THESIS

FOR

DEGREE OF M.D.

SUBJECT:—

"Remarks on some of the more important aspects of Clinical Work of the Rotunda Hospital, Dublin."

BY

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1. Berkeley Terrace
Portobello
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W. James Addison

Dear Sir

Having only this morning received by Thesis from the Printer no time has permitted me to undertake a revisal of its pages as reaching the University at 12 noon: Having now done so I find several important clerical errors which it is my duty at once to Correct and which are as follow

1.	Page 1	for	endeavors	read endeavor.
2.	" 9	for	Complicate	" Uncomplicated
3.	" 12	"	Medicatrice	" Medicatrix
4.	" 15	"	Impingo	" Impinge
5.	" "	"	Cede	" Cedè
6.	" 16	"	Rythm	" Rhythm
7.	" 16	"	Fundas	" Fundus.

8. Page 19. for Expel. read expel

Trusting you will be able to get the lectures for me

I remain
Yours truly
S. Fraser M.

THESIS FOR DEGREE OF M.D.

BEFORE proceeding to the discussion of the task to which I have committed myself, my first duty is to disown all pretensions to any higher claims of original observation or research relative to any of the points to which I have asked consideration at such a time, and for such a purpose, other than the simple desire to attempt a brief review of, and in this way to bring into prominence a few of the more outstanding phases of the Clinical work of a renowned School of Obstetric Medicine, as in one respect, at least, showing a greater expansion of some of the details of practical Midwifery, which is, I think, insufficiently noticed in our Text Books, whose teachings, in many instances, furnish our sole guidance of safe conduct in the early days of our experiences in the art. My endeavours will, therefore, be in part directed to as faithful and concise a reproduction as possible of the methods employed in the diagnosis and treatment of such cases as were from time to time brought under notice in the Labour and Puerperal Wards of the above-mentioned Hospital; and, in proceeding, I will endeavour to connote the cases there observed with instances of similar nature which occasionally presented themselves for treatment in my own practice preceding my residence there. For I am persuaded that if the lessons derived at that institution had been fully appreciated

then, they would have stimulated interest quite as materially as they would have tended to moderate undue anxiety regarding the future issue of those graver cases which, at different periods, offered themselves for careful management. It is in this spirit that I enter upon my self-imposed task, and thus early I may premise the scope of my subject by enumerating *ad seriatim* those individual themes with whose discussion the substance of these remarks is mainly to be devoted. To the first place I would relegate the method of diagnosing the position and attitude of the fœtus in utero by systematic palpation of the abdominal wall—a method which, to my mind, amply justifies the emphasis accorded to it in the Rotunda School, as tending to evoke greater interest in a matter of critical import, both to the patient and her attendant, and in no sense more satisfactory than by affording a ready means—when once the necessary tactus has been acquired—of emancipating the mind of the accoucheur from some of the fears of mal-presentation and materially assisting his judgment in respect to prognosis and treatment. Following this, I propose remarking upon (*a*) the latitude there accorded to the efforts of Nature to terminate an apparently tedious second stage before resorting to the aid of forceps, and (*b*) the manner in which these instruments are there applied; (*c*) expulsion of the placenta by uterine compression; (*d*) the influence of posture in its relation to the treatment of a condition frequently occurring during the puerperium.

I. To one whose experience of the practical operations of midwifery are slight, and upon whom the duties of a large practice suddenly devolve—in which cases

of this nature form an important element—he must, for some time, at least, be the subject of no little mental anxiety regarding the probability of being brought thus early in his career into the full responsibility of dealing with one or other of the more difficult presentations; or, still worse, where the long axis of the fœtus is found to deviate more or less at a right angle to that of the maternal pelvis. It is just when placed in such a position as this that he on whom the onus of the proper conduct of the case devolves would thankfully be in possession of some method which would determine for him, with absolute certainty, the precise location of either extreme of the fœtal ovoid; and in the case of that occupying the lower segment, to what extent it had already descended into the pelvic cavity, from that of free or comparatively free mobility to the degree of resistance communicated to the palpitating fingers, which denotes the condition of actual engagement. In proportion to his appreciation and knowledge of such a method will be his peace of mind. Unfortunately, such an interesting and satisfactory method of diagnosis is not indicated in our Text-Books with that degree of respect which, to my idea, it amply merits. We read enough, certainly, of the important method of Bimanual Manipulation of the womb in relation to the operation of turning, and as an efficient mode of ascertaining the relations of bladder and uterus in health and disease—both from the aspects of diagnosis and treatment—particularly in the restoration of some of the more frequent mechanical displacements of the latter viscus. But it was in Dublin that I, for the first time, saw this one element of ordinary Physical Diagnosis combined with a careful

