PRACTICAL OBSERVATIONS

IN

MIDWIFERY,

WITH

CASES IN ILLUSTRATION.

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TO

FRANCIS HENRY RAMSBOTHAM, M.D.,

THE ABLE EXPOSITOR OF OBSTETRIC SCIENCE,

THIS EDITION OF HIS

PRACTICAL OBSERVATIONS IN MIDWIFERY

Is Affectionately Inscribed

BY

THE AUTHOR.

October, 1842.

CONTENTS.

PREFACE.

In offering to the Medical Public a second edition of my *Practical Observations on Midwifery*, I propose to condense the contents of the two parts of the first edition into one moderate sized volume, partly by a diminution in the size of the type, and partly by the introduction of fewer cases. And I indulge the hope, that the work will contain such practical remarks upon the various cases which occasionally occur, derived from personal observation and bedside experience, as may tend to confirm the wavering mind of the young practitioner in its judgment and subsequent practice.

The discovery of the singular effects of the *ergot of rye* upon the gravid Uterus has introduced a new and powerful agent into obstetrical practice. I certainly continued for a length of time sceptical as to its active powers, but I am now ready to acknowledge and duly to appreciate its influence. Yet even now I have my doubts, upon a general principle, whether its introduction ought to be hailed as a boon or reprobated as an evil. I have long been of opinion, that officious interference in the practice of Midwifery does much mischief, and cannot be too much censured. The mere possession of such an agent may induce practitioners to have more frequent recourse to its exhibition than is absolutely necessary, either with the view of saving their

own time, or under the more specious pretext of shortening a woman's sufferings. But if a labour be going on safely though slowly, I hold that a high degree of responsibility attaches to any attempt to hasten its termination, since such attempt may possibly implicate the mother or her infant in a state of hazard. And it would be a dangerous axiom to be established in Midwifery, "that because you have the means within your power of terminating any given case, therefore you ought to take advantage of those means." The serious charge of officiousness as well as the imputation of neglect ought to be equally and carefully avoided.

The present work, like its predecessor, will not have to boast of any regular nosological arrangement; it will simply contain a history of such facts as its title announces. The introductory remarks, apparently of themselves of little value, became necessary to the completion of my plan, that I might the more perfectly contrast the situation of a woman at the full period of pregnancy, with that of the same woman after the completion of the act of labour. By this contrast will be determined and appreciated the value and importance of those changes which are effected by natural agencies under that act. I am the more anxious to draw the reader's attention to these points, because it has ever appeared to me to be too much the custom with practitioners in midwifery to consider the mechanical expulsion, or extraction of the uterine contents, as the principal, if not the sole object of professional duty; to the neglect, if not to the exclusion of a due attention to the changes above hinted at, and which are of far more importance to the ultimate security of the woman.

The remarks on Natural Labour will be found short and [illegible]ording the general symptoms and occurrences [illegible] the process, rather than offering particular [illegible]nment. But, on the several states under [illegible] may happen to be found, after the ex-

clusion of the child, my observations have been more full and extended, and I confidently hope, not to the disadvantage of the suffering sex. I have called the watchful attention of my brethren to a case by no means uncommon, yet fraught with the most dangerous consequences, if neglected or overlooked, I mean the " Relaxation of the Uterus attended with internal flooding," either before or after the extraction of the Placenta.

My observations on the different cases of Protracted Labour, " under a Natural Presentation," are entirely confined to Practical points; being desirous of avoiding any cause of professional controversy, I have scarcely ventured to offer an opinion on contested questions. I have also thought it unnecessary to enter into any explanation of the several instruments, or their mode of application, as that duty comes more within the sphere of a teaching professor, than of a practical writer, since practice alone can make any one dexterous in their use.

My remarks on long impacted Shoulder Presentations recommend, in preference to any violent attempt to turn the child, the mode of practice enforced by Dr. Douglas, of Dublin, viz. to perforate the thoracic and abdominal cavities, and withdraw as much of their contents as possible; whereby the bulk of the body of the child is materially diminished, and the trunk is allowed to bend upon itself; after which the child is extracted or expelled by the breech.

The observations on uterine hæmorrhage embrace a succinct account of the two several states under which the Placenta may be separated *in Utero* with the several and distinct management appropriate to each. I have also called particular attention to an unusual occurrence under this head, the " Expulsion of the Placenta before the birth of the child."

Those on Parturient Convulsions are confined to a practical detail of the symptoms, and to the mode of treatment

peculiar to the stage of labour under which the attack may occur. I have particularly mentioned that mode of management which has proved with me the most successful before the establishment of the act of labour: during the act of labour; and after the completion of the process.

In my remarks on labour with two or more children, I have called attention to an occurrence which is now and then met with, viz. an unusual deposit of the liquor amnii, forming a dropsy of the membranes, and giving an amazing increase of size to the abdominal tumour. This state might possibly be mistaken for a case of ascites.

In the history of Abortion, I have endeavoured to elucidate and explain some singular appearances which now and then show themselves under the progress of pregnancy; and which, if overlooked or not correctly understood, may lead a practitioner to very uncertain conclusions respecting the state of his patient. I have also added some remarks on extra-uterine pregnancy.

A short account of Rupture of the Uterus, of Retroversion of the Uterus, and of Polypus of the Uterus closes the volume.

On the slightest glance at several of the cases, it will appear, that negligence or inadvertence in the first instance, was one great source of those difficulties with which some of them were ultimately beset; and that the sufferings and danger to which the respective individuals were exposed, might now and then have been averted by timely and judicious management. In some instances of shoulder presentation, the attempt at delivery was either mis-timed, or performed in so defective a manner, as to have proved completely unsuccessful, while the failure considerably increased the subsequent difficulty.

In making these remarks, I should be sorry to be supposed influenced by any unworthy motives, or in the least to disparage professional character. I am merely desirous

of pointing out the particular circumstances, on which the want of success seemed to hinge.

The superintendence of difficult and dangerous cases demands a large share of attention, discretion, and energy; but even these important qualifications are of little value, without some practical experience to direct them. In the absence of such experience, and in some measure to supply that defect, such rules of practice ought to be impressed upon the mind, as may be applicable to each emergency. If to these, be also added the practical inferences of those men, who have devoted their time principally to the subject, a degree of decision and confidence may be acquired even by a young man, which may enable him to conduct a difficult or a dangerous case to a happy termination.

Dr. Dewes states in his advertisement to the American edition, "that he was so much pleased with Dr. Ramsbotham's work on Midwifery, that he thought he would be doing an acceptable office to the medical community in America, should he cause it to be re-published. He believes he does not say too much when he declares it to be, in his opinion, one of the best practical works (so far as it goes) extant."

If these observations tend even in the slightest degree to the ultimate improvement of our useful profession; if they draw the attention of the accoucheur to points which are occasionally overlooked; and if thereby they prove useful to any parturient woman, I shall not regret the time and trouble spent upon their publication.

Page 3, line 12, *for* gravity, *read* gravidity.
8, line 8, *dele* the.
20, line 37, near the bottom, *for* extreme, *read* uterine.
248, line 4, *for* attention, *read* intention.
365, line 20, *for* in discharged, *read* discharged in.
402, line 7, *dele* no.
422, note *for* Mr. Langtaft, *read* Mr. Langstaff.

Note.—Cases 170, 171, and 172, ought to have been inserted at page 448.

INTRODUCTORY OBSERVATIONS.

THE act of Child-birth consists in the expulsion of the contents of the Gravid Uterus by certain agents, sufficiently powerful to effect that object.

This act, even under its most simple and most natural appearances, is a complicated process: it embraces a variety of general actions, and of local changes, peculiar to itself; upon the timely performance of those actions, and the due completion of those changes, the safety of the mother and of the child is ever dependent.

The terms *act of child-birth*, *act of parturition*, *labour*, and others of similar import, embrace in their meaning the AGENT, or ACTING POWER, the ACTIONS of that power, and the EFFECTS produced. The Uterus, assisted by those active efforts which volition enables the diaphragm and the abdominal muscles to exert, is the general agent in this process: those contractile throes, excited by natural causes, are the actions of the agent; and the descent and expulsion of the uterine contents, with such changes as are subsequent to that event, are the effects. The word labour, in common use in our language to express this natural act, is, therefore, complex in meaning and application, though so apparently simple in expression.

The act of Labour is generally, if not always, accompanied by more or less of painful sensation.—The pain of Labour is a consequence, a mere effect of uterine contrac-

tion: it principally arises from the resistance offered to the contractile effort of the agent: it is so immediate a consequence of, and so constant an attendant upon, uterine contraction, that the one is almost inseparable from the other. Hence uterine contraction and labour pain have been assimilated with each other. They have been considered almost synonymous, and have been used by many authors as convertible terms.

The words *uterine action*, *uterine efforts*, *parturient action*, *parturient efforts*, *labour pains*, and others expressive of the actions of the agent, are all similar in meaning, and will be used in the following pages in a similar sense.

That the magnitude and importance of the actions and changes above referred to may be correctly estimated, and that their effects may be sufficiently understood, I will call the reader's attention to a brief description of the Gravid Uterus, of its relative situation with regard to the abdominal viscera, and of its contents, at that period of time when this viscus has attained its highest degree of development and enlargement, that is, towards the completion of the ninth month of pregnancy.

This description can be expected to present nothing new. It will merely state appearances as they are usually found. Some apology may perhaps be necessary for inserting it at all, especially as the subject has been so ably handled by the celebrated Dr. Wm. Hunter, in his Anatomical Description of the Gravid Uterus. But being desirous of contrasting the difference between the Uterus under a gravid state at the time above mentioned, and that organ under a contracted state, in the first instance immediately after the act of labour is completed, and subsequently, when all the proper changes are effected;—anxious also to impress upon the mind of my reader the necessity of strictly attending to these changes, and of making himself perfectly acquainted with their regular course and consequences, I could not with propriety withhold it. Previous to this description, however, I beg to offer a few general remarks.

ON THE UTERINE STRUCTURE.

The Uterus has commonly been considered, and indeed is usually described by Anatomists, to be muscular in its structure.

This notion appears to be rather an assumption derived from the contractile powers, which this viscus is known to possess, and which are supposed only to exist in muscularity, than to originate in obvious appearances. However authors may write, and teachers may talk about the uterine muscles, no such structure is evident to *my* senses.

Let this viscus be examined with an impartial eye, with an unbiassed mind, either under gravity or unimpregnated, and its muscularity, in the proper sense of the term, must be, I think, with difficulty admitted.*

Muscular structure consists in a congeries or bundle of fleshy fibres or filaments, connected together by cellular membrane, and appropriated to motion or action, voluntary or involuntary. Now, if this definition of muscularity be correct, any structure, which does not accord with it in some degree, must be other than muscular. Is there, I would beg to ask, any distinct set, or are there any distinct sets of muscular fibres connected by cellular membrane, severally perceptible throughout the whole or any part of the uterine parietes? Or is such a distribution of muscular structure evidently visible in its composition, as appears capable of producing effects equal to those of uterine contraction under the active state of labour? Does the human body offer any instance of muscular structure being for such a length of time perfectly quiescent; of its assuming and acquiring a degree of growth and evolution similar to that of the Uterus under a state of impregnation; and after the performance of certain actions resuming its pristine state and appearance without any obvious alteration? If satisfactory answers cannot be given in the affirmative to

* Even the able disquisition of Sir Charles Bell on the muscularity of the Uterus does not convince my mind on that subject.

questions like these, the uterine structure ought not, in my opinion, to be called or considered *muscular*. It is true, that in a longitudinal section of the unimpregnated Uterus, artfully made, a concentric appearance of fibrous texture is discernible, but this appearance is in no wise similar to that presented by the division of muscular fibre; indeed it is not similar to the section of any other structure in the human body; it bears rather the resemblance of a cut made into a half-tanned hide, being equally firm, dense, and compact. A kind of fibrous structure is more observable about the openings of the fallopian tubes than in any other part of the internal surface of the Uterus: but this fibrous structure is so completely local and circumscribed, that if viewed in the light of muscularity, it can be supposed but little capable of influencing the action of the general parietes. Besides, the powers exercised by such muscularity must be confined to the uterine extremities of the tubes alone; and can therefore deserve little notice in the consideration of the active powers of the Uterus.

Let a virgin Uterus, about the age of twelve or fourteen years, before any of its peculiar functions have commenced, be compared with one of a woman of the age of fifty or sixty years, who has borne many children, in whom its contractile efforts have been repeatedly exerted, but to whose economy it has now become an useless viscus,—do we, on such comparison, observe that difference in appearance and structure, which such efforts, if muscular, would indelibly have left behind them? The latter may, perhaps, be found somewhat larger in size, and its opening into the Vagina more flaccid; otherwise its external appearance, and even a division of its substance, offers little perceptible difference. To this remark let me add, that an excised portion of the impregnated Uterus feels soft and flabby, and is readily extensible between the fingers.

Some analogy of action has been supposed to exist between the hollow muscular structures of the human body, the urinary bladder, for instance, and the Gravid Uterus; and the action of the former has been adduced to elucidate that

of the latter viscus. In the bladder, muscularity equal to all the effects produced, is evident to the eye, particularly under some diseased states of that organ: if it were equally visible in the Uterus, no difference of opinion could possibly exist: every one would be agreed on that point. The thinness of the vesical parietes readily allows the bladder to be distended, far beyond its natural size, by inflation; but the thickness of the impregnated Uterus, and the degree of resistance it possesses, prevents a similar occurrence.

That the Uterus, under a state of gravidity, does possess strong powers of action, by which its parietes are reduced within a smaller bulk, and by which the capacity of its cavity is diminished to an extent unequalled by any other organ of the human body, is a fact too obvious to be denied; but that these effects are connected with, and dependent upon, muscularity, appears to me a point rather assumed than satisfactorily proved: and certainly the examination of the Uterus in the different classes of brute animals throws no light on the doctrine of muscularity.

Let us contrast uterine action, which is independent of the will, therefore involuntary, with the action of any of the involuntary muscles of the body, and we cannot but remark a sensible difference between the two. Take, for instance, the action of the heart:—it consists in a continued series of contractions and relaxations rapidly alternating with each other, by which the blood is propelled from, and received into this vigorous organ, without intermission, during life. Uterine action also partakes of alternations of contraction and relaxation, but they are of a stronger, of a more active, and of a more irregular description. The action of the heart, under a state of health, is performed almost without a sense of consciousness, at least without painful sensation; that of the Uterus is always accompanied with more or less pain. The action of the heart is constant and uniform; that of the Uterus is only occasional, and under peculiar circumstances. But I may be asked, if the uterine structure be not muscu-

lar, of what description is it? Is it tendinous? Is it cartilaginous? Is it membranous? Certainly not: it partakes of the properties of none of these structures. The Uterus possesses a structure strictly *sui generis;* one peculiar to the organ itself. There does not exist in the animal body another viscus of a similar kind or structure; its actions are therefore incapable of being elucidated by a reference to those of any other organ.

Uterine action is a property attached to this peculiarity of structure when it is developed under the state of pregnancy; and I see no more difficulty in supposing it to be impressed with the power of contracting upon its temporary contents, without reference to muscularity, than that muscularity should possess the power of moving those parts to which its several portions are affixed. We know either only in its effects.

I admit that uterine action appears to be more nearly assimilated to the exertions of muscularity in power and effect, than to any other agencies in the animal body; yet the resemblance does not approximate so closely, as to establish their identity; some part of the process is indeed strictly muscular; for many powerful muscles lend their assistance towards its completion.

The property of contraction is only possessed by the Uterus under enlargement from gravidity or disease: it is absent in the healthy unimpregnated state: it is quiescent throughout the whole course of pregnancy, unless excited by an adequate cause: it is always called into action at the full period of gestation, when the acmé of growth and development is attained: it is, in short, the natural means by which this organ is enabled to rid itself of its temporary contents.

If the muscularity of the Uterus be still contended for, it must be allowed to exist under great peculiarities of structure and function.

The uterine structure freely admits the reception of arteries and veins, of nerves and absorbents into its composition, from the neighbouring parts, of which it is unnecessary for me here to offer a description: I will merely observe,

that these different parts severally undergo considerable relative changes under pregnancy and labour, especially the blood-vessels; and that, to the liberal distribution of nerves throughout its general substance, this organ is indebted for the energy it is enabled to exert.

ON THE SIZE, SHAPE, AND SITUATION OF THE GRAVID UTERUS, AT THE CLOSE OF PREGNANCY.

1.—*On its Size.*

Towards the end of the ninth month of pregnancy, the Uterus is found to have attained an extraordinary degree of development and enlargement, in comparison with its size when unimpregnated. If this fact did not daily present itself to common observation, and satisfactorily prove the reverse, such a change in appearance and structure would seem incompatible with the performance of regular and healthy functions. In every other instance such an acquisition of bulk would indicate a state of advanced disease.

But pregnancy is a natural and a healthy condition; and evinces generally a perfect state of uterine health. The increase of size does not depend upon any morbid deposition of new animal matter within the uterine structure, as is the case in diseased organization; nor upon distension of the Uterus by its living contents; it has its origin and continuance in a process of healthy growth and extension throughout the whole mass, and the several component parts of the Uterus. The vascular system, especially, receives a more than proportionate augmentation; through which is circulated an increased quantity of blood equal to the enlarged diameters of the vessels.

That there is but little, if any, actual deposition of new animal matter within the uterine structure during pregnancy, appears to me evident in the established fact, that the Uterus, by a process of silent and gradual contraction, continued for some time after the expulsion of its contents,

can and does possess the power of daily diminishing its volume, till it has acquired its smallest unimpregnated size; when it is again able to resume its original and peculiar functions. But if the parietes of the Gravid Uterus be supposed to owe their size to bulk, acquired by the deposition of a large quantity of new animal matter, by what natural means is that matter so suddenly removed? Can the effects of the absorption be thought equal to it? We see no such rapid diminution of size from the powers of the absorbent system under diseased structure. Contraction alone explains it.

That the acquisition of bulk is not dependent upon distension, by the growth of the uterine contents, is evinced in the absence of extenuation, and of thinness of the parietes of the Uterus, during the process of pregnancy. Those parts are, indeed, rather increased in thickness, though they possess less closeness and firmness of texture.

The process of utero-gestation in woman, and, indeed, in the higher orders of the brute creation, is completely a condition *sui generis*; so singularly itself, that it may truly be asserted, that no other class of actions similar to it exists in nature.

The state of growth above alluded to commences with impregnation: it is gradually progressive as the evolution of the fœtus and its appendages proceeds: it is naturally terminated at the completion of the period of pregnancy, or rather when the Uterus commences its preparations for those exertions which finally end in the expulsion of its contents. This growth may be determined, previous to its perfection, at any period of gestation, by a cause sufficient to effect the death of the fœtus. From the moment the fœtus is bereft of that inexplicable *something* in which the principle of life consists, the Uterus ceases to increase in size: it loses the power of growth and enlargement; and, at length, sooner or later, as circumstances prevail, a contractile action is established, by which the uterine contents are ultimately extruded.

During the development of the Gravid Uterus, an exten-

sion of its peritoneal covering necessarily takes place; which is accompanied with a proportional increase in the diameters of those vessels supplying that coat. After the end of the fourth month, a material alteration is observable in the relative situation of the broad and round ligaments. This change is more particularly a consequence of the enlargement of the fundus of this viscus.

2.—*On the shape of the Gravid Uterus.*

At the close of pregnancy the Uterus assumes a pearlike or oviform shape; it is extended at its fundus, and becomes contracted towards its cervix; it is not much unlike the fresh bladder of an ox just inflated, only thicker in substance.

If the uterine tumour be examined towards the close of pregancy, by the hand externally applied, a roundish body of considerable magnitude is perceptible, offering a firm degree of resistance. But the degree of resistance is not always uniform: I have occasionally met with a distinct undulation under the hand, as if the Uterus did not embrace its contents. On handling the Gravid Uterus after death, a degree of flaccidity is observed in its general parietes: it feels as if it was not distended. This occurrence probably arises in the loss of tone consequent on death. During life, the uterine parietes are in close contact with their contents, without any actual compression, until the subsidence of the uterine tumour before labour, when the first state of contraction commences, and when the tumour acquires an increased degree of hardness.

3.—*On the Situation of the Gravid Uterus.*

This organ, in the ninth month of pregnancy, occupies nearly the whole of the fore part of the abdominal cavity, at least of that portion of it under the name of umbilical and hypogastric regions: its anterior and superior peritoneal surface is in contact with the peritoneal lining of the abdo-

minal parietes, stretching them to a vast extent. Its fundus, partially covered by the omentum, is pushing up the arch of the colon towards the diaphragm, is slightly compressing the stomach, the pancreas, and the thin edge of the liver, and somewhat encroaches upon the space occupied by the viscera of the chest: its posterior surface is lying upon the mesentery, and a considerable portion of the intestinal canal, behind which are running the large blood-vessels and nerves of the trunk: and its sides are extending towards and above the Ilia. The several parts of the abdominal contents occasionally suffer from pressure during the latter stages of pregnancy, except the blood-vessels and nerves of the trunk, which are chiefly protected by the projection of the spine; the kidneys and ureters are also exempted from any annoyance by the same. Previously to the fourth month of pregnancy, the Gravid Uterus is entirely confined within the pelvic cavity; but some time in the course of that month, its fundus begins to emerge out of the pelvis; and, rising and enlarging as the process advances, it at length attains the situation above described. In its ascent it is placed anterior to the intestinal canal and to the viscera of the abdomen; though, in one instance, in which I was consulted respecting a fixed pain in the side, the fundus of the Uterus was distinctly perceptible under the thin edge of the liver, so that it was raising and compressing a portion of that viscus against the ribs.

The Uterus is preserved in the situation above described by its broad and round ligaments, which are relatively altered in site and size, by its connexion at its cervix with the pelvic viscera, and by the resistance afforded anteriorly by the abdominal parietes.

The neck of the Uterus and the parts contiguous undergo considerable change towards the end of pregnancy. The cervix uteri becomes shorter and thinner; the os uteri assumes a more expanded and softer appearance; but it still remains sealed up by that gelatinous secretion which was furnished in the early stages of pregnancy, and which yet consolidates its orifice. The os uteri is also at this time

beautifully studded with small gland-like prominences provided for secretory purposes.*

ON THE CONTENTS OF THE GRAVID UTERUS, BEFORE THE COMMENCEMENT OF LABOUR.

The Uterus at this time contains within its cavity a living child, of variable weight and size, at its full period of evolution and growth, with those appendages of nourishment and defence peculiar to uterine life, viz. the placenta and funis umbilicalis, with the membranes, and the liquor amnii contained within them. I have just stated, that the Gravid Uterus contains a living child; but this fact cannot always be satisfactorily ascertained, for a child may lose its life towards the end of pregnancy from numerous causes; yet it must ever be considered an important maxim in professional duty to consider the child alive, and to treat it as such, till positive proof be found to the contrary.

The child occupies, within the Uterus, the smallest space in which a body of equal magnitude and irregularity can be deposited. The head, in a natural presentation, is directed downward; with the vertex nearly in the centre of the brim of the pelvis; with one ear towards the linea alba, and the other towards the spine; having the occiput towards one ilium, and the face towards the other; or more frequently, perhaps, the head is placed somewhat diagonally, with the vertex as above mentioned, but with the occiput, or forehead, looking towards either groin; and an ear towards one of the sacro-iliac junctions. The chin inclines upon the chest; the neck and spine are gently bent; the breech, rounded by the thighs, which are brought into contact with the belly, is situated at the fundus of the Uterus; the legs are turned back upon the thighs, or are crossed, so that the knees and chin approximate; the arms are placed across the chest, or one over the chest, and the other by the side of the face or

* The glandulæ nabothi, which are almost invisible in the unimpregnated state.

thighs. The back of the child may be applied towards either side of the mother, towards the right or left hypogastric region, or towards the right or left sacro-iliac junction. It is rarely, perhaps never, directed immediately towards the linea alba, with the face to the spine of the mother.

If the breech of the child be the presenting part, the above description equally applies, with the exception, that the breech offers itself at the brim of the pelvis, and the head, with the chin inclined towards the chest, is situated at the fundus of the Uterus. In either case, the general form of the whole is that which approaches the shape of an oval, and in which the entire bulk takes up the least room.

The beautiful description of the Fœtus in Utero, by the celebrated Harvey,* seems rather applicable to the case in which the breech is the presenting part, than to that in which the head offers; yet from the latter part of it we may guess at the opinion of that eminent anatomist; he supposed, even in common cases, that some time before the commencement of labour, the head of the child, which had been previously situated at the fundus of the Uterus, was spontaneously directed downward by a natural alteration of position.

This idea was the current opinion previous to, and during, Harvey's time, but it is now known to be entirely erroneous. Whatever situation the Fœtus in Utero may assume in the early stages of gestation, and especially after the time of quickening, it retains that situation throughout the remainder of pregnancy, and so presents in the time of labour. There certainly is, relatively, in the early months, a larger quantity of liquor amnii compared with the size of the embryo, than in the more advanced stages, which may be supposed to allow it a free and ready motion in every direction on change of posture in the mother, but the disproportion gradually diminishes as the process advances, so that by the completion of the seventh month, the relative quantity of

* Vide Harvei Opera, 4to. 1766, p. 541.

that fluid is so far lessened, as to be found insufficient to permit the change of position supposed.

ON THE PLACENTA.

This fœtal appendage forms a most important part of the uterine contents, whether we refer to the nature of its structure, to the mode of its connexion with the uterine surface, or to its general uses in the economy of pregnancy.

The structure of this mass is entirely vascular, with the simple interposition of fine membranous tissue, by which it is connected into one cake-like substance, having a lobulated appearance. Its inner surface is covered by the chorion and amnion, which leave the decidua at its edge; whilst the external surface (that in apposition with the uterus) has the decidua intervening, and thus a complete septum of separation is made between the uterine membrane and itself; yet upon the natural exclusion of the mass, the decidua is found to be so firmly adherent to its surface, that a separation can scarcely be effected without a breach of structure, or laceration of vessels. The general substance of the Placenta then consists of the different branches and divarications of the umbilical arteries and vein united by cellular texture, with a quantity of fœtal blood in those vessels; if the mass be injected and macerated, one of the most showy and beautiful preparations of a museum is thereby formed.

The external surface of the Placenta is attached to an equal space of the internal surface of the Uterus by simple apposition of parts, with the deciduous membrane intervening. The point of attachment is commonly somewhere about the fundus or body of the Uterus; but there is no part of that organ at which it may not possibly be formed and situated; it may even be implanted over the mouth of the womb. Throughout the entire space of union are distributed numerous semilunar or elliptical openings in the uterine structure, in immediate contact with the intervening

decidua. These openings communicate with the large sinuses of the uterine vessels running through the parietes in a serpentine direction, and allow a portion of the maternal blood to be transmitted to the deciduous membrane, but *no further*. The fœtal and the maternal circulations are so far defined and distinct, that each part is restricted within its own respective vessels and boundaries, and has no direct and immediate intercurrence, or positive vascular communication with the other. No portion of the maternal blood pervades the placental structure, neither does any portion of the child's blood pervade the uterine structure. There is, therefore, no intermixture of fœtal and maternal blood either in the Uterus or in the Placenta; and there is no direct or indirect intercourse between the mother and the fœtus, except that which is established through the medium of the Placenta, and its peculiar mode of attachment.

The uses of the Placenta are strictly fœtal. It is an organ formed for, and appropriated to, the absolute service of the fœtus; attached by the funis umbilicalis, it is the only means of communication between the mother and the infant within her womb; it is therefore the sole medium through which the principles of nourishment and growth can be conveyed from the mother to her child. The fœtal blood distributed by the branches of the umbilical arteries to their extremities in the placental mass and deciduous membrane, is there exposed to the influence of the maternal blood brought to the uterine openings above mentioned, and is impressed with certain benefits necessary to the continuance of fœtal life. The fœtal blood thus replete with that nourishing and vivifying *something*, which it has acquired in its passage through the Placenta, is returned to the body of the child by the umbilical vein, and is then quickly circulated over every part of the child's body. The blood of the child, under this state of improvement, may be assimilated to that of the adult after its circulation through the lungs and its return to the left side of the heart. If interruption to the free return of the fœtal blood from the placental circulation should be induced by any cause, the

life of the fœtus will be as certainly destroyed, as if the free passage of the air into the lungs were prevented under breathing life. When the Placenta is partially separated from its uterine attachment, a loss of blood, proportionate to the quantity separated and to the development of the uterine vessels, is a necessary consequence. The blood lost under such circumstances is maternal, not fœtal; and if, after such an occurrence, the fœtus should be deprived of life, its death is produced by, in the first instance, the diminution, and at length by the entire deprivation of that vital impression which is communicated to the blood of the child by its passage through the Placenta. But when the mass of the Placenta itself is ruptured, as, for instance, by the passage of the hand through its structure into the Uterus, under a case of implantation of the Placenta over the mouth of the Uterus, the blood of the child will be discharged through the lacerated vessels.

A correct notion of the mode in which the principle of life is communicated to the embryo, of the materials whence its rudiments are evolved, or of the manner in which the Placenta becomes appropriated to its service, has hitherto not been obtained, and perhaps never will be obtained; yet that these occurrences do take place is an obvious fact, although they still remain so little explained to our satisfaction. Without entering then into any mysterious and useless discussion on this intricate subject, let me be allowed to assume the following as facts, which almost admit of demonstration.

That when conception has taken place, even as soon as impregnation is effected, a principle of internal action and of external growth is established in the Uterus, by which its parietes become enlarged in every direction, and its cavity is increased in capacity; this principle, at first slow in its progress, and scarcely visible for some time after its commencement, appears by and by more evident to the senses, and increases with greater rapidity: that, in consequence, and as one of the immediate effects of these primary changes, a secretion is furnished by the vessels of the uterine

surface, which is at first the connecting medium between the mother and the embryo, and afterwards becomes the deciduous membrane: that a secretion also, of a thicker and more viscid consistence, is supplied by the Cervix Uteri, which hermetically seals that orifice during the whole period of gestation: and that, when the impregnated Ovum is received into the uterine cavity, it becomes attached to some one point, to which the uterine vessels are then more particularly directed, and into which also certain vessels from itself shoot. These several parts increase in size and extension, with the addition of intervening connecting membrane, until the rudiments of the Placenta become apparent; and when those rudiments are once formed, a gradual and regular increment of the whole placental structure proceeds onwards, proportionate to the demands of the embryo for nourishment, and to the general uterine growth.

The Placenta in the cow and in the sheep possesses a structure essentially different from that organ in woman, yet conveying similar benefits to the newly-formed being which will become the future animal. In this class of the animal creation, there is obviously a maternal portion as well as a fœtal portion, which are entirely distinct from each other. The former consists of numerous round eminencies with a hollow in the centre, termed from their shape *Cotyledons*, emanating from the uterine structure itself, capable of being successfully injected from the uterine vessels, and forming when injected a beautiful preparation. The internal surface of the Uterus is plentifully studded with these prominent bodies, into which the blood-vessels and membranes are inserted. After the expulsion of the uterine contents by the contractile effort, the membranes become loosened from their former adhesion, and are expelled as secundines, whilst these prominences gradually disappear, as absorption and contraction go on, and form again a part of the uterine structure. This singular mechanism offers a satisfactory solution of that important fact, that these animals are never subjected to the chance of a dangerous loss of blood under the act of expelling their

young, as woman occasionally is. Any appearance of blood under such a state, issues from the secundines of the young animal, and is, therefore, fœtal, producing no effect whatever upon the mother's system.

ON THE FUNIS UMBILICALIS.

The umbilical cord is a rope-like production covered by the fœtal membranes, originating in, and proceeding from, the body of the fœtus, and terminating in the Placenta. Its structure is cellular; and within the cells is deposited a quantity of gelatine, which gives bulk and solidity to its general substance, and which affords protection to the umbilical vessels running through its whole length. Two arteries arising from the internal Iliacs carry a large proportion of the child's blood through the course of the Funis to the Placenta, which, after its circulation over that mass, is returned to the child's body by one large vein. The Funis is liable to variation in length and thickness, and is able to resist a considerable degree of extractive force, without rupture.

ON THE MEMBRANES.

The Chorion and Amnion are the proper membranes of the impregnated Ovum, and probably exist during its dormant state in the Ovarium. They pass from the umbilical cord over the inner surface of the Placenta, and leaving its circular edge, keep in contact with the deciduous membrane throughout the whole internal surface of the Uterus, except at that part to which the Placenta adheres. These two membranes are usually so closely applied to each other, as to leave no intermediate space, and to appear as one membrane: sometimes they are not in immediate contact, and a quantity of fluid, similar to the liquor amnii, is interposed.

They contain within their bag-like cavity the liquor amnii; that fluid with which the child is surrounded. As long as

the membranes remain entire, the uterine parietes do not come into immediate contact with the body of the child. The premature discharge of this fluid is sooner or later followed by uterine contraction and expulsion. The liquor amnii is variable in quantity, appearance, and smell: sometimes it is serous and pellucid, at others turbid and offensive. When the quantity is large, the Uterus is proportionally increased in bulk.

ON THE DECIDUOUS MEMBRANE.

Between the proper coverings of the Ovum just mentioned, and the uterine surface, another membrane, of greater thickness than the preceding, is interposed, the Membrana Decidua: this may properly be considered as the lining of the Uterus. The decidua is only formed by the Uterus under impregnation: its formation commences with conception. At first it is a mere fluid secretion, which afterwards assumes a membranous appearance: it increases in thickness and extension in proportion to the evolution of the Uterus. It is adherent to the inner surface of the Uterus, and is extended over the chorion, to which it is connected by vascular attachment: it is always thrown off after the process of labour, or miscarriage. This membrane is easily separable from a portion of Gravid Uterus out of the body.

ON UTERINE ACTION, OR LABOUR PAINS.

When the Gravid Uterus has reached its acmé of evolution, it commences certain preparations for the expulsion of its contents; the first perceptible one is, the subsidence of the uterine tumour from the epigastric to the umbilical region. As a consequence of this change in the relative situation of her burden, the woman feels herself lighter, and is actually smaller in size. It is occasioned by a slight degree of contractile effort on the part of the Uterus, but which at first is not attended by painful sensation. Some-

times, while it is in progress, slight pains assail the patient in the night-time, which disappear in the day. The mode in which this change is produced, is by no means similar in every woman: it is sometimes rather sudden, taking place in one night, so that in the morning the woman is surprised to find herself so much smaller than she was the day preceding: more frequently the change is gradual, almost imperceptible from day to day; but after the lapse of several days, it is sufficiently obvious. If the brim of the pelvis be not capacious enough to allow the free admission of the child's head surrounded by the cervix uteri upon this tendency to descent, no alteration in person becomes visible. When the subsidence is very remarkable, it equally evinces an activity of uterine action, and a roomy pelvis. After a short space of time, the commencement of labour is announced by the painful recurrence of uterine throes; by a discharge of mucus; and by a relaxation of parts.

I have already hinted, that the contractile effort of the Uterus, assisted by the diaphragm, and the abdominal muscles, is the active agent in the process of labour. The child, whether it be alive or not, is wholly passive. Two necessary parts of the process are, or ought to be, progressive at the same time; they should, indeed, keep exact pace with each other; viz. that contractile effort by which expulsion is effected, and that relaxation in the soft parts, which permits the advance of the child. The regular economy of labour is so intimately connected with, and dependent upon, these two actions keeping a due pace with each other, that if the former be actively excited before the latter commences, the labour becomes more painful and protracted, and is even sometimes thrown into irregularity and disorder. In proof, I need only remark, that if, in a first labour, the membranes give way early, when the soft parts are too rigid to permit any advance, it is probable that uterine action will be prematurely and powerfully induced; under such circumstances, the interval which passes between the discharge of the waters and the conclusion of the labour is truly distressing. The assistance of art is sometimes called

for, to terminate a labour thus protracted by the mere exhaustion of the animal powers, under these premature efforts.

Uterine action, as I have before stated, is involuntary; it is not to be excited at the pleasure of the will: yet the will has a control over certain muscles, whose exertions may voluntarily be added or withheld, and which, towards the close of labour, are always added, almost against the power of the will, to the effects of the labour pains. The action of these voluntary muscles is sometimes prematurely misapplied to the detriment of the patient.

The female attendants upon a woman in labour, generally recommend her *to bear her pains down*; that is, to call into action the voluntary powers of the diaphragm, and of the abdominal muscles, without reference to the period of the labour, or the state of parts when such recommendation is made. If it be early complied with, these voluntary exertions do much injury. They tend to the untimely waste of those powers which ought to be reserved for a future occasion. How much more congenial to Nature's intentions would it be, to request the woman to refrain from any voluntary effort; to abstain even from any expression of pain, until she finds herself of pure necessity compelled to bear down, and to cry out; the time will come, when she cannot withhold her efforts or stifle her feelings.

But though uterine action may not be under the control of the will, it is now and then diminished in vigour, or even sometimes entirely suspended by sudden occurrences, strongly affecting the mind. Yet this interruption is generally only temporary. The activity of the process is usually resumed after an uncertain interval, and is continued to its completion. The patient is neither endangered, nor does she suffer any inconvenience beyond some degree of mental anxiety.

An interval of comparative ease, in which there is an absence of action, succeeds the pain attendant upon each extreme effort. During the continuance of pain, the Uterus feels harder, firmer, and smaller; but during the interval

of ease, it is softer to the hand, relaxes, enlarges, and resumes nearly the condition it was in previous to the attack of pain. By repeated returns, however, the general volume of the Uterus and the capacity of its cavity are diminished, its contents are compressed, and are ultimately expelled.

The contents of the Uterus being expelled, a temporary thickening of its parietes is produced as a consequence of contraction, by which the diameters of its several blood-vessels are proportionally diminished, and by which their extremities are partially constricted.

Labour pains, then, are merely the external evidences of the agency of that uterine power by which contraction is produced. We observe a temporary, and a more permanent state of that contraction. The temporary state takes place on every occasion of uterine action: the permanent state is the result of the repeated returns of the former; under which the viscus assumes a more tonic firmness; and, when produced to any extent, it does not admit of much relaxation. After the expulsion of the uterine contents, contraction progressively proceeds, till the Uterus acquires its smallest size.

On this subject I shall have occasion to offer a few more remarks presently.

ON NATURAL LABOUR.*

NATURAL LABOUR implies the most simple and common state of the act of Child-birth; but the term may be, in my opinion, more particularly used with reference to the situation of the child. In natural labour, the head of the child is presumed to be the presenting part, and the process to be regularly and gradually progressive, until completed by the efforts of the mother, without the interference of art, or without the intervention of any untoward occurrence.

The obvious commencement of the process is preceded by those silent preparations which have been already noticed, and which indicate its approach. It is at length characterized by the recurrence of pain, with intervals of ease. The degree of pain is, in the first instance, trifling; but, as the process advances, it is increased. The pain is usually referred to the loins and sacrum, or the lower part of the abdomen; and sometimes it shoots down the thighs. If there be any expression of this pain at the beginning of labour, it partakes rather of the nature of a moan, than of that anguish attendant on an expulsive effort. After the establishment and continuance of uterine contraction for some time, the intervals of ease become shorter; the uterine orifice shows a disposition to open, and the Vagina to relax; a discharge of mucus ensues, and a portion of the membranes containing the liquor amnii is protruded in the

* Eutocia.

form of a soft bag through the os uteri. This bag is tense and prominent during the presence of contraction, but becomes gradually flaccid, and recedes as the pain subsides. This protruded portion, on every return of uterine contraction, mechanically distends the os uteri, and assists its further dilatation, as well as that of the Vagina, by an increase in its size and by pressure; particularly if these parts have already assumed a disposition to give way, so as to permit its advance. If an examination be now carefully made, in the absence of uterine contraction, some part of the head of the child may be felt through the flaccid membranes; probably at the brim of the pelvis, or just entering it. After a farther lapse of time, and the regular continuance of uterine action, the protruded portion of the membranes gives way from increase of pressure, and the waters are discharged partially or entirely; the head of the child then descends upon the uterine orifice, and is pushed lower into the Vagina. There is now commonly a slightly coloured discharge. The pressure of the head on the soft parts proves an increased stimulus to uterine action, and expulsive efforts are the consequence; the Uterus, now strongly and more immediately contracting upon the breech and body of the child, is assisted in its powerful action by the voluntary exertions of the abdominal muscles, and of the diaphragm, sympathetically excited; so that on each return of uterine action, the woman is almost involuntarily compelled to strain, to bear down, and to retain her breath, with an expression of anguish. If, at this time, the uterine orifice and the Vagina have assumed a proper degree of relaxation; if they do not offer much resistance; the head, after a few more successive strains, is found to be vastly extending the perineum, the anus, and external parts, and the vertex is soon observed to be making its appearance externally. The sense of pressure on these parts, now produces an increased degree of both voluntary and involuntary expulsive effort, by which the head is at length gently and gradually protruded, under much suffering. A somewhat longer interval of ease for the present

succeeds the preceding acute sensations. On the return of uterine action, the shoulders are expelled by similar efforts, and with similar sensations; and afterwards the body, the breech, and the legs of the child.

During the passage of the head through the pelvis, and previous to its exit, certain changes are naturally effected in its relative position, with respect to the neighbouring parts; to which it is now necessary to call particular attention. At the beginning of labour, the head is usually found at the brim of the pelvis, with one ear towards the pubis, or diagonally with the occiput to one of the groins: in this manner it enters the pelvis, and descends with the occiput under the foramen thyroideum, with an ear on the right or left of the pubis, until the vertex is on a level with the tuberosity of the ischium. Meeting now with resistance to its farther advance in that direction by the ischial and sacral bones, and the soft parts; the occiput is gradually and effectually inclined into that space, in which a less degree of resistance is offered, that is, under the arch of the pubis, whilst the face occupies the hollow of the sacrum. When this change of position, termed the *turn* of the head, is completed, the emerging vertex is more and more protruded through the external parts, and the head is expelled, with each ear directed to the side of the outlet of the pelvis, with the occiput under the pubes, and the forehead and face passing over the internal surface of the perineum.

After the exit of the head, another relative change is effected with respect to the shoulders and body of the child. When the head is in the above situation, each shoulder is directed to the side of the pelvis; but on the return of the next expulsive effort, the shoulder is found to have turned spontaneously somewhat under the arch of the pubis; and the body of the child is expelled with its side more inclined to the arch of the pubis, than the back or belly.

If the forehead be found in the place above described, as the usual situation of the occiput, it is propelled downward in the same direction, and it makes a similar turn under the pubic arch; the head is then expelled with the face

towards the pubes, and with the occiput directed into the hollow of the sacrum.

The principal points of professional duty, during the passage of the head and shoulders through the external parts, consists rather in protecting them from injury, bruise, or laceration, than in hastening the exit of the child by extraction. Indeed, the more gradually and slowly the body and limbs of the child are protruded after the passage of the head, the more perfectly does the Uterus contract, and the smaller and firmer does its volume become, during, and after expulsion.

The best mode of effecting the above objects, is so thoroughly explained by every teacher of midwifery, as is also the intention of those common attentions due to the new-born babe, and to the mother, that it is needless, in this place, even to mention them.

Throughout the course and management of a common natural labour, the assistance of the accoucheur is seldom wanted till the expulsion of the child is at hand: he has merely to superintend the process; to take care that all the natural changes are duly and timely performed; and to provide against any avoidable injury which neglect might occasion. By untimely and officious interference, the whole process is frequently thrown into derangement and confusion: the use of instrumental means towards its close is thus called for to ensure the welfare of the mother: whereas, in all probability, had a different line of conduct been pursued, a natural and safe termination would have resulted.

During the progress of a common natural labour, various inconveniences, the result of idiosyncrasy, of sympathy, or of pressure, will occasionally be met with; such as rigors, nausea, the rejection of fluids taken into the stomach, determination of blood to the head, repeated inclinations to empty the bladder and rectum, and others of a similar nature: such symptoms, however, prove merely temporary and being connected with the process as a cause, subside upon its completion.

A case will occasionally be met with, in which, after the

head has made its exit, an unusual intermission of the uterine effort takes place: during this interval the woman complains of the inconvenience produced by the pressure of the child upon her parts, and by their extension; a similar occurrence is not uncommon, after the shoulders and part of the body have been protruded. However long this intermission may prove, and it rarely exceeds a quarter of an hour, it is generally more advisable, during its continuance, passively to await the return of uterine contraction for the expulsion of the remainder of the child, than to use extraction in its absence. It is always better for the woman that the child should be entirely expelled, than even partly extracted.

The expulsion of the child is often followed by some degree of smarting sensation in the neighbourhood of the fourchette, which may give rise to the apprehension that some injury has been inflicted on the parts; but a short lapse of time usually proves such apprehensions to be groundless.

As the head is advancing through a well-formed pelvis, it retreats in the absence of pain, and is again pushed down upon its return; even just before the exit of the head, the feeling of distension is considerably diminished on the remission of pain.

ON THE GENERAL MANAGEMENT OF THE PLACENTA.

This is a practical subject, which involves matters of far more vital importance to the welfare of a parturient woman, than the simple exclusion of the child. It is a melancholy truth, but the fact is too certain, that the life of every woman, under the act of child-birth, is necessarily exposed to some degree of risk.

The risk is not caused simply by the agonizing pangs she may have suffered, or by the violence of the exertions she may have been compelled to make under the act: it has its origin in the nature of that connexion, which providence has established between the mother and the child, in the construction, and in the mode of attachment, of the Placenta.

It, indeed, sometimes happens, after the kindest, and apparently the safest labour, (as far as the birth of the child is concerned,) after, perhaps, some of the domestics, elated with momentary joy at the happy event, have officiously hastened to inform an anxious and expectant husband that the child is born, and that *all* is safe; even under such flattering appearances, it sometimes happens, I say, that in the interval between the birth of the child and the removal of the Placenta, the mother is placed under symptoms of the most imminent danger, by a sudden loss of blood from the uterine vessels, from which she can only be rescued by the judicious conduct of her accoucheur; without his prompt assistance, it is highly probable that her life, however valuable, would be forfeited to the natural act of child-bearing. But brute animals are happily exempted from this source of danger by the difference which exists in the structure and in the mode of attachment of their Placenta.

There is every variety in the relative situation of different women, and even in that of the same woman in her different labours, as to the state in which the Placenta is found: it must therefore be almost impossible to lay down such definite and determinate rules of proceeding, with respect to its management, as may be suited to every particular case. Nevertheless some general principles may prove useful; but in their application, much latitude must ever be allowed for the exertion of individual judgment and discretion. If erroneous notions upon this important subject be early imbibed, from whatever source they may be derived, their baneful impressions are not easily eradicated; they seldom fail to exert their injurious tendency upon the judgment for a length of time; until indeed, they are either corrected by the practical evidence of their mischievous effects, or by a more perfect knowledge of those provisions, by which this mass is, in the first instance, detached from the uterine surface, and afterwards excluded the cavity.

After the separation of the child, the hand of the accoucheur must always be applied upon the lower part of the abdomen, with the intention of ascertaining the actual

condition of the Uterus, and the degree of contraction it has already undergone; for every other consideration is now of minor importance, in comparison with that of uterine contraction. This simple proceeding, then, ought never to be omitted: it enables us to judge of the probable safety of our patient, and to give those satisfactory assurances which ever prove so pleasing: it warns us of threatened mischief, and empowers us to take timely steps to avert it: it is also the surest means of detecting the presence of a second child. By the state in which the uterine tumour is now found under the hand, must the practice be regulated.

In the majority of instances, that contractile effort by which the breech and legs of the child are expelled, (especially if no extraction has been used at the moment,) also detaches the Placenta from its uterine connexion, either leaving it loose in the cavity, or protruding it into the Vagina. But this desirable occurrence may not immediately take place; in the absence of contractile effort, or upon its exertion in a slighter degree, the Placenta may *not* be detached, or may *not* be protruded. Let us, therefore, here pause, and inquire in what manner, and by what means, the placental separation and exclusion are naturally effected.

At the full evolution of the Uterus, and previous to the commencement of labour, the Placenta occupies an internal space of the uterine surface equal to its own diameter and dimensions; but after the expulsion of the child, the general volume of the parietes of the Uterus, and the capacity of its cavity, being each diminished in proportion to the degree of contraction that viscus has undergone, the uterine space before occupied by the Placenta is now proportionally lessened, and shrinks into a less surface; the Placenta therefore loses its former hold: it spontaneously falls off, as it were, from its preceding attachment, by the shrinking, or contraction, of the uterine parietes from beneath it, and its separation is attended with a moderate discharge of blood.

This natural separation may be prevented by an absence of contraction, or obstructed by a morbid adherence of the

placental surface to the uterine structure. In the case of twins, however, as the Uterus has not the power of contracting itself completely, till after the expulsion of the second child, the Placenta belonging to the first child is rarely so far separated, as to be found in the Vagina, till after that event has taken place. The placental mass does not possess within its own structure any active means capable of producing its own separation, nor can it shrink into a less compass: it remains inert during the contractile efforts of the Uterus. It is indeed contracted upon, and thrown off by the uterine parietes, but it cannot lessen its dimensions by any power inherent within itself: such being the case, under a perfect and healthy state of uterine action, the Placenta falls off from the surface it had previously occupied, as a consequence of the shrinking of the uterine volume; and a continuance or repetition of contraction excludes it. But under an imperfect state of uterine action, it remains loose within the uterine cavity; and under adhesion, it continues more or less attached to that part of the original surface, against which it had been originally implanted.

That power, which is so favourable to the separation and exclusion of the Placenta, also prevents the loss of a larger quantity of blood from the open extremities of those uterine vessels in immediate connexion with the mass, than is consistent with the woman's welfare. This effect is produced by a closure of their apertures, and by a degree of constriction throughout their entire structure, as the natural result of uterine contraction. These enlarged vessels do not seem to possess an equal share of contractile effort in themselves and of themselves, as the blood-vessels of other parts of the body; they are indebted for that salutary property to constriction of their several parts by the lessened Uterus: they cannot so far contract their own parietes, diminish their general diameters, and close their orifices, as to prevent the escape of their contents, without the assistance of uterine compression.

The more perfect in degree, therefore, the general state of uterine contraction is found under the hand, immediately

after the expulsion of the child, the less will be the chance of hemorrhage: the more imperfect in degree, the greater will be the danger of hemorrhage.

From this view of the mode in which the separation of the Placenta is produced, and of the means which nature usually adopts to effect this important purpose, it is obvious, that to a perfect state of uterine contraction, and to that alone, must we refer for security, during, and after, the act of labour. It not only forwards and completes the grand changes which occur during the process, but it also prevents or lessens the dangers to which every woman is exposed under the act of child-birth. The resources of art ought, therefore, to be particularly directed to the production of this perfect state of contraction, when it is left imperfect by the natural powers.

The application of the hand, at the lower part of the abdomen, as before directed, with a slight degree of grasping pressure, enables the attendant immediately to detect the state of the Uterus at the moment: this expedient should be resorted to before any attempt is made to remove the Placenta, or even before an examination is commenced with the intention of ascertaining its real state. If the Uterus be now found low in the abdomen, or in the pelvis; if it be firm, well contracted, and small in bulk, the safety of the woman is pretty well assured. If, on the contrary, the Uterus remain high; if it be flaccid, ill-contracted, and large in size, without the presence of a second child, some threatening of mischief attaches to such symptoms, of which the accoucheur is forewarned. He is thereby prepared to take timely steps to avert the danger, and to act with promptness and energy, if necessary; or he is cautioned to adopt such intermediate measures, as the preservation of his character, and the ultimate safety of his patient, may demand.

After this satisfactory information is obtained, an examination *per vaginam*, is presently to be made, for the sake of inquiring in what manner the Placenta is disposed of. If the mass be found by the finger protruded down into the

Vagina; if the insertion of the Funis into its substance can be readily and distinctly felt; if the finger can trace the boundaries of the mass; if, at the same time, the Uterus be firm and small; little doubt can remain of the complete detachment of the Placenta, and of its exclusion from the uterine cavity. In such a case, it may be withdrawn at pleasure by the Funis.

But though the Placenta may thus be withdrawn at pleasure, it may be a question of policy, whether it ought to be withdrawn *immediately*. On this point, different professional men vary in their sentiments, and accordingly pursue different modes of practice. I am ready to grant that, under the favourable appearances above stated, the Placenta, in the majority of instances, may be immediately withdrawn, without any apparent detriment to the patient; nay, we uniformly find in practice, that the sooner it is removed, the better pleased are the patient, and her friends; nevertheless, I have my doubts of its propriety in the absence of uterine action, and I generally await the return of that action, before I remove the mass altogether, that I may take advantage of its assistance.

To allow the Placenta to remain in the Vagina for a short space of time, can, at least, do no harm: its presence appears rather advantageous than detrimental, by inducing a return of contraction, and by furthering those silent changes already in progress. The habit of hurrying the removal of the Placenta, under all cases, cannot be too much deprecated. I offer no limit as to time; that must be regulated by the occurrences of each case, and the judgment of the accoucheur.

But the Placenta may be separated from its uterine attachment, yet may not be excluded the cavity; it may remain loose and detached within the Uterus. The uterine tumour, in such case, is felt above the pelvis; it occupies a considerable portion of the abdominal cavity; it possesses a greater volume and less solidity than when it does not contain the Placenta.

This state of the Uterus is generally produced by the

manual extraction of the body and lower parts of the child, during the absence of the uterine effort, after the head and shoulders are protruded. Instead of passively waiting for the active expulsion of these parts, as before recommended, the operator drags them away suddenly, and, as it were, by main force.

The Uterus is therefore left under a state of imperfect, or of irregular contraction. The difference between the natural expulsion of the abovementioned parts, and the forcible extraction of them, with the effects thereby produced on the uterine tumour, and on the separation and exclusion of the Placenta, must be too obvious to every practitioner, to need illustration or comment. If, in this case, the Placenta should have fallen down by its own weight, and be placed at the lower part of the Uterus, the insertion of the Funis may possibly, by a little management, be touched; but frequently it cannot be felt; the Funis seems to be lost within the Uterus, and the finger is unable to reach the general mass.

Under this disposition of the Placenta, presuming there is no appearance of any untoward symptom, it may safely be left, for some time at least, in the hope of its being excluded by a return of uterine contraction. In the interval, an occasional grasping pressure, by the hand externally applied, may be usefully employed: this act assists and excites its return. No limit as to the *time when* the Placenta ought to be extracted can, in this case, be precisely fixed; but, in the interval, I would urgently caution the attendant against making repeated tugs at the cord: most probably the mass will by and by descend, when it may be extracted as before directed: even if it do not, extractive means may be deferred as long as it seems consistent with professional duty so to do, or the clamours of the attendants will permit.

As a general principle, then, it is desirable to wait patiently and quietly the return of uterine action for the extrusion of the Placenta, till either lapse of time, or other occurrence, prompts its removal. After a long protracted

labour indeed, in which the strength has been much exhausted, and also in some cases of artificial delivery, an earlier removal of the Placenta may more frequently be called for than in ordinary instances. But whenever such a proceeding is determined upon, the particular mode of managing it must be regulated by the circumstances attendant upon each particular case.

The time which thus elapses between the birth of the child and the extraction of the Placenta, is an interval of great uncertainty to the patient, and of anxious suspense to the accoucheur; especially, while he remains ignorant of the precise mode in which the Placenta is disposed of in the Uterus. When that time is prolonged to an unusual period, a want of confidence is excited in the patient, and a distrust as to the general management of the case arises in the minds of her friends, which require no trifling exertion of firmness to counteract and defeat. Whether it may become necessary to introduce the hand to separate, and to withdraw the mass, or whether it may be naturally thrown down, are questions which cannot, at the moment, be satisfactorily answered. The accoucheur is therefore not at liberty to make those consolatory assurances of the safety of his patient which are so anxiously expected from him; at the same time, he ought not to excite unnecessary alarm by the careless expression of any fearful apprehensions; he will consequently have to exercise much caution and reserve in his replies to the inquiries of anxious friends, which should rather assume the tone of hope and confidence, than that of alarm and despair. But whatever may be his sentiments respecting the real state of his patient, it is a matter of no little importance, that he does not betray any visible marks of alarm and apprehension in the lying-in room; they seldom fail to make a similar impression on the minds of all parties present.

It usually happens, in the case now mentioned, that, after the lapse of a moderate space of time, the Uterus resumes a slight degree of action; it is observed to lower, to become firmer, and to lessen in bulk; the Placenta is felt coming

within reach, and by and by descends. Under this state of things, there can be still no necessity for hurrying the extraction. The more completely the Uterus throws off and excludes the Placenta, by its own contractile effort, in the safer condition will the woman be finally left. Previous to the return of uterine action, I must repeat the caution against lugging at the Funis, a practice which, I fear, is but too prevalent; I allude to the usual mode of twisting the Funis round the finger, bringing the cord to its bearing, and applying a degree of extractive purchase through its means. This is sometimes done with the intention of exciting uterine action, when it is dormant; or of separating the Placenta when the mass is adherent; but it is always a very doubtful, and even a very dangerous expedient. The attempt to withdraw the Placenta by any degree of force, by the Funis, as long as it is out of the reach of the finger, as long as it is entirely enclosed within the uterine cavity, is at least premature and injudicious; and may prove seriously injurious. Indeed, the repeated teazing of the Funis, is in itself not devoid of mischief. If the Placenta should prove to be morbidly adherent to the uterine surface, this practice may separate a portion of it, and induce a sudden access of hæmorrhage: or it may endanger a disruption of the mass, with the risk of some portion being left behind; or it may produce actual inversion of the Uterus; or, whether the Placenta be adherent, or retained by irregular contraction, it may break off the Funis, and drive us to the unpleasant necessity of introducing the hand for its final removal.

It is impossible to describe the degree of force which may be applied to any given Funis, without danger of inducing any of these accidents; that must be regulated by the thickness of the Funis, and by judgment acquired by practice. But when, in the attempt to withdraw the Placenta by the Funis, we meet with much resistance; when it seems to be retracted, as soon as the extractive power is withheld; when the mass does not kindly descend, upon an application of the customary degree of that power, we ought, for the

present at least, to desist from any farther attempt at extraction by its means.

The introduction of the hand into the Uterus, after the birth of the child, is, to use the mildest language, a harsh and severe measure; it always gives considerable pain, and it cannot be practised with impunity; without some risk, present or future.

In the introduction of the hand, therefore, we ought not to be actuated by trifling motives, nor ought it to be resorted to on slight occasions; it ought merely to be considered in the light of a necessary evil, which averts greater danger or inconvenience than it incurs. Yet, however harsh and severe in reality may be the introduction of the hand, however painful at the moment, and however hazardous in its consequences, the removal of the Placenta by its means, when adherent or retained, (the necessity of that removal being established,) is certainly preferable to the uncertain, nay dangerous, mode of pulling at the Funis: it is the less of two evils.

But let us suppose that the Placenta still remains entirely within the uterine cavity; that there is no tendency to a return of uterine action; that the uterine tumour continues high, large, and flaccid; what length of time are we justly authorised to wait, before some decisive steps should be taken for its removal out of the Uterus?

The answer to this question involves many serious considerations. We are still presumed to be in utter ignorance of the precise mode in which the Placenta is disposed of in the womb: it may be adherent partially or more generally to the uterine surface, or it may be merely retained after its separation from that surface. In whatever state it may be found, we ought, for the present, to desist from active means, till more positive information is obtained respecting it, or till lapse of time, or some threatening symptom more immediately determines our conduct. As long as there is no hæmorrhage or other appearance of danger, it is matter of little moment in itself, whether the Placenta be allowed to remain two hours, or for a more indefinite time, within

the uterine cavity; but, inasmuch as this interval is one of anxious suspense to all parties concerned; inasmuch as the present received opinion is, that the Placenta ought not to be suffered to remain an unlimited length of time in the Uterus without removal; inasmuch as the character of the accoucheur is exposed to the unfavourable comments of all to whom the affair is communicated, when he thus ventures to leave it; inasmuch as his constant presence is necessary, his patience exercised, and his time consumed, till it be removed; and lastly, inasmuch as a time must come, when the Placenta must be removed by art, under, perhaps, increased difficulty and danger, unless it be thrown off; such considerations have warranted the practice of a timely removal by the hand.

The Placenta cannot be left in the Uterus for an unlimited length of time, without danger; fatal consequences have occasionally ensued from the practice; and the doctrine, on which the practice was founded, is now justly exploded. Besides, cases are not unfrequently met with, in which such an unnatural or morbid adhesion exists between the placental and the uterine surfaces, that the natural separation and exclusion are quite impossible. Add, also, that after the expulsion of the child, the Placenta becomes a lifeless and an useless mass: that it is deprived of those means by which its structure and organization are supported; that it is subjected to all the laws of dead animal matter, and, from its composition and situation, readily passes into a state of putrefaction. Such being always the case, there cannot be a question, whether such a mass should be carefully and timely removed, or whether it should be allowed to remain in the Uterus, to undergo these processes, with the risk of their consequences.

But we have, as yet, arrived at no conclusion as to the *time when* the Placenta ought to be removed by art, in those cases in which the natural powers fail to separate and to exclude it. I am ready to acknowledge, that there is great difficulty in fixing the precise time for acting. On this important point, the accoucheur must rather be guided by the respective circumstances of the case as they arise;

by the general state of the patient; by the feel of the uterine tumour; by the quantity of sanguineous discharge, and its effects; and by the nature and length of the preceding labour, than by simple attention to lapse of time.

It will rarely be necessary to exceed two hours, before recourse should be had to this proceeding: more frequently its necessity will be obvious before the expiration of this time; indeed, I think, on an average of cases, it will be found that, if the Placenta be not thrown off by natural means within one hour from the birth of the child, it is detained by some unusual cause. If hæmorrhage, or other pressing symptom should suddenly intervene, an earlier removal will be required; otherwise everything like hurry or haste ought carefully to be avoided.

The propriety of the removal of the Placenta, by the introduction of the hand, being established by the acknowledged necessity of the case, certain preparations are requisite for its more safe and ready performance. These preparations may seem formidable to the patient, and may convey the impression that her life is in danger; they ought, therefore, to be made as silently and cautiously as possible; they are, nevertheless, needful to the accomplishment of the object in view, with a greater degree of ease to the operator, and of safety to his patient. And surely, the chance of exciting a slight alarm in a timid mind, is not to be put in comparison with the risk of incurring an increased state of danger, or of giving unnecessary pain by a failure in the attempt. I have more than once known an attempt to remove a Placenta from the uterine cavity foiled, by omitting to take off a coat, or to bare an arm; or by the accoucheur neglecting to place himself, or his patient, in the most favourable position; when, having partially introduced his hand into the Uterus without such precautions, he has been obliged to withdraw it, to rectify his omission or neglect.

The friends of the patient, and even the patient herself, should also, in most instances, be apprised of the intended operation, that their complete sanction and permission may

be obtained; unless this be done, a mysterious secrecy hangs over the case, which leaves room for unfavourable imputations. Besides, the patient may, by resistance, materially defeat the intentions of her accoucheur. When the state of the case has been properly explained, I have seldom met with serious objections from any parties as to the use of the necessary means.

The patient is to be placed on her left side, with her knees bent up towards the belly, and with her nates at the edge of the bed: the accoucheur, seating himself on a low chair, or kneeling on the floor, gradually and cautiously introduces his left hand, formed into a proper shape, and previously besmeared with pomatum or lard, into the Vagina, and thence into the Uterus, gently dilating and distending those parts in its passage. Now, having accomplished the first part of the operation, by the introduction of the hand, the real nature of the case will be detected, by which the future conduct of the hand within the Uterus must be regulated; and if, at this time, the Funis be gently brought to its bearing by the right hand, so as to act slightly on the Placenta, the mode in which that mass is disposed of in the Uterus will be the more readily determined. During the introduction of the left hand, the application of the right hand externally on the uterine tumour, with a degree of grasping compression, may be advantageously made.

Should the Placenta be now found partially or more generally adherent to the uterine surface, a loosened portion is to be sought for, and the fingers being cautiously insinuated between that portion and the Uterus, a further separation is gradually, and carefully, to be made by a lateral or other motion of the hand, till the whole mass be within its grasp, when it is to be slowly extracted. While the left hand is thus occupied within the Uterus, its action is much assisted by the external grasp of the right hand, as above-mentioned; that grasp steadies the Uterus, and prevents that rolling motion, which considerably baffles the manual separation. Much difficulty is sometimes experienced in the separation of an adherent Placenta, by the strong con-

traction of the Uterus on the hand, and by its rolling about in a singular manner; the above expedient materially obviates that inconvenience.

If the Placenta be retained by irregular contraction of the uterine parietes, whether it be of the longitudinal description, termed the hour-glass contraction, or globe-like, the contracted part is to be slowly and carefully dilated, and distended by the hand, till the general mass of the Placenta can be enclosed within its grasp, when it may be gradually withdrawn.

But should the Placenta be found detached from the uterine surface, and be merely retained from the want, or absence, of the contractile effort, the stimulus of the hand within the Uterus usually induces a return of active contraction, so that the hand, with the Placenta within it, seems almost to be expelled together; should this not be the case, a very slight degree of extractile power will be sufficient to withdraw it. This state of Uterus is frequently met with after operative midwifery: after the birth of a still-born child; in those instances in which the uterine efforts have been much exhausted previous to the birth of the child: and in those in which the child has been extracted during the birth, instead of being allowed to be expelled.

In every instance, after the manual extraction of the Placenta, before the patient is finally left, the hand should once more be applied upon the Abdomen, that the state of the Uterus, as to the degree of contraction it has acquired, may be now more accurately ascertained. The mind is thus satisfied of present safety, or warned of future danger.

ON THE OCCURRENCES AFTER DELIVERY.

Now that the process of labour is completed, by the Placenta being withdrawn, let us consider the present situation of the woman, and look at the changes which have already taken place, as well as those which are still in progress.

Three obvious occurrences prominently and immediately

arrest the attention; the diminution of the uterine tumour, the abstraction of pressure from the contents of the Abdomen, and the removal of distension. The Uterus is now small, in comparison with its former size, yet it remains large in proportion to that which it is afterwards doomed to assume; it is pear-like in shape, and thicker in substance; its Fundus is felt at the brim of the pelvis, giving a solid resistance to the hand; and its general bulk is variable, even in the same woman in different labours. A contractile effort is continued, which produces from day to day, a still more perceptible diminution of its substance; this regularly progresses onwards, till the Uterus has acquired its pristine unimpregnated size. Along with this contractile effort, we have a material abstraction of the vascular supply. By the assistance of these agencies, the Uterus is at length restored to a state, under which it is again capable of impregnation. The process of Absorption has little share in effecting these changes.

This contractile effort is, soon after delivery, and indeed for the first few days, attended with pain, which returns at long intervals, but gradually subsides; it is afterwards performed in so silent a manner, that the patient is ignorant of its progress. These pains are called the AFTER-PAINS.

After-pains are more usually met with in women, who have borne many children, than after a first labour; they are also frequently troublesome after the introduction of the hand for the removal of the Placenta. They are submitted to with less patience than the labour pains; either because they are not expected, or because they deprive the woman of refreshing sleep. They seem to prolong the present sufferings of a lying-in woman, yet they ultimately produce the most salutary effects. She now undergoes a temporary inconvenience, for a permanent benefit.

These pains are sometimes increased by a retention of a portion of the membranes, and frequently by coagulum collected within the Uterus, which mechanically distends and excites it to contraction: when it is expelled, the pains diminish in violence, or cease altogether.

The After-pains are merely a test, then, of the continuance of contraction, which furthers the natural operations connected with labour: any active attempt to check them would counteract these operations, and would incur certain mischief: since then they are fraught with such positive advantages, they are to be patiently dispensed with, in the hope that they will shortly disappear. Some relief, when they are violent, may be obtained by the repeated exhibition of small doses of a narcotic, at short intervals; but such a dose ought not to be given, as can in any wise interfere with uterine contraction. It ought to be considered in the light of a mere palliative remedy. When the after-pains continue distressing, beyond the second day after delivery, an active purgative produces almost certain relief.

After-pains seldom produce febrile symptoms, even when excessive. If febrile symptoms, accompanied with local pain, do, early after delivery, make their appearance, the cause is more deep-seated than meets the eye: they are either connected with a loaded state of the uterine vessels, or with inflammatory action.

When the Uterus continues for some days much increased in size, without the exertion of contractile effort; when its vessels are distended with blood, and there is a sparingness or entire disappearance of lochial discharge, a degree of tenderness is felt in the uterine tumour, especially on pressure, which presently advances to a state of continued pain, and its effects are soon transferred to the general system; we have then the appearance of symptoms of febrile irritation: if they be not early attended to; if they be not speedily relieved, by general or local bleeding, and by free intestinal evacuations, the mischief rapidly increases, and the life of the patient is soon at issue.

Another consequence of the regular diminution of the uterine tumour is met with, in the temporary drain of a sanguineous fluid from those uterine vessels, which, before delivery, had a free communication with the placental mass. To this discharge, the name of Lochia is given; which, in a healthy state at least, is free from unpleasant smell. It is

at the first purely sanguineous; but afterwards becomes less so, and, at length, entirely serous. The uterine vessels, even under their most contracted state, after delivery, remain more or less gorged with blood, and their diameters are left under enlargement. This blood is gradually squeezed out by contraction: in proportion to the perfection or deficiency of this act is the quantity of the lochial discharge, at present, or in future, small or large. If the Uterus contract well, the immediate discharge is moderate, and is continued in a smaller quantity for a shorter time: if the Uterus remain extended, the discharge is, for the present, increased; and is continued in larger quantity for a longer time. For some hours after delivery it drains away slowly in a fluid state; or, being retained in the Uterus or Vagina, it coagulates, and is expelled by contraction, or escapes in a solid form on change of posture. In general, the loss takes place in so gradual a manner, as to produce little sensible effect on the constitution. In a few days the discharge becomes thinner and serous, yet it is still somewhat coloured; it has now a faintish smell; by and by it is divested of its red colour, and after three or four weeks it entirely ceases. A florid return sometimes occurs upon any extraordinary exertion, and occasionally without any apparent cause, even when it seems to have almost ceased. This return merely shows, that there is a temporary cessation of contraction, and that the uterine vessels continue enlarged in diameter: but sometimes their extremities are forced by active means, especially after miscarriage. Under local or general derangement, the lochial discharge is either interrupted, or it is altered in quality or appearance; and in some diseases it becomes so offensive, as even to make the lying-in room disagreeable.

The sudden disappearance of this discharge within a few days after delivery, with an enlarged Uterus, is usually a prelude to dangerous disease, with febrile symptoms. It is not to be supposed that this sudden disappearance produces these symptoms; it is the mere indication of the accession of disease, of which such symptoms are the necessary attendants. We, therefore, pay little attention to the present

interruption of the lochial discharge, except as a symptom, and use no specific means for restoring it, or for obviating its supposed bad effects: we apply our endeavours to the removal, or relief of that cause by which the temporary interruption is produced.

The abstraction of pressure seldom produces much obvious inconvenience in the functions of the viscera of the abdomen and chest; yet now and then it is sensibly felt. The stomach, the liver, the small and the large intestines, with their appendages the omentum and mesentery, and even the viscera of the chest, have been annoyed by the pressure of the enlarging Uterus for some months past; but this pressure has been so gradually progressive, that the parts have become accustomed to it. When the uterine contents are expelled, this pressure is suddenly removed; all these parts are placed in a new relative situation, and they are called upon to continue their regular functions when that pressure is taken away.

The removal of distension from the abdominal parietes leaves them loose and flaccid; they do not immediately so far contract themselves as to embrace, and give resistance to their contents, but they accommodate themselves in time.

An immediate effect is sometimes produced on the equilibrium of the circulation, by the combined operation of these causes, which brings on such unpleasant sensations as terminate in faintness or syncope.

The peritonæal covering of the Uterus, as well as the lining of the abdominal parietes, is diminished in extent; and its vessels are proportionally lessened in capacity.

There is also, as is elsewhere observed, a relative alteration in the distribution of the blood through the pelvic viscera. That quantity, which had hitherto been determined to and through the Uterus for the nourishment of the child, is suddenly diminished, and is turned into other channels, or a part of it escapes out of the body.

To the above primary and immediate occurrences, others of a secondary and remote description succeed. A determination of blood is made to the breasts; these useful organs

become enlarged and tumid, and commence that secretion, which is to form the natural nutriment of the infant for months to come. I shall consider that subject presently.

As contraction proceeds, the Uterus descends lower and lower in the pelvis: in the early days of that contraction, pressure is made upon the pelvic contents, and upon the blood vessels, nerves, and absorbents passing through its cavity.

The Uterus, which before delivery was almost wholly an abdominal viscus, now approaches its proper site, and daily becomes more and more an inmate of the pelvis: during these uterine changes, the broad and round ligaments gradually resume their original state and situation.

Can it then be wondered at, that, under the above several and varied operations, a lying-in woman should be subjected to inconvenience, or to occasional disease? Is it not rather a matter of wonder, that, under the delicate construction of the female body, after the endurance of such severe suffering, so few women should have cause of complaint? And, perhaps, in many instances, the foundation of complaint may be rather attributable to the mismanagement of a nurse, or to the indulgence of a friend, than to the necessary effects and consequences of labour. Nature has wisely ordained, that child-birth should go on in a slow and gradual manner, that the requisite changes may be brought about with little shock to the frame: and more serious symptoms frequently follow a quick and almost painless labour, than are met with after a lingering and painful case. It may, therefore, be some consolation to the sex, under the casual severity of their sufferings, to learn that a moderate degree of pain insures to them present security from danger, with subsequent advantages.

Within a few days after delivery, the lactary secretion is established. A considerable share of sympathetic action is known to exist between the Uterus and the Mammæ, and a determination of blood appears to be made from the one to the other. When the secretion of milk takes place, the uterine system is relieved, and the lochial discharge is

diminished. These useful glands have been silently preparing, during the latter part of pregnancy, for this important office; but it is not perfected till a lapse of some days has occurred after delivery. The means, from which the secretion is furnished, are sparingly supplied for the first twenty-four hours, and the secretion is scanty: after that period, both are improved; by the end of the third or fourth day the breasts are freely distended, and the supply of milk amply afforded.

The mind possesses considerable influence over the action of the breasts. If the child be still born, or if it be taken away from the mother, so that her natural feelings are not much interested about its welfare, the secretion of milk will sometimes be denied in a great measure; but this is not always the case. Even under the intention of suckling, if the infant be long withheld from the breasts, on the absurd plea of either the mother or the nurse, *that there is no appearance of milk*, the perfect secretion is proportionally retarded.

When the child's mouth is first applied to the nipple, it seems to have some difficulty in embracing it with the tongue, but its awkwardness presently disappears. The act of sucking, though instinctive, may easily be lost, and is with difficulty regained; if the infant be plentifully fed, the natural call for the breast will be taken away. The breasts then become distended and painful, the nipples retract, and febrile symptoms ensue. Such inconveniences are generally to be avoided by the timely and repeated application of the infant to these valuable organs.

The duty of maternal suckling is so imperious on all animals, and so natural, that it is almost needless to urge its performance to woman. The compliance with it secures many valuable advantages to the mother and to her infant: the voluntary refusal of it is replete with injury to both. The former tends to forward and to complete those silent changes, which are for weeks progressive: the latter interferes with them, and renders a woman liable to disease in the Uterus and Mammæ under their operation: the former es-

tablishes a proper degree of affection between the mother and the babe; the latter materially withdraws that affection.

If a mother refuse to suckle, her infant must either be brought up by hand, which is an unnatural and unsuccessful mode of nurture, or a wet-nurse must be procured. In the latter case, the babe does not suffer much injury; but an act of great injustice is done to that infant, who is thus deprived of its natural rights.

The voluntary refusal to suckle, on the part of any woman, evinces an absence of the tenderest feelings, and a want of maternal affection for her new-born babe. But it does not merely implicate the dereliction of an obvious and most natural duty; it likewise involves an evasion of the strongest impulses of the human heart: it occasions a transfer of filial affection, gratitude, and obedience, from the mother, to a hireling, who cannot appreciate their value. Who is prepared to say, what may be the future result of this transfer? After a denial of its natural nourishment, after bereaving the babe of its only present birth-right, is it surprising that instances of filial estrangement should occur; or, when once produced, that it should become permanent? May we not attribute some of those disgusting alienations, occasionally met with in certain ranks, to the neglect of this delightful office? Though human institutions admit of the introduction of ranks and degrees into society, the Divine Will has ordained that all women shall be equally liable to the pains and perils of child-birth, and to its consequences. Milk, therefore, equally and similarly flows into the breasts of the princess and the peasant, and frequently into those of the former grade in greater abundance, from better fare: it must thence be repelled or absorbed, under the risk of suppuration and febrile affections, and under the repeated exhibition of nauseous purgatives. Indeed, that woman but ill consults her future health and comfort, who voluntarily declines this engaging and truly maternal office.

ON ADHESION OF THE PLACENTA.

A MORBID adhesion of the Placenta to its uterine surface is by no means an uncommon occurrence, but it can seldom be positively known, until the hand is introduced for its removal; for we have sometimes to contend with similar symptoms when it is merely retained, as when it is more or less adherent. We may, indeed, suspect that such is the fact, when, upon a correct vaginal examination, the Placenta is not found within reach of the finger; when there is a sense of retraction on tightening the Funis, with a threatening of flooding; and when the uterine tumour continues high and large; but I am not, at present, aware of any external mark which points out the case with certainty. I have occasionally remarked an irregularity in the shape of the uterine tumour; a hollowness or deficiency in its globular form, or a conical pointedness at its fundus, in some few cases in which the Placenta has been ultimately found to be adherent; but I suspect that these are rather accidental occurrences than essential to the case.

Placental adhesion is met with after all kinds of labours: as frequently after easy, quick, and natural ones; as after those, in which uterine energy has been exhausted; or those, in which manual or instrumental assistance has been required. Its quantity and degree is variable in different instances: in some, nearly the whole mass is found in an adherent state: in others, only a small portion of it; yet the symptoms in each may be equally violent. Sometimes

the Placenta seems merely to retain its original attachment; it is readily separable by the hand, but it is not to be detached by uterine effort; nor can it be withdrawn by any moderate degree of force applied to the Funis: at other times, it is so firmly adherent, as almost to feel as if it constituted a part of the uterine structure itself; it is so strongly cemented to the uterine surface, that there is great difficulty in insinuating the fingers between the Placenta and the Uterus, and even in distinguishing what portion felt by the hand is Uterus, and what Placenta; especially in a contracted Uterus, when the hand has little room for action.

The continuance of the simple attachment of the Placenta may sometimes be attributed to deficiency or absence of uterine contraction; but its strong adhesion is probably dependent upon an agglutination of the placental surface to the uterine surface, in consequence of previous injury or disease; yet the cause producing it does not seem to interfere with the active powers of the Uterus.

I have occasionally observed that adhesion of the Placenta has followed a violent blow, continued pressure, an accidental fall, or other external injury inflicted on the belly during the latter stage of pregnancy. I have also met with it in several cases, in which the woman has previously suffered under a constant, dull, gnawing kind of pain,* especially during the night-time; which on further inquiry has been referred to some part of the uterine tumour. In the former instance, I have been led to suspect that the injury has been casually

* We frequently meet with great vagueness in the description of pain, and particularly in the description of the situation of that pain, and if anything like precision be desirable, the patient should be requested to lay her hand on the part. A woman will tell you she has got a pain at her heart, and if you apply this test of the situation of the pain, she probably applies the hand to the epigastric region, or to any part but that over the heart. If she complain of a pain in the side, she probably applies the hand to the side of the belly. But even this test will not be sufficient to enable a professional man to discriminate between a pain in the parietes of the belly and one situated in the Uterus or in the parts underneath. If he wish to arrive at any degree of accuracy or certainty in this respect, he must examine the part with his own hand. The apparent indelicacy of this act must ...e way to the patient's welfare.

applied to that external portion of the Uterus, to which the Placenta has been internally attached; that it has not been to such an extent as to produce any actual separation of that mass, yet sufficient to excite the vessels of the uterine structure to an undue degree of action, and to induce them to throw out coagulating lymph, by which the placental and the uterine surfaces become morbidly united. But every blow or other external injury on the Gravid Uterus may not be productive of this mischief, since so extensive a space of uterine surface is free from placental attachment. In the latter instance, I have been induced to think, that a diseased action has been spontaneously established in the uterine vessels furnishing the Placenta, or in those of the deciduous membrane connecting it to the Uterus, by which similar effects are produced. Be the assigned causes correct or not, the facts are deserving attention.

When the Placenta is not separated upon the birth of the child, the uterine tumour feels larger than usual under the hand; it is generally found less contracted: upon passing the finger it runs along the Funis into the uterine cavity, and there is lost: upon searching round, no trace of the insertion of the Funis is perceptible, nor in most instances can any portion of the mass be felt.

It sometimes happens, however, though rarely, that while a small portion of the upper surface of the Placenta still continues adherent, the opposite edge and side are pushed down upon, or protruded through, the os uteri, and even the insertion of the Funis comes within reach of the finger. This case forms one of the most deceptive that can possibly occur in practice, and demands more than ordinary caution in its detection and management; for if, on the presumption of the above appearances, the Placenta be supposed to be entirely detached, and an active attempt be made to withdraw it by pulling at the cord, either the mass of the Placenta will be torn, and a portion of it left behind adherent to the Uterus, or the Funis will be broken off, and the future guide to the substance of the Placenta will be thus lost.

This case is to be suspected by the mass of the Placenta being elongated, by a portion of it being within reach, while the remainder cannot be surrounded by the finger; by an opposing resistance to the degree of extractile purchase offered by the Funis; and by an increase of hæmorrhage on every attempt to extract the Placenta by the cord.

In all cases of placental adhesion, after an uncertain time, hæmorrhage ensues. The blood is sometimes discharged fluid and florid; at others coagulated and darker; the size and number of the coagula being always in proportion to the quantity of blood which has escaped out of the uterine vessels, and to the time it may have remained extravasated in the Uterus. This hæmorrhage sometimes occurs immediately after delivery; sometimes within the first hour; and now and then after a more protracted period. In this case we seldom observe a disposition in the Uterus to active contraction. If slight after-pains do come on, they produce little effect on the Placenta, or on the size of the uterine tumour; but with every uterine contraction, fluid or coagulated blood is passed. The hæmorrhage continuing with a greater or less degree of violence, the patient by and by complains of faintness, or perhaps goes into a state of complete syncope. If active and judicious measures for the removal of the Placenta be not promptly taken, the symptoms rapidly advance, and the patient is soon placed in a condition from which her ultimate recovery is extremely uncertain. If pressure be made on the uterine tumour by the hand, an increased discharge for the present ensues.

Under this state of things, and especially if there be a constant, though apparently a slight draining of florid fluid blood, I would press this practical caution, "not to defer the removal of the Placenta too long." The woman must unavoidably suffer a farther loss in the manual separation, be that effected ever so dexterously; to what extent that loss may proceed it is impossible to foresee; neither can we foresee the difficulties we may have to contend with under

the separation: we ought therefore to beware, how we allow the effects of depression to proceed so far before the attempt is made, that the additional loss she must necessarily encounter, may not irrecoverably sink her.

