at the full time on any part of the anterior wall? In fact, I might, with as much justice, assert, that in these cases the development of the organ was in an opposite direction, the posterior paries increasing in altitude, while the anterior

can determine the situation of the placenta, but has fallen into a great error in the deduction he has drawn from their inspection. The mistake he has committed, must, I suppose, have arisen from neglecting to distinguish the edges of the placenta one from the other, and consequently imagining, that when a short membrane was found at any part, it indicated the mass to have been on the posterior wall. I do not know how else it can be accounted for.

* Dewees' Midwifery, p. 89.

remained stationary, or nearly so, “a thing very much in accordance with reason, seeing how necessary it is, that the placenta should be as little disturbed as possible.” The fact of the tubes still continuing on the anterior aspect of the uterus, and the impossibility of affording, as far as I can see, a satisfactory answer to the foregoing question, incline me then still further to insist *that his theory is not correct.*

But I still hold also that *the mode of contraction* described by the author is impracticable, in consequence of the want of a fixed point, from which the anterior wall could act. In reply to this argument against him, he says :* “I do not think this is at all supported ; in order to it, it should be first shown, that there is a fixed point, which will prevent what are termed the longitudinal fibres from pulling up the mouth of the womb, and will give their action a tendency downwards, which, I believe, is not yet done ;” and then he goes into a disquisition as to the muscularity of the uterus. I cannot see that all this in the slightest degree invalidates my objection, which is, that, though we have examples in the body of hollow viscera (the heart for instance) gathering themselves up to a common centre, in order to do so, it is necessary that all their fibres act in unison, so that each fibre shall be a *point d'appui* for the rest ; but we have no exemplification in the animal economy (from which all our reasonings on such a subject must, or should be drawn) of one side of a viscus contracting, while another remains flaccid, nor of a rotatory movement being performed without a bony attachment, from which it springs. I have on a former occasion stated, that neither the ligaments nor the vagina, to which alone the uterus is connected, can supply such a firm bond of union to the osseous structure, as to justify us in considering them the basis, from which the powerfully expulsive efforts of the uterus take their origin. Upon this point, I shall now dilate a little more, as I consider it most conclusive against the theory in question.

* Dublin Journal for November last, p. 231.

Respecting the first then, Dewees makes a sound observation :* “ Notwithstanding the uterus has four ligaments to support and sustain it *in situ*, yet this is so ill performed, as to render it very doubtful, whether it was the express intention of nature in their formation.” A recent writer, indeed, informs us, that in a case of inversion, he observed and felt the round ligaments contracting distinctly, and endeavouring to draw back the fundus into its original position.† This has not been attested by any other author, but even if such a power of contraction in those ligaments were verified by further observation, it could in the normal condition have the effect only of drawing forwards the body of the organ, but not that of shortening its wall, and therefore is not applicable in the present instance. This then sets the question at rest, as far as the ligaments are concerned. But some persons may perhaps suppose the vagina is sufficient for this purpose. In reply to this argument, I should say, if the vagina be the point, from which the anterior wall acts, the uterus should completely lose its power of contraction, where laceration of the former occurs. I know well, in most cases on the occurrence of this accident, the pains suddenly cease, from the shock the system sustains, but I also know that after the escape of the child into the abdomen, the womb will be found contracted into a hard ball behind it, an indication of rupture, which is not sufficiently dwelt upon ; and it has also occurred to me, to see two cases, in which, though the anterior part of the

* Midwifery, p. 109.

† “ Dans un cas d'inversion complète et absolue de la matrice sortie hors de la vulve, en forme de poire, de la grosseur de deux poings, à la suite d'un accouchement très-précipité, et de l'extraction presque instantanée du placenta, par le cordon ombilical, j'ai observé et palpé les contractions des ligamens ronds de la matrice, tant par les tégumens du bas-ventre, que par le vagin renversé et arrêté entre les grandes lèvres ; ces contractions étaient tournoyantes vermiculaires, et presque aussi fortes que le sont ordinairement celles de la matrice pour l'expulsion du fœtus : le fond, et le corps, sorties entièrement hors du bassin ne faisaient cependant plus aucun mouvement. J'ai pris ces mouvemens pour des efforts des ligamens de redresser la matrice.”—*La Pratique des Accouchemens*, par J. F. Schweighœuser, de l'Hôpital Civil de Strasbourg, p. 13. Paris, 1835.