use of the stethoscope, attain a pitch of perfection so great that not only could it be satisfastorily demonstrated which end of the fœtal ovoid was in relation to the Cervix and Fundus Uteri, but, in the majority of instances, its finer details could be mapped out with equal facility. Only, however, as the result of opportunities so numerous and so easy of access as the resources of an Hospital like the "Rotunda" afford, could such a degree of tactile sensibility be attained; but, even as a principle of practice, embodying, as it does, so much that bears on the early appreciation of the future issues of the case, the detection, it may be, of Pelvic Abnormalities long ere the onset of labour, at such a period when any deviation from the normal can be detected and rectified, and upon which the safety of mother and child depend, I conceive that I can, with justice claim for this method of procedure something more than a mere passing notice. By carefully palpating over the region of the true Pelvis, we can, especially in head presentations, from the behaviour of the presenting part beneath the palpating hands, assure ourselves still further of two important facts—(1) Whether these processes preceding pronounced uterine contractions are in operation; and (2) We can form a tolerably accurate estimate of the capacity of the individual Pelvis before us. The latter inference, especially, being of great importance as an early guide to prognosis and treatment. For, if a carefully recorded history leads us to conclude that the present pregnancy has advanced to full time, we can at once proceed to verify the statement of our patient and the conclusions we may already have deduced therefrom, by critically noting the behaviour of the

presenting part under examination by the method here advocated. Thus, if at the time of examination, the presenting part is found incapable of being ballotted, or only so to a slight extent, we can infer from the evidence thus obtained that the initiatory stages of Labour have been for some time in operation, and still more important that no obstacle to engagement has been encountered, at the Pelvic Brim, at least. Another advantage of a very positive kind in certain cases and peculiar to this method consists in being able to dispense, to a great extent, with the necessity of subjecting the patient to the physical pain and mental repugnance of early and frequent examination per vaginam, especially at a period when the mind is perpectly cognisant of every act that is being done. That it would be sufficient in all cases, however, to depend absolutely on the results obtained by palpating the Abdominal Wall to the neglect of an occasional exploration of the Vaginal Cavity, would, in my opinion, be to take up an attitude not wholly safe, as some anxiety would naturally occur regarding the behaviour of the Umbilical Cord subsequent to rupture of the Membranes and escape of Liquor Ammii, particularly in cases in which the Breech had been diagnosed as the part presenting. A judicious combination of both methods, therefore, each at its own proper time, would be effectual in eliminating every possibility of error likely to occur from depending on one method alone; and would also serve to heighten our interest in the conduct of the several cases committed to our care. By carefully noting the strength and rhythm of the uterine contractions, and ascertaining the gradual alteration in its Pelvic relations of the engaging part,

an approximate idea could be formed regarding the period when with propriety advantage might be taken of an examination per vaginam to correct or confirm previous impressions. So much time having been taken up in the endeavour to advocate a method not generally taught, and which impressed me strongly as possessing the elements of greater thoroughness and refinement than can be attributed to the routine practice of depending solely upon the information gained through the vagina, I must now proceed to consider its method of performance. And, first of all, with regard to position. As in all obstetric examinations, the patient must be brought to the edge of the bed, and in this particular instance, lies upon her back. The accoucheur then takes up his position on the right side of the bed, with his face directed towards the feet of the patient, if he determine, first of all, to explore the lower part of the Abdomen and the cavity of the Pelvis. Both hands are then laid flat upon the Abdominal Wall, equidistant from the median line, the fingers directed downwards and inwards, and slightly separated from each other; whilst care is taken not to indent the Abdominal Wall with their tips, an attempt is made to ascertain the absence or presence beneath them of the firm, resisting, globular mass of the fœtal cranium, and if so found, to what degree it can be ballotted between the opposed fingers. Having obtained this as a guide, more deep-seated pressure is made with the object of differentiating the Sulcus existing between this mass and the prominence of the left shoulder, an anatomical mark of great importance, as indicating the diameter occupied by the presenting part, and which, from its relations to the sounds of the

fœtal heart, establishes a certain diagnosis of position. With the intention of still further confirming the knowledge gained by previous manipulation, a similar exploration is made in the region of the Fundus Uteri.