The hæmorrhage is, in some cases, so immediate after the birth of the child; it comes on so unexpectedly, and proceeds with such rapidity, as to induce, in a few minutes, the most alarming symptoms. I have known such an occurrence happen after a lingering labour, when the child has appeared to be lifeless; and while I have been endeavouring to restore suspended animation in the child, the mother has suddenly become faint from the active discharge which has occurred during my short absence from the bedside, occasioned by an adherent Placenta. Nay, sometimes the patient is irretrievably depressed, before any steps can be taken for ensuring her safety.

This hæmorrhage is occasioned partly by the distension of the Uterus by the presence of the Placenta, but it is more especially referable to the separation of one portion of the mass, while the rest remains adherent. When the Placenta is *completely* detached from the uterine surface by contractile effort, the extremities of those vessels in previous communication with it become constricted, and retain their contents; but when it is only *partially* detached, the same effect does not take place; their extremities remain uncontracted, and their contents are permitted to escape. Yet the vascular connexion and circulation between the *adherent* portion and its corresponding surface are continued as long as any part of it adheres, so that the blood transmitted thereto, is returned into the mother's system: not so, however, with regard to the connexion and circulation between the *separated* portion and its corresponding surface, they are completely interrupted or rather destroyed in that separation, and the blood sent to it is discharged out of the body. Besides, the uterine vessels of both the adherent and separated portions freely anastomose, and afford a ready supply, the one to the other; so that the latter not only

empty themselves, but also permit the blood of the former to be drained off.

Hence arise the suddenness, the rapidity, and continuance of the hæmorrhage. Its degree is in proportion to the quantity of Placenta detached, and to the diameters of the uterine vessels. When the quantity of detached portion is increased without correspondent uterine contraction, whether by repeated attempts to extract the Placenta by the Funis, or by a defeated attempt to separate and remove it by the hand, the hæmorrhage is for the moment uniformly increased. When the Placenta remains completely attached through its whole surface, little or no hæmorrhage ensues; but when a partial detachment begins to take place, more or less of that symptom immediately shows itself. In some cases of enlarged Uterus, without flooding, I have been led to suspect its entire adhesion; and such suspicions have proved in the sequel to have been but too well founded, in the subsequent appearance of hæmorrhage, and the necessity of removal by the hand. In case of adhesion of the Placenta after the delivery of twins, should the Uterus remain considerably enlarged, hæmorrhage soon makes its appearance, and then proceeds with unusual rapidity. This is almost a necessary consequence of the large extent of uterine surface occupied by the double Placenta, while the extremities of its vessels are devoid of due contractile power. Whether one portion may be entirely separated, or whether a part of each may be adherent, can only be known upon the introduction of the hand. I think it will generally be found, in the majority of cases, that when considerable hæmorrhage occurs between the birth of the child and the removal of the Placenta, its cause is dependent upon the partial adhesion of the Placenta to *some* part of the Uterus.

Under sudden and extensive loss of blood in this interval, the timely and judicious extraction of the Placenta offers the only hope of future safety to the patient, by securing contraction, and thus closing the uterine vessels; yet this expedient will fail to answer the intended purpose, unless the Uterus acts promptly and efficiently on the occasion: if

its contraction be denied, the flooding will continue, even after extraction. That desirable object is always more safely and more speedily effected by the hand, than by any other means; and, under our ignorance of the actual state in which the Placenta is disposed of, the practice seems obvious and necessary.

Upon the introduction of the hand, it is always gratifying to meet with some resistance on the part of the Uterus, and to find contraction continue so powerfully, after the separation, as almost to expel the hand, with the Placenta within its grasp: it is equally mortifying to witness its absence, and to leave a flaccid state of Uterus.

But cases frequently occur, in which the loss of blood is gradual, yet constant: in which there is a continued trickling of florid blood from the external parts for a length of time before the system begins to feel the loss, or to show marks of its effects: at length, however, the countenance becomes bleached; the pulse small and rapid; faintness comes on, which perhaps ends in complete syncope, with frequent sighing or sobbing; respiration is quickened; the eye loses its lustre, and the woman complains of her sight failing; and now and then of a sense of swimming in the head, or a pulsatory pain there. When such symptoms appear, the removal of the Placenta cannot be deferred. Yet, though this act can alone rescue the patient from such imminent danger, the utmost degree of care, the greatest possible caution, is required in putting it in execution. The *time when* to act must be determined by the urgency of the case, and the state of the patient; but let us ever beware of procrastination.

We are liable to be deceived as to the quantity of blood lost, because it is received upon napkins, or flows into the bed; and without close attention to the progress of the case, we are still more liable to be deceived in regard to the velocity with which that blood is lost. It is almost needless to mention, that different women are not similarly affected by an equal loss of blood, nor is the same woman at different times. Some bear, what may be thought, an immense discharge at

this time, not only without the risk of life, but even sometimes without the appearance of any alarming symptom; while others sink irrecoverably under a loss apparently trifling. The effects of hæmorrhage, therefore, ought ever to be viewed in a relative light; since it is so difficult to form any conjecture, *a priori*, of the quantity of blood any given woman may be suffered to lose, without present or future detriment. But it may generally be asserted, that the more rapidly and suddenly the loss takes place, the more immediate and violent are its effects; yet a slight continued draining will in course of time induce equal symptoms of danger.

Under this uncertainty of the impression likely to be produced by uterine hæmorrhage, attention ought rather to be paid to its symptoms and the effects produced on the constitution, than to the quantity of blood externally evacuated. It sometimes happens, that the blood, trickling out of the uterine vessels, does not make its immediate escape; it remains within the uterine cavity, or in the Vagina, and coagulates. If the Uterus be flaccid; if it be not disposed to contract and to lessen its volume and capacity, (as is now and then the case,) it allows itself to be distended by these coagula, which are formed as rapidly as the blood is extravasated, and which, by accumulation and distension, add to the increase of the hæmorrhage in a rapid ratio. These occurrences are passing within the cavity; so that the quantity of blood constantly oozing out of the uterine vessels is concealed; it is frequently almost unnoticed.

It is thence readily believed, that the general loss is not so great as it ultimately proves. If uterine contraction now take place, or if a grasping pressure be made on the Uterus by the hand, these coagula, which have been collecting at the os uteri, with any fluid blood behind them, are expelled, and the real loss then becomes obvious.

This is a case of concealed hæmorrhage, or of flooding into the uterine cavity: it calls for a considerable share of watchful attention in its detection and management. I

grant that it occurs more frequently after the removal of the Placenta, than in the case before us; but whenever it does occur, it may be unsuspected, or even overlooked, and the woman's life may be placed under the greatest hazard, if not forfeited, by its eluding the vigilance of the accoucheur, or entirely escaping his observation.

The case proceeds somewhat in this manner; after an inconsiderable discharge of blood for some time, which has excited little apprehension of danger, the patient becomes faint: if contraction now take place, or if compression on the uterine tumour be made, coagula and fluid blood are expelled; and then the faintness is increased. In a short time the Uterus again enlarges, and there is a repetition of the preceding symptoms. The face presently assumes an exsanguined, a death-like aspect. The patient becomes restless; a state of jactitation succeeds; she turns herself from side to side, and tosses about in various directions; she expresses extreme anxiety for the constant admission of fresh air, and is gratified by the use of a fan. By and by respiration becomes quickened and laborious, with deep and frequent sighing, and with repeated exclamations expressive of her dangerous state, "*Oh! I shall die!*" "*How ill I am!*" And death soon closes this fearful, this anxious scene, with perhaps a previous convulsion fit, if the timely extraction of the Placenta do not interfere to prevent that fatal event.

A state of continued faintness is more dangerous in its ultimate consequences than that of actual syncope. During the former, the action of the heart and of the arterial system, though diminished in power, is never entirely interrupted; the pulse does not cease: after a short time, what the arterial system loses in power, it acquires in velocity; the pulse becomes rapid: the draining loss is kept up by the constant supply; it does not subside for a moment. But during the latter, there is a temporary suspension of arterial action; the pulse is not for the time to be felt; and during this suspension, there is a cessation of the hæmorrhage; no further loss is then going on; so that when the patient comes

to herself, she is not in a worse situation than before its access. A state of continued faintness, or repeated attacks of syncope, always indicate great danger, and justify considerable alarm. The patient cannot be safe, till after the removal of the Placenta; yet I doubt whether the attempt ought to be made under a state of absolute syncope. At that time, under such a diminution of vital energy, any addition to the loss already sustained may irrecoverably sink the patient, and an additional loss there must necessarily be. It appears to me desirable, therefore, to procure a revival from syncope by stimulants, or other means, before the introduction of the hand, else the patient may not survive the operation. The extraction of the Placenta cannot be supposed capable of restoring the quantity of blood which has already escaped, or of remedying the effects thence arising; it can merely prevent a farther loss. If extraction be deferred on this account, the patient should be carefully watched in the interval, lest hæmorrhage be going on internally, or lest it should return. Under a state of great exhaustion, every ounce of blood becomes a matter of importance to the system.

At the commencement of a case of this kind, the attendants may be usefully employed in the application of cold to the abdomen, in the exhibition of acid fluids, and of ices, and in the admission of cool air into the room: yet much reliance ought not to be too long placed on these means. If they do not soon produce some diminution of the hæmorrhage, recourse must be had without further delay to the manual extraction of the Placenta; the use of the above means in this, and indeed in other cases of uterine hæmorrhage, must be confined within proper bounds. But the indiscriminate application of cold, under a state of great exhaustion and extreme faintness, appears to me to be rather detrimental than beneficial. The animal body cannot, under such a state of debility, evolve a sufficient quantity of heat to counteract the effects of the continued application of cold. In such instances the moderate and judicious exhibition of stimulants is not only grateful, but

highly beneficial. I allow that the exhibition of stimulants, in this case of uterine hæmorrhage, requires some judgment, and does not admit of much latitude. When unadvisedly given at the commencement, they are not only unnecessary, but are certainly productive of mischief: when they are prudently exhibited under a state of exhaustion, they are always advantageous, and even occasionally enable a constitution to rally, when its powers appear to have been reduced to the very lowest ebb. They therefore generally make a part of the *lying-in* preparations to be resorted to, if necessary. The application of volatiles or of vinegar to the nose may also be allowed *ad libitum*; the latter is generally preferable.

A moderate, yet proper, degree of grasping compression on the uterine tumour, by the hand, thus enclosing it within its powers, may, in every instance, be practised before the removal of the Placenta; but this expedient will be found the most certain resource (the positive introduction of the hand excepted) for producing uterine contraction, when flooding continues, or returns, after that mass has been withdrawn. I am not an advocate for the exhibition of large and repeated doses of opiates in uterine hæmorrhage, while the Placenta still remains within the Uterus.

After the Placenta has been withdrawn, the woman is left in a depressed and uncertain state. Her person is presently to be made as comfortable as her situation will admit; the wet and soiled linen is to be removed, and its place supplied by dry warm napkins; and, assuming such a posture as may be agreeable to her feelings, she is to be allowed to remain in that situation till she is considerably recovered, and till the circulation begins to find its level. Every attempt at motion under a state of extreme exhaustion is attended with danger. The further use of stimulants may now be dispensed with, and some light nourishment may be offered in their stead. Though the exhausted condition of the patient may seem to demand their continuance, their exhibition is forbidden, in the expectation of that vascular reaction which almost always succeeds the loss of a

large quantity of blood; unless, therefore, the patient remain under a state of continual faintness, almost threatening dissolution, they ought not to be permitted.

One of the most distressing symptoms of vascular reaction, is a pulsatory pain in the head, especially on that side on which the patient is reclining. It is described as a noise resembling the tick of a clock, or the beat of a small hammer. It is extremely annoying, and prevents natural rest. This symptom spontaneously and gradually disappears in a few days, as the patient improves; but being so extremely unpleasant, a request is usually made for relief from medicine. That object is more readily and more certainly obtained by early and active evacuations of the bowels, than by any other medical means with which I am acquainted. Opiates seem rather to increase than to diminish this troublesome symptom. The necessity of keeping the body in a reclined posture during its continuance, of abstaining even from any active attempt to raise the head, is evident to the patient herself in the inconveniences arising from a contrary conduct. I have always suspected this symptom to arise in an irregular determination of blood to the head, from the loss of that equilibrium in the circulation, which is so uniformly preserved under a state of health.

Though the constitution, in the first instance, may appear to have rallied from the immediate effects of a great loss of blood, the patient may remain under a state of uncertainty for some days, giving full scope to the best exertions of matured medical judgment. During this time the careful observance of a reclined posture, and of a state of perfect quiet in the room, the repeated exhibition of mild and simple nourishment, with opening or other medicine, as the case may seem to require, need scarcely be insisted upon. In the majority of cases, after the patient has recovered from the first effects of hæmorrhage, a gradual improvement is regularly observable, till at length health is established. But it sometimes happens, that, though in the first instance there was a promise of recovery, the system has sustained such a shock, as to be unable, even with the

most judicious assistance, to rally and recover from its effects; then the patient, after an uncertain time, declines and sinks.

Upon the whole, my experience enables me to state, that there is scarcely a case in the whole circle of midwifery, more pregnant with immediate and impending mischief; that there is not one in which the beneficial services of an experienced accoucheur are so obvious, even to the actual preservation of life: that there is not one in which sound judgment, passive coolness, and determined resolution are so absolutely necessary, as in floodings after the birth of the child, caused by an adherent Placenta.*

CASE I.

A young woman, little more than twenty years of age, was delivered of her third child soon after midnight, under the care of a midwife, after a common natural labour. In consequence of a copious discharge of blood before the removal of the Placenta, followed by fainting, my assistance was required about two hours after the expulsion of the child. On my arrival at the address, I found this young woman under circumstances of the greatest danger; with a small quick weak pulse, a cold hand, an exsanguined countenance, frequent sighings, and constant jactitation. She had already lost a large quantity of blood, both in a fluid and a coagulated state; but the discharge had, at the moment of my arrival, somewhat ceased. The uterine tumour was felt at the brim of the Pelvis hard, firm, and well contracted, and the Os Uteri was found thick, and so far contracted, as almost to close upon the Funis passing up

* Soon after this work appeared in England, Dr. Dewees republished it in America, and appended the following note to my remarks on Adhesion of the Placenta. It is so flattering, that with the proverbial vanity of authorship, I cannot resist the temptation of transcribing it. "The whole of the chapter upon adhesion of the Placenta shows a master hand; there is not an observation in it that is not founded on experience; nor is there one that should not be treasured in the memory. By an obedience to the precepts inculcated in it, even a young practitioner may conduct this truly perilous case to an happy issue; by a neglect of them, an old one may have his victims."—Am. Ed.

within it, but no portion of the Placenta could be distinguished by the finger. The state of this young woman demanded the immediate removal of the Placenta, but I was well aware I should have to encounter considerable difficulties in the attempt. The contracted state of the Uterus strongly resisted the introduction of my hand; but having slowly and deliberately effected that object, I proceeded to a gradual separation of the mass, under the impediments of strong uterine action, and of its rolling motion, which obliged me to have recourse to my right hand externally to steady it. Having withdrawn the Placenta, the poor woman was left in a very exhausted state, although not much additional loss was sustained during the operation, and an anodyne was given her. The next morning she was much recovered, had got some sleep in the night, and ultimately did well. This woman had about a month before her labour received a violent blow upon the fore-part of her belly, from a man in the street, which produced much pain at the moment, and from which she had never afterwards been entirely free, but which had always proved more troublesome during the night-time.

CASE II.

I was summoned by a note from one of the midwives of the Charity to the assistance of a young woman near Shoreditch Church, which stated "that the child had been born an hour and a half; that there was some advance of the Placenta with considerable flooding; and that the woman appeared in great danger." On examination, a portion of the Placenta was found to be protruded down into the Vagina, whilst the greater part of the mass seemed to be elongated within the Uterus, and detained there by its irregular longitudinal contraction. The hand placed externally on the uterine tumour, readily detected this elongated and contracted state, as well as that of the fundus of the Uterus, which had assumed a very unusual shape, somewhat like the apex of a sugar-loaf. The introduction of my hand,

for the purpose of withdrawing the entire mass, was much opposed by this contracted state of the organ; but perseveringly dilating the contracted part, my hand at length reached the fundus, to which was firmly adherent a small portion of the Placenta; this portion was gradually but entirely separated, and the whole mass was after some difficulty withdrawn. This young woman had suffered for some weeks before her labour, under a constant pain in the belly, which she attributed to the frequent carrying of her sister's child, a year old.

CASE III.

My attendance was requested upon a patient of the Charity in the Hackney-road, with an account "that the woman had been delivered of the child an hour and a half, but the Placenta was not come; that there was a great discharge, with difficulty of breathing." On my hastening to the address, I found a poor woman nearly lifeless; she was lying on her back, had a pallid exsanguined countenance, with jactitation, and frequent deep sighing; her pulse was scarcely perceptible, and her extremities were cold; but at the moment of my visit there was little active flooding. The child had been expelled about two hours, and for about one hour the woman had appeared to be going on well, except with respect to the after-birth; when suddenly a violent attack of hæmorrhage occurred, which presently produced syncope. Though there did not appear to me to have been a large loss of blood, the impression upon the constitution by its suddenness was very considerable indeed. The Vagina was filled with coagula, and a portion of the Placenta was to be detected within the Os Uteri. Under such distressing symptoms, little hope of recovery was offered by its removal, yet I felt it my duty to make the attempt without further loss of time. The introduction of my hand within the Uterus was readily effected, upon which I found a portion of the Placenta adherent to the Fundus; this portion was easily separated, and the whole

was removed, the Uterus contracting satisfactorily upon the hand, as it was withdrawn. The poor woman was now quite exhausted, but upon the free exhibition of brandy she was somewhat revived, and after some time she went to sleep. The next day I found her very much recovered; indeed, she seemed almost as well as if such a state of danger had not occurred.

N.B. This woman had two falls during the latter part of her pregnancy, one about three weeks before delivery, when she hurt the side of her belly, and suffered constant pain in that part afterwards.

This was a case of unexpected recovery from the lowest ebb of life: it shows the propriety of giving the patient a chance, as long as life continues, by the prompt and careful extraction of the Placenta, even under very unfavourable symptoms.

CASE IV.

I was called to the assistance of a patient of the Lying-in-Charity, whose child had been born more than two hours, under the charge of a midwife; the woman was stated to be flooding violently, and fainting, with the Placenta not withdrawn. All the symptoms indicated the loss of a great quantity of blood, but the flooding had at the moment considerably subsided. The midwife had attempted to extract the Placenta by means of the Funis, and had got down a small portion through the Os Uteri into the Vagina; but the greater part still remained within the Uterus. In the attempt to introduce my hand I met with considerable opposition from the contracted state of the Uterus, but having succeeded, I found a large portion of the mass firmly attached to the Fundus by morbid adhesion. During the separation of this portion, there was an increase of the discharge, but not to such a degree as to endanger life; it however produced faintness, which was presently relieved by some brandy, and after a few days she was quite convalescent.

I was afterwards informed that this woman had been in the habit of carrying a large basket against the side of the belly, during the whole of her pregnancy, and that the effects produced thereby were a source of great inconvenience and pain to her, of which she had repeatedly complained to her friends; and that towards the end of her pregnancy the pain had become constant, and was exceedingly annoying to her.

CASE V.

My assistance was required in the case of a poor woman in the parish of St. Leonard, Shoreditch, about eight o'clock in the morning, whose child had been naturally expelled about midnight preceding, after a common natural labour, superintended by a young professional man. It appeared that after the birth of the child, the Placenta did not descend; and that the attendant had waited for its expulsion by the natural efforts; but in the interval between the birth of the child and my arrival, there had been a slight but constant draining of blood, which had excited no suspicion of danger till shortly before I was sent for, when the friends of the woman demanded other assistance; but on my arrival the woman had breathed her last. The body was inspected the following day, when the Placenta was found to be adherent to the uterine parietes through its entire surface, the membranes also were singularly adherent, and the Uterus had acquired a state of common contraction. This woman had received a considerable injury on the fore-part of the belly a few weeks before she fell into labour, by running in the dark against a post, which occasioned a constant sensation of pain ever afterwards.

CASE VI.

On a certain night soon after midnight, I was aroused from my bed, with a request that I would hasten to the assistance of the wife of a respectable tradesman in Bishops-

gate Street, who was represented by her husband to be in a state of extreme danger under labour. On my arrival at his residence, I learnt from the medical attendant, that the lady had been very recently delivered of her second child under his care, and that there was an alarming flooding arising from an adherent Placenta, which he had endeavoured to withdraw without success. Without further inquiry into the nature of the case, I introduced my hand within the Uterus, and detecting a considerable portion of the Placenta adherent, I separated it without difficulty, and brought the whole away. The Uterus now contracted well, the flooding ceased, and after the exhibition of some stimulants, she began to revive from her fainted state. This lady had suffered much under her pregnancy from a constant pain in the right side of her belly.

CASE VII.

I was consulted by a lady in the seventh month of her second pregnancy, respecting an unusual pain in the lower part of the body, between the navel and pubes. The part felt tender to the touch, yet it did not prevent her going abroad, nor was it materially increased on motion. The lady experienced more inconvenience from this pain during the night time than in the day, and it continued to annoy her more or less till the time of her labour, which proved to be a quick and natural process, as far as the expulsion of the child was concerned. But after waiting some time for the separation and exclusion of the Placenta, hæmorrhage supervened, so that it became necessary to introduce the hand for its removal. In effecting that object more difficulty was experienced than was previously anticipated, so that the mass could only be withdrawn piecemeal; yet upon comparing the different portions together, it appeared that the whole was removed. This lady went on well from day to day, without the appearance of a single bad symptom; the lochial discharge was moderate, and natural in appearance and smell; the milk was secreted in plenty, and

she suckled her infant; yet under these flattering appearances of recovery, on the evening of the ninth day after her delivery, she suddenly complained of being faint, and of a pain in her head, and laying herself down on the bed, almost immediately expired without a groan. I do not suppose that the previous occurrences had any influence in producing the fatal issue in this case; probably some large vessel suddenly gave way. But this is mere suspicion, as an inspection of the body was not permitted.

This lady had a fall down stairs in the early part of her pregnancy, of which no particular notice was taken at the time: but I introduce the case as an instance of morbid adhesion of the Placenta, succeeding dull unpleasant sensations within the abdomen; they are always worthy of particular attention.

CASE VIII.

My assistance was desired by a respectable surgeon-apothecary in the case of a lady who had been delivered of her first child nearly three hours, to extract the Placenta. Before my arrival at her residence, she had flooded violently, but the discharge had abated at the time of my visit. My friend had made an attempt to withdraw the Placenta by the introduction of his hand into the Uterus, but in that attempt he had been foiled. Upon an examination, a small portion of the mass was found down in the Vagina, whilst the remainder was within the Uterus; the parietes of which was so contracted, as almost to refuse the admission of my hand within its cavity. After some difficulty, by steady perseverance, I succeeded in reaching the fundus of the Uterus, where I found a portion of the Placenta firmly adherent, and confined by the irregular contraction of that part. Having dilated this contracted part, I was enabled to gain complete possession of this portion of the mass, and to withdraw it in a somewhat mutilated state; not indeed without my suspicions that some stringy portions might be left behind. I left this lady under a state of great exhaustion, but she ultimately

recovered. Towards the close of her pregnancy, she had suffered much from very painful sensations within the lower part of the abdomen.

CASE IX.

I attended a lady in Bedford Place, Russel Square, who was safely delivered of a living child about 2 P.M. After waiting more than an hour for the descent of the Placenta, which even then was quite out of the reach of the finger, and suspecting the mass to be detained by irregular contraction or preternatural adhesion, I determined upon its removal. Upon the introduction of my hand into the Uterus for that purpose, I found that viscus contracted longitudinally, or under that state which has been usually called the hour-glass contraction, with a portion of the after-birth partially but firmly adherent at the Fundus. I very gradually effected its separation by the hand, and withdrew the entire mass. Under the separation, and for some time afterwards, the lady complained of violent pain, which was materially allayed by small doses of opiates. The next morning my patient had passed a quiet night, and seemed to be as well as could reasonably be expected. But about four o'clock on the following morning she was suddenly seized with a violent pain in the side of her belly within the right Ilium, accompanied by difficulty of breathing, a very quick pulse, and heat upon the skin. For the relief of these symptoms she was bled, and freely purged; in the evening, the pain continuing, an opiate Enema was injected, which had a very beneficial effect. This lady continued daily improving for ten days, when she was seized with a rigor, which returned at uncertain intervals for some time without any increase of the pulse, but ultimately she perfectly recovered.

CASE X.

Some years ago I was called to a village a few miles from London to visit a lady in labour, attended by a respectable

surgeon-accoucheur of the village. The lady had naturally a very delicate constitution; was approaching forty; had not borne a child many years; and had been much out of health during her pregnancy. At this time she was immensely large in size; her legs and thighs were very edematose, and she had suffered much from difficulty of breathing. This state necessarily created much concern for her future welfare, especially as the breech was the presenting part. The labour proceeded naturally but slowly till the breech was external; when my friend, while sitting at the bed-side, after a smart pain, exclaimed, "It is all over," and presently the child cried. I found that as soon as the breech was so far external as to permit the act, he had lugged the child away by main force. Presently I learnt that he was looking after the Placenta without any previous inquiry as to the state of the Uterus. Upon placing my hand on the abdomen, I detected the presence of another child, and an examination proved the presentation of the head. Uterine action was shortly resumed, and the second child was produced into the world, not however without forcible extraction on the part of my friend. Being in a neighbouring room attending to the two infants, I heard the lady's expression of pain, and returning I was surprised to find that this gentleman had already introduced his hand into the Uterus for the purpose, as he said, of "bringing the after-birth, which was adherent." This conduct produced a violent flooding, under which the lady fainted. From this state she was revived by stimulants, and continued in a perilous situation for some weeks, but at length she recovered a tolerable share of health.

I introduce this case to show the impropriety of using extractive means in common cases, and the risk induced thereby of leaving an uncontracted Uterus.

CASE XI.

About three o'clock one morning my assistance was requested by a respectable medical man in the case of a patient

who had been delivered of a living child about midnight, after a very lingering labour. The gentleman alluded to, in making the attempt to extract the Placenta by the Funis, had broken off that appendage; this accident had induced him to introduce his hand for the removal of the mass, but in that intention he did not succeed, and had only been able to bring away some small portions. On passing my left hand within the Vagina, I found a portion of the Placenta protruded through the os uteri, and carrying the hand forward within the uterine cavity, it presently reached the Fundus, to which the remainder of the mass was firmly adherent. This portion I carefully separated and brought away; not, however, without some suspicions that the whole might not be removed. This woman was left under a state of great exhaustion; but on my visit the next day, she was promising to do well.

CASE XII.

I was requested to see a poor woman in East Smithfield under a state of violent flooding, soon after the birth of the child. In this instance a portion of the Placenta was external to the os uteri and down in the Vagina, while the rest of the mass was elongated, and remained within the cavity. The midwife, on finding the Placenta descending, had attempted to extract it by means of the Funis; but meeting with more resistance to her efforts than she had usually met with, she desisted from any further attempts at extraction, and begged my assistance. The uterine tumour was not large, but it was evidently, under the hand, irregularly contracted, and had assumed that conical shape at its Fundus already mentioned. I proceeded to introduce my hand, and found a portion of the placental mass firmly adherent to the uterine surface within a narrow space at the fundus uteri, into which I had considerable difficulty in passing my hand for its extrication. During the time my left hand was thus acting within the Uterus, my right hand was placed externally on the uterine tumour for the purpose of keeping it

steady, so that I had a good opportunity of completely detecting the above state. After the Placenta was withdrawn this poor woman appeared much exhausted, but by proper means she gradually recovered.

CASE XIII.

Some time ago, about noon, a message was delivered at my house from a medical friend, requesting me to visit a respectable woman near Poplar toll-bar under a case of labour. Being from home at the moment, I did not reach the address till nearly three in the afternoon; there I found a middle-aged woman, who had been delivered of a living child, after a very quick labour, about half after eight in the morning, almost in *articulo mortis;* the Placenta remaining still behind. From the time of the birth of the child to that of my visit, there had been a constant draining of blood, yet not to that extent as to excite alarm, till about twelve at noon, when she became faint, and very restless, with cold extremities. More than six hours having now elapsed since the expulsion of the child, I determined to withdraw the Placenta without further delay. I therefore proceeded to introduce my hand, but in this effort I met with more difficulty than I expected, having to contend with an Uterus strongly contracted, in a globular shape, upon the mass. After some perseverance I succeeded in the complete introduction of my hand, and then I found a considerable portion of the mass adherent to the uterine surface. With some difficulty I got it completely separated, but my patient did not long survive the operation.

In this instance, between the birth of the child and my arrival at the patient's residence, the gentleman in attendance had made many unsuccessful attempts to withdraw the Placenta by the hand, which had produced such an increased degree of uterine contraction, as to render the difficulties I had to contend with far more complicated than they would have been a few hours previously.

CASE XIV.

I visited a poor woman in Turk-street, Bethnal Green, under flooding and fainting, about eight in the morning; who had passed a child, after a common labour, about three hours before; and who appeared much depressed by the loss already sustained. I found a considerable portion of the Placenta down in the Vagina, with the Funis nearly separated by the attempts made to withdraw it. On passing my hand, at least one third portion of the mass was detected to be morbidly adherent to the Fundus Uteri, which was carefully separated under an additional loss. The Uterus afterwards contracted well, and the discharge subsided. The woman continued in an uncertain state for several days, yet eventually she recovered.

CASE XV.

Early one morning in October, I was summoned by one of the midwives of the Royal Maternity Charity, to the assistance of a poor woman near Bishopsgate Street, whose first child had been born about two hours, after a common labour, but the Placenta still remained within the Uterus. She had already lost a considerable quantity of blood, was suffering under the usual symptoms of such loss, and had fainted repeatedly. By a vaginal examination, no part of the Placenta could be detected. Suspecting the Placenta to be adherent, or detained by irregular uterine contraction, I passed my hand without loss of time into the uterine cavity, and then I found that the Uterus was contracted longitudinally upon the Placenta, and that a portion of the mass was firmly adherent at the Fundus. With some difficulty I separated that portion, and brought the whole away. This poor woman, in the first instance, considerably recovered from the low state to which she had been reduced, and for some time was promising to do well; but afterwards she became the subject of irritative fever, and died about three weeks after her delivery.

CASE XVI.

I was requested to visit a poor woman in Bishopsgate parish, under a state of flooding, with repeated faintings, after the expulsion of her child. Upon the introduction of my hand, I met with very great difficulty in the separation of the Placenta, which proved to be extensively and morbidly adherent to the posterior part of the uterine surface through a great part of its substance. The Placenta appeared to my feel to be attached to the Uterus by a number of *stringy* substances, which permitted the hand to separate or tear them, but not to insinuate itself between those strings and the Uterus. During my attempts at separation, the flooding was much increased in violence, but I at length succeeded in withdrawing the whole, or at least the greater part of the mass, yet not without apprehensions that some of the filaments or stringy portions might be left behind. After the operation I left the poor woman under a state of great exhaustion, but in a few days she had so far rallied, as to promise hopes of recovery.

CASE XVII.

Some time ago, in the early part of the day, I was summoned to attend a lady near the Regent's Park. Her labour proceeded regularly but slowly, without any remarkable occurrence, through the day, and about ten o'clock in the evening the child was expelled. After the separation of the child, I found that the Funis was remarkably short, protruding but a very little way through the external parts. This fact put me considerably on the alert, and I carefully watched my patient; suspecting that I might possibly have some trouble with the after-birth, as had occurred in some previous instances. A vaginal examination informed me that the Placenta remained very high within the Uterus, indeed quite out of the reach of the finger, so that I was quite ignorant of the real state in which it might be dis-

posed of within the cavity. While sitting by the bed-side of my patient, a sudden and extensive gush of blood took place, followed by a considerable draining. Knowing from former experience, that her delicate constitution could not bear the loss of much blood without the danger of subsequent mischief, I durst not run the risk of a second gush; I therefore instantly passed my hand into the Uterus, and brought away the Placenta, which proved to be partially adherent to the Fundus of the Uterus, and detained there by the irregular contraction of that part. For some time afterwards, this lady continued in a fainting state, but which never reached the point of absolute syncope; from this state she was so much recovered by the free use of stimulants, that I was permitted to leave the house about one in the morning, and the next day she was as well as after any of her former confinements.

CASE XVIII.

Some years ago, I was called by one of the midwives of the Royal Maternity Charity to the assistance of a poor woman at Hoxton, who had been delivered of her child about an hour, but in whose case a violent flooding had supervened, with the Placenta out of reach. I arrived at the bed-side of the poor woman within the space of an hour and a half after the expulsion of the child, but found her already in *articulo mortis*, with cold extremities, a pulse not perceptible, a dilated pupil, and interrupted respiration. I attempted to get down some brandy, but she was unable to swallow, and presently expired. I passed my finger within the Vagina, but the Placenta was quite out of its reach; the uterine tumour was at the same time large, and ill-contracted. There did not appear to me, from an examination of [illegible] ches, to have been *any very great* loss. I had [illegible] inspecting the body the next day, and [illegible] me ocular demonstration of the cause [illegible] The Uterus itself was large, flac- [illegible] the Placenta was firmly adherent

throughout its whole surface, except about half an inch around its edge; indeed it required some effort to detach any portion of it, even when the Uterus was taken out of the body.

The portion of Placenta separated during life was small, in proportion to that found to be adherent; yet the quantity of blood lost from the uterine vessels was sufficient to sink the woman irretrievably in so short a space of time.

CASE XIX.

One day, about noon, I was summoned by one of the midwives to a patient of the Charity, who had been delivered of living twins; one child had been born over-night, and the second had been expelled about ten in the morning of the following day. After the birth of the second child, the midwife proceeded to the extraction of the double Placenta, but in that attempt she had managed to withdraw one part of the mass, and to break off the Funis from the other part. Presently a violent flooding occurred, which induced the midwife to beg my assistance. I found this patient under the usual symptoms attendant upon a sudden and excessive loss of blood, with an enlarged Uterus. I immediately passed my hand into the womb, and withdrew the remainder of the mass, which proved to be partially adherent to the uterine surface.

CASE XX.

A few minutes before five o'clock one afternoon, my assistance was requested in the case of a woman in the eastern part of London, who was stated to be in great danger after the delivery of twins. She had been in labour the greater part of the preceding night; at one in the day she was delivered of a living child, and at half after two a second was expelled. In a little time an attempt was made to withdraw the double Placenta, but it only succeeded so far as to extract one portion, and to break off the Funis

from the other. A violent flooding now took place; upon which a farther attempt was made to withdraw the rest of the mass by the introduction of the hand, which proved entirely unsuccessful. In this dilemma a messenger was dispatched for me. I found this woman in the last stage of life, and still flooding violently. Without loss of time I introduced my hand into the Uterus, and separated the remaining portion without much difficulty, which proved to be partially adherent. But NATURE could not rally from the loss already sustained; she lingered about half an hour under the symptoms usually met with in such a case, and then expired.

CASE XXI.

Some time ago, my presence was requested by a medical man at the opening of the body of a woman who had died in child-bed three days before. This woman was to all appearance safely delivered of her second child after a natural and quick labour. Having waited the greater part of an hour for the descent of the after-birth, her attendant got hold of the Funis, and attempted to extract the Placenta through its means; finding, as he thought, some advance, he continued his extractive purchase, but to his surprise and alarm, the Uterus presented itself out of the external parts, as large as a child's head, with the Placenta adherent to its surface. Previous to this occurrence there had been little discharge, but now the woman began to flood most violently, and presently became very faint. Frightened at the dilemma into which he had brought himself, he sent for the assistance of a medical friend, and waited his arrival; who immediately peeled off the Placenta from the inverted viscus, and returned the Uterus in that state within the Vagina. She did not long survive. The Vagina was entirely filled by the inverted Uterus, which had become flaccid.*

* Some apology may perhaps appear necessary for the recital of such a number [illegible] kind, but I trust an excuse will be found in the importance and

ON RETENTION OF THE PLACENTA.

This term is appropriate to those cases in which the Placenta is separated from its uterine attachment, on the birth of the child, but in which it still remains entirely within the uterine cavity. The case may be suspected by the Placenta not being found within reach of the finger, on a proper examination; by the funis protruding but a short way through the external parts; and on passing the finger and tracing the Funis, either no portion of the general mass can be felt, or it is felt so imperfectly, as to give little satisfactory information whether it be simply retained, or whether it may be adherent, as already described. But in whatever state it may ultimately be found on the introduction of the hand, our present ignorance does not prove detrimental to the patient. The practice must be guided by future occurrences, not by present suspicions: it is, therefore, proper to wait in patient hope of the natural exclusion, until we are urged to the manual removal by lapse of time or symptoms of danger.

responsibility of every case of adherent Placenta. I will, in conclusion of this subject, merely observe, that a morbid adhesion of the after-birth is fraught with the most imminent danger to the woman; that the natural powers are, in most cases, utterly unequal to the task of throwing it off; and that therefore, the *expert* assistance of the accoucheur is imperiously demanded to remove it. We ought then to beware how we allow the advance of such dangerous symptoms, or such a lapse of time after the expulsion of the child under symptoms of less apparent danger, that even the removal of the Placenta will not enable us to attain our intended object, "the preservation of the patient's life."

The retention of the Placenta is met with under three distinct states of the Uterus; each of which is different in its nature, and is generally distinguishable by particular symptoms. Each requires some diversity in general management, and places the patient in different degrees of danger; but if manual interference become necessary, the mode by which the Placenta is to be withdrawn is similar in all.

The first case I notice, is "that in which the Placenta is separated from its uterine attachment on the birth of the child, but in which it is retained, or, to speak more properly, in which it is not expelled the cavity of the Uterus, for want of active contraction in that organ."

The second case is "that in which the uterine parietes have closed irregularly and longitudinally upon the Placenta: so that it is withheld by powerful but improper contraction." This is usually called the hour-glass case.

The third kind, is "that in which the Uterus has too quickly contracted in a globular form upon the Placenta, suddenly embracing that mass by an active grasp, before it has had time to escape out of the cavity."

The first case most commonly occurs after lingering labours, in which the powers of the Uterus have been exhausted by long exertion; in which its natural action seems to be worn out by the continuance of expulsive efforts. It is also met with in those labours, in which the child has been rather extracted by art, than suffered to be expelled. It likewise sometimes occurs under cases of operative midwifery, in which a similar state of Uterus has been induced by protraction. In such instances, the uterine tumour is felt higher than usual in the abdominal cavity; it remains large, round, and somewhat flaccid; though it offers to the pressure of the hand a considerable share of resistance, yet it does not feel firm; and for the present, at least, that is, soon after the expulsion of the child, any portion of the substance of the Placenta, or the insertion of the Funis, cannot, on the most accurate examination, be discovered.

If, under such a state of things, the Placenta be unusually large; if the uterine tumour possess a more than ordinary size; if it continue to remain any length of time high in the abdominal cavity, and without contraction, doubts are occasionally excited in the mind of the patient, of the presence of a second child. The size and site of the uterine tumour indicate the degree of contraction which has already taken place, be it greater or less; and in proportion to that degree, we estimate the probability of the present safety of the patient, or the chance of risk she may still have to encounter.

In such a case, no attempt, for the present at least, ought to be made, to extract the Placenta by traction at the Funis; for even supposing the accoucheur to be satisfied, as much as the case will allow, that the Placenta is detached from the uterine surface, (a satisfaction, indeed, extremely difficult to be obtained,) such an attempt, in the absence of contraction, would endanger an attack of hæmorrhage, or the rupture of the Funis: and would most probably be ultimately unsuccessful in the result.

After the lapse of a short time, it usually happens, that a disposition to a return of uterine action is observable in the temporary accession of after-pain, and in the gradual diminution of the uterine tumour. Such symptoms are highly favourable: in proportion to the degree of this contraction, and to the frequency of its return, is the probability of the natural exclusion of the Placenta to be indulged: if it be excluded the Uterus, and be thrown down into the Vagina, it may be withdrawn at pleasure, under the precautions before mentioned.

But it also occasionally happens, as under adhesion, that, in the absence of returning action, a draining of blood is constantly going on, but so gradually, as to cause little apprehension. The justified time for waiting passes, and the draining loss continues, till at length its effects begin to evolve themselves more obviously, in the appearance of the usual symptoms consequent to hæmorrhage. If the draining be further allowed to proceed without proper means to

check it, the patient may shortly be placed under great risk of her life. A similar share of active attention, in watching the progress and effects of this drain, must be given to the case: it sometimes proceeds so slowly, and so insidiously, as to pass unnoticed, till it has produced great depression, or even till it threatens the destruction of the patient. To this external drain, is also frequently added the accumulation of coagula within the Uterus or Vagina, which greatly increases the danger. It then becomes our imperative duty, by a prompt and seasonable interference for the extraction of the Placenta, to anticipate and prevent such serious consequences; and not to continue mere passive spectators of the progress of such impending mischief. The loss of blood, during the act of extraction, is usually less in this instance, than in the preceding case, especially if the Uterus contract upon the hand before it is withdrawn.

Upon the first appearance of the above-mentioned drain, a temporary recourse may be had to the means before recommended for the restriction of hæmorrhage: but in the use of such means, it ought ever to be remembered, that, though sometimes useful, they are always uncertain. They seldom supersede the necessity of manual abstraction, under an attack of extensive hæmorrhage.

If sudden hæmorrhage should occur in the interval just alluded to, viz. between the birth of the child and the removal of the after-birth, immediate assistance becomes sufficiently manifest. Whether the blood lost be evacuated in a fluid or in a coagulated state, if the quantity lost be so great as to threaten present or future danger, by its continuance or return, the speedy removal of the Placenta offers the only probable chance of safety to the patient: the longer this necessary operation is deferred, the less likelihood will there be of the patient's ultimate escape.

The second case of retained Placenta, or the hour-glass contraction, consists in the uterine parietes, upon the birth of the child, contracting themselves irregularly and longitudinally upon that mass, and retaining it within the

uterine cavity, by powerful but incorrect action. This state of retention is by no means so frequent as the one above described; it is, however, occasionally met with, and especially after lingering or difficult labours, which have called for operative assistance; or after those in which the body of the child has been too hastily extracted by the hand. It may, therefore, be frequently attributed to mismanagement or to improper interference.

When this irregularity of contraction has taken place, the uterine tumour is felt under the hand considerably elongated; it differs materially in shape and form from those which it is at this time usually found to possess, yet it gives sufficient resistance to the pressure of the hand. Upon passing the finger within the Os Uteri, along the Funis, no portion of the Placenta is to be felt at all. After waiting an uncertain time in the expectation of its expulsion, hæmorrhage comes on, which is usually constant, variable in degree, but which gradually increases. The occurrence of this symptom, the elongation of the uterine tumour, and the impossibility of feeling the Placenta, point out pretty clearly the nature of the case. Strong after-pains sometimes make their appearance; but they prove of no avail towards the exclusion of the Placenta. After a further suspense, the abstraction of the Placenta is found advisable, and, indeed, necessary to the safety of the patient. When the hand is introduced for this purpose, the cause of the detention is discovered. Having passed the Vagina, upon attempting to enter the uterine cavity, the hand is strongly opposed by a narrow contracted part of the uterine parietes, through which the Funis appears to run, and through which two fingers can scarcely be insinuated: gradually and cautiously distending the contracted part, so as to gain more space, the hand, by and by, is enabled to proceed upward, and to reach the Placenta, which is frequently found detached in a kind of cavity at the fundus of the Uterus; and now, embracing firmly the general mass, the hand is carefully to be withdrawn with

its contents. During the operation, however, it is desirable to wait the return of the contractile effort, which is generally produced by the presence of the hand, that a more correct state of the uterine parietes may be ensured. After the Placenta has been thus gradually withdrawn, the uterine tumour resumes a natural shape, the hæmorrhage ceases, and the subsequent changes are properly effected.

The degree of difficulty to be encountered in dilating the contracted part by the hand is variable in different instances, and cannot be satisfactorily explained; but whatever may be that degree, it must be overcome in the gentlest, and in the most gradual manner. The operation is highly painful, and demands a great exertion of fortitude on the part of the patient, as well as of active perseverance on the part of the accoucheur. The more perfectly the dilatation of the contracted part is made by the hand, the more readily will the Uterus resume its natural state after the Placenta is withdrawn. The manual removal of the Placenta is, in such instances, from the very nature of the case, a matter of absolute necessity, and by no means a matter of choice: the increasing contraction of the uterine parietes tends to detain that mass, and delay only renders the introduction of the hand, and the whole operation more difficult: if, therefore, the case be early detected, the Placenta should be soon withdrawn, even before an attack of hæmorrhage renders that proceeding the more immediately necessary.

The third case of retained Placenta is that in which the Uterus rapidly and powerfully contracts upon the Placenta in a globular form, thus suddenly embracing it, before time has been allowed for its escape from the uterine cavity. This is a more rare occurrence than either of the two preceding; but it does now and then happen. I have met with it after a natural labour, in which the child was suddenly expelled before assistance could be procured. In this case there is usually little uterine discharge: the uterine tumour is small in size, firm and well-contracted under the hand, and almost within the Pelvis: the Os

Uteri is firm, thick, and nearly closed upon the Funis as it is passing up within the Uterus. Upon carrying the finger within the cavity, the placental mass is more or less partially to be felt, with the uterine parietes, in firm contraction upon it. It therefore remains within the Uterus, till lapse of time induces its removal, or till relaxation of the Uterus, with a subsequent powerful effort, permits its escape.

In this case, the impropriety of any attempt to withdraw the Placenta by the application of a force through the medium of the Funis sufficiently powerful to overcome the resistance given by the Uterus, must be too obvious to need my comments: the rupture of the Funis would be the probable, if not the certain consequence of such attempt. The rational mode of proceeding is therefore gently and carefully to dilate the contracted Uterus by the hand, till the placental mass can be entirely engrasped, so as to be withdrawn. The *time when* the removal is to be effected, must vary according to the symptoms and circumstances of each case: but as there is little hæmorrhage, as there is no symptom threatening immediate danger, every appearance of hurry ought to be avoided; at the same time, as there is little probability of the ultimate exclusion of the Placenta by, in the first place, such a degree of relaxation in the Os Uteri as will favour its escape; and, in the second place, by the return of contractile effort assisting it, it is useless, if not positively injurious, to wait the lapse of any great length of time before the attempt is made. There is stronger reason to presume upon the exclusion of a retained Placenta, under an enlarged state of the uterine tumour, than under a contracted one.

CASE XXII.

I was summoned to the assistance of a woman in Cold-Harbour Street, Hackney Road, who had been delivered of her second child under a natural labour, about three hours before, but in whose Uterus the Placenta still remained

with the Funis broken off. It appeared that the attending accoucheur had attempted to extract the Placenta by means of the Funis without satisfying himself that the mass was separated from its uterine attachment; and that in such attempt he had broken off the Funis at a short distance from the Placenta; that he afterwards endeavoured to pass his hand into the Uterus to bring away the mass, but that he met with so much resistance from uterine contraction, as induced him to desist. He then called in a neighbouring gentleman, who made a similar essay, with an equally unsuccessful issue. An appeal was then made for my assistance. The woman did not then appear to have lost much blood, yet upon inquiry into the state of the napkins, it was evident that blood was flowing pretty freely at the moment. She appeared to be considerably exhausted, with an indifferent pulse; but this state seemed to me to be rather connected with a degree of anxiety at her situation, and with the sufferings to which she had been already exposed, than to the positive loss of blood. Under such circumstances, I had but one duty to perform, and that without further loss of time, viz. to withdraw the Placenta by the introduction of the hand; but I foresaw from what had already occurred, that such duty would be no easy task. Upon proceeding to its performance, I found the Uterus firmly contracted upon the Placenta *longitudinally*, with a portion of the upper part of the mass inclosed within, or attached to the fundus of the Uterus. I had some difficulty in insinuating my hand behind this portion, so as to be able to embrace the whole of the mass; but by perseverance, notwithstanding the woman's most doleful exclamations, I at length succeeded in bringing the whole away with the membranes. The woman did not suffer much more loss of blood during the operation, but afterward she appeared to be in a very depressed state; so that it was judged prudent to exhibit some strong brandy and water with thirty drops of liquor. opii. The Uterus was now found in a well-contracted state. The next morning I was informed that this patient had passed a tolerable

night, and that upon the whole she seemed in a more comfortable state, than from her preceding sufferings could possibly have been anticipated.

CASE XXIII.

My gratuitous services were requested in the case of a poor woman living in Goodman's Stile, Whitechapel, attended by a midwife, from whom I learnt that twins had been expelled naturally more than five hours, and that the Placentæ were still behind in the Uterus. A neighbouring practitioner had been called in before I was sent for, who, not liking the appearance of the case, refused to interfere; but requested the midwife to send to me. On an examination *per Vaginam*, I thought that the Placentæ were merely retained, and not adherent to the uterine surface; and upon the introduction of the hand I found this to be the case; I therefore had only to engrasp the double mass and to withdraw it; a task performed without much difficulty or trouble.

CASE XXIV.

I was called to a lady under premature labour at the sixth month, whose child was expelled before my arrival. During the space of the two preceding months, she had been occasionally attacked with a slight flooding, which had in every instance ceased spontaneously. On my inquiry respecting the state of the Placenta, I found that the Uterus was firmly contracted upon it in a globular manner, the uterine tumour feeling firm, hard, and resistant. After waiting a considerable time for the natural descent of the mass, and seeing no chance of its expulsion, I introduced my hand with some difficulty within the uterine cavity, where I found a considerable portion of the Placenta firmly adherent to the uterine surface. Having detached this portion as well as I was able, I withdrew it, yet not without apprehension, from the broken appearance of the

mass after it was withdrawn, that the whole might not be brought away; however, this lady recovered without any bad symptom. I had attended this lady in two previous cases, in each of which the Uterus had contracted upon the after-birth in a globular manner, and obliged me to have recourse to the introduction of the hand for its removal.

CASE XXV.

Early one morning my assistance was required by a midwife of the Royal Maternity Charity in the case of a poor woman in Harrow Alley, Petticoat Lane, who had been delivered of her child after a long lingering labour of more than two hours, and who was suffering under flooding, with repeated faintings, before the removal of the Placenta. On a vaginal examination, the Uterus appeared to me to be firmly and globularly contracted upon the Placenta, for to the hand placed externally on the abdomen, the uterine tumour felt as small as if it had really expelled the mass. I met with some difficulty in the introduction of my hand into the Uterus, and even when I had effected that object, there was so little room for its action, that I could scarcely engrasp the mass within my hand so as safely to withdraw it, although it was evidently detached from the uterine membrane. Under this operation, the woman suffered little additional loss of blood.

In a case of this kind, any violent attempt to extract the Placenta by the Funis alone must fail, and terminate in the rupture of the Funis.

CASE XXVI.

Early in the morning of a certain day my assistance was requested by a very respectable accoucheur in the case of a lady in the Poultry, whose first child had at that time been born, after a common natural labour, about an hour and a half, but the Placenta was not withdrawn. This lady was in person large and corpulent, and about twenty years of

age. Very soon after the birth of her child, she had been suddenly seized with a violent flooding, which presently induced a state of faintness, with its usual concomitants. I found her with a pallid countenance; a hurried respiration; with a pulse scarcely perceptible; with cold extremities; and a sense of pain, or rather of stricture across the chest. In fact, she appeared to me in a state of very great danger. On a vaginal examination the Placental mass was felt to be partly in the Vagina, and partly within the uterine cavity. Upon placing my hand externally upon the uterine tumour, that viscus was found to be large and extended; and upon gently compressing it within the hand, a considerable gush of blood suddenly and instantly followed. She had already lost a considerable quantity of fluid blood upon the napkins, and a number of large coagula had also been passed. Under such an extreme state, I considered it necessary to remove the Placenta immediately, and therefore, after the exhibition of some cold brandy, I introduced my hand into the Uterus, in which I found the Placenta detached, but apparently remaining there for want of regular uterine action. The Uterus now contracted well, but the lady was in a state of syncope; from this state she was somewhat revived by the exhibition of strong stimulants. After a short time she found herself better, and presently fell asleep. Upon my visit the next morning I found her considerably recovered, and promising to do well. The introduction of the hand stimulated the Uterus to contraction, so that the further loss of blood was thereby restrained.

CASE XXVII.

One evening in November I received a note from one of the Charity midwives, requesting my assistance to a patient in Spitalfields, who had been delivered of a dead child after a bad labour a short time before, and from whom she could not extract the Placenta. A young professional man, from the immediate neighbourhood, was called in by the friends of the poor woman, who, thinking it necessary to do some-

thing, attempted to withdraw the Placenta, but succeeded only so far as to break off the Funis. This step had materially increased the quantity of discharge, which had previously been moderate, and at the time of my visit the woman appeared considerably exhausted. I proceeded immediately to introduce my hand, and having effected that object, I brought away the Placenta without much difficulty. It appeared to me that the mass was rather retained by irregular uterine action, than by morbid adhesion. The next day the woman was promising to do well.

CASE XXVIII.

A midwife asked my advice, about nine in the morning, respecting the management of the Placenta, in the case of a poor woman in Whitechapel, who had been delivered about five that morning, under a natural labour. There had been already a considerable loss of blood, yet the pulse continued firm, and the countenance good, with little uterine action. On examination, the Placenta was out of reach; and the uterine tumour was moderately contracted. No impression could be made on the advance of the Placenta, by bringing the Funis to its bearing. Under these circumstances I hesitated to remove the Placenta at that visit. I saw the woman again in a few hours; when, in the interval of my absence, there had been a constant draining of blood from the parts, large upon the whole, but apparently small within any given short time. The countenance had now become pallid, and the pulse weaker and quicker; there was still little disposition to after-pains: a portion of the Placenta could now be felt by the finger within the Uterus, but no advance could be observed in the general mass by tightening the Funis, so that I was led to suppose the greater part of the Placenta was still attached to the Uterus. I was now desirous of removing the Placenta, by the introduction of my hand, but the woman obstinately refused my assistance, and declared she would rather die than submit to it. During the

afternoon she had repeated faintings; the draining continued, with little tendency to uterine action, and she seemed to be placed under the greatest hazard of her life; notwithstanding she still persisted in refusing assistance; fortunately, however, and contrary to my expectations, a return of contraction took place in the evening, when she was almost in a state of exhaustion, and the Placenta was thrown off with some coagula, about sixteen hours after delivery, just in time to save the woman's life. She continued for some days in a state of uncertainty, but ultimately recovered.

I have not inserted this case with any intention of offering it as a precedent for general practice, or of restoring the exploded doctrine of trusting the separation of the Placenta, even under slight symptoms of danger, to the natural powers; but merely, as one of those instances, which every practical man must now and then meet with, of the wonderful and unexpected exertions of those powers. Such a fortunate result cannot generally be expected: and though this case ultimately turned out well, the woman's life was endangered by her own obstinacy, and the chance of recovery was thereby much diminished. No prudent man would be disposed to witness a constant draining of blood from the Uterus, for many hours, occasioned by the presence of the Placenta, without an attempt to remove its cause. Timidity may induce delay, or false hopes of the natural exclusion may flatter him, until he has permitted the opportunity of preserving his patient entirely to escape.

CASE XXIX.

My gratuitous assistance was requested by a midwife to a middle-aged woman in Whitechapel, who had been some hours delivered of twins, and who was represented to be in a dangerous state. I was informed "that the first child had been born the preceding evening, about nine, and the second, that morning about one; that not long after the delivery of the latter, the woman was attacked with flooding and presently fainted; that the discharge soon ceased,

and the patient rallied; and that since the above time, the midwife had been expecting the separation of the Placentæ, which had not yet taken place." I found this patient much exhausted, with a pallid countenance and a languid pulse: for though there had not been a sudden or violent discharge of blood for some hours, a constant draining had taken place. The uterine tumour was large to the hand, and no part of either Placenta was to be felt by the finger. As there could be no rational expectation of improvement, as long as the Placentæ remained in the Uterus, though there was at this time not much hæmorrhage, I determined upon their removal. Upon introducing my left hand into the Uterus, the two Placentæ were found attached, but not morbidly adherent, to the uterine surface, nearly throughout their entire extent; so that I had to separate first the one, and then the other. During the operation, there was as little additional hæmorrhage as could be supposed in such a case, but on withdrawing my hand, the woman had fainted. By-and-by difficulty of breathing took place, with restlessness, and she did not long survive. I was told that this poor woman had borne nine children, and that she generally had fainted after delivery.

CASE XXX.

My immediate attendance was requested upon a poor woman in Hoxton, who had been delivered of the child four hours; I was informed that she flooded violently, had fainted, and was in a very bad way. I hastened to the address, and found a poor woman as above described, under all the consequences of a considerable loss of blood, with the Placenta in the Uterus, and a large uterine tumour. Being extremely faint, I requested some spirit and water might be given to her, before I attempted the removal of the Placenta. I then introduced my hand into the Uterus, found the Placenta detached, and grasping it, gradually withdrew it without difficulty, at the same time making a compression with my right hand on the surface of the belly; the Uterus contracted and the flooding ceased.

After a short time, the faintness went off, and the woman did well.

CASE XXXI.

Some years ago I was called by a medical gentleman to the assistance of a poor woman, who had been delivered of the child two hours, but the Placenta was still in the Uterus, with the Funis broken off close to its insertion. I was told by the attending accoucheur, that his patient had gone through a lingering labour of several days' continuance of her first child, and that during its progress, he had given her several doses of laudanum of fifty drops each: that the child was at length born, and that, after waiting some time for the after-birth, without any return of pain, he attempted to extract it, and broke off the Funis. At the time of my visit, the Uterus was firm and moderately contracted; the Placenta was entirely within its cavity, and could not be felt by the finger; there was no hæmorrhage, or disposition to after-pain: but the woman was disposed to doze. In the absence of any dangerous symptom, I recommended that the woman should be, for the present at least, left quiet. I saw this woman again in about four hours, when she continued in nearly a similar state. I paid her a third visit a few hours afterwards; at this time there had been an occasional return of after-pain, and the Placenta was found to be descending through the os uteri. In another hour it was protruded into the Vagina, and was removed without difficulty by her attendant.

My opinion of this case was, that the uterine effects had been in some degree paralyzed by the effect of the opiate; and I was desirous of giving time to suffer its effects to pass over. The case offers a prominent caution against inadvertently pulling at the Funis.

CASE XXXII.

I was requested to visit a poor Jewess, in Petticoat

Lane, who had been some hours delivered of twins, with the Placentæ behind. This case proved to be one of premature labour, or rather of miscarriage of twins, about the fifth month of pregnancy. There was no hæmorrhage, or other bad symptom; but, as the Placentæ were not come away, the friends of the woman were alarmed for her safety. The Uterus had contracted well upon the expulsion of the second child, and a small portion of the general mass of the double Placenta was to be felt out of the os uteri; the remainder was within it. Under such circumstances, knowing that it was impossible to introduce my hand completely into the Uterus, even if the symptoms had been more pressing, I refused to offer any manual assistance; but recommended the people to wait for the natural separation of the after-births. Three days after, a part of the mass was removed by the midwife from the Vagina, and in a few more days the whole was satisfactorily thrown off by uterine action, without the intervention of any alarming symptom.

I do not insert this case so much for its own intrinsic merits, (for it is one of frequent occurrence,) as with a view of urging the propriety of refraining from any violent attempts to remove the Placenta, in cases of miscarriage or of premature labour, before the completion of the sixth month. I have seen many instances of the injurious effects of such attempts: in one, which made a strong impression upon my mind, a very lovely woman was placed in great danger of her life, by a flooding brought on by the ill-judged, but ineffectual, attempts of an officious practitioner to remove the Placenta by traction at the Funis, under a case of miscarriage, between the fourth and fifth month. I have known cases terminate favourably, in which considerable hæmorrhage has taken place in the interval between the expulsion of the fœtus and the exclusion of the Placenta; but I have not met with one, in which similar symptoms of danger have succeeded the retention of a part of the Placenta at this period of pregnancy, as are met with, under like circumstances, at the full period.

ON DISRUPTION OF THE PLACENTA.

I APPLY this term to that unfortunate occurrence, in which the structure of the Placenta is ruptured, and some part of its lacerated substance is left in the uterine cavity attached to its original site.

The accident has generally, if not always, its origin in mal-practice, or bad management; it ought, therefore, rarely, or perhaps never to happen. It is commonly produced by the application of a premature and imprudent force to the Funis, in the attempt to extract an adherent Placenta by pulling at the cord; yet it may also happen, under an incautious or hurried attempt to remove an adherent Placenta by the hand. In every instance the occurrence is big with impending mischief.

When there is reason to suspect, from a strong opposing resistance to the usual mode of extracting the Placenta by the Funis, (that resistance having been forcibly overcome,) or from the previous difficulties attending the removal of an adherent Placenta, that the structure of the mass is broken, and that some portion is left behind at its original attachment, the melancholy fact is immediately and satisfactorily detected by inspection and examination of the mass after it is withdrawn. If our suspicions be unhappily realized, a greater or less portion will be found wanting; and knowing the fact, we are placed on our guard as to our future conduct. Yet I must confess, that sometimes the case is not so directly obvious, especially when we have had to contend with considerable difficulties in the removal

of an adherent Placenta by the hand; and when, under that removal, the mass has been brought away piecemeal, and divided into numerous fragments: it is then almost impossible to ascertain whether the whole be brought away or not; there is frequently a well-grounded fear, that some stringy particles may be left behind. In the first instance, a portion of the whole mass, with its investing membrane, will be left at its original attachment: in the latter, some of the filamentous portions of the placental vessels will only remain adherent.

When a considerable portion of the Placenta is broken off, and left adherent to the Uterus, a degree of hæmorrhage usually succeeds, proportionate to the quantity left behind: there is commonly a frequent recurrence of after-pains: after some time, the discharge of fluid blood begins to diminish, but the occasional expulsion of coagula continues. For the first day or two, the patient suffers little other inconvenience than that which arises from the loss of blood, and the more frequent and the more violent returns of the after-pains. The secretion of milk is occasionally established; but the act of suckling produces an increase of uterine pain. These temporary returns of pain at length terminate in uneasiness of a more settled and more permanent description, which insensibly increases in degree, until it assumes the character of a continued tenderness of the uterine tumour, which is temporarily increased by the pressure of the hand. The uterine tumour is generally found well contracted. After the lapse of a few days, the local uterine irritation is transferred to the system, which is evinced in the accession of rigor, restlessness, watchfulness, anxiety, and the future progress of febrile symptoms. The pulse becomes at first quickened, afterwards hurried; the skin is dry and hot, especially on the belly; the face, though generally pallid, appears occasionally flushed, as if under the influence of hectic fever: respiration is quickened, and soon becomes laboured; the head is attacked with pain, which is continually upon the increase, until it ends in delirium; (sometimes the pain in the head is described to

be of the pulsatory kind, resembling the tick of a clock;) the appearance of the tongue is variable; sometimes it is dry, white, and furred; at others, it is dry and red; the eye, at first, assumes a glossy, and afterwards a languid appearance; the stomach is nauseated, and rejects the fluids taken into it, which are quickly altered in appearance and taste; and if the secretion of milk has been established, it gradually declines, until it at length disappears. The lochial discharge, which, for the first day or two, was sanguineous, becomes sanious, watery, and offensive to the smell; and in hot weather, especially, this offensiveness is so considerable, as sensibly to affect the lying-in room. Under the progress of these alarming symptoms, the state of the intestinal canal is uncertain; sometimes the bowels are confined, and demand the assistance of active purgatives; more frequently, they are spontaneously evacuated, and the appearance of the evacuations is rarely natural; the urine, when not tinged with the lochial discharge, is high coloured. These dangerous symptoms progressively increasing, the general strength is exhausted, the pulse becomes quick and tremulous, the belly swells and is painful, the countenance is dejected and anxious; the patient is restless, tosses suddenly from side to side, throws her arms about, and is almost constantly under the influence of delirium; the fœcal evacuations and urine are involuntarily excluded, and death closes this melancholy scene, within a week or ten days after delivery.

The latter period of the preceding symptoms assumes the character of those met with under the last stage of typhus. They differ materially, however, from that disease in having their cause originating and continuing in uterine irritation, from the presence of a putrifying extraneous mass. If the retained portion of Placenta should fortunately be excluded, the symptoms immediately begin to decline, and the patient shows signs of recovery.

In other instances, the symptoms of local and general irritation are of a milder and more chronic description; the patient appears to be extremely unwell, rather than

dangerously ill, and continues under a state of uncertainty for some days, or even weeks; but at length they gradually wear off, and the patient in time gets well. Under such a state, I have several times remarked, that a puriform discharge, void of any unpleasant smell, has daily issued in considerable quantity from the Vagina: which I have suspected to be furnished by the vessels of the inner surface of the Uterus, as a sequele of inflammatory irritation. This discharge is not attended with any increase of pain, and after it has made its appearance, the patient has considerably improved.

I have already hinted, that, in every instance of disrupted Placenta, the patient has to encounter considerable risk from the accident. If she escape the immediate consequences of flooding, she will have to contend with subsequent symptoms, arising from irritation and absorption, the progress of which is seldom under medical control. But when these symptoms take place early, the case proceeds with great rapidity, and the powers of the constitution soon give way.

I have seen several instances of this rapid progress in very hot weather; but I do not feel myself authorised to assert, that the weather induced the rapidity, or exerted much baneful influence. The heat was certainly very annoying, and produced much complaint. I mention the fact, without, at present, drawing any inference therefrom. Some of the symptoms may, perhaps, be attributed to the absorption of putrefactive animal matter from the surface of the Uterus; and such a state of weather may be supposed favourable to the furtherance of the process of putrefaction.

When the Placenta is disrupted by violent traction at the cord, such a case being the offspring of ignorance or mismanagement, ought never to happen, and will not occur under common caution. But when it has actually happened, after the failure of the first attempt to remove the broken and still adherent portion, any farther manual assistance is inadmissible. The patient must be carefully

watched from day to day, and the access of any particular symptom is to be counteracted as such symptom may make its appearance. If considerable hæmorrhage ensue, the acid tonics may be usefully prescribed for its restriction, and recourse may be had to cold applications. If there be a frequent and active recurrence of after-pains, I should not attempt to counteract their effect by large doses of opiates; I would rather allow them their full scope, in the hope that uterine action may expel the adherent mass. The febrile symptoms may be combated by means of salines and antimonials; but in the exhibition of the latter, great caution is required, lest a degree of nausea should be unnecessarily excited. The stomach is commonly too much disposed to reject its contents. Under this state, the saline draught in effervescence, with small doses of sulphate of magnesia, produces temporary relief. In the latter stages, bark, camphor, and such medicines may be thought advisable; but I have never seen them serviceable. There is always too much heat and arterial action to allow of the free use of wine. The bowels must be regulated, as their particular state may require; purging, in the first instance, may seem serviceable; in the latter stage it is injurious. Attention to cleanliness in the personal and bed-linen, becomes absolutely indispensable: indeed its necessity is sufficiently pointed out by the smell of the discharges. The Vagina may be occasionally washed out with some appropriate lotion. I think that some advantage may be derived from the frequent injection of a moderately astringent fluid into the Uterus, not only in the more advanced stages, but in the more early ones. As this practice, however, is not, in this country, a common operation, it cannot be left to the care of the nurse. If peritonæal affection show itself, leeches may be safely and usefully applied to the belly. Under the chronic and more protracted cases, bitters and tonics may be prescribed with advantage. Upon the whole, if the natural powers refuse their assistance, the means of art prove of little avail.

While I am discussing the subject of Disrupted Placenta,

I will beg the reader's permission to call his attention to an occurrence, which, though of little importance in itself, may be magnified and misrepresented by an ignorant or prejudiced nurse, under a charge of negligence or misconduct, to the injury of individual character. When the Placenta is withdrawn, a portion of its attached membranes will occasionally, under the greatest care and attention, be separated, and be left in the Uterus or Vagina, without any future detriment to the patient. It either wastes away insensibly, or it passes off unobservedly; it may, however, in a day or two, hang out of the external parts, and leave a suspicion that all is not right; upon due inquiry, however, the matter is satisfactorily explained. But the occurrence, to which I more particularly allude, is produced by the reception of the sanguineous discharges from the Uterus, within the separated portion of membranes, which coagulating, and from time to time acquiring bulk, are at length passed off as a mass of variable size, and are ultimately expelled by contractile effort. Upon an ordinary inspection of this mass, from its being covered with membrane, and from its solidity, it may be deemed to be a portion of the Placenta then passed, which had been broken off, and left behind in the Uterus; and doubtless, such an imputation would be highly detrimental; but upon a more close examination, and especially if it be soaked in water, its nature will be discovered, and its harmlessness evinced; the membranes would be easily unfolded and separated, and the coagulum included with them exposed. These masses are generally disposed of and put away as soon as they are passed, so that a proper inquiry into their true composition is too frequently denied; any imputation thence arising, therefore, cannot be satisfactorily counteracted, and sufficiently cleared up.

CASE XXXIII.

I was requested to visit a poor woman in the neighbourhood of Coleman-street, who had been delivered of the child about an hour, but the Placenta remained behind.

Upon obeying the summons, I met a young gentleman in attendance, who informed me that the Placenta was retained, and that he had attempted to introduce his hand into the Uterus, for the purpose of bringing it away, but had failed in that attempt. Upon my making an examination per vaginam, I could discover a small portion of the Placenta without the Os Uteri, and the Uterus itself to be well contracted. As there was no flooding, and as the woman had suffered from the preceding attempts to remove the Placenta, I requested she might be allowed to remain quiet for some time. I saw her again in a few hours, when she continued in nearly a similar situation. I repeated my visit about ten in the evening, and found her much as before. Though there was still no immediate danger in the case, it appeared desirable to get the Placenta away; but the woman resisted every solicitation, in consequence of the pain she had previously suffered. An opiate was then given.

The next morning my young friend called early, and being allowed to make an examination, he found the Placenta somewhat lower, and applying some extractive purchase to the cord, he brought away the greater part of the Placenta, leaving a portion of the mass behind in the Uterus. On the Monday following, this portion was also spontaneously thrown off, without the intervention of any bad symptom.

CASE XXXIV.

I visited a poor woman, in the neighbourhood of Lower Thames-street, under a state of flooding in her second lying-in: I learnt that she had gone through a natural, and rather a quick labour, a few hours before, and that, soon after the birth of the child, considerable hæmorrhage took place, which induced the removal of the Placenta, but that, in the attempt to effect this removal by the Funis, the mass of the Placenta was broken, and a portion of its substance left behind. Since this occurrence the hæmorrhage had been

profuse, and had continued so nearly to the time of my visit, when it had much abated through the assistance of cold applications. I found the patient suffering principally from the effects of its violence, with a pallid countenance, complaining of great faintness, and feeling, to use her own expression, "as if she could not keep life within her." The Placenta was shown to me, and there was evidently one-sixth or one-eighth of its substance and membrane wanting; it otherwise appeared entire, with some part of the membranes attached. The nature of the case was therefore pretty clear. On applying the hand to the lower part of the abdomen, the uterine tumour was felt tolerably well contracted under the hand; there was also a disposition to an increase of that contraction in the occasional return of after-pains. On an internal examination, coagula of some size were felt in the Vagina, and the Os Uteri was closed, thick, and rigid. Under this state of things, I did not deem it prudent or advisable, to make any manual attempt to remove that portion, which was, in this instance, in all probability, still adherent to the Uterus; being fully satisfied in my own mind, from the degree of contraction which had already taken place in the Uterus, that such an attempt would be unsuccessful and unavailing. Indeed, under circumstances less forbidding, the uncertainty of the woman's present situation would not have allowed such an attempt. The exhibition of such palliatives, as the case seemed for the present to require, was only directed for the night; viz. an occasional small dose of opiate, with infusion of roses.

The next morning, the poor woman had considerably revived from the depressed state under which she was suffering the preceding night, yet the countenance sufficiently evinced the loss she had sustained; she had got some sleep at intervals during the night, which had been interrupted by the occasional returns of the after-pains; her pulse was now moderate, both in number and strength; the tongue was whitish; she had passed urine; the Uterus felt tender on pressure, and the lochial discharge flowed naturally.

On the following day, the symptoms were not less favourable; the secretion of milk had already taken place in the breasts, to which the infant was repeatedly and successfully applied. An opening medicine was this day given, which operated kindly and satisfactorily.

The next day my patient was not so well as on the day preceding; she had been restless in the night, and was disposed to be feverish; the pulse was quickened, with head-ache, and heat upon the skin; the secretion of milk was still freely continued; the lochial discharge was plentiful, but more watery than usual at this period, and not entirely free from unpleasantness of smell. Medicines of the usual anti-febrile kind were ordered this day.

On the fifth day, the symptoms were still less promising: the patient complained of a constant pain in the head, with a sense of giddiness, on attempting to raise the head from the pillow; the pulse was considerably quickened, with an increase of heat on the skin: the secretion of milk was plentiful, but the lochial discharge was trifling. A small coagulum was this day passed, with some stringy particles attached to it. The bowels had not been relieved since the operation of the opening medicine; a similar dose, was, therefore, this day repeated.

On the sixth, this patient was found in every respect much worse; she loathed her nourishment, complained heavily of her head, and appeared, from the whole of the symptoms, to be rapidly advancing towards a high state of danger. The operation of the dose of the opening medicine given the preceding day, though before mild, had been excessive, and seemed to have produced considerable exhaustion. About four in the morning, a violent rigor took place, which was followed by a quickness of pulse, heat upon the skin, thirst, and a white dry fur upon the tongue: an anodyne absorbent was *pro tempore* exhibited.

On the evening of the sixth my patient was becoming extremely restless, with occasional low delirium and an indisposition to lie down in bed: the pulse was small and rapid, and the general symptoms upon the increase: the

application of the hand to the belly discovered no marks of peritoneal affection. The saline draught in a state of effervescence was occasionally taken.

On the morning of the seventh day, the poor woman had passed a most restless night, having procured no sleep whatever, and incessantly tossing about in every direction, with a lamentable moan. The febrile symptoms and the delirium continued: the bowels were purged, and the general strength was rapidly diminishing. Medicines and food were equally refused. A blister was applied to the nape of the neck, and an opiate injection frequently repeated. Another large coagulum was passed this day.

In the evening she was evidently worse; being perfectly and constantly insensible, and incessantly picking at the bed clothes. I found her sitting up in bed, and no persuasion could induce her to lie down: the pulse was becoming languid, and the extremities cold; she positively refused all nourishment. In the course of the night she had several convulsion fits, and died the following day, seven complete days from her delivery!!

CASE XXXV.

My assistance was requested upon a young woman, in [illegible] who had been delivered of her first child, three [illegible] and she was stated to be dangerously [illegible] I was met by a professional [illegible] had a natural [illegible] he said he had waited some [illegible] but was at length [illegible] his hand for its removal; [illegible] as he could have wished [illegible] the hand having been [illegible] and that the [illegible] some [illegible] to the uterus. [illegible] woman was very [illegible] on the belly, with

febrile symptoms, headache, and want of sleep; there had been, at the time of my visit, little lochial discharge, and no appearance of lactary secretion. I found our patient under a state of high irritation, with a pungent heat upon the skin, a rapid pulse exceeding one hundred and fifty strokes in the minute, and a parched tongue; with quick respiration; incessant restlessness; dejectedness of countenance, and a constant pain in the head, with a wandering low delirium. There were also occasional sickness, and rejection of fluids taken into the stomach. The bowels had been relieved by opening medicine. A regular and continued pressure of the hand upon the abdomen produced considerable pain; but no complaint of pain in the belly was made, without the pressure of the hand; the pain was also confined to the uterine tumour. The woman had not been able to obtain any refreshing sleep since the time of her delivery; there was at this time little uterine discharge, but that little was offensive to the smell, and altered in its usual appearances. It resembled water tinged with blood. The weather was at this time uncommonly hot for the season, so that the heat was a source of great annoyance, and produced an aggravation of suffering. The saline draught, in a state of effervescence, with small doses of sulphate of magnesia, was prescribed at short intervals, and an opiate at bedtime; an evaporative lotion was also occasionally used to the belly.

On the day following, our patient remained in nearly a similar state; she had passed a bad night, was still restless, with occasional wandering of the mind, and seemed to be strongly impressed with the danger of her present state.

At my next visit, I was told that some natural uterine discharge had made its appearance, and that during the night, which had been passed without sleep, a recurrence of pain had taken place, by which a portion of the Placenta had been thrown off in a putrid offensive state. The symptoms, this morning, seemed to be somewhat alleviated. The bark in decoction was now prescribed.

As there seemed to be a little improvement this morning,

the friends of the poor woman gave me to understand, that they would not trouble me to see her again, but would apprize me of the progress of the case; I therefore received information in a day or two, that my patient had breathed her last.

CASE XXXVI.

About the middle of one Monday, a respectable professional gentleman called upon me, and requested me to see a middle-aged woman, in the neighbourhood of Finsbury-square, after her fourth labour, who had been suddenly placed under distressing and dangerous symptoms. My friend informed me, that the child had been born about two hours, and that in attempting to remove the Placenta, which was unfortunately adherent to the Uterus, he had broken its mass, and was apprehensive it was not all got away. Without loss of time I accompanied him, and upon visiting the patient, I found her under a state of great faintness and exhaustion, partly from the loss of blood she had sustained, and partly from the pain she had already experienced, in the almost fruitless efforts, which had hitherto been made to remove that portion of the Placenta which remained still attached to the Uterus. Upon carefully examining the general mass of the Placenta which had been extracted, I observed a considerable portion of its centre absent; but of this portion, some trifling particles had been brought away in the subsequent attempts to remove it. The hand had been repeatedly introduced into the Uterus for this purpose, and had been almost as frequently unsuccessfully withdrawn. Being desirous of procuring as accurate a knowledge of the state of the case as possible, I introduced my left hand into the Vagina, and two fingers within the Os Uteri: upon doing this, I was satisfied that the Uterus was then so much contracted, as not to admit the introduction of the hand, for any purpose, without a great degree of violence; and, on a more minute examination of the uterine cavity by these fingers, the remai- [illegible]e Placenta were distinctly perceptible

to the touch, hanging down in filamentous particles from the uterine surface, (somewhat like cobwebs from the vaulted roof of a dry cellar,) which were not under the control of removal by the mere power of the fingers.

Having suffered so much pain from the previous attempts which had been already made, the woman earnestly begged to be left quiet; and, indeed, had I been disposed to offer any manual assistance, with the view of removing the portions left behind, I saw no possibility of effecting that object successfully. Any further efforts were therefore declined on my part. A proper dose of opiate was for the present directed, and to be occasionally repeated; perfect quiet was also strictly enjoined, with a due attention to regimen. I inquired whether this woman had received any injury, or had suffered any inconvenience during her pregnancy; and was informed, that for some time previous to her labour, she had been troubled with a constant pain on the left side of her navel, to which part, the after-birth seemed, in her idea, to be fixed.

The next day, our patient had considerably recovered from the exhausted and painful state of the day preceding, and seemed to be as well as if none of those unpleasant occurrences had happened. The pulse was moderate; the skin soft and cool; the head free from pain; the countenance was somewhat pallid, but it had regained much of its usual appearance; she had enjoyed some natural and refreshing sleep; had passed her urine freely; had suffered no unusual degree of after-pains, or of lochial discharge; and merely complained that the application of the child to the breast induced a more than ordinary pain in the back.

The same favourable symptoms continued the next morning, with the exception, that the woman had not passed so comfortable a night, and that the lochial discharge was becoming, somewhat sanious and offensive. There was likewise no secretion of milk in the breasts. An opening medicine was given this day, which operated gently.

For two or three days, an irritating cough produced much inconvenience; the efforts attending it excited pain

in the belly, and in the head. There was still no appearance of lactary secretion; but about this time a puriform discharge began to issue from the Vagina in considerable quantity. The bowels were relieved by laxatives, and a tonic prescribed.

From this time, I saw the patient only occasionally: the puriform discharge continued for a fortnight, gradually diminishing in quantity, but the secretion of milk was never established. No further unpleasant symptom appeared, and the woman, in about three weeks, recovered a tolerable state of health.

The subject of the preceding case applied for my advice some years after under a troublesome cough, attended with pain in the side. I then learnt that she had never regained her former state of health; that she had not menstruated, or had been again in a family way since the above occurrence, and that she had constantly a white discharge from the Vagina.

CASE XXXVII.

I was called to a woman, in Thrawl-street, Spitalfields, who had been delivered of her child more than two hours, but the Placenta was detained longer than usual. Before my arrival, she had flooded violently, and the midwife, in attempting to extract the Placenta by the Funis, had improperly used such violence, as to separate the Funis, with the greater part of the membranes, and a small portion of the Placenta, from the general mass. The woman appeared in a dangerous situation, and, in this dilemma, I had to remove the remainder. I immediately introduced my hand, and used my best efforts to separate it; but the degree of adhesion was so strong, and the difficulties I had to contend so great, partly from the adhesion, partly from the absence of the Funis, and partly from the degree of contraction, that I did not succeed so well as I could have wished: the Placenta was brought forth piece-meal, and I suspected, at the time, not entirely removed. This poor woman went on pretty well for several days, but

at length had febrile symptoms, with pain in the head. These symptoms increased my suspicions, that some part of the Placenta was left behind. Fifteen days after her delivery, she passed a portion of the Placenta about the size of the palm of the hand in a putrid state, after which event she rapidly recovered.

CASE XXXVIII.

I was called into Primrose-street, Bishopsgate, to visit a lady under uterine hæmorrhage. I found her countenance pallid and exsanguined; her pulse small and quick; her extremities cold; indeed, she was suffering under all the symptoms of great and sudden loss of blood. This lady had miscarried of the fœtus four weeks before, between the fourth and fifth month of pregnancy, but the after-birth had not come away. In the interval, she had been the occasional subject of considerable discharge, which had continued a few days at a time, and then ceased; but, for the last three or four days, it had been constant. About two on the day I saw her the flooding had come on with increased violence, and was still continuing with occasional pain, as if something was about to be expelled. I used no manual means of relief, merely recommending a continuance of the cold applications already in use; and acids internally. In the evening, the Placenta was thrown off, in as fresh a state, as if it had followed the fœtus immediately. After this event, the hæmorrhage subsided, and the patient gradually recovered her wonted health.

This case furnishes us with an instance of the Placenta remaining in the Uterus, after the premature expulsion of the fœtus, for the space of a month, without undergoing the common process of putrefaction; or without inducing any dangerous symptoms, except those consequent upon hæmorrhage. Such an occurrence does not happen at the full period of gestation: to what cause, then, are we to attribute this singular fact? The fœtal circulation through the Placenta ceased with the expulsion of the fœtus, as well as the

process of growth. The powers, then, which this mass possessed of resisting the putrefactive process, could only be derived from the advantages it received in its adhesion to the Uterus, and the impression from the maternal influence.

ON RELAXATION OF THE UTERUS AFTER DELIVERY, AND ITS SUBSEQUENT ENLARGEMENT.