vagina was torn from the os, the uterus (slowly but effectually) expelled the child by its unaided efforts. "In a severe case of eclampsia," observes Ingleby, "the cervix uteri lacerated, in its anterior and superior part, and permitted the finger to enter the abdomen, but notwithstanding this, the child was subsequently expelled by the natural powers, and the result was successful."* How then can these be explained, unless on the grounds, that the contractions of the uterus are quite independent of such a support, and are not confined to its anterior wall? I could well understand that such a mode of contraction might exist, if the anterior lip of the os tincae adhered to the pubis, but as it is only in connexion with the vagina, the process contended for I consider to be altogether impossible.

But let us suppose for a moment, that it is feasible, and see whether some practical objections do not lie against it. If the uterine action existed only in the anterior wall, thus pulling the fundus downwards and forwards, and so drawing it out of the inlet of the pelvis, all the inconveniences which experience tells us follow the existence of pendulous abdomen, must be thereby produced. And not only would delay and difficulty be experienced by the child in entering the brim, but when the head had become firmly settled into it, the uterine efforts, instead of pressing it downwards, must be expended in flexing the body on the neck,—a motion, which the cervical joints would readily permit. If this be the case, then, in head presentations, it will also be so, when the breech is engaged in the pelvis, and the head remains in the uterus. Under these circumstances, when the abdomen of the child is turned to the abdomen of the mother, we should invariably find the head bent down upon the chest, and when in the opposite position, it should be pulled backwards, with all the force the organ is able to exert. I am aware, that in the directions for conducting breech cases, we are told, and properly too, to introduce the fingers of one hand into the mouth, or what is better, to place

* Ingleby's Facts and Cases, p. 193.

them on the upper maxilla, in order to prevent the chin turning upwards during our extractive efforts, but as Naegelé, in his excellent Treatise on the Mechanism of Parturition, has well remarked, it is our own assistance alone which tends to produce this unfavourable alteration. "If any extractive force be applied to the child, from which the pressure that results from the uterine contractions is removed, *and which acts upon the child in every direction*, and keeps the chin and arms pressed upon the breast, the arms slip upwards on each side of the head, the chin quits the breast, and the head together, with the arms, approach the superior aperture in a most unfavourable position."* Just such an effect should Mr. Carmichael's motion have upon the head, bending it backwards, and changing it into a reversed face presentation.†

Let us now investigate in what way the operation of turning would be influenced by such contractions. If it be true, that until after the expulsion of the child, the posterior wall below the Fallopian tubes remains quiescent, does it not follow, that little difficulty should ever be experienced, even after the liquor amnii has escaped in introducing the hand at the back of the uterus? And yet I appeal to the oft benumbed hands of senior practitioners to testify against this fact, as well as against the invariable existence of the placenta in this situation. When then the hand has at last been insinuated along the sacrum into the uterine cavity, I would ask, is the operation *cæteris paribus*, more difficult than when attempted anteriorly? I have never seen it so; and yet it ought to be both less easy to accomplish, and more hazardous to the patient, if the tendency of the uterine action were to draw the fundus downwards and for-

* Mechanism of Parturition, by Rigby, p. 147. Lond. 1829.

† I may in passing remark, that the above quotation should impress us with the necessity of withholding all interference, until the breech and abdomen are fully expelled. A contrary proceeding does not allow the external parts to become properly dilated, and produces delay and difficulty at the very moment of greatest risk, namely, in the extraction of the head. Thus the perinæum is frequently lacerated, and the child's life sacrificed by our over-exertions to save it.

wards, and therefore exerted in direct opposition to the practitioner, who under those circumstances is evidently turning in the reversed direction, namely, from before backwards. This might be of little importance before the membranes are ruptured, but where the waters have long drained away, would add seriously to the difficulties of the delivery. I question too, whether that form of inversion which arises from the too sudden expulsion of the child could occur; as to produce it, it seems to me necessary, that the fundus follow down the foetus in a direction *perpendicular* to the brim of the pelvis.