II. I now proceed to the discussion of the second point, on which I have some remarks to offer. During the summer of last year it was my fortune to share in the many obstetric engagements of a practitioner in the Lake District of England, and in several instances Labour had to be completed with the aid of forceps. Now, it was often a point of considerable debate as to the proper time for interfering with the efforts of Nature by the use of such resources of art, and particularly as to the limit of time which it was permissible to wait in expectation after the completion of the first stage of Labour. Reference to books furnished us with such guides as the appearance of a reddish serum tinging the mucous secretions of the parturient tract; the evidences of a tardy descent of the presenting part, notwithstanding apparent efficiency of uterine contractions; the character of the pulse as denoting the approach of general weakness or irritability. In one Text Book (Lusk p. 361), it is stated that, in the opinion of some, a period of two hours after completion of the first stage is deemed amply sufficient to maintain an expectant attitude; and in some of our cases this was accepted by us, particularly from its precision as a warrant for early action in the hope of anticipating the consequences of a labour unduly prolonged. In the "Rotunda Hospital," however, the matter is proceeded with much more leisurely, as in complicated cases, either of intern or extern patients, the efforts of Nature are tested to the utmost, the second stage,

in many instances, being prolonged for twenty-four hours and longer; till, in fact, there is decided evidence of systemic disturbance, as exhibited by furring of the tongue, elevation of temperature to 100 deg. F., with a corresponding acceleration of the pulse. Then, the forceps are applied, and delivery effected. Yet, notwithstanding the exhaustion induced by a process so prolonged, and from pain, the result of pressure produced by a gradual moulding of the fœtal head, it is claimed, and in the several instances observed I can testify to the justice of the statement, that the future progress of the woman is all that could be desired. At this stage of my career, I would fain avoid assuming the attitude of a critic respecting the teachings of authorities of such manifest ability as the results of the "Rotunda" undoubtedly prove: neither indeed would I do so, did not the circumstances of my position render it imperative on me to remark upon the routine practice here adduced, especially as it seems at first sight to differ so strikingly from what we have been taught in our Text Books to regard as a more orthodox and conservative mode of procedure, the expression of other schools equally celebrated for the value of their teaching and practice; and which, in the language of the late Dr. Francis Ramsbotham, ought to be deduced partly from time, but principally from symptoms, of which latter he gives the following concise yet ample summary for our guidance. (Obstetric Medicine and Surgery, 1844, page 248.) If then, the pains are subsiding gradually, or have entirely disappeared—if the strength is failing, the spirits sinking, the countenance becoming anxious, if the pulse be one hundred and twenty, one hundred and thirty, or one hundred and

forty in the minute; the tongue coated with a white slime, or dry, brown, and raspy; if there have been two or three rigors; if, on pressing the abdomen, there is great tenderness of the uterus; if there be green discharge; if there be preternatural soreness of the vulva, with heat and tumefaction of the vagina; if the head have been locked for four hours, and made no progress for six or eight hours; if the patient be vomiting a dark, coffee ground-like matter; if there be hurried breathing, delirium, or coldness of the extremities, then we are warranted in having recourse to the forceps, although the labour have not lasted the limited period of twenty-four hours, or even twelve; and we should be acting injudiciously to allow the case to proceed until the four last-named symptoms appear, without relief being offered; but so long as the uterus is acting with energy, the pulse and spirits good, the countenance natural and cheerful, the pulse under one hundred, the tongue and mouth moist and clear—so long as there is no vomiting, nor rigors, nor heat, swelling, nor tenderness of parts, no green discharge, no pain or pressing the abdomen—so long as the head retreats in the absence, and advances in the presence of pain; provided there be any progress in the labor from hour to hour. So long, there can be no necessity for medical aid; although the case may have lasted considerably beyond the specified limit. From a perusal of the Text of the Authority, just quoted at so great a length, it is very evident how much importance was attached in his time to the just interpretation of the point at present under review, and the rule of practice, which he seeks to enforce, coincides pretty accurately with the teachings

at present dominant in the Rotunda Hospital. Certainly, with the present knowledge I possess of the ease with which these instruments can be applied, and the safety and rapidity with which delivery can be effected in by far the greater majority of instances demanding operative assistance, it would be with a feeling akin to cruelty, quite apart from the known value of time, under any circumstances, that would suffer me to remain calmly waiting hour after hour for the assertion of that vis a tergo, which might, after all, never occur, and in the end compel a resort to operative measures, which would have indicated a greater degree of prudence and foresight had they been made available at a time when the general condition of the patient was characterised by greater vigour. Still, however, the fact that such a rule of practice has the sanction of the authorities of such an eminent school is not without value to those who are called upon to deal with such cases in the routine of daily practice, and it is comforting to know, especially to those who cannot reckon themselves experts at the application of forceps, and who would willingly concede a little to the "Vis Medicatrix Naturæ"—that dire disaster to the patient is not likely to ensue from granting to her efforts a little more latitude than is usually permitted in the teachings of some of our Text Books. Such knowledge would have been extremely consoling in the conduct of one case which I can vividly recollect as occuring at an early period of my midwifery experiences. The case to which I refer was that of a woman who had been delivered with forceps one year previously, after some difficulty, of a female child; with this knowledge in mind, every care was