As I have already hinted at this subject, I will here briefly consider it. Those contractile efforts, by which the last portion of its gravid contents is expelled, usually leave the Uterus in a state of permanent contraction, which seldom admits of much subsequent relaxation and enlargement; and the returns of the temporary contraction, evinced in the accession of after-pains, tend still farther to increase this permanent state, and gradually to diminish, more and more, the size of the uterine tumour. During the presence of after-pain, the Uterus is felt more firm, and resistent: during the absence, it feels flaccid and softer, yet it is not sensibly much extended in volume. But it sometimes happens, that after the Uterus has expelled its contents, after it has seemed to the hand to have acquired a considerable share of contraction and of diminution in size, it suddenly relaxes, and becomes larger and more flabby; it increases in bulk and extension in every direction. During the time this increase of size is going on, or shortly after, the patient complains of faintness; her countenance loses its colour and its usual appearance; her pulse becomes quicker and smaller, and she has other symptoms of depression. On examining the napkins and linen, a very trifling discharge of blood is generally found to have taken place externally, which leads to the belief, that the patient is not at the moment losing much blood; and, therefore, little alarm is excited from this

obvious loss; but if this dangerous security be indulged without farther and more minute inquiry, if the case be not understood, the patient will soon be placed in a situation of the greatest hazard, from which she will with difficulty be extricated. If, at this time, the hand be applied upon the abdomen, and such a degree of grasping pressure be made on the uterine tumour, as shall produce some contraction, or if uterine action spontaneously come on, a quantity of coagulated and fluid blood is immediately expelled, which induces the patient to suspect that she is *then* flooding, and she generally expresses such suspicions, with much anxiety for her safety. After such an evacuation of blood, the uterine tumour lessens in bulk, and becomes firmer under the hand. As long as the pressure of the hand is continued, or in case the frequent repetition of natural contraction takes place, the Uterus retains a diminished bulk: but upon the pressure of the hand being removed, or if repeated returns of after-pains do not ensue, the same occurrences are renewed, the uterine tumour assumes less firmness, and again increases in size; the sensation of faintness also returns: and upon external pressure being again made, a similar evacuation is the consequence. These occurrences may be repeated, till either the Uterus attains a more perfect and permanent state of contraction, whereby its subsequent distension, and the further efflux of blood from its vessels are prevented, or till the woman sinks from loss of blood.

The true state of the case is this; blood is slowly but silently pouring out of the uterine vessels into the general cavity, which coagulates almost as quickly as it is extravasated. These coagula plug up the Os Uteri, and prevent the escape of any considerable quantity of even fluid blood; so that their gradual accumulation at length mechanically distends the flaccid Uterus. This, therefore, is truly a case of internal flooding. The only difference existing between it and one of external hæmorrhage is, that in the former, the loss is confined within the uterine cavity, and is therefore not seen; it may even frequently be unsuspected, till

the rapid advance of unfavourable symptoms loudly proclaims its extent. The small quantity of blood which does escape externally, is not sufficient to excite alarm, or even a suspicion of danger: whereas, in a case of external hæmorrhage, the quantity lost is immediately apparent, and the means of counteracting its probable effects are as readily pointed out.

This dangerous sequele of child-birth is met with after different kinds of labours. It occurs in women of a lax, flabby habit, in whom there is a disposition to corpulency, with a delicacy of fibre; in some instances, after such a woman has borne a number of children, and has probably had, for the present, a quick and easy labour; in others, after a lingering labour, under, perhaps, a first child still-born, during the expulsion of which, uterine energy has been much exhausted. It sometimes happens after a difficult labour, in which a similar state is induced by the long continuance of uterine efforts: but it may take place in any kind of constitution, after any description of labour, if there remain, after delivery, an indisposition in the Uterus to active contraction; if a relaxed state of the uterine parietes should continue after the removal of the Placenta. I do not mean to assert, that this is a case of very common occurrence; it is, however, by no means an unfrequent one, and may readily be unsuspected; it may easily be overlooked, even by men of experience: and as, if it be overlooked, if it be allowed to proceed to any extent without being observed, the life of the patient is rapidly endangered, it forms one of the most interesting cases of practical midwifery. The progress of the alarming symptoms is usually so rapid, as to preclude the timely advantage of a consultation, and to oblige an accoucheur to depend on his individual judgment and exertions; and there are few instances, in which the beneficial effects of early and attentive observation, and of judicious practice, are more evidently apparent than in the case before us.

The degree of present or of future danger is not in proportion to the quantity of coagulated or of fluid blood, evacuated by the pressure of the hand, or by the sponta-

neous contraction of the Uterus; but in proportion to the quantity still flowing out of the maternal vessels, in the absence and for want of permanent uterine contraction. The blood thus expelled, may have been very gradually extravasated, and may have been accumulating in the uterine cavity for some time past, though the general effects thereof may not yet have shown themselves: but if, along with this external loss, which is now obviously apparent, a further discharge be still proceeding internally, and if it continue for some time forward, the patient will presently show evident marks of its effects in symptoms of general depression and alarm. The extension of the uterine parietes by the contained blood, adds to the increase of danger in the prevention of that contractile effort, by which the extremities of the uterine vessels are closed, and by which their diameters are lessened: so that under this extension, the velocity of the loss is materially increased, and the mischief is aggravated. Hence, after a short time, does such a rapid advance of the symptoms take place. On the other hand, spontaneous uterine action, or after-pains, is always salutary; it is ever highly satisfactory; it not only expels the extravasated blood then contained within the Uterus, which, by its presence is adding to the mischief; but by naturally diminishing the size of the uterine tumour, and producing permanent contraction, it tends to prevent a farther efflux. The extreme despondency felt by the patient soon induces a strong presentiment of her dangerous situation, and exclamations on that subject almost involuntarily escape her lips: such expressions as, "*How ill I am!*" "*I must die!*" painfully depict her feelings.

The preceding history of the relaxation of the Uterus, explains its rationale, and also points out the objects to be attained in its management. As it originates in the deficiency of that contractile effort, by which permanent contraction is produced, the grand point of attention ought to be directed to perfect it, or to supply its defect, by means of art. With this intention, apply the hand externally on the uterine tumour, enclose it firmly within the grasp of the

hand, and gradually make a firm compression. This practice seldom fails to reduce its size, and to bring on an increased degree of contraction. The external application of cold may also be useful. Ices and cold fluids may be allowed at pleasure. Little reliance can be placed on the effects of astringent medicines, yet they may be properly resorted to. Stimulants, under certain limits, are given with much advantage. If these means fail, the introduction of the hand within the Uterus ought not to be deferred; this is a *dernier ressort* as well for the purpose of removing the coagula there accumulated, as of inducing uterine action.

It ought not to be forgotten, that in proportion to the degree of depression induced by a sudden or large loss of blood, the Uterus becomes more and more incapable of effecting its spontaneous contraction, so that the cause which is so strongly operating towards the destruction of the patient, is alarmingly progressive, unless timely counteracted. If the introduction of the hand become necessary, it should be retained till uterine contraction be felt; and if the hand should be almost expelled, so much the better for the patient.

During this time, stimulants become highly necessary, and almost universally produce the most beneficial effects; but their use must be omitted as soon as the patient begins to improve.

Even after a due degree of uterine contraction has been brought about, the patient is commonly left in a very uncertain state from the preceding loss, and ought to be attentively watched. The means elsewhere recommended are equally appropriate to the consequences of uterine hæmorrhage from this cause. I need not therefore repeat them.

CASE XXXIX.

I was called to the wife of a professional man in the eastern district of London, who was represented to be in a state of great alarm after delivery. The child had been expelled, under the superintendence of her husband, about one

in the morning, in a lifeless state, from pressure upon the Funis, which had come down before the head. Soon after the birth of the child, a flooding came on, which induced the husband to withdraw the Placenta almost immediately from the Vagina: and he effected its extraction without any particular trouble. The discharge continuing in a slight degree, the lady presently became low and faint. A neighbouring professional friend was called in about two, who recommended the use of cold applications, and the exhibition of acids. The flooding continuing, and the lady getting worse, my assistance was requested. On visiting this lady at the hour abovementioned she appeared very much depressed indeed: her countenance was exsanguined and anxious; her pulse was fluttering, so as scarcely to be perceptible; she had a constant sense of faintness, with involuntary sighing and frequent eructations; the Uterus was flaccid and ill-contracted, and there was a constant draining of florid fluid blood from the Vagina, which had continued since the delivery. I grasped the Uterus firmly within my hand, so as to lessen its volume, and immediately the discharge was momentarily increased, and some coagulated blood was expelled; upon taking off the pressure of my hand, I found that the Uterus again relaxed and became flaccid; I then compressed it with a similar effect. This act was repeated several times, when the lady at length requested that I would not withdraw my hand at all, as she felt such a degree of comfort in its pressure. I remained in that situation, with my hand compressing the Uterus, till near eight in the morning. The Uterus had not, till that time, acquired such a degree of permanent contraction, as to allow me finally to remove my hand with safety.

During this interval, brandy, with water, was occasionally given, and also some nourishment. The flooding had now ceased, and she began to rally. Between eight and nine, she became composed, and went to sleep; she slept for a short time, and awoke much refreshed. From this time she gradually recovered.

If external pressure had not, in this instance, produced a

more permanent contraction of the Uterus, I should have thought it my duty to have introduced the hand into its cavity. External pressure, for the moment, increases the discharge, so that the patient becomes more alarmed; but the blood which is then expelled, is only that which is already extravasated in the uterine cavity: it does not add to the general depression. The return of after-pains is, in such cases, most desirable: for we have usually but trifling after-pains. Though the pressure of my hand gave this lady pain, she felt such a degree of comfort and satisfaction under it, that she was extremely unwilling it should be removed; and even the attempt to remove that pressure, impressed her with the idea of withdrawing a support, from which she was receiving great benefit. The effect produced upon the faintness by the grasping compression of the hand was truly remarkable; for although the lady had taken medicated and other stimulants of various kinds without any advantage, the manual compression instantly relieved it.

CASE XL.

One morning I was called into Tower-street, by a professional friend, to a lady, who was represented to be under a state of the greatest danger. On my arrival at her house, the lady had just expired. She had been delivered of her first child after a common natural labour, about two hours and a half, and to all appearance with the greatest safety. The Placenta was separated naturally, and was withdrawn within the half hour: for some time she had somewhat more than usual discharge, but not to that extent as to attract particular attention. The state of the Uterus was not noticed: by and by she complained of being very unwell, so that my friend did not leave the house. A short time before my arrival, the lady had been attacked with a pain at her stomach, followed by difficulty of breathing, and was rapidly carried off about a quarter after four. The body was not inspected. This, most probably was a case of internal flooding; but I had no means of satisfying my suspicions.

The day following, towards evening, a midwife sent to request me to open the body of a woman, who had very unexpectedly died about the middle of that day, soon after her delivery. The woman had been delivered, after a common labour, about eight in the morning, the Placenta had come away without difficulty, and she was promising to do well. The midwife dressed the child, and staid in the house nearly two hours without observing any particular occurrence: she then put the woman comfortably into bed, and took her leave. Some time after her departure, the poor woman became faint, and afterwards very restless: these symptoms alarming the by-standers, the midwife was again called, but upon her return, she found her patient dead.

Upon opening the body, the same evening, the Uterus presented itself long, flabby, and ill-contracted; all the abdominal viscera were uncommonly sound and healthy; on dividing the Uterus, it contained about a pound and a half of firmly coagulated blood, a great part of which was lying upon, and in the Os Uteri, and some was adherent to the surface to which the Placenta had been attached; the uterine parietes were flabby and loose. There appeared to have been very little external flooding.

This dissection gave me great satisfaction, and added much to the stock of information I previously possessed on this subject. I had seen numerous instances of women sinking rapidly under apparently slight external hæmorrhage, after delivery; some to a degree beyond recovery, and others recovering with difficulty.

These facts had long drawn my attention to the external state of the uterine tumour under the hand; in several cases, I had observed the Uterus to relax and enlarge during this state of faintness, and upon external pressure being firmly made by the grasp of the hand, a quantity of coagulated and fluid blood had been immediately evacuated: I thence concluded that blood was flowing into, and coagulating in, the uterine cavity; and in this conclusion, I am strongly supported by this dissection. The quantity of

blood in the above ins[illegible]ound in the Uterus appeared trifling, and insufficie[illegible] to cause death. But in such cases, besides the quantity absolutely thrown out into the Uterus, some fluid blood is escaping into the Vagina, and is there coagulating: or it is flowing externally; yet perhaps not to that extent as to cause alarm from its apparent quantity. Though these quantities may appear severally small, the whole loss may be large for the system: and it is impossible, *a priori*, to judge what quantity of blood any given woman can lose without danger. I am not without my suspicions, also, that this relaxed state of the Uterus itself has a powerfully injurious influence upon the nervous and arterial systems.

The first time my attention was drawn to this case, was during a third attendance upon a patient at Hoxton, several years ago, who had passed through a lingering but natural labour. The Placenta had been thrown off, and was removed without difficulty, and I was about to leave the house, between eight and nine in the morning, when the patient requested me to stop a little longer, saying, she did not find herself quite so well as after her preceding labours; and complained of being rather faint. I immediately inquired whether any flooding was going on, but found little discharge externally. I placed my hand upon the Uterus, and I was astonished to find it much more enlarged than I had left it about half an hour before, upon extracting the Placenta. I made some compression upon it, and immediately a gush of fluid blood followed, and afterwards some coagulum. The lady then called my attention to the flooding. After a short time, she became more faint, and upon placing my hand again on the Uterus, I found it then enlarging, and a similar discharge followed compression. There was no disposition to after-pain. This tendency to uterine relax[illegible]ed with faintness, obliged me to keep [illegible]erine tumour, making more or less [illegible]hours, before I could perceive [illegible]ontraction, as to be able to leave

CASE XLII.

A similar instance occurred to a young lady in Wapping, after delivery of her first child. A recent and unfortunate occurrence* had made so strong an impression upon her mind, during the last weeks of her pregnancy, that she became very dispirited and suspicious of her own safety under her expected accouchement. Her anxiety and that of her friends induced them to call me upon the appearance of the very first symptom of labour, so that after having spent two days and one night in the house, without much advance in the labour, I got leave of absence for the night, and requested to be called when necessary; at the same time referring to a medical gentleman in the immediate neighbourhood, in case of sudden alarm. About seven in the morning, the husband again summoned me, and I hastened to his house; but during his absence, the pains had increased so rapidly, that my friend was called, who arrived merely in time to receive the child, and having withdrawn the Placenta, set himself down to breakfast below. I felt somewhat mortified, that after so long and unnecessary an attendance, the lady should be delivered in my absence: however, I went up stairs, and asking my patient how she felt herself, she answered, that she was very faint. As there was little discharge upon the napkins, my attention was drawn to the state of the Uterus: I found it large and ill-contracted; upon compression, by means of the hand, a quantity of blood escaped. The Uterus presently again enlarged, and compression produced a similar effect. But I was obliged to keep my hand upon the Uterus, making considerable pressure upon that organ, for more than two hours, before it seemed so permanently contracted, as to permit me to leave the house with any degree of satisfaction.

* The death of the Princess Charlotte.

ON COLLAPSE AFTER LABOUR.

In the absence of one more appropriate, I have adopted this word, to express a particular state of danger in which a lying-in woman is occasionally placed, soon after the birth of her child; but especially, when her babe is still-born. It appears to me to consist in a want of accommodation of the several parts within the belly to each other, under the new situation in which they are placed by the abstraction of pressure.

How this occurrence may produce so dangerous an effect, it may be difficult to explain; but as there is usually an insufficient loss of blood to account for the sudden impression made upon the system, it may be attributed to some baneful effect suddenly produced upon the brain and nerves. Be this as it may, I am fully persuaded that the mental shock which is now and then received upon the first communication, or even upon the surmise, of the infant's being still-born, has a most injurious influence upon the mother: nay, I think it has even a tendency to check the progress of those changes, the perfection of which is so essentially necessary to her well-doing.

When those fond hopes, in which a lovely woman has been pleasingly revelling for months, are suddenly blasted; when that pledge of mutual love, for the production of which she has just passed through the most distressing pangs of nature, is found to be lifeless, disappointment and anguish naturally succeed: a severe shock is given to the

feelings, which, at this time of distress, and under this delicate situation of the female frame, operates with increased force: and I need scarcely allude to the powerful influence of mental energy on bodily function, at any time.

Shortly after the birth of the child, and the removal of the Placenta, when the woman has previously appeared to be doing well, she complains of unusual faintness; says, she is extremely ill; at the same time she is unable to describe what is the matter with her. If inquiry be made into the state of the Uterus, that viscus is found to be tolerably well contracted: if inquiry be also made as to the quantity of blood escaping externally, that is not unusually large. The woman complains of no pain about the belly; there is no mark of derangement there. Notwithstanding, she presently gets worse; the pulse begins to flag; the countenance assumes a pallid cadaverous aspect; she becomes extremely restless; and ceases to express her feelings except by a moan. By-and-bye, she is seized with a violent pain or rather stricture across the chest, and soon ceases to breathe, to the astonishment and grief of all around her.

The progress of these symptoms is usually so rapid, as scarcely to allow time for thought or action: the fatal scene is terminated within two hours after delivery, and sometimes within one, after the first complaint is made. If this progress be fortunately retarded by the means used, or if after-pains happily show themselves in an active manner, the symptoms begin to subside, the woman feels herself better, and in a few hours is placed in a state of comparative safety.

As to the means of counteracting this dangerous state, I fear that the best efforts will frequently prove ineffectual. But I think that the great object to be aimed at is, to keep up the action of the heart and arteries, by the exhibition of strong stimulants, such as brandy and ether, in hopes of the restoration of a due degree of equilibrium in the system. If a truce be obtained, the woman will generally do well. At the same time, I recommend a proper degree of pressure on the abdomen, by the hand or otherwise. The return of the

after-pains being so obviously useful, the application of a grasping pressure upon the uterine tumour itself, may prove advantageous.

CASE XLIII.

Some years ago I was requested to take charge of the wife of a professional friend in her expected accouchement of her twelfth child. The lady was turned of forty, was in good health and spirits, and somewhat *en bon point*. I was called to her assistance about seven in the evening, when the process of labour had made considerable progress, and soon after eight, the child was naturally expelled, but it was still-born. Some attention was immediately paid to the babe, with the view of restoring animation, but the best efforts proved fruitless. The lady repeatedly raised herself in bed to watch the success of the proceedings of myself and her husband, who was in the room offering his assistance also; and she seemed much affected at the loss of the infant. Going presently to the bed-side to inquire after the Placenta, the lady complained of being rather faint; I immediately examined as to the quantity of discharge, and found it moderate; not more, indeed, than the lady had been accustomed to pass in former labours, or than is usual in common cases. The Uterus being well contracted, and the Placenta being expelled its cavity down in the Vagina, I withdrew it with ease, and with still little discharge. Notwithstanding this apparently favourable termination of the labour, the sense of faintness did not subside; indeed it seemed rather to increase than to diminish; yet the pulse was not, for the present, much affected. Brandy and water, and the medicated stimulants, camphor mixture and ether, were had recourse to, and, in the first instance, with some apparent advantage; yet the sense of sinking never entirely gave way. The quantity of external discharge, and the state of the uterine tumour were closely watched, lest mischief might be silently going on there. In this way an hour and a half, or two hours, were spent after delivery,

and the lady seemed somewhat recruited. I left the house for a short time, under the impression that this lady was better: upon my return, in less than half an hour, I was grieved to find that, during my absence, the case had taken a most unfavourable turn: she had been seized with a sense of constriction across the chest, accompanied with difficulty of breathing; the pulse was scarcely to be felt; the countenance was sunk, and she soon expired, within three hours after her delivery, to the great grief of a numerous and amiable family, and of a truly affectionate husband. The body was not inspected.

I could attribute the fatal result, in this case, to no other apparent cause than to a state of collapse after the completion of the process of labour; and I suspect that this state was increased by a desponding impression made upon the mind in consequence of the loss of the infant. Had I learnt that there had been a desponding impression upon the mind, previous to labour, my surprise would not have been so much excited; for I am well convinced of the fact, that the existence of a permanent despondency, during the latter stages of pregnancy, has a powerful influence in diminishing the beneficial agencies of those powers, by which the necessary and healthy changes subsequent to labour, are completed.*

CASE XLIV.

One morning about six I was called by a professional gentleman into Duke Street, Spitalfields, to the case of a stout lusty woman, the mother of several children, who had been delivered about two hours, but on my arrival at the address, I found that she was already dead. It appeared that both the child and the Placenta had been expelled after a short labour, before my friend could get to her assistance, and that some blood had passed with the after-

* I beg to refer the reader to some cursory observations made by me on sudden death after delivery, inserted in the Medical Repository for 1814, and thence transcribed into the Medical and Physical Journal for August, 1814.

birth, but in no great quantity. For a short time the woman promised to do well; but presently very alarming symptoms made their appearance, and among the rest one which is almost the sure harbinger of death, a violent sense of stricture across the chest. Now, although the quantity of blood lost in this instance appeared to be inconsiderable, and perhaps upon the whole might not be more than many women pass at such a time without any bad consequences, yet that loss produced the most disastrous effects upon the woman's system.

CASE XLV.

Some time ago I was summoned to attend a delicate lady, of lax fibre, and disposed to corpulency, in labour of her third child. I had attended her in her preceding confinements, through which she had passed favourably. She went quickly through her present trouble, with equal safety, in a few hours, and was promising to do well. After having remained in the house nearly an hour, and being about to take my leave, I was suddenly called up stairs, in consequence of the lady's complaining of faintness: I made instant inquiry into the quantity of discharge, but there was no external flooding. I passed my hand upon the Uterus, and found it as well contracted as I had left it, nearly an hour before: upon grasping the Uterus, a slight discharge of fluid blood ensued, but comparatively trifling; after-pains by-and-bye followed, after each of which there was some discharge, but not to that extent as to excite alarm on that account. Notwithstanding, the faintness rather increased than diminished; the countenance became pale, the pulse feeble, the head giddy, and the lady complained of seeing indistinctly. Under these symptoms, I dashed cold water in her face, applied wet napkins externally to the abdomen, and presently gave her some brandy and water. From this state of alarm she was gradually recovered; but some hours were suffered to elapse before I left the house. At the moment, I was disposed

to attribute these symptoms to a state of collapse, from the want of accommodation of the parts within the abdomen to each other after delivery, and to certain unpleasant sensations thence arising, rather than to loss of blood, or to any permanent injury sustained during the labour.

About the middle of the following day, this lady had recovered from the languid state in which I had left her early in the morning; she had got some sleep; had taken suitable nourishment, without difficulty; and seemed likely to do well.

I made her another visit in the evening of that day; I found her complaining of sickness, which had come on suddenly, without any apparent cause, and she had vomited several times. After vomiting, she complained of great difficulty in swallowing fluids, and of the mildest kind causing pain in passing down the throat. I inspected the throat, but could perceive no cause of complaint there; I therefore suspected this symptom to be the consequence of some temporary inconvenience produced by the act of vomiting. On the following morning, my patient had passed a restless night; and now there was a total inability to swallow; nothing could be taken into the stomach. The countenance was dejected, but the pulse was little altered. These symptoms continuing at my next visit, towards evening, a consultation was requested, and an appointment was made with a celebrated accoucheur to meet me the next morning. At this time, my patient was evidently much worse, and the inability to take nourishment remained the same. In the evening an eminent surgeon was called in consultation, who proposed the conveyance of fluids into the stomach through a hollow bougie; and some brandy with milk was got down with apparent advantage; during the night this was repeated; but, gradually sinking, the lady died on the following morning.

The medical treatment of this case was such as the symptoms at the moment seemed to require: but the intestinal canal could not be satisfactorily acted upon by purgatives; partly, I presume, owing to the inability of getting down a

sufficient quantity: clysters were resorted to, to supply their place, as well as for nourishment. Local bleeding and blisters were not omitted: they produced no beneficial effect.

The fatality of this interesting case was unanimously referred to some cause unconnected with labour, or the puerperal state, but operating with greater influence under that state. There was evidently a paralytic affection of the muscles of deglutition; but by what immediate cause it was induced, was not so obvious.

CASE XLVI.

About four one morning, I was requested to meet a professional friend in consultation, in a first case of labour, in Shadwell. The membranes had only given way in the early part of the preceding evening, and the pains had been thought sufficiently violent to expel the child; but as no improvement had been observed for some hours, and the labour seeming to make no progress, my opinion was called for. In this case, the head was placed diagonally with the forehead to the right groin; it had advanced considerably into the Pelvis; there was no distress; pains were returning at intervals, but they were said to be now declining in power. Being desirous of giving time, I saw this woman again about one P. M., nine hours after my first visit, and found the labour precisely in *statu quo*. The case readily admitting the application of the forceps, it was determined that the delivery should be effected without further delay, by that instrument, but even at that time there appeared no necessity for hurry. A dead child was soon produced into the world without any particular difficulty, or accident, and as soon as it was born, a quantity of offensive gas, with that olive coloured fluid, elsewhere mentioned, escaped from the Vagina. Uterine action did not seem disposed to return, and

time, a separated Placenta was
Uterus felt well contracted, and
surable state, between two and

three o'clock. In the evening, my friend called upon me to inform me, that this poor woman had died very suddenly and unexpectedly between five and six. All that he knew about the matter was, that he was called in a hurry to the poor woman, who was represented to be in a fit, but he found her dead, with her belly much swelled. Anxious to learn the cause of so melancholy an occurrence, leave was obtained to open the body, which was inspected the next morning. The external appearance of the belly was much larger than usual, and this enlargement was soft to the hand. On dividing the parietes, the intestinal canal was seen somewhat distended with gas, but the rest of the viscera were healthy. The Uterus was much extended, and felt flaccid; and on pressing it, a quantity of fetid gas escaped *per vaginam;* after its escape the organ became still more flaccid. On opening into its cavity, there was only one small coagulum at the Os Uteri. The appearance of the Uterus, on dividing the abdominal parietes, was not unlike one at the fifth or sixth month of pregnancy.

I must confess, that before the Uterus was handled, or opened, I suspected death to have been occasioned by internal hæmorrhage: that certainly was not the case. Was this quantity of gas furnished from the surface of the Uterus, or had it made an entrance *ab externo?* The case was new to me; and added another item to the list of unsuspected causes of death, under or subsequent to, the act of labour.

ON PROTRACTED LABOUR* UNDER A NATURAL PRESENTATION.

In the preceding account of natural labour, I have abstained from a reference to any particular space of time within which the process ought to be completed, as essential to its definition; but with regard to protracted labour, the time which has elapsed since its commencement forms its principal feature. The epithet is therefore applicable to those cases of natural labour, in which the time occupied in the whole process is lengthened to an unusual or unexpected period, with or without the superinduction of dangerous symptoms.

We are constantly meeting with various degrees of protraction in practice, from a slight lingering case, to one of three or four day's continuance. If we allow twenty-four hours for the completion of a natural case, the continuance of the process for any length of time beyond that period, will constitute a protracted case, in a lower or in a higher degree.

Protracted cases may be practically divided into three orders, which vary as much in their causes, as in the degree of difficulty attached to each.

1. Lingering labours, in which there is a mere consumption of time without any unfavourable symptom.

2. Labours combined with a slighter degree of difficulty, but which cannot be surmounted by the natural efforts alone.

* Dystocia.

3. Labours combined with an increased degree of difficulty, in which there is a relative disproportion between the size of the head and the capacity of the Pelvis.

1. ON LINGERING LABOUR.

This term is given to those cases in which the labour has already gone on for more than twenty-four hours from its commencement, without a reasonable prospect of its being soon terminated, and includes a degree of slackness or slowness in its progress: yet the process is generally safely completed without assistance from the means of art.

But this description refers only to the most simple kind of lingering labour, with a roomy Pelvis. A lower degree of protraction readily partakes of a higher; and a case which, in the first instance, assumes a mere lingering character, may, in time, become complicated with appearances of the first-rate difficulty and danger. The following observations are therefore applicable to protracted labour in general. Three general causes may be stated to be conducive to protraction:

1. *An undue degree of resistance in the soft parts opposed to the propulsive efforts.*
2. *Diminished energy and activity of those efforts.*
3. *An improper direction or position of the head of the child, as it respects the Pelvis.*

1. When protraction is produced by an undue degree of resistance offered by the soft parts, we have the Vagina, in the early part of the labour, and indeed for hours after its establishment, dry, contracted, indisposed to relax, and almost devoid of moistening mucus. It admits the introduction of the finger with some difficulty, and not without painful sensation. The Os Uteri continues for an unusual length of time, thick, firm, and resistent: the uterine efforts sometimes become prematurely strong and frequent, espe-

cially if the membranes have given way at the beginning, or if they have been ruptured intentionally, or inadvertently, during an examination.

The pain is of a cutting or tearing kind, and is referred to the small of the back, the hips, and the lower part of the belly: it also occasionally strikes down the thighs. There are repeated calls to evacuate the bladder, and sometimes inclinations to relieve the rectum.

A degree of dejectedness is occasionally met with in women of a contrary temper, which preys upon the spirits, and induces a foreboding of the most melancholy consequences; and in proportion to the extent of the preceding symptoms is the probability of their longer or shorter continuance.

The relative site of the Os Uteri in the Pelvis, is in different instances variable: sometimes it is high up, and placed in the centre of the cavity, with the head immediately upon or above it; at others, it is low down, and looking backward towards the middle of the Sacrum, with a portion of the Uterus anterior to, and surrounding the head, so that its opening is with difficulty discovered; and the finger must be carried considerably upward and backward, round that portion of the Uterus covering the head, before any information respecting the state of the Os Uteri can be obtained.

The sufferings which the patient has to undergo, before such changes are brought about in the soft parts, as can permit the advance and passage of the head, frequently induce febrile symptoms, with their consequences, which gradually proceed on to a state bordering upon exhaustion: in such case, the interval becomes truly distressing, both to the patient and to her friends. They express many apprehensions for the result, and exhibit great anxiety for the safety of the patient, and not without some reason; yet, if the case be uncombined with other causes of difficulty, if there be merely a rigidity of the soft parts, such gradual improvement is from hour to hour produced, as to satisfy

the most scrupulous mind, now and then even beyond the most sanguine expectation, that the process will be terminated by the ordinary agents, without recourse to other means.

The above described state of parts is frequently met with in a first child, especially if the patient be somewhat advanced in life; when rigidity of fibre is acquired by age. It sometimes occurs in stout athletic women, who lead an active, laborious life; but it is rarely found in those who have had several children, or in those who are young and delicate.

The first marks of a favourable change are, a thinning and softening of the Os Uteri, with an increased secretion of mucus from the Vagina. Its cavity begins to feel moist and relaxed, and permits a more easy admission of the finger than heretofore. When these changes take place, the pains become stronger, but less poignant; the patient bears them with more resolution: she is less desponding, and submits with greater resignation to her distressful situation. But under their progress, as long as the Os Uteri continues thick, resistent, and not completely opened; as long as the Vagina remains dry and contracted; and as long as the external parts also show an indisposition to give way, no manual or artificial assistance can be offered with any rational prospect of success. Whatever time may have passed since the commencement of the labour; whatever may have been the previous sufferings of the patient; or whatever may seem to be her present sufferings, we must carefully abstain from any officious interference: which would only add to the distress of the patient.

Any attempts, therefore, to hasten the labour by forcing the pains, by irritating the Os Uteri, by injudiciously rupturing the membranes, by forcibly dilating the external parts or Vagina, or by other artifices, under the specious pretence of doing something for the benefit of the patient, are equally reprehensible and injurious. And here I must beg to remark, that I cannot give my sanction to those experimental applications of active substances to the Os Uteri, with the

view of producing its relaxation, which are made, and recommended to be made, even by men of experience.

A premature rupture of the membranes is, in itself, always to be deprecated. It sometimes inverts the regular order of a labour, by inducing, in an early stage, too strong a degree of uterine action, which presently exhausts the mental and bodily energies. And frequent examinations, so apparently simple, though made in the most gentle and careful manner, are injurious from the irritation they produce, and are comparatively useless after the presentation is known.

Indeed it will generally be found that the more completely these cases are left, within due limits, to the gradual and full effects of the natural efforts and their consequences, the more safely and the more kindly do they usually terminate.

But under severe and protracted suffering, when no favourable change or advance is observed for hours, it may seem almost to border upon cruelty to deny some attempts to obtain a mitigation of pain; to procure a temporary truce from those throes which seem to be productive of so little advantage; yet even under such apparent weight of distress, the policy of the measure ought to be previously and satisfactorily established.

Let us therefore inquire, whether any and what means may be used with a chance of conferring benefit; and, in their practical application, let us ever bear in mind, that relaxation of parts is the object required.

The means usually resorted to, may be ranged under five several heads:

1. The internal exhibition of opiates.
2. The abstraction of blood.
3. The repeated injection of warm clysters.
4. The external use of warm fomentations.
5. The exhibition of *placebo* medicines.

1. The practical knowledge of the benefits sometimes derived from the judicious exhibition of opiates, under

paroxysms of pain, and various degrees of painful sensation, has led to the introduction of them into the lying-in-room, under the act of labour, in which they are given with the intention of suspending or controlling those actions from which the pain arises. It appears to me, that labour-pains (properly so called) do form, and were intended by the Great Author of Nature, for the wisest purposes, to form, a constituent part of the act of child-birth; that they are inseparably attached to it as a cause; that they are merely an external evidence of the presence and progress of those powers by which the process is finally to be terminated, but without a due degree of activity in which it must be prolonged; and that they ought not, generally speaking, or on the application of a general principle, to be counteracted. I am certain they ought not to be entirely suspended: I have my doubts whether, except in very rare instances, any attempt should even be made to palliate them. Pain is certainly an evil, and is universally deprecated as an evil; it seems always highly desirable to get rid of it as soon as we can; but labour pain is established to bring about the happiest results. It is, then, one of those necessary evils to which we must patiently submit, within reasonable bounds. Labour-pains are occasioned by the resistance offered to uterine contraction; when the soft parts readily give way, the degree of suffering is proportionally diminished; when they offer more resistance, it is prolonged and increased.

The members of the brute creation certainly suffer less pain in the act of parturition, than woman; but no inference can, in my opinion, be drawn from that fact, which is applicable to woman.

The Uterus of the cow or of the sheep, may possibly be endowed with less sensibility than the human Uterus, so that upon its contraction, the animal suffers less pain. Declining this supposition, the parts are so formed, as to give way with greater ease and readiness; and the shape of the head, in the young brute, with its relative disproportionate size, ensures its passage with less uterine effort. But the

cow and the sheep, under difficult parturition, sufficiently evince to those who have the care of them, considerable anxiety; and express by their moans and their manner, increased sensation of pain.

Under the progress of a common natural case, even when attended with a considerable degree of pain, opiates are inadmissible. In a lingering case, under rigidity of parts, their effects are at the best uncertain; and I do not suppose that they have any tendency to produce relaxation of parts. In large doses, they procure ease from pain, but they also bring about a cessation of uterine action; the return of which is not under control, or to be ensured at pleasure. When this is the case, the labour is always protracted; its regular course becomes deranged; and the pains are afterwards uncertain in time and power. Besides, full doses generally occasion headache, nausea, and an interruption of the peristaltic motion of the intestinal canal. These unpleasant effects more than counterbalance any advantages derived from the temporary relief of pain.

But the injurious effects of opiates are not simply confined to the retardation or disturbance of labour previous to the expulsion of the child; they are continued to, and exerted upon, that uterine power, by which the Placenta ought to be separated and excluded; in default of which, it is detained within the Uterus, and thus flooding and other mischiefs ensue, from the same source. The introduction of the hand is then required to remove the Placenta, or to reproduce that effective degree of action which has been restrained.

It has been occasionally remarked that opiates, instead of allaying the pains, seem to increase their power: this effect is, however, so accidental, as not to be depended upon. When given in small doses, they produce less inconvenience, but they confer little benefit.

The preparations of the English poppy will sometimes allay slight degrees of pain and irritation, and they do not produce such unpleasant symptoms as those of foreign

opium. But in the pains of labour, unless they are given repeatedly in large doses, they are found to be almost inert.

It may properly be asked, whether opiates in large or small doses do really produce relaxation in the soft parts? I can only say, that I have never remarked such an effect from their exhibition. When uterine action has been prematurely and violently established, a little relief has been sometimes procured by repeated small doses, at short intervals; after which the labour has proceeded more favourably. But when a truce is thus obtained, their use should be discontinued. It should ever be directed with discretion and judgment; because I am persuaded, it frequently does much mischief; and I have repeatedly witnessed very serious inconveniences following the improper exhibition of an opiate. I have several times been called upon to deliver by the forceps, when the labour has been previously interrupted by a large dose of opiate in its early stages; to which, as a cause, the interruption might be fairly attributed.

2. The timely and judicious abstraction of blood, sometimes produces the happiest results, under violent pains of labour; but an untimely or injudicious resort to this proceeding is as certainly injurious.

When uterine action has been violently continued for many hours, in a stout young woman, or in one of a full habit, a varied train of febrile symptoms makes its appearance; the skin becomes hot, with or without perspiration; the face is flushed; the cervical veins are turgid; and the patient complains of pain in the head; under such symptoms, the loss of from twelve to sixteen ounces of blood from a free orifice, usually proves highly beneficial. If to these symptoms be added vertigo, or indistinctness of vision, the necessity of the measure will be rendered more obvious. In such a case, abstraction of blood has merely a reference to the relief of the febrile symptoms.

Even when the Os Uteri continues rigid for a length of time, under repeated returns of uterine action, with the

head of the child incessantly pressing upon it, in the absence as well as in the presence of pain, a loss of blood, proportionate to the present strength, frequently produces a favourable change in the parts; after which, relaxation proceeds more kindly and successfully. But, in the more early stages of a lingering labour, when the other soft parts do not give way freely, I have not remarked the same beneficial effects. The relaxant benefits derivable therefrom, appear to me to be confined to a case of undue rigidity in the Os Uteri alone: and are not to be imparted to rigidity of the Vagina, or of the external parts, after the Os Uteri is well opened.

Abstraction of blood is seldom admissible in long protracted labour: it leads to present and future injury by adding to that general exhaustion, which is almost an inevitable consequence of active protraction: the term of puerperal confinement is thereby prolonged, and the seasonable return of health proportionally impeded. Besides, a large quantity of blood is sometimes lost under lingering labours, between the expulsion of the child and the removal of the Placenta, in the absence of uterine action; and this loss is not always under our immediate control. Should such an occurrence happen, the voluntary abstraction of blood previously must necessarily increase the risk.

Upon the whole, blood-letting, in simple lingering cases, is seldom of absolute necessity called for; but that every advantage may be derived from the operation, when necessary, the blood should be drawn from a free orifice, and in a full stream, that the best effects of the measure may be obtained at the least expense of the vital fluid; otherwise, blood-letting does more harm than good.

3. The repeated injection of warm clysters, into the rectum, in the case before us, if not positively beneficial, is, at least, harmless. The lower part of the intestinal canal is thereby emptied of its contents; which, when they are and in large quantity, may be discovered by the gh the Vagina.* A comfortable degree of

ace of this kind occurred to me some years ago, during the

warmth is likewise diffused through the neighbourhood of parts suffering from distension and paroxysms of pain, which seems to afford temporary relief. If the head of the child should completely occupy the Pelvis, some difficulty in the introduction of the pipe, and the injection of the fluid, may be met with; should this happen, the pipe must be introduced backward into the hollow of the sacrum, behind the tumour formed by the head.

The materials of the clyster are perhaps of less importance than the quantity, and the degree of warmth at which it is injected; gruel, mutton broth, milk, mucilage of starch, and similar fluids, are proper articles: a pint or more may be injected occasionally, during the progress of the labour, of a temperature pleasant to the hand. Clysters, however, seldom produce immediate relaxation in the soft parts.

If it appear desirable to procure a palliation of labour-pains by an opiate, I prefer the exhibition of small quantities of laudanum in warm clysters, to that by the mouth: and here, by the way, I beg to remark, that I have frequently seen temporary ease procured in uterine diseases, and in cases of painful menstruation, by the occasional injection of opiate clysters.

4. I have rarely had occasion to recommend the external use of warm fomentations, and therefore I cannot speak practically of their effects: they seem merely applicable to the relief of that painful distension which is produced by

labour of a lady who had been negligent of her bowels, and for whom, under a preceding confinement, her accoucheur had removed a quantity of hardened *scybala* from the rectum, by the mechanical means of the handle of a spoon. On my first examination, I was surprised to meet with an irregular obstructing body, nearly filling the cavity of the Vagina, and which I at first took for some part of the limbs of the child; but on a more accurate inquiry, and passing my finger as high as I could, I found the Os Uteri somewhat opened, with the child's head above it, and resting, as it were, upon this body. I thence concluded it to be caused by hardened faeces in the rectum. I desired the nurse to throw up a *gruel clyster*; she made the attempt, but did not succeed. I was then compelled to perform that unpleasant office myself, and readily threw up nearly a quart of gruel. The rectum soon evacuated the clyster, with its previous contents, and in such quantity as I have seldom seen. After this evacuation, the head descended upon the external parts, and was quickly expelled.

the pressure of the head upon the perinæum and external parts, when they are indisposed to give way; in such cases they may, to a certain extent, be serviceable. The usual mode of application by *stuphs*, appears so formidable to the generality of women, that, if proposed, it is either refused, or submitted to with reluctance; and I have seldom pressed the point, as I have thought these means rather useful in gaining time, than in producing positive relaxation.

The patient may sit over the steam of boiling water, placed in the pan of the night-table; this is a simple, an easy, and, at least, a harmless mode of securing the effects of warmth, with moisture; and, perhaps, at the same time, it is one of the most efficacious means of producing relaxation by steam.

5. A harmless fraud may now and then be practised with advantage, upon an anxious, irritable woman, who is urgently and impatiently soliciting that relief, which it is not in the power of the accoucheur to give, by the exhibition of some innocent *placebo* medicine.

In the expression of this sentiment, however, I by no means wish to sanction that frequent exhibition of medicine, which is occasionally resorted to by the less enlightened, or more interested part of the profession, and generally to the prejudice of the suffering patient. I am merely actuated by a wish to gain time for the complete exertions of the natural powers; to inspire confidence on the part of the patient; and to convince her and her friends, that every means of art are exerted for her relief; that nothing is left untried for her benefit. Under such impressions, she submits to her protracted sufferings with a more resigned fortitude. Fortunately, women in general possess so much confidence and patience, that a resort to this kind of practice is seldom called for. It is, indeed, rarely necessary, and more rarely, useful.

During the early part of a labour, lingering on from hour to hour, from rigidity of parts, the patient may be allowed to use her own pleasure in walking about the room, in sitting up or in lying down on a couch, or bed, and in

taking suitable mild nourishment. Spirituous liquors and stimulants, which, in the opinion of the lower classes, are so necessary to refresh and keep up the spirits, ought to be urgently prohibited.

Under every case of protracted labour, the bladder ought to be carefully watched; the most serious consequences may ensue from neglect or oversight, independently of the additional pain which the patient suffers from vesical distension.

When the head of the child occupies the Pelvis, and remains in that situation for a length of time, the Urethra becomes compressed between the head and the Pubes, so that the bladder is prevented from evacuating its contents; distension of the bladder necessarily follows, and, in proportion to its degree, the patient has to contend with an increase of suffering, very different from labour-pain. This state of bladder may be always recognized by the simplest and readiest means, viz. by the mere application of the hand on the lower part of the abdomen, accompanied with a slight degree of pressure. If the bladder be distended, two tumours will be distinctly perceptible; the one, at the upper part, extending the majority of the abdominal parietes, formed by the Uterus with its contents; the other, at the lower part, immediately above the Pubes, formed by the distended bladder. Under this state of things, relief will be immediately obtained by the use of the catheter.

During the whole course of the case, the patient should be nourished with the mildest fluids, and should abstain from solid food and spirituous liquors: as there is usually a disposition to perspiration, the temperature of the room should also be moderate. Upon the whole, the more completely such a case is left to the perfect agency of the natural powers, within reasonable limits, the more safely and the more satisfactorily does it usually terminate; but should it run on, and threaten exhaustion, it becomes a case which will be the subject of subsequent consideration.

2. *Protraction may be produced by diminished energy and activity of the uterine efforts.*

This is the most simple and the least painful form of lingering labour; though more time than usual is consumed in the process, the sufferings of the patient, upon the whole, are not much increased. We usually have the uterine efforts short, slight, and inefficient, with long intervals; the Vagina and soft parts are moist, and do not oppose much resistance; yet we do not observe a proper progress, and thus a labour may remain for a length of time stationary, notwithstanding the presence and repetition of these inadequate pains. During each interval, the patient is somewhat recruited, so that she is enabled to bear the return of pain for a length of time without much inconvenience; she does not suffer that bodily exhaustion, or that mental anxiety which is usually experienced under a stronger degree of uterine action. After the Os Uteri is dilated, the process generally assumes an increase of activity; the pains become quicker and more effective, with shorter intervals; and the labour proceeds to its termination, with an increased degree of energy and vigour.

A disposition to inactivity on the part of the Uterus, is more particularly met with in young women, who show an early tendency to become corpulent; who possess a delicacy of frame, with laxity of fibre; in whom various other functions of the system are performed with a degree of irregularity and defectiveness.

It also sometimes occurs in those women who bear a first child somewhat late in life. It is likewise met with, though rarely, in women who have had children, and whose former labours have run their course with a due degree of celerity and activity.

There is, however, a material difference between a case which is regularly proceeding in a slow, inactive manner, and one which is temporarily suspended. It will sometimes happen, that while a labour is proceeding with a proper degree of activity, the pains begin to decline, and

by-and-by cease entirely. During this cessation of pain, the process is quite interrupted. This occurrence usually excites much anxiety, but is not attended with danger. After an uncertain time, uterine action returns, and the process is continued to its completion.

In cases of protracted labour, from uterine inaction, any manual interference is generally improper throughout its course; but in the early part of the process, it is always injurious. Frequent irritation of the Os Uteri, by the finger, with the intention of quickening and increasing uterine action, and which seems to produce that effect, is replete with future mischief.

The voluntary rupture of the membranes is never allowable previous to the entrance of the head into the Pelvis, and to its having assumed a good relative position, with respect to the cavity; such a liberty ought rarely to be taken with the process previous to the full dilatation, relaxation, and retreat of the Os Uteri, and to the distension of the Vagina and soft parts by the membranous bag. Without attending to these precautions, the intention of hastening the process will frequently be defeated; and I am not ashamed to say, that when I have occasionally taken this liberty, I have sometimes had cause to regret my officiousness. I am therefore desirous of impressing upon the minds of the junior branches of the profession, the impropriety of rupturing the membranes with the view of hastening the labour, or of saving their time; without previously adverting to the state of parts, and to the relative situation of the head.

After the membranous bag has performed those functions of dilatation and distension of parts for which it is by nature designed; when it is protruding through the Os Uteri into the Vagina; when it is pressing upon the perinæum, and embracing in its diameter considerable space, with the head well placed, ready to come in contact with the Os Uteri, its judicious rupture will frequently occasion an increase of uterine action, and procure a more speedy completion of the process, than if it had been left entirely to itself. But

even this proceeding is unnecessary. The process would be eventually concluded with an equal degree of safety without it; a longer space of time would merely be taken up, and more patience required. When the presentation of the child is ascertained to be correct, repeated examinations are not advisable; they then merely afford a knowledge of the degree of progress made from time to time; and more injury accrues from the irritation they leave on the parts, and from the breach of delicacy they occasion when unnecessarily made, than is counterbalanced by the satisfaction arising from such knowledge. The pretence of doing *something*, with the view of forwarding the process, is always reprehensible. In short, these cases may be safely left to the natural efforts; and the less professional interference is offered, the better for the patient.

The effects of medicine, with the exception of one article, avail little in this case; for those drugs which were supposed by our predecessors to be capable of exciting uterine action are justly exploded from present practice. Within the present century, however, recourse has been had to the exhibition of the *Secale Cornutum*, the *Ergot of Rye*, with that intention. That article possesses the singular property of rousing uterine energy, when it has become dormant or deficient, and even when it seems to have been nearly exhausted. Yet before its exhibition, attention should be paid to the situation of the head, and the state of the soft parts. The former should be well placed for its exit, and the latter should be relaxed and moist, the case indeed requiring only a little increase of uterine effort for its completion. But a medicine possessed of such power, and capable of effecting such important results in the female system, should not be used inconsiderately or unadvisedly; for cases have occurred, in which the death of the child, laceration of the uterine structure, and detention of the Placenta, have followed its exhibition.

I am ready to admit that in many instances *the Ergot* does prove itself to be possessed of the above properties, yet I must also be allowed to state, that in others, it is

paroxysms of pain, and various degrees of painful sensation, has led to the introduction of them into the lying-in-room, under the act of labour, in which they are given with the intention of suspending or controlling those actions from which the pain arises. It appears to me, that labour-pains (properly so called) do form, and were intended by the Great Author of Nature, for the wisest purposes, to form, a constituent part of the act of child-birth; that they are inseparably attached to it as a cause; that they are merely an external evidence of the presence and progress of those powers by which the process is finally to be terminated, but without a due degree of activity in which it must be prolonged; and that they ought not, generally speaking, or on the application of a general principle, to be counteracted. I am certain they ought not to be entirely suspended: I have my doubts whether, except in very rare instances, any attempt should even be made to palliate them. Pain is certainly an evil, and is universally deprecated as an evil; it seems always highly desirable to get rid of it as soon as we can; but labour pain is established to bring about the happiest results. It is, then, one of those necessary evils to which we must patiently submit, within reasonable bounds. Labour-pains are occasioned by the resistance offered to uterine contraction; when the soft parts readily give way, the degree of suffering is proportionally diminished; when they offer more resistance, it is prolonged and increased.

The members of the brute creation certainly suffer less pain in the act of parturition, than woman; but no inference can, in my opinion, be drawn from that fact, which is applicable to woman.

The Uterus of the cow or of the sheep, may possibly be endowed with less sensibility than the human Uterus, so that upon its contraction, the animal suffers less pain. Declining this supposition, the parts are so formed, as to give way with greater ease and readiness; and the shape of the head, in the young brute, with its relative disproportionate size, ensures its passage with less uterine effort. But the

cow and the sheep, under difficult parturition, sufficiently evince to those who have the care of them, considerable anxiety; and express by their moans and their manner, increased sensation of pain.

Under the progress of a common natural case, even when attended with a considerable degree of pain, opiates are inadmissible. In a lingering case, under rigidity of parts, their effects are at the best uncertain; and I do not suppose that they have any tendency to produce relaxation of parts. In large doses, they procure ease from pain, but they also bring about a cessation of uterine action; the return of which is not under control, or to be ensured at pleasure. When this is the case, the labour is always protracted; its regular course becomes deranged; and the pains are afterwards uncertain in time and power. Besides, full doses generally occasion headache, nausea, and an interruption of the peristaltic motion of the intestinal canal. These unpleasant effects more than counterbalance any advantages derived from the temporary relief of pain.

But the injurious effects of opiates are not simply confined to the retardation or disturbance of labour previous to the expulsion of the child; they are continued to, and exerted upon, that uterine power, by which the Placenta ought to be separated and excluded; in default of which, it is detained within the Uterus, and thus flooding and other mischiefs ensue, from the same source. The introduction of the hand is then required to remove the Placenta, or to reproduce that effective degree of action which has been restrained.

It has been occasionally remarked that opiates, instead of allaying the pains, seem to increase their power: this effect is, however, so accidental, as not to be depended upon. When given in small doses, they produce less inconvenience, but they confer little benefit.

The preparations of the English poppy will sometimes allay slight degrees of pain and irritation, and they do not produce such unpleasant symptoms as those of foreign

opium. But in the pains of labour, unless they are given repeatedly in large doses, they are found to be almost inert.

It may properly be asked, whether opiates in large or small doses do really produce relaxation in the soft parts? I can only say, that I have never remarked such an effect from their exhibition. When uterine action has been prematurely and violently established, a little relief has been sometimes procured by repeated small doses, at short intervals; after which the labour has proceeded more favourably. But when a truce is thus obtained, their use should be discontinued. It should ever be directed with discretion and judgment; because I am persuaded, it frequently does much mischief; and I have repeatedly witnessed very serious inconveniences following the improper exhibition of an opiate. I have several times been called upon to deliver by the forceps, when the labour has been previously interrupted by a large dose of opiate in its early stages; to which, as a cause, the interruption might be fairly attributed.

2. The timely and judicious abstraction of blood, sometimes produces the happiest results, under violent pains of labour; but an untimely or injudicious resort to this proceeding is as certainly injurious.

When uterine action has been violently continued for many hours, in a stout young woman, or in one of a full habit, a varied train of febrile symptoms makes its appearance; the skin becomes hot, with or without perspiration; the face is flushed; the cervical veins are turgid; and the patient complains of pain in the head; under such symptoms, the loss of from twelve to sixteen ounces of blood from a free orifice, usually proves highly beneficial. If to these symptoms be added vertigo, or indistinctness of vision, the necessity of the measure will be rendered more obvious. In such a case, abstraction of blood has merely a reference to the relief of the febrile symptoms.

Even when the Os Uteri continues rigid for a length of time, under repeated returns of uterine action, with the

head of the child incessantly pressing upon it, in the absence as well as in the presence of pain, a loss of blood, proportionate to the present strength, frequently produces a favourable change in the parts; after which, relaxation proceeds more kindly and successfully. But, in the more early stages of a lingering labour, when the other soft parts do not give way freely, I have not remarked the same beneficial effects. The relaxant benefits derivable therefrom, appear to me to be confined to a case of undue rigidity in the Os Uteri alone: and are not to be imparted to rigidity of the Vagina, or of the external parts, after the Os Uteri is well opened.

Abstraction of blood is seldom admissible in long protracted labour: it leads to present and future injury by adding to that general exhaustion, which is almost an inevitable consequence of active protraction: the term of puerperal confinement is thereby prolonged, and the seasonable return of health proportionally impeded. Besides, a large quantity of blood is sometimes lost under lingering labours, between the expulsion of the child and the removal of the Placenta, in the absence of uterine action; and this loss is not always under our immediate control. Should such an occurrence happen, the voluntary abstraction of blood previously must necessarily increase the risk.

Upon the whole, blood-letting, in simple lingering cases, is seldom of absolute necessity called for; but that every advantage may be derived from the operation, when necessary, the blood should be drawn from a free orifice, and in a full stream, that the best effects of the measure may be obtained at the least expense of the vital fluid; otherwise, blood-letting does more harm than good.

3. The repeated injection of warm clysters, into the rectum, in the case before us, if not positively beneficial, is, at least, harmless. The lower part of the intestinal canal is thereby emptied of its contents; which, when they are hard, and in large quantity, may be discovered by the finger, through the Vagina.* A comfortable degree of

* A singular instance of this kind occurred to me some years ago, during the

warmth is likewise diffused through the neighbourhood of parts suffering from distension and paroxysms of pain, which seems to afford temporary relief. If the head of the child should completely occupy the Pelvis, some difficulty in the introduction of the pipe, and the injection of the fluid, may be met with; should this happen, the pipe must be introduced backward into the hollow of the sacrum, behind the tumour formed by the head.

The materials of the clyster are perhaps of less importance than the quantity, and the degree of warmth at which it is injected; gruel, mutton broth, milk, mucilage of starch, and similar fluids, are proper articles: a pint or more may be injected occasionally, during the progress of the labour, of a temperature pleasant to the hand. Clysters, however, seldom produce immediate relaxation in the soft parts.

If it appear desirable to procure a palliation of labour-pains by an opiate, I prefer the exhibition of small quantities of laudanum in warm clysters, to that by the mouth: and here, by the way, I beg to remark, that I have frequently seen temporary ease procured in uterine diseases, and in cases of painful menstruation, by the occasional injection of opiate clysters.

4. I have rarely had occasion to recommend the external use of warm fomentations, and therefore I cannot speak practically of their effects: they seem merely applicable to the relief of that painful distension which is produced by

labour of a lady who had been negligent of her bowels, and for whom, under a preceding confinement, her accoucheur had removed a quantity of hardened *scybala* from the rectum, by the mechanical means of the handle of a spoon. On my first examination, I was surprised to meet with an irregular obstructing body, nearly filling the cavity of the Vagina, and which I at first took for some part of the limbs of the child; but on a more accurate inquiry, and passing my finger as high as I could, I found the Os Uteri somewhat opened, with the child's head above it, and resting, as it were, upon this body. I thence concluded it to be caused by hardened fæces in the rectum. I desired the nurse to throw up a *gruel clyster*; she made the attempt, but did not succeed. I was then compelled to perform that unpleasant office myself, and readily threw up nearly a quart of gruel. The rectum soon evacuated the clyster, with its previous contents, and in such quantity as I have seldom seen. After this evacuation, the head descended upon the external parts, and was quickly expelled.

the pressure of the head upon the perinæum and external parts, when they are indisposed to give way; in such cases they may, to a certain extent, be serviceable. The usual mode of application by *stuphs*, appears so formidable to the generality of women, that, if proposed, it is either refused, or submitted to with reluctance; and I have seldom pressed the point, as I have thought these means rather useful in gaining time, than in producing positive relaxation.

The patient may sit over the steam of boiling water, placed in the pan of the night-table; this is a simple, an easy, and, at least, a harmless mode of securing the effects of warmth, with moisture; and, perhaps, at the same time, it is one of the most efficacious means of producing relaxation by steam.

5. A harmless fraud may now and then be practised with advantage, upon an anxious, irritable woman, who is urgently and impatiently soliciting that relief, which it is not in the power of the accoucheur to give, by the exhibition of some innocent *placebo* medicine.

In the expression of this sentiment, however, I by no means wish to sanction that frequent exhibition of medicine, which is occasionally resorted to by the less enlightened, or more interested part of the profession, and generally to the prejudice of the suffering patient. I am merely actuated by a wish to gain time for the complete exertions of the natural powers; to inspire confidence on the part of the patient; and to convince her and her friends, that every means of art are exerted for her relief; that nothing is left untried for her benefit. Under such impressions, she submits to her protracted sufferings with a more resigned fortitude. Fortunately, women in general possess so much confidence and patience, that a resort to this kind of practice is seldom called for. It is, indeed, rarely necessary, and more rarely, useful.

During the early part of a labour, lingering on from hour to hour, from rigidity of parts, the patient may be allowed to use her own pleasure in walking about the room, in sitting up or in lying down on a couch, or bed, and in

taking suitable mild nourishment. Spirituous liquors and stimulants, which, in the opinion of the lower classes, are so necessary to refresh and keep up the spirits, ought to be urgently prohibited.

Under every case of protracted labour, the bladder ought to be carefully watched; the most serious consequences may ensue from neglect or oversight, independently of the additional pain which the patient suffers from vesical distension.

When the head of the child occupies the Pelvis, and remains in that situation for a length of time, the Urethra becomes compressed between the head and the Pubes, so that the bladder is prevented from evacuating its contents; distension of the bladder necessarily follows, and, in proportion to its degree, the patient has to contend with an increase of suffering, very different from labour-pain. This state of bladder may be always recognized by the simplest and readiest means, viz. by the mere application of the hand on the lower part of the abdomen, accompanied with a slight degree of pressure. If the bladder be distended, two tumours will be distinctly perceptible; the one, at the upper part, extending the majority of the abdominal parietes, formed by the Uterus with its contents; the other, at the lower part, immediately above the Pubes, formed by the distended bladder. Under this state of things, relief will be immediately obtained by the use of the catheter.

During the whole course of the case, the patient should be nourished with the mildest fluids, and should abstain from solid food and spirituous liquors: as there is usually a disposition to perspiration, the temperature of the room should also be moderate. Upon the whole, the more completely such a case is left to the perfect agency of the natural powers, within reasonable limits, the more safely and the more satisfactorily does it usually terminate; but should it run on, and threaten exhaustion, it becomes a case which will be the subject of subsequent consideration.

2. *Protraction may be produced by diminished energy and activity of the uterine efforts.*

This is the most simple and the least painful form of lingering labour; though more time than usual is consumed in the process, the sufferings of the patient, upon the whole, are not much increased. We usually have the uterine efforts short, slight, and inefficient, with long intervals; the Vagina and soft parts are moist, and do not oppose much resistance; yet we do not observe a proper progress, and thus a labour may remain for a length of time stationary, notwithstanding the presence and repetition of these inadequate pains. During each interval, the patient is somewhat recruited, so that she is enabled to bear the return of pain for a length of time without much inconvenience; she does not suffer that bodily exhaustion, or that mental anxiety which is usually experienced under a stronger degree of uterine action. After the Os Uteri is dilated, the process generally assumes an increase of activity; the pains become quicker and more effective, with shorter intervals; and the labour proceeds to its termination, with an increased degree of energy and vigour.

A disposition to inactivity on the part of the Uterus, is more particularly met with in young women, who show an early tendency to become corpulent; who possess a delicacy of frame, with laxity of fibre; in whom various other functions of the system are performed with a degree of irregularity and defectiveness.

It also sometimes occurs in those women who bear a first child somewhat late in life. It is likewise met with, though rarely, in women who have had children, and whose former labours have run their course with a due degree of celerity and activity.

There is, however, a material difference between a case which is regularly proceeding in a slow, inactive manner, and one which is temporarily suspended. It will sometimes happen, that while a labour is proceeding with a proper degree of activity, the pains begin to decline, and

by-and-by cease entirely. During this cessation of pain, the process is quite interrupted. This occurrence usually excites much anxiety, but is not attended with danger. After an uncertain time, uterine action returns, and the process is continued to its completion.

In cases of protracted labour, from uterine inaction, any manual interference is generally improper throughout its course; but in the early part of the process, it is always injurious. Frequent irritation of the Os Uteri, by the finger, with the intention of quickening and increasing uterine action, and which seems to produce that effect, is replete with future mischief.

The voluntary rupture of the membranes is never allowable previous to the entrance of the head into the Pelvis, and to its having assumed a good relative position, with respect to the cavity; such a liberty ought rarely to be taken with the process previous to the full dilatation, relaxation, and retreat of the Os Uteri, and to the distension of the Vagina and soft parts by the membranous bag. Without attending to these precautions, the intention of hastening the process will frequently be defeated; and I am not ashamed to say, that when I have occasionally taken this liberty, I have sometimes had cause to regret my officiousness. I am therefore desirous of impressing upon the minds of the junior branches of the profession, the impropriety of rupturing the membranes with the view of hastening the labour, or of saving their time; without previously adverting to the state of parts, and to the relative situation of the head.

After the membranous bag has performed those functions of dilatation and distension of parts for which it is by nature designed; when it is protruding through the Os Uteri into the Vagina; when it is pressing upon the perinæum, and embracing in its diameter considerable space, with the head well placed, ready to come in contact with the Os Uteri, its judicious rupture will frequently occasion an increase of uterine action, and procure a more speedy completion of the process, than if it had been left entirely to itself. But

even this proceeding is unnecessary. The process would be eventually concluded with an equal degree of safety without it; a longer space of time would merely be taken up, and more patience required. When the presentation of the child is ascertained to be correct, repeated examinations are not advisable; they then merely afford a knowledge of the degree of progress made from time to time; and more injury accrues from the irritation they leave on the parts, and from the breach of delicacy they occasion when unnecessarily made, than is counterbalanced by the satisfaction arising from such knowledge. The pretence of doing *something*, with the view of forwarding the process, is always reprehensible. In short, these cases may be safely left to the natural efforts; and the less professional interference is offered, the better for the patient.

The effects of medicine, with the exception of one article, avail little in this case; for those drugs which were supposed by our predecessors to be capable of exciting uterine action are justly exploded from present practice. Within the present century, however, recourse has been had to the exhibition of the *Secale Cornutum*, the *Ergot of Rye*, with that intention. That article possesses the singular property of rousing uterine energy, when it has become dormant or deficient, and even when it seems to have been nearly exhausted. Yet before its exhibition, attention should be paid to the situation of the head, and the state of the soft parts. The former should be well placed for its exit, and the latter should be relaxed and moist, the case indeed requiring only a little increase of uterine effort for its completion. But a medicine possessed of such power, and capable of effecting such important results in the female system, should not be used inconsiderately or unadvisedly; for cases have occurred, in which the death of the child, laceration of the uterine structure, and detention of the Placenta, have followed its exhibition.

I am ready to admit that in many instances *the Ergot* does prove itself to be possessed of the above properties, yet I must also be allowed to state, that in others, it is

found to be almost inert. Whether this seeming discrepancy may be attributed to the quality of the drug itself, or to some idiosyncracy in the patient, future experience must determine.

After the expulsion of the child in these lingering cases, we have frequently trouble with the Placenta. The inactivity of the uterine effort is transmitted to that part of the process, which ought to separate and extrude that mass. It will be useful to keep this fact in view, during the expulsion of the child, that we may be deterred from the hasty extraction of the body and breech. The Uterus ought to be permitted to expel the whole of the child, that a regular and uniform contraction may be effected; by which the Placenta will stand a better chance of separation.

After the exit of the head, it now and then happens that the child does not breathe within a reasonable time; then the anxiety of the accoucheur may induce him to a more rapid extraction of the body and breech, than is warranted in common cases; but such extraction must ever be made at some risk to the mother. If such a proceeding be thought necessary for the sake of the child, the right hand may be kept upon the contracting Uterus, while the left performs the office of extraction, partly to assist the contractile effort, and partly to announce its degree with reference to the safety of the mother.

As to the management of the Placenta, I beg to refer the reader to the observations already made on that subject. I would, at the same time, offer a caution, unless in cases of obvious urgency, not to be too hasty in its extraction: to wait rather longer than usual for the return of uterine action, before any attempt is made for its removal.

3. *The third general cause of protracted natural labour before mentioned is an improper position or direction of the head of the child as it respects the Pelvis.*

If the face offer itself to the finger across the brim of the Pelvis, or if the forehead present to the anterior part of the Pelvis instead of the Occiput, the labour is usually prolonged. If, however, there should prove to be no addi-

tional cause of protraction or difficulty, the case will generally be completed by the natural powers: but as such cases do occasionally require other assistance, they will be discussed at length hereafter.

In determining the propriety of instrumental assistance in the preceding cases, we must make an estimate of the advantages which have been gained, or of the deterioration suffered, within a given time past: then looking forward to a similar time in the future, we must consider what may be the probable advantages or disadvantages within that time, (presuming the labour to proceed as it has hitherto done,) and conclude accordingly.

Thus, suppose that a woman has been in labour thirty-six hours; that for the first twenty-four hours the process has gone on actively to a certain point, that the head is placed diagonally, or with the forehead to the Pubes, and that it is firmly wedged in the Pelvis; that for the last twelve hours the pains have been strong, but have been ineffectually exerted; that the woman's strength is not so good as it was twelve hours preceding, and that the pains are, upon the whole, rather upon the decline; in short, that within the last twelve hours, no advantage whatever has been gained, notwithstanding there has been no deficiency of uterine effort; what reasonable expectation can be entertained, in such a case, that the next twelve hours will finish the process? Have we not rather to fear, that in that time the woman's strength will give way? But we ought, likewise, to keep in mind, that all this time the head of the child is undergoing more or less pressure, by the continuance of which its life may be destroyed. The child's head, we know, will bear some pressure and diminution without injury, but to what exact extent short of the destruction of life in any given case, it is impossible to determine: if, therefore, we do err, we had better err on the right side; and I think it will, upon the whole, be found more correct practice, and will prove safer both to the mother and the babe, to have recourse to artificial assistance rather prematurely, than to defer it too long. I will

only remark, that judgment must ever correct this principle, else it may be carried to an unwarrantable length in the use of instrumental means.

CASE XLVII.

Some time ago my advice was requested concerning a lady in labour of her seventh child, at a short distance from London. On visiting this patient, I found a medical friend in attendance, who appeared very anxious respecting the event of the case. He told me, that slight pains commenced during the night but one preceding, (Sunday,) which continued through the early part of the day of Monday, when his attendance was required; that towards the evening of Monday the process began to quicken, so that by 10 P. M. the labour-pains were fairly established, and were producing considerable effect; that the head was advancing into the Pelvis: the Os Uteri was dilating, and the bag of membranes protruding; in short, that the labour was proceeding naturally, with every prospect of a speedy delivery. Under these cheering hopes, not long after the rupture of the membranous bag, the pains began to decline, and in a short time ceased altogether. The former labours of this lady had been usually quick and regular, so that she became alarmed at this cessation of pain in the middle of the process, and I have little doubt, her anxiety added to the uterine suspension. I found the Os Uteri well dilated, and flaccid, the Vertex somewhat down in the Pelvis, so that the case appeared to me totally free from any appearance of danger. My friend seemed to think instrumental delivery necessary, but I decidedly opposed any measures with such intention. My object was therefore to pacify her mind under her groundless alarm, and to inspire confidence. She was allowed to walk about the room, or to lie down at her pleasure; took suitable nourishment, and got, at intervals, refreshing sleep. In this

situation she remained sixty hours, with now and then a slight pain in the back, (as if to remind her that the process was not entirely gone by): viz. through the day and night of Tuesday, through the day and night of Wednesday, and till Thursday afternoon, about four o'clock, when uterine action was suddenly resumed, and a living child was quickly expelled between six and seven on the Thursday evening. The process was thus naturally and happily concluded, and the lady felt no future inconvenience.

This case offers an instance of the cessation of uterine action after its establishment, unconnected with exhaustion, or any obvious cause, and for a length of time. It is no uncommon thing for the Uterus to sleep, as it were, for a short time: to cease its action; but rare, that such cessation should continue so long. The case is merely recorded for the mention of this fact.

CASE XLVIII.

Late one evening I received a note from a professional friend, about six miles from town, requesting my assistance in a case of protracted labour. I was informed by the husband of the patient, that she was between thirty and forty years of age; that this was her first child; that she had been ill several days; and that she had two medical gentlemen in attendance, who considered her in great danger. I arrived at the bed side of the patient about one in the morning; the child had then been expelled, in a putrid state, by the natural efforts, a short time before, and the Placenta, having been thrown off by uterine action, had been just withdrawn.

The patient seemed now in a state of great exhaustion: she had a sunken countenance; a feeble, quick pulse; oppressed and laboured respiration; some tension of the belly, and pain on pressure. The Uterus was well-contracted; and the sanguineous discharge moderate. Suspecting,

from the feel of the bladder, that urine might be contained in it, I introduced a catheter, and drew off about a pint. I learnt from my friend, that the process had begun in a slow manner three days preceding; that through two days and nights, it had slowly, but gradually, advanced; that on the day before not being finished, a neighbouring medical gentleman was called in, who recommended the loss of some blood, the injection of clysters, and the use of the catheter. That after some further time, he introduced the vectis, but did not succeed in his attempts to extract the head; and that, the case assuming hourly a more dangerous aspect, an appeal was then made to me. I had merely to recommend an anodyne, with such instructions for the future management of the case, as seemed to be called for; and took my leave, under an impression of great danger.

The patient, towards morning, got some sleep, and for some hours offered hopes of doing well: but about the middle of the following day, she was seized with a convulsion fit, which had been preceded by a copious discharge of fetid fluid from the Vagina, with tension of the belly, which she did not long survive.

ON PROTRACTED LABOUR, UNDER A NATURAL PRESENTATION, COMBINED WITH A SLIGHT DEGREE OF DIFFICULTY.

This head includes those natural cases of protraction, under which the expulsive powers either give way, or are in danger of giving way, so that they become unable, of themselves, to complete the act of labour. The assistance of some means of art is therefore imperatively called for, to supply the incapacity or defect, and to extract the head of the child by the application of a mechanical purchase; these means, however, do not, of necessity, destroy the life of the child. They are technically called *forceps* and *vectis* cases.

That the act of labour may proceed with regularity and despatch, it is requisite that there should be not only a due degree of activity in the agent, and of relaxation in the passive parts, but also that there should be an exact relative proportion between the size of the head of the child, and the capacity of the Pelvis of the mother. It is also requisite, that there should be a proper position of the head. Between a common-sized head and a well-formed Pelvis there is always found that relative proportion; but under a defect of pelvic capacity, that relative proportion is necessarily varied. If a woman have a Pelvis possessing such defect, she must consequently, in every act of child-birth at full time, experience proportionate protraction or difficulty.

I have already shown, that the head of the child does

not pass through, and emerge out of, the Pelvis in the same direction under which it enters the brim: it adapts itself, in one well-formed, to the diversity of shape it meets at the different points of its progress. This accommodation of the head, then, becomes an essential part of the process: if it be impeded by rigidity of parts, or by diminished capacity of Pelvis, stronger expulsive efforts, and a longer exertion of those efforts, are demanded, to overcome the difficulty thence occasioned; under which, exhaustion sometimes occurs. In a first child rigidity of parts is more common than in subsequent children; we have also in such cases to contend with a certain degree of ignorance as to the actual capacity and form of the Pelvis, which is in future labours removed.

A Pelvis may be malformed at several points: at the brim; in the cavity; or at the outlet. If there be malformation at the brim, arising either in the projection of the prominence of the sacrum, or in a narrowness at the pubes, the head will remain above the brim, or will very partially enter it. It there becomes stationary, notwithstanding the pains may be violent. This case will be the subject of future consideration. If malformation exist in any part of the cavity, the head will gain only a partial possession of the Pelvis; it will be detained in its passage through, or become firmly locked within it. If there be malformation of the outlet, the head will remain near or upon the external parts.

These several cases of malformation may be produced in various ways, and by different causes. By a diminution of the hollow of the Sacrum: by the protrusion of the spinous processes of the ischia: by anchylosis, or immobility of the coccyx: by the approximation of the tuberosities of the ischia: and by a want of space in the arch of the pubes. These defects are at length detected by a careful examination, and by the site of the head.

When, as a consequence of any of the above pelvic defects, an increased degree of compression is made upon the head, the interposition of sutures and fontanels between the

several bones of the infantile skull, allows a considerable scope for collapse and diminution, without much injury to the parts beneath, so that the scalp feels soft and flabby; but the degree of collapse has certain limits, below which the head cannot be lessened. If the defect be trifling, a full-sized head may, by accommodation, be propelled through the Pelvis; but if it be considerable, the head must stick by the way. It cannot be moulded to the dimensions of the passage; it therefore remains stationary in spite of the strongest uterine efforts, at a greater or less distance from expulsion, as the retarding obstacle occurs higher or lower. And we generally find, that in the ratio the head is diminished in rotundity, it is increased in length.

Under a slight degree of malformation of Pelvis, even with the most correct presentation of the head, it will require a long exertion of the uterine efforts, so to mould the head and alter its shape, as to allow it to turn with the occiput under the pubes in the course of its advance; without this change in its relative position, the head cannot make its exit, and in the attempts to bring it about, the natural efforts frequently fail. But if there should happen to be, at the same time, a relative misplacement of the head; if the forehead, for instance, shall, in its descent, have taken the situation in which the occiput is usually found, and shall turn towards the pubes, or if the face shall present either with the chin or forehead to the pubes, an increase of difficulty will necessarily attend the case, and the chance of failure will be greater. If a hand or an arm of the child should happen to be pushed down by the side of the head, since the pelvic space would be considerably diminished by that extraneous bulk, a proportionate protraction must be the consequence.

We may have also now and then to contend with difficulties arising out of injury done to the soft parts in a former labour, in consequence of which, contraction of those parts has taken place, without any deterioration of the Pelvis itself; and I have even seen an unnatural rigidity of the

Hymen itself produce a permanent obstruction to the descent of the head, and to require the application of instrumental assistance, or the surgical division of the obstruction.*

* As I have alluded to "rigidity of Hymen" as a cause of protraction in labour, I will introduce a case of that kind to which I was called some years ago. An unmarried woman had become pregnant, and had been in labour many hours at the time I was called to her assistance. The head was then low down in the Pelvis, with the vertex pressing against a circular band which prevented its descent. The external parts were much swollen, and the woman appeared in much distress. The state of parts and the sufferings of the woman induced me to propose perforation of the head, which was readily acceded to. Some difficulty arose in the extraction, but the labour was ultimately safely concluded, and she recovered. But a curious fact afterwards came out respecting this case. This poor woman had been ill-used by a man who had attempted to ravish her, but whose parts had never completely entered the Vagina; the Hymen, therefore, being unruptured and perfect, no indictment could be satisfactorily sustained against the man for his violence. Of this fact a celebrated teacher gave a certificate during her pregnancy, viz. "that the woman was pregnant, but that the Hymen remained unbroken; and that when the attempt was made to abuse her, she resisted sufficiently to prevent proper intercourse."

I have in several instances been consulted respecting newly-married females, whose husbands could not have proper marital connexion. In the case of a beautiful and delicate woman somewhat turned of thirty, her husband asked my advice a few days after marriage, respecting some malformation of parts, which prevented proper cohabitation. Upon ocular examination, I found the whole course of the Vagina preternaturally contracted, and nearly impervious, yet at the same time free from organic disease. Seeing no possibility of permanent relief, but through the medium of mechanical distension, I introduced in the first instance a small-sized bougie, and daily afterwards one of increased diameter, until the passage became sufficiently dilated for its proper purposes.

In another instance, the membranous Hymen was so rigid and tough, as to demand surgical division, which was readily effected by scissars formed with the cutting edge on the outer surface.

I was requested by a medical friend to see a poor woman not far from the London Hospital, who had been in labour for forty-eight hours, and in whom there was not in the external parts themselves, sufficient room to permit the exit of the child's head. It appeared that nine years before the time I saw her, she had borne a child naturally, but that, from some cause or other, unnatural adhesion of parts had followed. On my examination I found an external opening permitting with difficulty the free entrance of the finger, while the head of the child was enormously extending the perinæum and adjacent parts. The labour-pains were frequent and extremely violent, so that the head appeared to be threatening to pass through the perinæum itself; and the meatus urinarius was so much dilated, as readily to receive the end of the finger. Ocular inspection of the parts immediately satisfied my mind that this state was the consequence of previous injury and subsequent adhesion, and that there was no probability of delivery, except through a division of the adherent parts. A

It is one of the nicest points in practice correctly to decide, whether any given case of protracted labour may be trusted with safety to the further exertions of the natural agents, or whether the means of art ought to be promptly brought to their assistance. In determining this important question, the whole of the symptoms must be collectively and severally considered, and their different tendencies accurately examined, that we may equally escape the imputation of haste and indiscretion on the one hand, as of delay and indecision on the other; yet, let us ever bear in mind, that more injury may possibly accrue from too long delay, than can arise from premature assistance properly offered.

Necessity, and necessity alone, then, is the sole and only justifiable plea for the use of instrumental assistance in the act of labour; let us therefore now inquire into the nature of those marks and symptoms, the presence or absence of which establishes that necessity. They are complex and various.

1. *The condition of the Os Uteri, and of the soft parts.*

2. *The past and present degree of uterine action, with the effects it has already produced, and those it appears to be still producing.*

3. *The relative size and situation of the head.*

4. *The length of time the head has remained in the same situation in the Pelvis, without advance on the accession or continuance of pain, and without retreat on the diminution or cessation of it.*

5. *The lapse of time since the commencement of active labour.*

6. *The extent of pressure upon the soft parts, and the time they have been subjected to it.*

careful division by a scalpel was accordingly made by a skilful surgeon, first in the direction of the pubes, then in that of the rectum, and immediately the vertex occupied the new openings, and descended so low as to appear externally. Now the question was, how shall we proceed? I at first thought of extracting the head by the forceps, but the fear of inducing a farther laceration of the newly-divided parts deterred me, and led me to have recourse to the perforation of the head, and to subsequent extraction by the crotchet. After delivery she went on well, and the parts presently healed.

7. *The appearance of the vaginal and uterine discharges.*

8. *The degree of permanent pain in the uterine tumour, and abdominal parietes.*

9. *The obvious impression made on the system, by the continuance of the expulsive efforts, shown in the access of febrile symptoms, in the approach of exhaustion of the vital and animal powers, or in an attack of vomiting, or of rigor.*

10. *The age and natural constitution of the patient.*

11. *A feeling of confidence, or of depression of mind.*

12. *A first or subsequent labour.*

13. *The previous state of health, and habits of life.*

14. *The probability of the life or death of the child in Utero.*

15. *The temperature of the weather at the time prevalent.*

1. The condition of the Os Uteri and of the soft parts is an useful test of the practicability of instrumental assistance by the forceps or vectis, and in some measure, also, points out the admission of its propriety. If the Os Uteri have not acquired a competent state of dilatation; if it will not permit the easy application of the instrument within its orifice; if it do not also allow its safe action, the attempt will either be frustrated, or mischief will ensue from compression of parts. Before we can entertain the most distant idea of giving such assistance, we ought to have the Os Uteri entirely dilated and flaccid, and the soft parts actually relaxed, or easily dilatable. As long as the Os Uteri continues thick, rigid, and contracted, however low in the Pelvis the head, covered by the Cervix and Os Uteri, may have descended, and however much the woman may appear to have suffered from the debilitating effects of a protracted process, the case cannot yet be terminated by the forceps or the vectis. If under the state of parts described, any untoward occurrence should intervene and call for immediate delivery, it must be accomplished by other means than those now alluded to. Great caution is also requisite in working either of these instruments, (even presuming its successful application,) in those cases in which the Os Uteri is dilated, but in which the external parts and

Vagina continue obstinately rigid, otherwise permanent injury may be unintentionally inflicted on the patient.

2. While the uterine efforts continue active and vigorous, returning at short intervals, with a cessation of pain during the interval, though little impression may seem to have been made in the general progress of the labour for a length of time, the period of the necessity above alluded to, has not yet arrived. This observation, however, must be confined to cases in which there is no want of room at the brim of the Pelvis; and to those in which there is not that obvious deterioration of the cavity or outlet, as to impede the ultimate passage of the head. In either of these instances, delay would only occasion an unnecessary endurance of suffering, at the risk of exhaustion, or perhaps of greater mischief. But when uterine action, after its perfect establishment, and after its regular continuance for a length of time, gradually declines in power and effect, until it almost disappears; when its intervals become so lengthened, that its returns are scarcely perceptible; when, under its most *active* state, little advantage has been gained in a given time, as far as the advance of the head is concerned; and under its *inactive* state, the head remains stationary, without even slightly receding; when, also, the present inactivity appears to be the consequence of exhaustion of the uterine powers from preceding exertions, no reasonable expectations can be entertained of so effective a return of uterine action, as to preclude the necessity of instrumental assistance. The temporary suspension before noticed, must, however, be excepted.

Under this gradual diminution of pain, we ought to beware of delaying the delivery until uterine action has entirely ceased, lest we be deprived of the advantages derived from its assistance during the operation.