Again, in attempting to remove a retained placenta by external manipulation, how comes it to pass (as judiciously noticed by Robertson,) that if we apply our friction over the pubis, spasmodic contraction is alone induced, and the difficulties are increased. But if having raised into the median line, the uterus, which generally after labour falls to one side, and lies buried under the muscles, particularly when relaxed, we rub the *fundus*, and when we feel it grow hard under our hand, aid the contractions of the *whole* organ from above downwards, by gently compressing it towards the brim of the pelvis, we shall almost invariably succeed in causing the uterus to expel the afterbirth, unless irregular contraction or morbid adhesion has previously existed?* From what does this arise unless that

* This method of removing a retained placenta cannot, I think, be too strongly inculcated, as it altogether obviates, on the one hand, the necessity of pulling at the funis, which even when the placenta appears to be detached, can never be but hazardous; and on the other, the unnecessary introduction of the hand, an operation always to be dreaded. A person attempting for the first time the plan recommended is apt to fail, as he generally places his left hand hurriedly on the abdomen, and begins pushing down towards the pelvis the first part of the uterus he feels, which is mostly the side or anterior wall. But if he will only have the patience to raise the uterus from its oblique position, and having stimulated the fundus, and got it well into the palms of both hands, direct his pressure, (and it need never be but of the gentlest kind,) *in the axis of the brim*, he can scarcely fail to succeed. If there be any difficulty, as there sometimes is, when the placenta lies over the os half expelled, in which situation the organ seems to lose its power over it, it is much better, instead of touching the cord, to get up the fingers of the right hand to the substance of the placenta, and press it backwards towards the sacrum,

the anterior wall does not originate healthy contractions? These have their salient point in the fundus, which indeed, under the circumstances mentioned, can be felt to act before any other part of the womb. This mode of contraction then, I consider, I am justified, by the foregoing reflections, in designating an assumption without a single proof to support it, which still further strengthens me in maintaining *that his theory is not correct*.

It may be asked, however, if it be not the case that the placenta, at the termination of gestation is placed in a region of the uterus which the parturient action does not reach, how comes it to pass that its function is not interfered with during the pains of labour? A well-known fact, which Mr. Carmichael has just discovered, affords, I think, a sufficient explanation. I mean the small space through which the fundus descends before the expulsion of the foetal head. Up to this period the diminution in the capacity of the organ has been so slight, that any danger arising to the placenta, even if on the fundus, (which we will grant is its most hazardous position,) is sufficiently guarded against by the spaces that intervene between its lobes, and which must be obliterated before its substance can suffer much compression. Once, however, the head has passed, the placenta too begins to feel the effects of the uterine contractions, which tend to fold it into a smaller compass; and the result is, if the child be allowed to remain in this perilous situation for more than one or two minutes, from this cause, as well as from pressure on the funis, its life becomes endangered. It is not, however, as Mr. Carmichael would lead us to believe, of

at the same time that he makes pressure in the proper direction with the left hand above the pubis. I would particularly caution the junior practitioner against pressing down the uterus before he has excited it into action, as he thereby runs a risk of producing inversion of the organ. I myself witnessed a case of this kind, but my attention being called to the disappearance of the uterus from the hypogastric region, I immediately suspected the accident, and passed my fingers into the vagina. I found the internal surface of the fundus in close contact with, and partly protruding through the os. By gentle pressure it resumed its natural position, with a spring like that produced by an Indian-rubber bottle under similar circumstances. No bad consequences followed.

utility that the after-birth be altogether protected from the uterine action ; on the contrary, Joerg of Leipzig has shown the benefit which arises from a somewhat prolonged labour, in consequence of the very compression the placenta undergoes. By this means, he observes, changes are effected on the fœtus which gradually fit it for extra-uterine life, a tendency is given to the foramen ovale to close shortly after birth, and a necessity for respiration is established. But if, on the other hand, the child pass too suddenly into the world, it still retains in some degree its fœtal characters, and all the bad consequences arising from a partial expansion of the lungs ensue.*

I have now shown firstly that the embryo does not form its first attachment always to the fundus ; secondly, that the placenta is not always, or even in the majority of cases, low down on the posterior wall at the full period of pregnancy ; thirdly, that hæmorrhage does not follow when it is rather high on the posterior wall, as proved by Cases 17, 82, &c. ; fourthly, that no bad consequences ensue when it is at the period of labour appended to the fundus, as seen in Cases 2, 8, and 28 ; fifthly, that

* The correctness of these observations is supported by the following condensed case.