taken to prolong the duration of the first stage in her second labour, so that the dilating powers of the membranes might have every chance of preparing the parts for an easy termination of the second stage. After rupture of the Fœtal Membranes, no sensible progress was apparent after the lapse of four hours, though the pains were frequent and of good strength, and the presenting part, the head, could easily be reached from the vagina. The assistance of the practitioner, who had the management of the patient in her previous confinement, having been obtained, it was determined, after earnest consultation, to effect delivery by means of instruments, and these we at once proceeded to apply in the light of his former success. To our dismay, try as we would, these could not, by any gentle device, be got to pass over the convexity of the fœtal cranium, the womb in turn responding strongly to the artificial stimulus. Chloroform was then administered, and further attempts made in the same direction ; but as our endeavours met with no better result, an effort was then made to lift up the part engaged, both through the vagina and abdominal wall, preparatory to turning, but in this again we were defeated. The unwelcome conclusion then presented itself to us that impaction of a serious nature had occurred, and craniotomy demanded in the interest of the mother. With every care, the fœtal cranium was successfully perforated, delivery following upon collapse of the bones with singular ease. Our patient subsequeutly recovered without any untoward result from the serious ordeal to which she had been subjected. From cases of a similar nature, afterwards seen in the " Rotunda Hospital," I look back upon

that early experience with regret, for had we been aware of the expectant principles there advocated and practised, our action in this particular instance might have been characterised by less precipitation, and our patience rewarded by the delivery of what afterwards proved to be an exceptionally well-developed male child. I have now to refer briefly to some preliminaries adopted prior to and the manner in which forceps are there applied. The value set upon a rigorous observance of all the rules laid down regarding the use of antiseptics in the various departments of the Hospital work is nowhere more carefully estimated and enforced than in the operations of which I have yet to speak. Not only are the blades kept immersed in a coloured solution of corrosive sublimate during the time the patient is being prepared for delivery, but before their introdoction is attempted, the vulva and deeper parts are subjected to the cleansing action of a watery medium, medicated either with the same salt of mercury or carbolic acid, and passed in tepid form through a perforated glass tube or Bozemans' catheter; and should the extracting force, from any cause, require to be maintained for a longer period than usual, an assistant is deputed to attend to the douche alone, under the supervision of the operator. The management of the patient prior to the introduction of the individual blades, is similar to the recognised teachings of our books. Chloroform may or may not be administered, just as the exigencies of the case seem to demand. The patient's hips are brought completely over the edge of the bed, the knees being drawn up towards the abdomen, and retained in position there by another assistant; whilst to a third is assigned the

charge over the retracting womb during the evacuation of its contents, and the maintenance of its tonus thereafter. The operator takes his seat upon a low seat facing the nates; and, before removing the blades from the solution in which they are placed, immerses his own hands in the same fluid, and keeps them there for a period of at least one minute. The fingers of the left hand are then, in the usual way, introduced into the vagina, and carried up until they impinge upon the presenting part, and assurance made that they intervene between it and the thin margin of the os uteri. One blade is then taken up, and after identifying it as upper or lower it is passed, with this fact in mind, within the commissure upon the guiding fingers and made to follow the curve of the sacrum till it reaches the presenting part, over which it is, in most instances, easily manipulated into position, and the handle depressed towards the anus. By a similar manœuvre its fellow is introduced, apposition of corresponding surfaces ensured, and traction proceeded with in the usual way. As frequent practice on the mannikin proved, the method of taking the sacral curve, as a guide to the introduction of the blades, greatly simplifies an operation, otherwise invested with difficulty, to him whose mind is unduly exercised upon the observance of co-related diameters. The third point to which I would call attention is the method of evacuating the womb, by compression of its mass made through the anterior abdominal wall. The method mentioned in books, as that of Credé, but which I have heard casually mentioned by the Dublin Authorities as having been in operation in the wards of the Rotunda Hospital, previous to his description of