3. I have already remarked, that Nature has wisely established a due relative proportion between the size of a full-grown head and the cavity of a well-formed Pelvis, so that the former adapts itself to the latter, and makes its passage, in common cases, without difficulty. If this rela-

tive proportion be altered; if any deviation from a perfect form exist, the head must consequently be retarded. Thus a small-sized Pelvis, or one slightly disproportioned, embraces a full-sized head at various points, and obliges it to take a diminished form, and an altered shape, before it can pass, so that stronger uterine efforts are required to propel it downward; and a woman who possesses such a Pelvis, must in every case of child-birth experience more or less difficulty. But if, also, in such a Pelvis, the head should not present in the most favourable position for its passage; if, instead of the occiput offering itself towards either of the groins, the forehead should happen to be placed in that situation; or, if the face should present, the difficulty of expulsion will be increased, for reasons too obvious to be mentioned. This adverse position of the head may, in the former instance, be readily recognised by the situation of the respective fontanels, and by the direction of the sutures; but if an ear can also be felt, a trifling attention to its parts and bearings will remove any doubts, which might previously have existed, as to the exact position of the head. In the latter instance, it may be known by the irregularities of the face.

4. The length of time the head may have remained in a similar situation without advance on the accession or continuance of uterine action, or without retreat on the diminution or cessation of it, is always a consideration of great importance. The head is impelled into the Pelvis by repeated contractions: it becomes at length so impacted by their agency, as to fill up every space of the brim, and upper part of the cavity; these uterine exertions, after a time, become unavailing; they effect no advance; in the interval of pain, there is no retreat of the head, as is usual, when the Pelvis is sufficiently roomy. The head therefore remains stationary in that situation, either until its size somewhat gives way from continued compression, so that it is enabled to descend, or until the uterine exertions themselves begin to decline, and the woman's strength to fail. Under this state of impaction, a considerable portion

of the head, towards the base of the skull, remains firmly fixed at and above the brim, while the elongated vertex, covered by the tumid and flaccid scalp, is approaching the perinæum. Without a careful examination as to the quantity of head actually in the cavity of the Pelvis, the nature of the case may be erroneously surmised.

Impaction is detected by the difficulty of insinuating one or more fingers of the right hand, between the head and the different points of the Pelvis, with which it may be in contact: but the degree of actual descent of the head is more certainly determined by the introduction of two or three fingers of the left hand along the Sacrum, than by the common mode of inquiry. By the latter expedient, it will frequently be found, that the head occupies a less portion of the cavity of the Pelvis, than had been previously suspected. When impaction of the head has continued for a length of time, various inconveniences ensue from pressure, which will presently be noticed.

5. The length of time which has elapsed since the commencement of labour is in itself, singly and simply considered, a matter of less importance than is usually attached to it; but in connexion with other symptoms, it ever merits the most serious attention. The friends and nurse of a parturient woman usually pay more regard to this obvious point, than to others, far more interesting to the accoucheur, in the back ground. They are constantly recalling to his mind the *length of time* she has been exposed to suffering, while they are ignorant of the progress the labour has made, and is making, or of the absence or presence of danger. And it frequently requires a greater exertion of fortitude and self-confidence to withstand the pressing importunities of relatives, that some means of immediate relief should be offered, than of dexterity in their application, when they are absolutely required.

But along with lapse of time, in a protracted labour, we have frequently to contend with an unusual depression of mind in the patient; with a settled anxiety for the result. This tends to increase the local or constitutional defect, and

is further productive of an unfavourable influence, in a diminution of the natural energies of the body. We have therefore to dispel these groundless fears, and to counteract this state of mind by adequate expressions, inspiring hope and confidence.

We find that different women are variously affected by apparently similar efforts under parturition. Some women bear the continued violence of the labour-pains for a great length of time, without present or future inconvenience; while others soon languish under the distressing sensations of weariness and exhaustion. Such effects ought, therefore, to arrest the attention as much, or perhaps more, than simple lapse of time. Besides, one woman may run the risk of greater danger in a labour of twelve hours duration, than another in one of forty-eight hours continuance. Yet, generally speaking, it may be said, that the structure and functions of the female body do not admit of its exposure to violent pain and forcing throes for *several days*, without present or future risk. When a woman has undergone the pangs of child-birth for twenty-four or perhaps for forty-eight hours, without remission, and with little prospect of a speedy termination, the case begins to assume a serious aspect from lapse of time alone: suspicion is upon the alert, and fears are justly entertained, that the strength may not hold out to delivery.

6. The present degree of pressure upon the soft parts, and the time they have already been subjected to that pressure, are considerations which materially affect the future comfort of the woman. One principal object of professional care never to be lost sight of, ought to be, to conduct a woman through the act of labour in such a manner, that she may, after her confinement, be restored to her husband and to society, in a state of perfect integrity of parts.

Long continued pressure is to be deprecated, in proportion to its degree, and the length of time it has been borne, since it tends to counteract the above object. Melancholy instances of the dreadful consequences of pressure are now and then seen in the sloughing of the Vagina, of the Rectum,

and of the Bladder; and yet it is a difficult task to point out those general or local symptoms, which indicate, that the soft parts have already undergone as much pressure as they can bear, with a tolerable certainty of the future resumption of a healthy state and function.

When external tumefaction has made its appearance, and is increasing; when the Vagina is deprived of its natural mucus, feeling hot and dry to the finger; when the general mass of parts, having been previously tender to the touch, and more than usually sensible of pain, loses a portion of that sensibility, so that an examination is made almost without complaint; when the head of the child has remained in one unaltered position, low in the Pelvis, for more than twenty-four hours, with pressure on the same points; when anxiety and distress begin to be visibly marked in the countenance; or when a general rigor, followed by repeated vomitings, supervenes; such symptoms indicate, that the case has reached its acmé of protraction, and that relief ought not longer to be deferred. The soft parts may probably have already sustained such a degree of injury, as cannot at present be detected; which may render them incapable of regaining their pristine state, and which may leave a constant and indelible memento of too long procrastination.

Under this protracted pressure, we ought to consider, whether it may seem more prudent to attempt the extraction of the head by the forceps or vectis, with the almost certain risk of an increased distension of the soft parts during the operation, or to lessen the head, with the express intention of preserving them. No general rule can be offered for the regulation of the conduct; the question must be decided by the matured judgment of an experienced accoucheur. But in every case of protracted labour, distension of the bladder, which, alone, is always productive of mischief, ought to be obviated by the occasional use of the catheter. In a few instances of vesical distension, I have witnessed the unsuccessful introduction of the catheter: the instrument has appeared to passed through the under part of the Urethra

before the head of the child, and probably into the Uterus, instead of finding its way into the bladder: it has certainly taken a new direction somewhere, since it has seemed to advance forward without much difficulty, but has not answered its proper intention.* It may, indeed, happen, that although the catheter may have been passed into the bladder, no urine shall be evacuated through it, either in consequence of the apertures of the instrument being plugged up with coagulated blood, or of the urine being detained in a kind of bag at the upper part of this viscus, formed by the compression of the head of the child on its cervix and lower part. Should the latter of these contingencies occur, a catheter of an extraordinary length will be required to reach the cavity containing the urine. A flattened catheter appears to me to be generally preferable to a round one, because it takes up somewhat less room. Many melancholy instances of sloughing of the bladder have been produced by over-distension, and by inattention to this important object; and though the case appears so plain, is so readily detected, and the catheter produces such instantaneous relief, I have repeatedly seen it entirely overlooked. When mischief is threatened, or has actually taken place from such neglect, some other accoucheur is called in to make the best of the case he can, or to cover the blunders of his predecessor.

7. The nature and appearance of the vaginal discharges in common labour, are objects of minor importance, yet they ought not to be entirely disregarded, when a labour becomes unusually protracted. I am not alluding here to sanguineous discharges, but to the draining of a discoloured liquor amnii, or other fluids from the Vagina. Under the process of

* The catheter was actually passed through the under part of the Urethra into the Vagina, by a very respectable practitioner in the attempt to relieve the bladder in a case of Retroverted Uterus, so that a new false way was formed. My assistance was afterwards required to empty the bladder, and I found very great difficulty indeed in regaining the natural and proper passage. It was at length effected, and the woman was immediately relieved. The Uterus afterwards regained its natural position spontaneously, and the bladder evacuated its contents without assistance. I have in no instance seen any permanent injury from this accident.

labour, the liquor amnii will assume varied characters of colour and of smell, without the least indication of danger, or of any symptom connected with protraction. But when uterine contraction has been actively exerted for a length of time; when the body of the child has been for many hours compressed by the Uterus, the vaginal discharges become materially altered both in appearance and smell. At the commencement of labour, they are usually serous or mucous; but after long uterine exertion, they assume an olive colour; they become brown, slimy, and disagreeable to the eye and nose; and seem as if the meconium of the child was mixed in them.

This altered appearance of the fluids issuing from the Vagina, may certainly now and then be produced by the meconium of the child being mechanically pressed out of the intestinal canal by uterine action; but it also more frequently seems to me to be the effect of some change produced in the secretions from the uterine or vaginal surface, as a consequence of continued action and pressure. It is not always a proof of the death of the child in Utero; yet in many instances after its appearance, I have found that the child, when expelled, has been devoid of life, and from external marks, has seemed to have been deprived of life for some hours. When putrefaction has commenced in the child or Placenta, the discharges also become discoloured and disagreeable; a quantity of offensive gas occasionally escapes from the Uterus, along with these discoloured fluids, both before and after delivery, but more commonly on the contraction of the Uterus, after delivery. Its escape is sometimes attended with a guggling noise. I feel myself quite unable satisfactorily to explain this uterine extrication of gas. The occurrence is more frequently observed in those cases, in which the child appears to have been for some time bereft of the vital principle; yet I have met with it in cases in which the child has been born alive, and in which the child could not have been long dead at the time of expulsion. Though, therefore, in some instances, this extrication may appear to be dependent upon that decomposition of animal

substances, solid or fluid, which is the immediate consequence of putrefaction; in others, that phenomenon will not bear us out in our conjecture. We must then seek some other source of explanation; and I have thought it might possibly be found, in that change in the secretions above mentioned, or perhaps in the action of the secretory vessels themselves. It is always accompanied with a degree of inactivity in the Uterus, and strongly evinces local derangement.

8. An increased degree of painful sensation in the Uterus, and in the abdominal parietes, produced by the repeated contractions of that organ and by the resistance offered to the descent of the presenting part, adds considerably to the sufferings of the patient, and is only met with under a state of long protraction. It is readily detected by a moderate pressure of the hand. During the progress of a short labour, when the child passes readily and easily, little or no pain is felt in the absence of contraction. The Uterus so far relaxes during the interval as to make no active pressure on the child; there is therefore no painful sensation. But, under a case of protraction, when the uterine efforts have been for a length of time violent, the Uterus becomes diminished in permanent volume, its parietes are brought into close and continued contact with the body of the child even under its most relaxed state, so that at length that viscus becomes tender and sensible to the external touch. The discoloured discharge just mentioned is a frequent attendant on this painful state of Uterus.

9. The obvious impression made upon the system by the continuance of the active exertions of labour, is in every instance an occurrence deserving the most attentive observation. When, in consequence of the repetition of vain expulsive efforts, a pungent sense of heat is perceptible on the skin; when the tongue becomes white and dry, or brown and foul; when the lips are parched; when there is a constant pain in the head, which is rather upon the increase; when there is a dark-coloured flush upon the face, with a rapid small pulse, such symptoms indicate the advance of febrile irritation, the progress of which will only be checked

by timely delivery. If to the preceding symptoms be added a dejection of countenance, expressive also of great anxiety; a languid eye; a hurried and difficult respiration; a low delirium; occasional rigors, with vomiting of a coffee-grounds-like fluid, the urgency of immediate delivery becomes the more obvious. But in such an extreme case, even this dernier ressort seldom answers the object intended; nevertheless, it offers the only chance of saving the patient; and no woman ought to be allowed to die undelivered in such a case, if delivery be practicable. The progress of the symptoms to this extremity is usually very gradual; it is seldom rapid, except under hæmorrhage. It is indeed sometimes so slow, as to elude observation from hour to hour, till the case assumes a dangerous aspect. Besides, a false security, as far as the safety of the patient is concerned, is now and then induced in the mind of the accoucheur, by that listlessness which is too frequently consequent upon a protracted attendance, and by having long witnessed, with apparent impunity, the excessive sufferings of the woman.

10. The constitution and age of the patient must not be allowed to pass unnoticed. It may be difficult to determine the acmé of exertion or fatigue which any given woman may be able to bear under the act of parturition without injury, and with the prospect of regaining a perfect state of health; yet experience shows, that the constitution of a woman possessing a laxity of fibre, with also a disposition to corpulency, sooner succumbs under the continued efforts of active labour, than that of a thin spare woman. The latter frequently bears the violence of a protracted labour without present detriment, and afterwards rallies without difficulty; while the former droops under apparently trifling exertions.

A woman who has enjoyed good health during the latter part of her pregnancy, whose labour has commenced under a state of tolerable health, is more likely to pass through her trouble without danger or injury, than one of a different description. With respect to age, it is matter of known notoriety, that a woman becoming pregnant for a first time

at a more advanced period of life, has generally to contend, during the progress of her labour, with a greater degree of pain and difficulty, than one under similar circumstances at an earlier period. The rigidity of parts acquired by age offers additional resistance to the passage of the head. The process of labour is also occasionally attended with equal difficulty and danger in a very young woman, who has become pregnant at an early age, prior to a perfect evolution of parts. The interval between perfect maturity and advancing years, is the most favourable period for parturition.

11. A feeling of confidence, or its reverse, has a powerful influence on those animal powers which modify the active exertions of labour. Confidence naturally imparts a degree of energy and vigour to all the actions of the body, especially to the uterine effort, and to those muscular powers which are called to its assistance. As long as this state of mind prevails, it enables a woman to bear the severest sufferings with fortitude; and to look forward to their termination with a feeling of pleasure. On the contrary, despondency produces the worst effects, nay, even the entire removal of uterine action. When a woman has imbibed a strong impression that she is in present danger, or that she may not ultimately recover from the effects of her confinement, the very impression itself enervates both bodily and mental powers, and tends to induce that state which is so fearfully dreaded. It therefore becomes a matter of professional duty to endeavour to dispel the pernicious agency of such mental influence, and to restore that confidence which has so beneficial a tendency in enabling a woman to surmount her present distress.

12. The complexion of the case is materially altered by the occurrence of protraction or difficulty in a first, or in a subsequent labour. Under the act of parturition in a first child, except in cases of absolute and obvious deformity of the Pelvis, we are justly authorized to wait (with a certain share of watchful attention) the probable effects of uterine contraction, as long as it continues vigorous and efficient;

as long as no symptom presents itself, threatening the woman's safety; and to defer artificial assistance till the pains give way, or till some symptom of danger appears. The expulsion of a first child almost always requires greater efforts, and takes up a longer space of time than that of a subsequent one. When certain parts of the human body have undergone any previous change, they seem disposed to assume, with greater facility, similar changes at a future time. Besides, in a first child we are, for a length of time, ignorant of the exact capacity of the Pelvis, and of the possible adaptation of the child's head to its several parts; with such facts we become acquainted by a woman's having passed through the process of labour, and apply our knowledge with advantage in her subsequent children: now if a woman, having expelled one or more children with ease, should become the subject of protracted labour, notwithstanding the presence of strong expulsive efforts, we become at length convinced, either that some organic derangement has occurred in the interval which prevents the passage of the head, or that a preternatural size of head prevails. But even in a first child, should a degree of positive malformation of the Pelvis be early detected, to such an extent as must eventually prevent the head entering and passing, it would be an useless waste of time, an unnecessary consumption of the natural powers, to withhold that assistance which is so urgently called for. In a first labour, as well as in a subsequent one, the activity of the process may be suspended for some time under a temporary cessation of pain, without injury.

13. The previous health of the patient ought to have due weight upon the mind in forming a conclusion. When symptoms of local or constitutional affection appear towards the end of pregnancy, and are progressive, the act of labour is sometimes prematurely hastened; in such case, though the expulsive efforts may be weakened, the degree of resistance is proportionately diminished, either from the state of parts, or from the size of the child. But if protraction should ensue under a degree of weakness from previous illness, an

earlier resort to instrumental assistance may perhaps be justifiable with the express intention of husbanding the natural powers, and of preventing unnecessary waste, than might have been supposed expedient under a perfect state of health. Those qualifications which appear the most favourable to a kind, speedy, and safe termination of the process of labour, are health, youth, a good form, and lively spirits. The woman in possession of such qualifications has little to fear under child-birth, except from accidental occurrences, not under human control.

14. The probability of the life or death of the child in utero, though a consideration of importance in itself, ought not to be allowed to influence the practice, except in cases of obvious malformation, or of unusual protraction. It is an imperious part of professional duty, in every instance, to view the child as a being possessed of life, and practically to act upon that presumption, until positive proof is shown to the contrary; and even if proofs of the loss of life do exist, it is ever desirable to have the child produced into the world without disfigurement, mark, or mutilation, when that object can be satisfactorily, and with safety to the mother, effected. The loss of life in the child does not, in general, affect the expulsive powers of the Uterus; a dead child is usually expelled with as much facility as a living one. Besides, those signs which have been considered indicative of the death of the child before birth, are so equivocal, as to deserve little attention: they are always weakly characterized, until symptoms of incipient putrefaction appear. When in a protracted case, an unusual fœtor attaches to the finger upon its being withdrawn; when the hair or cuticle of the scalp or face adheres to the finger, or follows it; when the Funis being down in the Vagina by the side of the head, has long ceased to pulsate; when, in a natural presentation, the discharges are evidently mixed with the meconium of the child; such marks plainly evince the death of the child. If several of these marks be present at the same time, little doubt of the fact can exist; then the exercise of the judgment must be called to decide whether the mother's situation may not be

more properly alleviated by lessening the head, rather than by extracting it entire by the forceps or vectis. But even in such a case, though the perforation of the head would inflict no additional violence upon the child, it is better to avoid the appearance of mutilation after birth, if that act can with propriety be permitted. I need not here mention a moral reason for abstaining from an unnecessary perforation of the head, since it is but too evident, that if the child had but the remotest chance of being born alive, that chance would be denied to it by that operation.

The fœtor above alluded to is the consequence of incipient putrefaction in the surface of the child, in some of the placental vessels, or in the membranes, from loss of life and circulation. It is not perceptible till after the lapse of many hours subsequent to that event, but in what precise time I am unable to determine. This fœtor is usually so strongly marked as rarely to deceive; and when it has once been observed, it is never forgotten. The absence of motion, a sense of coldness and weight in the belly, and some others, are too equivocal to merit notice, or to influence the conduct.

15. The state of the weather sometimes exerts a baneful influence on the act of labour. In very hot and sultry weather, the animal body is incapable of making or of bearing those exertions to which it might be equal in temperate or cold weather. If the process of labour should therefore commence under such a state of atmosphere, the woman soon experiences the unpleasant effects of weariness and exhaustion. Painful affections of the head are also common in sultry weather, towards the close of pregnancy; and I have a strong suspicion, that such weather, with a disposition to thunder, has some influence in producing an attack of parturient convulsions.

When several of the preceding occurrences are combined under protraction, and especially if exhaustion and febrile irritation be induced, further delay cannot be permitted, with safety to the mother: active and effectual assistance should be promptly offered by some instrumental means. Indeed it [illegible] to me less blamable practice to have

recourse to these means rather *too prematurely*, than to defer them *too long*. But this principle must ever be corrected by judgment. Having determined upon the necessity of the case, and having arrived at the conclusion that the patient ought to be speedily relieved, to avert that danger which otherwise seems to await her, we have only to select that instrument, which appears the most appropriate and applicable to the particular case. In making this selection, the relative situation of the head to the Pelvis is principally to be considered. As long as the base of the skull remains above the brim of the Pelvis, the short forceps or the vectis cannot be successfully applied; and if the use of either instrument should, in such a situation of the head, be attempted, the operator will most probably be foiled. Indeed, it is sufficiently obvious, that either of these useful instruments cannot be satisfactorily employed, until the head has advanced so low in the Pelvis, as to be completely within the grasp and power of the respective instrument, and it is readily known when the head has acquired that desirable situation, by either of the ears being within distinct reach of the finger. I have, indeed, contrary to this general rule, operated successfully with the vectis, in a few instances, when the ear could not be felt, and when the head did not appear to be within the grasp of the short forceps; but I am ready to confess, that the attempt has been made with reluctance, and at the risk of injury to the mother.

I have no wish to engage in any controversial discussion on the relative merits of the short forceps and of the vectis; nor do I propose to offer any remarks on the mode of application, or of the action of either of these instruments: these subjects have been so repeatedly, and so ably handled by other more competent writers, that any observations of mine would be quite unnecessary and superfluous. Suffice it for me to observe, that either instrument judiciously applied, and dexterously used, is competent to the relief of slighter cases of difficulty. I occasionally use both instruments at my option: but having been, in the early part of my life, biassed in favour of the forceps by the lectures and writings

of the late Dr. Osborne, I am perhaps more partial to the use of that instrument, than to the use of the vectis.

The long forceps is recommended by some practitioners as an useful instrument in cases in which the bulk of the head still remains above the brim of the Pelvis. That the long forceps may now and then be successfully employed under such circumstances, I have had sufficient proofs, but it requires, in my opinion, very great judgment and experience to determine the particular cases to which this instrument is, *with propriety*, applicable. I acknowledge, that it possesses considerable powers of extraction; but it ought ever to be remembered, that any attempt to extract a full-sized head through an inadequate Pelvis, by main force, will probably be followed by serious mischief from pressure alone; and the risk must ever be in proportion to the degree of violence used. The question is not, whether a head can be extracted; but whether it can be extracted without probable injury to those parts through which it is made to pass. I think this instrument, then, only applicable to those cases in which, either there is no deformity at the brim, or in which the malformation is very trifling.

Fortunately for the profession and the sex, the use of instruments in the practice of midwifery is seldom called for, in comparison with the numbers daily delivered; and those accidental occurrences, which do justify their use, are not so far under control as to be prevented. In the process of labour, as in many other natural operations, time ultimately proves equivalent to power and force. By allowing time for the production of the necessary changes, by patient forbearance, we find in the generality of cases, even under the process of lingering labour, that the child is ultimately extruded by the natural powers; but whether this desirable event may be finally accomplished or not, is a question which cannot be determined until the experiment has been in some measure made, or until proofs of failure are observed.

When the hand or arm descends into the Pelvis by the side of the head, if the accident be discovered in the early part of the labour, before the head has advanced so low as

to occupy the cavity, it may be returned without difficulty, by passing two or more fingers of the left hand along the hollow of the Sacrum, pushing up the descended part above the brim, and detaining it there till the return of uterine action lowers the head into its place; when this is effected, the limb rarely descends a second time. In performing this simple operation, no great force is required, if care be taken to give the elbow its natural bend. But if the arm shall happen to have come low down in the first instance, and the head be suddenly propelled into the centre of the Pelvis pressing upon the arm, this mode of management will seldom succeed; the pressure of the head renders its return impossible. The head must then be allowed to advance under the presence of the retarding arm. When this is the case, the parts of the arm below the point of pressure swell; they suffer all the effects of violent compression from above, which, if the case be long protracted, may produce ulceration and sloughing, after birth. The swelling of the arm is a proof that the child is still alive; while its increasing bulk adds a further impediment to the ready passage of the head.

When the arm is thrown suddenly down with the head above it, the case may readily be mistaken for a shoulder presentation, and it will require some care in the examination to detect the difference. The presence of the arm in the Vagina, naturally induces a suspicion that the shoulder may be presenting; and this suspicion is not removed till satisfactory evidence is obtained, of the head being above, by the feel of the sutures, of a fontanel, or of resistance to the finger by the bones of the skull. A mistake might put the woman to increased pain and danger, by causing the turning of a child, when the operation was not necessary.

Indeed by mismanagement and officiousness, such a case may readily be made a shoulder presentation. When the hand is protruded down, before the head fully occupies the brim, if the attendant, through ignorance or mistake, should seize it, and attempt to bring it down, the shoulder may readily be placed at the brim of the Pelvis. I knew one

instance, in which, under the attempt to push up the hand, the head also was carried upward, and the next pain brought the shoulder to the brim of the Pelvis; uterine action rapidly succeeding, the shoulder was pushed down, and turning became indispensable.

I have before stated, that in some cases the head must be allowed to advance under the presence of the retarding arm; the case is therefore to be left to the natural powers. The labour is always more or less protracted by the occurrence, but I have not yet met with an instance, in which instrumental assistance became necessary. I can, however, readily suppose such a degree of difficulty to be induced, as may call for that assistance; it must therefore be applied according to the common rules, without reference to the obstacle, yet with every attention to the protruded arm, that it may not suffer an increase of injury from the pressure of the instrument.

The descent of the Funis offers no impediment to the progress of the head: the life of the child is indeed thereby endangered, but the mother is not affected by it. If a portion of pulsating Funis do descend while the head remains at or above the brim, it may sometimes be satisfactorily returned by the left hand of the accoucheur; but too frequently after it is returned, it again slides down. After repeated futile attempts, we are obliged either to leave the case to the natural efforts, at the risk of the child's life, or to have recourse to instruments, with almost an equal risk. The judgment of the accoucheur must decide the practical point. If pulsation should have entirely ceased, there can be no question about the matter.

CASE XLIX.

Some years ago I was engaged to attend a very corpulent young woman of twenty, whose legs and thighs were swelled to an enormous size before the act of labour commenced. The first part of the process went on slowly, yet satisfactorily; but after it had continued for about twenty-four

hours, she began to show symptoms of distress. The head of the child had by this time advanced well down into the Pelvis, so that the ear could be distinctly felt immediately under the Pubis. Observing, that after the lapse of a few more hours, the pains continued baffling, and produced little impression towards the expulsion of the head, or any change in its situation; considering the previous state of the woman's constitution, and suspecting that it might not bear up against the evils of further delay, I determined, with the approbation of herself and friends, upon the application of the forceps. She had already become feverish and restless; and had repeatedly called upon me in the most urgent manner to put an end to her sufferings, by delivery. I got the instrument well applied, and giving the head its proper inclination, I readily extracted it. The child presently surprised and pleased the mother and nurse by its cries. The lady suffered little under the operation, and with common attention, soon regained a perfect state of health.

CASE L.

A friend requested me to visit a young woman in labour of her first child one day about noon, whose case had become more protracted than he had expected. She had been in strong labour since the morning of the day preceding; the head was approaching the Perinæum, with the face to the Symphisis Pubis. In this situation it had remained, without any advance or change, for many hours, although the pains seemed sufficiently active to produce expulsion. One reason why he wished to see me, more particularly, was, because his patient had voided no urine: he had attempted to introduce the catheter, but had not succeeded in that attempt. My first object was, therefore, to relieve the bladder, and that object was obtained by the use of the flat catheter. The meconium of the child was now evidently passed in the discharges; this fact was obvious in the streaky substances adhering to the finger after an ex-

animation. Being desirous of seeing whether the relief of the bladder would conduce to the advance of the process, I deferred any instrumental assistance for a few hours. I was called again at six P. M. and no progress being then observable, the patient also complaining of becoming exhausted, I readily introduced the short forceps, and had the satisfaction of producing a living child into the world. This case gave no further trouble.

A few days preceding this time, I attended a lady, also in her first child, in a lingering case; the meconium was passed, in that instance, before the birth of the child, but the child was still-born. There is a material difference in the appearance of the discharges in a protracted labour, when the olive coloured fluid, before alluded to, is evacuated, and when the meconium is expelled before death. In the former case, the discharge is lighter coloured, uniform, and tinges the finger yellow: in the latter, the finger is covered with streaky substances, and the appearance is darker coloured.

CASE LI.

In the year 1820, I was called in consultation with a gentleman of high practical respectability, to give an opinion upon a case of protracted labour, in my neighbourhood. The patient had been in labour more than twenty-four hours of her third child: she was in her forty-second year: was stout and corpulent in person: and there was an edematose state of the parietes of the lower part of the belly. Her former labours had been lingering, in which she had been assisted by her present attendant, but they had terminated without producing those symptoms of distress under which she was now suffering. The Os Uteri was fully dilated, and the waters discharged; but the head was situated at the brim of the Pelvis, filling up the brim, and the vertex had scarcely advanced one-third of the cavity. When the woman was placed on her left side, the face was presenting uppermost, that is, with the forehead

under the right groin. The pains were weak and ineffective: they had been stronger some hours preceding, but now they seemed to the bystanders to be declining in power. The woman was feverish, and complained of her head. Under such symptoms, it seemed highly desirable that she should not remain much longer undelivered; yet I was unwilling to perforate the head, which seemed to offer the only present means of delivery. I saw this patient again six hours afterwards, and found matters in nearly the same state. In the interval, my friend had ineffectually tried to effect delivery by the vectis. Unwilling still to open the head, I fixed the vectis upon the forehead of the child, and finding that I had got a good purchase, I persevered in my efforts, and had presently the satisfaction of finding the head descend, and of seeing a living child produced into the world.

I must confess that I did not expect that I should succeed in the delivery of this woman with the vectis; but the instrument fixed itself fortunately, and offered me a firm purchase. If this instrument had failed, I meant to have had recourse to the long forceps.

I think it useless to tire the reader's patience, by the introduction of more cases of this and the preceding descriptions. They must be such every-day occurrences in an extensive practice, as to render their insertion quite needless. Experience will enable every gentleman to establish his own principles, much better than any observations of mine can be supposed capable of doing.

CASE LII.

The wife of a publican, in the forty-third year of her age, requested my assistance under difficult labour of her third child. A professional gentleman from the country, and a relative, was accidentally on a visit at her house, who accompanied her husband to me, and gave me some particulars of the case. He stated, that this lady had borne two children before, and that in each labour, considerable

difficulty had occurred, so as to require the use of instruments; that, in the first labour, the soft parts had received some injury, in consequence of which, a contraction of the Vagina had taken place, which had greatly increased the difficulty in the second, and which had obliged a very experienced accoucheur to have recourse to the unpleasant necessity of lessening the head; that this occurrence had happened fifteen years before, during which interval, she had borne no children; that she had been in labour all the preceding day; that the pains were then strong and expulsive; and that the exit of the child's head was prevented by the contracted state of Vagina. On my arrival at the house, I met her attending accoucheur, who had been one of those gentlemen present at her last confinement, and who corroborated the principal part of the preceding facts. On visiting the patient, I found a stout lusty woman under strong and frequent expulsive efforts, forcing down with all her power, with a good pulse, and uttering most earnest invocations for immediate relief. Uterine action was almost incessant; to that degree, indeed, as to make a rupture of the Uterus, or other serious mischief, to be apprehended. An examination ascertained the vertex to be low down in the Pelvis, surrounded by a firm circular band of contraction of about an inch in diameter, considerably within the Labia externa; the vertex was impelled with considerable force during each uterine contraction against this band, which then became as tight as a cord around it: but in the absence of pain, the vertex rather retreated.

This circular band, therefore, appeared to me to be partial and narrow; for, in the absence of pain I could pass my finger completely within the Vagina, get it round a considerable portion of the head, and distinctly feel the right ear under the pubes.

As there appeared to me no immediate urgency for acting, I waited for some time watching the effects of pressure on the contracted part, and desiring the woman to withhold her efforts; with the farther view, also, of gaining time to enable me to make up my mind as to the least

injurious mode of offering artificial assistance. I was extremely unwilling to open the head, because I thought the child still alive: and there seemed considerable objection to dividing the contracted part with a scalpel, for fear of hæmorrhage, as well as of increased laceration on the passage of the head through it.

It was evident to the finger, that in a preceding labour, there had been a laceration or slough in the soft parts, between the Vagina and Rectum, the seam of which was sufficiently perceptible. Viewing the case in all its bearings, upon a consultation with the patient's accoucheur and her relative, it was determined to try the effect of the forceps, in overcoming that resistance which this membranous contraction offered, and particularly as the head was sufficiently low to be within the scope of the instrument. I therefore applied each blade with little difficulty, and having secured the lock, I gradually proceeded to offer a degree of extractive purchase in assistance of the uterine efforts, and I had presently the satisfaction of having a living child produced into the world, apparently without much injury to the Vagina. The Placenta was thrown off by the natural efforts of the Uterus. No inconvenience followed the operation.

CASE LIII.

Some time ago, I visited a patient of the Charity at the request of her midwife, in whose case a hand and arm had come down into the Vagina, with the head above the brim of the Pelvis. The pains at the time were not strong, yet the Os Uteri was well dilated. Desirous of returning the arm above the head, I introduced my left hand within the Vagina, and, gently bending the elbow of the protruded arm, I gradually pushed it up above the head, and kept it in that situation till a labour pain came on. Now feeling the head descend without the preceding impediment, I withdrew my hand. After some active pains, I made another examination, and observing the head to be regularly

descending, I left the case to the care of the midwife, being fully satisfied it would soon be terminated.

The practical point to be determined is, that the head is above the arm, and not the shoulder. There is little difficulty in returning a hand or an arm, while the head is at the brim of the Pelvis; but if the head have descended into the cavity, and if it occupy the cavity, the attempt will frequently not succeed. The head must then be allowed to descend under the obstruction produced by the arm, and if the child be born alive, the arm is considerably injured by pressure.

A case of this kind may easily be made one of very considerable difficulty; either by inadvertently pushing up the head, when completely above the brim, or mistaking a hand for a foot, and pulling it down. In such a case, the shoulder would be brought to the brim of the Pelvis, instead of the head; and turning would become necessary. I remember an instance, in which a midwife told me that she was certain that two arms were down by the side of the head, but after a time, I was called to the case, when I found the shoulder at the brim. What had been done in the interval, I do not know.

CASE LIV.

About eight one evening, my opinion was requested in the case of a lady under protracted labour, about whose safety her husband was becoming extremely anxious. She was the mother of several children, which she had usually passed without difficulty, or much delay, and therefore some unusual cause of protraction was suspected. Her accoucheur had been called early in the morning, and had remained with her the whole of the day; but he had not been able to discover the presentation till within a very short time of my visit, when he detected a foot at the brim of the Pelvis. The labour hitherto had proceeded but slowly. On making an examination in the usual way, I readily reached the foot with my finger, but I had some difficulty in ascer-

taining what part was above the foot, though the Os Uteri was pretty well dilated. I therefore passed my left hand into the Vagina, and at the extremity of my fingers, I discovered the head above the brim of the Pelvis, with the foot down by its side. Without withdrawing my hand, I pushed up the foot, and at that moment a strong uterine contraction coming on, the head was brought down into the brim, so that the foot was left above. Keeping my hand in that situation till another pain came on, I found the head descend without the foot. In my attempt to push up the foot, my fingers assailed also a hand just by the side of the head. The case was now left to the natural action of the Uterus, and in about two hours a living child was expelled. The next day the left foot of the child showed evident marks of the violence offered to it by the hand, in the preceding attempt. The lady suffered no further inconvenience.

CASE LV.

Some years ago, my opinion was requested in a case of labour, near Whitechapel Church. The patient was a stout, lusty woman, turned of thirty, in labour of her first child. I learnt that the labour commenced on a Sunday evening, that it went on slowly through the days of Monday and Tuesday, till the evening of the latter day, when the membranes gave way; after this occurrence, the pains became stronger and more active, and there was every appearance of its being finished in the early part of Wednesday. This expected event not taking place, and the friends of the woman becoming anxious, my opinion was desired. The urine had been naturally evacuated, and clysters had been occasionally injected during the morning. The vertex was now pressing upon the perinæum; the head had made its proper turn; the pains were frequent, but short; and the countenance good. In short, the head appeared to be merely detained by rigidity of the external parts. I therefore gave it as my opinion that the head would be expelled by the natural pains. Between nine and ten in the even-

ing, I was called again, because the woman was not delivered. In the interval of my absence, the head had advanced; it was now extending the perinæum, and the vertex was protruding. I stopped more than an hour, watching its advance, and thinking that it must soon be expelled, I left the case to the management of the gentleman in attendance, with every confidence of the woman's doing well. About half after three on the Thursday morning, however, the husband came to me again, and stated that the head of the child had been born some hours, but that the regular attendant could not deliver the body. This information astonished me, but, upon my arrival at the bed-side of the woman, I found it too true. The woman appeared now nearly exhausted; she had very trifling pains, and had recently undergone a shivering fit. The head had been expelled nearly four hours, but all the efforts my friend could make, had not enabled him to extract the shoulders. Suspecting a large child, from the Pelvis being completely filled, I passed up a blunt hook, and fixing it in the axilla, drew down first one arm, then the other. I was then able to extract the body without further difficulty. The Placenta was separated, and was brought away in a short time. The woman was now in a state of the greatest exhaustion, and from this time declining, she died within two hours. The child was the largest new-born infant I had ever seen; curiosity led me to ascertain its weight; it weighed sixteen pounds and a half, avoirdupois; and was broad over the shoulders beyond any example I had ever witnessed.

The extension of the principle of "trusting entirely to the natural powers," led me into an error in the management of this case. It was, however, impossible to foresee the immense size of the child.

CASE LVI.

One Wednesday morning, in December, a gentleman requested my attendance upon a lady, not far from Stoke

Newington, who had been in labour since the night of the Sunday preceding, under the care of a respectable practitioner. I was introduced to a stout lusty lady, upon the verge of forty, in labour of her first child. Her face was flushed, and apparently swelled; the eye was suffused; her tongue was white; the pulse full and quickened; and she complained of violent pain in the head. Though she had been in active labour for near forty-eight hours, with the liquor amnii discharged, the Os Uteri was but little dilated; it remained firm and rigid, with the vertex pressing upon it, near the centre of the Pelvis. It was expected that I would relieve her by some mechanical means, without further loss of time, but under the present state of the Os Uteri, it was impossible to do so, except by lessening the head. I therefore for the present advised a quantity of blood to be taken from the arm, an anodyne clyster to be occasionally injected, and desired the lady to refrain, as much as possible, from the voluntary effort of bearing down. In a few hours, the Os Uteri was found to be relaxing, and more disposed to give way; her head had also been considerably relieved by the loss of blood. The labour, in the after part of the day, went on more satisfactorily; so that this patient was delivered about seven in the evening, by the natural efforts, of a still-born child. I visited this lady several times afterwards, and always found her improving; and in due time she regained her pristine health.

The preceding occurrences took place during a very severe frost; is it improbable that to the state of the weather may be imputed exemption from puerperal convulsions?

ON PROTRACTED LABOUR, UNDER A NATURAL PRESENTATION, COMBINED WITH AN INCREASED DEGREE OF DIFFICULTY.

Under this section shall be ranged those cases, in which there is such a relative disproportion between the size of the head of the child, and the capacity of the Pelvis, that the head cannot be excluded, or extracted, whole and entire; a diminution of its volume, therefore, offers the only chance of delivery, and the sole hope of rescuing the mother from that danger, which otherwise awaits her.

This relative disproportion may exist in various ways. It may either be dependent on an enlarged size of head under natural formation, under increased ossification, or under disease; or it may depend on a diminished capacity of the Pelvis, either naturally small, yet otherwise well-formed, or under deformity. It matters not practically, whether a head be too large to pass through a given small Pelvis; whether it cannot be so far lessened by the joint effects of uterine action, and compression between the pelvic bones, as ultimately to obtain a passage; or whether the Pelvis be so deteriorated in its general capacity as not to permit its extrusion. But the most common cause of such disproportion will be found in the pelvic compages itself; in its positive deformity, originating in diseased derangement: in such case, there must be proportional difficulty at the birth of every child of which a woman may conceive. Now and then, indeed, we find that diseased organisation occurs in a well-formed Pelvis, which had previously allowed the passage of

a full-grown child. Yet a practical resort to a diminution of the volume of the head may not be confined to such cases alone; it may become necessary under long-continued protraction, or under some accidental occurrences during the progress of labour, as the safest, and the most speedy means of delivery.

A dreadful degree of responsibility attaches to the accoucheur in every instance of perforation of the head. The operation can never be a matter of choice: it is one of imperious necessity, to which he is impelled, with whatever reluctance, by the strictest sense of professional duty. If the child be alive when the head is perforated, its life is certainly destroyed, and infanticide is committed; yet for the reason just stated, viz. that the act is not a matter of choice but of necessity to save the mother, it is a justifiable act, and ceases to be a criminal one. Should we even possess satisfactory proof that the child is dead in Utero, as for instance, under a case of simple, but lingering labour, with the Funis below the head, devoid of pulsation, though no violence would be offered to the child by the perforation of the head, we ought to abstain from an unnecessary resort to it, even for the sake of appearances alone. But if, in such case, the labour should become protracted, rather than allow the mother to run any risk under the efforts of natural expulsion, I would not hesitate to lessen the head, especially if there existed the least relative disproportion. The knowledge that the child is dead, therefore, in itself singly considered, is not a sufficient authority for the operation; since it impresses such obvious marks of violence and mutilation upon the head, as leave room for the imputation of misconduct.

I will not attempt to adduce any arguments in defence, or in justification of Cephalotomy. It can, indeed, be defended or justified on no other ground, than on that of absolute, nay, of the most urgent necessity. The mother is presumed to be in danger from protracted labour, or other cause; and her delivery is found to be impracticable by any of those means, which offer a chance of life to the infant.

If the absolute sacrifice of one life be called for, if delivery cannot be effected, with the probable safety of both lives, the life of the child, being the less valuable of the two, is always, in this country, given up to save the mother.

Neither will I deny that a degree of cruelty appears to be attached to the operation; but its apparent cruelty is diminished, if not absolutely removed, in the necessity of the case, in the only chance of safety offered to the mother, and in the means subsequently afforded of a speedy termination to her sufferings. I have considerable doubts whether the operation inflicts much pain on the infant. I suspect that sensation is much less acute during uterine life, than after the establishment of breathing life. But allowing this to be the fact, do we thence derive any additional reason in favour of the operation on a slight or on an unnecessary emergency? Certainly not. It may, indeed, prove some relief to a humane mind to be convinced, that when the operation is imperiously called for during the life of the infant, it does not produce much bodily suffering; but the absence of sensibility affords no rational plea in favour of its performance. Inasmuch as it certainly destroys life, it can be justified on no other ground than, as above stated, on that of absolute necessity; and the unwarrantable performance of it ought to be amenable to some law. By the *quo animo* under which any wrongful act is committed, is the crime or harmlessness of the act estimated and established. Now, although no professional man can be supposed to be so innately wicked as deliberately and maliciously to destroy an infant's life, yet such an occurrence may happen through professional ignorance; and I wish it was in my power conscientiously to declare, that I have not witnessed such ignorance.

To prevent the possibility of such an occurrence, with the injurious imputations and loss of character thence arising, to dispel every shadow of doubt as to the necessity and propriety of the proceeding, a consultation should be requested, and the opinion of another judicious practitioner obtained, if near at hand. The judgment of one individual, however

experienced, appears to me, in many instances, hardly sufficient to authorize the operation. Perforation of the infantile head is, to say the least of it, a horrible proceeding, from which every man would be glad to refrain if he possibly dared to do so; and which he would always wish to defer, as long as a sense of professional duty, and the safety of the mother, permitted. It necessarily compromises the life of the child for that safety.

I have already hinted, that the infantile head is so formed, by the interposition of sutures and fontanels within its bony structure, as to bear considerable compression, and to allow of much diminution in volume without detriment; yet this diminution has its limits: a full sized head cannot be lessened in bulk from side to side, from ear to ear, much below the space of three inches. If, therefore, the Pelvis of any given woman do not possess a clear space equal to two inches and three quarters from the Symphisis Pubis to the prominence of the Sacrum, a full sized head will either not pass at all, or with the greatest difficulty; and in proportion as the diminution of space between these respective points prevails, the difficulty of that passage must be increased, in its entire state, even to impossibility. In such cases, the greater part of the head remains stationary above the brim of the Pelvis, in spite of the augmented power of the natural efforts, while a portion of the vertex and scalp only enters the upper part of the cavity, which remains higher or descends lower, as the Pelvis possesses less or more room at the brim.

Malformation of the Pelvis is always to be suspected in a first child, when, after a due relaxation of the Os Uteri and soft parts has taken place, the head does not descend under expulsive uterine action; when the head has remained for a considerable length of time in the same position above the brim of the Pelvis, although the pains seem sufficiently efficient for its exclusion; but the presence of deformity is actually detected by the finger on examination. The more readily the point of the fore-finger reaches the prominence of the Sacrum, the less is the space from thence to the Sym-

phisis Pubis, and *vice versâ*; if the prominence of the Sacrum cannot be reached by a finger of common length, there can be little or no deformity. This inquiry is generally made without much difficulty, and the information required is obtained with comparative ease; for, as the greater portion of the cavity of the Pelvis is unoccupied by the head, the finger meets with little impediment to prevent its passage to the point intended. Different steps may be taken to determine the degree of deformity: if it be considerable, we may form a tolerable conception of it, by remarking, what part of the fore-finger is pressing against the Symphisis Pubis, at the time its point is in contact with the prominence of the Sacrum, making a proper allowance between a diagonal line, and a straight one: but if it be trifling, it will be necessary to pass two or more fingers of the left hand up the hollow of the Sacrum, and keeping one upon its prominence, carry another forward to the Symphisis Pubis, thus measuring the distance in the mind between the two points.

Malformation of the Pelvis is also to be suspected when there is an obvious deformity of person, which had its origin in infancy; yet personal deformity may exist in an extensive degree, without malformation of the Pelvis being implicated in the defect of shape: when this is the case, the deformity in shape has taken place after the age of puberty, after the time when the Pelvis has arrived at its full growth and firmness, so that its bones are enabled to retain their proper form and shape. But it rarely indeed happens, that any extensive derangement of the spine is met with, especially towards the lower part, without the form of the Pelvis being more or less affected by it; so that deformity of person, and malformation of the Pelvis, are usually found to be combined. Any considerable diminution in size without deformity of person, likewise induces a suspicion that the Pelvis may be proportionally small in capacity; yet we frequently see, that very little women do pass a full grown child with comparative ease.

Under any obvious defect in person or stature, an early

examination should be made with the view of determining, with a tolerable degree of correctness, the dimensions and capacity of the Pelvis, and the probability or improbability of the passage of the head; otherwise, any great nicety, as to this point, is rarely necesssary, or is scarcely thought of, until lapse of time, or the appearance of some urgent symptom, prompts a more particular inquiry into the cause of protraction. If a woman be not mis-shapen to the eye, or little in the extreme, it may be presumed that her Pelvis will allow the passage of a full-grown child, till the contrary is ascertained by experience.

The *proper time when* the head ought to be perforated is, in every instance, a material consideration, which must be partly decided by the nature of the Pelvis, and partly by the state of the patient. In a first child, if there be no apparent deformity of person, if there be not such an obvious mal-formation of the Pelvis as to be readily detected, we are justly authorised to defer the operation, and to wait the full effects of the natural efforts, in the flattering hope of the descent and extrusion of the head, until the uterine exertions begin to fail in power, or the general strength to give way; in such a case, the head must be extracted by some convenient and adequate instrument, shortly after the perforation has been made. Similar forbearance ought to be exercised in those cases of protraction, which follow the expulsion of a living child on a former occasion. I would here beg to remark, that, in this painful exercise of the patience, a more than usual share of watchful attention should from hour to hour be bestowed upon the woman, lest the bounds of prudence should be surpassed; lest the case should be allowed gradually and almost imperceptibly to proceed to that extremity, in which even this distressing expedient may be defeated in its intended objects, the present preservation of the mother's life, and her subsequent recovery. And it certainly offers a greater chance of ultimate well-doing to the mother, when the probable effects of those symptoms, which are indicative of approaching danger, are somewhat anticipated and prevented

by timely delivery, than when they are suffered to establish their baneful influences; the best directed efforts may then prove useless, because they are called into action too late.

On the other hand, when such a mal-formation of Pelvis is known to exist by the experience of a former lying-in, or can be detected at the commencement of labour, as to preclude all hope of a full-sized head being expelled or extracted in an entire state, it would be useless, nay, little less than folly, to put off the perforation until symptoms of danger show themselves. By delay, we are deprived of the assistance of the expulsive efforts during extraction, and we suffer the patient to be exhausted by unavailable pains, to her future detriment. In this case, some time may generally be suffered to elapse between perforation and extraction, to allow of a greater state of collapse in the head.

The knowledge which is gained by a professional man, in a previous attendance upon a woman who has an ill-formed Pelvis, affords him advantages in her subsequent pregnancies, of no trifling value to her well-doing. Being already acquainted with the exact dimensions of her Pelvis, he is enabled to take timely measures for her safety, or to adopt those precautionary modes, which will be presently mentioned, to diminish her sufferings, and to give her babe a chance of life. But it by no means follows, that, because one head has been obliged to be lessened in a former labour, the same unpleasant operation must necessarily be repeated in every subsequent one; other causes, than mere mal-formation, may in the preceding instance, have called for it. Nor does the passage of a living child, in a former labour, always supersede the necessity of resorting to Cephalotomy in a subsequent one. Disease may have produced unfavourable changes in the Pelvis in the interval; some uncontrollable occurrence at the commencement of labour may demand the operation; or disease and mal-formation of the head may be found to exist. Any of these unexpected events may render this operation necessary, notwithstanding the easy passage of a former child. When

mal-formation of the Pelvis has once taken place, it continues through life. The Pelvis may deteriorate in its form at various points, but I believe that when once it becomes deranged, it never afterwards improves.

The lapse of time which ought to be permitted between the perforation and the extraction of the head, must be regulated by the symptoms of each case, and the situation of the patient. Under symptoms of threatened or of actual exhaustion; under a sudden attack of hæmorrhage, or of convulsions in the early part of labour, calling for the proceeding, extraction is usually attempted soon after perforation, and the evacuation of the cranium; but when extraction has been quickly performed after perforation, I have now and then been placed in the distressing predicament of witnessing the attempts of the child to breathe, or even to cry, notwithstanding the violence which has been inflicted upon its head. In cases of known or readily detected malformation, the perforation is to be made in the early part of the labour, as soon as the state of the Os Uteri, and the soft parts, will permit the safe action of the perforator; the contents of the skull are to be evacuated; and the extraction may then be deferred for some hours, to allow of greater collapse and accommodation of the head. Yet, when the Pelvis is much deformed, and when the uterine efforts become violent soon after perforation, I do not pursue this practice; I proceed to the immediate extraction, that I may avail myself of the full and powerful assistance of expulsive contraction.

When the Uterus is allowed to exhaust its powers by continued exertion, a greater degree of forcible extraction is required on the part of the operator, and must be continued for a longer time.

I will not presume to recommend any particular instrument for the extraction of the head. That instrument, to which any accoucheur has been long accustomed, and at the use of which he is the most adroit, is the most preferable. I have hitherto commonly used the crotchet, taking care to protect the parts by my left hand in the Vagina,

against the possibility of that instrument slipping its hold, or against its point making its way through the bones of the skull. But in those cases in which, of late, I have tried Dr. Davis's craniotomy forceps, I have been much pleased with their extractile effects.

The degree of pressure to which the head of the child is subjected in its passage through a contracted Pelvis, frequently destroys its life; so that even after the child has been naturally expelled, it is found to be still-born. The probability of the loss of life from pressure, is, therefore, now and then, brought forward as an argument for a more early perforation of the head, than would otherwise appear warrantable; under the specious plea of shortening the mother's sufferings. Such notions cannot be too cautiously entertained; they ought rarely to be suffered to influence the practice. I have already observed, that the appearances which are usually considered to be indicative of the death of the child, are, at the best, extremely ambiguous; though they are not entirely undeserving some notice, they ought to have little weight in determining the conduct on so important a point. With such a plea for premature perforation, the signs of death ought to be so positive as to leave no doubt that the event has actually taken place. And if the child be certainly dead, no further injury can be inflicted upon its person by perforating the head, but the mother may derive great advantages in the protection of her parts from pressure, and in the alleviation of her general sufferings.

It must ever prove a great source of consolation to the mind, to be fully satisfied, that the child has lost its life before the perforator is introduced; yet I think it will scarcely be recommended, even by the most timid practitioner, that the operation should be delayed, in cases of obvious deformity, until this event has happened from natural causes. Indeed, if the operation be deemed absolutely necessary, from malformation, or other adequate cause, it must be resorted to without reference to the life or death of the child.

The application of the stethoscope to different parts of the abdominal parietes, will frequently enable a practitioner, versed in the use of that instrument, to ascertain, whether the child be at that moment possessed of life, or be deprived of vitality.* If the child be alive, the efforts of the fœtal circulation will be audible in a kind of thrilling sound; if dead, that sound will not be perceptible.

Should the child be actually dead at the time the head is opened, little discharge of blood follows the perforator; and more or less of cerebral substance is presently evacuated. But should the child be then alive, a quantity of fluid blood immediately escapes through the opening, before any portion of the brain makes its appearance.

That any pregnant woman should be rendered incapable of producing a living child into the world, at its full time, from her mode of formation, whether natural or acquired, is a melancholy reflection, and is to herself a source of continual and aggravated anxiety. As often as she becomes pregnant, and completes the term of Utero-gestation, her infant must be sacrificed to her safety. To prevent this repeated sacrifice of infantile life, to offer some chance to the babe of surviving the birth, and to ensure a greater degree of security, with a diminution of suffering to the mother, an improved mode of practice has been established within the last half century, and has been adopted in numberless instances, with the most satisfactory success, viz. the act of terminating the process of pregnancy before it has arrived at its full period; of bringing on labour somewhat prematurely. The mode of effecting this object is so certain, and is so well known to the practical part of the profession, that it is unnecessary for me to enter into any explanation respecting it; besides, it would be highly improper so to do

* I am aware that the use of the stethoscope has been occasionally called into action for the purpose of solving the question, "whether the infant be at that moment alive or not." In the hands of a gentleman accustomed to the different sounds conveyed to the ear by that instrument, it may possibly answer an accurate purpose; but I should be sorry to trust to its use, on so important an occasion, in those of the generality of medical practitioners. Correctness of judgment on this point requires a degree of tact, not easily acquired.

in these pages, since this kind of knowledge should be exclusively confined to the accoucheur; otherwise, it may be applied by interested individuals to the most atrocious purposes. I will merely observe, for the satisfaction of women thus situated, that the patient suffers neither pain nor danger by the means used to bring on a premature birth, and that when the process of labour is established, it usually proceeds to a happy and a natural termination. The *time when* this useful expedient ought to be enforced, must depend upon the degree of deformity in the Pelvis. It is only necessary to ascertain its capacity, and to apportion thereto a relative diminution of bulk in the head, according to its probable size at any certain time from the full period. If the capacity of the Pelvis will not admit the passage of the head at the seventh month complete, there will be little chance of life to the infant. If there be merely a contracted Pelvis, or one through which a living child has previously passed, pregnancy may be allowed to reach the eighth month. There is a vulgar prejudice prevalent among women, that a seven months child is more likely to live than an eight months child. This is entirely an erroneous notion: the farther a fœtus in utero has advanced towards perfection, before it is expelled, the greater probability will there be of its surviving that expulsion, and of doing well after the birth.

The principal danger to be apprehended, during the anxious interval of waiting the expulsive attempts of the Uterus to propel a child through a contracted or deformed Pelvis, is a breach in the Uterine structure itself, from the violence of its own contractions upon the child. I shall presently submit a few observations on that interesting subject.

CASE LVII.

Thursday I was desired to visit a woman in the t of the town, who was reported to have been in the **Monday** preceding, under the care of a

respectable apothecary. I called upon her about half after nine in the morning. Her person was short and corpulent; her legs, thighs, and the cellular texture of the belly, were at this time, and had long been, swelled by effusion into the cellular membrane. She was in the fortieth year of her age; this was her first pregnancy; and she was moreover extremely unwieldy and unmanageable. I was informed by her attendant, that on Monday, at the very beginning of her labour, she had been attacked with several convulsion fits, which were relieved by copious bleeding, and that she had also been bled on Wednesday, to relieve a pain in the side, of which she complained; that the Os Uteri had remained firm and rigid an unusual time, giving way with great difficulty; that the woman had suffered violent pains, and had expressed those pains with vehemence and impatience; and that she seemed now almost worn out. Upon a vaginal examination, I found that the Os Uteri was still not entirely dilated, with the vertex pressing through it; that the Vagina was also far from being well relaxed; was tender to the finger; and the external parts were much swollen. The vertex had descended as far as the middle of the Sacrum; but the greater part of the head remained above the brim of the Pelvis, and appeared to me firmly wedged at the entrance. The belly was generally much swelled, but this swelling had only been noticed within the last twelve hours; the uterine tumour itself was unusually large and tender to the hand; the bladder had not been relieved for more than forty-eight hours, yet it did not seem to contain much urine. The vaginal discharge was offensive and discoloured; the pulse was quick; the countenance sunk; and the head painful. The woman was also constantly inclined to a senseless doze. Uterine action had been gradually declining for many hours, and had now almost disappeared. Immediate delivery seemed indispensable to any hope of safety, but it was previously desirable to evacuate the bladder. I was, however, foiled in the attempt to pass the catheter, partly from the swelling of parts, and the pressure of the head upon the Urethra,

and partly from the extreme unwieldiness of the woman. I could pass the point of the catheter into the Meatus Urinarius with ease; but the degree of pressure made by the head against the Pubes was so great, and the woman, vociferated so loudly, upon my attempting to push the instrument forward, that I did not think it prudent to persevere. Any other mode of delivery than by lessening the head, and subsequent extraction, was quite out of the question; I therefore proceeded to the operation without further loss of time; but my endeavours were materially frustrated by the restlessness of my patient, and by the quantity of fat deposited about the nates. Perseverance enabled me to overcome all difficulties, and I at length succeeded in extracting the child; in doing which, I derived little assistance from uterine action.

Immediately after the birth of the child, a large quantity of olive-coloured stinking fluid, mixed with blood, made its escape from the Uterus, and some offensive gas was also extricated; this continued in a smaller quantity for some minutes. The catheter was now introduced with ease, and about a pint and a half of urine drawn off. The uterine tumour continued for some time large, but it gradually and silently contracted itself pretty well. The Placenta was presently found to be lowering, and was removed in a moderate time, without trouble or unusual loss of blood.

The next day this patient had much improved; she had slept comfortably; had passed her urine naturally; and had a moderate degree of lochial discharge, though still offensive. In short, she was promising to do well.

Some part of the swelling of the belly, in this, and similar cases, may, I think, be attributed to the accumulation of the secreted fluids of the Uterus, under its state of action, which are pent up and prevented escaping by the head of the child completely blocking up the Pelvis. I have repeatedly remarked, in protracted cases, that, in making an examination, and passing one or more fingers high up, fluid of this description escapes in quantity. There can be no

doubt that the distension of the bladder added somewhat to the general size.

CASE LVIII.

About two o'clock in the morning of the 10th of October, 1814, I was disturbed by a respectable tradesman, with an earnest request to visit his reputed wife, in labour of her first child, near Tavistock-square, who told me, that she had been in labour since the morning of the 8th, and that she was attended by a respectable apothecary, who had been in the house since the commencement. I accompanied him to her residence, when I was introduced to a young woman of low stature and slender form, under apparently slight symptoms of labour, with weak pains at long intervals, and certainly, at that time, under no marks of distress, or of present danger. On making an examination, *per vaginam*, I found the Os Uteri rigid, and but little dilated; the head situated at the brim of the Pelvis, and well placed, with the liquor amnii still dribbling away. Under these circumstances, I did not think it necessary to remain myself, or to press the personal attendance of my friend, who was desirous of rest. I saw this woman again on the evening of that day, when some little improvement had taken place in the progress, but on a minute examination, I was satisfied there was an indifferent Pelvis, yet I thought that the child might possibly pass. I therefore left her to the care of my friend, with the request, that he would call me again if necessary. The next evening, the 11th, I received further information from my friend, that the labour was going on favourably; that the head was advancing into the Pelvis; and that there was every probability of its being naturally expelled. Contrary, however, to these pleasing expectations, I had a pressing call early in the morning of the 12th, requesting my immediate attendance. I then found this woman under symptoms of considerable danger: she complained of pain in the head, and had an anxious countenance; her pulse was quick, with oppressed breathing;

the belly was swelled and tender; the tongue dry; and the labour pains were much diminished in power and effect. The head of the child seemed to me to have made little advance since the evening of the 10th. The vaginal discharge was discoloured and offensive. Under such symptoms, immediate delivery offered the only chance of recovery; and as the head remained still at the brim of the Pelvis, its perforation was the only resource. I therefore proceeded to open, and to extract the head, in doing which I had to contend with greater difficulties than I previously expected. The rest of the child soon followed, with little effort, but the Uterus did not contract well. After the child was born, the Uterus felt large, to the hand, and in a short time a violent hæmorrhage ensued. Now, placing my right hand upon the belly, and making some pressure, I presently introduced my left hand into the Uterus, and removed the Placenta with ease; after which the flooding ceased, and the Uterus was felt firm and well contracted. I saw this patient several times after her delivery, and in a moderate time she recovered her pristine state of health.

In those protracted cases in which the contractile powers of the Uterus are nearly exhausted by previous exertion, it is a point of great practical importance, not to be too hasty in the extraction of the body, the breech and the lower extremities of the child, lest the Uterus should be left in an uncontracted state, and the uterine tumour be found large and flaccid under the hand. In these cases there is too frequently a necessity for the removal of the Placenta, by the introduction of the hand, in the absence of active uterine contraction. Under this necessity the presence of the hand usually excites contraction. It is at least desirable, before the hand be withdrawn with the Placenta, that some degree of contraction should be felt upon it.

CASE LIX.

On the evening of Saturday, December 6th, 1817, my assistance was requested in a first case of labour, in a young

woman near Stepney, which was protracted much beyond the expectation of the attending accoucheur, who was a respectable elderly gentleman. The labour began in a very active manner, early on the Thursday morning, and by the middle of that day, the head had so far advanced as to promise a speedy release to all parties; but towards the latter part of the day, the uterine efforts began to diminish; from which time, though there had been trifling pains, the head remained stationary, a period of forty-eight hours. The elongated vertex now nearly reached the perinæum, yet the base of the skull remained above the brim of the Pelvis. The head was firmly wedged at the brim, and was placed in a diagonal situation, with the forehead under the right groin. The belly was painful to the hand, and the bladder was distended with urine. The woman appeared to be much exhausted, and was anxious to be relieved. My first object was to evacuate the bladder. I readily introduced the catheter into the Meatus Urinarius, and passed it forward with little difficulty to its very extremity, but no urine escaped; a small quantity of fetid, offensive fluid was merely discharged. I withdrew the catheter, and a few drops of blood followed. I now made a correct examination, for the purpose of determining upon the best and most ready mode of delivery; on withdrawing my hand, it was tinged with an olive-coloured offensive fluid, similar to that which escaped through the catheter. Upon talking over the case with my friend, the perforation of the head seemed to be liable to the fewest objections, and to offer the least injurious mode of delivery. I therefore proceeded to the operation, and in a moderate time extracted the head without much difficulty. The Uterus soon resumed its contractile powers, and expelled the remainder of the child. On the expulsion of the child, a large quantity of olive-coloured offensive fluid was instantly discharged, with a guggling extrication of gas; but the infant was not putrid. The Placenta was withdrawn without any particular trouble. I was now desirous of emptying the bladder; I passed the catheter with ease, and took away above a quart of urine. This patient continued in a state of

uncertainty for two or three days, from pain and tension of the belly, attended by febrile symptoms; which were relieved by leeching and purging. There was also a necessity for introducing the catheter once. I took my leave on the Thursday following; when the patient was doing well.

In this instance, the catheter must have found a new direction somewhere, and, from the similarity of the fluid discharged through it, to that subsequently escaping on the birth of the child, I am induced to suppose that the instrument passed through the posterior surface of the Urethra, thinned by long pressure, before the head of the child into the Uterus. Be it so, or not, no permanent inconvenience was sustained by the parts. Inflation of the intestinal canal, with the sense of painful distension thence arising, is one of the most distressing and troublesome symptoms which follow a protracted case. Whether this symptom arises from a loss of tone in the intestinal canal itself, or is the consequence of long continued pressure from the action of the abdominal muscles in the act of labour, I do not take upon me to determine. This gaseous distension is also an attendant upon the latter stages of peritonæal inflammation. It is always a dangerous symptom; but it may be present without much peritonæal inflammation.

CASE LX.

One Wednesday afternoon, in May 1811, my gratuitous opinion was asked on the case of a poor Irish woman in one of the streets leading from Whitechapel, who had been in lingering labour of her first child two days. In this case, at this time, there was no distress; the pains were good, and returning at short intervals; the head was well down in the Pelvis, but was placed diagonally; and the Os Uteri was dilated. The bladder was occasionally relieved, and there seemed every prospect of the labour being, in a reasonable time, naturally terminated. I gave that opinion to the midwife, and desired her to watch the case. I visited this poor woman again before bed-time, and finding some advance in

the head, I then saw no reason to alter my first opinion, or to interfere. I heard no more of this case till five o'clock the next afternoon, Thursday, when I was called by one of her female friends, who said the poor woman was very bad, and the midwife thought she ought to be delivered. Having heard nothing in the morning respecting the case, I had taken it for granted, that the poor woman was relieved. She had lately been seized with a shivering fit, followed by vomiting of a dark coloured fluid; the countenance was sunk; the discharge, *per vaginam*, was offensive; she was restless, and complained of her head; and there were evident marks of great distress. There being reason to suppose the child to be dead, I opened the head, as offering the quickest mode of delivery; and extracted the child without difficulty. The Uterus contracted, and the Placenta was thrown off naturally.

The next day this poor woman promised to do well; but, in a day or two, it was found that the urine passed involuntarily; and in a few days more fœcal matters were seen escaping, *per vaginam*. As this poor woman was destitute of every advantage to be derived from attention and nourishment, in about ten days after her delivery, I got her admitted into a public hospital, under the immediate care of a friend. After the first fortnight she seemed considerably improved; but beginning to decline, she lingered about a month, and then died. The body was removed privately in the night, so that I was denied the knowledge of the extent of the sloughing, which was probably produced by the long continued pressure of the head upon the soft parts.

CASE LXI.

Being engaged to attend a lady near the Mansion-house, I called upon her, and learnt that some years ago she had passed a living child without difficulty: that about two years before, she had a bad labour, in which, after its continuance for several days, the child was destroyed, and obliged to be extracted by force, and that she narrowly escaped with her

life. Having now advanced beyond the fifth month of pregnancy, she suffered much uneasiness in her mind for the result of her ensuing accouchement, and wished to place herself under my care. She was tall in person, and apparently well formed; but it was evident, that some mal-formation or disease had taken place in the Pelvis, between the two preceding lyings-in. I was therefore anxious to ascertain whether the same obstacle to the passage of the child still existed. An examination being allowed, I found a large tumour, of considerable solidity, but of what description I am ignorant, filling up nearly the whole cavity of the Pelvis, so as scarcely to admit the free passage of two fingers to the brim. This information placed me upon the alert, and gave me some idea of the difficulties I should have in future to contend with. I extended my inquiries to the nature of the preceding labour, the degree of difficulty attending it, and the danger following it; and having made myself acquainted with these facts, as far as I was able, I proposed the induction of premature labour, as the most likely means of diminishing the patient's sufferings. The proposition was readily acceded to. I was now desirous of a consultation, as well for a sanction to the proceeding, as for determining the most proper time for putting it in practice. Two celebrated professional accoucheurs met me in consultation with the gentleman who had been present at the preceding difficult labour. After all the inquiries we severally could make, the induction of premature labour appeared to all to be impossible, inasmuch as the tumour so far prevented the satisfactory introduction of the hand, that the finger could not be carried sufficiently high to reach the Os Uteri. In this dilemma we had no alternative, but to let the woman go on to her full time, and take her chance of consequences. Her labour commenced in the fore part of Tuesday, July 25th, and went on slowly till evening, when the pains began to quicken; about midnight I was called, and found the Os Uteri dilated, the liquor amnii discharged, the pains very active, the head high at the brim of the Pelvis, and scarcely sufficient room to admit two fingers through the Pelvis.

One of the gentlemen above alluded to had been requested to be again present, but he was not found at home. The pains rapidly increasing in power, I determined upon the immediate perforation of the head, with the then intention, after evacuating the brain, of leaving it a few hours for collapse, before I extracted it; but this intention I did not pursue. After the perforation was made, the labour pains soon became expulsive; I was now desirous of taking advantage of their powerful efforts to assist me in the extraction of the head; I therefore introduced the crotchet, and getting a good purchase, the Vagina at the same time somewhat relaxing, I got down the head by little and little, till I at length extracted it, quite crushed together. The operation took up more than four hours of very great exertion on my part. The body of the child soon followed, and the Placenta was naturally excluded. The tumour was still in its original situation, but the Vagina felt flaccid and loose. I was apprehensive that subsequent mischief might ensue from the pressure of the head, and the degree of violent force I was obliged to exert in the extraction of the child, but none, to my knowledge, followed. I watched this lady carefully for two or three weeks: during this time, she had several rigors, followed by febrile symptoms; but I saw no marks of suppuration, or any such process. The unfavourable symptoms gradually declined, and she got well in a moderate space of time.

This case presented more serious difficulties *in prospectu*, than any one I had before met with; yet it terminated more happily than could previously have been expected. I am fully persuaded, that, by taking early advantage of the expulsive efforts, I was enabled to finish it much sooner, and, upon the whole, with much less trouble to myself, as they essentially assisted my extractile purchase. I was not allowed any examination of the state of the tumour, or parts, after delivery.

CASE LXII.

On the morning of Thursday, September 24, 1818, I was summoned to give my opinion in a case of labour, in a lady who had passed two living children on former occasions, without difficulty, but, in the present instance, the birth was prevented by some uncommon obstacle. This lady had suffered unusual pain in her back for the preceding five months, which had repeatedly threatened the access of labour; her accoucheur had been called in consequence of the repeated returns of pain five weeks before the present time, and had remained in the house one night, but the symptoms then subsided. The process commenced the preceding evening, when her accoucheur was again sent for; it had advanced gradually during the night, and the membranes had given way in the early part of the morning; but the head was prevented descending by a tumour of considerable size in the Vagina, which almost blocked up the passage. At the time of my visit, the pains were active and vigorous; the Os Uteri was dilated to the diameter of about two inches, and was soft and flabby; the head was resting upon the Os Uteri, with a hand down by its side: a tumour of considerable magnitude was felt in the Vagina, below the head, apparently appended to the fore part of the Os Uteri by a broad expanded base, of the size and shape of a goose's egg, and offering considerable resistance to the finger. After watching the effects of the labour-pains for several hours; finding the Os Uteri completely dilated; observing that the advance of the head was prevented by this tumour, and remarking that it was indisposed to give way, we determined upon lessening the head; and even after perforation, the head was not extracted without the exertion of considerable efforts.

The lady recovered without inconvenience, and became again pregnant. She would not submit to the induction of premature labour, which was proposed about the eighth month. She fell into labour in due time, and, after a very lingering case, she expelled a dead child. The tumour was

still in the Vagina, but it was then much diminished in size. She had again a happy recovery.

CASE LXIII.

One Friday evening, I visited a poor woman in Skinner-street, Bishopsgate-street, who had been in labour of her third child a longer time than usual. Introducing my finger *per Vaginam*, I felt a large soft tumour, not unlike the breech of a child, in the Pelvis; but examining more accurately, I could pass my finger before and above it, and then I discovered the head of the child lying at the brim of the Pelvis. I afterwards examined *per Rectum*, and could feel the tumor anterior to my finger. It was therefore situated between the Rectum and the Vagina. The liquor amnii had been discharged for some hours, but the pains were not violent. On Saturday morning, things remained in nearly a similar state, without much advance of the head. During the course of this day, the pains became more active, so that towards evening the woman felt herself exhausted; still there was little progress. The head was pressing upon the tumour, which did not seem to give way. Seeing no probability of the passage of the head in its entire state, I introduced the perforator, and extracted the head with difficulty. The labour was finished in a common manner, and the woman recovered without further inconvenience. During the operation the tumour seemed to give way from compression: after delivery it was still perceptible, but more extended, and less firm.

CASE LXIV.

In the morning of Wednesday, I was called to the assistance of a lady, in labour of her first child, who was stated to be in great danger. This lady's labour had commenced on the Saturday evening preceding, in an active manner; during the course of the night her attendant was called, who found a correct presentation with the usual occurrences of

labour, and pleased himself with the prospect of not being long detained. Sunday, Sunday night, Monday, and Monday night, passed over in anxious expectation of the desired event, but without any pressing symptoms of danger. On the Tuesday morning, the lady's friends becoming anxious from the delay, the attending accoucheur called in a neighbouring gentleman, to have his opinion respecting the case, and to quiet alarm. He saw the patient several times during the day of Tuesday, and observing the pains weakening, and the woman's strength declining, towards night he tried to deliver with the forceps, but was foiled in the attempt. I found this young woman completely delirious, with a rapid small pulse, a foul tongue, and every symptom of exhaustion: besides the labour-pains had nearly subsided. The vertex was low, almost at the perinæum, but the head was placed diagonally. The discharges were very offensive, and the scalp and bones of the head felt loose. There appeared to me, in this case, no other alternative than immediate delivery, but even that, under such a state of exhaustion, seemed to offer little chance of recovery to the patient: and delivery, by the perforation of the head, was unanimously agreed upon, as the readiest and safest mode. I therefore proceeded to the operation, but had to contend with more difficulties than I had at first expected to meet with. After the extraction of the child, there was a retention of the Placenta, but the mass was at length withdrawn by the introduction of the hand. The Uterus proved now to be moderately contracted. I left the patient about five in the morning, with little hopes of her doing well. About an hour after my departure she was seized with a violent rigor, which continued some minutes, and which justly alarmed her attendants. After this had subsided, she went to sleep, and slept some hours. I saw her in the afternoon of the next day much recruited. From this time she went on improving, and suffered no particular inconvenience from the dangerous effects of her long labour.

CASE LXV.

About mid-day of Friday, I was requested to visit a poor woman, in St. George's in the East, who had been in labour since the Wednesday evening, but in whom there was not a sufficient external opening for the passage of the child. I was given to understand, that this woman had a difficult labour nine years before, and that adhesion of parts was suspected to have followed local injury. On passing the finger, the head of the child was felt pressing upon, and extending the perinæum, in such a manner, indeed, as to threaten to force its passage through the Anus, instead of through the Os Externum, which consisted merely of a small circular opening scarcely large enough to admit the finger freely. The finger introduced into the Rectum, detected the head strongly pressing against the barrier separating the Vagina and Rectum. In this situation the head had remained for many hours; the pains were still violent, but no dilating impression could be made upon the parts. Ocular inspection evidently showed that adhesions had taken place, which almost closed the passage. Under this state of things, a division of the adherent surfaces became necessary to allow the head to pass. An incision of some length was therefore carefully made, first anteriorly towards the Urethra, then posteriorly towards the Rectum, so that the external opening was materially enlarged. This being done, the vertex immediately occupied the opening. I then introduced the forceps, and was about to extract the head, but finding there would be great danger of increased laceration of the new-made wound, if the head was either extracted or allowed to pass entire, it was judged prudent to withdraw the forceps, and to lessen the head. It was soon extracted, without any increase of mischief. Attention was recommended to the healing of the wound, and the woman presently got well.

A physiological question was here naturally excited: how did the woman become impregnated? The parts were cer-

tainly not of that capacity to allow of a proper marital embrace. There was also this peculiarity about the parts, that the Urethra was so extended as readily to admit the finger into the bladder; and before the parts were examined by the eye, the Urethra was supposed to be a bag or pouch formed by inflammatory adhesion in the fore part of the Vagina. I will merely make one other remark, viz. that notwithstanding this singular extension of the Meatus Urinarius, and the operation, the woman passed her urine the next day with the greatest freedom, and ultimately recovered.

CASE LXVI.

One Wednesday forenoon my attendance was requested upon a woman in labour at no great distance from my house. I was told that the child was partly born, but that it stuck in the passage, and that the attendant could not get it away. I found the case as had been represented. The feet were external; the legs, thighs, and breech of the child were in the Vagina; all the parts above were in the Uterus. This woman had previously passed several children without any difficulty. She had not, in the present instance, exceeded her seventh month, but had considered herself uncommonly large: she had been in slow labour for two days, and her accoucheur had been in the house for the last twelve hours; he told me that the breech presented, and came down slowly; at length getting hold of the legs, he brought down the feet some hours before; but that all the extractive efforts he durst use, had failed in bringing down the body. I was immediately aware, that some resisting obstacle, originating either in disease or malformation, could alone prevent that descent. The poor woman was already much exhausted by the protraction of the labour, and by the efforts which had been ineffectually made for her relief: immediate delivery seemed therefore called for. Getting hold of both feet in a

" I brought them gradually to a full bearing, and

and along the fore part of the child, I met with

a soft puffy *something*, which filled the brim of the Pelvis, and which seemed to me to contain air or water. I therefore passed the perforator along my hand against its most prominent part, and piercing it, a quantity of serous fluid instantly escaped to the amount of several quarts. The body of the child was now brought down with ease, and the head soon followed. But a second child was then detected in the Uterus. The exhausted state of the woman did not authorize me to wait for its natural expulsion; I therefore passed my hand and brought down the feet. This child was also lifeless. The Uterus contracted, and the double Placenta was thrown down into the Vagina, which was by and by withdrawn. This poor woman recovered from her exhausted situation, without the intervention of any symptom worthy of notice. On inspecting the body of the dropsical child, the legs, arms, and head, exhibited the usual appearances of a child about the seventh month, but the parietes of the belly had been astonishingly distended, so as to hold several quarts, by the fluid contained within the peritonæum. The abdominal viscera were healthy, but appeared to have suffered from the compression of the fluid.

This was a case of true Ascites before birth; the only one I have ever seen. The second child was of the usual size at seven months.

CASE LXVII.

In the forenoon of a Tuesday, my opinion was solicited in a case of protracted labour, near Barbican. The woman had been ill since the Saturday morning preceding, and was the mother of several children, which she had always passed without previous difficulty. I found that only a very small portion of the head of the child had advanced downward, although there seemed to be a well-proportioned Pelvis, and although the woman had long suffered under expulsive pains, which were at this time on the decline. The scalp, covering the descended vertex, was flaccid to the finger, and there was a singular looseness in the bones of the head. I

passed my left hand into the Vagina, for the purpose of a more accurate examination; I could then detect a size of head above the brim, from some cause or other, far too large to pass entire through the Pelvis, and I felt immediately convinced of that fact. The woman being already much exhausted by the efforts she had undergone, I determined upon perforating the head immediately; and on the introduction of the perforator, several pints of serous fluid, similar to the liquor amnii, instantly escaped. The bones of the head immediately collapsed, so that it was quickly propelled through the Pelvis by uterine action alone. The Placenta gave no trouble.

Upon examining the head after birth, the bones and sutures were much extended by the fluid collected within the cranium, by which also the brain was compressed. The child was otherwise of its proper size; its body and limbs were by no means emaciated. In this instance, the fact that the woman had passed several children on former occasions with ease, led me immediately to suspect the cause of protraction to be in the head of the child, and not in the Pelvis. I therefore directed my inquiries to that point, and acted accordingly.

I saw this woman daily, for two or three days, during which she was promising to do well: but I was some time afterwards told by the gentleman previously in attendance, that after I had ceased my visits sloughing of the bladder took place, and that she gradually sunk under the irritation thereby produced, and died within the month after her delivery.

CASE LXVIII.

One Sunday, my immediate attendance was called for in ase of a poor woman in the Kingsland Road, who had our three days; who had just been taken with a o seemed dangerously ill. I saw the woman f time, and learnt that she had brought several world before, without any particular diffi-

culty. She now appeared to be much exhausted, and had been attacked with several shivering fits. The vertex had descended a little into the Pelvis: the Os Uteri was completely dilated, and had been so for the last two days; the bones of the head were extremely loose, but the greater part of the skull was above the brim. Being persuaded that in this case also, there must be some particular cause of protraction from mal-formation in the child, I immediately perforated the head. Several pints of fluid instantly escaped, the head collapsed, and was soon extracted by the crotchet. The Placenta being safely removed, I left the woman in expectation that she might do well, but she did not survive through the night.

When, therefore, unusual protraction does occur, under sufficient pains, in a woman who has passed children before with comparative ease, the attention should be called to the possibility of disease or malformation in the child.

CASE LXIX.

At ten at night, on a Thursday, a respectable tradesman near Holywell Mount, wished me to meet a gentleman that evening in consultation upon the case of his wife, who had been in labour of her first child several days, and to whom he had been married eleven years. I found the patient low in stature, corpulent, and verging towards forty; with edematose legs and thighs. A natural labour began on the Tuesday. The process went on slowly till Wednesday morning, when the waters were discharged; afterwards it became more active, and strong pains continued through the day and night of Wednesday, and through the day of Thursday, notwithstanding which, the head did not advance; it had remained stationary for more than twenty-four hours. The Os Uteri was now dilated; the vertex had descended about one-third into the Pelvis; the rest of the head was above the brim, and jammed against it. The discharge was of an olive colour, and offensive. The lower part of the belly was edematose, as were also the external parts, which

were much swollen. The countenance was at present good; the head free from pain, and the pulse firm; but she had frequent eructations, and complained much of being troubled with wind. Pressure on the uterus caused pain: it was, indeed, unusually tender. Uterine action still returned at intervals, but it was less powerful, in comparison with that of the day preceding. This state of things promised little probability of such improvement as to preclude the necessity of instrumental assistance: yet, as the woman's strength remained good, and her spirits but little impaired; as she persuaded herself that the child was still alive, and was anxious after so long a marriage to have a living child; and as there appeared no possibility of delivering her at this time except by opening the head, though the Pelvis did not seem to be malformed, it was determined, in consultation, to wait till the morning. On Friday morning the labour was in *statu quo*. The head had made no advance, and the pains were evidently much weaker; she had dozed frequently in the night, but was not refreshed. She now complained of headache; the tongue was dry, the skin hot, and the pulse quickened. The external parts were swollen and tender; and the belly was more painful. The bladder was not distended. The discharges were very offensive. After a short deliberation, delivery was determined upon, and the head was perforated: an indescribable offensive smell met the nose, showing that putrefaction had already advanced in the child. After evacuating the brain, extraction of the head was much impeded by the instrument repeatedly tearing away parts, in consequence of the little resistance they offered. At length the head being brought down by persevering efforts, still greater difficulties were to be encountered. Extraction of the body resisted all the attempts I could for some time make, even with a napkin tied round the neck of the child; by-and-by I passed a blunt hook into the axilla, which brought down one arm; the other was got down in a similar manner. Notwithstanding this, considerable force was required to extricate the body. The difficulty was then explained in

the degree of putrefaction the body of the child had taken on, and the quantity of gas evolved. Besides, the child was a very large one.

The Uterus offered little assistance during the extraction, and, after the birth of the child, it was large and tender. After some time it became necessary to withdraw the Placenta by the hand; this being done, the Uterus was left well contracted. The woman bore this operation of more than two hours, with unusual fortitude, and was left in as favourable a situation as could be expected. The next day she had passed urine repeatedly; had got sleep; and was free from febrile affection. Within a fortnight from this time, this woman was quite as well as after the most favourable labour.

I attended this woman afterwards in two successive labours, in both of which, after waiting a proper time, I felt myself obliged to have recourse to the long forceps; but in neither was the child saved.

CASE LXX.