June 5th, 1839. Kelly's child born on 2nd, after a labour of half an hour, has continued since birth of a dark colour ; skin cold ; breathing rather difficult ; tendency to spasms, particularly when drink is given to it ; discharge from mouth of a greenish fluid. Lips and palate now covered with aphthæ. Sounds of heart normal.

7th. Child declining ; colour of skin not quite so dark ; great difficulty in swallowing, the fluid appears to find its way to the cardiac orifice, but is soon regurgitated. Dyspnœa ; breathing almost suspended for a few seconds, and then spastic inspiration.

9th. Constantly moaning, particularly when a teaspoon-full of whey is given it ; can scarcely swallow.

10th. Gradually sunk, and died this morning. The treatment consisted in a leech to the epigastrium, wine whey, baths, stimulating liniments to spine, calomel, ammonia mixture, &c. On examination, the lungs were found only partially permeated by air, the lower lobes still retaining much of their fetal character. The foramen ovale was evidently sufficiently open to admit a communication between the chambers. Such cases tend to support the opinion of Louis, that where the cærulean tint exists, not only is the foramen ovale open, but there must be some obstruction to the passage of the blood from the right cavities of the heart.

though from the author's observations it follows, that if it be affixed to the anterior wall, hæmorrhage and the death of the child must be produced, such results need not be apprehended ; sixthly, that the position of the Fallopian tubes, and the occasional attachment of the afterbirth to the anterior wall, testify against his mode of growth of the uterus ; seventhly, that his mode of contraction is controverted by the non-existence of several circumstances to which such a contraction should give rise, and by the want of a proper *point d'appui* from which it could originate ; and eighthly, that so far from it being necessary that the placenta be placed altogether out of the reach of disturbance from the changes going on in the uterus, a certain amount of compression during labour is essential to the well being of the child.

A few more arguments present themselves to my mind, but I think I have gone sufficiently far to prove that Mr. Carmichael is wrong in the propositions he advocates. He starts with the assumption of a false principle, namely, that the placenta is first at the fundus, and afterwards on the posterior wall, and from this he deduces a train of reasoning which is necessarily erroneous. Practical experience too I have demonstrated to be altogether opposed to his theory ; it can never, therefore, I am sure, gain any credence in this enlightened age. Medicine is too fast assuming the characters of a true science to be satisfied with mere supposition and assertion ; for, in the words of Hippocrates, "it is not possible to derive advantage from those conclusions which are drawn from reasoning only, but from those which are demonstrated by practice."

As this controversy is now, I understand, concluded, at least in this Journal, I shall say it pains me much, that any gentleman should suppose me guilty of intentionally misrepresenting him. To Mr. Carmichael, to whom I am personally unknown, I shall declare, that I am incapable of distorting the sentiments of any writer to cast ridicule and reproach upon him. To my readers, I trust, I have proved, that if I did strain the author's meaning (not further than it might be legitimately drawn, but) beyond

what he intended, and thus wandered into error, I did not wittingly seek out a devious path in order to arrive at it, but followed the straight and open course, which even the most cautious, under the same circumstances, would probably have pursued.

ART. II.—*Practical Observations on Peculiar Affections of the Throat, arising from Abscess between the Pharynx and Spine, and occurring in Children and Adults, exemplified by Cases.* By CHRISTOPHER FLEMING, M. D., Member of the Royal College of Surgeons, Ireland; Member of the Court of Assistants; Lecturer on Surgery, &c. &c.

THE several obstructions, mechanical or otherwise, which occur in the fauces, and impede the functions of respiration or deglutition, have particularly attracted the attention of the Profession. They are frequently met with, and in the majority of instances they are referrible to causes sufficiently manifest. Occasionally, however, considerable difficulty attends their diagnosis, particularly in children, from the extreme obscurity and anomalous character of the symptoms. Such difficulty occurred in those attendant on inflammation at the back of the pharynx, terminating in abscess, illustrative of which I beg to subjoin the following cases.

Of a family of five boys, the eldest, aged seven years, the youngest, one year and eight months, three were attacked as follows, without any assignable cause.

The youngest, a healthy child, went to bed well; after about two hours awoke with vomiting, which attracted no particular attention; passed the night tranquilly; next morning appeared heavy, took his ordinary mid-day sleep, and was found about two o'clock, P. M., in convulsions. Immediate assistance was procured, which, notwithstanding the most prompt and active treatment, proved unavailing. I saw him for the first time about