it as a distinct form of Clinical practice. In the few cases I had attended prior to joining the clinique of the above mentioned Hospital, it had been my invariable habit to sit from time to time by the bedside, and with the left hand placed upon the abdomen to gauge, in this way, the ~~rythm~~ rhythm and strength of the individual uterine contractions, gradually increasing the compressing force as evidence was furnished of the undoubted descent of the presenting part. By this means, more or less control was had over the womb immediately the child was born and then by entrusting the advantage thus gained to the patient or her nurse during the separation of the cord, Crede's method could at once be proceeded with for the expulsion of the after birth. In one Text Book (Lusk page, 224), it is recommended in the performance of this method to initiate the proceedings by employing friction with the hand over the site of the ~~Fundus~~ Uterus, so as to induce a contraction of the organ before exerting a circular compression downwards in the axis of the womb. This, however, presupposes the womb to have relapsed into a state of comparative laxity which, if it attains to any considerable degree, gives rise, in many instances, to no small difficulty in differentiating its outline from surrounding organs. This condition is thoroughly appreciated by the present master of the "Rotunda," who takes advantage of every opportunity offered to point out to his students the error usually committed by those to whom this method is a novelty, in exercising compression over the Umbilical region, the supposed site of the Fundus Uteri, instead of more to the left in the Lumber region; and to effect this, considerable attention must be given to place the hand

upon the abdominal wall in such a way as to get beyond the reach of the organ sought for. When satisfied with the definition gained, an attempt is made by a series of efforts of a kneading and compressing character to work up the organ to a state of tonus, preparatory to redirecting the force, according to the usual instructions, downwards and backwards in the direction of the uterine axis. It is most important to get the organ under control before attempting compression, otherwise the body of the womb may be jammed against the pubic bones, and our efforts to evacuate the placenta frustrated. In the "Rotunda Hospital," it is the recognised practice to administer a medium dose of ergot in all cases after the termination of the second stage, and to maintain the degree of uterine contraction attained for a period of fifteen minutes before attempting to expel the placenta. To me it seems a preferable mode of action to assume this passive attitude only so long as the funis continues to pulsate, and as soon as these fail to be appreciated, to separate the cord and proceed with the delivery of the placenta; particularly in cases where more or less compression of the womb has been resorted to during the progress of the second stage, as by this time the afterbirth has in all probability become detached from the decidua and occlusion of vessels over the placental site effected, and, moreover, should hæmorrhage ensue the endometrium can at once be exposed to the action of haemostatics. In conclusion, a few remarks must be devoted to the consideration of a plan of treatment adopted in the puerperal wards, and which consists essentially in the application to this state of one of the most important

rules of ordinary surgical practice, namely—the importance of looking to the thorough drainage of the uterus as the principal factor in successfully combating a clinical condition often manifested at this time. In two cases coming under observation in my experiences of last summer, and which, I take it, are only instances of frequent occurrence, Labour had terminated favourably, but thereafter these patients did not make the anticipated progress towards convalescence, and at the period when the lochea should have ceased, a discharge of more or less abundance persisted from the involuting womb, attended with symptoms of moderate pyrexia, but without appreciable tenderness over the region of the uterus when subjected to palpation. The temperature would range from 100 deg. to 102 deg. F., and in one case diaphoresis was marked. The hygienic conditions, either of the houses or their surroundings, especially in matters of ventilation, were not of themselves calculated to facilitate an early convalesence. With regard to treatment, efforts were put forth to remedy this as far as circumstances would permit, and attention given to disinfect the vagina by means of the carbolic douche. With the threefold purpose of antipyresis, aiding the process of involution, and occlusion of vessels, ergot in tonic doses, combined with a febrifuge, was administered, and the binder firmly reapplied. These patients ultimately did well, but their progress was a tedious one. In the wards of the "Rotunda" a departure is made from this sole dependence on medicine, rest, and diet to effect the end desired, for in similar cases with a moderately febrile temperature, not exceeding 100 F., and in which the womb and neighbouring tissues betrays no evidence

of tenderness when palpated, the patient is got out of bed and encouraged to maintain a posture more or less erect at one or two periods of the day. By adopting a device so evidently at variance with methods generally accepted as cardinal in the management of a condition so critical, it is assumed that a most important factor of danger is thus summarily got rid of by thorough drainage of the contents of Uterus and Vagina. With the exception of the two cases already reported as having occurred in my own experience, it is certainly premature to undertake a criticism altogether adverse to the practice of authorities of undoubted eminence, but personally I would consider it an act of no small temerity to institute such apparently heroic treatment in private, believing as I do that results equally good may be obtained by keeping the binder firmly applied and carefully readjusting it from day to day as circumstances indicate. And, in addition to the uniform pressure thus brought to bear upon the subjacent organ, it can at regular intervals of the day be subjected to a moderate degree of friction and sustained compression by means of the hand; a process which has the two-fold effect of stimulating reflexly contractions of uterine fibres, and thereby tending to espel the products of involution, and, furthermore, by keeping the patient in bed at a uniform temperature the dangers of secondary chills are obviated.