On the 9th of April, 1810, I was called, towards evening, to the assistance of a patient, near the Tower, in consequence of the gentleman engaged to attend her, leaving her abruptly under the plea of illness, and refusing to return. He had been in the house two days and two nights, and either became tired of his job, or was fearful of some occurrence which he was unable to manage. At this time the head was partly down in the Pelvis, the patient's strength was good, and the pains were powerful. I soon detected a diagonal position of the head, and a small Pelvis; but after ten hours patience, a small living child was naturally expelled.

In January, 1812, I was again requested to take charge of this woman, and being called in the early part of the day, I felt, through the membranes, the hand and arm of the child. I remained in the house the whole of the day, watching the case; towards evening the Os Uteri became

dilated, the membranes gave way, and I detected the shoulder at the brim of the Pelvis; I turned the child with ease, but having withdrawn the body, the head, being large, stuck at the brim, and I was compelled to use much force in extracting it. The child was of course still-born. In May, 1813, I was desired to attend this patient a third time, and after two days and two nights severe suffering, her strength began to give way, while the head was completely above the brim of the Pelvis, and I was under the painful necessity of lessening the head. She became pregnant a fourth time; and having been so unsuccessful in the two preceding instances, and knowing that, if there was a large child, it would pass with difficulty, I advised her to submit to the induction of premature labour at, or a little before, the completion of the eighth month. She did not hesitate, and the liquor amnii was discharged in September, 1814. Labour came on three days after, and a living child was, with comparative ease, expelled after short suffering; from this confinement she was soon abroad, nursing her child. In three more successive pregnancies, viz. August 1816, June 1818, and January 1820, I pursued the same plan, and with one exception, have had the satisfaction of seeing living children produced; in all the four instances, the mother recovered as well as any woman under the most simple process of labour. But this poor woman was subsequently not so fortunate. She became again pregnant in the spring of 1822, and on Tuesday, September 10th, when she was nearly eight months advanced, I discharged the liquor amnii. On the morning of the Saturday following, the pains of labour commenced, and proceeded gently onward to the evening of that day; at which time a vaginal examination showed the Os Uteri to be but little altered. It then continued firm and resistent, with an indisposition to relax. I was summoned on the Sunday morning at half after eight, and on my arrival at the bedside of my patient, I found that the child had that moment been expelled; almost immediately a violent rigor occurred, followed by a considerable and rapid discharge of blood. After the sepa-

ration of the child, the Uterus felt well contracted; the Placenta was already in the Vagina, so that I presently withdrew it; yet the discharge of blood still continued, which by-and-by produced fainting. On further inquiry, I felt satisfied in my own mind, that the uterine structure had given way about its cervix. The hæmorrhage continuing in spite of my best endeavours to check it, the woman gradually sunk under the usual symptoms, and expired about an hour and a half after the expulsion of the child.

Upon inspection of the body the next day, a quantity of blood appeared to be effused under the peritoneal covering of the right broad ligament, the effusion extending downwards towards the Vagina. Upon dividing into the Vagina through the bladder, an extensive laceration of the mouth, neck, and body of the uterine structure, presented itself to view, leaving the peritonæal covering entire, so that no blood could escape from the lacerated surface into the abdominal cavity. The general substance of the Uterus was small, and well contracted. It seemed probable, therefore, that the Os Uteri and adjacent parts had not given way in proportion to the strength of the labour pains, and that the powerful contractions of the body and fundus of the organ had overcome the unusual resistance the lower parts offered, had lacerated their structure, and had produced the sudden exit of the child.

CASE LXXI.

I was requested to take charge of a lady in the City, in her next accouchement, which was expected to take place, if she were allowed to complete the full period of pregnancy, sometime about the middle or latter end of August. I was aware that the lady had a bad Pelvis, because in two previous labours the head had been obliged to be lessened by her accoucheur, and, in one of them she had sustained some injury in the bladder. I proposed the induction of premature labour, to which she expressed some hesitation at the first. Desirous of satisfying her scruples, both as to

the principle and the time, I requested a consultation with an eminent friend on the point. We met on the 23rd of June, and after the most correct examination, neither my friend or myself could detect the uterine tumour through the parietes of the belly; our patient being a low, fat woman. The Os Uteri had a sort of ragged feel; very different, as we thought, from the Os Uteri of a woman seven months gone with child. But what added to my caution in this instance, was, a determination not to be again deceived by this lady; for in the year preceding, I had been bespoke to attend her in her expected lying-in, when she proved to be not pregnant. We therefore agreed to meet again in a month, and then to make another inquiry, and proceed as circumstances might dictate. We accordingly met on the 21st of July, and were then persuaded, from appearances, that she was eight months advanced in her pregnancy. We persisted in the propriety of the proposed measure; and the steps necessary to forward that object were taken on the afternoon of the 23rd. The 24th, 25th, and 26th of July, passed over without any symptoms of labour; early on the morning of the 27th, some slight pains came on, which induced the nurse to call me about nine, A.M. Presently the pains became stronger, so that by the middle of the day, the Os Uteri was completely dilated; the efforts then became violently expulsive, yet the head remained at the brim of the Pelvis. After some hours' exertion in a very hot day, the Funis came down but pulsated; towards evening, finding the head did not advance satisfactorily, and fearing some mischief from the violence of the efforts and the heat of the weather, I again called in my professional friend, to have his opinion on the state of the case at that time. On making the most correct examination, and viewing the case in all its bearings, and especially as to the safety of the mother, my friend proposed the perforation of the head, which was presently effected, and the labour thus concluded. The lady recovered well, yet the event produced much unmerited dissatisfaction. The space from Pubes to Sacrum was under two inches and a

CASE LXXII.

I was called to the assistance of a medical man in attendance upon a lingering case of natural labour under a first child. The pains had been for a length of time strong and violent, but were at the time of my visit evidently declining in power and effect. The Pelvis appeared to me to be confined at the brim; for the vertex, with a portion of the head, had descended low down, while the wider part was firmly wedged in the brim. Thinking early delivery necessary, but not authorised under such circumstances to lessen the head, I had recourse to the application of the long forceps; and getting the instrument well and very satisfactorily fixed, I began my extractive purchase; but it required considerable power exerted for some time, before I was enabled to extract the head: the rest of the child and the Placenta were presently expelled by the uterine efforts; but the child was still-born. The mother recovered well.

CASE LXXIII.

About two P.M., on Friday, November the 3rd, 1820, during a short absence from home, a message was left with my servant to send me to the assistance of a poor woman in Swithin's-lane, with proper instruments, who was represented to have been in strong labour for two days, with two medical gentlemen in attendance. My servant did not fail to depict the case, on my return, in the darkest colours, to draw my immediate attention to it. On obeying the summons, I was conducted into a miserable attic, in which lay a short, deformed, rickety woman, in labour of her first child, with only one helpless attendant; by whom I was told, that the membranes broke on the Tuesday evening preceding, without any pain, and that the waters dribbled away through the night: that on Wednesday pains began to come on briskly, on which she sent for the midwife, whom the woman had previously engaged to attend her during her lying-in; she stayed with her for a while, and then left her.

Some time after, the midwife was called again, but being from home, another midwife supplied her place; after she had waited some hours, (probably not liking the complexion of the case,) she requested a neighbouring accoucheur might be called, and took herself off. This gentleman, finding, after many hours' attendance, that the head of the child did not advance to his expectation, notwithstanding there was no want of pains, asked the opinion of a neighbouring friend on the case; who, after several visits, and further lapse of time, not caring to grapple with the difficulties the case presented, desired that I might be sent for. I now made an examination alone, and detected a very deformed Pelvis, with the head of the child entirely above the brim, and the Os Uteri open, soft, and flabby below the vertex; a long fold of the Funis was also hanging out of the external parts, without pulsation. At this time the pains were short and trifling, but there were no symptoms of general exhaustion. Before I determined on taking any steps for the poor woman's relief, which she earnestly begged in the most pitiable manner, I desired that both the gentlemen, who had seen the case, might be called, and they were shortly with me. Upon a consultation, all three agreed that there was no possible alternative but in lessening the head, and both gentlemen expressed their doubts, whether the head could be extracted or not, after it was lessened; but I had little fear of the result myself. I requested each gentleman to make as correct an examination as he could, to determine, with tolerable accuracy, the space at the brim of the Pelvis; each was of opinion, it was under two inches. From the nicest measurement I could make, I thought it ranged somewhere between one inch and half, and one inch three quarters. We also agreed upon immediate perforation, and upon leaving the head for some hours afterwards for collapse, before extraction should be attempted. I therefore perforated the head about four

evacuated as much of the contents of the cranium,

n get away. At eight P. M. we met again;

uld then be observed; uterine action was

extremely languid, yet the woman kept up her spirits. I now proceeded to the extraction of the head; and getting the craniotomy forceps well and firmly fixed upon the head under the right groin, after such extractive efforts as I durst use, the instrument brought away the portion of bone and scalp to which it had seemed to have been so satisfactorily affixed. I was therefore now obliged to have recourse to the crotchet. Having removed such portions of the cranial bones as were in my way, I presently procured a firm hold somewhere about the base of the skull, and after long-continued efforts, I at length got down the head, to the surprise of one of my friends, completely crushed together. But even after the extraction of the head, I had considerable difficulties to encounter before the body could be made to pass, and I was obliged to apply to the assistance of the blunt hook, for the extraction of the shoulders and body. The Uterus presently contracted, and threw down, by that contraction, the Placenta into the Vagina in a moderate space of time. I was nearly three hours in effecting this delivery. I saw this poor woman for several successive days, and at each visit she seemed more improved. I then intrusted her to the care of that gentleman, whose patient she more immediately was, with confident hopes that she would do well.

CASE LXXIV.

A little before six A. M. Thursday, November 23rd, 1820, I was called out to Bethnal-green, to give an opinion in the case of a woman who was the mother of several living children, and who had been in active labour for forty-eight hours, attended by a respectable gentleman in the neighbourhood. I learnt from him, that he was called on the Tuesday morning, that the membranes had at that time given way, and that, with the discharge of the waters, the Funis had come down, which, on his first examination, possessed no pulsation; that the pains, after a time, became frequent and expulsive, yet the head made but a slow advance.

In the evening of Wednesday, he asked the opinion of a neighbouring friend, who recommended him to wait the natural expulsion. As the case did not terminate as was expected, my assistance was requested. On my arrival, the head was just expelled, but the poor woman appeared in a state of great exhaustion. The child's head was very large, under a tendency to become hydrocephalic; the cuticle also readily peeled off the scalp and face. After waiting some time, the Uterus acting moderately, there was no advance of the shoulders; I now made an examination, and found the Pelvis completely filled up by them. Now, fixing a blunt hook in the axilla, I extracted one arm, the other readily followed; the body, much swelled and putrid, was by-and-by expelled. The Placenta soon followed, and the Uterus contracted well. An anodyne was now given; but the poor woman was left in a state of great uncertainty: she, however, ultimately did well.

Had I seen this case any part of the preceding day, I should not have hesitated to have perforated the head, for two reasons; first, the disproportionate size of the head, which would have been determined by a proper examination; and secondly, the certainty of the death of the child. There could have been, to my mind, no rational inducement for delaying delivery at the risk, and under the advance of such symptoms of exhaustion.

ON PRETERNATURAL LABOUR.*

It is a fact sufficiently established by practical experience, that the position of the child at the commencement of labour is not, in every case, regular and uniform. Although the head proves, in by far the majority of instances, to be the presenting part, yet the breech, the shoulder, the belly, or the back, may be occasionally met with at the brim of the Pelvis. To labours, therefore, in which any other part of the child presents, except the head, the epithet *preternatural* is prefixed; but, the term bears a reference to fœtal position alone.

The cause of this variety in the presentation of the child has, at various times, engaged the attention of the physiologist; but it has hitherto eluded his strictest inquiry; and, perhaps, does not admit a satisfactory elucidation. In the laudable desire of tracing any obscure fact to its source, we are apt to be misled by fancy, and to ascribe the phenomenon to the effect of some particular agency, which may possibly have had little influence in its production.

Thus, to casualties, and to different excitements under pregnancy, has been imputed the power of changing the position of the *fœtus in utero*, and of making that a preternatural presentation, which, without the intervention of such occurrence, would have been a natural one. Such an inference seems plausible, and even probable, to a superficial observer; but it will not bear the test of the most common inquiry. For, after the exposure of the mother to accident or to mental agitation, from which the infant has been

* Dystocia transversa.

suspected to have suffered injury or displacement, a natural presentation in the hour of labour, has dispelled that anxiety which had previously been excited. And, on the other hand, without any such exposure or presentiment of the fact, a preternatural case has been unexpectedly announced to the patient or to her friends. But, further, the lower order of women, who, from the nature of their avocations, are daily exposed to the casualties and hardships of life, do not appear, *cæteris paribus*, to be more liable to this unnatural position of the child, than women of the middle or higher ranks of society. Cross births may, indeed, seem to be more prevalent among the lower orders of women; but I apprehend that any apparent disparity is solely attributable to numerical superiority in this class. A woman of any rank or condition in life may be the subject of a preternatural presentation, of which she has had no previous cognizance. It is not until the establishment of labour, that this unusual situation of the child can be detected; for which no obvious reason can commonly be assigned. For my own part, I am disposed to think, that the occurrence is rather attributable to some uniform internal principle, with which we are at present unacquainted, than to external agency; since it may now and then be remarked, that repeated cases of this kind happen to the same individual, and that some women seem more subject to them than others.

Preternatural cases may be arranged under two general divisions: — the first including those cases, in which the breech or some portion of the lower extremity presents; the second embracing those cases, in which the shoulder, the upper extremity, or some part of the body of the child, is detected at the brim of the Pelvis, or descending into its cavity. This arrangement is not purely arbitrary or speculative; it is founded on an important practical distinction. For cases of the first description are generally terminated by the agency of the natural powers, and call for little artificial assistance; whereas, in those of the latter kind, the unfavourable position of the child precludes the probability of natural expulsion, and calls for the active inter-

ference of the accoucheur to alter that position, and to place the child in such a situation as to be enabled to pass into the world.

ON THE BREECH PRESENTATION.

The breech is a part of the child which presents to the birth, the next in frequency to the head. This mode of presentation, on a general average and rough calculation, may be estimated at about one in thirty cases. Its frequency alone would therefore impress the necessity of obtaining a thorough knowledge of the different points requisite to its proper management. But if we also take into consideration this circumstance, that every case, in which that artificial mode of delivery termed *turning* becomes necessary, is ultimately made a breech case, that necessity will be still the more apparent.

There are no signs during pregnancy, with which I am acquainted, so strongly marked, as to warrant the assumption that this deviation of Nature exists. The general symptoms and appearances under that state, are so similar to those under a natural presentation, as to elude common observation. The shape of the uterine tumour is, during the latter weeks of gestation, oviform in both; its long diameter subtending from the scrobiculus cordis to the pubes, its short one from side to side. But the position of the child is so far reversed, that the nates occupy the cervix uteri instead of the head, while the lower extremities are directed upward. In other respects, there is little difference in the general disposition of the body and limbs of the child. Yet, perhaps, if it became necessary, or particularly desirable, to arrive at any tolerable information on this point, a correct hand, with the advantage of the stethoscope, might possibly detect the position in which the child was at the moment lying.

The commencing symptoms of labour also resemble those under a natural case, but they frequently proceed more slowly; the uterine contractions being, on the onset,

shorter and more distant, so that a slighter impression is made on the maternal passages in a given time, and the descent of the presenting part is more gradual. The Os Uteri, however, by-and-by, relaxes and opens, through which the membranes protrude; their bag in due course gives way, and the liquor amnii is discharged. The breech is afterwards pushed down by the increased impulse of uterine action; during its descent, its several parts are naturally accommodated to the pelvic cavity; at length, whether the belly or the back of the child is looking towards the mother's spine, one of the nates, taking the precedence of its fellow and assuming a conical shape, begins to distend the external parts. After considerable extension, the breech makes its exit, with one hip inclined towards the anus. The legs are presently set at liberty, and the trunk is expelled with one side under the pubes; with the other in the sacrum. In the mean time, the shoulders are propelled through the brim with each acromion towards the ileum of the mother, until their arrival at the pelvic outlet, when their direction is changed. Now one shoulder turning into the hollow of the sacrum, and sweeping over the perinæum, is gradually expelled: the other then emerges under the arch of the pubes. While the shoulders are thus passing, the head is entering the pelvic cavity, with one ear directed towards the pubes, with the other ear opposite the prominence of the sacrum. Before the final escape of the head, however, the face is directed into the hollow of the sacrum; so that the nape of the neck is placed immediately under the arch of the pubes; the chin then emerges, and the face and forehead in their turn slide over the inner surface of the perinæum.

The above is a brief outline of the natural progress of a common breech case, in which there is no deficiency of pelvic space, or defect of uterine action. To that sketch, therefore, must be assimilated, as nearly as possible, the management of those cases, in which artificial assistance be-

dential policy in every case of la-

bour, not to suffer any great length of time to elapse without determining its proper character. To no cases can this practical maxim be more directly referable, than to those, in which the head of the child is not the presenting part. Until that point is satisfactorily cleared up, we remain in complete ignorance of the ulterior management which may possibly be required; and in forming a conclusion, the judgment is to be partly guided by positive, and partly by negative indications.

Upon making a vaginal examination, the breech will be detected, even at or above the brim of the Pelvis, by its softness and roundness; by the absence of that resistance with which the cranial bones impress the finger, and by the inability to define anything like sutural divisions. But after it has gained possession of the pelvic cavity, its identity becomes more strongly marked. The finger then encounters the anus and genitals; it may be carried around the drawn-up thighs, and may be passed into the groove of separation between them; perhaps, also, the prominences of the lower vertebræ may be within its reach. It is likewise no uncommon occurrence, under the descent of the breech, for the meconium to be squeezed out of the rectum of the child, which, mixing with the amnial and vaginal discharges, communicates a greenish stain to the fingers and napkins.

After a satisfactory detection of the presentation through the assistance of any, or all of these marks, the process of labour must be allowed to pursue its regular and usual course without any interference, (except such as is necessary in common cases,) to the exclusion of the breech, legs, and trunk. It may be here proper to observe, however, that under the passage of the body, one or other side must be so inclined towards the pubes, that the head may be brought through the brim in a proper direction.

When the trunk has passed as far as the shoulders, a little manual dexterity is commonly necessary to extricate the arms and the head. The upper extremities are at this moment drawn up by the side of the head, and occupy no

small portion of that space through which the latter has to pass. They must, therefore, be released from this situation, to give room for that passage. Besides, the umbilical vessels are at this instant suffering a most dangerous degree of pressure, the continuance of which may prove fatal to the child. To expedite the extrication of the above-mentioned parts, a fore-finger must be gently insinuated over one of the arms within ready reach, which, under the inclination of the trunk in the opposite direction, is to be carefully brought down. In this act, some attention must be paid to the natural bend of the elbow, that the flexion of the limb may be made favourable to its release. Having brought down that arm, by causing the fœtal hand to sweep along the face or side of the head, the trunk must be inclined in the reverse direction, and the other arm must be set at liberty in a similar manner. The head alone now remains behind. But any attempt cannot with propriety be made to withdraw the head, until its relative situation is duly characterised. If the face be found in the hollow of the sacrum, a trifling degree of extractive purchase, assisted by a slight manual manœuvre, will be sufficient to cause the head to emerge. With this intention, let two fingers of either hand be placed across the neck above the shoulders, let the other hand support the chest, then inclining the trunk forward, the head gently escapes. But if the face shall have got a diagonal or a lateral direction, that position of the head must be carefully changed to the one above-mentioned. If any further impediment to the extraction of the head should still present itself, an additional assistance may be acquired by the insertion of a fore-finger into the mouth. By this simple expedient, the chin will be brought close upon the chest; by it, is also furnished an increase of extractive purchase, sufficient to overcome any moderate degree of resistance. But, in having recourse to that act, let it ever be kept in mind, that an imprudent exercise of the power thereby obtained may be productive of the most serious mischief to the parts within the mouth, or may even dislocate the jaw.

It will sometimes happen, that the head is detained at or above the brim of the Pelvis, after the head has been brought down. This detention may be occasioned by the relative misplacement of the head; by a deficiency of room in the brim; or by a combination of both these occurrences. It will, therefore, now become necessary to make as correct an examination into these different circumstances, as the present state of things will allow, and to regulate the future proceedings accordingly.

If it should be found, as is frequently the case, that the long diameter of the head is opposed to the conjugate diameter of the Pelvis, that the forehead or the occiput is directed to the projection of the sacrum, such position of the head must be changed for reasons too obvious to mention, and the face must be made to assume a lateral or a diagonal direction. In that direction, the head must be gradually and cautiously drawn through the upper strait. When it has cleared the upper strait, and has gained possession of the pelvic cavity, its relative position must be again changed, by the inclination of the face into the hollow of the sacrum. If it should be found that the head has already taken a lateral or a diagonal direction, it will be merely necessary to proceed as just stated.

But it may also happen, that the trunk has been suffered to pass with the belly to the pubes, and that, after the extrication of the arms, the occiput is placed in the hollow of the sacrum, and the forehead to the pubes. This situation is not so favourable to the final escape of the head as the preceding one just alluded to, with the face in the hollow of the sacrum; yet the head must be withdrawn some way or other. It will now become a question, whether that object had better be attempted under the present position, or under an entire change. In determining that practical point, we must look to the relative capacity of the outlet of the Pelvis, and to the state of the child; yet, I think that, in most instances, it will be found more practicable to extract the head under its present situation, than by previously turning the face into the hollow of the

sacrum. With such intention, the occiput must be brought well down into the hollow of the sacrum, and the chin at the same time inclined upon the chest; then, by the assistance of a finger in the mouth, and a gradual increase of extractive power, the head is presently released.

In the preceding process, as soon as the breech and legs are excluded, the umbilical cord becomes exposed; and in that exposure, is indicated the state of the fœtal circulation through that necessary appendage. If the cord should be found to be at this moment drawn tightly upward, partly from retraction and partly from pressure, the fœtal circulation is in great danger of permanent interruption. To prevent the mischievous consequences likely thence to ensue, a fold or two of the Funis may be cautiously brought down. The true condition of the fœtal circulation will thus be ascertained, and by that condition must the future proceedings be in a great measure regulated.

If umbilical pulsation be felt to be going on vigorously and uniformly, the further expulsion of the trunk may be safely entrusted to uterine action; the more especially, if that action be continuing regular and effective. But if that pulsation begin to flag and to intermit, whereby its cessation is threatened; or, if the returns of uterine action become more distant or less powerful; the delivery of the other parts of the child must not be delayed. Yet any extractive efforts should be applied in so gentle and gradual a manner, as to inflict no additional pain upon the mother; and always under the impression, that the child may be born alive. When extractive assistance becomes thus necessary, the occasional application of a hand upon the uterine tumour will enable the accoucheur to judge, whether the degree of uterine contraction is commensurate with that of fœtal extraction. If the child after birth should not speedily show a disposition to breathe, the most effective measures should be promptly had recourse to for its resuscitation; for a restoration from that state of suspension under which animal life is probably at that instant languishing. Of these, immersion in warm water, with inflation of

the lungs, holds the first rank. In every case of breech presentation, therefore, it becomes a matter of prudent foresight, to provide such means in immediate readiness for use, as may be wanted under the above emergency.

But if, on the other hand, upon the free exposure of the Funis, no pulsation whatever can be detected therein, the child is, in all probability, already bereft of life; yet, of that fact, there is at present no direct evidence; for the umbilical circulation may be only temporarily intercepted by pressure, and the child may be at the moment under a state of suspended animation. Between these two states, there is a most essential difference; yet I cannot mention any characteristic mark by which one can be distinguished from the other. We must therefore be guided by probabilities; and if, after some pause, no further pulsation can be discovered in the Funis, I should be disposed to think, that life was extinct in the child. Under that impression, I should not be anxious to hurry the extraction of the shoulders and head. Yet, if the slightest umbilical pulsation can be perceptible, if there should be an obvious feeling of motion, or if the mother should express a decided conviction that her infant was living but a short time before, immediate extraction ought not to be delayed.

In some cases, in which the breech, legs, and part of the trunk are in the world, while the shoulders and head are remaining behind, I have observed a distinct heaving of the chest and belly under my hand, indicative of a futile attempt on the part of the child to inspire. I have also remarked, that when this occurrence has taken place, the child has been born, either under a state of suspended animation from which it has been with difficulty recovered, or of actual deprivation of life. This attempt at inspiration is induced, I presume, by the premature exposure of the body to atmospheric air; and when it does occur, it ought to prove an additional stimulus to activity in the extrication of those parts which are still unborn. Whether the child in that act inhales some gaseous vapour injurious to the respiratory organs, or draws into the air-passages some

portion of the vaginal fluids, is a matter of little importance; the child's life is placed thereby in the most imminent hazard, from which it can only be rescued by the speedy release of the head.

A foot or a knee may sometimes be felt at the brim of the Pelvis, or even down in the Vagina, through the bag of membranes before its rupture. In such case, there will be some difficulty in detecting the difference between a foot and a hand, or between a knee and an elbow. But if, at this moment, the Os Uteri should be but little dilated, it is not a matter of any great importance to determine the precise identity of the presenting part; at least, it is not of that importance as to make it desirable to put the woman to additional pain, or to incur a risk of premature rupture of the membranes. Yet the fact, that the presentation is not natural and correct, ought to excite, during this interval of uncertainty, an increased degree of watchful attention; and even to induce a close attendance within the house of the patient. At all events, as soon as the membranes give way, if the nature of the case shall not have been previously ascertained, any doubts which may have existed on that point should be immediately cleared up by a very accurate examination, that not only the presenting and descending part of the child may be correctly defined, but also those parts which are lying at the brim of the Pelvis. By the information obtained in that inquiry must the subsequent practice be entirely guided. These cases generally proceed slowly, and give sufficient scope for an ample exertion of patience.

Suppose a foot or the feet to be descending, the breech to be detected at the brim of the Pelvis, and the liquor amnii to be discharged, what line of conduct ought to be pursued? It is to be presumed, that the practice has hitherto been perfectly passive; and so it ought to continue, until the breech completely distends the external parts, and is nearly excluded. There can be no doubt that, through the medium of the descending limb or limbs, artificial extraction might be previously made, and that the labour

might be more speedily terminated by art. But the question here is, " not whether the labour can be *more speedily* terminated, but whether it can with *equal safety* to the mother and babe be so terminated." On this question, I feel justly warranted in asserting from experience, that the more completely the natural efforts are permitted to exert their proper agency, even to the full extension of the external parts and the exclusion of the breech, the more favourably does the case ultimately turn out for the mother and her infant.

The advantages resulting from this passive practice are sufficiently evinced, in the ease and facility with which the trunk and head are afterwards brought down; as well as in the greater chance of life to the infant. While, on the other hand, by a premature extraction of the child through rigid parts, the woman is made to undergo an increased share of suffering, and the child to incur a greater risk of being still-born. Even allowing that some time in the duration of the process may be saved by the latter mode of treatment, that will not compensate for the above disadvantages.

Most women are anxious to be released from the pains of labour, and, in a protracted case especially, losing that resigned patience so characteristic in the sex, earnestly implore relief. The attending friends are seldom backward in seconding these intreaties, and even proceed so far as to urge the necessity of giving assistance. But I need scarcely remark, that a rigid adherence to that line of conduct which a sound judgment dictates, generally prompts a silent yet resolute resistance to these wishes. For neither the solicitude of the patient herself for relief, nor the entreaties of friends in that behalf, ought to be allowed to have any weight in determining the propriety of offering artificial assistance.

Yet let me not be supposed desirous of pressing this passive principle beyond its proper limits. I am now merely applying it to the common cases of practice. If, in consequence of protraction, or of any incidental occurrence,

unfavourable symptoms do make their appearance or are anticipated, the passive treatment above alluded to, must give way to a more active mode of management.

In the discussion of this practical subject, I must not omit strongly to impress upon my younger readers, the propriety and utility of preserving the bag of membranes from rupture as long as possible. It must be obvious, that if this bag should not possess sufficient tenacity to resist the impulse of uterine action, it must spontaneously give way. This, however, is always an unfortunate occurrence, especially when it takes place at the onset of labour; since it bereaves the future parts of the process of that soft compressible wedge, which proves the most effectual means of promoting the easy and gradual extension of the soft parts. The practical inference thence deducible is therefore plain and simple. That we should avoid the voluntary rupture of the membranes, under the common but deceitful expectation of thereby shortening the duration of the labour; and also, that, under the necessary examinations, we should exercise a due degree of caution, lest the finger should be inadvertently passed within their cavity. To prevent the latter misfortune, the vaginal inquiries may be made during the absence of uterine action, in the intervals of the pains.

It sometimes happens, that, upon the sudden rupture of the membranes, a fold of the Funis is carried down in the eddy formed by the rapid escape of the liquor amnii, whereby it becomes exposed to compression, with its subsequent danger to the life of the child. It may be advisable, in the first instance, to attempt the return of the lapsed portion above the presenting part, but such an attempt too commonly terminates in disappointment: for, although the Funis may be once or twice returned, it generally again descends. Under such circumstances it becomes a practical question, whether, for the sake of the infant, the delivery should be hurried on by art, or not, and in determining that important point, the judgment must be guided by the state of the parts, and the degree of progress the labour has

already made; ever keeping in mind that the preservation of the child is the sole object in view.

Upon the announcement of a breech case, a buzz of danger generally pervades the house, which induces the most anxious inquiries respecting the safety of the parties concerned. To such inquiries, it may be candidly and unequivocally stated, that the safety of the mother is not more implicated than under a natural case; but that the life of the child is always in considerable jeopardy. It will, therefore, be a matter of policy, as well as of protection to professional character, to throw out a hint to that effect, as soon as the presentation is detected. Yet, although I am an advocate for the utmost degree of candour to, and plain dealing with, the husband and friends of the patient, I am seldom desirous that the fact should be communicated to the mother herself, till after the birth of the child. Such a communication might make an unfavourable impression upon her own feelings; and it is a well known fact that, to the act of labour, the influence of the depressing passions is occasionally highly injurious.

From the preceding statement, it will appear, that a common breech case seldom calls for much interference, and that it is brought nearly to a conclusion by the agency of the natural powers. The presenting part is indeed not so readily moulded to the different dimensions of the maternal passages as the head; yet, being a soft compressible body, it becomes at length so far adapted to them, as to be propelled downward and extruded, in a more gentle and a safer mode than could be effected by artificial extraction, however dexterously performed. But cases sometimes occur in which, either from deficiency of pelvic space or from defect of uterine action, or perhaps from a combination of both these causes, the breech becomes impacted in the pelvis, and demands extractive assistance for its release. To the management of such cases, therefore, I shall now advert.

When the breech remains stationary in the pelvis for a length of time, under a due continuance of uterine action, its detention must arise either from relative malposition, or

from disproportion between the breech and the passage. Under this detention, it is no uncommon occurrence to meet with considerable tumefaction in the nates and parts of generation in children of both sexes, especially in the scrotum of a boy. The swelling arises from obstruction to the return of the circulating fluids, in consequence of continued pressure upon the parts above; and sometimes proceeds to that extent in a boy, as to make the scrotum discoloured, and to become so much enlarged as to appear externally, even when the breech is not near the external parts. At the commencement of this swelling the child is undoubtedly alive, yet the embers of life may possibly be extinguished, before the child is expelled; at any rate, the life of the child is in a state of considerable danger.

If the breech has remained unmoved so long, and with such symptoms, in the situation above described, as to induce a well-grounded suspicion that it will not pass without some extractive assistance, the cause of its detention must be carefully explored. In case there is not much impaction, with the breech well down in the pelvis, the assistance of a finger may be sufficient to overcome the obstruction, and to induce such a change in the situation of parts as may terminate in expulsion or extraction. For when once a slight advantage is obtained, the difficulty is presently surmounted. A fore-finger of that hand which appears the better fitted for the purpose, may be carried in a hook-like form over one of the groins or thighs of the child, by which an extractive purchase may be gained, sufficient to overcome a slight degree of arrest. But if the impaction should prove to be considerable; if the outlet of the pelvis be found deficient in space; or if the breech be situated so high as not to be within the full reach and power of the finger; some other means of extraction must be resorted to, affording a superior degree of purchase. In such a case, a blunt hook may be carefully insinuated over one of the groins of the child, with which traction must be cautiously and gradually made in a proper direction.

But in the application of any external force to forward

the delivery, it ought ever to be kept in mind, that the child may yet be in possession of life, and may possibly be extracted living. Let it further be kept in view, also, that the breech is to be drawn through living sensible parts. This impression will have a tendency to prevent the infliction of unnecessary violence upon the different structures concerned; whether upon those in immediate contact with the instrument, or upon those through which the breech must necessarily pass. Would not that accoucheur deservedly incur a deep share of disgrace, who had dislocated a hip or had fractured a thigh of a living child, or who had caused the perinæum of the mother to be lacerated through his violence or carelessness?

In a breech presentation occurring in a pelvis deformed at the upper strait, the difficulty of delivery will be in proportion to the deformity there existing. If there should be a less space than three inches in the conjugate diameter, the breech of a full-grown child will either not pass at all, or will be propelled through with great difficulty. It will constantly happen in practice, when there is but a slight degree of deformity, that hour after hour is allowed to pass away in anxious expectation of the descent of the breech, until the expulsive powers become much diminished in strength, or altogether exhausted. In such a dilemma, a recourse to extractive assistance will in all probability be eventually necessary; yet still will it be more absolutely so, and at a far more early period, when the deformity is immediately detected to be considerable.

Although, upon a general principle, the application of artificial assistance on slight grounds is justly censurable, the withholding of it until exhaustion is positively approaching, is by far more blamable. Not only is a greater degree of extractive purchase then required; but there is also, from pressure alone, increased danger of the infliction of injury upon the mother's parts. The mode of proceeding is similar whether the degree of obstruction may prove to be slight, or whether it may be of greater magnitude; but

in the latter the exertion of more extractile power is required.

The necessity for artificial assistance being satisfactorily established, an accurate estimate of the pelvic deficiency, of the precise site of the presenting part, and of the state of the soft parts, must be obtained by a suitable examination. For this purpose, it may become necessary to introduce two or more fingers, and even the greater part of the hand within the vagina. If the degree of pelvic deformity be found to be so considerable, as to preclude the extraction of the breech without the application of great force, as soon as the state of the soft parts will permit, the operation must be commenced, and prosecuted with due perseverance to the extraction of the whole of the child. And in this act, the assistance, which will be derived from expulsive uterine action, will be found most essentially useful. This fact alone shows the impolicy of long delay.

Let the fore-finger of the left hand be passed over the thigh or groin of the child, as a guide to the introduction of extracting instrument. After it is properly fixed, a fore-finger is to be applied to its point, to guard the soft parts against the chance of injury. The traction downward should be regular and progressive until the limb is liberated. The other limb must be released in a similar manner, when a sufficient purchase will be obtained to extract the trunk. One arm must be then brought down by the assistance of the finger or blunt hook; afterwards the other. But the head still remains above the brim, for the extraction of which, it may become necessary to perforate the skull. With this intention, the nape of the neck must be brought close under the arch of the pubes, and two fingers being carried as high as possible against the occipital bone to direct and guide the perforator, by the application of a steady force, with a semi-rotatory motion, the bone must be pierced at that part. Within the opening thus made, a crotchet or blunt hook must be inserted upon the base of the skull; thus will a powerful purchase be procured for

the extraction of the head, which, by the evacuation of the cranial contents, is withdrawn much diminished in size. Under this difficult task, it is a matter of great importance to accommodate, as much as possible, the varied dimensions of the head to the capacities of the pelvic cavity.

If a forcible and resolute attempt be made to bring a full-sized head in its natural state, through a Pelvis incapable of permitting its descent, the head may be separated from the trunk, and be left in the Uterus. Under this unfortunate occurrence, the head must be withdrawn by suitable means, without loss of time, in the following manner. Let the uterine tumour be firmly steadied by the hand of an assistant; then let the left hand be introduced within the Uterus, and its fingers be placed against some part of the head, to which the point of the perforator must be conveyed for the perforation of the skull. Having effected that object, within the opening thus made, let a crotchet be introduced, and by the application of a regular and increasing power, the head will be made to descend. During the whole of this unpleasant operation, the left hand must be kept within the parts as a guide to the descent of the head, as well as a protection against an accidental slip of the instrument.

The management of the Placenta must be similar to that in any other case; I will only remark, that its removal is not unfrequently attended with some trouble. After delivery, the woman is generally left in an exhausted and uncertain state, partly produced by the protraction of the labour, and partly by the efforts used for her relief. The utmost vigilance will be subsequently required to avert any impending mischief, especially on the first appearance of threatening symptoms.

CASE LXXV.

I was summoned to attend a poor woman in the parish of St. Luke, Old Street, with the intimation that the woman was in labour of her first child with a breech presentation;

that the scrotum of the boy was out of the external parts, and so swelled, as to produce apprehensions it would burst; and that the Vagina was very rigid and would not give way. Upon attending to this call, I found the case as above stated, and that no advance had taken place for many hours; the breech was certainly in the Pelvis, yet not very low, although the scrotum was external. The general appearance of the woman, connected with the other circumstances of the case, induced me to attempt to get down a leg, by hooking a finger over the groin; but in that attempt I was completely foiled. The failure therein arose partly from the breech being situated so high as not to allow to my finger a sufficient purchase, and partly from the parts being jammed in the brim of the Pelvis. I, therefore, had recourse to the blunt hook, and having passed it over one of the groins of the child, I proceeded to make extraction; but I was obliged to use a very considerable share of force before I could procure any descent. By perseverance, however, I succeeded in extracting the breech; the rest of the child followed afterwards in the usual manner. The child of course was still-born.

The difficulty here arose from the impaction of the breech within the pelvic brim, which was narrow in its general dimensions.

CASE LXXVI.

I was summoned to the assistance of Mrs. A., near Limehouse, in lingering labour of her first child, under a breech presentation, attended by a respected medical friend. The liquor amnii had been discharged more than twelve hours; the trunk was placed with the back towards the sacrum; the breech was low down in the Pelvis, with the scrotum and penis quite external; the former was much swollen and discoloured, and the labour-pains continued tolerably strong. Under this state, I was desirous of being an eye-witness to the effects of the pains; I therefore carefully watched the case for some time. After the lapse of several

hours, seeing no advance whatever, and suspecting that the trunk might be impacted in the Pelvis, it was determined that the labour should be terminated without further delay; accordingly I readily passed a blunt hook over the left groin of the child, and proceeded to make a careful traction thereby. After continuing my efforts for nearly half an hour, I found the breech descending, so that it was presently extracted; the body and shoulders soon followed, but I had considerable trouble in releasing the head. The Placenta followed in due time. The child appeared for some minutes to be bereft of life, but by immersion in warm water, and the use of smart friction on the chest, inspiration took place, which was by-and-by followed by regular breathing and loud crying. Upon inspecting the scrotum, it was much swelled and quite black. On the third day, both mother and child were doing well, but the scrotum showed a tendency to slough. I afterwards left the case to the care of my friend.

CASE LXXVII.

I was called to the assistance of Mrs. M., in Finsbury district, in labour of her first child, a woman of diminutive stature, somewhat deformed, and above forty years of age. Her labour-pains had commenced two evenings preceding, and soon afterwards her medical attendant was summoned, who had been with her the greater part of the intermediate time. On examination, I immediately detected the breech lying above the brim of the Pelvis; which, as far as I could judge from the nicest measurement I could then make, did not possess a space equal to two inches from pubis to sacrum. As the Os Uteri was but little dilated, and the woman's strength not much impaired, I merely recommended for the present an occasional enema. I visited this patient again in six hours; at this hour, the Os Uteri was become a little more open, as well as more flaccid; the labour-pains were more forcing; but no descent of the breech could take place for want of space at the brim.

Seeing no possibility of improvement, I now determined upon immediate delivery, which I foresaw would be a task of no little difficulty. Having introduced my left hand within the Vagina, I passed its fore-finger over one of the groins of the child, and upon it I insinuated a blunt hook, which gave me an excellent purchase. After exerting a good deal of force, I managed to get down the leg of that side. I then carried the blunt hook over the other groin, and got down the other limb in a similar manner. The possession of the legs enabled me to extract the trunk as far as the axillæ. The arms were at this time drawn up on each side of the head; with some difficulty, I carried the blunt hook over one of these, which enabled me to bring that limb down. I proceeded in a similar manner with the other arm; but the most difficult part of the delivery I had yet to encounter in the extraction of the head; for it was impossible that the head could pass entire through such a Pelvis, and it seemed to me to be no easy matter to perforate it. After a careful inquiry into its exact position, I brought the occiput close behind the pubes; then passing the two fore-fingers of my left hand against the under part of the occipital bone, with the perforator, made a large and free opening through the skull into the brain. Within this opening I inserted the blunt hook, and getting thereby a very firm purchase upon the base of the skull, by the continuance of the extractive power the instrument afforded, under the exertion of which the contents of the cranium were largely expelled, I succeeded in withdrawing the head. The Placenta followed immediately. The next day the woman had procured refreshing sleep during the night; had passed urine; and, indeed, seemed as comfortable as if she had undergone no unusual inconvenience. She ultimately recovered as well as after the most natural labour.

CASE LXXVIII.

I was summoned to attend Mrs. J. near Aldersgate-street, in consequence of the sudden discharge of the liquor amnii.

She had had slight pains of labour the greater part of the preceding day, which induced a suspicion that her labour was coming on, and led her husband to apprize me of the fact. Upon my arrival at the lady's residence, I was told that a very large quantity of water had escaped: and, on an examination, I detected the breech at the brim of the Pelvis, with the Os Uteri somewhat dilated. By-and-by, the pains became strong and forcing; the breech seemed to be gradually descending with much swelling of the scrotum, and the case promised a happy termination in a moderate space of time. But after the pains had continued very powerful for some hours, without producing that descent in the breech which I had anticipated, they became distant and slight; gradually declining in power till they had almost disappeared. At this time, the lower part of the breech had not reached the centre of the pelvic cavity; the greatest part of its bulk appeared to me to be firmly impacted in the brim. I had attended this lady in several previous labours without any unusual delay; knowing, therefore, that there was no deficiency of pelvic space, I could only attribute the lingering state of the present case to disproportion from the size of the child; to malposition; or to want of power in the pains. The lady was a large corpulent woman, and not likely to bear the effects of a long protracted case with impunity; she was also the subject of an extensive umbilical hernia. Looking at these facts; seeing that the breech for some hours had made no advance; and that it was completely blocking up the brim of the Pelvis; I determined upon giving some extractive assistance; and, fixing a blunt hook over one of the groins of the child, I began to make some strong extractive efforts, but without producing the least descent in the breech. Thus foiled, I removed the instrument to the other groin, and after some trouble, I got down a leg. Notwithstanding the purchase which the leg afforded me, I had the greatest possible difficulty in bringing down the breech, and equally as much in extracting the trunk to the axillæ. I was now obliged to extricate each arm by means of the blunt hook, and afterwards, by favour-

ing the passage of the head at the brim of the Pelvis, I at length was enabled to withdraw it. I had no trouble with the Placenta. After its removal, the Uterus seemed tolerably well contracted, although during the delivery it offered very little expulsive assistance. For a few days this lady had no unpleasant symptom; but on the eighth day, she had two distinct rigors with subsequent febrile symptoms, which did not entirely subside for more than a week: yet in due time she quite recovered her former state of health.

The child weighed nearly fourteen pounds avoirdupois, and with one exception was the largest new-born child I had ever met with.

CASE LXXIX.

My immediate assistance was requested to a lady in Broad-street, who had been some time in labour under a breech presentation. On my arrival at her bedside, I found the breech and trunk external as far as the axillæ; but the arms, shoulders and head were in the Pelvis, or above its brim, and all the efforts of her medical attendant had hitherto been unsuccessful in bringing them down. In this situation they had remained for more than an hour; the child was therefore already deprived of life. Upon making an examination, I soon discovered the cause of failure in my predecessor's attempts. He had got the head locked in the Pelvis with the Occiput immediately behind the Pubes, and with the chin to the Sacrum. By a little inclination of the trunk sideways, after some trouble, I was enabled to release the arms by means of my fingers: afterwards changing the position of the face, I brought the head through the pelvic brim; but that act required the exertion of considerable force, as the projection of the Sacrum was unusually prominent. Notwithstanding the difficulties attendant upon the delivery, the lady recovered without any subsequent inconvenience.

ON THE SHOULDER PRESENTATION.

The child is in this case placed transversely across the Pelvis; its descent and exit are therefore almost necessarily precluded without an artificial change of position. To such a presentation, the common term, *cross-birth*, is not improperly applicable.

I cannot mention any particular symptom or sensation during pregnancy, which is expressly characteristic of this misplacement; the act of labour, therefore, commences under a happy ignorance of the fact. Yet, perhaps, if the abdomen were allowed to be carefully examined towards the end of gestation, an expert hand might detect such a difference in its general feel and appearance, as would lead to a plausible inference at least, that the child did not occupy a natural position. The uterine tumour would possess an increase of breadth from hip to hip, with a diminution of extension upward. But, from the most accurate information on this point, no ultimate advantage could possibly be derived; it would therefore prove of little practical value. For no steps could be taken, previous to the establishment of labour, either to rectify the position of the child, or to diminish the future sufferings of the mother.

But the feelings of a pregnant woman are sometimes materially interested in the presentiment, that her babe is not correctly placed; especially if she may have received any previous injury, or have been exposed to sudden fright or alarm. In either instance, it rarely happens that her mental apprehensions are verified; yet the impression becomes a source of anxiety and annoyance for the remainder of her period, the effects of which it will prove an act of the greatest kindness to endeavour to counteract.

The process of labour commences as in a natural case, but its first stage is usually of longer duration, in consequence of the pains being for a time slighter and more distant. The bag of membranes is protruded downward by little and little in an elongated form, by which the Os Uteri is gradually opened.

Although the pains may increase in power, the presenting part does not proportionally descend; it continues to occupy the upper part of the brim of the Pelvis. If a vaginal examination be made at an early period of the process, the presentation is rarely to be defined; it is seldom to be detected within the range of the finger, unless an elbow or a hand may have come down within the elongated bag. When the membranes break, the liquor amnii is at once discharged; uterine action is then, sometimes, less frequent and powerful, and occasionally it is suspended for some hours; but even if it afterwards should become more vigorous, the child does not descend. If a hand shall have come down into the Vagina, it is pushed lower and lower, and may even be protruded externally. Should immediate assistance be not at hand to turn the child, or should artificial delivery be long protracted, uterine action becomes more powerful and expulsive, but the free descent of the child is still prevented by its adverse position. Yet the volume of the Uterus diminishes in bulk, and its parietes more closely embrace the body of the child. If delivery be further neglected, or cannot now be accomplished, the difficulties increase in a compound ratio; to that degree, indeed, that it is occasionally found impossible to effect that object by the simple process of turning. Some other expedient must therefore be adopted to bring about delivery; or the woman will sink under a gradual exhaustion of the animal powers, or under laceration of the uterine structure. But if the woman should fortunately have a very large-sized Pelvis, or if the child should prove to be comparatively small, by a continuance of uterine action, and by the subsequent compression of the several parts of the child into a smaller space, with great difficulty, and under severe suffering, they may be so far accommodated to the passage, as to be at length squeezed through, and expelled.

Every case, in which the presenting part does not readily come within the range of the finger, especially after the establishment of pains and the relaxation of parts, ought to receive an unusual share of watchful attention. For that

fact alone ought to excite a justifiable suspicion, that some other part of the child except the head, may be placed at the brim of the Pelvis. And until that point is satisfactorily cleared up, the mind is kept in a state of anxious suspense, as far as the subsequent management of the case is concerned. During this interval of uncertainty, it is a matter of some moment to preserve the bag of membranes unbroken, as long as possible. The bag may by accident be inadvertently ruptured under an examination; but to prevent that occurrence prematurely, the necessary inquiries ought to be made in the absence of uterine contraction, under a flaccid state of membrane; and should not be too frequently repeated, at least for the present.

Under such a state of ignorance as to the presenting part, I consider it to be an indispensable duty on the part of the accoucheur, either to remain in the house of his patient, or to be within instant call I have known a breach of attention to this important maxim to be followed by the most serious and even dangerous consequences. The membranes have suddenly given way during his absence; he has lost the momentary opportunity of delivering his patient by turning; the pains have become urgent and forcing before his arrival, and the woman has had subsequent difficulties and dangers to encounter, which timely aid would certainly have prevented.

The detection of a hand in the Vagina affords a fair presumption that the shoulder may be placed at the brim of the Pelvis; yet it is by no means a proof of that fact; for a hand will sometimes descend by the side of the head or breech. Although it may be desirable to detect the precise part above, any attempt to attain that object should be cautiously and prudently made: and the more particularly so, if the bag of membranes be still found to be entire, with but slight relaxation of the soft parts. But *after the membranes have given way*, the necessary information should be immediately obtained; and such measures thereupon taken, as the exigencies of each case may seem to demand. In prosecuting those inquiries which are to decide a doubtful

question of such importance, the presenting part may be situated too high to be perfectly commanded by the finger; it may therefore be requisite to introduce the greater part of the hand, and even occasionally the entire hand, within the Vagina, to avoid mistake.

In this examination, the shoulder is detected by its being more pointed than the breech; by the attachment of the arm; by the axilla and ribs; by the apex and spine of the scapula; and sometimes by the spinous processes of the vertebræ. But in many instances, in which a hand has not come down, the marks of a shoulder-presentation long remain very obscure; they are by no means so plain and distinct as to be instantly recognized; they require some application, and a nice tact to clear up the existing doubts. The absence of certain appearances, as well as the presence of others, must be taken into consideration; and a conclusion must be formed, partly from positive, partly from negative indications. The pelvic cavity will be found to be either unoccupied by any part of the child, or very imperfectly so; the usual descent of the child being prevented by its want of accommodation to the passage.

I have already described the marks by which the breech is generally to be recognized; and if they are compared with the above, a striking difference will be immediately apparent; yet the shoulder may be mistaken for the breech, from its softness alone. But a little nicety in the examination will presently correct any inaccuracy on this point. If the hand shall have passed down by the side of the head, the case will be immediately detected by the rotundity of the head; by its solidity, and by its sutural divisions; it cannot well be mistaken for the presentation of the shoulder. Yet, under such circumstances, the position of the child may be easily changed. A natural presentation, with the addition of a hand down by the side of the head, may almost unintentionally be made a preternatural case; by merely seizing the hand under a mistake, and pulling downward by the traction it affords.

Having satisfactorily ascertained that the shoulder is the

presenting part, one general rule of practice is applicable to every case of this kind, if the period of gestation be nearly completed. The adverse position of the child must be changed by the hand; in other words, the child must be turned, and brought down by the feet. In adverting to this mode of management as a general principle, let it not be supposed, that natural expulsion is never effected when the child is thus situated; but such expulsion is so seldom accomplished by uterine agency alone; so great a degree of hazard is also incurred by awaiting that rare event; that it has now become the established practice to turn the child by art, as a preferable, and a far less dangerous mode of proceeding.

That point being determined, viz., that the child *must* be turned, the next consideration is, the most seasonable time for the performance of the operation. If the time for acting be completely at the option of the operator, the best and most favourable time is, when the Os Uteri is nearly dilated, under a flaccid and dilatable state, and before the discharge of the liquor amnii. But if, either through absence or inattention, this desirable moment has been suffered to pass by, delivery should be attempted as soon as possible after the escape of the liquor amnii. For after that occurrence, the Uterus acts with an increased degree of frequency, and of energy; its parietes are brought into closer and more immediate contact with the body and limbs of the child; so that it may be stated as a pretty general axiom, that the longer the interval is which elapses between the escape of the liquor amnii and the attempt to turn, the greater are the difficulties to be encountered in that act; but if that attempt should in the first instance be unfortunately foiled, the ensuing difficulties are increased in a still higher degree.

The operation of turning, under the favourable state above-described, is definite and easy; especially to those who have acquired a degree of manual dexterity by habit. Having made the necessary arrangements, by placing his patient in a proper position, close to the side or bottom of

the bed, by baring his arm and besmearing his hand and arm with some unctuous substance, the operator seats himself in a chair, or kneels upon the floor close to his patient. I prefer the latter posture, because it affords a more steady command of the hand; and, in cases of difficulty, permits the free use of its muscular powers with the least weariness. He commences the gradual introduction of his hand, (the left I always prefer,) formed into a conical shape, into the Vagina. The ease or difficulty of this first part of the process, with the degree of pain attached thereto, is dependent upon the degree of relaxation, or of rigidity, in the external parts and the vaginal passage. Having passed the hand completely within the Vagina, it is to be gradually insinuated within, and through the Os Uteri into the uterine cavity. The presenting part is now to be pushed away or passed by; and the feet or a foot to be sought for. At this moment a considerable share of circumspection is requisite, that a hand be not mistaken for a foot; a mistake which would materially aggravate any previous difficulty. Having met with the feet or one foot, let the part be firmly engrasped within the hand, and let it be brought through the brim of the Pelvis into the Vagina: the breech then follows, so that the remainder of the labour is to be managed as a breech case, already described.

To cases of greater, or of still more extensive difficulties, in which the liquor amnii has been discharged for an hour or two, or for a longer space of time, the same line of conduct is applicable; but the operation must be commenced with caution, and must be steadily prosecuted, until the act of turning is completed. If the labour-pains have been strong and expulsive for some time, the uterine tumour considerably diminishes in size, and the different parts of the child become firmly surrounded by the uterine parietes. The hand of the child is also sometimes protruded through the external parts, while the shoulder and a portion of the chest are occupying the brim, or are even pushed somewhat downward into the cavity of the Pelvis. Under such a state, there is little or no room for the introduction of the

hand of the operator, without dislodging some of the parts above; and, even allowing that, by mere dint of force, the hand can be pushed up into the Uterus, the breech cannot enter the Pelvis and be made to descend, so long as any part of that cavity is occupied by the shoulder and side. A first part of duty, therefore, must be cautiously and steadily to raise the chest and shoulder by a gradual, yet increasing power; and in the attainment of that object, I have now and then successfully used the protruded arm as a lever. But in the performance of that duty, no forcible attempt should be made during the temporary contraction of the Uterus. Under a state of uterine action, the hand should remain perfectly passive, yet tenaciously retaining any advantage it may have acquired; and proceeding onward during the intervals of uterine contraction, it at length reaches a lower extremity, which must be firmly engrasped, and brought down.

Although this operation, in an extreme case, may have been so far successful, as that a foot and a leg have been brought to the brim of the Pelvis, or even partly into the Vagina; yet the position of the shoulder and chest may yet possibly preclude the free descent of the breech and trunk. The extent of uterine contraction may probably have prevented that complete displacement of the shoulder and chest, as to permit that descent. The child would be therefore, at this moment, but half turned, and there would be a foot and a leg down by the side of those parts which still block up the passage. An attempt should now be made to push the shoulder more out of the way, and at the same time to draw down the leg. It will, however, too frequently be found very difficult, if not impossible, to retain hold of the extremity brought down; partly in consequence of the slippery state of the limb, and partly from the weariness which the hand of the operator has undergone in the previous stages of his operation. To supply the defect of manual purchase thereby occasioned, it may be necessary to pass the noose of a strong tape around the ankle, which will afford the means of a powerful traction downward; while

with the other hand endeavours are made to raise the obtruding shoulder. By a cautious and steady perseverance in this course, the shoulder is at length dislodged, and the breech is brought down into its place. The case is then under complete control, and may be finished at pleasure. In a few instances of this difficult kind, I have used an elevator (an instrument furnished to me by the late Dr. Combe, some years ago) with considerable advantage.

But in attempting to counteract any obstruction which may oppose the introduction of the hand or the descent of the breech, this practical precept cannot be too strongly inculcated; that much mischief may be inflicted upon the mother by a determinate resolution to deliver at all events; to oppose and surmount every obstacle by mere manual physical force. Most lamentable instances of laceration of the soft parts have occasionally been the unfortunate consequences of such conduct. It cannot be denied that artificial delivery, under a state of uterine contraction, demands a large share of persevering efforts; but they should be confined within such bounds, and applied so carefully, as not to endanger the structure of the parts concerned in the act; under the expression also of the most kindly and compassionate feelings. If the Uterus should prove to be so firmly contracted upon the body of the child, as to render the admission of the hand impracticable without the exertion of great force; if also several unsuccessful attempts have been already made to pass the hand, some other course of proceeding must be devised, which promises a more fortunate result to the mother.

In difficult cases of turning, it will prove a great advantage to the operator in his future movements, if he shall have previously acquired a correct acquaintance with the local and relative situation of the different parts of the child by vaginal inquiry. He will thereby be enabled to carry up his hand in the nearest and readiest direction to the feet; and likewise to judge, whether the use of the right or of the left hand, seems more appropriate to the attainment of his object. By not availing himself of such useful information,

he commences his operation quite in the dark: and in consequence, he may have to encounter difficulties in the performance of his task, which he did not anticipate. But having once commenced, and having even partially introduced his hand, he should steadily, yet moderately, persevere in his efforts under all disadvantages. If, at this moment, from uterine pressure or any other cause, he should be induced to withdraw his hand, he will not only forego any advantage he may already have obtained, but he will also have to recommence his operation under an increase of difficulty, or to project some other mode of delivery.

In those hazardous cases, in which the uterine parietes have become so strongly contracted upon the body of the child as almost to preclude the possibility of introducing the hand at all; or at least, not without such a degree of effort, as would incur the risk of injury to the uterine structure itself; I have had recourse to one of two modes of practice; either to the decapitation of the child by a suitable instrument, or to the perforation of the chest, and subsequent evisceration. The shoulder and chest are presumed to be either immoveably impacted in the Pelvis, with the rest of the child so firmly encircled within the uterine parietes, as scarcely to admit the passage of a finger between them; or to be lying in the same state across its brim, especially when the Pelvis is faulty. In the selection of either of these extreme modes of proceeding, or the union of both in particular instances, the accoucheur must be guided by the relative position of the child, and the respective bearings of its several parts.

Decapitation cannot be readily and successfully accomplished, unless the child be so placed, that the fore-finger of the operator can easily reach and surround the neck; in such case, that kind of mutilation may be performed without much difficulty. The instrument which I have used for the purpose, is a strong hook with its internal surface ground to a cutting edge.* I first pass a fore-finger over the neck

* A representation of the instrument is given in Dr. F. H. Ramsbotham's Principles and Practice of Obstetric Medicine and Surgery, page 452.

of the child, and upon it I introduce a common blunt hook, which I bring to its full bearing; by the side of this blunt hook, I introduce the decapitator, after which I withdraw the former; then applying the fore-finger of my left hand to the point of the instrument, as well for a guard to its action, as a defence to the mother's parts, I gradually exert such a degree of force, as brings the instrument through the neck. This being done, by the assistance of an arm, perhaps already down, the trunk is readily withdrawn; after which the head may be brought away by the crotchet or otherwise, as may be deemed the most expedient.

Perforation of the chest offers the safest and most effectual mode of delivery, when the chest and ribs are situated in, or at the brim of the Pelvis, immediately opposed to the examining finger; or when a considerable portion of these parts are pushed into, and are firmly impacted within the upper part of the cavity; the neck being quite out of reach. A large perforator, with a cutting edge on its outer surface, well guarded by the hand, must be introduced between the ribs, and an opening made sufficiently large to admit the introduction of the hand; through this opening the contents of the chest and those of the abdomen must be gradually withdrawn. This unpleasant operation necessarily occupies a considerable space of time; it allows the trunk at length to bend upon itself, and to collapse into a smaller compass. If the pains continue regular and effective, the diminution of bulk in the trunk may afford room for the entrance and descent of the breech, which then, pushing the other parts somewhat out of the way, passes through the Pelvis in the manner to be presently described.

But in default of expulsive effort to produce this descent, recourse must be had to artificial extraction by the blunt hook, or the crotchet. In that operation, the instrument should be fixed within the Pelvis of the child; and having procured a good purchase, a degree of power must be applied equal to the exigencies of the case. Under the exertion of this power, the body of the child becomes so far compressed, in a doubled form, as to permit the entrance of the

breech into the Pelvis; after which it is soon brought down, and withdrawn under a great extension of the perinæum. If attention be not paid to the direction in which the extractive instrument is attempted to be fixed, the difficulty already existing may be materially increased. Suppose that an attempt to procure an extractive purchase towards the chest of the child should be successful, and that extraction is thereby commenced; it will be soon found, that the child cannot be made to descend, even under the application of considerable force, in consequence of the adverse position of the head above the Pelvis.

A natural expulsion of the child is sometimes met with under a shoulder-presentation; but such a termination of that case is so rare an occurrence, as scarcely to be depended upon in common practice, except under premature labour.* When it does take place, the arm, shoulder, and chest, are propelled downward by uterine action; the strength and continuance of which direct the apex of the shoulder under the arch of the Pubis, while the chest and part of the trunk are occupying the cavity of the Pelvis. During this time, the trunk is undergoing a considerable diminution in its original bulk by the bending of the back, and the doubling of the belly; there is also some change of position in the different parts of the child. These advantages at length permit the entrance of the breech at one side of the brim of the Pelvis; then the continued action of the labour pains pushes that part lower and lower, till it gains possession of the hollow of the Sacrum; after which, it is gradually expelled under an unusual degree of personal suffering, and of perinæal extension. Under this process, the life of the child is generally destroyed by the violence of the expulsive efforts.

* This process was noticed by Dr. Denman, which he considered to be a "*spontaneous evolution of the fœtus.*" Although that celebrated accoucheur did not seem to comprehend the mode in which it was effected, he is justly entitled to the merit of having recorded the fact. A more recent and satisfactory account of this natural expulsion has been given by Dr. Douglas, of Dublin, in a pamphlet entitled, "*Explanation* of the real Process of the Spontaneous Evolution of the Fœtus," 1819.

As this subject is a matter of some practical importance, I will endeavour briefly to state some of the principal points, whereon a rational expectation of this natural expulsion may be indulged. The woman should possess a Pelvis of a full, or of an extra size, to which the several parts of the child should be properly apportioned. The labour pains should continue strong and expulsive, producing from time to time some obvious descent of the parts already engaged within the Pelvis. There should also be a gradual accommodation of those parts to the dimensions of the cavity, until the entrance of the breech. If it be found, that the apex of the shoulder is advancing outward; that a larger portion of the child becomes by degrees involved within the pelvic cavity; and especially if the breech can, after a time, be detected in the Pelvis, it may fairly be presumed, that the child will ultimately be expelled.

Yet upon the whole, considering that natural expulsion is, in these cases, an uncommon occurrence; that at full time we can form little judgment of the relative proportion of the child to the capacity of the Pelvis; that in awaiting a natural expulsion we may possibly be deceived in our expectations, and be obliged to deliver under an increased degree of hazard, as well as of suffering to the mother; that the child is usually still-born; and lastly, that at the commencement of labour, we have the opportunity of turning without much hazard or pain; I think, that we are not justified in leaving a shoulder-presentation in common cases, as a matter of choice, to the operation of the natural efforts. The woman would thereby be exposed to a greater risk of personal injury, and to the infliction of a greater degree of pain, than she would suffer under the operation of turning, when timely and skilfully performed.

It may indeed happen that a shoulder case, in the first instance, may have been neglected, or may not have been detected; and that the shoulder and the chest may have become so far impacted in the Pelvis, as to frustate any common attempt to turn the child. In such case, it would become a practical question, whether it might not be prudent

to await for some time longer the effects of uterine action, in the expectation of natural expulsion; or to have recourse without delay, to either of the preceding modes of delivery, as may seem the best suited to the exigencies of the case. In determining that question, we must refer to the quantity of chest already involved in the pelvic cavity; to the capacity of that cavity as far as it can be ascertained, and to the power and effects of the labour-pains. At the same time, it must be taken into consideration, that natural expulsion, without a diminution of bulk, is attended with more pain, with a greater extension of soft parts, and therefore, with a greater risk of their laceration.

Another species of mutilation has been recommended, and occasionally even had recourse to in some difficult cases, in which the shoulder has become impacted in the Pelvis, with the arm and hand external; and in which, a previous attempt to turn has not been successful. I allude to the dismemberment of the arm at the shoulder. It is proposed under the delusive idea, of diminishing the general bulk of the presenting part, and of permitting a more ready entrance to the hand for the purpose of turning; but neither of these objects can it satisfactorily effect; indeed it seems to me, that such an act can only increase any difficulties heretofore existing. The operation must be performed either by means of some cutting instrument, or the arm must be forcibly twisted off by the exertion of violence. By either mode, a larger portion of the child must necessarily be drawn down, and become more firmly wedged within the Pelvis. But even after the removal of the arm, what advantage is gained? The shoulder and chest still remain in the same state, or perhaps in a more impacted state, with all the previous obstacles to the introduction of the hand. Besides, such a degree of confusion is thereby produced within the Vagina, as to make it almost impossible to discriminate the parts of the child from those of the mother. I therefore consider the dismemberment of a descended arm in any case to be rather detrimental than beneficial.

In some cases, in which turning has been previously but unsuccessfully attempted, and perhaps repeatedly attempted, large doses of opiates have been advised, and sometimes administered, with the attention of diminishing uterine power; of removing some part of that contraction which resists the admission of the hand; but generally without any apparent advantage. Opiates may indeed possess the power of suspending those temporary contractions of the Uterus, which are called *the pains*; but they are not able to remove, or even to diminish, that tonic contraction, the natural result of continued exertion of the voluntary and involuntary efforts combined. It is this tonic contraction, through the medium of which the Uterus is so firmly constricted around the body of the child, which prevents the introduction of the hand. If any relaxant advantages be anticipated from the exhibition of opiates, I fear that the favourable expectations founded thereon will generally terminate in disappointment. Besides, during the lapse of time, which ought to be allowed for awaiting the full effects of an opiate, the Uterus is becoming hourly more tenaciously contracted; and perhaps the woman's powers may not be improving. The existing difficulties, therefore, instead of being at all lessened or counteracted by an opiate, seem to me to be rather increased. To these objections may also be added, that to many women the subsequent effects of a large dose of opiate are frequently oppressive; and in some instances, very injurious. Their use, with the intention of inducing relaxation of parts, has been long discarded from my practice.

To a presentation of the belly or of the back, a similar mode of practice is applicable, as under a shoulder-presentation. The same general rule holds good in both cases; the child must in each instance be turned, as soon as the state of the soft parts will permit. These cases are by no means so frequent as the shoulder-presentation; and are readily detected by the different feel of the parts.

CASE LXXX.

I visited a poor woman in East Smithfield, and found an arm down in the Vagina, the shoulder at the brim of the Pelvis, and the head lying on the right ilium ; with the Os Uteri considerably opened and lax. I immediately introduced my hand and turned the child ; but I withdrew the child very slowly, as the Uterus seemed little disposed to act. The child was still-born. Upon placing my hand upon the abdomen, its size immediately convinced me that there was a second child in utero. After waiting the return of uterine action for some time, and observing no disposition thereto, I became desirous of rupturing the second bag of membranes, but its flaccidity gave me some trouble. Having effected that object by means of a stilette, an unusual quantity of liquor amnii was discharged. I now found the feet of the second child presenting, and seizing one, I brought down the breech and afterwards the other parts of the child, which soon showed signs of life. On examining for the Placenta, both portions were found separated, and merely required to be withdrawn. The next day the woman was doing well.

CASE LXXXI.

I was called to the assistance of a woman in the parish of St. Luke, Old-street, who had been in lingering labour all the day preceding, with a hand down in the Vagina ; the liquor amnii had been discharged many hours ; and an unsuccessful attempt had been made to turn the child. Another medical man was then summoned, who presently sent off the husband for my assistance. Upon making a correct examination, I detected the breech at the brim of the Pelvis, with the arm down by its side, and the head low in the Vagina ; at the same time the Pelvis appeared to me deficient in room at the brim ; yet the woman had borne many children, and some of them living. Her labour-pains

were strong and frequent, and the general strength but little impaired. My first determination was to push up the protruded arm above the breech, which was effected with little trouble; but while my hand was in the Uterus, I seized a foot, and brought it down; the breech, body, and shoulders presently followed, but the head could not be made to pass entire. After using such a degree of force as appeared to me consistent with the welfare of the woman, I had recourse to perforation at the base of the occipital bone, and fixing a blunt hook in the opening, I was enabled thereby to extract the head. After waiting a due time for the descent of the Placenta, I was obliged to introduce my hand for its removal, and to my mortification found the mass completely adherent to the uterine surface, from which it was with some difficulty separated and withdrawn. The woman recovered without the intervention of a single bad symptom. I afterwards attended this woman in two subsequent labours, in each of which I was under the unpleasant necessity of lessening the head.

CASE LXXXII.

I was called to the relief of a woman near the Minories, in whose case the attending accoucheur had extracted the child as far as the head, but his best efforts had not enabled him to release the head. On my arrival at the address, I found that the child was still alive, as was sufficiently evinced in an attempt on the part of the abdominal and pectoral muscles to raise the chest for inspiration, although the head was above the pelvic brim, and had remained in that situation more than a quarter of an hour. By merely giving the head a slight turn, it was brought through the Pelvis, and immediately extricated. The child was presently immersed in warm water, and soon beginning to breathe, was recovered.

The difficulty in this and other similar cases is produced by inattention to the mode in which the trunk of the child

passes through the Pelvis. I have seen several cases of the same kind; each of which merely required a proper turn of the head, to enable it to pass the brim.

CASE LXXXIII.

A message from a midwife was delivered to me, requesting my assistance to a poor woman near Leman-street, Goodman's Fields, under a shoulder presentation. The membranes had given way twenty-four hours previously, but no pains had followed till a short time before I was called, when a hand and an arm were discovered down in the Vagina. On a careful examination, I detected the head at the brim of the Pelvis with the above parts down by its side. The pains at this time were not very strong, yet the Os Uteri was considerably dilated. Introducing my left hand within the Vagina, and gently bending the elbow of the descended arm, I gradually pushed it up above the head; and keeping it in that situation till uterine action returned, feeling that the head descended without the preceding impediment, I carefully withdrew my hand. After some active pains had passed over, I made another examination, and finding the head regularly descending, I left the case to the care of the midwife, in the full persuasion it would soon be terminated.

CASE LXXXIV.

Mrs. D. fell into labour of her second child in the early part of Wednesday. Her former labour had been slow and protracted, but it was at length terminated by the natural efforts. Her accoucheur was informed of the circumstance, and paid her a visit; but the pains seeming to him trifling, he did not remain in the house. In his absence the membranes broke, and he was recalled about one o'clock, when he found a hand down in the Vagina, and the shoulder at the brim of the Pelvis. He made an attempt to turn the child, which proved unsuccessful, and after the lapse of a

short time, he made a second attempt, in which he was also foiled. He now gave his patient a large dose of laudanum, and while she was supposed to be under its influence, he made a third essay, which proved equally as unsuccessful as the preceding ones. Not at all daunted by these repeated failures, towards night he repeated the dose of laudanum, and made several more ineffectual trials to effect his object. About five o'clock the next morning the husband begged my assistance. The woman appeared to me under a state of considerable exhaustion, and bitterly bewailed the severe sufferings to which she had been obliged to submit for more than sixteen hours. On examination, I found the left hand of the child quite external, swollen, and discoloured; the shoulders and part of the chest firmly impacted at the brim, and in the upper part of the Pelvis, which seemed to me deficient in room at the promontory of the Sacrum; the woman's parts were much swollen and tender; and the Uterus was so entirely and so firmly embracing the child, that a finger could with difficulty be inserted between the two. The uterine tumour was extremely tender under the hand, comparatively small and firm; and there was an occasional tendency to uterine action in a slight degree. Under such discouraging appearances I hardly knew what steps to take. I was fully convinced, from the high degree of tonic contraction which the Uterus had acquired, of the impossibility of turning, without the exertion of such a degree of violence as would endanger the structures engaged therein; I had therefore to devise some other mode by which delivery might be more safely accomplished, and perforation of the chest with evisceration, appeared to offer the most ready means. Requesting the presence of a respected frend, about seven in the morning, I made a free opening into the chest with a large perforator, of sufficient capacity to permit the free introduction of the hand, and proceeded to break down and extract the contents of the Thorax. Having withdrawn as much of these as I was able, I perforated the Diaphragm, and proceeded to extract the abdominal con-

tents. By-and-by some part giving unusual resistance, the position of the child was so far altered, as to allow the other arm to descend. Having now possession of both arms, I was enabled to surround the neck with a finger, over which I passed my *decapitator*, and without much difficulty brought it through the neck. The headless trunk was now brought down by the arms, and the rest of the child followed. The head was afterwards withdrawn by a blunt hook inserted into the mouth; the Placenta was spontaneously separated, and thus was this difficult labour finally terminated. The woman eventually did well.

In the above instance, as far as I now recollect, I ventured to put to the test of practice, for the first time, the mode of delivery recommended by Dr. Douglas of Dublin, and in justice to that gentleman, I must in candour declare, that I took the hint from reading his pamphlet. His description of the *natural expulsion* of the child in shoulder presentation, called by Dr. Denman *spontaneous evolution*, convinced me of the possibility of delivery in difficult cases of that kind, by "lessening the bulk of the trunk;" whereby the body is allowed to double upon itself, and the breech to descend, especially in a well-formed Pelvis.

CASE LXXXV.

I was requested to see a poor woman in Brick-lane, Spitalfields, who was stated "to have been in labour six hours with the membranes broken, the arm presenting, and but little pain." I found the right arm down in the Vagina, with the hand out of the external parts, and the shoulder lying at the brim of the Pelvis, which I knew, from a previous attendance upon the woman, to be not well formed. I turned the child without much difficulty, and extracted it as far as the head; but the head stuck at the brim of the Pelvis. After using such a degree of force as I thought advisable, without being able to draw down the head, I had recourse to its perforation under the occipital bone; and afterwards, by the assistance of the crotchet,

I had no great difficulty in finishing the delivery. The next day the woman was promising to do well.

CASE LXXXVI.

A professional friend came to my house early one morning to request that I would accompany him to a patient in Shadwell, who was in labour under a difficult cross-birth; he told me, that the membranes had been ruptured more than twenty-four hours, and that he was unable to detect the presenting part, till a short time before he set off for me, when the arm came down with the shoulder above; that he then attempted to turn, but did not succeed. On an examination, I found the right arm and hand low down in the Vagina; the shoulder, chest, and side of the belly were firmly wedged in the brim of the Pelvis; the Uterus at the same time was strongly contracted on the body of the child. Upon an attempt to introduce my hand with a moderate degree of force, I could not make such an impression on the presenting part, as to permit the entrance of the hand into the Uterus; I, therefore, desisted from any further attempt to turn the child, and after some consideration, I determined to perforate the chest. With a large perforator, therefore, I punctured the chest with ease, and making a sufficient opening, I broke down, as well as I could, the thoracic contents; introducing my hand, I brought away such portions as readily came within its grasp. Afterwards I perforated the diaphragm, and withdrew in a similar manner such of the abdominal contents as came within reach. I then introduced a blunt hook in the direction of the Pelvis of the child, and getting a good purchase, after some strong extractile efforts, I found that the breech was descending into the Pelvis, while the apex of the shoulder was emerging under the pubes. The breech soon passed through the Pelvis and the external parts; the perinæum previously suffering great extension; the body and head speedily followed. During the operation, the breech made a considerable change in its position. Before the perfora-

tion of the chest, the head of the child was lying over the back part of the Pelvis, with the face directed to the mother's spine; the breech was placed over the fore part of the Pelvis with the back anteriorly. During the progress of my operation, however, the breech entered the Pelvis at its posterior part with the trunk bent upon itself, and following the direction of the hollow of the sacrum, made its exit with the belly to the pubes. This woman suffered no future inconvenience, recovering as well as after the most favourable labour.

CASE LXXXVII.

I was called to a case of difficulty near the London Docks. The process of labour had commenced the day preceding, and the membranes had given way about ten o'clock at night. For some hours after the discharge of the waters, the medical attendant could feel no part of the child; but suspecting it might be a breech-presentation, he allowed the woman to pass through the night under strong expulsive pains. When I made an examination, I detected the right elbow down in the Vagina, with the shoulder above. I made an effort to introduce my hand to turn the child; but the Uterus proved to be so strongly contracted upon its contents, that I thought it prudent to withdraw it. I now determined to perforate the chest, and calling in a neighbouring friend, I passed the instrument in the presence of both gentlemen, and then proceeded to eviscerate the cavities. After proceeding some time in the way already explained, I was enabled to bring down the breech and to effect delivery. Notwithstanding the difficulties of the case, and the length of time the poor woman had been suffering, she appeared as well the next day, as after any common labour.

CASE LXXXVIII.

One Tuesday morning I visited a woman who was stated to have been in labour since the Friday preceding, under

what was supposed to be a breech-presentation. The pains had been violent, but were then declining, and the strength was giving way. A professional man had seen this patient the evening before, who stated the presentation to be the breech. Upon inquiry, however, I found that a large portion of the side was presenting, and was forced low down in the Pelvis almost to the Os Externum; that the trunk was somewhat doubled, with the breech at the brim of the Pelvis towards the Sacrum, and the shoulder over the Pubes; that the woman's powers were very much impaired; to that degree, indeed, as to call for immediate delivery; besides, the Pelvis was somewhat confined, and the liquor amnii had been discharged since the Friday preceding. The degree of uterine contraction and the impaction of the side, deterred me from making any attempt to turn the child; I, therefore, at once perforated the chest, an act, which its situation readily allowed me to accomplish. Having made a sufficient opening, and having extracted such contents as presented themselves, I fixed a blunt hook somewhere about the Pelvis of the child, and after some trouble, I extracted the child by the breech. The woman was promising to do well on the Thursday following.

In this case, the child might possibly have been expelled by the breech, under the doubling of the trunk, if the capacity of the Pelvis had been such as to have permitted that result; then the preceding supposition would have been thought to be correct, and the case to have been a breech case originally. But in the attempt to produce that natural termination, a considerable degree of exhaustion had been already induced, so that the woman's life was seriously threatened.

CASE LXXXIX.

My assistance was requested to a woman in Catherine-Wheel Alley, Bishopsgate Street, the mother of seven children under a preternatural case. The membranes had given way two days preceding, but no part of the child was then to be felt; the pains were described not to have been

strong, yet the left hand was protruded externally; the shoulder, with part of the chest, was firmly impacted in the brim of the Pelvis; and the Uterus felt strongly contracted upon the child; besides, the midwife had not long detected the presentation. I made in the first instance a resolute attempt to introduce my hand to turn the child, but I did not succeed in that object. Decapitation then occurred to me as the next resource; but the situation of the head would not permit my finger to reach the neck. I, therefore, perforated the chest, and withdrew from its cavity, as well as from that of the abdomen, such of their contents as came within reach. The doubling of the body enabled me to get down the right arm; the position of the child became then so much altered, that I could readily surround the neck with my finger. I, therefore, applied my decapitator, and brought it through the neck. The trunk was withdrawn without further trouble; the head and Placenta were afterwards expelled by uterine action. Soon after delivery, the woman was seized with a rigor, yet she recovered from her confinement without further inconvenience.

CASE XC.

I was summoned to the assistance of a respectable woman in the parish of Whitechapel, the mother of a family, under a state of difficult labour, attended by a professional man, who gave me the following account:—"He was called to this patient about four in the afternoon of the day preceding, in consequence of the rupture of the membranes, and the sudden discharge of the waters; he remained in her room for some time, but seeing no symptom of active labour, he left the house without making an examination. He was recalled about ten the following morning, and even at this time, the labour-pains appeared but slight. About twelve at noon he made his first examination, and found both hands down in the Vagina. Upon this he made an effort to turn the child, and after some trouble, he succeeded so far as to pass his hand into the Uterus, to lay hold of a foot, and to

bring it to the brim of the Pelvis, but his best endeavours did not enable him to dislodge the shoulder, so as to permit the breech to descend. He then attempted to pass his hand into the Uterus a second time in search of the other foot, but the contracted state of the Uterus prevented its entrance. In this dilemma he begged my assistance."

On an examination, I met with both hands down; the left hand was quite external and swollen; the right hand was higher up in the Vagina: I could also just reach the foot at the brim of the Pelvis. The child was laid across the Pelvis with its breech upon the left ilium; with the head, bent backward, upon the right ilium; the back of the shoulders and part of the side of the chest were firmly impacted in the brim of the Pelvis; the Uterus was strongly contracted upon all the parts of the child; and a hand placed upon the abdomen detected the uterine tumour to be solid, small, and irregular. Under such a perplexing complication of difficulties, I hardly knew what step to take. Decapitation was impracticable; for the situation of the head prevented my reaching the neck in such a manner as to surround it with my instrument. A noose was got over the foot at the brim of the Pelvis, which seemed to offer a purchase for traction downwards; but after exerting a considerable degree of force to push the shoulder out of the way without success, I was obliged to relinquish the idea of delivery by that mode. I had therefore no other alternative than that of perforating the chest, and of eviscerating the cavities, to which I had immediate recourse. After some time, I got a blunt hook fixed upon some part of the Pelvis of the child, and procuring a sufficient purchase, I had presently the satisfaction of finding that I was gaining ground; and proceeding onwards in my exertions, I succeeded in extracting the breech under the doubling of the trunk, after which the labour was soon finished.

The day following this lady seemed as well as could reasonably be expected; with the exception of a sense of weariness, and of some tumefaction of the external parts, she made no complaint; and for several days afterwards

she was promising to do well. But on the Sunday following, six days after delivery, the tongue and inside of the mouth became beset with aphthous appearances: the patient also complained of great debility, and had a quick pulse. From this time she daily became evidently worse, and went on suffering under various distressing symptoms, but without the appearance of any particular uterine affection, till that day week, when she had a violent attack of rigor. From this time she gradually sunk, and died three days after, seventeen days after delivery.

Can it be supposed, that the aphthous state of the tongue and mouth was in this instance symptomatic, or indicative of any affection of the Uterus, or of its lining membrane? I must confess such was my idea at the time. I think it probable, that membranes of similar structure and function, although not apparently connected by continuity, may be similarly affected under diseased action.

This case, as well as several others which I have detailed, strongly evinces the impolicy of continuing to be, for any length of time after the rupture of the membranes, a passive spectator of the progress of a labour, as I have already remarked. It is an important part of professional duty then to explore and to determine the presenting part; for, by the conclusion thence derived, must the future practice be entirely guided. Inattention to this point has caused the several patients interested an increased and a protracted degree of suffering, which a different line of conduct might probably have prevented.

CASE XCI.

I visited a poor woman in Wheeler-street, Spitalfields, who had been in labour of her first child twenty-four hours, with the waters discharged, and the hand presenting. I found an arm low down in the Pelvis, the shoulder completely blocking up its brim, and the Uterus firmly contracted upon the child. I attempted to introduce my hand, and to push up the shoulder; but I met with such oppo-

sition from uterine contraction in that attempt, that I did not think it prudent to persist in my endeavours to turn. After the lapse of a short time, I decided upon decapitating the child; with some difficulty I got my finger over the neck, upon which I passed a blunt hook, and by its side the decapitator; then withdrawing the blunt hook, I brought the instrument without much difficulty through the neck of the child. The shoulders, trunk, and lower extremities, were now extracted with ease by the descended arm; the head was afterwards brought away by means of a blunt hook inserted into the mouth, and the Placenta immediately followed. The woman did well.

It appeared to me in this case, that if I had resolutely persisted in my endeavours to turn, I must either have lacerated the Uterus, or have inflicted other irreparable mischief upon the soft parts of the mother. In cases of strong tonic contraction of the Uterus, the child must almost necessarily be produced into the world *dead;* the act of decapitation or of evisceration, therefore, will lose much of its apparent violence; yet either can never be justified, except upon the principle, that through its means, less injury may probably be inflicted upon the mother, than by the usual mode of turning.

CASE XCII.

I was summoned by one of the midwives of the charity, to the assistance of a poor woman near Whitechapel, with the intimation, "that about three in the afternoon her patient had been seized with a flooding which presently ceased; that the membranes had just broken; that an arm had come down; and that the labour-pains were very violent." Being from home at the time the message was delivered at my house, it was forwarded to me, and I arrived within an hour. On entering the patient's room, I was told, "*it was all over;*" a dead child was shown to me, which had been born some time, and the midwife had left the house. Surprised at this account, I was anxious to

know the facts of the case; and I requested the midwife, who was one of the most intelligent and experienced women of the charity, to transmit me a statement in writing of the mode in which this case went on, and was terminated. I will, therefore, transcribe her history of this unlooked-for event.

"I was called to Mrs. S. at four in the afternoon, and found her flooding; I gave her the acid drops, which had the desired effect. At eight in the evening labour came on, but the Os Uteri was high and rigid. The membranes formed largely, and I could have no idea what the presentation was; I, therefore, deemed it most prudent to let them rupture of their own accord, and to my consternation, the right arm presented. I wrote for the doctor; the pains became so strong, that the hand was soon through the externals. I entreated the woman not to bear her pains down, and I endeavoured to keep the arm back, but in vain. The shoulder passed the pubes to the externals; and the perinæum began to be protruded so very largely, that I was obliged to direct my attention to it. The side began to advance with the hip, the breech, and the legs, and lastly the head. The child was still-born; the mother is doing well." J. H.

Such cases are very rare; and although a few have fallen within my notice, I dare not recommend unnecessary delay, in the expectation of such a result.

ON UTERINE HÆMORRHAGE.

A DISCHARGE of blood may take place from the Uterus under various states and conditions of the female body; but my present attention will be solely directed to a practical inquiry into the nature and management of hæmorrhage under pregnancy and parturition; having already discussed the treatment of floodings connected with the detention of the Placenta, and others subsequent to labour. But as some general principles applicable to this subject may possibly be deduced from a knowledge of those facts which occur under loss of blood from any source, and of the modes by which it is naturally checked and ultimately suppressed; I must beg the reader's permission to offer a few remarks thereon.

Hæmorrhage is of two descriptions, *active* and *passive*. The first ensues upon the rupture of a blood-vessel from increased exertion of the heart and arteries. The second follows the division, the erosion, or the separation of a blood-vessel by violence. Occasional instances of active hæmorrhage are met with in discharges of blood from the lungs, from the intestinal canal, and from other organs; in which the circulating fluid is forced out of its containing tubes by increased vascular power. Passive hæmorrhage prevails under all mechanical divisions of blood-vessels, and in most cases of uterine hæmorrhage; in these, the blood escapes out of the open extremities of its vessels, until its further loss is restrained by natural, or by artificial means. Under either description of hæmorrhage, the immediate effects upon the system are very similar. They are always proportionate to the quantity of blood lost, and

to the velocity with which that blood escapes. But in active hæmorrhage, it does not frequently happen, that a very large vessel is forcibly ruptured by vascular action, unless that vessel shall have been in a previous state of derangement; its baneful effects, therefore, are not so immediate, so speedily obvious, or so urgent, as we occasionally witness under passive hæmorrhage.

The symptoms following an extensive and sudden loss of blood are uniform, and are strongly expressive of the condition and feelings of the sufferer. The countenance assumes a pallid, nay almost a death-like aspect; the lips lose their rosy hue; the eye is deprived of its natural appearance, and of its wonted vivacity; the pulse becomes small, tremulous, and rapid; the extremities feel cold to the hand; a sense of faintness comes over the patient, occasionally terminating in a state of absolute syncope; respiration is performed in a quickened and agitated manner; and after a time, a sense of stricture seizes the chest, accompanied with general restlessness, anxiety, and a reiterated wish for the admission of fresh air. Such symptoms too frequently terminate in the extinction of life.

But to obviate that fatal result, the natural powers of the system are unceasingly engaged in exciting into action certain agencies with which the animal body is endowed, and which were previously lying in a dormant state. Let me therefore briefly advert to the extent and efficacy of these agencies, and examine the mode of their operation. Take for instance an artery divided by the knife. The parietes of its divided extremity are immediately approximated, and become somewhat firmer; so that its diameter is proportionally diminished. These effects are produced by that inherent contractile effort, which is naturally implanted in all the blood-vessels of the body in a greater or less degree; by means of which, their coats are kept in immediate contact with the column of blood moving through them. Now, if the diameter of a divided vessel be diminutive, the degree of contraction will presently be equal to the obliteration of the canal, and to the restraint of further

hæmorrhage. But if the vessel possess an enlarged diameter, although a similar effect in some measure ensues, contraction of its coats cannot proceed to that extent, as to close up the divided extremity completely; so that blood still continues to flow, although in a more confined stream. For the purpose, therefore, of preventing a farther, and perhaps a fatal effusion, the surgeon applies a ligature around the extremity of the divided vessel; and tightly compressing its coats, remedies, by his art, the apparent defect in the natural contractile power.

After the extremity of a divided vessel has been completely closed, whether by natural or by artificial means, a conical coagulum is there formed; which in process of time becomes vascular, and, as it were, a part of the vessel itself. The apex of this coagulum is directed externally, and its base looks towards the heart; thus effectually blocking up the area of the canal, it becomes a complete bar to the farther escape of blood. This valuable provision of Nature, therefore, is prepared as an additional security against a future attack of hæmorrhage from that particular vessel.

But very beneficial results are occasionally found to ensue under sudden hæmorrhage from another agency, and one of a very different kind; the abstraction of the *vis a tergo*, or the propelling power. Under a rapid loss of blood, the vascular tubes become so quickly bereft of their contents, that their parietes cannot contract upon the remaining portion with sufficient energy to propel it forward to the heart; that organ, therefore, is deprived of its proper pabulum, or stimulus of action; hence syncope ensues. Under this temporary suspension of the circulating powers, the violence of the bleeding is materially arrested. It has also been asserted by experienced physiologists, that under syncope, the blood shows a greater disposition to coagulate.

In uterine hæmorrhage, especially under an enlarged state of that organ, Nature brings into action other sources of restraint, besides the above-mentioned salutary agencies.

Under pregnancy, the uterine vessels may rather be compared to tortuous sinuses pervading the uterine structure, in communication and contact with the placental surface, than to common arteries and veins, with defined contractile coats. They seem to form a part of the uterine tissue itself; they increase in size as the Uterus is enlarged and evolved; but their parietes do not possess an equal degree of contractile effort, as is enjoyed by the generality of the blood-vessels of the human body. This defect, however, is amply compensated by that powerful contraction, which the Gravid Uterus is capable of exerting. Under the effect of its energy, the organ is diminished in bulk and capacity; its parietes become thickened; their general mass is brought into closer and more immediate contact; the diameters of its different blood-vessels are lessened, and their extremities, if open, are thereby closed.

Uterine contraction, then, is the principal efficient agent, by which such hæmorrhage is checked and ultimately suppressed. With comfort and confidence, therefore, do I advert to its active energies, for the production of those salutary changes, upon which, under such pressing, such dangerous emergencies, security alone depends. But although permanent safety can only be derived from the actual contraction of the uterine parietes, let me not be supposed to decry the advantages accruing from the formation of coagula at the extremities of the bleeding vessels, and from the abstraction of the *vis a tergo*. A state of decided syncope, so extremely alarming from its temporary resemblance to the cessation of life, if not too long continued, becomes rather beneficial than injurious. For, during its presence, the circulation is so far interrupted, that the loss of blood for the moment is checked: so that when the woman revives, she is not placed in a worse state than before its occurrence. But under that distressful sense of faintness, which a continued oozing of blood seldom fails sooner or later to induce, the circulation is carried on, but in a weaker and more imperfect manner; and the drain is unceasingly supplied. I am far from intending to advance

however, that either a state of real syncope, or one of prolonged faintness, is not an indication of very great hazard to the sufferer. Each implies an exhausted condition of the vascular powers, in consequence of their having been already deprived of so large a portion of their circulating fluid.

In a former part of these Observations,* I have given a brief outline of the growth and development of the Uterus after conception; of the formation of the Placenta; of the mode in which that mass is attached to the uterine surface; and of its probable functions. It appears to me quite unnecessary to repeat what I have there stated, I must therefore refer the reader to them. Suffice it for my present purpose to remark, that the bulk of the Placenta is composed of blood-vessels connected by membranous tissue, through which the blood of the fœtus is circulated for certain beneficial purposes; and that it is opposed to the openings of the uterine sinuses communicating with the decidua and uterine membrane. Into this singular provision of Nature, the blood of the mother is transmitted from, and returned back to, her system. Yet although the Placenta is placed in immediate apposition with the uterine surface, it cannot properly be said to be in absolute contact with that surface, since the deciduous membrane is interposed; and that membrane is found to be firmly adherent to the general mass when it is withdrawn.

The structure of the Placenta therefore affords the means of distributing the fœtal blood through the entire ramifications of its vessels, and of exposing that blood to the influence of the mother's blood, whence are imparted the pabula of nourishment and life. Yet there is no positive intermixture of the fœtal and of the maternal blood. Each enjoys and appropriates to its own use its specific apparatus, with proper channels and boundaries assigned. The mass itself is therefore strictly fœtal; it is formed for the sole advantage of the child. It is not reasonable to suppose, that the mother's system can derive any benefit from the

* Vide page 7, and subseq.

transmission of her blood to the placental mass. Now, if the substance of the Placenta be lacerated, the blood lost must be fœtal. But if any part of the Placenta be detached from the uterine surface, the discharge thence ensuing is a portion of that blood which was previously circulating through the mother's system; and the symptoms supervening thereupon, are in proportion to the quantity, and to the velocity of the effused fluid. Hence is deduced this important fact,—a fact indeed of the greatest practical value, and which ought ever to be retained in the memory;—"that during the whole term of utero-gestation, as well as under the process of labour, a discharge of blood from the Vagina can only arise from the detachment of a portion of the Placenta from its connexion with the uterine surface; and that the blood which escapes is maternal." The cause of the hæmorrhage is simple and uniform, and the restraint of the discharge must be effected by natural or by artificial means. Every pregnant woman is liable to an attack of flooding from this source; she is also liable to a recurrence of the attack. Cases of this kind, therefore, deserve the utmost watchfulness and attention.

A natural cessation of the hæmorrhage is probably brought about, partly by a degree of uterine contraction silently exerted, and partly by the formation of a plug at the extremities of the bleeding vessels. I cannot suppose it possible, that the separated portion of the Placenta can be again attached to the uterine surface with such a degree of precision, as to be restored to the performance of its original functions. That portion may, perhaps, become adherent to the surface whence it was detached by an effusion of lymph, but its vessels will cease to derive any beneficial influence from the mother's blood; the fœtus will therefore be deprived of some part of its nourishment, and occasionally to that extent, as to terminate in its destruction.

Although we generally find that the symptoms induced under an attack of uterine hæmorrhage, are relatively proportionate to the quantity of blood lost, yet the celerity with which it escapes is a matter of the greatest importance;

not only as regards its present effects, but also as regards its future consequences. When blood flows rapidly, in a fluid state, and in a sort of continued stream, the system soon begins to feel the injurious influence of its loss, and to show obvious marks of considerable affection. When it flows more sparingly, exuding as it were drop by drop, or when it is discharged in larger or smaller coagula, the constitutional impression is brought about more gradually, and of course is longer deferred. Under either state, the powers of the system sooner or later decline, when a continued drain is kept up.

But occasionally, indeed, we may observe the sudden appearance of symptoms indicative of greater distress and danger, than the quantity of blood, which appears externally, would seem to account for. Under such circumstances, in all probability, blood is escaping into the uterine cavity, and hæmorrhage is going on internally. Of the actual quantity, which may be thus extravasated, we must remain entirely ignorant, since, for the present at least, it is concealed from the view; we merely witness its effects in the symptoms induced, and judge accordingly.*

* An occurrence which I once met with, has induced me to believe, that a part of that blood which is thus extravasated may form a firm coagulum within the Uterus, and may remain stationary therein for a length of time, without producing by its presence, symptoms of irritation or of expulsive action, or even without undergoing the common process of putrefaction. A lady was attacked with uterine hæmorrhage between the third and fourth month of pregnancy, while viewing the exhibition at Somerset House; she was removed home in a coach, was kept quiet for some time, and the complaint for the present disappeared. About a month afterwards, she had another return of discharge soon after quickening, which presently subsided under a reclined posture, and gentle management. Some weeks after, under an attempt to relieve the bladder, a firm flattened substance of the size and thickness of the palm of the hand, not unlike a piece of half-tanned sole-leather, passed from the Vagina without pain or effort; and under the act of evacuating the bowels afterwards, several similar pieces were observed to escape. This lady was eventually delivered of a living child of little more than seven months' appearance, after a common labour without any remarkable incident; but upon the second day after delivery, she passed a quantity of a coagulated mass, similar in appearance to those above mentioned, which exhibited no signs of the putrefactive process; and which I could consider in no other light than as a flattened coagulum, deprived of its serous parts.

In counteracting the general effects of hæmorrhage, a great deal of influence must be ascribed to the nature of the constitution of each individual woman. A woman of a thin spare appearance and of active habits, usually bears the loss of blood better, and rallies from its effects sooner, than a woman who has been accustomed to every species of indulgence, and who, at the same time, is disposed to corpulency. Women of the former description will sometimes suffer under very extensive floodings with little apparent injury; nay, almost with impunity; while those of the latter class will be irrecoverably depressed by a comparatively trifling loss of blood. But the same woman is not able, *at all times*, to contend against the effects of hæmorrhage of equal apparent magnitude; for we constantly see in practice, that the same woman is very differently affected at one time, than at another. It may be difficult to account in any satisfactory manner for such discrepancies; yet I think it not improbable, that they may be connected with a more sudden impression upon the brain and nervous system.

Some influence may also perhaps be attributed to the season of the year, to the state of the weather, or to other accidental occurrences; yet I dare not assert, from my own experience, that such is the case; for floodings, from this source, are met with at all seasons, and in all kinds of weather. But a woman is apt to be sooner affected by faintness, from a given loss, in hot weather, than in a cold season.

In estimating the probable consequences of uterine hæmorrhage, especially the degree of danger, we must advert to two principal points:—1st, To the quantity of blood already lost, and to the rapidity with which that blood has flowed; 2nd, To the impression made upon the constitution, apparent in the degree of the obvious symptoms.

It is always difficult to ascertain with any tolerable accuracy, and sometimes even to guess at, the probable quantity of blood which has escaped on these occasions. A woman

may be suddenly seized under an erect posture, and the discharge may be effused upon the floor, and upon her dress; or it may be received in a proper utensil; the quantity is then visible, and must be rated accordingly. But it usually flows upon the bed-linen and napkins, and is extended over their surface. This being the case, little reliance can generally be placed upon the mere representations of the nurse, or of other attendants, as to the quantity of blood already discharged. If we wish for any satisfactory information on that important point, recourse must be had to ocular demonstration; to the actual inspection of the linen and napkins; and if, upon such inspection, these necessaries are seen to be thoroughly soaked with blood, we become immediately convinced, that the woman has undergone a considerable loss. We must bear in mind, however, that we may be deceived in the appearances thus presented to our notice. The membranes may possibly have given way, and the quantity of liquor amnii may have been added to the loss of blood; this occurrence would necessarily increase the apparent quantity of discharge. But another source of deception on this point, seldom noticed, arises in the gradual exudation of a serous fluid from the extremities of those contracting vessels whence the blood has escaped. This serous exudation, although colourless, is not entirely harmless; for, forming a constituent part of the blood itself, its vessels become drained in proportion to the quantity discharged. It proves, however, far less injurious than the loss of an equal quantity of red blood; yet it adds something to the general appearance.

When a continuance or repetition of uterine hæmorrhage has induced a sense of faintness, a pallid countenance, and a quick languid pulse, the situation of the woman is becoming hazardous, and the case ought to be superintended with increased care and vigilance. But when to such symptoms are superadded coldness of the extremities, difficult and laboured respiration, involuntary sighings, a sense of stricture across the chest, and a general convulsive tremor, danger is evidently becoming very imminent. Yet even in

very extreme cases, the appropriate means of relief ought not to be entirely neglected, and the life of the patient consigned to despair. For singular instances of recovery, under apparently the lowest ebb of life, are occasionally seen, especially when the depression has been immediate and sudden; and when the loss of blood has soon ceased.

Hæmorrhage, under the early stages of pregnancy, rarely takes place with such violence, as quickly to endanger life; but towards its close, the case is widely different. In the former instance, as the vessels have undergone but a slight degree of evolution, and their diameters are but little increased, their extremities, if opened, permit only a tardy exit of their contents, and that in a confined stream. But in the latter case, the great enlargement of the vessels allows the blood to be poured out so freely, and in so rapid a manner, as sometimes almost instantaneously to induce symptoms indicative of the greatest hazard. Yet even under the mildest form of hæmorrhage, a long-continued drain will not fail to induce its usual symptoms, especially a pallid countenance.

Should a woman be assailed towards the close of pregnancy with an attack of hæmorrhage, and should that hæmorrhage spontaneously subside, without inducing any injurious, or prominent symptoms for the present; she ought, nevertheless, to regulate her conduct during the remainder of her term by the strictest rules of prudence. Until she is safe in bed, she is liable to a return at any hour, and under any situation, even without the least previous warning; and she is sometimes not aware of its return, until her attention is drawn to the fact by the reappearance of the discharge. Under this uncertainty then, but with a chance of a return, a total abstinence from bodily exertion should be strictly enjoined; and, if situation in life will permit, a state of positive quiet upon a bed or sofa. This cautious conduct becomes absolutely necessary to the security of a woman so circumstanced; for if the discharge has been the result of a separation of even the smallest portion of the Placenta, the quantity separated may be easily increased;

and when any uterine vessels have been once opened, they may be again readily forced by motion or exertion.

Little advantage is perhaps to be expected from the internal exhibition of medicines; yet custom has sanctioned their use. The more a man reflects upon the cause and nature of the affection, the more must he be convinced of the uselessness of most internal means; as least so far, as to induce him to place no great reliance on any specific virtues, they may be supposed to possess. Of the positive efficacy of those articles termed astringents, I have considerable doubts. The various preparations of lead appear to me inadmissible, from their injurious effects upon the bowels. Opiates are perhaps no otherwise useful, than in tending to lessen that nervous excitement, which is produced by apprehension. Moderate saline aperients are occasionally beneficial. I cannot speak decidedly of the beneficial effects of the *secale cornutum* from my own experience; but many of my professional friends entertain high opinions of its valuable properties in inducing uterine contraction. But I have long been averse to general blood-letting; upon this principle, that uterine hæmorrhage is commonly of the passive kind.

Yet although the internal exhibition of medicines may have but little effect in the suppression of uterine hæmorrhage, I am ready to admit, that other means prove highly beneficial. These means principally refer to the personal management of the patient, and to the regulation of her room. She ought to be confined to a reclining posture, under a state of the strictest bodily quiet; to abstain from all stimulating and hot fluids, as well as from solid animal food; and in their stead, to be allowed the free use of cold acidulated fluids and ices. The application of cold over the region of the Uterus, to the loins, and to the external parts; the injection of cold fluids into the rectum; and the occasional use of the plug, are not without their temporary advantages. But the external use of cold, whether in the form of iced fluids, or of solid ice enveloped in a bladder, requires, in my opinion, considerable discretion, especially

under a state of exhaustion. I have found, in most cases, its temporary application more beneficial, than a regular perseverance in its use for a length of time. I therefore generally recommend that it should be applied for a given time, that it should be withdrawn for an equal time, and that it should be repeated; that a return of natural warmth may take place in the intervals. The windows of the room may be opened; the patient may be allowed to breathe a cool air; and the coverings of the bed may be made light. But in cases in which exhaustion seems approaching, in which the vital powers are giving way, it may become imperatively necessary to have recourse to strong stimulants, to keep up the action of the circulating powers.

Cases of hæmorrhage under pregnancy resolve themselves into two practical varieties, founded on the relative site and attachment of the Placenta. Each is derived from a similar source, and proceeds in nearly a similar manner, but as each case severally calls for a different management, it will be necessary to give to each a distinct and definite consideration.

To elucidate this point as clearly as I am able, and satisfactorily to establish a practical distinction between these two varieties, I must be allowed to observe, that the Placenta is most commonly attached somewhere about the body or fundus of the Uterus; yet, that there is no part of the internal surface of that organ at which it may not, by possibility, be implanted; near the Cervix Uteri, or even immediately over the Os Uteri. Now, it has been already observed, that flooding under pregnancy can only occur from a separation of some portion of the afterbirth from its natural attachment. When such separation takes place under its common and most usual point of adhesion, to the hæmorrhage thence ensuing the epithet *accidental* has been applied. But to hæmorrhage following any detachment of the Placenta, when that mass is placed partially or entirely over the mouth of the womb, since that opening cannot give way and extend itself without some separation thereof, the epithet *unavoidable* is justly appropriated. These terms were

first used by Dr. Rigby, in his excellent essay on this subject; as they cannot be improved, I therefore willingly retain them.

On an attack of either description, the accoucheur remains entirely ignorant of its nature, until he is permitted to make a careful and a well-conducted examination *per vaginam*. This is the only mode, by which he can make himself acquainted with the true facts of the case. But unless the loss be very considerable, it will be seldom necessary to make this inquiry in the first instance; and even if it should be made in an early stage of the flooding, little information may possibly be derived from it. Besides, that natural delicacy, so inherent in every English woman, usually forbids it, until she is persuaded that it has become absolutely necessary. But, as our future proceedings must be guided by an accurate knowledge of the case, let us not be induced by any feelings of false delicacy, to defer this necessary inquiry, until symptoms of actual danger appear, or are apprehended. Should the flooding continue, or should it frequently return, it will be an imperative duty, on the part of the attendant, to be upon the alert, and decidedly to clear up the matter to his own satisfaction.

This vaginal inquiry, then, is to be conducted in a cautious and deliberate manner; that we may equally avoid all chance of deception, and that we may attain the object of which we are in quest with the greatest degree of precision. The life of the woman may possibly be implicated in its result. In some instances, the Os Uteri will be found so high, that it cannot be readily reached by the fore-finger; it will therefore be necessary to pass two or more fingers within the Vagina, that we may the more perfectly command it. If at the extremity of the finger or fingers, a flaccid membranous bag with the presenting part within it, be distinctly perceptible, the case is at once determined to be one of *accidental* hæmorrhage. But if, instead thereof, a stringy, fleshlike substance, adherent around the inner surface of the Os Uteri, be met with, the case is shown to be one of *unavoidable* hæmorrhage. Many shades of difference will be

found to exist between very obvious cases, and those of a less distinct, or of a mixed kind. It is not difficult to distinguish between the bag of membranes and the Placenta; but sometimes it is not so easy a matter to discriminate between the Placenta and a firm coagulum plugging up the Os Uteri. Yet a mistake on this point may be productive of serious mischief; I shall therefore briefly notice the marks of distinction.

When the Placenta is implanted over the mouth of the womb, the finger encounters a fibrous flesh-like mass, adherent around the inner edge of the orifice; and during this inquiry, especially if the finger be pushed upward with but a slight degree of force, the hæmorrhage is temporarily increased. But when a coagulum is formed within or at the Os Uteri, its surface is smooth and even to the touch; it possesses a less degree of resistance than the Placenta; and it may be either penetrated by the finger, or made to recede.

After this inquiry, a professional man is usually called upon to give a decided opinion on the case; and if his examination shall have been satisfactorily conducted, he will be fully enabled to state his hopes or fears, with the facts on which either are grounded. For my own part, I have always thought it incumbent upon me to communicate my sentiments freely to the husband, or to the relatives of the sufferer; at the same time, to withhold them from the patient herself. She is sufficiently aware, that she is placed under a state of greater or of less hazard, and is anxious to be relieved from her suspense by a favourable prognostic. But it might possibly be inconsistent with truth to assure her that she would certainly do well; at the same time, our language and conduct ought to be such, as to inspire her with hope, rather than to excite her fears and apprehensions. Despondency always exerts a most injurious influence over the functions of the female body, especially under pregnancy and labour; our expressions should be therefore so modified as to counteract any unfavourable apprehensions which may have taken possession of the mind. I will now enter upon the separate discussion of

each case, and will adduce such instances in each, as appear to me the best calculated to illustrate the doctrine advanced, and to confirm the practice recommended.

ON ACCIDENTAL HÆMORRHAGE.

This case is produced by a partial detachment of the Placenta from its uterine connexion, when it is not situated over, or very near, the mouth of the womb.

The attack is generally sudden, unexpected, and is rarely attributable to any apparent cause; it is also seldom preceded by any symptom which can forewarn the patient of its approach. It may occur at any time towards the close of pregnancy, and under any situation; under an erect posture, or under a sedentary or reclining one; while the woman is employed about the ordinary occupations of life, or while she is perfectly at ease; and it is not unusual for a discharge of blood to commence while the patient is in bed, or even during the hour of sleep. Her attention is first attracted by a sensation of something warm and wet trickling from her parts without any preceding pain, which she probably attributes to the escape of the waters of the child; but on a closer inquiry, she discovers her uncomfortable situation to arise from a discharge of blood. Startled at the appearance, she becomes alarmed, and the mental agitation excited by that alarm, tends rather to increase than to diminish the quantity of the discharge. If the occurrence should take place during the time of sleep, she is thereby awaked, and to her surprise finds herself lying in a puddle of blood. In such case the Placenta seems rather to slip off from its uterine attachment for want of a due degree of adhesion, than to be forcibly separated by uterine action.

We meet with great variety in the mode in which different cases commence and proceed. In some instances, the quan-

tity of blood lost at the onset is so considerable, and the discharge is so rapid, as speedily to induce the symptoms already described in an alarming degree; and after an extensive and sudden gush, as it were, continuing but for a short time, the appearance subsides, and by-and-by entirely ceases. In other cases, and perhaps more frequently, the attack commences in a slow and gradual manner; the discharge goes on for an uncertain time, and abates by degrees. Yet even a slow and gradual loss, proceeding without interruption for a length of time, will induce injurious effects. Now and then, we have a sudden gush of blood in a less quantity, which presently ceases without producing any inconvenience, and does not return.

At the commencement, the blood is usually discharged in a fluid state, of a dark red or blackish colour; but when the drain has continued for a length of time, especially when it begins to abate, the blood assumes a solid form, and is evacuated under the appearance of coagula of varied size, particularly when the woman attends to the common calls of nature. But when such discharge is ceasing, before it entirely disappears, a tinged serous fluid, just sufficient to moisten the napkins, is found to ooze from the Vagina. This serous exudation becomes daily less coloured, and gradually diminishing, entirely disappears in the course of a few days.

Under a mild attack of short duration, the constitutional effects are comparatively slight and transient, so that when all appearance of discharge has ceased, the woman considers herself well, and acts accordingly. But as she is liable to a return at any period between its entire cessation, and the completion of labour, she ought to be strongly impressed with the propriety of observing, during that interval, a due degree of circumspection and prudence; under which the process of pregnancy may possibly go on to its full completion. But if such a loss of blood have already taken place, as shall have induced strong and permanent effects upon the system, the case usually terminates in the expulsion of the uterine contents, and the child is too frequently still-born.

Accidental hæmorrhage may also be brought on by a fall, a blow, a slip, or any external injury; and it is sometimes to be attributed to mental impressions: to fright, sudden alarm, anger, and the exciting passions. In the former instances it is the effect of mechanical agency; in the latter, of a hurried circulation. But the attack surely follows the immediate application of a supposed cause: a lapse of some time usually intervenes. In the absence of any apparent cause, it probably originates in some defect of the Placenta itself, or in its adherent properties: but of such a state we have no external evidence.

When a discharge of blood makes its appearance towards the close of pregnancy, before any symptom of labour has shown itself, the general means already recommended for the suppression of hæmorrhage may be resorted to for a time. The strict observance of a recumbent posture; the admission of cold air into the room; the liberal use of cold fluids, acids, and ices; the external application of cold to the abdomen; the occasional exhibition of aperient, anodyne, and restringent medicines, are not without their several and united advantages. By the effect of these means, assisted by the inherent powers of the system, the hæmorrhage is frequently restrained, and presently ceases altogether. But if the flow of blood should not be suspended within a moderate space of time, especially if it shall have already induced any of its peculiar symptoms, and the case is satisfactorily made out, recourse must be had to the discharge of the liquor amnii by the rupture of the bag of membranes, and that without further delay. The rupture of the membranes induces a degree of permanent contraction throughout the whole uterine parietes, whereby the dimensions of its numerous vessels are proportionally diminished, so that their open extremities are somewhat approximated; but it must terminate sooner or later in the expulsion of the uterine contents. It may be effected with the finger, or by some convenient instrument, a catheter or stilette for instance; but before the membranes can with propriety be ruptured, the presenting part of the child

ought to have been satisfactorily ascertained; and if, in place of the head or breech, the shoulder should be found presenting, that position of the child alone would demand the introduction of the hand, for the purpose of delivering by the feet. In cases, in which the loss of blood has been sudden and considerable, which has speedily induced a pallid countenance, faintness, and other unpleasant symptoms, the discharge of the liquor amnii may become instantly necessary.

But objections have been started against this practice upon the futile plea, that if the discharge of the liquor amnii did not restrain or suspend the hæmorrhage, and if manual delivery became afterwards necessary, such delivery would be rendered more painful and difficult by the contraction of the Uterus. I have found no practical truth in this argument. If the Uterus contract well, and its action become effective, the child will be expelled; if it should remain flaccid, and indisposed to contract, it will offer little resistance to the passage of the hand for manual delivery.

The quantity of liquor amnii is frequently considerable, and as it escapes appears more copious than usual; when this is the case, there is a greater probability that the hæmorrhage will be effectually restrained by the increased degree of uterine contraction following its discharge. Should this desirable event ensue, the woman must be strictly enjoined to observe a passive recumbent posture, patiently awaiting the access of uterine action; and, when the act of labour does commence, it must be allowed to take its due course without further interference. But if the evacuation of the liquor amnii should not produce a cessation or interruption of the hæmorrhage within a moderate space of time; if the loss of blood should continue afterwards to that extent, as to threaten the life of the patient, there remains no alternative, but that of emptying the Uterus by a forcible delivery; by introducing the hand and turning the child. Yet previous to attempting this necessary part of professional duty, we ought to be well satisfied that the act is readily feasible; that the parts have acquired such a

degree of relaxation, as to permit the passage of the hand without danger or injury. In waiting, however, for that state, or for the appearance of such symptoms as may urge us to take this ultimate step, let us beware of much procrastination; lest we delay that indispensable operation too long. By carefully and attentively watching the progress of the symptoms, and the gradual evolution of the different parts concerned, we become enabled to seize the proper moment for its performance. Fortunately, we are seldom obliged to resort to this disagreeable expedient; but if driven to that necessity, the operation should be so timed as to preserve the woman's life.

In an attack of accidental hæmorrhage, the establishment of uterine action is always a satisfactory and a favourable occurrence. Under the returns of the labour-pains, the violence of the discharge is somewhat restrained; during the intervals of these pains, the quantity of blood escaping is usually increased. The restraint of the hœmorrhage is produced partly by the diminution of the uterine volume, and partly by the pressure of the bleeding vessels against the uterine contents; for it uniformly happens, that after the escape of the liquor amnii, a stronger degree of compression is made upon the body of the child. If the membranes remain entire, therefore, either before or after the establishment of labour, the first step towards relief must be, to discharge their contents, and to wait the result of that proceeding. It generally checks the hæmorrhage; but allowing that it should fail to produce that effect entirely, and that the flow of blood should continue in a more moderate degree, with active and frequent labour-pains, the termination of the case may commonly be entrusted to the natural powers under a due share of attention to the symptoms. But if under the act of labour, the flow of blood should become excessive after the rupture of the membranes, and by its continuance should produce any symptom unfavourable to the welfare of the patient, such means of art should be resorted to for the extraction of the child, and without much delay, as appear the most appropriate to the

exigencies of each case; always giving a preference to those which are consistent with the life of the child, if their application appear to be at all admissible.

But artificial delivery, especially when it is to be effected by the introduction of the hand and by turning the child, can never be successfully attempted under a state of positive syncope, or of very great exhaustion. Under either of these states, the powers of the constitution seem unable to bear up against the shock occasioned by the additional pain and violence inflicted thereby. It is, therefore, highly desirable that a truce from the discharge should be previously obtained, if possible, by some means or other, and under such circumstances, the *plug* may sometimes be advantageously applied. The equilibrium of the circulation is in some degree restored by a little delay, and the functions of the arterial system are resumed. When such advantages are gained, delivery may be effected with less danger. Let it be remembered, however, that the object of a forced delivery is not the mere extraction of the child, and the evacuation of the uterine contents; but that such extraction and evacuation may become the means of inducing uterine contraction, and through it, the cessation of the hæmorrhage by the constriction of the bleeding vessels. The extraction of the child should therefore be made in a slow and gradual manner, and due attention should at the same time be paid to the degree of contractile effort in the uterine parietes. If it be made too quickly, the Uterus is so suddenly emptied, that the diminution of its size cannot keep pace with the rapidity with which the child is withdrawn; its parietes are therefore left under a state of irregular contraction or of flaccidity. Indeed, there are few situations, in which a parturient woman can be placed, more replete with danger, than that in which the uterine parietes, either in the act of turning, or after the birth of the child, are left lax, unresisting, and wrapping around the hand like a piece of wet wash-leather. Instrumental delivery ought to be conducted in the same deliberate and cautious manner, with a similar reference to the above principle.

The management of the Placenta must be entirely regulated by existing circumstances. If after the extraction of the child, the Uterus should fortunately be found well contracted, and the Placenta be thrown down into the Vagina, it may be there left for some time, and be withdrawn in the usual manner. But if the Uterus be felt under the hand large, flaccid, uncontracted; if the Placenta be quite out of the reach of the finger, and a draining of blood continue, the state of the woman must determine, whether it may be necessary to remove the Placenta at once, or whether it may appear more desirable to leave it for a time; especially if her powers have been already much exhausted by the preceding occurrences. Should the woman complain of intolerable faintness, and appear excessively low, any existing drain must tend still farther to reduce her system, and to place her in a state of greater hazard. To avoid therefore any increase of danger from such a source, it may be necessary to remove the Placenta by the introduction of the hand without delay; and if it should be found adherent, cautiously to proceed in its separation; taking care not to withdraw the mass, until some degree of uterine contraction is perceptible under the stimulus of the hand. Yet under the above state of the Uterus, if the woman should appear to be tolerably well, and if there be no continuance of discharge, it may be advisable to await, for a moderate space of time, the natural exclusion of the Placenta by uterine contraction. Upon the whole, however, I have long thought it preferable practice, in cases of artificial interference, to withdraw the Placenta rather early after the birth of the child, than to defer that necessary duty for a length of time.

If the Uterus should remain in a flaccid relaxed state after the extraction of the Placenta, and the discharge should continue to that extent as to endanger the woman's life, or should return, we must endeavour to excite uterine action by other, and especially by manual means; by encircling the uterine tumour within the hand, at the same time exerting upon it a degree of grasping pressure. Should

this mode of proceeding not prove successful and available to the restraint of the discharge, it may afterwards even become necessary to introduce the hand within the Uterus itself, and to keep it there until a sense of contraction is perceptible in the uterine parietes. The occasional application of ice enclosed within a bladder to the belly; of refrigerating fluids; and the exhibition of restringent and anodyne medicines, may also aid the general intention.

Under cases of sudden and great exhaustion, in which we have a draining continuing after the evacuation of the liquor amnii, and in which delivery appears, for the present at least, to be incompatible with the safety of the woman, in addition to the means already mentioned, recourse may be had to the exhibition of the *ergot of rye*, the *secale cornutum*, in the common form of infusion. In one instance, in which I recommended that medicine, its effects in increasing the power of uterine action appeared evident and satisfactory, as far as a given effect can be supposed to be dependent upon a medical cause.

From the preceding narrative it will appear, that the rules of practice, applicable to the treatment of accidental hæmorrhage, are few and simple, and that their chief object is to promote uterine contraction, as the ultimate means of checking its progress. A neglected case must necessarily be attended with a great degree of danger; yet by prudent management in an early stage, the risk of danger may be materially averted. A case of this kind, therefore, does not very frequently prove fatal, unless it has been neglected, has not been recognised, or has been improperly treated.

It may therefore be generally stated, that if accidental hæmorrhage come on before any symptom of labour makes its appearance, and not spontaneously subside, nor be restrained by the usual means, recourse may be had in the first instance to the rupture of the membranes; and in case that act fails to check the discharge, or that it afterwards continues to such a degree, as eventually to threaten the safety of the woman, delivery must be effected by turning

the child, as soon as the parts are in a state to admit the ready introduction of the hand; for it rarely happens that a degree of relaxation sufficient for the performance of that object is not induced, before symptoms of imminent danger assail the woman. If sudden hæmorrhage should come on after the establishment of labour, and proceed to that extent as to produce alarming symptoms, the labour must be terminated by such instrumental assistance as appears applicable to each case.

CASE XCIII.

My immediate attendance was requested upon a poor woman in Finsbury, who was represented to be taken with a violent flooding and a discharge of *clodders;* accompanied by sickness, but no pains; to be in the seventh month of pregnancy; to have the Os Uteri a little dilated, with a foot presenting. I found this woman very much depressed by the quantity and suddenness of the loss she had already sustained; there was also a constant draining still continuing. On examination, I could feel a portion of the Placenta within, and near to, the Os Uteri, detached from the uterine surface: at the same time, a foot was coming down into the Vagina. Introducing my hand within the Vagina, I seized the foot, and by gradual extraction, brought down the breech: uterine action then came on, and presently expelled the rest of the child with the Placenta also. The woman had no more flooding; and although I left her in a very exhausted state, she gradually rallied, and ultimately did well.

CASE XCIV.

A professional man solicited my immediate attendance upon a lady at Stepney, who was stated to be in labour of a first child at full time, and suffering under an attack of hæmorrhage. I learnt that this lady had been very unexpectedly seized with a flooding, while transacting business

in a neighbouring shop; that she immediately fainted, and was carried home in that state; that her medical friend was sent for, who being alarmed at the situation in which he found his patient, requested my assistance. She appeared to me under the impression of a considerable and sudden loss of blood; with a pallid countenance; cold extremities; and a quick weak pulse. On a vaginal examination, the Os Uteri was but little opened, yet was soft and dilatable, admitting the ready introduction of the finger, which immediately detected the head of the child through the amnial bag. Without withdrawing my finger, I discharged the liquor amnii; after which, the loss which had been previously going on from the first attack, entirely ceased. After the exhibition of some stimulants, she materially recovered from her depressed state, and slight pains began to show themselves. By-and-by, the process of labour became decidedly established, and proceeded regularly to the natural expulsion of the child and Placenta, about nine the same evening, without any return of hæmorrhage. The woman afterwards recovered without the recurrence of any bad symptom.

CASE XCV.

I was called in consultation upon the case of a woman in Bethnal-green Road, seven months advanced in pregnancy of her fourth child, who had been, the evening before, attacked with flooding; which had continued more or less through the night, and had now produced symptoms of great distress. The membranes had given way at the commencement, yet the discharge had continued; in the morning the medical attendant had detected an arm down in the Vagina, and this fact had induced him to ask my assistance. I found the Os Uteri somewhat dilated, with the arm protruding through it, and the shoulder above; a small portion of the Placenta, separated, could also be felt. The woman's countenance was pallid; her pulse was quick and weak; but at this time the hæmorrhage had subsided. Under

such circumstances, delivery without further loss of time appeared to me to be indispensable; I therefore with some difficulty passed my hand into the Uterus, and brought down the breech; after which uterine action expelled the rest of the child with the Placenta. I visited this woman the same evening, when she appeared much recruited, and was promising to do well.

CASE XCVI.

I was called by a professional friend to a woman in Cannon-street Road, under flooding, in the last month of pregnancy. She had been attacked about half after two in the morning, when her medical attendant was summoned, who immediately ruptured the amnial bag. As this measure did not check the hæmorrhage, he asked my assistance. I found the woman very languid and faint, with a quick feeble pulse; the head was presenting; the Os Uteri was soft and disposed to give way; and labour-pains were coming on. For some time, the quantity of blood seemed trifling; yet on raising, every now and then, the head of the child upon the tip of the finger, a quantity of fluid blood gushed away in a full stream, which made me apprehensive that the woman was flooding internally. Matters were suffered to proceed in this way about an hour longer, when it was determined that she ought to be delivered without further delay. The faintness was continuing; the pulse was becoming weaker; the powers of the system were evidently giving way; and the pains were inert. Having arrived at this conclusion, the mode of delivery was the next consideration. The application of the forceps seemed to both inadmissible from the height of the head; and the shock to the constitution, upon the introduction of the hand and turning the child, militated strongly in my mind against delivery by that mode. It was therefore determined to lessen the head, after which, the extraction of the child was effected without much difficulty about half-after seven in the morning. A very large coagulum now made

its escape, and the woman was found to be in a fainting state, from which she was somewhat roused by stimulants. But presently the flooding returned rather actively; this occurrence induced me to introduce my hand to withdraw the Placenta, which was separated and loose within the uterine cavity; at the same time I enclosed the Uterus within my right hand, and made upon it a strong grasping pressure. By this proceeding, the Uterus was made to contract tolerably well. This woman continued in a very uncertain state for some hours; but at four o'clock in the afternoon, she had rallied wonderfully, and ultimately did well.

CASE XCVII.

I visited a patient of the charity, in Thrawl-street, Spital-fields, under flooding before delivery. This woman had been several times attacked in a similar manner during the preceding month, but each attack had presently spontaneously subsided. In the morning, the pains of labour had come on, and the discharge had returned with great increase of violence; so that when I saw her near noon, she appeared in a most exhausted state indeed, but the flooding had nearly ceased. On an examination, I met with the bag of membranes entire, and could feel the head at the brim of the Pelvis. Under such a degree of exhaustion, I deemed it imprudent to take any steps for immediate delivery; I therefore merely passed my finger through the bag, and discharged the liquor amnii in considerable quantity. After waiting some time in the house, seeing that the hæmorrhage had ceased, and that the woman was improving with a tendency to uterine action, I left her in charge of the midwife; who afterwards reported to me, that in about two hours after my departure, the woman was delivered by natural efforts, and was promising to do well. In this case the poor woman seemed to be reduced to the lowest ebb of life, from which she gradually rallied after the rupture of the membranes, and the establishment of active pains.

CASE XCVIII.

I was requested one morning to visit a lady at Limehouse, who had reached the end of the seventh month of pregnancy, who had been suddenly seized the preceding evening, upon her return from a visit at a short distance from home, with an attack of uterine hæmorrhage; which had continued in a greater or less degree throughout the night, and which had made a visible impression upon her system. On a vaginal examination, I found the Os Uteri somewhat opened, and the bag of membranes protruding. About ten A. M. I passed my finger through the bag, and instantly a very large quantity of liquor amnii escaped, about a pint and half of which was caught in a basin. At a subsequent examination, I could not detect the presentation of the child; a softish substance intervened between my finger and the presenting part, which proved to be a large coagulum. After some time, the pains became more active, and presently a coagulum, as large as a full-sized orange, was expelled. The breech was now detected to be descending, and the child, still-born, was in due time expelled. The woman was as well the next day as after the most common labour.

CASE XCIX.

I was requested by a medical gentleman to give my opinion upon a case of flooding in the district of Finsbury. The poor woman had been seized with hæmorrhage some days preceding, when she lost a large quantity of blood suddenly, but the discharge did not long continue. The hæmorrhage returned two days after this cessation. Upon examination at that time by the medical attendant, the head of the child was felt at the brim of the Pelvis through the bag of membranes, which he ruptured. Notwithstanding the discharge of the liquor amnii, a constant coloured draining was kept up through the following night, with every now and then a trifling

degree of pain; and this drain had, at the time of my visit, produced a state of considerable exhaustion; the woman had a pallid countenance; a weak quick pulse; and complained of a great sense of faintness. Upon a vaginal examination, I found the Os Uteri a little opened, and relaxed; and I could detect by the finger a part of the Placenta placed near the Os Uteri; but no part of that mass appeared to me to have been situated immediately over it; the head of the child seemed disposed to press a little upon the Os Uteri during the influence of uterine action, which was slight and distant. Unwilling to deliver the woman by turning the child under so exhausted a state, and seeing a disposition to uterine action, I recommended a trial of the secale cornutum. The infusion of half a drachm was given between one and two o'clock, and was repeated in about a quarter of an hour. The medical attendant then left the house with a promise of returning shortly; but very soon after his departure, active pains began to show themselves, he was recalled, and the child was expelled by uterine action before three; the Placenta soon followed, and all discharge ceased. The woman did well.

ON UNAVOIDABLE HÆMORRHAGE.

This dangerous case is produced by the implantation of the Placenta over the mouth of the Uterus; or by its close attachment to that orifice. The Placenta is either so situated before the head of the child, in the way of its exit into the world, or so near to the mouth of the womb, that the necessary changes preceding and accompanying labour, must inevitably effect a detachment of some part of its substance with consequent loss of blood.

It was suspected by our predecessors, that when the Placenta was thus met with, its mass must have been, by some cause or other, detached from its usual situation; and must have fallen down, by its own gravity, to the mouth of the womb. But this idea is now proved to be completely erroneous; for it is a well known fact, that the Placenta may be naturally affixed to any part of the uterine surface; and the experience of most practitioners evinces, that the placental mass may be formed, even over the mouth of the womb. The woman herself, from any particular feelings or impressions, has no cognizance that the Placenta is placed in this hazardous situation; since the process of pregnancy and the growth of the child do not appear to be at all impeded, or even influenced by it, until towards the close of pregnancy; when a loss of blood takes place, which produces the first alarm.

No rational, or satisfactory cause has hitherto been assigned for this singular and dangerous deviation of Nature

from her usual prudence and foresight. In most instances we find, that ample provision is made for the safety of the human body under the performance of its different functions; but in this exception to that general principle, we see a pregnant woman necessarily exposed to the greatest danger, perhaps even to the loss of life itself, under the natural act of child-birth.

A great deal of invidious remark has occasionally issued from the press, upon the impropriety of men being engaged in the practice of midwifery; evidently, with the nefarious intention of disparaging the individual characters of such men, and their occupation. It is not my intention to engage in any controversial contest on this question; but I may be allowed to say, that if no other argument could possibly be adduced in favour of the superintendence of labour by persons properly qualified by education and experience for that duty, the occasional, and by no means unfrequent occurrence of this very case, with the necessity of active, judicious, and timely assistance to the sufferer, would alone justify the practice.

When the Placenta is implanted over, or is attached very near to, the mouth of the womb, an attack of flooding *must* take place upon the commencement of the relaxant process in the Cervix Uteri, preparatory to labour. That occurrence is a necessary consequence of some separation of the Placenta from its original attachment. In explanation of this positive assertion, I must beg to remark, that for six or seven months after conception, the uterine structure has been more particularly developed in its fundus and body; and that about that period, the Cervix Uteri becomes shorter and thinner. While these changes are in progress, the placental attachment becomes so much disturbed, that some of the uterine vessels connected with the mass are necessarily separated; the immediate consequence of which is a discharge of blood in greater or less quantity, according to the degree of detachment. But it rarely happens, that the first discharge is carried on to that extent, as to excite much alarm; it is a far more frequent occurrence, that a sudden gush should

take place, or a slight degree of flooding should continue for a short time, and subside altogether; the woman then thinks no more about the accident.

After an uncertain lapse of time, however, perhaps after an interval of two or three weeks, during which she seems to be tolerably well, a recurrence of flooding takes place; and perhaps to a much greater extent than on the previous occasion; this also may possibly be restrained by natural, and medical means. After another uncertain lapse, the flooding returns with increased violence, and probably continues for a greater length of time; and even if it should again cease entirely, it *will* return either before, or immediately upon the commencement of labour.

A woman placed in this perilous situation, therefore, holds her life under a very uncertain tenure; for the flooding may return at any one moment between its last cessation and the beginning of labour, when it must certainly recur with increased violence; whether that process may have been accelerated by the effects of the discharge, or may have been protracted to the end of gestation. The nearer the completion of the ninth month an attack of flooding takes place, the more rapid and dangerous does it usually prove: for at that time, the uterine vessels, supplying the Placenta, have acquired their greatest degree of magnitude; by any separation of their connexion, therefore, their contents are discharged with increased velocity.

At the beginning of an attack, the blood usually escapes in a fluid state, and of a blackish colour, but when the fluid form of the discharge begins to abate, or has nearly ceased, coagula of varied size are frequently evacuated. There is also a gradual oozing of a serous fluid upon the linen, after the appearance of colour has ceased, and sometimes in considerable quantity for several days, similar to that already described.

A discharge of blood, produced by misplacement of the Placenta, is rarely met with before the sixth month of pregnancy; the most usual time for its occurrence is between the seventh and eighth months: yet the attack may be de-

ferred, (although that is seldom the case) to the middle of the ninth month, or even to the onset of labour at the end of gestation. Whereas accidental hæmorrhage may take place at any stage of pregnancy, and even after the establishment of labour; in that case, its nature is immediately determined. Yet upon the whole, upon an attack of flooding previous to labour, there is so little difference between the symptoms of accidental, and those of unavoidable hæmorrhage, that it is almost impossible to detect one case from the other by external appearances. The symptom peculiar to each is loss of blood, with its consequences; the mode also in which that blood is lost is nearly similar; but I think, that the return is more frequently repeated, and that each return is more usually increased in violence, in the latter, than in the former case. As an increased degree of danger, however, necessarily attaches to the latter, when a discharge of blood does take place towards the end of pregnancy, our strongest suspicions should be excited, that the case may possibly prove to be one of the latter description; a strict eye should therefore be kept upon the woman for the future. A degree of apathy and indifference on these trying occasions is equally discreditable to the medical attendant, as it is incompatible with the safety of his patient. Yet until he has gained a higher degree of satisfactory information from a vaginal inquiry, he remains in entire ignorance of the *true* nature of the case, and merely grounds his hopes or fears on suspicion alone. But it is sometimes not possible to obtain that information on a first, or even on a subsequent attack; the state of the parts may be such as to preclude the means of acquiring it.

Those measures which have been already adverted to for the suppression of general hæmorrhage, may with propriety be used at the commencement of this case; yet not much reliance ought to be placed upon their efficacy for any great length of time, to the exclusion of other and more efficient means, lest the ultimate safety of the woman should be thereby compromised. If under their use, the flooding should continue to that extent as to induce faintness, or other symptom

indicative of much constitutional injury, we ought not to place too much, or too long confidence in their supposed or expected influence. Should it so happen, that the case has not been already satisfactorily made out, it will now become a most imperative duty on the part of the practitioner to determine the question, whether the Placenta be presenting at, or near the mouth of the womb, or not.

The mode of conducting this necessary inquiry (at this moment of such vital importance) has been sufficiently explained; I will merely repeat, that in many instances it may become needful to introduce a portion of the hand within the Vagina, before sufficient information can be obtained to decide the practice. A mistake may implicate the safety of the patient; at any rate it will inculpate the character of the practitioner; and if any doubt should exist on the question, proper steps should be immediately taken to remove it.

Let me then suppose a case, in which a woman has suffered under one or more attacks of flooding towards the close of pregnancy; each of which has either spontaneously subsided, or has been relieved by the usual means, without producing any serious mischief; that she has become the subject of a subsequent attack of greater violence, attended with forebodings of future danger; and that by a vaginal inquiry, the Placenta is detected immediately over the Os Uteri. Under such circumstances, there is no chance of safety, except in delivering the woman sooner or later by art; by the introduction of the hand, and turning the child. The termination of the case cannot be entrusted to the agency of the natural powers, without the greatest hazard; for the relaxation and opening of the Os Uteri must necessarily detach more and more of the placental mass, and proportionally increase the quantity and rapidity of the discharge. But the principal point (and one of no trifling importance) to be determined is, the *time when* this artificial delivery ought to be effected, that the imputation of rashness and the hazard of delay may be equally avoided.

In the consideration of this matter, we must advert to

the local state of parts, as well as to the general state of the woman. Before delivery can be attempted with any degree of propriety, the Os Uteri should be already so far opened, or in such a state of relaxation, as to admit the introduction of the hand without much difficulty. If delivery be attempted very prematurely, that attempt may be defeated by rigidity of parts; in that case, the woman would be placed in a worse situation than before it was made. Even if it should be effected by such a degree of force as will overcome that rigidity, the woman will be made to undergo a greater share of suffering, and will incur some risk of laceration of parts. And here let me offer an urgent caution against a mode of practice which I have sometimes seen pursued under a rigid state of Os Uteri. I allude to an attempt forcibly to dilate it, by passing two or more fingers within its orifice, without any intention of immediately introducing the entire hand. Such an act can answer no good purpose: it can only produce a greater portion of placental separation, with its subsequent alarming consequences.

But in awaiting those changes which may ensure the performance of that operative act with the greatest ease and safety, the quantity of the discharge, and the mode in which it flows, should be carefully observed, as well as the symptoms which from hour to hour are induced upon the system by its continuance. Let us beware, however, of protracting the delivery beyond that period, at which its intended object, the preservation of the patient, may be defeated. When the continuance of discharge has produced faintness, pallor of countenance, coldness of the extremities, and symptoms of that description, every minute's delay increases the degree of hazard to the woman's life. Upon the whole, it is better to have recourse to delivery an hour too soon, than an hour too late.

But it will frequently happen, that, when an individual has been long in waiting about the person of a woman in this situation, his powers of observation become blunted, and his mind is not sufficiently alive to the advance of

the symptoms. They are creeping on so gradually and insidiously, as almost to elude his notice. The woman's powers are declining, yet he does not appear aware of the fact. He may, perhaps, acknowledge the necessity of delivery, yet he has not the presence of mind or resolution to perform the act. Let such a one then appeal to the assistance of some intelligent practitioner of experience and judgment, who will not hesitate to give a decided opinion, and to act accordingly.

When the operation of turning is determined upon, and is once commenced, the difficulties to be encountered in that proceeding are to be met with fortitude, and a cautious perseverance to its termination. The left hand, formed into a conical shape, is to be introduced into the Vagina, then gradually through the Os Uteri into the Uterus itself. At the moment of dilating and passing the Os Uteri, the hæmorrhage is tremendously increased, and if at this moment, from alarm or other cause, the operator should be induced to withdraw his hand, the consequences will be frightful, and serious indeed. When he has got thus far in the operation, therefore, he must proceed onward at all risks. If the Os Uteri be found but little dilated, and be somewhat rigid, it must be carefully and gradually opened by one or more fingers, afterwards by the thicker part of the hand, until the entire hand can be gradually slided within the uterine cavity. The route which the hand must then take will be decided by the occurrences of the moment. But it will generally be found more easy to pass the hand by the side of the Placenta, than to penetrate its substance. After entering the Uterus, the hand ruptures the membranes, seizes hold of one foot, or both feet (if they can be readily met with,) and brings down the breech through the Os Uteri, the pressure of which upon the bleeding vessels tends materially at this moment to check the discharge. Having gained these advantages, the operator now procures a little respite from action; and of this interval it is desirable to take advantage carefully to inspect the situation of the woman. If the loss already sus-

tained shall have brought on syncope, or excessive faintness, recourse must be had to stimulants, which have been previously got ready at hand; but if it should not seem to have made much impression, stimulants may be dispensed with. At this stage of the delivery, also, I seldom fail to place my right hand externally upon the uterine tumour, to ascertain the degree of contraction it has already undergone. The conduct must henceforward be entirely guided by existing circumstances. If active contraction should take place in the Uterus, it is much safer to allow the child to be expelled by it, at least as far as the head, than to extract the body rapidly by force; but if uterine action be languid and distant, a moderate degree of extractive assistance may be necessary to withdraw the body, arms, and head. If the Uterus after the birth of the child should be found tolerably well-contracted, the Placenta, which is usually separated under the operation, may be withdrawn at pleasure.

But if, after the birth of one child, a second should be detected within the Uterus, the situation of the woman, by that unfortunate occurrence, is rendered doubly hazardous. For the extension of the Uterus by the presence of a second child, and its surrounding waters, prevents that degree of contraction, which can alone check the continuance of hæmorrhage. The flooding, therefore, proceeds uninterruptedly after the birth of the first child, and until the breech of the second is brought down; which, by its pressure, closes the mouths of the open vessels. As soon then as a second child is detected, even almost without a moment's delay, the hand must be again introduced for the performance of a second turning. By the time the breech is brought down, the woman is in a fainting state, for the relief of which it may be necessary to have recourse to stimulants. If, after she is somewhat restored, uterine action should follow, and assist the extraction of the body and head, her situation may become more favourable; but in the cases which I have witnessed, uterine power has at this moment seemed

nearly worn out, and the flooding has continued to the extinction of life.

After delivery, the woman's situation must be made as comfortable as possible, by the removal of such wet and stained linen from her person as can be conveniently and readily brought away, and a dry blanket or flannel may be applied in their stead. Yet in the performance of this duty, the utmost caution should be observed in moving or disturbing her, for she is too generally found in a very exhausted state, under which the most perfect quiet cannot be too strongly enjoined. If the Uterus should now be well contracted, and all active discharge shall have ceased, a dose of opiate may be beneficially administered, with proper nourishment and occasional stimulants; and if refreshing sleep should fortunately be obtained, its good effects will presently be obvious. When the bowels have been satisfactorily relieved, a daily improvement is usually perceptible, and the woman is gradually restored to health.

In the preceding account of the mode of delivery, I have made no allusion to the safety of the child. In the majority of cases, the life of the child has either been already destroyed, at the time when delivery is attempted; or it is reduced to so low an ebb, that the child rarely survives expulsion or extraction. But this is not necessarily the case. In some instances, especially when delivery has been effected early, upon the extraction of the breech, pulsation in the Funis has sufficiently evinced the fact, that the child was at that moment not bereft of life. Some degree of attention should therefore in such cases be paid to the safety and preservation of the child; yet no means should be resorted to even with that intention, which may be likely to prove detrimental to the mother in so critical a situation. If pulsation be actively and vividly perceptible through the Funis, there can be little necessity for much interference; a trifling degree of extractive assistance during uterine action will be sufficient to withdraw the body, arms, and shoulders; but the extrication of the head may

possibly require the exertion of a greater degree of power. But if the circulation shall have ceased through the Funis, the life of the child is already out of the question, delivery is then to be completed with reference to the safety of the mother alone.

But instances of a partial presentation of the Placenta are not unfrequently met with; in which that mass is not implanted entirely and directly over the mouth of the womb; but only over some portion of it, and by the side of it. In this case also, we have necessarily an attack of hæmorrhage with its consequences, before, or immediately upon, the commencement of labour; and the loss of blood is proportionate to the magnitude of the placental substance placed over the opening, and to the degree of its separation. The progress of the case is very similar to that already described, the prominent symptom of which is flooding; which first usually occurs when the dilating process takes place, and is repeated from time to time.

Upon making a vaginal examination, especially if the Os Uteri be somewhat dilated, the separated portion of the Placenta may be distinctly perceptible by the finger, with the membranes passing off from it; through which, the presenting part of the child may possibly be felt. But there is a material distinction between this case and the one already described. In that, the thickness of the Placenta is placed between the examining finger and the presenting part of the child, which cannot be detected; but in this case, the head, or other part of the child may usually be distinguished through the membranes. In passing the finger also to the opposite side to that from which the membranes seem to emanate, the fleshy part of the Placenta may be felt attached or separated; and if the finger be carried onward with any degree of force, a momentary increase of the discharge is produced.

In the general management of this case, the means before recommended may be had recourse to at the onset of an attack, and may be continued for a time within proper bounds; but they cannot be relied upon exclusively. Upon

a first, or upon a second attack, the discharge may possibly be arrested without producing much inconvenience; but the time is not far distant, when the flooding must return with increased violence. When regular labour-pains are established, with every access of pain, there is necessarily an increase of the discharge; in the interval of pain, it is somewhat diminished.

The professional conduct must now be regulated by the general state of the woman, and by the local state of parts. If the woman's powers appear to be very much reduced, and the draining continue, the most prudent plan will be to discharge the liquor amnii by the rupture of the membranes, and carefully to superintend the result of that measure. The probable result may be, that the hæmorrhage is for the moment checked; and that time is allowed for the woman's powers to rally, as well as for future deliberation. Should this fortunate occurrence ensue, there can be no necessity for adopting other measures for the present. As long as blood ceases to flow, it will be the duty of the attendant to refrain from action; and yet to be sufficiently upon the alert, as to the delicate, if not actually dangerous situation of the woman. The interval of this cessation must be assiduously employed in the use of such judicious means as appear the best calculated to prevent a return, and to restore the woman's lost powers; at the same time, taking care that a return does not escape detection. It will now and then happen, that the hæmorrhage is effectually restrained by this mode of management: and that, after a lapse of some time, uterine action comes on, and brings down the head of the child upon the Os Uteri; which, by positive pressure upon the open vessels, prevents further loss, and allows the labour to be terminated by the natural powers; a conclusion most anxiously to be wished for. If, even under the expectation of this desirable event, a slight degree of drain should be kept up, yet not to that extent, as to add much to the preceding loss; if the labour should be progressive, the pains good, and the woman's powers hold out; it will be preferable to rely on Nature's efforts,

than to resort to artificial delivery. I have almost uniformly found, that, when the Uterus begins to act vigorously, both the bodily and mental powers of the woman become immediately improved; even if they had previously appeared at a low ebb.

But if the hæmorrhage should continue after the evacuation of the liquor amnii, artificial delivery must not be delayed. Yet it is not to be supposed that delivery under a state of exhaustion will be always successful, or that it can be effected without great danger. The reverse is too frequently the unfortunate result; yet, as the extraction of the child affords the only means of procuring uterine contraction, and through that contraction the restraint of the flooding, it becomes our last resource. In watching, however, the course and progress of the symptoms under a state so replete with ultimate danger, let me strongly recommend that this last resource, be not voluntarily deferred beyond that time at which it may prove useful.

When I have been obliged to have recourse to a forced delivery by turning, under a state of great exhaustion, I have frequently fancied, that the shock inflicted upon the nervous system by the violence of the operation has greatly increased the danger of the woman, and has sometimes hastened a fatal result. In reflecting upon this presumption, in cases of sudden depression under a placental presentation, it has seemed to me desirable, if possible, to obtain a truce from the flooding before delivery is attempted, that the system may somewhat rally from its preceding effects. I have therefore thought, that if, in these desperate cases, by any gentle means, the liquor amnii could be discharged, without inducing a greater degree of placental separation, some advantage would be derived from uterine contraction, and the violence of the discharge would be thereby checked. I must however in candour declare, that I have not had an opportunity of realizing the practical effect of this suggestion since it occurred to my mind; I offer it therefore merely as an object of future consideration. The method I would propose is, to penetrate

the centre of the Placenta by a perforator, or other sharply-pointed instrument, and allow the liquor amnii to run off. If the discharge should be thereby checked, delivery may be put off for a short time; but if the discharge should continue afterwards, delivery must not be delayed. Let it be clearly understood, however, that this act will not supersede the necessity of delivery sooner or later, and that it will cause some loss of the child's blood from the laceration of the placental vessels.

I have repeatedly remarked, that among those cases which have terminated fatally, in several of them that event has seemed to me to be hastened by too quick an extraction of the child; by too sudden evacuation of the uterine contents. If the hand in turning be allowed to enter the Uterus without resistance, and if, after it is in complete possession of the cavity, no contractile effort be perceptible in the parietes, the extraction of the child should be very gradually performed. When the breech is brought down, its pressure generally suspends the discharge. When this is the case, there can be no immediate necessity for the quick extraction of the body and head; and I feel perfectly satisfied, that by such a mode of proceeding, much injury is occasionally done to the woman. But on this point, as on many others, the practice must be regulated by the state of the woman, and that of the child, under due discretion and judgment. If the woman should appear at this time in a state of syncope, brandy or other stimulant may be freely exhibited, and sometimes with considerable advantage. But the continuance of a relaxed state of the uterine parietes, either during the act of delivery or after its completion, is always pregnant with the greatest mischief. Whereas the reverse state, one of active contraction and of expulsive effort, even under considerable exhaustion, promises more favourably.

Under a relaxed and enlarged state of the uterine parietes after delivery, a continuance of discharge is almost a necessary consequence; and I need scarcely observe, how injurious, if not probably fatal, an active and further loss of

blood must ultimately prove. The most prompt and decided measures ought therefore to be resorted to, with the intention of inducing uterine action; and perhaps the introduction of the hand into the Uterus, with external compression, and the use of cold, will at the moment offer the greatest probability of producing that effect.

The Placenta has been in some rare instances suddenly and completely detached from the Os Uteri, and has either remained within the Vagina, or has been pushed through the external parts, without much apparent detriment to the woman. Under this singular accident, the flooding has been upon the instant sudden, violent, and threatening; but it has presently subsided, and after a short time, has ceased altogether. The child has been afterwards expelled, bereft of life, without any return of flooding, or further hazard to the mother. I have never witnessed this occurrence personally, so that I cannot report from my own observation its progress and effects; but I have been called to several cases, in which it had taken place previous to my arrival, and in which the above facts had been noticed. It would therefore appear, from the slight degree of information which a few insulated cases afford, that there is less hazard to the mother under an entire and spontaneous detachment of the Placenta thus situated, than under the positive separation of a portion of that mass. The case, it seems to me, can only occur under strong expulsive action, and I think it may be satisfactorily explained, how the woman's life is preserved. The head of the child is pushed down upon the Os Uteri, which suddenly gives way; under its quick relaxation, the Placenta is loosened from its previous attachment, and falls down before the head, which now comes into immediate contact with the bleeding vessels, and by mechanical compression closes their mouths; from this moment therefore the loss of blood is suspended, and the head is afterwards expelled by uterine action. It may therefore be presumed, that under the continuance of uterine action, the situation of the woman will become every moment less dangerous.

As to the management of this case, I think that there can scarcely be a difference of opinion. The dangerous symptom is the continued loss of blood; when this alarming symptom subsides, there can be no necessity for interference. It appears to me desirable, therefore, to leave the completion of the case to the full effect of the natural agents. Even allowing that the powers of the woman shall have been reduced to the lowest state by the previous flooding, which is now presumed to be checked, I should consider it more correct practice to wait the effect of the natural agents, than to have recourse to a forced delivery, as long at least as discharge is absent. But if a draining should still continue, to counteract the baneful effects thereof, the child must be extracted; and as life is already extinct in the child, a resort to craniotomy is perfectly justifiable, as the readiest and least injurious mode of effecting the above object. In this, as well as in other cases of flooding, the extraction of the child cannot be supposed capable of counteracting the effects of any preceding loss; artificial delivery is only recommended upon the principle of preventing the injurious consequences of future loss, superadded to that which has already taken place. But in waiting for the natural expulsion of the child, as above recommended, the utmost attention must be paid to the present condition of the woman, and such means must be resorted to for her temporary relief, as her state may seem to demand.

Yet although, from the preceding account, it satisfactorily appears, that a spontaneous detachment of the Placenta is not necessarily followed by fatal consequences, that fact can furnish no precedent in practice for the artificial separation and removal of it. It might possibly be presumed, from a knowledge of such a fact, that under a considerable detachment of the mass, the remainder might be artificially separated by the hand, and withdrawn without much detriment, leaving the expulsion of the child to the natural agents. But I suspect it would be practically found, that such a proceeding would not prove quite innocuous; and that a ma-

terial difference existed between a separation of the Placenta brought about by uterine action, and an artificial one by the hand of the operator in its absence. I think that few practitioners, aware of the probable consequences, would have the temerity to make the latter experiment.

It would appear then, from the preceding history of *unavoidable* hæmorrhage, that the termination of the case cannot, with any degree of safety, be entrusted to the agency of the natural powers, but that artificial delivery must sooner or later be resorted to; and that the principal point to be determined is, the *time when* this necessary act shall be put into execution. Upon this point, the judgment must be chiefly directed by the condition of those parts through which the hand must pass, and the situation of the woman; ever keeping in mind, that it is equally desirable to avoid the imputation of rashness, as of protracted delay. Of the two evils, however, the latter is perhaps the more censurable.

It may perhaps be expected that I should offer some remarks on a mode of practice which has been adopted in some peculiar cases of this kind, and in which the powers of life have been nearly exhausted by the violence and suddenness of the flooding; I allude to the practice of *transfusion*. Having never witnessed the effects of that experiment, I find myself unable to offer any satisfactory remarks on the subject.

CASE C.

I was summoned to the wife of a publican in Mile End New Town, in labour of her eighth child under a dangerous flooding. I found her under symptoms of the most extreme hazard; she had a quick, languid pulse; a pallid countenance; cold extremities; and was breathing laboriously. This woman had been suffering under occasional attacks of slight flooding for some weeks before, which had always hitherto subsided; but for two or three days past, the returns had been more frequent; and the day before, the flooding

had been very considerable; to such an extent indeed, according to the nurse's statement, "that the poor woman could not have lost less than a gallon of blood." Her medical attendant had been consulted repeatedly, yet he had merely ordered the usual astringents. He had been called the preceding evening, but did not remain with his patient; he was recalled at two on the following morning, and during his absence the woman had flooded most violently: then finding his patient in so dangerous a state, he begged the presence of a neighbouring friend, who wished to have my assistance without further delay.

The preceding statement appeared to me so decisive of a placental presentation, that before any inquiry, I predicted that fact; and on a vaginal examination, I instantly detected the placenta immediately over the Os Uteri, which was opened to something more than the size of a shilling. The woman was near her full time, but she had no labour-pains; and although the discharge at the moment could not be called violent, there was a constant oozing from her parts. Under such unfavourable symptoms, I candidly declared, that I saw little hope of saving her life; yet the only chance appeared to be in immediate delivery. After the exhibition of some stimulants, her medical attendant undertook the duty of turning the child: but he met with greater difficulty than he anticipated in the introduction of his hand; during that part of the operation, the flooding was truly tremendous; at length the breech was brought down, but before the body, shoulders, and head could be extricated, the woman had expired. The Placenta was found in the Vagina.

CASE CI.

I was requested to visit a lady of middle age, the mother of several children, at a short distance from London, under uterine hæmorrhage, in the last month of pregnancy. She had previously suffered under several similar attacks without

pain or other inconvenience, which had generally come on suddenly, and after a short continuance had gradually ceased. A repetition of the flooding had occurred the preceding evening in an increased degree, which had induced her medical attendant to sleep in the house; yet during the night, there had been a mere weeping from the Vagina, scarcely coloured. At the time of my visit, this lady was sitting up; she had a cheerful countenance, a firm good pulse, and seemed in tolerable spirits. Indeed her appearance could not have excited the least alarm in the most timorous mind, if the previous and repeated attacks of discharge had not induced a suspicion, that the Placenta might possibly be placed over or near the Os Uteri. There were at this time very little discharge, and no pain. After being in the house an hour or two, I was permitted to make a vaginal inquiry, but the result was not very satisfactory. For the Os Uteri was rigid, and but slightly opened; and at the extremity of my finger, I thought that I could detect the Placenta. Throughout the day, the discharge was trifling; in the evening the lady was in good spirits; little alteration had taken place in the state of parts; and I was requested to sleep in the house. Between one and two on the following morning, I was disturbed by the nurse, who came to tell me, that the flooding had suddenly returned very violently, and that her mistress had slight pains; I now found the Os Uteri somewhat more relaxed, with a great increase of discharge; and in a very short time, faintness came on with less firmness of pulse. Under this state, delivery was proposed, to which the lady readily assented. In passing my hand through the Os Uteri, I necessarily separated a larger portion of the Placenta, and now the flooding became excessive, so that syncope ensued. Upon entering the Uterus, I had some difficulty in rupturing the bag of membranes; the bag was so flaccid as to offer little resistance to the fingers, and the Uterus was very inactive. Seizing a foot as quickly as I could, I brought down the breech; but the separated portion of the Placenta escaped down before it. Recourse was now had to the exhibition of brandy pretty

freely. Placing my right hand upon the uterine tumour, I assisted the trifling degree of contractile effort which it exhibited, by external pressure, while with the left I made a slow extraction of the child by the feet. Upon the passage of the head, a large quantity of liquor amnii mixed with blood instantly escaped. The Placenta was now found to be separated and down in the Vagina. As the Uterus still continued very imperfectly contracted, with a continuance of flooding, I passed my hand, without loss of time, within its cavity, but its parietes felt loose and flabby, yet the stimulus of the hand induced some contraction. Our patient was now in a state of complete syncope, from which she was somewhat roused for a short time by another recourse to brandy, so that I had some hopes that she might have rallied. In about an hour, however, she became extremely restless, and the powers of life continuing to decline, she expired within two hours after delivery. The child was still-born.

CASE CII.

One Wednesday, I was requested to visit a lady at a short distance from town, in the eighth month of pregnancy of her first child. She had been the subject of repeated attacks of uterine hæmorrhage, within the preceding month, which, after a slight continuance, had always spontaneously subsided. In the night preceding my visit, in the attempt to evacuate the bladder, she had passed a large coagulum, after which a serous drain, slightly tinged, continued to ooze from the vagina. I met in consultation a professional gentleman of the immediate neighbourhood, to whom I hinted my apprehensions that the Placenta was presenting. A vaginal examination was therefore made; and although the Os Uteri was rigid and was but little opened, I could introduce my finger within its orifice, and could detect the Placenta. I remained in the house the rest of this day; and in the evening, finding that the drain had quite subsided, I left the patient to the care of her regular attendant, with proper instructions for her management. She continued free from

any discharge the whole of the two following days; but in the night between Friday and Saturday, she had a more violent attack of hæmorrhage than before; I was therefore again called about half after four on the Saturday morning. At this time there was no disposition to labour-pain; the Os Uteri had indeed become a little more dilated, and felt more lax than on the former inquiry; so that the nature of the case evinced itself still more evidently The constitution had hitherto suffered but little, yet the discharge was continuing; and although, as yet, it had made but a slight sensible impression upon the vital powers, it was evident, that if the flooding was allowed to proceed uninterruptedly, it must produce its usual effects by-and-by. About eight on the Saturday morning, another respectable practitioner saw this lady in consultation; and after due deliberation, it was the united opinion, that delivery ought not to be long protracted. About nine, therefore, I proceeded to the operation of turning the child. The external parts, the Vagina, and the Os Uteri, had hitherto shown little disposition to give way, yet the two former admitted the introduction of the hand with little difficulty; but the latter offered considerable resistance to its entrance, binding it tightly around like a cord. By degrees this opposition was overcome, and my hand, gliding into the Uterus, seized a foot, and brought down the breech; uterine action now became powerful, and presently expelled the rest of the child, alive. The Placenta was also thrown down into the Vagina and soon removed. After delivery, this lady had no farther loss, yet she seemed much exhausted, with a quick feeble pulse; the usual means of restoration were now had recourse to, with their wished-for effect. When she had somewhat recovered from the sufferings she had undergone, and when I was about to leave the house, she was suddenly attacked with a smart shivering fit, which was presumed to be the effect of the forced delivery. On the day following, Sunday, she had got sleep during the night; her countenance was cheerful; the uterine tumour showed a little pain on pressure; and upon the whole she seemed to promise favour-

ably. I was called in the early part of Monday; she had been seized during the night with frequent vomitings of a dark-green fluid; she was complaining of pain in the belly, which felt tender and swelled; she had a small quick pulse and a clean tongue. Towards evening, these symptoms were evidently upon the increase, while the powers of life were declining, and in the course of the night she expired.

A post-mortem examination was not allowed; yet I could not divest myself of the suspicion, that some injury had been inflicted upon the parts in the act of delivery, although I was not aware of such a fact at the moment.

CASE CIII.

I was requested to visit a lady near the Mile-End-road, under flooding. She had been similarly attacked at various times before, within the preceding few weeks; but the discharge had neither continued long, nor had it been to much extent until this day; in the course of which it had returned with great violence, and had induced a sense of faintness. At the time of my visit, the flooding had entirely ceased. The lady had no labour-pain; but on an examination, I could feel the Os Uteri just opening, and through it, *a something* which I suspected to be the Placenta. This aroused my apprehensions, and induced me to urge the attendant of the family, who lived within a few doors of his patient, to watch the case narrowly; strict injunctions were also given to the nurse, in case of any return of discharge, to apprize him instantly of the fact. I visited this lady again about noon the next day; I then found her extremely comfortable, free from faintness, pain, or other unpleasant sensation, and without any return of flooding, since the preceding evening. Between nine and ten on the following morning, I was again summoned by my friend, who had called in about nine, and found his patient complaining of faintness. On my arrival, I learnt that there had been, throughout the night, a constant draining, which

had soiled a great number of napkins; and which appeared to me to be more serous than sanguineous. This drain had not excited the least apprehension in the mind of the nurse; partly, because it had escaped so slowly, and partly, because it did not appear to be blood; so that she had not apprized her neighbour, although so near, of the fact. I now found this lady in a very depressed state indeed; her countenance was pallid; her pulse was feeble, and she appeared upon the whole in considerable distress. The Os Uteri was in the same state, still undilated; and there was not the slightest indication of labour-pain. Under such unfavourable appearances, delivery offered only an uncertain result, yet that step seemed to both the only alternative. I therefore introduced my hand by the side of the Placenta without much difficulty, and finding the breech presenting, I seized a foot, brought down the breech, and slowly extracted the trunk and head. But upon placing my hand on the abdomen, I instantly detected the presence of a second child: at this moment the hæmorrhage was most alarming. Without delay, therefore, I again introduced my hand, and penetrating the membranes, I met with a leg, and got down the breech; the rest of the child was then slowly extracted under slight uterine action; after which the double Placenta was withdrawn. The lady had now sunk into a state of complete syncope; stimulants were freely offered without any relief; the usual symptoms followed, and she expired about half an hour after the extraction of the second child.

CASE CIV.

I was summoned to a private patient near the Mansion House, who had been, a few minutes before, attacked with a sudden flooding in the eighth month of pregnancy, while sitting with her family at tea, in the drawing-room. Upon proceeding up stairs, tracks of blood were perceptible upon every step. In the bed-room, I found a neighbouring professional gentleman, who had been also called by the ser-

vants in their alarm at the state of their mistress; and although this unfortunate occurrence had not happened a quarter of an hour before, it had already produced such a degree of depression as I have rarely witnessed, with its concomitant symptoms. Upon a vaginal examination a little after six, I detected the Placenta to be placed immediately over the Os Uteri; some discharge was still oozing away, but there was no tendency to pain. The urgency of the hæmorrhage appeared therefore to be at present somewhat abating; and the lady for a short time seemed disposed to revive; but presently the flooding returned with its original violence. Anxiously watching its progress for a short time, and observing no diminution in the discharge, I determined on delivery; but previously I requested my professional friend to satisfy himself that the Placenta was presenting. Being answered in the affirmative, I proceeded without further loss of time to empty the Uterus. The Os Uteri was but little opened, yet it was relaxed, and permitted the passage of my hand with ease into the Uterus; but that organ showed at the moment no disposition to active contraction; having brought down the breech, the child was found to be alive; I therefore proceeded gently in its extraction; and after the child was born, the Placenta was thrown off, and was soon withdrawn. The uterine tumour proved now to be irregularly contracted, and fell flaccid under the hand. For a short time, this lady appeared comfortable; the discharge ceased, and she expressed her warmest thanks for my prompt assistance; but by-and-by she began to complain of her breath: "Oh! my breath, my breath!" was her urgent exclamation. There was no more flooding after delivery; yet my patient continued to sink, and expired soon after seven o'clock; so that in less than two hours, from an apparent state of perfect health, her valuable life was sacrificed to a sudden attack of hæmorrhage, in spite of the most prompt assistance. The child was lively, and promised to do well.

CASE CV.

I had a summons to Upper Clapton by a note to this purport. "We are in attendance upon Mrs. H. whose situation is involved in great uncertainty from a placental presentation; the bleeding is going on pretty actively, and we wish for your immediate opinion." On my arrival at the address a little before eight, I was told by one of the gentlemen in attendance, "that since the note was sent off, some strong expulsive pains had come on, which had expelled the Placenta through the external parts before the head of the child, and that it was lying upon the bed. That before this occurrence, the hæmorrhage had been very violent, though not to that extent as apparently to endanger the woman's life; and that since the appearance of the Placenta, the flooding had very much abated." During our conversation on this unusual occurrence, the gentleman more immediately interested in the case, who, at my arrival was in the bed-room of his patient, came down-stairs, and reported, "that the head was presenting at the brim of the Pelvis, with a hand down by its side; that there was no want of uterine action; that the flooding had ceased; and that his patient did not seem much exhausted." An appeal was now made to my opinion, as to the further management of the case; to which I replied, "that as the flooding (the most dangerous symptom) had abated; as the labour-pains continued active; and especially as the woman's strength kept up, there did not appear to me, from the above communication, any *immediate* necessity for a recourse to artificial means for hastening delivery; watch your patient for a short time," said I, "and wait the result; if the flooding should return, or if any dangerous symptom should make its appearance, let us know." In less than half an hour after this interview, the gentleman returned with a cheerful countenance, and stated, that the child was expelled without further loss of blood, and that his patient was promising to do extremely well. I therefore took my leave without

seeing the lady. In this case, the loss of blood had commenced the evening before, when the lady's usual attendant was summoned from a distance. After he had been some hours in the house, the flooding continuing, and exciting alarm, he called in a neighbouring gentleman of great respectability, who, seeing the dangerous situation of the patient, presently dispatched a messenger for my assistance.

CASE CVI.

A similar case occurred some years ago to a respectable friend in the country, of the greatest experience, the following particulars of which were transmitted to me at the time.

"He was called to a woman in labour, who had been suffering under uterine hæmorrhage at intervals, for three days previously. For some hours before his visit, the discharge had been more copious than on the former occasions; yet it had not produced any very alarming symptoms; the countenance was indeed pallid, but neither the pulse or head was much affected. The bed was not much soiled, and the quantity of cloths used did not appear very large. My friend, however, was much surprised to find, on a vaginal examination, that the Placenta was entirely separated, and thrown down into the Vagina, with the head lying at the brim of the Pelvis, under regular labour-pains. Not daring to entrust the expulsion of the child to uterine action, especially as the situation of the head rendered it extremely doubtful how long the labour might continue, he determined to deliver the woman without delay by turning the child. The introduction of the hand forced the Placenta completely out of the Vagina; and my friend stated, 'that he had now a delivery to complete in which neither Placenta nor membranes were implicated, a circumstance which never happened to him before.' The extraction of the child was made cautiously and slowly; the Uterus contracted well; and there was but little additional loss during the operation. The woman was afterwards left in a favourable state, and recovered well."

Several other cases have been lately mentioned to me by respectable practitioners, in which flooding took place at the commencement of labour; and in which the Placenta was expelled before the child; after which the flooding either entirely ceased, or was much lessened.

This practical inference may therefore be justly deduced from the above facts, at which I have already hinted: "that less danger attends an entire but *natural* detachment of the Placenta in these cases, than is consequent upon a partial separation of that mass;" and, "that the expulsion of the child may afterwards be safely entrusted to the natural powers without further interference." The safety of the woman is probably ensured, partly by the constriction of the diameter of the uterine vessels, as a consequence of that strong contraction, which suddenly opens the Os Uteri, and expels the Placenta; and partly by the mechanical pressure of the head, against their orifices, after its escape. Whereas, under a partial separation of the Placenta, every returning pain produces an increase of the detached portion, with its alarming consequences.

Yet I fear, that little advantage, farther than the fact which the above inference establishes, can be derived from the preceding cases. It would in my opinion be the extreme of hardihood in any practitioner, to attempt the artificial separation of this fœtal appendage, in imitation of its natural expulsion. Without the assistance of strong uterine action, that act would in all probability induce such a sudden and violent increase of the hæmorrhage, as would shortly terminate the woman's life; even in spite of the immediate introduction of the hand to turn the child.

ON PARTURIENT CONVULSIONS.

In the variety of afflictive occurrences, to which the latter stages of pregnancy and the act of parturition are especially liable, there is no one so terrific in appearance, as an attack of convulsions. Other affections may perhaps be equally dangerous to life, but they are divested of that horrific feeling which convulsions invariably occasion; the unfavourable symptoms glide on so gradually and almost imperceptibly, as for a time to excite little or no uneasiness. Whereas, convulsions assail a woman suddenly, and their effects become obviously and alarmingly visible upon the whole frame. Let the woman move in whatever rank or condition of life she may, dismay and confusion instantly pervade the house; indeed, every individual within the scope of the calamity becomes anxiously interested in the event.

The attack of the paroxysm is sometimes preceded by symptoms of cerebral disorder; the woman complaining of pain, or of a sense of weight in the head; of giddiness; of ringing in the ears; of the appearance of flashes before the eyes, or of partial defect in vision. At other times, and perhaps more frequently, these premonitory indications are absent; the paroxysm comes on instantaneously without any previous warning; the woman merely giving a shriek, or uttering some vehement exclamation immediately before the seizure. But whether there may have been antecedent forebodings of the attack, or whether it may have occurred without previous notice, the subsequent appearances and symptoms exhibit considerable similarity and uniformity.

The woman instantly becomes unconscious of any impression from surrounding objects; and if she should happen to

be at the moment in an erect, or in a sitting posture, she falls to the ground in a state of total insensibility. The different muscles assume a state of irregular contraction, so that the trunk and extremities appear violently and involuntarily agitated. The countenance becomes dreadfully contorted; the face seems to be swollen, with a flushed or a livid hue; the eyes start in their sockets, and, although usually wide open, are apparently devoid of perception; the eyeballs are occasionally inverted, to that extent indeed as to render little more than the white of the eye visible; and by their involuntary motion exhibit a most hideous aspect. The mouth is sometimes open; more frequently the jaws are so completely closed, that the teeth are with difficulty separated; the tongue is occasionally caught between the teeth, and is sometimes miserably lacerated. The act of respiration is irregularly performed. At one time, it is almost suspended; at another, it is resumed under considerable heaving of the chest, and at each expiration, a frothy mucus is ejected from the mouth, with a hissing or rattling noise. If the tongue be wounded, that mucus is mixed with more or less blood, the appearance of which excites increased anxiety in the attendants. The heart throbs, and seems to be unequal to the performance of its usual functions; the pulsation of the carotids becomes visible and violent; the superficial veins of the neck and temples are unusually distended; and the pulse at the wrist (for a time at least) beats full and slow.

The above terrific appearances are not of long duration; and it is some consolation to know, that the patient is not conscious of suffering. After the lapse of a minute or two, these irregular movements in the trunk and extremities gradually subside, and are by-and-by suspended altogether; the countenance assumes a more natural and placid aspect; the eye-lids close: respiration becomes more regular; the balance of the vascular circulation is in some degree restored; and a truce, (from the foregoing frightful symptoms at least,) is for a time obtained, by their spontaneous cessation. But this favourable state is not destined to be of long duration. A repetition of the phenomena, only variable as

to the time of return in different cases, again occurs in a similar paroxysm, and probably with increased violence. After this has exhausted itself, an interval of relief once more ensues. Another paroxysm succeeds at about an equal distance of time, which is followed by another truce. Thus do paroxysms and intervals alternate at nearly regular periods, until permanent relief is procured by means of art, or until the powers of the system are worn out by the numerous repetitions.

The symptoms, during the intervals of the paroxysms, are in different cases extremely variable. There is sometimes a partial return of sensibility, so that the patient recognizes the objects around her: yet she has no consciousness, or recollection, of the scene through which she has so recently passed. She seems perfectly aware, that something extraordinary has happened, yet is unable to describe its nature or tendency. She stares at her attendants with a vacant expression of eye, and asks incoherent questions. At other times, the interval is occupied by a state of comatose insensibility, or of apoplectic stertor, with a dilated or contracted pupil. The patient either lies quiet, unsusceptible of external impressions; or her arms and trunk are thrown about in almost incessant motion. But whether there is a partial return of sensibility, or whether a state of coma prevails, a return of the paroxysms may be expected, unless averted by judicious and active means.

A paroxysm of parturient convulsions very much resembles an epileptic seizure: but the similarity only extends to external appearances. The attack is equally sudden in both instances, and similar convulsive movements occur in each; but I am not aware, that the former is ever preceded by those forboding sensations, which have been termed the *epileptic aura*. Notwithstanding the apparent similarity of symptoms, the two diseases differ essentially in their nature. Epilepsy* is usually

* Dr. Cooke, in his learned Dissertation on Epilepsy, defines it to be "a disease consisting of paroxysms of convulsions returning at uncertain intervals, accompanied by an abolition of sense and voluntary motion, and ending in somnolency, or complete sleep."

a disease of childhood; although it may be protracted to adult age, it is not limited to sex. Parturient convulsions form an affection of adult age, which always occur under a peculiar condition of the female system. Epilepsy is a chronic disease, the fits of which return after long and irregular intervals; it rarely proves fatal, unless produced by organic derangement within the head. The paroxysms of parturient convulsions succeed each other rapidly, and terminate favourably, or fatally, within a short space of time.

When a state of coma and stertorous breathing prevails, the disease assumes the semblance of apoplexy; but an attack of apoplexy is rarely accompanied by convulsions.

This alarming affection is not confined to any particular class of women. The rich and the poor,—the industrious and the indolent, seem equally amenable to its morbid influence; nor have I observed, that any peculiarity of constitution predisposes to the attack: yet, among numbers, it will perhaps be found, that the majority of women had previously enjoyed good health; and were disposed to somnolency as well as to corpulency. I have also not been able to obtain satisfactory evidence (from my own personal observation at least) that a convulsive seizure could be induced by domestic affliction, or mental anxiety; but I have repeatedly remarked, among the numerous patients of the Royal Maternity Charity, as well as among others to which I have been accidentally called, that several cases have occurred soon after each other. Whether this fact ought to be attributed to mere chance, or to the agency of some general influence upon the female system, I must leave to others to determine in future; but I am inclined to suspect, that it may be ascribed to the latter principle. And here I may be allowed to observe, that I have witnessed the occurrence of several cases during warm weather; at a time when the clouds have been charged with electric fluid; when atmospheric appearances have threatened a thunder-storm; and when, perhaps, they have ended in one.*

* See London Medical Gazette, October 1833, at page 106, the following observation by M. Andral on Convulsions. "The electrical state of air, on the approach of a storm, has often served to bring on a convulsion fit."

The whole train of symptoms evinces considerable derangement in the functions of the brain and nervous system; yet after death, correspondent marks of organic mischief within the head are seldom met with. The different anatomical inquiries, at which I have been present, have not disclosed such regular appearances, as to sanction the uniform deduction, that the brain was the principal seat of disease. I suspect, that in many instances, that important organ is no otherwise implicated, than through the medium of sympathetic irritation; because, upon a very minute investigation after death, little or no change in cerebral structure has been detected. What the degree of morbid irritation necessary to produce a convulsive attack may be, in what cause it may originate, or in what mode it may operate, may perhaps be impossible to determine; but it seems evident, that considerable irregularity prevails in the current of the circulation through the brain, and especially through its meninges. In some cases, the blood-vessels of the pia matter have been found visibly surcharged; while those supplying the medullary and cortical part of the brain, have appeared almost bloodless. In others, a breach of vascular structure within the head has been detected; for effused blood has been now and then met with in the ventricles, partly in a fluid, partly in a coagulated state; yet such an occurrence is rare.

The most minute inspection of the Uterus and of its appendages, has furnished no additional elucidation of this intricate subject. Whether that viscus has been examined under the retention of its contents, or after their expulsion, it has exhibited appearances similar to those met with in the most common cases before, or after labour.

The state of comparative ignorance, then, in which this subject is physiologically enveloped, has given rise to many conflicting opinions respecting its origin and nature. And it would be little less than the utmost presumption in me, upon the scanty data in my possession, to suppose that any observations of mine would place them on a more solid basis. Yet the exciting cause must be some way or other connected with gravidity, and is probably brought into action by some

casual occurrence; but what that cause is, or how it produces its baneful effects, I have yet to learn. These effects, however, are sufficiently obvious in the general symptoms; and with them we have to contend.

Convulsions may occur in the two last months of pregnancy previous to any indication of labour; they may occur after the establishment of labour, and during its several stages; or subsequent to the act of parturition. Under whatever state an attack does take place, it is replete with the utmost danger to the mother; and, previous to labour, to the infant also. Although, in many cases, the symptoms do yield to medical treatment, in some few, they prove so intractable, as to proceed unremittingly to the destruction of the patient. If parturient convulsions be allowed to run their natural course without interference, they have an uniform tendency to a fatal result; and even, if the means of relief be not duly enforced, and within a short space of time after their commencement, the chance of a successful issue becomes proportionally diminished. When, therefore, such cases are neglected or overlooked at the onset, the symptoms gradually acquire increased violence, and become more and more difficult to subdue. For, by the continued repetition of the paroxysms, the powers of life suffer a proportionate diminution; they become the less able to counteract the effect of the necessary treatment, or to contend with the subsequent symptoms.

Yet under even the most unfavourable appearances at a first glance, a case ought not to be considered so entirely hopeless, as wholly to induce a disregard to appropriate means of relief. We occasionally witness the fortunate result of well-directed efforts, in an unexpected recovery from the most formidable symptoms. But when such efforts afford no palliation of the paroxysms, there is reason to infer, that some cerebral mischief has taken place, which does not admit of removal or reparation. I have not, however, been enabled hitherto to notice any regular symptom, as the uniform evidence of this fact.

The incompetency of the natural powers to prevent a

return of the paroxysms, or to control their tendency to the destruction of life, renders a reliance upon them nugatory and useless; ignorance or prejudice can alone foster such expectations. It does indeed sometimes happen, that the child is expelled during a paroxysm, and that a cessation of symptoms ensues; but this favourable result is so uncommon, that it can seldom with propriety be relied upon. At the commencement of every case, therefore, or as soon as possible afterwards, recourse ought to be had to such active modes of relief as shall be hereafter detailed, and as the symptoms may demand; for I feel strongly persuaded, that a woman can rarely be rescued from that impending danger, with which she is so peremptorily threatened, except by the timely and judicious use of appropriate means of art.

Although the life of the mother may fortunately be preserved, that of the babe is too frequently destroyed. Whether naturally expelled, or artificially extracted, the infant is usually still-born. The death of the child may possibly be the consequence of that shock which the uterine contents receive under the paroxysms; I suspect that it rarely precedes them. Yet the destruction of the infant is not a necessary and absolute consequence; for the babe sometimes (although rarely) survives a convulsive attack, and is born alive.

ON CONVULSIONS PREVIOUS TO LABOUR.

For some days preceding the attack, the woman frequently experiences some of those unpleasant feelings which have been already mentioned. She is occasionally assailed with shooting pains through the head; or she complains of a heavy dull sensation therein; of giddiness, especially on stooping forward; of incorrectness in vision; of ringing in the ears; or of other symptoms indicative of a tendency to cerebral affection. In a few instances, the muscles moving the head seem to refuse their ordinary support, so that it feels unusually heavy on the shoulders. With these symptoms, there are also a constipated state of bowels, a slow full pulse, a tendency to drowsiness, and the absence of refreshing sleep.

If such premonitions of approaching mischief be neglected; if some decisive means be not taken to obviate the probable consequences, a sudden attack of convulsions need not excite surprise. It may occur at any period of the twenty-four hours, and in any situation of the patient; but perhaps it more frequently assails her in the night, either during apparent sleep, or upon awaking out of sleep. Of the mode of seizure, or of her feelings under it, she is entirely unconscious, either at the present moment, or in future; and the first intimation thereof is commonly given to some one near her person, in the involuntary agitations of the different muscles, and in her insensibility to external objects.

But it also not unusually happens, that the attack is not preceded by any warnings; the woman then appears to

enjoy her usual health to the commencement of the paroxysm. Nor is an attack confined to a first pregnancy; women with large families are equally, or perhaps more liable to be assailed with convulsions.

The paroxysm soon runs its course under the symptoms already described, and is succeeded by a state of comparative quiet. This is presently followed by a second paroxysm, with appearances similar to those of the preceding one. Its return, however, is sometimes indicated by an irregularity of action in the facial muscles; by some external expression of general uneasiness; or by an obvious diminution in the number of arterial pulsations. A second truce ensues; and afterwards, (unless prevented by medical management) there is a regular recurrence of alternate paroxysms and intervals.

At the onset of an attack, any marks of approaching labour can rarely be detected, either by a vaginal examination, or by external indications. After there have been numerous repetitions of the fits, however, that process is commonly established by natural agency, and sometimes proceeds onwards with considerable celerity. Its advance is then more particularly obvious during the continuance of the paroxysm, which is apt to recur at the commencement of uterine action. Yet it seldom happens that a convulsive movement is induced at every return of uterine contraction. Several pains will commonly intervene within the space of each interval; during which, the regular moans expressive of the presence of uterine action escape the patient; but under the violence of the paroxysm, they are overwhelmed in the general disturbance.

On the commencement of a convulsive attack, or with as little delay as possible afterwards, an attempt should be made to check its recurrence by a free and copious loss of blood. Let the patient lose from the arm, and from a very free orifice, twenty, twenty-four, or thirty ounces of blood at once; always keeping in mind, that the quantity to be taken away must bear a relative proportion to the presumed ability of the woman to sustain the loss. It is, perhaps, impossible to fix the precise and definite proportion of blood which

ought to be taken away in every case; yet it ought always to be to that extent, as to make an obvious impression upon the general circulation. To produce that effect, a less quantity than the first named will seldom suffice; most women bear it not only without inconvenience, but with evident advantage.

I beg here, however, to offer one caution, (which is intended for those members of the profession who have not seen much practice,) to look to the mode in which the blood flows. If it should not escape freely, and in a full current from the orifice; if it merely trickle down the arm, the operation has failed, and any expectation of benefit therefrom will be disappointed. Even should the current be free, and the orifice scanty, little good can be expected to follow. Under such circumstances, since the chance of relief is entirely dependent upon the sudden abstraction of blood, another vein should be immediately and effectually opened in a fresh part. Should this act be omitted, it would perhaps have fared better with the patient, that the operation should have been entirely withheld, than thus fruitlessly attempted.

But considerable difficulties are sometimes met with in the performance of the operation. Exclusive of the uncertainty of meeting with a proper vein, the surgeon has to contend with that involuntary restlessness and insensibility, which is inseparable from the paroxysm. The knowledge of that fact ought, therefore, to excite an increased degree of care in the management of the lancet. If the veins in the arm should not offer the prospect of a quick abstraction of blood, some superficial artery, the temporal, for instance, may be opened at once. Indeed I see little objection to the occasional performance of the latter operation in aid of the former, except in its being more uncommon, and not so readily accomplished.

Having satisfactorily obtained a sufficient quantity of blood, the free evacuation of the intestinal canal must be the next object of attention. A full dose of calomel, ten to fifteen grains, may be immediately exhibited, and fol-

lowed by saline or drastic purgatives. But if a state of stupor and insensibility should prevail during the intervals, it will be totally impracticable to get down any efficient quantity of opening medicine. The calomel, mixed with a proper proportion of sugar, may then be placed upon the tongue, running the chance of its reaching the stomach; the occasional injection of purgative clysters may also be had recourse to. Croton oil may possibly prove a ready and useful purgative; but of its effects I cannot speak from personal experience.

Besides the abstraction of blood and the free evacuation of the bowels, the constant application of cold evaporating fluids to the whole surface of the head, or the local affusion of a stream of cold water upon the vertex, may respectively prove useful in diminishing the violence of the paroxysms.

It will presently be perceptible, whether the means above-mentioned have produced any beneficial effect, either in prolonging the interval, in the mitigation of any of the symptoms, or in the prevention of a return. Should they fail in these desirable objects, blood-letting must be repeated in a similar or smaller quantity, as the strength of the patient may seem able to bear. A third, or even a fourth bleeding may become necessary; for in these cases, a larger quantity of blood may be abstracted, not only with safety, and with less present or future inconvenience; but also with greater subsequent advantage, than in most other complaints.

But it must be evident, that the abstraction of blood should be confined within some bounds. If after the loss of fifty or sixty ounces of blood, no impression should be made upon the strength or duration of the paroxysms, a repetition of the operation, at the present at least, cannot be permitted.

We generally find, however, that after pursuing this active practice, the paroxysms become less violent; and that by-and-by they entirely subside. The woman afterwards gets some sleep, from which she awakes considerably refreshed. Yet, she generally shows some confusion of

mind; complains of pain in her head; has a vacant stare of eye; and makes a variety of inquiries respecting the past scenes.

When the result proves thus satisfactory, the convulsions seldom return; but the woman rarely completes her full period of gestation. The process of labour commonly commences within the space of a few days; sometimes within that of twenty-four hours. Its progress is as regular, and natural, as if no previous derangement had taken place; but the child is too frequently still-born, and occasionally shows marks of putrefaction. After delivery, the mother has merely to encounter the usual occurrences subsequent to labour; and recovers as quickly, and as perfectly, as after any common case. I have not observed that an attack of convulsions before labour leaves any unfavourable impression upon the constitution; either by inducing a disposition to any peculiar malady, or to a return of the affection at a future confinement.

If it should be found, however, that the practice above recommended produces within a short time no palliation of the symptoms, relief must be sought without much delay in delivery; especially if the process of labour has obviously commenced. It is presumed, that the convulsive paroxysms are some way or other connected with the state of pregnancy; if, therefore, those means fail, the labour must be terminated by art, whatever may prove to be the result. When the Os Uteri is so far dilated as to admit the easy introduction of the hand; or when it is in a state to permit a ready extension thereby; the hand must be passed into the Uterus, the feet engrasped and brought down, after which the labour may be completed at pleasure. But before recourse is had to turning the child, there ought to be a satisfactory conviction, that the state of parts will allow the act to be accomplished easily, readily, and without the infliction of further injury. Should the attempt be made at all hazards, without reference to vaginal or uterine relaxation, it might either be entirely foiled, or effected under such violence, as greatly to enhance

the risk of danger. In this, as in every other case, in which a recourse to artificial delivery becomes absolutely indispensable, the operation must be considered in no other light, than as entirely subservient to the present safety and future welfare of the patient.

CASE CVII.

A strong healthy woman, at. thirty-nine, when about six months advanced in pregnancy of her fifteenth child, accidentally fell into the area of a house, and received an injury upon her head, which rendered her insensible for some time, and for three or four days confined her within doors. She afterwards complained of giddiness and pain in the head, especially in the night time. About six weeks after this accident she was suddenly seized with convulsions, which were relieved by copious bleedings and evacuations, but which left a paralytic affection of the right eye and eyelid: about a month after this attack, upon using some slight exertion, she was seized in a similar manner, and died within the space of two hours, without the appearance of any symptom of labour.

The brain was carefully examined in my presence the following day, and marks of much mischief were exhibited in that inflamed organ. The vessels in its fore part were highly turgid, especially those towards the right side. A quantity of extravasated blood was found between the dura and pia mater, as well as upon the cranial process of the right side, and in both ventricles. Its cortical structure was much darker in colour than is usually met with. The fœtus with the child within it, was in a natural healthy state, but it showed some of the usual preparations anterior to labour.

CASE CVIII.

At three, on the morning of the Tuesday, my opinion was [illegible] upon the case of a [illegible] a few miles from town,

under convulsions in her fifth pregnancy. I received from her medical attendant the following history:

"About six in the evening preceding, his patient had been suddenly seized with a pain in the head, which was presently followed by a strong convulsion-fit. He was immediately called, and upon his arrival he took away a small quantity of blood. Notwithstanding, the convulsions continued to return at short intervals, and after some time, he found that uterine action was established, by which a fœtus and secundines were expelled during one of the paroxysms, shortly before my arrival at the bedside of the patient.

This lady was lying in an insensible state; with a quick pulse and stertorous respiration; but the paroxysms had ceased from the time when the uterine contents had been expelled. I felt anxious that she should lose more blood; but the attempt to obtain that object was foiled. A blister was substituted; with purgatives and occasional clysters. When I left the house at seven in the morning, there were no symptoms of improvement. At ten, on Tuesday evening, little alteration had taken place; she was nearly insensible to any external impression; yet now and then answered a question pretty rationally; the eyelids were generally closed, and when opened, the pupil was observed to be much dilated, but it contracted a little on the application of light. Leeches had been applied on the temples during the afternoon, and opening medicines had been given. On the Wednesday morning the bowels had been satisfactorily relieved; the lady, however, did not seem better; she had the apoplectic snore, with a quick weak pulse. Throughout the days of Thursday and Friday, she continued in nearly a similar state; little nourishment could be got down; so that upon the whole she seemed losing ground. On the Saturday morning she was evidently worse; and gradually sinking, she expired at eight P. M. that evening. A *post mortem* inspection could not be procured; yet the symptoms induced me to suspect, that some organic mischief had taken place within the head.

CASE CIX.

I was called to the house of a lady near Bow, who had the preceding evening been seized with convulsions between the sixth and seventh months of pregnancy. She was middle-aged, of a lively, cheerful disposition, and the mother of several children; and had been suddenly attacked with a violent pain in the head about six o'clock, which was soon succeeded by a convulsive paroxysm. Her medical attendant was called that evening, who immediately took away twenty ounces of blood, applied a blister to the back of the neck, ordered opening medicines, and directed purging enemata to be occasionally injected. Notwithstanding the use of these means, the convulsions continued through the night with short intermissions, but no symptoms of uterine contraction were remarked by the nurse or attendants. In the course of the forenoon of this day, however, the uterine contents were expelled; but the fact was unknown to the women about the patient, until the fœtus was accidentally found in the bed, a short time before my arrival at twelve o'clock. For some time before this discovery, the paroxysms had been more violent and frequent; but they suddenly ceased, and between the time of the expulsion of the uterine contents and my visit, there had been no return.

I found this lady lying on her back in a comatose state, entirely devoid of sensibility, and incapable of being aroused; the pupil was strongly contracted and insensible to light; the pulse was full and slow, and the uterus was firm and small. Under these appearances, I reccommended the loss of more blood; and while my friend was preparing to open a vein in the arm, another violent paroxysm recurred. This attack induced me to advise a division of the temporal artery, and the operation was performed so successfully, as soon to afford twenty ounces of blood from the orifice. I remained in the house nearly an hour; and saw, that in spite of the means already used, the paroxysms continued to recur with undiminished violence and frequency. During that time, respiration became oppressed, and I took my

leave under the impression that this lady could not long survive. Two days afterwards, my friend wrote to inform me, "that after my departure, the lady become quiet for many hours, and appeared to be comfortably asleep; that throughout the following day she was promising to do well; but that during that night an unfavourable change had taken place, and she had become completely delirious and raving." I visited her about eight o'clock in the evening; she then appeared like a woman under the delirium of fever; her pulse was small, but not quick; her bowels had been freely evacuated by opening medicine. To the means already used were added occasional enemata with a solution of asafœtida. The day following, she appeared more composed and quiet; yet she was not sensible, and was passing her alvine evacuations unconsciously into the bed. She continued in nearly a similar state for some hours longer; but the powers of life were evidently declining, and she expired in the evening.

CASE CX.

I was summoned to the assistance of a poor woman in the neighbourhood of Shoreditch, pregnant of her fifteenth child, and about seven months advanced in that state. This woman had been suddenly seized with a convulsion-fit soon after she had retired to rest. Being absent from home at the time the message was delivered at my house, a friend was requested to see this patient, who immediately bled her freely, and ordered her a purgative medicine. I visited her early the next morning, and learnt that, notwithstanding the loss of blood, the fits had unremittingly continued. She was now lying completely insensible, and had all the symptoms of a patient under apoplexy. Two large basinsfull of blood were taken away this morning; and, as she could not be made to swallow any liquid medicine, ten grains of calomel mixed with sugar were placed upon her tongue; a purgative enema was also directed to be occasionally injected. I made another call towards evening,

when I found that the woman had been attacked with two or three paroxysms of undiminished violence since my former visit; she now yawned frequently and deeply, and continued equally insensible. No alvine evacuations had hitherto been procured; indeed her situation even precluded the possibility of administering the injection. She was again ordered to be bled to sixteen ounces. During the following night, she had slighter returns of paroxysms; but on the following morning, about four o'clock, one more violent than any preceding occurred. An intestinal evacuation of an offensive description had escaped during the night. Two days more passed over in nearly a similar manner; the poor woman had occasional recurrences of paroxysms, and remained insensible. But on the third morning after the attack, the scene had somewhat changed; she had become completely delirious, and unmanageable, screaming so violently, as to be heard at a considerable distance from her house; indeed, she was described to be "raving mad." About noon on this day, it was accidentally discovered, that a dead child had been expelled during her struggles, unknown to her attendants. This apparently favourable occurrence produced no mitigation of the symptoms. The convulsive paroxysms indeed ceased; but the maniacal state continued to the time of her death, which took place on the sixth day of her illness. A post mortem examination was not allowed.

CASE CXI.

My opinion was requested in the case of a woman in the parish of Shoreditch, under convulsions in the last month of pregnancy. She had been seized with the first fit about one in the morning; a professional man was then called, who ordered her some medicine; but he did not then bleed her. The convulsions continuing, he was recalled a few hours after; he now took away about eight ounces of blood; and when I entered the room, between nine and ten, he was in the act of cupping his patient. This woman had,

for some days previous to this attack, complained of a severe pain in her head, especially towards night; which had sometimes affected her to that degree, as to induce her to say to the women about her, "that she should certainly go out of her mind;" yet she had made no application for its relief.

At the time of my visit, the fits were returning at very short intervals, and with considerable violence; and the woman appeared under a state of great exhaustion from their effects. Upon a vaginal examination, the act of labour was evidently commencing; the Os Uteri was relaxed, yet not much opened; but it seemed readily dilatable, and the breech was presenting. Considering the length of time the convulsions had already unremittingly continued; the injurious effects they had induced; the possibility of a speedy delivery by art, and the probability of the labour continuing for a length of time if entrusted to the natural efforts; it was determined that immediate delivery should be attempted. I passed my hand without much difficulty, and meeting with a foot I brought down the breech; after which the child was soon extracted. But the presence of a second child was immediately detected; which was withdrawn in a similar manner, and which proved to be in a very putrid state. The Uterus contracted, and threw off the double Placenta. But the extraction of the uterine contents did not obviate a recurrence of the paroxysms. The woman had certainly a somewhat longer truce for a time; but the convulsions afterwards resumed their former violence, and put a period to her sufferings a few hours after delivery.

The head was examined on the day following her death by an experienced anatomist; who reported to me, that after a very minute examination of every portion of the brain, no positive derangement could be detected; and that the only appearance, in any way different from that usually met with, was in the vessels of the pia mater, which were thought to be somewhat more loaded with blood than in the generality of cases of cerebral inspection.

CASE CXII.

A communication was made to me respecting Mrs. B., in Webb-square, Shoreditch, who was stated "to be in the last month of pregnancy, in violent fits and insensible, but no labour; and to have been complaining of a pain at her stomach." This patient was at the moment ordered to be bled from the arm to sixteen or twenty ounces; to have a dose of calomel and some purgative medicine. I saw her about twelve at noon; she had then had a number of fits, which were returning at short intervals; between the paroxysms she was comatose, with stertorous breathing; she was perfectly insensible, and had a dilated pupil. I now ordered a similar quantity of blood to be again taken away in my presence, but it did not flow in so free a stream as I could have wished. Having watched the symptoms for some time longer, and seeing that the paroxysms continued to return with undiminished violence or frequency, I made a vaginal examination; I thereby found that the Os Uteri was sufficiently dilated to allow the ready introduction of the hand. Looking at the imminent danger of the woman, with the little advantage which had been already derived from the previous loss of blood, I determined upon immediate delivery by turning the child, which I effected with comparative ease; the Uterus acting well, and even throwing off the Placenta. I left the woman after delivery in an insensible state, with little hope of her recovery; and I afterwards learnt from the midwife, that she survived my departure but a few hours.

CASE CXIII.

Early one morning I was informed, that Mrs. B., of Hoxton Market, had been in fits all night without any signs of labour, at the same time my immediate attendance was requested. I found a young woman, near the completion of the full period of pregnancy of her first child, yet with-

out any symptom of approaching labour, in strong convulsions. She was devoid of sensibility, had frequent returns of violent paroxysms, and was comatose in the intervals. At ten in the forenoon, she lost about twenty ounces of blood from the arm, and at three in the afternoon a similar quantity. During the interval between these two bleedings, the paroxysms had become much less frequent, and less violent; but she continued equally insensible. At eight in the evening, there had been, between this time and my visit at three, only two or three paroxysms; the last of which came on a short time before I made my call. I ordered her to be bled again to nearly the same quantity, and the operation was performed in my presence by one of my pupils, who had accompanied me to the case. The loss of blood, at this time, evidently produced a material alteration in her countenance, as well as upon her pulse; and although we were unable to learn her sensations, she appeared to me under the influence of syncope, which my companion suspected would terminate in death. From this state, however, she presently rallied; she then fell into a comfortable sleep of several hours continuance, and awoke towards morning very much refreshed, and perfectly sensible; yet she was quite unconscious of the preceding occurrences, and seemed surprised at her situation. At my visit the following morning, there had been no return of convulsive movements; my patient was then composed, with a disposition to sleep, but no signs of approaching labour were still apparent. It did not appear to me that any further medical management was necessary, than mere attention to the bowels. From this time, she went on under a gradual improvement for the three following days, when the pains of labour spontaneously commenced; and she was delivered of a still-born child, after a natural and easy time, without any further inconvenience. She afterwards recovered her usual health within the regular period of a common confinement.

CASE CXIV.

About the middle of a day in September I was apprized that Mrs. G., in Webb-square, Shoreditch, a woman in the ninth month of her first pregnancy, was in strong convulsion-fits. This woman had been first seized about half-after eight in the morning, and before the midwife saw her, she had five paroxysms. Being absent from home when the note was delivered at my house, a friend was requested to visit the woman on my behalf; who, finding no symptom of labour, bled her freely and ordered some opening medicine; but which, from her insensible state in the intervals of the paroxysms, could not be given. About four P. M. the same gentleman paid her a second visit, and being told that she had had several fits since his first call, he bled her again freely, taking away about twenty-four ounces of blood; during this operation, she had a violent paroxysm. I saw her about six, P.M., and from the account I received from my friend of her previous state, I was disposed to consider the woman better; for she had now lost that snoring, which she had exhibited during the intervals of the fits throughout the day; I therefore now merely advised some opening medicine, as soon as she could be prevailed upon to take it. The next morning I received a satisfactory account from the midwife; with the intimation that since the last bleeding her patient had had no more fits; that the opening medicine had operated sufficiently; that she was very much better; and seemed quite composed.

This woman was delivered about a week afterwards, under the care of her midwife, of a still-born child, after a natural labour, without the occurrence of any incident worthy notice. She has since borne several children; but has shown no tendency to convulsions in her subsequent labours.

CASE CXV.

Mrs. H., a stout young woman, of the parish of St. Luke, Old Street, was found by her husband on his return home to

dinner at one o'clock, lying on the bed in a strong convulsion-fit, completely senseless, and black in the face. He had left her, upon going to his work early in the morning, complaining of some head-ache; but to his surprise and alarm, upon reaching home at his usual dinner hour, he discovered her in the situation above stated, in the last month of her first pregnancy. This occurrence happened immediately preceding a violent thunder-storm. Her midwife was sent for, who procured the attendance of a neighbouring apothecary to bleed her, and about sixteen ounces of blood were taken away as expeditiously as it could be done. A messenger was then despatched for the assistance of one of the physicians of the charity, and I visited her about four P.M. The convulsive paroxysms were at this time frequently returning, with short intermissions; the woman was insensible; the pupil of the eye was dilated; the pulse was slow and oppressed; no symptom of approaching labour could be detected by a vaginal examination; and not the slightest advantage appeared to have been derived from the previous loss of blood. She was immediately bled again from the arm, and lost in a full stream about twenty ounces of blood; during this bleeding the pulse became less oppressed, but was not increased in frequency. Five grains of calomel, and as many of jalap, were placed upon the tongue, proper doses of a purging mixture were prescribed at short intervals, and an enema ordered to be injected without loss of time. My visit was repeated at eight in the evening; at this hour, the paroxysms seemed to have become less severe, yet they were equally frequent; in the interval the patient appeared somewhat more composed. About sixteen ounces of blood were again abstracted; another powder similar to the preceding one was repeated, and the opening mixture was directed to be continued. To these means were added, six leeches to each temple, a blister at the back of the neck, and the constant application of an evaporating lotion over the head. There were still no signs of commencing labour. At my visit at eleven the next morning I found this woman much relieved. She still remained insensible indeed, but

paroxysms were less frequent and less powerful; and the pupils showed a greater disposition to contract on the application of light. No signs of labour were yet observable but very copious evacuations had been obtained from the bowels. Six more leeches were now applied to each temple. She was visited again at eight in the evening, and was obviously in a more improved state; the paroxysms had ceased; the process of labour had commenced without inducing any return, and the Os Uteri had already become so far dilated as to allow of the ready introduction of the hand, and of delivery by turning, if such a proceeding had been judged expedient. But, under all the circumstances of the case, especially as so much relief had been already derived from the means used, it was thought more advisable to trust its conclusion to the natural agents; the midwife was therefore given in charge of the case, with strict injunctions to leave it entirely to *Nature*. At my visit on the next forenoon, this woman had been safely delivered of a still-born child about four A. M. after a natural and regular labour, without any indications of a return of the paroxysms. She had then procured some refreshing sleep, and was quite sensible, but had not the least recollection of what had taken place.

From this period, with the exception of some pain in the head, which gradually disappeared, she suffered no future inconvenience; but regained her usual health in as short a time as if she had not been the subject of such alarming symptoms.

ON CONVULSIONS DURING LABOUR.

THE paroxysm is rarely preceded by symptoms sufficiently strong, and indicative of its approach, as to lead to proper means of prevention; yet sometimes, such unusual appearances are met with, as ought to attract the attention thereto.

A convulsion-fit may assail a woman under any stage of labour; but it is more apt to occur under those changes which the Os Uteri undergoes during its dilatation, especially when they are effected in a lingering painful manner. It commences under a pain; while the Uterus is contracting powerfully upon its contents; and very frequently after the rupture of the membranes. The common expressions, indicative of the presence of uterine action, instantly cease; and their place is supplied by those attendant upon the paroxysm. After the violence of the fit is exhausted, a cessation of the more urgent symptoms ensues; and there are usually several repetitions of labour-pain, with regular intervals, before a second recurrence takes place; yet without the concomitant expressions. The presence of uterine contraction is then detected by the temporary alteration in the countenance, and the peculiarity of manner; bnt with greater certainty, by the state of the Os Uteri at the moment.

The seizure is generally unexpected and sudden; instantly exciting the greatest alarm. It happens at a time, perhaps, when the labour appears to be going on favourably, and to promise a happy termination. But this

astounding occurrence at once intervenes to cloud the brightness of the prospect, and to blight all antecedent hopes. Yet, sometimes, the woman previously exhibits an unusual degree of anxiety and restlessness, with a constant inclination to a change of posture; and she may even throw out an occasional expression of some foreboding mischief. The pains, generally severe for the period of the labour, are borne with great impatience; the Os Uteri does not give way kindly, and feels to the finger, hot and devoid of moisture. There are also redness of the face, suffusion of the eyes, and pain in the head. Yet these and similar symptoms are frequently met with, as a consequence of long-continued exertion, without any bad consequences ensuing therefrom. But when they continue for a length of time to an unusual extent, their probable effects ought, by a prudent foresight, to be anticipated and averted. I think that it will frequently be found, that a first labour is more liable, during its progress, to this distressing occurrence, than subsequent ones.

Upon the attack of a convulsive paroxysm under such circumstances, or indeed upon the appearance of such threatening symptoms as may warrant the practice, a quantity of blood proportionate to the strength and condition of the patient must be immediately withdrawn from the arm, and generally without reference to the stage of the labour; unless, indeed, the child should appear to be very near expulsion. It must afterwards become a matter of serious deliberation, whether the bleeding should be repeated, at what time, and to what extent; whether the completion of the case may be safely entrusted to the natural agents; or whether a recourse should be had to mechanical means for expediting its termination.

In determining such practical questions, the length of time which has elapsed since the commencement of the labour; the effects which are already induced upon the system by its continuance; the degree of progress it has made at the time; the state of the Os Uteri, Vagina, and external parts; the facility or difficulty with which instru-

mental assistance may probably be applied; must each and all be taken into the account; and from the combined inferences thence derived, must the judgment and the conduct be at the moment regulated.

When convulsions make their appearance under the first stage of labour, before the head has got possession of the Pelvis; and when, in spite of one sufficient and effective bleeding, the paroxysms are repeated with undiminished violence as well as at equal intervals, recourse must be had to a second operation without much loss of time. In case satisfactory relief is not thereby within a short space of time procured, we may possibly be justified in resorting to a third, and even occasionally to a fourth operation, at no long intervals, but in diminished quantity. If it should still turn out, that these repeated bleedings have made no impression upon the strength and duration of the paroxysms, this plan cannot be safely persevered in much longer; some other must therefore be substituted in its stead. The only expedient upon which any reliance can then be satisfactorily placed is a speedy delivery, by manual or instrumental means.

The mode of effecting that object must depend upon the circumstances of each particular case; which will point out whether the child can be turned, whether the perforation of the head and subsequent extraction be advisable, or whether the forceps can be satisfactorily applied. The previous abstraction of blood generally induces an increased relaxation in the internal parts, which enables the operator to apply those means to which he may feel inclined to resort, with greater effect. At any rate, considerable relaxation must be present, before delivery by any of the above modes can with propriety be attempted.

If it should be found that, by the above practice, the returns of the paroxysms are fortunately checked, or even mitigated in their violence, there will be sufficient encouragement to refrain from immediate delivery; to await, for a time at least, the result of the previous measures; and

eventually, perhaps, to trust the completion of the labour to the natural agents.

When convulsions come on in the second stage of labour, under a full dilatation of the Os Uteri, with a considerable advance of the head down in the Pelvis, the propriety of bleeding must be regulated by the state of the patient. If the labour shall have been already long protracted; if the patient's powers be considerably diminished; it will be prudent in the first instance to have recourse to the forceps with the intention of hastening delivery; since it is probable, that the convulsions may be connected with the continuance of the labour, and with the general irritation thereby produced. Otherwise, a liberal bleeding should always precede the application of instrumental means.

It is by no means an uncommon occurrence, towards the close of a first, and protracted labour, for a woman to show a high degree of nervous excitement, almost approaching to a convulsive paroxysm, which is manifested in a general agitation of the whole frame on the access, and during the presence of uterine contraction; but which disappears upon its cessation. This state is perhaps partly dependent upon the constitutional irritation induced by the long continuance of the uterine efforts; and partly, upon the severity of pain arising from the extension of the vagina and external parts, as a consequence of the pressure of the head under its egress. It is very different in its nature, however severe, from true parturient convulsions, as well as in the danger attached to it.

This affection is sometimes preceded by, or accompanied with considerable pain in the head, rigors, heat upon the skin, quickness of pulse, and other symptoms indicative of considerable excitement; yet, in their combined state, they fall far short of those appearances which constitute a convulsive paroxysm. When severe, however, they excite great alarm, but are seldom followed by any serious consequences. As the labour is usually well advanced before these symptoms are elicited, the child is soon expelled by

the natural efforts, without the necessity of any interference. But should there be a prospect of much longer protraction, it may become prudent to forward the advance, and exit of the head, by instrumental assistance. After delivery, the unpleasant symptoms soon disappear, and rarely leave any impression, or traces of their former presence, except, perhaps, some trifling affection of the head.

CASE CXVI.

I was called to a poor woman in Fashion-street, Spitalfields, who had been attacked with convulsions. Her midwife had been summoned about two in the morning for some reason or other; but finding, to use her own expression, "that there was no labour," she did not remain with her patient. Some time after her departure, a convulsion-fit took place; the midwife was recalled; but before her return, five or six paroxysms had recurred; she then begged my assistance. I found the paroxysms violent, with short intervals, and a state of complete insensibility during those intervals. The Os Uteri was but little dilated, yet the liquor amnii was discharged, and the head was above the brim of the Pelvis. I had a vein opened in each arm in my presence, and a large basin-full of blood (I should think nearly two pounds) taken away from each orifice. Yet this free and liberal bleeding had no beneficial effect, either upon the violence or the frequency of the paroxysms. After witnessing the recurrence of several more fits without any palliation, I determined upon delivery by turning the child; but I had no trifling difficulties to overcome in effecting that object. Dnring the act of delivery, and for a short time afterwards, the woman remained free from any return of paroxysm; she appeared relieved, and gave some hopes of recovery; but within an hour, another fit made its appearance, which she did not long survive.

The body was inspected the following day. After a most careful examination of the head, no positive breach of vessel could be detected. The blood-vessels of the pia-mater

were beautifully injected with blood; and a section of the substance of the brain showed more bloody points than usual; there was also a quantity of tinged serum in the ventricles. The vessels of the cerebellum were likewise unusually distended with blood. The viscera of the abdomen were generally healthy. The blood-vessels of the broad ligaments were empty, and seemed puffy and large. The uterine structure was flaccid, uncontracted, with a suffused redness at its back part; its internal surface had a natural appearance.

CASE CXVII.

I was requested to visit a young woman in Nicol-street, Bethnal Green, æt. nineteen, who had been delivered of her first child the night before. From her midwife, I had the following particulars of the case. "That in the afternoon the labour began, and that some hours afterwards she was called. That during the night convulsions came on, and that early in the morning application was made to a professional man, who ordered her to be freely bled. That the violence of the fits was much abated by the bleeding, yet that they did not entirely cease. That throughout the following day, the labour was slowly progressive; that as it advanced towards evening, the convulsions returned more violently; that about eight in the evening, the uterine contents were naturally expelled; and that since her delivery, the woman had remained in a senseless state, without any return of the paroxysms."

I found this woman insensible, comatose, and with other symptoms similar to those of apoplexy. I requested that she might immediately lose more blood, and that her bowels should be actively opened. On the subsequent morning, she had had some refreshing sleep; was now sensible; but complained much of her head. She went on gradually improving for several days, when she was seized with abdominal affection attended with febrile symptoms. These were presently relieved by purgatives, and afterwards she gradually recovered her usual health.

CASE CXVIII.

I visited Mrs. C., in Brick-lane, Spitalfields, who had been in labour of her first child for many hours, and who had been seized with convulsions a short time before I was called. She had already had two paroxysms, with no long interval between them; and was at the moment perfectly sensible and collected. Finding that the head of the child was occupying the cavity of the Pelvis, and that its vertex was almost pressing upon the perinæum, I recommended immediate delivery by the forceps. The instrument was satisfactorily applied without the least difficulty, and the head was gently extracted. While I was now compressing the uterine tumour within the grasp of my hand, another paroxysm recurred; during its continuance, I could distinctly perceive that uterine contraction was active under my hand. By its effects, assisted by a very slight degree of extractive effort, the remainder of a *still-born* child was brought away; after the birth of which, the Placenta followed without trouble. After delivery there was no return of convulsions; the woman recovering as well as after any common labour.

CASE CXIX.

At four one morning, a gentleman arrived at my house from a neighbouring village, to beg my immediate attendance upon the wife of a major in the army, in labour of her first child, and in a state of great danger. I was introduced to a young lady of a sprightly disposition, who had been attacked about an hour before my arrival with a convulsion-fit, during a common lingering labour, under the care of a respectable surgeon. Her labour had commenced two evenings before; her attendant was then called, who remained in the house all night. It proceeded regularly, but slowly, throughout the day following; towards evening, the membranes broke; the pains afterwards became stronger and more frequent; but under great rigidity of all the soft

parts. At this time, and for some hours thenceforward, the general appearances promised a happy termination. But this favourable prospect was, by-and-by, over-shadowed by the unexpected intervention of a convulsive paroxysm between three and four the following morning. The lady had hitherto been in excellent spirits, laughing and joking with her friends; when, just before the attack, she quaintly exclaimed, "Bless me, the room is studded with diamonds," and instantly, her whole frame became violently convulsed. As soon as the necessary means could be procured, her attendant took away a quantity of blood from the arm, and sent to request my presence. This lady was at the moment of my arrival collected, and capable of answering my questions rationally; she complained of some unpleasant feelings in the head, yet not amounting to absolute pain; her pulse had undergone little alteration; the Os Uteri was opened to the size of a crown-piece, but was rigid and thick, with the head pressing upon it, and just entering the brim of the Pelvis; the pains also were frequent, returning at very short intervals. I had not been long in the house, before another attack took place, upon which I recommended the abstraction of more blood.

About seven A. M. my friend and colleague, the late Dr. John Sims (who had been also summoned through the anxiety of the husband), arrived. After hearing the history of the case, and seeing the lady, he joined in opinion with me of the propriety of the loss of more blood. Not long after this third bleeding, we had a recurrence of another fit. While Dr. Sims was sitting by the side of the bed, a little after nine, anxiously watching the progress of the labour and the state of the lady, he witnessed the access and progress of another paroxysm, equally violent with any of the preceding ones. It was now evident, that the previous loss of blood, although upon the whole considerable, had neither prevented a return of the paroxysms, or diminished their violence; and that the same plan could not be farther extended with safety; it was therefore determined, that the lady should be immediately delivered by

art. In accordance with that determination, therefore, about half-after nine, I perforated the head, and firmly fixing the crotchet, I began to make extraction; but the return of a paroxysm soon obliged me to desist from that duty during its continuance. After its cessation, my efforts were resumed to the release of the head. The Uterus now contracted satisfactorily, and expelled the rest of the child with the Placenta. For some time after her delivery this lady appeared to be quiet, yet was void of sensibility, and at the time of our departure from the house at twelve o'clock, she seemed to be composedly asleep. She had no return of convulsions after her delivery, but in due time recovered her health; and has borne several children since the preceding occurrence, without any tendency to a similar attack.

CASE CXX.

About one in the morning, I was called to the assistance of a lady in Fenchurch-street, who had been a few hours before seized with convulsions during the progress of a natural labour, under a first child. The patient was a stout, corpulent, well-looking young woman, about twenty years of age. The pains of labour came on the preceding forenoon about ten, and went on regularly till about four in the afternoon, when the membranes gave way, and her accoucheur was sent for. After this time, the process advanced slowly but progressively till about ten in the evening, when the woman was seized with a convulsion-fit without any previous notice. A vein was immediately opened in the arm, and about fourteen or sixteen ounces of blood were taken away. Between this hour, and my arrival at the bed-side, she had two more fits. I found her completely senseless, snoring like a patient under apoplexy; yet it was evident that she had occasional labour-pains, from an alteration in her manner and appearance during their presence. While my friend and I were conversing upon the case, another violent paroxysm took place. Venesection was immediately repeated, and twenty ounces of blood

were again abstracted. Upon making a vaginal examination, I found the head occupying the cavity of the Pelvis, and sufficiently low to be within the scope of the forceps; and thinking that immediate delivery would prove the most likely means of averting the threatened consequences, I set about the operation by means of that instrument. After its satisfactory application, I had to encounter considerable difficulty in the extraction of the head; arising chiefly from the struggles of the patient, and her incessant change of posture. When the head was brought down so low as to press upon, and to extend the external parts, another paroxysm occurred more violent than the preceding ones; after which the child was slowly extracted, and the Placenta soon followed.

During the delivery, this woman appeared to be insensible both to my efforts, and to uterine contraction, and continued to snore as before; but after delivery, she became more composed, the snoring ceased, and she seemed to be comfortably asleep; so that I left her with a strong impression of her future safety. At my visit early the next morning, I found her very much recovered, indeed making little complaint; as general appearances were so favourable, I took my leave, entrusting her future management to her previous attendant.

The child was born alive, but in a very weakly state. Upon immersion in warm water, the infant rallied, and cried stoutly; notwithstanding, after a short time, this child began to droop, and died about twelve hours after birth.

ON CONVULSIONS SUBSEQUENT TO LABOUR.

Convulsions occasionally succeed the entire completion of labour. Even when a case has terminated naturally, and perhaps without much extraordinary effort, a woman may be suddenly seized with a convulsion-fit after delivery.

The occurrence is at this time probably connected with some morbid impression or injury inflicted upon the brain and nervous system during the labour; of what description it may be difficult to determine. In some cases, breach of vascular structure has been detected after death, with sanguineous extravasation; in others, little alteration has been found in the cerebral appearances. If the duration and violence of those exertions which some women are obliged to undergo during the expulsion of a child be impartially considered, no surprise ought to be excited at the occurrence of occasional mischief, within an organ of such delicate mechanism as the brain. It ought rather to be matter of astonishment that such consequences should not be more frequent. Yet, as far as my own observation has extended, I have not remarked, that convulsions have made their appearance more frequently after a lingering or difficult labour, than after an easy natural one. They may therefore originate in some obscure principle, not readily developed. In some few instances I have seen a convulsion-fit follow a sudden loss of blood from the uterine vessels.

The attack is usually made within the space of two hours after delivery, yet it is by no means limited to this short time. Its first indications are exhibited in the convulsive

movements of the muscles of the face and extremities. The paroxysm then proceeds in the manner already described, and is followed by an interval of quiet, during which the state of the woman is variable; but most frequently she appears comatose, and void of sensibility. After an uncertain period, another paroxysm supervenes, with symptoms similar to those of the preceding one, which, having exhausted itself, terminates in another truce. It rarely happens, that a convulsion fit is at this time solitary, except in those instances in which it has been preceded by hæmorrhage; or, that the paroxysms do not proceed onward to the destruction of life, unless they can be checked by medical interference.

Upon a general average of cases, I think it will be found, that convulsions after delivery are more intractable, and prove more frequently fatal, than when they occur previous to, or during labour. I have remarked, that when they come on under either of the latter states, and *continue after delivery*, whether it may have been effected naturally, or hastened by art, they generally prove destructive to the patient. But that if they be checked by delivery, they seldom return afterwards; a quiet sleep presently succeeds, which is usually the first and most favourable harbinger of subsequent recovery.

This increase of danger may probably be ascribed in many instances to the cause above alluded to; yet the nature or extent of that mischief cannot be positively detected during life: the one or the other becomes therefore mere matter of speculative suspicion. If a breach of vascular structure should have taken place within the head, the inability of Nature or of art to repair the injury, must tend to produce a fatal termination. But as great uncertainty must unquestionably exist on that point, no delay should be permitted; recourse should be immediately had to such means as appear the most likely to counteract the baneful tendency of the symptoms.

The first and most essential step then to be taken is, a sudden abstraction of a quantity of blood, either from the

arm, from the temporal artery, or perhaps from both. In order to make this loss the more effective, a vein may be opened in each arm, and the blood be allowed to flow from each orifice at the same time. Some interval must afterwards be allowed to elapse, that the effects of that act may be properly appreciated; during which, if the woman can be made to swallow, some active purgative should be exhibited; or a recourse should be had to the repeated injection of clysters of that description.

If, by the above means, a return of the paroxysms should happily be prevented, any further activity, for the present at least, will not be necessary: and even if their violence should be diminished, a further lapse of time must be allowed to await the future consequences. But if the convulsions should continue, a repetition of the bleeding will become requisite; even a third or a fourth repetition may be occasionally called for. I may here, however, be allowed to remark, that if no favourable appearances ensue after one or two liberal bleedings, the case seldom turns out favourably.

The exhibition of opiates, or of stimulants, in these alarming cases is justly exploded. But after free evacuations, the injection of an enema composed of a proper quantity of opiate, with a solution of asafœtida or oil of turpentine, has, in some cases, seemed to me to be beneficial.

After the relief or cessation of the paroxysms, the patient commonly continues in a state devoid of sensibility for some time, which at length terminates in sleep; sometimes refreshing, at others attended by apoplectic snoring. The woman afterwards complains of a deep-seated pain in the head, which continues for some days, and seems to be relieved by active purgatives. Variable symptoms afterwards follow, which gradually subside under due regulation of the body, and regimen. It rarely happens, when the paroxysms have been intercepted, and sleep has been obtained, that a return ensues; or that any impression, unfavourable to the future health, is left behind.

CASE CXXI.

At three in the morning, (after a preceding sultry day, and during the raging of a most violent thunder-storm,) I was called to Mrs. P. near Wapping, a thin delicate young woman, who had been safely put to bed of her second child about five P. M. the day before, after an easy natural labour, by the medical attendant of the family. After remaining some time in the house, he left her, and called again late in the evening; when she made no complaint to arrest his attention, or to forbode so tremendous an attack, as subsequently, and at no long distance of time, followed. My friend had scarcely quitted her house half an hour, when she was suddenly seized with a violent convulsion-fit. A messenger was immediately sent to recal him; but not being in the way at the moment, some time elapsed before he could make his visit; and during this interval, she had undergone several paroxysms. At his return, seeing his patient in so perilous and so unexpected a situation, my early attendance was requested.

This lady was in a state of nearly incessant convulsions, the paroxysms succeeding each other so rapidly, as scarcely to leave any interval. During the short intermissions, she was lying in a state of total insensibility, and foaming at the mouth; the pupils were strongly contracted, and she had a small, quick, contracted pulse. Under such distressing symptoms, I dared not entertain the least hope of being able to counteract them; but unwilling to be merely a passive spectator, I advised a large quantity of blood to be drawn from a free orifice as speedily as possible; two good-sized basins-full were accordingly procured from the arm, to the amount of at the least forty ounces. As no medicine could be got down into the stomach, recourse was had to the injection of purgative clysters. I left this lady at four A. M. under the discretional direction and judgment of my friend, to take more blood from the arm, or from the temporal artery, as he might think expedient. Between

the time of my departure and seven in the morning, there was a frequent recurrence of the fits, but not in so violent a degree; about that hour, the temporal artery was opened, from which but a few ounces of blood were obtained; for soon after the incision was made, a paroxysm recurred, which induced my friend to check the further flow of blood. I visited this lady again between nine and ten in the forenoon; there had at that hour been an intermission of the paroxysms since seven in the morning, yet she was lying in a senseless torpid state; she was indeed free from any convulsive twitchings, and seemed much more composed; but the eye was insensible to the light; and her pulse was quick and small; upon the whole, she appeared to be extremely ill. At seven in the evening, my visit was repeated; our patient was then evidently better. She had been able to get down a little nourishment; had suffered no return of convulsions since the morning; had become so far rational as to give short but pertinent answers to questions; and she had been persuaded to take some opening medicine. At my next morning's visit, a farther degree of improvement was sufficiently evinced; some refreshing sleep had been procured in the night: the bowels had been satisfactorily relieved; the woman had become perfectly rational; and she now seemed comparatively out of danger. From this time her recovery was progressive.

One singularity attended this case which is highly deserving of notice. Although this woman, to all external appearance, was in perfect health at the time of delivery, she had no recollection whatever, after her recovery, of the occurrences during her labour; or indeed, of those of some days preceding that event; they appeared a blank in her existence. Does not this fact show, that there was even then a tendency to cerebral indisposition, which had escaped notice; and which was probably increased by the state of the atmosphere, and by the act of parturition?

CASE CXXII.

I visited Mrs. A., æt. 23, in Newcastle-street, Whitechapel, who had not been long delivered of her first child, living; and who, a very short time before its expulsion, had been suddenly seized with a convulsion-fit, which was followed soon after the birth of the child by a second attack. Her labour had not been of long duration, and had proved quite natural. About 11 A. M. twenty ounces of blood were taken from the arm, and ten grains of calomel were exhibited. Between this time and two P. M. there had been a recurrence of five paroxysms; but the last appeared to be the weakest. During the intervals, the woman showed some signs of sensibility; yet the pupil was dilated, and the pulse was small and quick. Twelve ounces of blood were again abstracted; a mixture of infusion of senna and jalap was ordered in proper doses; a purging enema was also prescribed with the application of cold to the head. By these means the paroxysms were checked for some hours; but about midnight, the woman had a relapse; and, resuming their usual career, the convulsions returned as violently, and as frequently, as in the early part of the day. When I called the following day, expecting to find the poor woman quite relieved, I was told that she had been in constant convulsions with but short intervals since the preceding midnight, and that her friends, having given up the case in despair, had ceased all means of assistance. I certainly also had very slight hopes of her recovery; notwithstanding, I directed the midwife to inject an enema with a solution of asafœtida and two drachms of laudanum. A delay of several hours took place before this object could be effected; but after the enema had been thrown up, the report to me the next morning was, "that it had acted like a charm." It was injected with some difficulty about nine P. M., and soon afterwards, there was an obvious diminution of power and frequency in the attacks, so that by midnight the fits had entirely ceased. The woman afterwards got some refreshing sleep, but awoke with much pain in her head. The next

day, she was quite sensible, with an improved pulse, yet still complaining of her head; from this affection she was considerably relieved by free evacuations from the bowels. On the following day she was so much better, and in so promising a state, that I discontinued my visits. She called afterwards at my house in perfect health, to offer her thanks; her child was thriving, and she had an excellent breast of milk.

ON LABOUR

WITH TWO OR MORE CHILDREN.

Those animals, which are generally uniparient, and which usually bring forth only one of their species at a birth, occasionally show a great disposition to preternatural fecundity: to produce into the world one or more than that unit, which Providence seems naturally to have assigned to them. This is especially the case with the mare, the cow, the sheep, and woman. Some particular years appear favourable to this unusual increase in the animal creation; and it is no uncommon remark, that in the same district, the occurrence of twins in women is more frequent at one time than at another. The females of some families appear also to have a singular propensity to this prolific tendency; it is likewise occasionally observable in the same woman, for I attended one lady who conceived of twins three successive times.

It may become a physiological question, yet one of very difficult solution, whether the conception of twins is simultaneous or consecutive; whether the two ovarian vesicles receive the impregnating impression at one and the same instant, or in a successive manner. I am not acquainted with any fact, by which such an intricate question can positively be decided; but I am disposed to incline to the former

supposition, that the two ova are impregnated at the same moment." This fact, however, is sufficiently ascertained; that the woman herself has no cognizance or intimation from any peculiar sensation or symptom that she has conceived of twins.

When two or more children are brought into the world at the same birth, the respective size of each child is usually smaller in proportion to the number, than when only one child is born; yet this remark is not found to be uniformly correct, for every now and then, each twin appears as large as a single child; and in one instance which I saw, in which four boys were produced at the same birth, each child seemed as large as a common-sized twin. But, although it may be generally stated that, under a plurality of children, each child is severally smaller than when the Uterus contains only one; yet collectively, they occupy a greater space within the Uterus, and consequently, make a woman appear larger in her person.

The proportion of twins upon a large average, appears to be about one case in ninety or one hundred. Cases of triplets are very rare, and those of quadruplets are still more uncommon; yet cases of each description are sometimes reported in the public papers. I think it will commonly be found that when two or more ovarian vesicles are impregnated at the same time, the woman runs a greater risk of miscarriage, and has a less chance of arriving at her full time, than when one only is impregnated. We frequently hear of a miscarriage of twins, and it rarely happens, that the full time is completed under triplets. Under conception of twins, one of the ova may lose its vitality, while the other proceeds onward to perfection. One may even slip, as it were, out of the Uterus; the other may remain behind, and be progressive to the full completion of pregnancy. But cases of this kind will be subsequently more particularly noticed.

There is no certain criterion with which I am acquainted, during the state of pregnancy, (except perhaps through the medium of the stethoscope,) which is positively indicative of

the presence of more children than one, within the Uterus. And indeed, if the most accurate information could be obtained on this point, that knowledge would lead to no alteration, or improvement, in the practical management of the case. The ignorance attached thereto, therefore, is productive of no inconvenience to the mother or her offspring. Yet every now and then, a woman will surmise, from increase of size, or from some peculiarity in her sensations, that she is carrying twins within her Uterus; and the idea becomes a source of subsequent uneasiness. That there is generally an increased size of the abdominal tumour under twins, or more children, as well as some change in the appearance of that tumour, is a fact sufficiently obvious; yet, if the Uterus should happen to contain a large child, with an increased quantity of liquor amnii, the abdominal extension may appear equally large. Besides, twins or triplets are commonly so adapted to each other, as to take up the least possible space. Although each child may possibly be in motion at the same instant, and the mother may thence be impressed with the perception of movement in two distinct parts of the Uterus; yet, deception so frequently occurs on this point, that little reliance can be placed upon her representations.

But although, during pregnancy, there is no regular criterion sufficiently indicative of the presence of twins, after the expulsion of one child in the act of labour, the fact becomes evident in the continued size of the uterine tumour. Even during the process of expulsion of the first child, a suspicion of twins may now and then be excited, by the separate rupture of two bags of membranes. Yet in this idea, I have been occasionally mistaken, by the collection of a quantity of fluid between the lamina of the chorion and amnion.

When two or more children are contained within the Uterus, each child is surrounded by its proper membranes, and its own liquor amnii; each child has also its peculiar Funis, with its distinct portion of Placenta; through which its blood alone is circulated, and from which it is returned.

That portion of the Placenta, therefore, which is appropriated to the service of each child, has no communication or connexion with the neighbouring portion, except by mere apposition of parts, and by union of membranous tissue. When united, the several parts form one general placental mass; yet each portion possesses its own distinct circulation and function, entirely unconnected with that, or those, to which it is attached.

The first part of the process of labour, under a twin case, is usually slower than under a single child; for that twin, which first gets possession of the brim and cavity of the pelvis, is only propelled downward, through the medium of uterine action exerted upon the bag of membranes containing the second. A considerable portion of uterine activity is therefore wasted, in consequence of the uterine parietes not coming into immediate contact with the body to be expelled.

Presuming, then, that we remain totally ignorant of the presence of a second child till after the birth of the first, the labour under the first child must be conducted according to the principles already established, whether the presentation be natural or preternatural. The same mode of presentation, however, does not generally prevail in each child. If the first present with the head, the second may present with the breech, or any other part. If the first present with the breech or shoulder, the second may present with the head. Yet occasionally each child does present similarly.*

After the separation of a new-born infant by the division of the Funis, a hand must be placed upon the lower part of the mother's abdomen, as is elsewhere so strongly enforced. If upon this act the abdominal extension be found to continue considerable, and the uterine tumour feel large and resistant, the Uterus contains another child. But at this moment, I have sometimes known a source of deception to originate, in a large uncontracted Uterus with the Placenta

* In the case of quadruplets which occurred in Whitechapel, in 1813, each child presented with the breech.

within it; yet I am persuaded, that a little attention to the degree of hardness, will presently remove any erroneous impression which may have been thereby imbibed.

The question, then, whether there is, or whether there is not, a second child within the Uterus, ought in every instance to be satisfactorily determined by the preceding test, before any attempt is made to withdraw, or even to inquire into the state of the Placenta. If the question should be decided in the affirmative, that mass must be allowed to remain in *statu quo* for the present; since any interference therewith might be productive of the greatest mischief. It will be a matter of professional policy at this moment, to withhold from the mother her real situation, "that there is a second child behind;" yet the size of the abdomen may excite a suspicion that such is the case, and that she will again have to undergo similar sufferings. But however evasively any inquiries may be answered on the first point, the woman may be conscientiously assured, that the second child will probably pass with greater ease and celerity than the first has done, from the previous distension and relaxation of the soft parts.

Having ascertained that the Uterus does contain a second child, the next part of professional duty will be, to define the presentation by a vaginal examination. Previous to such inquiry, however, it will generally be prudent to allow the lapse of a short time, in the expectation of a return of pain, as well as to afford a truce for some recovery from the woman's preceding sufferings. If the head, or the breech, be now detected at the brim of the Pelvis, the further part of the process may (for a short time at least) be safely entrusted to uterine agency without any interference whatever. But if any other part than the head or the breech, be there found, the child must be turned, and be delivered by the feet without further delay.

It usually happens, that uterine action is presently resumed, by which the second bag of membranes is protruded downward, and is in due time ruptured; after which the second child is expelled with comparative facility. But if

no disposition to a return of uterine action be observable within the space of an hour or two, the membranes may be ruptured by the finger, or a stilette; and if, notwithstanding the escape of the liquor amnii, the same tendency to uterine inactivity should prevail for some time longer, say two or three hours, I think the best mode of practice is to turn the child, and to extract it by the feet.* For, although a return of uterine action may eventually take place, the time of that return is extremely uncertain; it may be after a lapse of six, of twelve, of twenty-four, of forty-eight hours; or even of a longer period. During this interval, the patient and her friends are kept in a state of anxious suspense; there is usually more or less of a draining discharge, which renders the woman less able to bear the effects of artificial delivery, if it should prove ultimately necessary; the parts become contracted, so that delivery is rendered more painful and difficult; and the time of the accoucheur is consumed in a protracted, but very necessary attendance.

After the birth of a second child, before any interference with the double Placenta, the state of the uterine tumour must be again explored by the application of the hand upon the abdomen. It may indeed happen, that the Uterus may contain a third child; the presence of which is again ascertained by its size and hardness. But, to avoid deception on

* I have been led to this opinion by the result of several cases which I have witnessed, the principal facts from one of which, I shall here detail.

The wife of a milk-man, near Goswell-street, a stout middle-aged woman, had been delivered of one child more than thirty hours, at the time I was called, with a second *in utero*. The gentleman in attendance had been all that time anxiously awaiting a return of the labour-pains, and had suffered hour after hour to pass away in disappointed expectation thereof. From the birth of the first child, there had been a slight yet constant draining from the Vagina, the effects of which had then become obvious in the countenance. The head was presenting, but was lying high above the Pelvis; the Uterus was large and tender, with the membranes unbroken. Upon the first view of the case, delivery seemed urgently necessary; I therefore passed my hand and turned the child; extracting cautiously, with but little uterine assistance. Hæmorrhage succeeded delivery, which induced me again to introduce the hand; upon this act a considerable portion of the double Placenta was found adherent. The woman after delivery was much exhausted, but she ultimately recovered.

this point, it must be recollected, that the uterine tumour is now increased in size from two causes; 1st, from its containing at the present moment a larger placental mass; and 2ndly, from its having undergone an increased state of evolution during pregnancy.

Should that question be decided in the negative, the management of the double Placenta is the next, and no unimportant consideration. Two Funes are at the moment hanging out of the Vagina; each of them longer or shorter according to circumstances. If, upon bringing one of them to its bearing in the usual mode, that part of the general mass to which it is attached come within complete range of the exploring finger, that portion of the double Placenta is in all probability separated from its uterine connexion. And if, after taking the same step with the other string, its mass can also be readily detected and surrounded, that portion is probably in a similar state. In such a case, the double Placenta may be withdrawn at pleasure; yet it is always satisfactory to have some previous uterine action, and to find the abdominal tumour small in size, and firm under the hand. For the purpose of extracting the entire mass, let the two Funes be entwined around the finger, and let each be brought to its proper bearing under the same purchase.

But if, upon the above inquiry, both portions do not come within ready reach of the inquiring finger, any attempts to withdraw the mass ought for the present to be entirely suspended; and time should be allowed for the descent of the whole, or for the appearance of such symptoms as may determine its prompt removal. Or if, upon the application of a moderate share of extractive purchase, each portion of the double Placenta should not seem equally disposed to descend, or if either feel to be retracted, a similar mode must be adopted. Let it be kept in mind, however, that there is always an increased hazard of flooding under the adhesion or retention of a part of a double Placenta, from the larger space which the whole had occupied; it may therefore be desirable to have recourse to its manual

removal at a more early period than under the presence of a single one. The exact degree of extractive purchase, which ought to be applied to the two Funes for the above purpose, is not easily to be defined; but it must be obvious, that the increased size of the entire mass must require somewhat more power than a single one; but if the whole should not seem to descend at the same time, great caution should be exercised in the attempt to withdraw it. The same general principles are also applicable to the management of the Placentæ of triplets, or of quadruplets.

And here it may not be improper to caution a young practitioner against making any violent attempt to withdraw a double Placenta by the application of mere force to the Funes, when a resistance to his extractive efforts is decidedly perceptible. If each portion should not kindly descend, and sufficiently so, as to satisfy his mind that each is entirely thrown off from its uterine attachment, (in case a prompt removal is called for,) he had much better, in my opinion, effect that removal by the introduction of his hand, than attempt it by the application of a determinate power to the navel strings. Should any portion of the mass prove to be adherent to the Uterus, the latter mode would endanger its rupture, with its subsequent evil consequences; it might even induce a fatal hæmorrhage.

An occurrence is now and then met with, which, from the degree of abdominal extension accompanying it, may excite in the mind of a patient a reasonable suspicion that more than one child is contained in the Uterus; yet probably when the hour of expulsion arrives, that suspicion is not verified; I allude to an increased deposit of the liquor amnii, forming, what is usually called, a *Dropsy of the Membranes.*

In what manner, or from what cause, such a quantity of this useful and necessary fluid is thus accumulated, it may be difficult to define; but I can only suppose it to be furnished by those uterine vessels which supply the amnial bag, from the inner surface of which the secretion issues; and therefore it must be an uterine secretion from the

mother's system. It can scarcely be presumed, I think, that such a quantity of fluid can be provided from any vessels supplying the fœtal structure. Yet this serous augmentation seldom produces any debilitating or other unfavourable effect upon the mother's constitution, except such as may be the consequence of size, weight, or pressure. Nor does it appear to leave any injurious impression upon the uterine system; for after the discharge of the fluid, the uterine parietes undergo their usual degree of contraction, and in due time the organ regains its pristine functions.

The occurrence is perhaps more frequent under the presence of twins or triplets than under that of a single child; at least such has proved to be the fact in those cases which have come within my own observation; yet pregnancy under a single child is not entirely exempted from its inconveniences. And it has generally happened, that when the deposition of fluid has been rapid and copious, the process of pregnancy has been suddenly intercepted, and the uterine contents have been prematurely evacuated.

The quantity of liquor amnii in any given case is variable and uncertain; but in the one under consideration, it is highly excessive; amounting in some instances to several quarts or even gallons, and producing an equal degree of extension and attenuation in the uterine parietes. The latter quality may indeed exist to that extent as to render fluctuation under the hand distinctly perceptible, and to assimilate this state to ascites. But although there may be some similarity in external appearance, there is in reality a most essential difference between the two affections. Ascites is generally the consequence of constitutional or of organic derangement, and is rarely cured; the affection in question is local, and does not produce much alteration in the general health; it is confined within the uterine parietes, and disappears after the Uterus is emptied. If, however, the latter state should unfortunately be mistaken for the former complaint, and a trocar should be introduced, the consequences would in all probability prove fatal; for the uterine structure would be penetrated by the instrument.

As such a mistake might prove so detrimental to the afflicted sufferer, I will endeavour briefly to state the chief grounds of distinction. Under a dropsy of the membranes, the woman has had all the incipient symptoms of pregnancy, feels satisfied that she is pregnant, increases rapidly and somewhat suddenly in size within the space of a short time, yet otherwise she seems in tolerable health. Under ascites the common symptoms of pregnancy are absent; there may indeed be an interruption of the menstrual discharge; but that defect originates in the derangement of the general health. The increase of size is usually less rapid; it gradually proceeds from week to week, under a diminished secretion of the urinary functions; there is an obvious loss of health, and the disease usually occurs at a period of life when conception is out of the question. But it may also happen, that true ascites shall be combined with pregnancy; yet it is a very rare occurrence. When this is the case, I presume that conception precedes the deposition of serous fluid within the abdominal cavity; for that state of the system, which disposes to ascites, is extremely unfavourable to conception. This association of disease with pregnancy would form a puzzling union of symptoms, which it would be extremely difficult to dissever and to explain; and which would require no small share of sagacity to detect, in order to avoid a mistake. In offering an opinion upon such a case, the judgment must be guided by those leading facts which present themselves to notice; especially by the presence or absence of the usual symptoms of pregnancy. Advantage must also be taken of those several indications, which are to be derived from a vaginal inquiry, and which the neck and mouth of the Uterus exhibit to the finger. The ascitic state would be without difficulty detected by the fluctuation under the hand; not so, that of pregnancy. The intervention of fluid between the uterine tumour and the hand, would cause that tumour to be indistinctly traced, or even sometimes to be scarcely perceptible.

A high degree of extension is also produced by the secre-

tion and accumulation of fluid within an ovarian sac. But this affection would chiefly be distinguished from the one under present inquiry by its very gradual progress, and by the slow advance which the enlargement from time to time makes. If, however, there should remain even a shadow of doubt in any case, whether the derangement may be ascites, ovarian disease, or the above-mentioned affection, it would be prudent to suffer the common term of pregnancy to pass over, before either a decisive opinion be given, or any active means of relief be taken.

CASE CXXIII.*

A lady, thirty-six years of age, the mother of several children, after the common symptoms of incipient pregnancy, soon after the completion of the fourth month, observed herself to become unusually large for that period of gestation; at the same time she complained occasionally of a violent pain in the side of the abdomen, which would attack her suddenly, and as suddenly disappear. There were at this time a quick pulse and a dry tongue, with scantiness of urine, which was thick and turbid, and not more in quantity than half a pint in discharged twenty-four hours. The swelling of the belly increased rapidly from day to day until fluctuation was perceptible; which at first was obscure, but afterwards became more evident. Her respiration was at this time quick and laboured; general emaciation took place; she appeared in great distress, yet the legs were not œdematous. The general symptoms now so nearly resembled those of an ascitic character, that it became doubtful whether she was pregnant or not. About the middle of January, 1812, a physician was consulted, who pronounced the case to be ascites, and prescribed diuretics. Soon afterwards she was seen by another physician, who was disposed to think the case one of ovarian dropsy; he prescribed purgatives, and mercurial ointment with camphor to be rubbed upon the abdomen. She was, after no long lapse of time,

* This case was furnished by an intimate friend, now no more.

seen by an eminent surgeon, who considered the case decidedly to be ascites, and proposed tapping. Under all the circumstances of the case, the operation was thought desirable; yet, as there had been some doubts about the existence of pregnancy, it was previously judged expedient to inquire into the state of the Uterus. A vaginal examination was accordingly made; upon which the Os Uteri was found a little open, and through it, a tense bag of membranes was detected; all further intended proceedings were therefore for the present suspended. Shortly after this examination, when the lady had reached something more than the fifth month of pregnancy, her usual attendant was called, in consequence of her being attacked with pains, which she considered to be labour-pains; at this time the belly was of an immense size. The pains presently assumed a more decided character; the Os Uteri was considerably dilated, with a tense bag of membranes protruding; through which he passed his finger, and a deluge of fluid immediately rushed out to the quantity of several gallons, flooding the room, and putting into requisition mops and cloths, to sop it up; upon this discharge the size of the belly immediately disappeared, and the Uterus began to contract actively. Notwithstanding this sudden evacuation of such a quantity of fluid, the woman merely complained of faintness. The labour-pains went on gradually to the expulsion of a dead fœtus under a breech presentation, apparently between the fifth and sixth month. The state of the uterine tumour induced a suspicion that there was a second child; this proved to be the fact. Uterine action was presently re-established, and another dead child was expelled. When the after-births were withdrawn, the Uterus was found to be well contracted; the woman afterwards went on well, and recovered her former health under common management within the usual space of time.

CASE CXXIV.

I was called to attend a lady in Leadenhall-street, in

premature labour about the seventh month of pregnancy, but immensely large in size. She had slight pains, and on making an examination, a large bag of membranes was protruded low down into the Vagina, even almost externally. After the lapse of a short time, finding the Os Uteri so fully opened, and the Vagina freely extended, I passed my finger through the bag, and instantly a large quantity of liquor amnii poured forth, of which I caught a wash-hand basin full; the rest escaped upon the bed and floor, to the amount of many quarts. The pains presently became active, and a dead child, in an incipient state of putrefaction, was in due time expelled by the natural efforts. The abdominal tumour still continuing large, I felt satisfied there must be a second child; which by a vaginal examination was detected to be presenting with the breech. The labour-pains soon recurred, and expelled this child alive. By another abdominal inquiry a third child was detected *in utero;* this child was also soon expelled by uterine action; and was smaller in size than either of the preceding two. The triplet Placenta was naturally separated, and was presently withdrawn. After delivery, the Uterus was found to be well contracted, and the subsequent lochial discharge was moderate. This lady was the mother of a large family, and recovered from this confinement as soon as after any of her preceding ones.

CASE CXXV.

About noon one Monday, I was called to a woman in Whitechapel, who had been in labour since the Saturday morning preceding, and the membranes had given way in early part of that day. The head, at the time of my visit, was at the brim of the Pelvis, without any apparent impediment to prevent its descent; the Os Uteri was opening, and the pains were frequent and active. I recommended the attendant accoucheur to watch the case, and to report its progress. In the evening, he informed me that the head was descending; that the woman's powers continued

good; and that he was desirous of waiting some time longer the result of the natural efforts. I visited this woman again on the Tuesday morning; the head was now somewhat lower; yet a large portion of it was still above the brim of the Pelvis, with the face to the pubes. She had now been in active labour more than seventy-two hours, and there did not seem much prospect of its being soon terminated without artificial assistance. We therefore determined to offer that assistance, and getting the forceps well applied, after some trouble, I extracted the head, and presently produced into the world a still-born child. But upon an abdominal inquiry, a second was detected in utero, which also presented with the head. A considerable discharge of blood presently took place, which induced me to rupture the membranes of the second child; the head was after a short time brought down within reach of the forceps, by means of which that child was extracted living. The mother appeared to be now very much exhausted, so that it was deemed prudent soon to withdraw the double Placenta. For some hours she continued in a very uncertain and low state; but at length she became better, and ultimately recovered.

CASE CXXVI.

At two P. M. on a Sunday, I was called by a professional friend to the assistance of a woman near Leadenhall Market. She had been in lingering labour for some days; one child had been expelled at one in the morning in a very putrid state; another was still in utero. Soon after the delivery of the first child, the woman had a violent rigor; about three in the morning her attendant accoucheur ruptured the second bag of membranes, but no uterine action followed. At the time of my visit, two P. M., the woman seemed to be considerably exhausted; but as the head was coming down into the Pelvis, and there seemed to be a disposition to a return of the labour-pains, I abstained for the present from any interference. I saw the woman

again at six P. M. when she was still not delivered; but the head was then somewhat lower, and within reach of the forceps; I therefore had recourse to that instrument, and soon extracted a dead child. After waiting some time for the descent of the double Placenta, I felt called upon to introduce my hand for its removal; a large portion of which was found to be adherent. When I called the next day, I unfortunately found the poor woman to be rapidly declining; she had never rallied from the state of depression under which she was delivered.

CASE CXXVII.

At eight A. M. Friday, my assistance was requested to a patient of the charity, who had been delivered at two in the morning of one child, with another behind in the Uterus. At the above hour, the abdominal tumour was large; there were occasional pains; and the second bag of membranes was entire; under these circumstances I did not think proper to interfere. At three P. M. I saw this woman again. The membranes were still unbroken; there had been but little uterine action; the woman was cheerful and well; but the presenting part was high and not readily detected. I now ruptured the membranes, and found the shoulder of the second child to be presenting; I therefore immediately proceeded to turn, and the child was born alive. After waiting some time for the descent of the double Placenta, a flooding commenced; upon an examination, both portions were quite out of reach. The continuance of the flooding induced me, without much loss of time, to introduce my hand for its removal; upon this act, one part was found to be so firmly adherent to the uterine surface, as to require great care and trouble in its separation; and during that separation, the hæmorrhage was violent, but the woman did not positively faint. I left her under a state of improvement, and promising to do well;

but I afterwards learnt, that after my departure she began to droop, and expired within twelve hours after delivery.

CASE CXXVIII.

About the middle of the day, my assistance was requested to a woman in Whitechapel, who had had one child born more than two hours, with a second behind. The second child presented with the shoulder, and the membranes had been ruptured more than an hour, without the presentation having been detected; as soon as the nature of the case was recognised, an unsuccessful attempt to turn the child was made by the medical attendant; after which I was called. Having determined that the case was as described, I proceeded to turn the child, and effected my object without much trouble; but the child was still-born. The double Placenta presently followed, and the woman did well.

CASE CXXIX.

On the evening of Thursday, I was summoned to a patient of the charity in Bethnal Green, who had been delivered of one child thirty-six hours, with a second *in utero*, without flooding or any bad symptom connected with the labour. The woman was young, but her legs were very œdematous. and this was her first pregnancy. The head was presenting; the membranes were entire; and there had been no disposition to a return of uterine action from the birth of the first child. Notwithstanding that the head was presenting, I deemed it to be the most prudent practice to relieve the woman by immediate delivery; I therefore introduced my hand, readily turned, and brought into the world a living child. The double Placenta presently followed. In a week after, the œdematous state of the legs had much subsided, and the mother was suckling both her children.

CASE CXXX.

My opinion was asked by a professional friend upon the case of a woman who had been delivered of a living child the day before, with a second child in utero; and who, from the time of the expulsion of the first, had lost all further return of the labour-pains. I told my friend, that if the case had been under my own management, I would not have allowed so much time to have passed over without delivering the second child; but that, as it did not appear that the woman had suffered hitherto any inconvenience, I could not advise immediate delivery. On the evening of the following day, my assistance was requested, as the woman still remained undelivered of the second child. On the preceding morning, she had suffered under a violent shivering fit, which lasted a quarter of an hour; but between the expulsion of the first child and the present time, there had been but few active pains, and the woman seemed much exhausted. The child's head was entering the Pelvis with the forehead to the pubes. It now seemed desirable that this protracted labour should be terminated; I therefore extracted the head by instrumental means, and the rest of the child was expelled by uterine action. After delivery ef the child, the woman began to flood seriously, and the Uterus was to the external feel flaccid and uncontracted. The hæmorrhage continuing, I found myself obliged to remove the double Placenta by the introduction of the hand, a portion of which proved to be adherent.

After delivery, there was little external discharge, but the woman complained of being very ill; indeed, the Uterus had become again relaxed, and was more enlarged. On pressure, a quantity of blood was discharged, so that internal hæmorrhage was going on; by a grasping pressure the Uterus was made to contract; but the woman was left in a most perilous state.

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CASE CXXXI.

One Wednesday about noon, my assistance was requested to the wife of a tradesman in the neighbourhood of London. I learnt from her husband, "that his wife had been delivered of one child under the care of her medical attendant on the Monday night about midnight, and that there was a second child behind, which the doctors could not bring away." On my arrival at the woman's residence, I found the above representation correct. It appeared, that after the birth of the first child, uterine action had not been resumed for the expulsion of the second; that no particular loss of blood had taken place to create anxiety on that account; that the medical attendant had been passively waiting for many hours in expectation of the return of the labour-pains, without even detecting the presentation of the second child; that on the Tuesday, another medical man was called in, who on the same evening made some attempts to deliver the woman, which had not been successful.

On a vaginal examination, I detected a preternatural presentation. The child was lying across the brim of the Pelvis with the left shoulder presenting, a state which had hitherto not been recognised; and to satisfy the gentlemen present that such was the fact, I brought down the left hand through the external parts. I found the Uterus so firmly contracted upon the body of the child, that I thought it impossible to pass up the hand sufficiently high within its cavity, so as to alter this malposition of the child, without doing injury to its structure, for the Uterus had been silently contracting upon its remaining contents for the space of nearly forty hours since the expulsion of the first child, which was living. How to set about delivering this woman I scarcely knew, for turning the child appeared to me impracticable, and quite out of the question. After some consideration I determined upon evisceration in the first instance, and afterwards upon taking advantage of such favourable events as might ensue. With these inten-

tions, I got the fingers of my left hand firmly fixed against the chest of the child, and with my right hand I pushed the perforator into its cavity, and withdrew such of its contents as were within reach. I then introduced the crotchet, and getting a firm hold, I made extraction. Presently I found that the instrument had fixed itself upon the left clavicle, and that the left arm was in danger of being torn off; I therefore withdrew the crotchet, and tore off the arm. Now re-introducing the instrument, and obtaining a fresh extractive purchase, I soon observed a considerable descent of the parts to which the crotchet was fixed, so that the neck of the child came within reach; over the neck I first applied a common blunt hook, and by its side my cutting hook or decapitator, with the intention of severing the neck; but in that attempt, the head, with the chest bent upon itself, were brought suddenly through the Pelvis, and the remainder of the child soon followed. There was no trouble with the Placenta, or much subsequent loss of blood.

I saw this woman ten days afterwards, when she was promising to do well.

CASE CXXXII.

Some time ago I was requested by a medical friend to give him my opinion on a case of labour in Whitechapel, in which he was then engaged. The woman had been in labour more than forty-eight hours, and the membranes had given way in the early part of the process. An examination detected the head at the brim of the Pelvis, without any apparent impediment to its descent, and the pains were sufficiently active. Unwilling to take any decided step under this state of things, I begged to be informed of the state of the labour in a few hours. After a lapse of six or eight hours, my friend seemed desirous of trusting a little longer to the effect of the natural efforts. After a further lapse of time, I saw the woman again, and not finding an advance in the process equal to my expectation, I

determined upon having recourse to the forceps; and getting the instrument well applied, I presently extracted a still-born child. An abdominal inquiry detected the presence of a second child in the Uterus, which also presented with the head. A considerable discharge of blood now taking place, and the head being protruded into the Pelvis, I applied the instrument a second time, and presently produced a living child into the world. The woman now appearing considerably exhausted, I had an early and satisfactory resort to the removal of the double Placenta by the hand. The woman eventually did well.

CASE CXXXIII.

At five one morning in November, I was called to the assistance of a medical gentleman, who was attending a woman in the outskirts of London, who was stated "to have been delivered of the child some time before; and to be suffering under a dangerous flooding." Upon inquiry, I found that there was a second child *in utero*, and that the mother was under a state of great exhaustion. It appeared, that the attendant, after the birth of the first child, had got hold of the Funis, and had made an attempt to withdraw the Placenta thereby, by which improper proceeding he had induced a violent hæmorrhage. He now made an inquiry after the Placenta, and was surprised to find a second child presenting with the shoulder. This discovery, added to the hæmorrhage, quite disconcerted him, and induced him to beg my assistance without delay. I immediately proceeded to turn the child, and was much assisted in its extraction by uterine contraction; after its birth, the double Placenta was presently withdrawn. The mother was left in a very uncertain state, but she eventually recovered.

CASE CXXXIV.

About half after four P. M. my immediate attendance upon a woman in the eastern suburb of London, repre-

sented to be in a state of great danger after delivery, was earnestly solicited. She had been in slow labour through the greater part of the preceding night, to the hour of one P. M. this day, when a living child was naturally expelled; another was immediately detected, which was also expelled about half-after two. After waiting some time, the attendant made an attempt to extract the double Placenta, but managed only to withdraw one portion, and to break off the Funis of the other portion, leaving its mass behind. He then introduced his hand with the intention of withdrawing that portion which still remained *in utero*, but was foiled in that attempt. The consequence of this mode of proceeding was a most violent flooding, which resisted all the efforts made to check it. In this dilemma, a neighbouring practitioner was called in, who did not choose to interfere in so dangerous a case; and therefore an appeal was made for my prompt assistance. This woman was already in the last stage of life from loss of blood, induced by the adhesion and detention of a considerable part of the placental mass; I had therefore no other alternative than to withdraw it by the introduction of the hand, and a careful separation of the adherent portion. Having effected that object, active means were used for the purpose of sustaining the remaining powers of life; but they proved of no avail, for the woman did not survive the removal of the Placenta more than half an hour.

ON ABORTION.

Abortion, or miscarriage, implies the premature expulsion of the contents of the impregnated Uterus. This misfortune may take place at any intermediate time between the act of impregnation, and the completion of the common term of pregnancy: but either of the preceding words is more generally applied to that occurrence in the early stages of gestation. The expulsion of the uterine contents after the seventh month of pregnancy, may be more properly termed "premature labour."

The impregnated Uterus of woman seems to possess a greater propensity to eject its contents prematurely, than the same organ in the brute creation; yet, our domesticated animals are not entirely exempted from this accident. It is now and then observed by those men, to whom the care of cows and of sheep is entrusted, that in an unlucky moment, one of these animals has expelled her expected progeny in an imperfect state. This greater propensity to miscarriage in the human species, may partly be ascribed to the singular difference in the structure and mode of attachment of the Placenta; partly to a greater degree of susceptibility in the uterine system, combined with the continued indulgence of the animal passions; but chiefly, perhaps, to a higher rate of mental perfection, and of nervous excitability.

Abortion also is a more frequent occurrence, in any given number of women, among those moving in the higher and better spheres of society, than among those of a more humble and a lower grade. A natural delicacy of constitu-

tion is almost the inseparable result of habits of indolence and indulgence; while a degree of masculine firmness is imparted by hardship and exertion. Under the former state, the female body becomes unfitted for the due performance of its destined functions; under the latter, the animal processes are conducted with a greater degree of vigorous energy; so that although such women are more exposed to the casualties of life, they are the less affected by them. Yet miscarriage is in every grade a source of anxiety and disappointment to a married woman; not only as far as her personal sufferings and her future health may be implicated in the event; but also in the extinction of the pleasing prospect of becoming a mother.

When the impregnated ovum has been received within the Uterus, a stimulus of growth is communicated to that viscus; at the same time, a vascular structure is originated around the volume of the ovum, which becomes the medium of attachment to the uterine membrane; whence, for the present, are derived the means of nourishment. After the lapse of some weeks, the uterine vessels seem to be more particularly directed to one part of the organ, at which the formation of the Placenta takes place; this mass then assumes the functions of the preceding mechanism, and furnishes exclusively the supplies of future development to the fœtus. The enlargement of the Uterus, the growth of the embryo, and the evolution of the Placenta, are progressive and simultaneous; each and all are dependent upon the continuance of that vital principle, which was imparted to the ovum at the moment of conception. As long as the ovum remains in possession of that principle, it regularly acquires a state of greater maturity; but as soon as it is bereaved of vitality, all the coincident actions derived from that source, are immediately intercepted, and cease altogether. The uterine contents then become nothing more or less than a mass of dead animal matter; they neither impart any farther stimulus to the uterine system, nor do they derive any advantage from its previous state of excitement; the further evolution of the Uterus also from

this moment ceases. Under this state, the viscus may either remain for an uncertain time, or another process may be established within its parietes, by which it is enabled to rid itself of its lifeless incumbrance.

The principle of vitality is more feeble, and therefore is more easily destroyed from any given cause, in the early stages of pregnancy, than at a more advanced period. Hence we constantly find, that abortion is a more common accident before the time of quickening than after that occurrence; and it more frequently happens about the tenth or twelfth week of pregnancy, than at any other intermediate time of the whole term. The act of conception and the process of pregnancy are functions involved in such a degree of mystery, that it may be difficult to assign a satisfactory reason for the frequent occurrence of miscarriage at this particular time; yet I am inclined to attribute such frequency to some imperfection in that change in the circulation above noticed, which is about this time effected.* But let it not be supposed, that by the act of *quickening*, the fœtus is influenced by any new agency, or becomes possessed of a different mode of existence. The sensations which the mother experiences under the movements of the fœtus, merely indicate, that her infant has attained such a degree of perfection, as to be capable of imparting a sense of motion to her feelings; whereby it is the better enabled to resist any injurious impression, which might previously have exerted a baneful influence.

The common opinion, which has hitherto pretty generally prevailed on the subject, and which even now in some measure influences the proceedings of our courts of law on the point, is this; "that the fœtus in utero does not possess *life*, till after the time of quickening." This notion, both in a medical and philosophical sense, is erroneous and absurd. The embryo before quickening, as well as the uterine contents destined for its service, either possess the principle of vitality, and are alive in the strictest sense of the

* I have not been able to detect the formation of the Placenta and Funis, are the completion of the third month of pregnancy.

term; or they are bereft of that principle, and are lifeless. I cannot suppose an intermediate condition, unless that implied under the term *blighted ovum*, can be so considered. In the former state, they are enabled to proceed onward to improvement from week to week; in the latter, they remain stationary, and neither give nor receive any beneficial impression, as long as they remain within the Uterus. To the wilful destruction of fœtal life after quickening, or in legal language, "after the woman is quick with child," is awarded upon conviction, the severest penalty of the law; to that destruction before the time of quickening, is awarded an inferior punishment. Yet, in a moral point of view, the latter act is equally heinous; it is perpetrated with the wicked intention of destroying the fruit of the womb; of preventing the production of a human being into the world, in a state of perfection.

The causes of abortion are numerous and various; the greater part of which originate in the mother. The agency of some of them is obvious to the senses; that of others is so obscure, as not to be readily cognisable. There may be also some latent causes of this misfortune dependent upon the embryo itself, with which we are still less acquainted. Now, I think it is pretty evident, in order that the functions of pregnancy should proceed uninterruptedly, that the Uterus should impart, and that the embryo should receive simultaneously, certain vivifying influences which originated at and by conception. Any occurrence, therefore, which can tend in any degree to intercept or to impair that mutual intercourse, must become an immediate, or a remote cause of miscarriage, either in a direct or an indirect manner. Among its more immediate and direct sources may be ranked external injuries; accidents; sudden excitement; strong mental impressions; and similar active agencies: among its indirect and remote causes, must be reckoned, natural delicacy of constitution; great irritability; uterine irritation from disease; and other latent affections. The former bring about their injurious consequences by a partial or total detachment of the ovum from the mother; the

latter, by inducing a gradual extinction of the vital principle in the embryo.

The course of a miscarriage is as variable as the cause, not only in different individuals, but in the same woman under different attacks. In some cases, the ovum slips, as it were, entire out of the Uterus, with few previous or concomitant symptoms. In other instances, it is thrown off piecemeal with extensive floodings, pain, and other alarming attendants. But the first threatenings are usually accompanied by more or less of a sanguineous discharge, which is sometimes rapid, fluid, and in large quantity; producing pallor of countenance, faintness, and other symptoms of hæmorrhage. At other times, the blood flows slowly, being rather a drain than a flooding, with the occasional discharge of coagula of variable size. The woman usually complains of some obscure pains about the loins and lower part of the back, through the Pelvis, and down the thighs; which, after continuing for some time slight, gradually increase in power, and at length become somewhat expulsive; in this state they are similar to the throes of labour, only slighter in degree and effect; they are also established for a similar purpose, that of ridding the Uterus of its contents. If the ovum should be detached from its uterine connexion, and especially if it be expelled, the pains cease, yet a draining is afterwards kept up for some days. But it may also happen, that although the uterine contents, in the early stages, may be detached from their uterine connexion, they are not entirely excluded; they may remain loose within the uterine cavity, or in the Vagina, from either of which, after the lapse of an uncertain time, they make their escape, either in an entire, or in a mutilated state. In the latter case, the discharges sometimes become offensive and irritating,

The quantity of hæmorrhage under abortion is not always proportionate to the period of gestation; for sometimes the loss of blood is so rapid, even in the early stages, as speedily to induce symptoms of an alarming tendency. Yet a woman rarely loses her life, however threatening the symptoms

may appear, at an early period of pregnancy; unless indeed, the hæmorrhage should be connected with uterine disease. Even under a miscarriage in a more advanced stage, in which the enlarged diameters of the uterine vessels enable them to pour out their contents with increased violence, a fatal issue does not frequently ensue; for after a time, uterine action is commonly established, and the uterine contents are expelled. That action, however, is generally exerted with more regularity and with greater activity in proportion to the uterine development, so that the hazard from hæmorrhage is thereby much diminished.

Even previous to the appearance of those symptoms which are usually indicative of miscarriage, an intelligent practitioner will frequently be led to suspect, that the process of pregnancy is not going on satisfactorily, or even perhaps, that it is altogether interrupted; from the absence or disappearance of those feelings with which its early stages are commonly accompanied. Of these feelings, the most common are "enlargement of the mammæ," and that peculiar sensation, which (from its generally assailing a woman in the morning, upon the change from a recumbent to an erect posture) has been always called the "morning-sickness." Now, if from any internal and latent cause, the vitality of the embryo should be destroyed, the breasts lose that increase and firmness which they had so lately acquired, and the morning sickness disappears. I will not enter into any physiological disquisition respecting the cause of the latter singular symptom, nor will I attempt to define the benefits imparted by it to the mother or to the embryo; (but that it answers some good intention under the process, I have no doubt;) it is enough for my present purpose to state, that it is almost always a regular attendant upon the early stages of pregnancy as long as that process is in an active vigorous state. Should that process become interrupted, the morning sickness ceases to be troublesome; and even in those few women, in which it is entirely absent, utero-gestation does not proceed with its usual regularity and activity.

It has occasionally happened to me, upon visiting a lady in early pregnancy, to hear her complaining heavily of this troublesome symptom, and urgently requesting some means of relief. Upon seeing the same lady a few days after, she has told me, with feelings of high satisfaction, "that she has now lost her troublesome companion, and is quite well." An unfortunate change has, however, taken place within her Uterus of which she is little aware, and of which there are at present no visible symptoms; but of which the unhappy consequences will most likely by-and-by be seen. The sudden disappearance of this symptom should therefore put a medical man upon his guard; nay, it may even lead him to predict the probable result.

In cases similar to that above described, as well as in others, in which symptoms of miscarriage have made their appearance, no means of art can prevent the untimely sequel. For such a check has been already given to the process of pregnancy as is inconsistent with its further progress; and the uterine contents must be eventually thrown off. In other cases, the process may be only slightly deranged, and by care and management the symptoms may admit of correction. Yet the distinguishing line between these two states, so absolutely different, may be so lightly coloured, as even to elude the closest observation. Under this uncertainty then as to the consequences, it will be the best line of policy to view each in the same light, and to act in both in such a manner, as if we were in the positive possession of the certain means of preventing the dreaded misfortune. This mode of conduct will at least prove the least injurious; if not really beneficial.

The first threatening symptom of abortion is usually what is called a *show*, a mere draining coloured discharge. In some instances, and especially within the two first months, this appearance is suspected to be a return of the menstrual period, which had undergone a suspension; but its continuance or increase, with the accession of pain, by-and-by removes that impression. When pains are once established, they proceed in a milder or a more active manner, to the

expulsion of the ovum, under varied symptoms in different instances.

Now in every case, in which there is reason to believe that the woman is pregnant, upon the appearance of any coloured discharge, she ought to be strictly confined to a recumbent posture. Her nourishment ought to be of the lightest description, and if in a fluid form, it should be taken nearly cold. The bowels should be so regulated, that they may neither be confined, nor be purged. Each extreme is injurious. The medicines usually prescribed are taken from that class termed astringents; such as the infusion of roses, with or without an increased quantity of acid, or with alum; and others of a similar tendency.

It used to be customary upon the appearance of a coloured discharge under pregnancy, to have immediate recourse to abstraction of blood, and commonly in a tolerable quantity. This practice, however, is now almost exploded, and, in my opinion, justly so. I have seen few instances in which the detachment of the ovum, the proximate cause of the hæmorrhage, could be traced to violent action in the blood-vessels of the mother. I have more frequently suspected that the reverse state has prevailed in her system. Bleeding without discrimination, therefore, must more frequently prove injurious, than beneficial. Besides, no person can possibly prejudge the quantity of the vital fluid, which may be lost under the abortive process, if it should go on. Viewing then the effects of blood-letting in their proper light, it can scarcely be considered a preventive of the threatened mischief.

In the progress of every miscarriage there are two prominent features; the loss of blood, with the varied symptoms which it induces; and the pains. With regard to the miscarriage considered abstractedly, it is a matter of little moment; nor are the pains, in the same point of view, of much importance, as far at least as danger is concerned; since they are established for the purpose of enabling the Uterus to expel its useless incumbrance; so far, therefore,

ON ABORTION.

Abortion, or miscarriage, implies the premature expulsion of the contents of the impregnated Uterus. This misfortune may take place at any intermediate time between the act of impregnation, and the completion of the common term of pregnancy: but either of the preceding words is more generally applied to that occurrence in the early stages of gestation. The expulsion of the uterine contents after the seventh month of pregnancy, may be more properly termed "premature labour."

The impregnated Uterus of woman seems to possess a greater propensity to eject its contents prematurely, than the same organ in the brute creation; yet, our domesticated animals are not entirely exempted from this accident. It is now and then observed by those men, to whom the care of cows and of sheep is entrusted, that in an unlucky moment, one of these animals has expelled her expected progeny in an imperfect state. This greater propensity to miscarriage in the human species, may partly be ascribed to the singular difference in the structure and mode of attachment of the Placenta; partly to a greater degree of susceptibility in the uterine system, combined with the continued indulgence of the animal passions; but chiefly, perhaps, to a higher rate of mental perfection, and of nervous excitability.

Abortion also is a more frequent occurrence, in any given number of women, among those moving in the higher and better spheres of society, than among those of a more humble and a lower grade. A natural delicacy of constitu-

tion is almost the inseparable result of habits of indolence and indulgence; while a degree of masculine firmness is imparted by hardship and exertion. Under the former state, the female body becomes unfitted for the due performance of its destined functions; under the latter, the animal processes are conducted with a greater degree of vigorous energy; so that although such women are more exposed to the casualties of life, they are the less affected by them. Yet miscarriage is in every grade a source of anxiety and disappointment to a married woman; not only as far as her personal sufferings and her future health may be implicated in the event; but also in the extinction of the pleasing prospect of becoming a mother.

When the impregnated ovum has been received within the Uterus, a stimulus of growth is communicated to that viscus; at the same time, a vascular structure is originated around the volume of the ovum, which becomes the medium of attachment to the uterine membrane; whence, for the present, are derived the means of nourishment. After the lapse of some weeks, the uterine vessels seem to be more particularly directed to one part of the organ, at which the formation of the Placenta takes place; this mass then assumes the functions of the preceding mechanism, and furnishes exclusively the supplies of future development to the fœtus. The enlargement of the Uterus, the growth of the embryo, and the evolution of the Placenta, are progressive and simultaneous; each and all are dependent upon the continuance of that vital principle, which was imparted to the ovum at the moment of conception. As long as the ovum remains in possession of that principle, it regularly acquires a state of greater maturity; but as soon as it is bereaved of vitality, all the coincident actions derived from that source, are immediately intercepted, and cease altogether. The uterine contents then become nothing more or less than a mass of dead animal matter; they neither impart any farther stimulus to the uterine system, nor do they derive any advantage from its previous state of excitement; the further evolution of the Uterus also from

tumour in a thin spare woman, may be distinctly felt through the abdominal parietes. The mammary fulness also subsides; the breasts become soft and flabby; and the countenance is deprived of its natural and healthy aspect. If quickening had taken place, the woman loses all perception of that internal movement which she had been accustomed to experience; and instead thereof, she has a sense of weight and coldness. The time which may elapse under this lifeless state of ovum, without the appearance of expulsive symptoms, is variable, from one week to several months; but expulsion must sooner or later be expected; yet I think that the period of time thus elapsing is generally shorter at an early period of pregnancy, than at an advanced one. If the fœtus should lose its life at the fifth or sixth month, it is not unfrequently retained till the expiration of the usual term of gestation. The case may be suspected by the suspension of the common symptoms of progressive pregnancy; and this fact seldom fails to impress the patient with the idea that everything is not going on correctly; a degree of anxiety is in consequence excited, partly on account of the welfare of the mother, and partly in the disappointment which must necessarily ensue from the loss of the babe; yet it rarely happens that any serious mischief attends, or follows that process, by which the Uterus is relieved of its inanimate inmate.

Symptoms similar to those attendant upon abortion are sometimes excited under the expulsion of other formations within the Uterus, than that of a regular conception. In such instances, the nature of the case can only be determined by a correct examination of the substance expelled. Under that formation which bears the name of *mole* or false conception, we see many of the symptoms of incipient pregnancy, which induce a woman to believe herself to be in that situation; yet, as time passes on, she does not find that quickening takes place; or that the abdominal enlargement keeps pace with the supposed period of pregnancy. She presently begins to have her doubts, whether her previous anticipations can be correct or not. After continuing in this state for an uncertain time, with perhaps little alteration in

her general health, she is seized with hæmorrhage to a less or to a greater extent, followed by pains which ultimately terminate in the expulsion of a solid lifeless mass, variable in size and appearances in different cases, yet totally unlike a regular ovum. After this expulsion, the Uterus regains its pristine state, and may possibly become subsequently impregnated. With respect to the source from which such formations emanate, a great diversity of opinion may exist; for my own part, I suspect, that they frequently originate in a blighted ovum, which retains its adhesion to the Uterus, and thence derives its means of increase for a time. Be this the case or not, I am not aware that art possesses any power of preventing their formation. We must therefore be satisfied with this fact, that they are now and then formed, and that after a time they must be expelled.

A similar set of symptoms are also induced under the formation and expulsion of hydatids from the Uterus. We have in this case many of the symptoms of early pregnancy, which proceed onward for a time, and then terminate in the expulsion of the diseased structures, with flooding and other inconveniences. But there is this peculiarity attached to the formation of uterine hydatids. If the whole of these substances be not detached and expelled by uterine action, they are readily reproduced; in which case we shall have again a subsequent enlargement of the Uterus. But if the Uterus should rid itself entirely of them, that organ soon regains its original state.*

* Some years ago I was called to Hoxton, to visit the wife of a publican who was said to be in a state of the greatest danger from miscarriage. Upon entering the apartment, I saw a woman apparently in the last stage of life from loss of blood. Upon inquiring of the medical gentleman, who had been previously called, the nature of the case, he told me that his patient had miscarried, but that it was the strangest miscarriage he had ever seen, and immediately showed me a wash-hand basin nearly full of hydatids hanging together in grape-like clusters. I recognized the case instantly, and going to the patient, I plied her plentifully with brandy. The stimulus answered the purpose; she began to rally, and by-and-by showed pleasing symptoms of recovery. The next day she was much improved; and from this time, she gradually got well.

Another kind of miscarriage, not a little perplexing both to the patient and to her medical attendant, sometimes occurs; yet it is comparatively rare. A woman, for instance, conceives, and has the usual symptoms of incipient pregnancy. The process advances for a time, perhaps to near, or about the third month; when, after moderate symptoms of abortion, she passes a perfect ovum. In due time she recovers her health, and believes herself, having thus got rid (as she supposes) of the uterine contents, to be free from the state of pregnancy. Notwithstanding this occurrence, after a further lapse of time, the woman becomes doubtful of her real situation; she finds, that symptoms of pregnancy still appear to continue progressive; her abdomen enlarges; and in a month or two, she feels a decided sensation of movement within the Uterus. This renders her situation still more unsatisfactory, as the woman had an idea that she had miscarried. The size of the belly gradually increasing, at the end of nine months from the time at which she dated her original pregnancy, she brings into the world a full-grown living child.

The solution of this uncommon case, which may readily be mistaken for a state of organic disease, is simply this. The woman has originally conceived of twin ova, one of which escapes, or rather slips out of the Uterus, without producing much disturbance to the welfare of the other. At least such a degree of disturbance is not excited as necessarily to intercept the further progress of gestation. The reserved ovum proceeds onwards to perfection, and a living child is expelled at the end of the common term of pregnancy. If the abortive process had been severe, or if both ova had lost their vitality, expulsion of both would necessarily have been the consequence.*

* About the middle of December, 1828, a lady consulted me at my own house respecting her situation. She stated, "that she was the mother of several children; that she had miscarried on the fifth of November preceding, under the usual symptoms; that her medical attendant saw the miscarriage, who seemed satisfied of the fact, and pronounced the ovum to be one at the third month; that before she passed it, she had some discharge, but none afterwards; and that, not-

In the year 1813, a gentleman from the country transmitted to me the following account. "About the time of quickening, a lady, a near relative of my own, experienced the usual symptoms of abortion, and after a time, passed the ovum. She presently recovered, but continued large in the belly. At the expiration of eighteen or twenty weeks from the time of the miscarriage, her accoucheur was sent for, with a request for his immediate attendance, as she was in labour. The doctor said it was impossible, as he had attended her but five months before, when she miscarried; and if she was in labour, she could not be at her full time. Upon his attendance on his patient, however, he found the fact was as stated to him; she was presently delivered of a full-grown male child, and did well."*

A case, somewhat the reverse of the preceding, is now and then met with, which may also be considered as a species of abortion, and which I have denominated a *secondary fœtus*. A woman, for instance, conceives of twins, and one of them, from some cause or other, is deprived of vitality, while the other proceeds onward to perfection. When labour comes on, a living child is in due time expelled, of a maturity appropriate to the term of pregnancy at which the woman may have arrived; afterwards another ovum escapes of less perfect development. Symptoms of miscarriage may possibly have taken place at some period of the term; but they have

withstanding she had presumed that she had already miscarried, she had continued to increase in size, and was satisfied from her own feelings that she was still pregnant; if so, that she must be between four and five months advanced in pregnancy, yet she had not quickened." The uterine tumour was hard and solid under the hand, and the breasts were firm. I told her that it was possible she might have conceived of twins; and that one might have been passed. I heard no more of this lady, until the 5th of May, 1829, when her next-door neighbour informed me, that she had been safely delivered of a full-grown living daughter the day preceding, and was doing well.

* In Vol. ix. p. 194, Medico-Churgical Transactions, a case is related by Mr. Chapman, Surgeon, Windsor, in which one ovum was expelled at the sixth month of pregnancy, but which seemed to have lost its vitality some time before, since it appeared of not more than three months development, with the Placenta attached. The woman afterwards went on to her full time, and was delivered of a living child; that is, three months after the above occurrence.

subsided without the expulsion of an ovum, and gestation has gone on to the time of labour. Now the following fact has occurred to me in several instances. An imperfect ovum has been deprived of the means of growth and evolution for months, and has been retained in a lifeless state within the Uterus, yet upon its expulsion, it has exhibited no marks of putrefaction. This imperfect ovum has been, in some instances, expelled entire, the embryo being contained within its surrounding membranes; in others, the liquor amnii has been discharged, and the immature fœtus has escaped devoid of covering. It may also happen, indeed, that the liquor amnii may have been discharged under the previous abortive symptoms, and the fœtus alone retained; by the regular enlargement of the living ovum, the dead animal matter is then compressed against the uterine parietes, so that, upon its expulsion, it assumes some different form and shape; it is usually squeezed into a flattened mass. The two Placentæ are frequently connected together; one part of which has commonly reached a more perfect degree of maturity than the other.

I have above hinted that, notwithstanding the immature ovum may have lost the living principle for a length of time, and have been retained in a situation apparently favourable to the putrefactive process, no tendency to that change is observed. It is, however, frequently found, that if a single conception should lose its vitality, and be afterwards detained within the uterine cavity, even for the short space of a few days, the animal structure, upon expulsion, will frequently exhibit marks of considerable advance towards putrefaction. To what principle then can we refer that tendency in the latter instance, rather than in the former? It appears to me, that the continuance of those functions (of that living energy), by which fœtal life is sustained and matured, imparts a *something* to the lifeless ovum sufficient to counteract the effects of the putrefactive process; and that, although threatening symptoms of miscarriage may have appeared, and have subsided, the general process of gestation has received little interruption, but advances onward to its specific purpose, the perfection of a living being.

That two children of different size, and to all appearance of different age, could be contained within the Uterus at the same time, was a fact, which had not escaped the notice of the ancients; but it was attributed to *super-fœtation*. By that term is meant the possibility of a second impregnation, when pregnancy has been already some time established; when the process has made some advance. But an enlightened physiology has nearly exploded the idea of that occurrence; it is therefore quite unnecessary for me to engage in its refutation. Suffice it to observe, that after conception has taken place, the Os Uteri becomes entirely closed up by a mucous secretion furnished by its own structure, which intercepts all communication between the uterine surface and the Vagina. Without, then, referring this singularity to *super-fœtation*, the case is sufficiently explained upon this presumption; that conception of twins has taken place at the same moment; that for a time they have proceeded simultaneously together; that at length, one of the twins is bereft of life, and thence, ceasing to increase, remains stationary within the Uterus; that the other gradually progresses to perfection, with the usual appearances of pregnancy; and that, under the act of labour, both are expelled; one in a state of complete maturity, or nearly so; the other far less advanced towards perfection.

The prevention of miscarriage is a desideratum of no little importance; yet it is an object which cannot always (nay indeed it can rarely) be accomplished; for although the symptoms to external appearance may not be very threatening, the living principle in the ovum may be already destroyed. At least, such internal disturbance may at the moment have taken place, as does not admit of correction. But under the positive ignorance of either state, the probable means of effecting such a desirable event ought never to be entirely neglected.

When a woman has repeatedly aborted at the same period of pregnancy, it is almost impossible to prevent the recurrence of a similar mishap under a subsequent impregnation. It assumes the appearance of habit, the consequences of which

are with difficulty counteracted. The Uterus in some instances appears to be unable to suffer itself to be extended beyond a certain degree; so that its proper evolution ceases, and the necessary wants of the ovum are denied. In other cases, the life of the fœtus seems to be destroyed by some accidental occurrence. Yet the defect, whether it may depend upon the mother, or upon the embryo, is generally so obscure, as to elude detection, and to permit no counteraction. As the predisposing cause must be variable in different instances, the practice in each must be suited to the presumed evil.

Should a woman, placed under the above circumstances, become again impregnated, every source of mental and animal excitement ought to be carefully avoided, and a state of positive quiet should be rigidly enjoined. The most trifling occurrence will sometimes induce symptoms threatening miscarriage: and even that apprehension, which is constantly foreboding an unhappy event, is highly detrimental to the progress of pregnancy. Yet in many other instances, the Uterus appears to be so tenaciously retentive of its contents, that very serious bodily mischief is not productive of abortion. In the prevention of that misfortune, general management is rather to be relied on than the effects of medicine; for unless there should seem to be some evident constitutional defect, or a natural indolence of the intestinal canal, the influence of medicine can prove of little avail. Regularity in diet, in the time of the different meals, in the hours of retiring to rest, and of rising in the morning, are points not undeserving attention. Heated and crowded rooms ought to be carefully avoided. But another matter also, of perhaps greater importance than any of those above-mentioned, (yet one of so delicate a nature, that it can scarcely even be hinted at with any degree of propriety,) ought not to be overlooked; I allude to a temporary separation of husband and wife. I feel firmly persuaded in my own mind, that the uterine excitement arising from marital communication, is in many irritable women, highly detrimental to that internal process

which is already established. A plausible pretext for bringing about such a desirable yet unpleasant object can seldom be wanting.

The interval between a miscarriage and another conception, may be beneficially employed, in a recourse to such general means as seem the best adapted to remedy that defect, which appears to be the cause of the repeated mishaps. The Uterus ought to be allowed to lie fallow, as it were, for a time, that the organ may recover from the effects of that shock which it has so lately undergone; and that it may regain a due tone and energy for a future impregnated state; for women liable to miscarriage are apt readily to conceive again. It rarely happens that a plethoric disposition prevails in such women; it will therefore be seldom necessary to have recourse to bleeding and to active evacuations. It will more frequently be found that a reverse state of the system is present; that there is a want of vigour in the functions of the different organs, especially those of the stomach, of the intestinal canal, and of the secreting and absorbent systems connected with them. To improve this state must be the object of medical attention, by such means as seem the most appropriate to each case. To the aid of medicine may be added regulation of diet, the use of cold or sea-bathing, exercise on horseback, and other means likely to assist the general intention. If leucorrhœa, or other vaginal discharge should be troublesome, its relief may be attempted by astringent injections; but a recourse to such means is seldom admissible, after impregnation has taken place.

Upon recovery from an abortion, it is not uncommon for a woman to complain of a *bearing down*; of a tendency to prolapsus uteri. This inconvenience is perhaps a more frequent occurrence after miscarriage, than after a regular labour. It is commonly produced by the patients too soon giving up the recumbent posture, and assuming an erect one, with subsequent exercise. Little annoyance may possibly have been experienced under the preceding symptoms of abortion; and after the lapse of a few days, finding

herself tolerably well, the woman is unwilling to submit to longer restraint; she leaves her room, and resumes her usual occupations. Although apparently free from local or general ailment, those internal changes consequent upon the expulsion of the uterine contents are imperfect and incomplete. The Uterus remains larger and heavier than before impregnation; its supporting ligaments are unable to sustain it in its natural situation; there is, therefore, an unusual sense of weight and pressure downward. The vaginal membrane also, having so lately undergone relaxation and extension, may not have regained sufficient tone and elasticity to enable it to add its influence to the proper support of the Uterus.

A recurrence of hæmorrhagic discharge also occasionally takes place upon stirring about and using exercise, even after the usual appearances have ceased for several days. This return is dependent upon a want of due contraction in the uterine vessels, and upon their extremities being again forced open by an erect posture and exertion.

For the relief of each of the states above described, a recumbent position becomes an indispensable requisite; which must be carefully and rigidly observed, until the symptoms are removed, or are palliated. Those of the latter, although apparently more urgent, and productive of more present distress, soon subside, and give way to the usual means of relief; while those of the former are apt to remain obstinate, and sometimes even to become permanent, should relief not be obtained in the first instance. If the former inconvenience should continue after the natural changes are duly effected, recourse may be had to the use of astringent injections, and to mechanical support; yet I have great doubts of the ultimate utility of the latter means, except in cases, in which the Uterus makes its appearance externally.

I may here be allowed the opportunity of adverting to an occurrence of no unusual frequency, not indeed a case of abortion, but always a source of great disappointment to the parties concerned,—I allude to that state which is termed

spurious pregnancy. By this appellation is meant "that peculiar condition, in which a woman supposes herself to be in a family way, when in fact she does not prove to be so." It seems scarcely credible, that a woman could be so far deceived, as to mistake an unimpregnated Uterus for an impregnated one, and to continue in that error; yet this is now and then the case, even in women who have previously had a family.

It will sometimes happen that from some cause other than pregnancy, the menses become interrupted; and that, after a lapse of some time, enlargement of the abdomen either takes place, or is fancied so to do. Such symptoms are considered to be indicative of that state, which the woman is willing to believe is established. She accordingly gives way in her dress, indulges in those articles of food and drink to which she takes a fancy, neglects a due attention to her bowels, and continues to enlarge in abdominal size. By-and-by a quantity of flatus may probably be generated in the intestinal canal; the rumbling of which from one part to another is mistaken for the motion of a child; and thus her original impression becomes more and more confirmed. Her shape becomes altered, the enlargement increases; and she makes every preparation for an approaching accouchement. In daily expectation of the event, and perhaps even after having had her medical man in the house, week after week passes over, and no child makes its appearance. Suspicion is then excited, that some mistake may have been made; and, upon a vaginal examination, the Uterus is found to be entirely unimpregnated.

A natural inquiry is then made into the cause of this abdominal enlargement, as well as of those other symptoms, which have induced this resemblance of pregnancy. But it is always a more easy task to detect the absence of pregnancy, than to ascertain the cause of this enlargement, or any particular state of disease. In some instances, the symptoms are connected with a diseased ovarium; in others, with a deposit of fatty matters in the omentum, and under the abdominal muscles; in others, with a deranged

state of the alimentary canal; and not unfrequently with a combination of these different sources of mischief. Yet occasionally, after the closest investigation, after the most minute inquiry into all the symptoms, no positive fact can be elicited to warrant the suspicion of any organic disease. It must therefore be obvious to every practical man, that a similar mode of treatment cannot be applicable to every case of this description; but it will generally be found that, by the exhibition of a few doses of calomel with purgatives, and afterwards of tonics; by the use of a proper bandage, and a residence at the sea-side, the symptoms disappear.*

But pregnancy is sometimes suspected, even under the regular appearance of menstruation, merely from an increase of abdominal size. Organic changes in the different viscera within the abdominal cavity may occasionally occur, which may produce an increase of size, without, in the first instance, affecting the process of menstruation; the site and feel of these affections, combined with the symptoms attendant on each, must direct the judgment of the practitioner, in regard to its respective nature. But the most common affection inducing such a suspicion, is a diseased enlargement of one or other of the Ovaries. In such a case, there is a firm solid tumour, commencing on one side, gradually

* As a specimen of this kind of case, I will here introduce the principal facts of one, respecting which I was consulted some time ago. A lady turned of forty, the mother of a family, was supposed to have the common symptoms of pregnancy, and managed herself accordingly. She enlarged in size, gave way in her dress, and from her own sensations felt satisfied that she had quickened. Her appetite became fanciful, and her bowels were neglected. In this way, she went on to the end of the ninth month, when some vaginal discharge took place, accompanied with slight pain in the back; these symptoms were considered to be indicative of approaching labour, and her medical man was summoned. Two months more passed away, and no child made its appearance. Still unwilling to forego the idea of being pregnant, from finding that her size continued stationary, my opinion was asked upon the case. The belly was certainly large; yet, even the hand on the abdomen could detect nothing like an uterine tumour; but a vaginal examination clearly proved the Uterus to be unimpregnated. This ultimately turned out to be more a case of fancy on the part of the lady than of disease; for by the exhibition of a few doses of purgatives, which brought away a quantity of black offensive fœcal evacuations, the abdominal swelling subsided, and she regained her former state of health.

enlarging and extending over a great part of the cavity. If a decided opinion under such appearances should be required, the regular return of the menstrual discharges would bias the mind against the chance of pregnancy; yet a correct opinion could only be formed by a vaginal inquiry.

I will also here beg leave to obtrude upon the reader's attention, a few remarks upon another case, (not properly one of miscarriage, yet, which in reality is an abortive conception,) viz. extra-uterine pregnancy. In this instance, impregnation takes place, but the impregnated ovum does not find its way into the uterine cavity; it is either detained in some part of the Fallopian tube, or it is dropped into the abdominal cavity. The former is the more prevalent occurrence. With whatever point the ovum comes into contact, it there adheres, and a vascular formation is established for the supply of nourishment and growth; while the neighbouring parts gradually accommodate themselves to its presence and increase. In this situation it proceeds onwards to growth and improvement for an uncertain time. At length, however, either from deficiency of supply, (whence it wastes and ultimately loses its vitality,) or in consequence of the adjacent parts becoming inconvenienced with the presence of their unwelcome neighbour, a process is commenced for the purpose of ejecting this extraneous mass; and, during the continuance of that process, a number of anomalous and varied symptoms are induced, which too commonly terminate in the death of the unfortunate sufferer.

In the first stages of this state, the woman, under the impression that she is regularly impregnated, is disposed to consider her sufferings to arise from that source; but, finding that they rather increase than diminish, finding also that the regular appearances of pregnancy are not sufficiently progressive, she begins to suspect some irregularity in her case. Week after week passes on in this uncertain manner, until she exceeds the usual term of pregnancy. The recurrence of pain, which she ascribes,

from the completion of her time, to uterine action, induces her to call the assistance of her midwife or medical attendant, who can detect no symptoms of labour. When a proper inquiry is made into her doubtful situation, a solid hard tumour is felt in the belly, more inclined to one side than the other; yet the Uterus is little developed. The history of the case may possibly excite suspicions of the presence of an extra-uterine fœtus; but such suspicions are rarely verified, until the process of destruction has commenced, and until the passage of animal matters *per anum* clears up the mystery. But to be explicit on this singular subject.

The early symptoms of incipient pregnancy, yet somewhat varied in different cases, and under different circumstances, are usually met with. The catamenia are always suspended at the commencement, yet they occasionally reappear afterwards. The woman is harassed with sickness at stomach, loathing of food, and other unpleasant feelings; generally in a greater degree than under regular pregnancy. The uterine structure becomes slightly developed, and preparations are made within its cavity, by the formation of the deciduous membrane, for the reception of the ovum. After the lapse of an uncertain time, other symptoms, different from those of common pregnancy, make their appearance. Some of these, and especially obstinate costiveness, may be attributed to the effects of pressure upon parts destined to perform certain important functions; others, to febrile excitement arising from irritation. The impregnated Ovum is commonly arrested in some part of the Fallopian tube under its progress through that uterine appendage. If the ovum be detained in a part of the Fallopian tube, not immediately perforating the uterine structure, that worm-like appearance becomes extended and thickened by a process of innate growth; losing its natural appearance, its blood-vessels enlarge, and seem more particularly directed to that point at which the ovum adheres. An imperfect evolution of the embryo goes on; abdominal enlargement is gradually observable; and in

some cases quickening even takes place; but the increase of size is not uniform over the whole surface, nor is it equal to the usual extent of common pregnancy. The enlargement commonly proceeds more on one side than the other, and the tumour is generally tender to the touch, or under pressure of the hand. The case thus goes on in an irregular manner for an uncertain time: at length, the imperfect supply of nourishment becomes unequal to the wants of the growing fœtus; it begins to languish; its further development ceases; and its vitality is gradually destroyed. From this moment the symptoms of progressive pregnancy disappear, and the process remains, at least for the present, stationary. In some instances, the extra-uterine ovum will thus remain in a state of quiescence for an unlimited time, enveloped within its own coverings, shut out from any communication with the abdominal cavity, and surrounded by the formations provided for its service; producing in this situation little inconvenience, except such as may arise from pressure upon the neighbouring parts. Under this state of comparative quietude, uterine conception has been known to take place, to proceed in its regular course to its completion, and to the expulsion of a living child; while the extra-uterine conception has remained in *statu quo*.*

But more frequently, in place of this favourable state of quietude, symptoms of local and general disturbance are by-and-by excited; partly by the presence and pressure of this extraneous mass, and partly by the inherent efforts of the constitution to rid itself of its misplaced guest. With this intention, an inflammatory process is sometimes established, attended with local pain, general febrile symptoms, and other inconveniences. One effect of this process is, the commencement and completion of adhesive union between the cyst, and one or more folds of the intestinal canal; or between the cyst and some portion of the abdominal parietes, especially about the navel; or even between the cyst and the Uterus itself. When this adhesive union is com-

* See a remarkable case of this kind in the Philosophical Transactions for 1747, vol. xliv. Part 2nd, page 617.

pleted, the internal barrier is removed, and a free communication is formed between the inside of the cyst, the intestinal tube, or other part opening externally. Another natural process is then commenced, by which the contents of the cyst are broken down; the soft parts of which pass into the canal or elsewhere, and are evacuated in a putrid state; some of the fœtal bones also are evacuated in the same manner, but in many instances under painful and protracted symptoms. Should the woman be so fortunate as thus to eject the whole contents of the cyst, the symptoms progressively diminish, and she regains a tolerable state of health. More frequently, however, such distress and irritation are induced under the above exertions of the system for relieving itself, that its powers gradually give way; till, under severe suffering continued for a longer or a shorter time, the woman at length becomes completely exhausted, and dies a mere skeleton.

Sometimes, under the development of the ovum and the consequent extension of its coverings, the cyst, formed in some part of the Fallopian tube, bursts, and its contents escape into the abdominal cavity. The consequences of this accident are sooner or later necessarily fatal, but the symptoms attendant upon it are indistinct, and unsatisfactory. If the rent be large, and take place suddenly, the countenance becomes pallid, the pulse quick and feeble, with other usual symptoms of internal hæmorrhage; to which is also added, the sensation of something having burst or given way within the body; yet there is seldom much appearance of blood externally, so as to induce the suspicion of approaching abortion. If the cyst should give way more slowly, a more gradual loss of health ensues; then come on great depression of spirits, occasional fainting, local pain, and other anomalous symptoms; which equally proceed onward to the destruction of life. Yet, even before the occurrence of this dangerous accident, there is sometimes an increase of painful sensation in the tumour, which is more frequently situated on the left side than on the right. In two instances, which I witnessed, and which

occurred within a short time of each other, the Fallopian sac burst about the tenth or twelfth week after supposed conception, and its contents, with a quantity of blood, were found *post mortem* in the pelvic cavity.

But an occurrence sometimes takes place which forms a case of *Interstitial Pregnancy*.

If the impregnated ovum should be arrested in its progress through that portion of the Fallopian tube which traverses the uterine structure, symptoms of a similar description are witnessed, with the addition of others peculiar to it; yet, the latter are rarely so striking and definite, as to determine the case during the lifetime of the patient. A part of the uterine structure is for a time developed, as under regular pregnancy; but that portion of the viscus, in which the ovum is detained, becomes more evolved and locally enlarged, than the other parts of the organ. Yet even in this portion, the process of evolution is not regular; being partly the consequence of extension, and partly of growth, as under ordinary pregnancy. Although the Uterus may be thus partially impregnated, (if I may be allowed the expression,) and although the fœtus may arrive at some degree of perfection, it has no natural exit from the place of its confinement. The ovum is inclosed within the substance of the uterine parietes, in a sac or cyst of its own, without any communication whatever with the internal surface of the viscus, or with the Os Uteri; its contents therefore can never make their way into the world in a natural mode. Pains, bearing the character of labour-pains, may possibly be excited, and may repeatedly recur; but they prove of no avail in relieving the Uterus of its load. If similar occurrences to those above described do not take place, the impregnated sac must remain shut up in its present inclosure; or it must induce symptoms ultimately destructive to life. The containing sac may give way before the expiration of the term of gestation, and its contents may escape into the cavity of the belly, the consequences of which must prove fatal. Upon inquiry after death, the Uterus presents a singular appearance; one part of its structure appearing to

be little developed with the Os Uteri attached to it; the other portion extensively enlarged, with an obvious rupture connected with the abdominal cavity, but without any opening into the uterine cavity.*

In the treatment of cases of extra-uterine fœtation, it must be evident to every intelligent observer, that medical aid can be of no little service in removing the great source of suffering. Any indications founded on that intention must be vague and nugatory; yet it will be the duty of the professional attendant to watch the progress of the symp-

* Some time ago, a medical gentleman residing in Berkshire, who had been my pupil at the London Hospital, sent me the following account of a case which had then recently occurred to him, with a ruptured Uterus and a fœtus in its membranes.

"I was sent for to Hannah Cooling, a poor woman in a village four miles from my residence, who had flooded very much in a former pregnancy. The messenger informed me that she was again in the same state, and requested I would make great haste. On my arrival I found she had been dead nearly an hour, and the hæmorrhage and pains had been inconsiderable. She had been tolerably well until about eleven o'clock that morning, when she complained of a violent pain in her right side, which, she said, was different from anything she had ever before felt. As the pains and hæmorrhage had been so inconsiderable, I could not satisfactorily account for her death; I therefore requested leave to open the body, which was allowed, and found a rupture of the Uterus, through which the fœtus inclosed in its membranes had passed into the abdomen." The fœtus appeared to be about the seventh month.

I was called to a lady in Providence-row, Finsbury, four months advanced in her first pregnancy; she was dangerously ill. After passing a good night, she was suddenly seized with sickness and vomiting about eleven o'clock in the forenoon; these symptoms were then attributed to something she had eaten which had disagreed with her. Her apothecary had sent her medicine, but as she seemed to get worse hourly, I was appealed to about four P.M. I found her under symptoms of the greatest danger; her pulse was scarcely perceptible; the countenance was pallid and depressed; her hands were clammy and cold; and she complained of pain in her belly. There had been no external flooding, yet the symptoms appeared to me to be strongly indicative of internal loss of blood. From the above state she never rallied, and in little more than an hour she expired.

Leave was obtained to inspect the body the next day, when the Uterus was found to be ruptured, and the ovum to have escaped entire into the cavity of the abdomen, in which was also a large quantity of coagulated blood. The Uterus itself presented a singular appearance; it seemed double, and to consist of two parts, united longitudinally together; but the ruptured portion had no opening externally, that is, it had no Os Uteri. Each portion had an ovarium attached to it.

toms, and to provide for their alleviation by such means as may be in his power. Yet, in attempting that object, those natural processes which are established for ultimate relief ought not to be counteracted by professional interference. The regulation of the intestinal canal; the alleviation of pain by sedatives; of febrile symptoms by salines, antimonials, and similar medicines; with attention to diet; are perhaps the principal points deserving medical notice. Milk, with its various preparations; jellies, and broths, offer the most appropriate forms of nutriment; but if the stomach should refuse or reject such articles, others, more agreeable to the taste or fancy, must be substituted.

CASE CXXXV.

My opinion was requested upon the case of a lady near the Commercial Road, who was suffering under an irregular, and not inconsiderable loss of blood from the Vagina. I learnt, that she had become impregnated, as she suspected, about four months before; and that, when about eight or ten weeks advanced in pregnancy, she was attacked with a discharge of blood, attended with pain, and with every appearance of threatened abortion. These symptoms had returned at uncertain intervals to the time of my visit, and had evidently undermined her health. She had been attended the greater part of the preceding time by a respectable apothecary, who had given a variety of medicines without any effect. Suspecting that this lady might be pregnant, as she stated, I made a vaginal examination, but I got no satisfactory information from that inquiry. The Uterus felt indeed somewhat enlarged, but I was unable to say decidedly whether from pregnancy or disease; I was however persuaded of this fact, that she could not be four months advanced in the former state. I saw her several times under the symptoms above described; yet could obtain no further insight into her real situation. At length, about the middle of March, she passed a perfect ovum with the embryo within it, apparently about the tenth or twelfth week, free from

any putrefactive process, and without more pain or discharge than she had repeatedly suffered. After this occurrence all the previous symptoms presently disappeared.

CASE CXXXVI.

Several years ago, my attendance was requested upon a lady who had been married some time, and who had previously had several miscarriages. During the course of her present pregnancy, she had been repeatedly attacked with slight hæmorrhagic discharges, and pains threatening abortion, which had as repeatedly subsided. When she had attained the seventh month of pregnancy, however, she had a smart uterine hæmorrhage succeeded by pains; these ultimately terminated, after a common labour, in the expulsion of a living child, which did not long survive the birth. The Uterus contracted well, and the Placenta soon followed without trouble. When I called upon this lady twelve or fourteen hours after delivery, she seemed tolerably well, but she complained of after-pain, with a sense of pressure upon the external parts, as if something was disposed to pass through them. Not being satisfied with her own account of such feelings, I requested to make an examination, and immediately detected a substance of some kind in the Vagina, pressing upon the perinæum and external parts, about the size of an orange; behind which I could readily pass my finger. Introducing two fingers behind this mass, which readily permitted that act, I hooked out a perfect ovum; that is, "an embryo within its membranes entire, at little more than the third month of gestation." Upon laying open the membranes, there was a male fœtus, (the sex just discoverable,) apparently about that age; perfect as far as it went, and without the least disposition to putrefaction.

The mystery respecting the repeated tendencies to abortion was now satisfactorily cleared up. The lady had conceived of twins, and went on well to the third month, when one ovum lost its vitality. For the purpose of ejecting this dead animal substance, the Uterus had instituted certain

operations, which had been counteracted by medical management, and the natural powers of the system.

CASE CXXXVII.

I was engaged to attend a lady in Aldersgate Street, under confinement of a first child. I was called to her assistance in the night of Friday. The labour proceeded naturally but slowly through the day and night of Saturday, and early in the morning of Sunday she was delivered of a living girl, of a moderate size and at full time. While I was tying the Funis, the mother had a smart pain, which induced her to express her suspicions that there was a second child. Upon examining the uterine tumour, I found it sufficiently contracted to allay all apprehensions of that fact. But upon my examining for the after-birth, I found the Vagina entirely filled up by a *something*, far more solid than the after-birth. Taking advantage of a pretty active pain, I introduced two or three fingers behind this mass, and turned out a complete ovum, apparently about the fifth month of gestation, to which was firmly attached the Placenta of the living child. The Uterus afterwards contracted regularly, and the lady did well. Upon inquiry into the history of this lady's pregnancy, I learnt, that she had married clandestinely, contrary to the wish of her parents, with whom she continued to reside. Some time about the period of quickening, she was attacked with flooding and pain, which induced her to suspect that she should miscarry, and which obliged her to keep her bed for a few days. These appearances, however, ceased, and she went on to the end of gestation, without any symptom indicative of the presence of twins, or of the loss of life in one of them. When the membranes were opened, the immature fœtus was perfect for the period of gestation at which it had arrived, and did not show the least disposition to putrefaction.

CASE CXXXVIII.

S. P. aged forty, the wife of a smith, living at that time near the London Road, Surrey, had the usual symptoms of pregnancy in the spring of the year. She had not borne a living child for nine years before; but in the interval she had been twice in a family way, and had each time miscarried. In due time, she began to increase in size, but she remarked, that the enlargement was chiefly confined to the left side of the belly; and that she suffered more than usual inconvenience from sickness, from pain in the belly, and especially from most obstinate costiveness. Some time in the month of June, she was accidentally bitten by a dog; this occurrence caused her much alarm, and to it she attributed many of her subsequent sufferings, but without any good reason. Towards the end of June, being then, according to her own calculation, nearly four months advanced in pregnancy, she applied to a neighbouring apothecary for relief from some unpleasant symptoms under which she was suffering, complaining particularly of an unusual pain in the left side of the belly, striking through to the back; of constant sickness and pain in the head; and especially of a state of obstinate costiveness, upon which the common opening medicines would produce little or no effect. The above symptoms confined her almost entirely to her bed for some weeks, but after a time they became somewhat relieved, so that she was enabled to trail about the house. About this time, she began to feel the movements of the child; her mammæ were enlarged, and there was an apparent secretion from them. The sensation of fœtal motion continued for nearly two months longer; it then ceased; and its cessation was followed by flaccidity of the breasts. In the month of August, her husband removed to the neighbourhood of Whitechapel Road, and as she expected to be confined within a few months, she engaged a respectable midwife to attend upon her under her confinement. Within a month or two afterwards, she had

occasional pains in the belly; her appearance now seemed almost as large as that of a woman near her full time, but the enlargement was not uniform over the whole abdomen; the left side being still more extended than the right. These pains induced the poor woman to call her midwife; but the midwife, upon inquiry into the nature of the pains, did not think the woman in labour, and did not even make a vaginal examination. Not long after this first call, the midwife was again summoned; the woman had now pains, not unlike labour-pains, with a sensation of bearing down, and a slightly coloured discharge from the Vagina. The midwife at this time made a vaginal examination, but could detect no disposition to labour, and even said that the woman was not with child. Soon afterwards she applied to a professional man, who also, after a vaginal examination, pronounced the woman to be not with child. The belly had now become much less than it had been some time before, and there was a slight prolapsus vaginæ. She went on suffering under pain, anxiety, and a variety of distressing symptoms, till the spring of the following year, when she passed the thigh-bone of a child by the Rectum, which was carefully preserved; but she had previously suffered under severe and very painful diarrhœa. She afterwards for many weeks had numerous alvine evacuations daily, of a most offensive description, in which were occasionally detected pieces of putrid animal substances; and which were succeeded by great emaciation, with an obvious diminution of the size of the belly. In the beginning of July, she became a patient of the Eastern Dispensary; to the physician of this charity she merely stated, that she had considerable pain in the belly with violent diarrhœa, to the relief of which his medicines were chiefly directed; soon afterwards she died. The catamenia had returned during some part of the time of the preceding history.

This poor woman left a particular request, that her body should be examined after her death; assigning as a reason, that she was certain she had been with child. On dividing the abdominal parietes, the peritonæal lining of the abdo-

minal cavity was so strongly cemented to the omentum and intestinal canal, that some force was required to separate them, by which the omentum, which appeared unusually dark-coloured, was lacerated. Upon following up the separation, a cyst presented itself, in which were seen the denuded bones of a well-grown fœtus, entirely unconnected with each other; even the several parts of the cranium and pelvis were loosened from their respective attachments; in this cyst was also found a quantity of most offensive putrid fluid. Upon tracing its parietes, the arch of the colon formed the upper and back part; the omentum covered the fore part, and the fimbriæ of the left Fallopian tube were lost in the general mass. The right Fallopian tube and ovary were healthy, as were the Uterus and other viscera.

I ought to mention, that I did not see this woman during life, but the parts, after removal, were sent to me for examination, as the whole were taken from the body; and the preparation therefrom is in the Museum of the London Hospital. I took great pains to collect all the facts of the case from the husband, as well as from others who saw the woman. This case was published in the Medical and Physical Journal for October 1813; yet, I deemed it worthy to be inserted in this place.

CASE CXXXIX.

Mrs. F., aged thirty-three, consulted me in the month of May, respecting a tumour on the right side of the lower part of the belly, which was hard and circumscribed. She was the mother of two children, the younger of which was nearly twelve years of age. During the month of August, in the previous year, her catamenia became suspended, from which circumstance, with other symptoms, she was disposed to consider herself with child. For some months in the beginning of the following year, her breasts were regularly firm, with an appearance of milk in them; but some time before she consulted me, the mammæ had become flaccid,

and her general health had begun to decline. About this time, she had a fall, and bruised her side and ribs; but the injury was not so considerable as to induce her to apply for medical assistance. Soon after this accident, she was seized with pains in her belly, somewhat similar to labour-pains; which harassed her more or less for a few days, and then subsided. At the time of her consulting me, she was suffering under occasional pains in the belly; she had a hard circumscribed tumour on its right side; her bowels were very much confined; and her general health was impaired. From these symptoms, and the general history of the case, I suspected an extra-uterine conception, and gave an opinion accordingly. In June, she was admitted a patient of the London Hospital, in which she remained ten weeks under nearly a similar state to that above described. Here I had the opportunity of visiting her occasionally. Her general health appeared to be somewhat improved under the treatment of the medical officers of that valuable institution; yet, little alteration was observable in the size or site of the tumour. Finding but little relief, she got permission to leave the hospital, and I lost sight of her for several months; but, hearing by accident of her address, and that she was daily passing fœtal bones per anum, I got her again admitted into the hospital in the following June. I then learnt from her, that she had begun to void these bones in April, and that for four months previously she had suffered under a continued diarrhœa, which had undermined her health, and during which she had discharged large quantities of white, slimy, offensive matters from the bowels. While she continued in the hospital, she was suffering under varied symptoms, and was occasionally passing fœtal bones per anum; which she carefully preserved. On one occasion, she was so much harassed by pain at the very lowest part of the belly, that the late Mr. Headington was induced to examine the rectum by the finger; upon which he found a bone sticking across that gut; he withdrew it, and it proved to be an entire parietal bone. The tumour in the belly gradually lessened in size, but did not entirely disappear.

After remaining in the hospital for some months, she left it greatly improved in health.

CASE CXL.

In the month of June 1824, I visited Mrs. H., from whom I received the following account. "About Christmas, 1818, she supposed herself to be impregnated, and some months afterwards she began to enlarge in the belly, especially on the left side, When she was about five months or a little more advanced, she felt motion in this part, and there was a hard solid tumour perceptible there. Her medical attendant supposed her pregnant: in consequence of his death, she became the patient of another professional man. After long expectation, and no child making its appearance, it was at length decided that she was not in a family way. Yet a large tumour was still perceptible on the left side, where it continued stationary. She occasionally suffered great pain in the belly with a constipated state of bowels, which required active opening medicines to relieve. On the 31st August, 1823, she was put to bed of a living girl at her full time, but the child did not long survive the birth. In March 1824, she passed the thigh bone of a fœtus by stool, and in about half an hour afterwards three rib bones in another evacuation; the day following she passed a mass altogether; and occasionally from that time to the present, the latter end of June, 1825, she has been passing fœtal bones without much general inconvenience."

CASE CXLI.

In the evening of Tuesday, December 5th, 1826, I visited a lady in consultation with a most respectable professional gentleman at a short distance from town, the mother of a large family, who had been seriously indisposed for some weeks, and was supposed to be in the sixth month of pregnancy. She was complaining of considerable pain in her back; of an intolerable itching irritation throughout the whole sur-

face of the skin; and of tenderness in the abdomen. She had a small quick pulse, a coated tongue, and a harassed countenance. But the most prominent symptom was, an excessive enlargement of the uterine tumour, with a painful extension of the whole abdominal parietes; far exceeding the common size thereof at this period of pregnancy; equal indeed to that at the end of gestation, and offering an equal degree of resistance under the hand. This unusual enlargement had chiefly taken place within the last fortnight, but did not possess any obvious fluctuation. A vaginal examination added little information to that already obtained by external inquiry. The Os Uteri was slightly open, thin, and relaxed; the Cervix was extended, and scarcely perceptible. Under the impression of pregnancy, this abdominal extension could only be referred to a morbid deposit of the liquor amnii; a surmise indeed verified in the result; yet present interference did not appear to all parties in the least desirable; a temporizing plan was, therefore, for the present recommended. At a second visit the following day, the lady had passed a restless night, and had been much annoyed by the irritation on the skin. She continued in nearly a similar state to the afternoon of Friday the 8th, when parturient pains commenced, the Os Uteri opened, the membranes protruded, but no part of the child could be felt by her medical friend. After some time the bag of membranes spontaneously gave way, and a very extensive rush of liquor amnii instantly followed. The Uterus presently contracted, and in due time expelled a child and Placenta apparently between the fifth and sixth months. After this event, the common occurrences subsequent to labour ensued; the abdominal extension subsided, and the late unpleasant symptoms gradually disappeared. But on Tuesday, December 12th, this lady was attacked with febrile symptoms accompanied by pain in the belly; these, however, were soon relieved by leeching and purging; and she was so much recovered on Saturday the 16th, being comparatively free from complaint, that I took my leave.

On Wednesday, December 12th, 1827, little more than

a year from the preceding date, I was again called in consultation with the same parties. This lady was now suffering under general febrile derangement, attended with considerable irritability of the stomach, which rejected almost every article of medicine and diet; and with, as in the former instance, excessive irritation over the whole surface of the skin. She had a dejected countenance; a small rapid pulse; a clammy mouth with a white tongue; and was supposed to be somewhat more than three months advanced in pregnancy; yet there was a size of belly equal to that of most women near the end of gestation. The uterine tumour was distinctly to be felt under the hand, large, firm, and resistent, and was extremely painful on pressure throughout its whole extent; but there was one point towards the right ilium more particularly, where its sensibility was greater than in other parts; the slightest touch was there bitterly complained of. More or less of a constant draining discharge had escaped from the Vagina for the preceding five or six weeks; which had been sometimes purely sanguineous, but at others, had been of a serous description, with the occasional appearance of small coagula upon the napkins; this discharge usually took place in greater quantity during the night-time, but was devoid of unpleasant smell. The uterine growth had increased gradually, yet of late somewhat rapidly, to its present size; and although, under a suspicion of pregnancy, abortion had been expected, no indication of uterine action had yet appeared. A small quantity of blood had been taken away at the commencement of this illness without advantage; but the present state of this lady forbad a repetition of that operation. Looking at the similarity of the symptoms to those above described in her last pregnancy, I was induced to attribute the abdominal enlargement to the same cause; viz. to a morbid deposition of the liquor amnii; but the sequel will show, that it was the result of an uterine disease of a most singular character. The treatment was, for the present, merely directed to the relief of the more urgent symptoms by aperients and opiates.

During the interval between her recovery from the preceding confinement and the first week in August, this lady had enjoyed her usual state of health; no vestiges of indisposition remained, except in the appearance of the countenance, which had not regained its usual aspect; and to the time just mentioned, she had menstruated regularly and correctly. The catamenia then became interrupted; and afterwards a gradual yet very unusual increase of size followed. Such symptoms naturally induced a suspicion of pregnancy in her own mind, in that of her husband and friends, as well as in that of her medical attendant.

On Friday morning, December 14th, the husband called upon me to say, that his wife was evidently getting worse, and that he was desirous of a consultation with a celebrated accoucheur, now no more. Accordingly an appointment was made at four P. M. that day. Each made a vaginal examination: but the presence of pregnancy could not be satisfactorily detected by either. The cervix uteri was elongated and thickened; the Os Uteri felt soft, flaccid, and a little open, so as to admit the passage of the finger about half an inch within the cervix; yet nothing like membrane was perceptible, and the general mass of the viscus was obviously much enlarged. Now although these appearances did not indicate a state of regular gestation, they were in many respects so similar to those under her last pregnancy, that we were strongly inclined to believe the lady again in that state. Under that impression, the treatment was merely palliative, and temporizing.

I visited this lady again on Monday the 17th, when I found the abdominal extension evidently and rapidly upon the increase, and its external surface equally painful to the touch; in other respects there was little variation in the general symptoms. On Wednesday the 19th she was much worse, and it seemed to me sufficiently apparent, that exhaustion must presently ensue, unless some effectual means could be devised to check the progress of these alarming symptoms. Another consultation with the same parties was therefore had at four P. M. Thursday the 20th. It was then

remarked, that the lady had lost ground within the last few days, and that the abdominal size was rapidly increasing. Under the impression of pregnancy, a catheter was introduced high within the Uterus, with the intention of discharging the liquor amnii, but none escaped; the instrument passed without obstruction, and was easily moved about, as if *in vacuo*.

At ten A. M. Friday the 21st, I was called in consequence of the occasional recurrence of pains, which were presumed to be indicative of uterine action. At my arrival they had subsided; but symptoms of a most alarming kind had ensued. The pulse was quick and tremulous, respiration was frequent and laboured, the countenance was sunk, with appearances of rapid exhaustion; yet the lady was at this time perfectly sensible; there had also been a great increase of uterine discharge during the night. The rapid approach of dissolution was too obvious, which took place a little before noon.

The body was inspected under a state of considerable decomposition on Saturday evening, December 22nd. The abdomen was tumid and soft under the hand, having lost itc former tenseness. On the division of its parietes a quantity of very offensive gas escaped. The Uterus had an oviform shape, and was in size equal to that at the sixth month of pregnancy; but it was flabby under the hand, and had a red appearance on its external surface, yet that redness was not indicative of inflammatory action. The stomach and intestines were much distended by gas; all the other viscera had a healthy aspect. Upon removing the Uterus out of the Pelvis, the Os Uteri was somewhat open and flaccid, and within it was seen a tinge of dark redness, which was afterwards found to pervade the whole of its inner surface. Upon dividing the uterine structure, its general parietes were thickened and enlarged, as under pregnancy, but no appearance of a fœtus could be detected. The cavity merely contained a fibrous mass, about the size of a large egg, loosely attached to the posterior surface, and entangling within its substance a number of small

coagula. This mass was surrounded by a quantity of bloody purulent fluid, in which were floating other small coagula. The whole of the internal surface of the viscus appeared to be in a state of disease, which on a close inspection put on the appearance of granulating eminences; in some points, especially near the cervix uteri, its structure was destroyed by the ulcerative process, almost to the peritoneal covering. The uterine cavity would have contained a body equal in size to the infantile head at full time. The Ovaria, the Fallopian tubes and the Vagina had a healthy appearance.

This case exhibits a singular instance of uterine development and increase, in a disease of the uterine membrane of an ulcerative kind, which showed many of the external appearances of pregnancy. The enlargement and growth of the uterine parietes were apparently the result of a natural effort to counteract the baneful tendency of this dangerous affection; and the sanguineous and sero-sanguineous discharges were the necessary consequences. I think it extremely probable, that the large and comparatively sudden deposition of the liquor amnii in the preceding pregnancy was connected with the existence of this disease in its incipient state, and that the uterine membrane never attained a state of perfect health after the expulsion of its last contents. The principal difference between the enlargement of the Uterus in the present case, and that under pregnancy, seems to be, that the former is accompanied with pain, the latter is free from that inconvenience. Yet neither is similar to that extension which is the consequence of copious amnial deposit.

CASE CXLII.

Mrs. W. in Cripplegate, became impregnated, and in the early part of her pregnancy had symptoms of an ascitic character. Her complaints induced a suspicion that she might be mistaken as to the state of pregnancy; but upon consulting an eminent accoucheur, he pronounced her to

be certainly pregnant. The process of gestation, and the dropsical symptoms, kept pace with each other to the end of her term, when she was delivered of a healthy living child, after an easy and quick labour, even before her accoucheur could arrive at her residence. Four days afterwards, I was desired to visit her: at this time, her abdomen was enormously swelled, with an evident fluctuation; her breathing was rapid and difficult; the pulse was small and quick; she complained of constant pain in the belly; and seemed to be in the greatest distress. These symptoms had been rapidly aggravated since her delivery, especially the abdominal extension. Seeing no chance of even temporary relief but in the evacuation of the fluid, I requested that a surgeon might be called in, who introduced a trocar, and drew off between four and five gallons of limpid serum. The next day she seemed to be considerably relieved from the most prominent and distressing symptoms; but in a few days it was too obvious, that the abdominal cavity was again rapidly filling; in this way she lingered on for a short time, and gradually sunk. The woman was in her forty-second year, and had borne sixteen living children.

CASE CXLIII.

In the beginning of January, my attention was directed to a patient of the charity near Bethnal Green Church, who had very rapidly enlarged in size between the fifth and eighth months of pregnancy. Fluctuation was distinctly evident under the hand, and the enlarged Uterus was also to be felt as a solid firm tumour. The size of the belly becoming from week to week larger and larger, accompanied with much general distress in respiration, from the encroachment upon the viscera of the chest, I prevailed upon a late worthy surgeon to visit the poor woman with me; who, seeing the degree of distress under which she was suffering, recommended the fluid to be drawn off by the trocar. The woman was in the first instance extremely averse to any operation; but, finding that the most urgent

symptom, the difficulty in breathing, was daily upon the increase, after a few days further lapse, she assented; my friend therefore, on Wednesday, January 23rd, drew off, through the trocar-canula, a part of the fluid, and on the following day the remainder was taken away, which was pronounced to be of an ovarian character. On Friday evening, symptoms of labour commenced; the midwife was called, and the child and Placenta were presently expelled under a rapid process. I was immediately informed of this event, and saw her in a short time after her delivery; but she was then sinking; yet the Uterus had contracted well, and there had been little discharge.

The body was inspected the next day. The right ovarium was in a state of great disease and extension, adherent to the internal surface of the parietes of the belly several inches in diameter around the navel, and enlarged into an immense cyst of considerable thickness; this cyst had burst, and its fluid, tinged with blood, had escaped into the general cavity of the belly. The left ovarium was healthy and natural. The Uterus was also free from any appearance of disease, and was well contracted. In the other viscera, nothing particular met the eye.

A natural question here arises. Did this change of structure in the ovarium exist before impregnation, or did it originate afterwards? I think that, in all probability, its foundation was laid before impregnation; and that the increased circulation through the uterine system, under pregnancy, greatly aided the rapid effusion into the cyst, and the subsequent enlargement.

CASE CXLIV.

About the middle of November, 1828, my opinion was requested respecting the state of Mrs. G., who was supposed to be pregnant, yet had exceeded the usual term of pregnancy. In the month of December, 1827, she had every reason to consider herself impregnated; and after suffering under the

usual symptoms, about the beginning of May following, she quickened; and the movements of the child were afterwards occasionally so strong, as even to be seen through her dress. Some time afterwards she had two or three slight appearances of a coloured discharge, on account of which she consulted a physician accoucheur. In the month of August she was occasionally suffering under severe pains in the belly, which she considered to be the pains of labour, and which induced her repeatedly to call the gentleman, who was engaged to attend her in her lying-in. Upon his examination, he found no symptoms of labour. Under the exertion of these pains, something passed *per vaginam*, which she assimilated to a "*piece of liver*," but which probably was nothing else than a firm coagulum devoid of serum. About this time she felt the movements of the child strong and lively, but soon afterwards they ceased entirely. Some watery discharge also took place from the Vagina, which she attributed to the breaking of the membranes, and the evacuation of the liquor amnii. Some time after this occurrence a fetid discharge began to issue from the Vagina, and I was told that a small bone had passed per vaginam not long before my visit. She had been suffering under severe pains in the belly, and her bowels were very much confined.

Her general health at the above time did not appear to be much impaired; but there was a large hard tumour within the belly, circumscribed, tender, and inclining rather to the right side. On a vaginal examination the Uterus was found small and contracted; the Vagina felt generally flaccid; and the Os Uteri was somewhat open and soft. The woman had already become the mother of several children, but all of them had been born prematurely; no one had exceeded the seventh month of pregnancy. From the preceding symptoms, I had little doubt in my own mind of the nature of the case, and gave an opinion accordingly. I saw this woman several times at different intervals, yet found little alteration in the appearance of her symptoms. She was indeed confined to the house, yet was able to stir about a little. In the beginning of the year 1829, a tumour formed

at the umbilicus, which after some time gave way, and discharged, through a small opening, a great quantity of offensive fluids evidently mixed with fæcal matters; and towards the end of February, some of the phalanges of the fœtal fingers passed through this opening; similar offensive fluids were also discharged by the rectum, as well as by the Vagina. About this time her health had begun seriously to give way, and her appetite to fail; yet she was able to take some nourishment, and wine; and although she suffered pain, it was by no means excessive. Her bowels acted five or six times a day, and her legs were now becoming œdematous. When a firm degree of pressure was made on the parts about the navel, an increase of this offensive discharge ensued; and occasionally, the fluid might be made to spurt out to some distance. There was little redness about the opening, except such as seemed to be produced by the acrid nature of the discharge; and she always suffered less pain when the discharge was free and copious. It was pretty evident to me, therefore, that even at this time there were several communications with the extra-uterine sac; viz., one or more with the intestinal canal; one with the Uterus or Vagina; and one with the external opening at the navel: and that the contents of the sac were escaping sometimes by one outlet, and sometimes by another. About the middle of March the discharge from the navel had much increased in quantity: on the 17th of March, half of the lower jaw, a clavicle, and two ribs passed through the umbilical opening, which of late had much enlarged, and was then surrounded by a more active blush of inflammation. On the 19th the other half of the jaw, three ribs, and a scapula made their escape, with some skin; the discharge by the Rectum and Vagina had then much decreased. From this time the woman's strength began more rapidly to decline; her countenance became pallid; her appetite failed; and her stomach sometimes rejected her nourishment. Other bones occasionally passed through the external opening; two temporal bones, with the other clavicle and scapula, were afterwards voided.

In this way the poor woman lingered under increased sufferings to the 19th of May, when she died.

The body was inspected the next day in the presence of myself, and three other medical gentlemen. The general appearance of the body showed great emaciation. The belly was flat, and had a degree of redness about the navel, especially towards the right side. A quantity of fetid gas escaped through the opening at the navel when the belly was compressed. Upon the division of the parietes, a cyst presented itself, adherent anteriorly to the abdominal parietes, and posteriorly to the folds of the intestinal canal and to the Uterus; into each of which the sac had evident openings. The Cyst contained a quantity of fœtal bones, separated from each other; and in one of the small intestines a thigh bone was found. The Uterus itself was not larger than usual; both the ovaries, as well as the Fallopian tubes, were entire and healthy; I therefore suppose this to have been an abdominal conception.

CASE CXLV.

One Saturday, towards the end of November, 1823, I was requested to visit a lady at Hackney, who was supposed to be suffering under symptoms of miscarriage. This lady had been married about three months, and soon after marriage had missed the usual appearance of her catamenia. About five weeks before my visit, a slight appearance of colour had escaped from the Vagina, a mere show, as it is called; this had occasionally returned at uncertain intervals, yet not in large quantity, but she seemed to be losing her usual health. She complained of a continued pain in the lower part of the belly, between the ilium and the navel; the part was tender under the hand, it was not much swelled; her pulse was little altered, and her tongue was clean. She had already experienced the common symptoms of pregnancy; she suffered occasional sickness with retchings: and had a dislike to every species of nourishment; in short, from such

symptoms she had no doubt of being in a family way, and was fearful of abortion. She had been attended for some time by the family apothecary, whose attention had chiefly been directed to due relief of the bowels. I requested that leeches might be applied to the pained part, and prescribed some aperient medicine. An appointment was made for me to pay a second visit on the Tuesday following; but on the morning of that day, the lady's husband called to request me to postpone my intended visit to the following day, Wednesday; and said, that his wife continued much the same, yet that she seemed somewhat relieved by the previous leeching. On the morning of Wednesday, however, I received a note from the brother of the lady's husband, apprizing me of her sudden death, after four hours fainting and pain, with a wish to have the cause of death ascertained by inspection of the body. Upon a more minute inquiry into the circumstances of this unexpected event I learnt, that about eight o'clock in the evening of Tuesday, she was suddenly seized with faintness, while she was in the act of combing her hair and preparing for bed, after passing a better day than usual, and appearing in high spirits but a few moments before. This sense of faintness continued undiminished, and soon became alarming to her friends. A neighbouring physician was called, who found this lady under all the pressing symptoms of some internal hæmorrhage, under which she languished but a few hours.

The body was inspected on the Thursday in the presence of myself and three other medical men. On dividing the abdominal parietes, a quantity of fluid blood, in which were some large coagula, presented itself to view. On carefully searching whence this blood had issued, it was found to have escaped from the right Fallopian tube, which was formed into a cyst or sac; and which contained an embryo of apparently about ten or twelve weeks development, and so far perfectly formed. The rupture of the cyst had produced the loss of blood, with its fatal consequences. The fimbriæ of the right Fallopian tube were adherent to the ovary on that side. The left ovary and Fallopian tube were natural and

healthy. The Uterus itself was of the common size of that viscus in an unimpregnated state.*

CASE CXLVI.

In the beginning of February, 1824, I was requested to visit a lady in the High Street, Shoreditch, the mother of a family, who was supposed to be ten or twelve weeks advanced in pregnancy, under very irregular symptoms. Her general health was much impaired; her countenance was pallid; she appeared anxious and dejected, and her internal feelings satisfied herself that she was again in a family way. I visited her several times at short intervals; sometimes I found her somewhat better; more frequently she was obviously worse. I saw her on the morning of the 11th of February much in the same state as she had been for some days before; and was again called the same evening, with a message that during the day she had become much worse. At this time she was suffering under considerable faintness, with a sense of great exhaustion; and showed other common symptoms of internal hæmorrhage; immediately the preceding case recurred to my mind, with an equal apprehension of danger to my present patient. Continuing to get worse and worse, she became gradually exhausted, and died within a few hours.

Upon inspecting the body the next day, a similar occur-

* A similar case is related by Mr. Langtaft, in the Medico-Chirurgical Transactions, vol. vii. part 2nd, page 440. The woman died after a few hours' illness, under all the symptoms of internal hæmorrhage. Upon inspecting the body, a large quantity of blood was seen in the abdomen, which on minute inquiry was found to have proceeded from a rent in the back part of the right Fallopian tube; this tube was extended near its centre to the size of a hen's egg, and contained an entire ovum of eight or ten weeks' development, the embryo still floating in its liquor amnii. Upon injecting the spermatic artery with coloured size, a moderate stream escaped through the rent; this fact proved that the artery had given way, thus becoming the immediate cause of death. There was not the slightest appearance of decidua in the Uterus; yet the Uterus was larger than usual, with some gelatinous matter in its cavity and cervix.

See the same work, vol. xii. part 1st, page 51, for another case in the right Fallopian tube, related by Dr. Elliotson.

rence to that in the preceding case had taken place. Conception had commenced in the left Fallopian tube, which had become considerably extended; the cyst had burst, and the embryo, apparently about the 10th or 12th week, had escaped into the lower part of the abdominal cavity, with a large quantity of blood.

ON RUPTURE OF THE UTERUS.

The Gravid Uterus is an organ peculiarly formed for making very great exertions under the act of labour, and is generally capable of bearing those exertions without present or future injury to itself; yet experience proclaims the melancholy truth, that sometimes the strength of its own contraction is incompatible with the continuity of its structure, which is now and then found to give way spontaneously, under its active attempts to pass a child into the world.

This accident is, comparatively, a rare occurrence; yet I have, unfortunately, witnessed numerous instances; and I also suspect, that it has repeatedly occurred without the detection of the fact.

It appears to me quite impossible to determine the degree of contractile effort which any given Uterus may be enabled to exert during the propulsion of a large child through a narrow Pelvis; and which it may bear without injury to its structure. And it is equally impossible to define that peculiarity of constitution, or that defect in the uterine texture, which tends to the production of this disaster. One Uterus sometimes makes the strongest expulsive efforts for a great length of time, and bears them with impunity; whilst another Uterus undergoes a breach in its structure, under less active, and under apparently far more trifling exertions. Nay, one woman may have produced several

living children without any extraordinary difficulty or inconvenience; yet she may eventually lose her life, from a laceration of the Uterus, in a subsequent labour.

The accident may therefore happen, in a case of protracted labour, under a narrowness or actual diminution of the Pelvis, without the least desert of blame, or without the possibility of its being prevented. The mischief has too frequently actually occurred, before it has been at all suspected, therefore means of prevention cannot be taken; and I know of no particular symptom threatening its approach, or indicating when it is about to happen, which would justly warrant a premature resort to delivery.

This occurrence always takes place suddenly, and generally without any previous warning. While the labour appears to be going on naturally but slowly, the woman is seized in the middle of a strong expulsive effort, with an uncommon pain in some part of the belly; this pain is of a very different nature from those pains of labour under which she has hitherto suffered; she has never felt the like in any preceding confinement. The attack of this new pain usually occasions a shriek, and is accompanied with the sensation of something having given way within: it is commonly followed by a sense of weight and oppression, and sometimes by an obvious change in the relative situation of her burthen. The patient now involuntarily puts her hand to her belly, with a complaint of increased suffering, and utters frequent exclamations expressive of misery, with "Oh! this pain!" This new pain is referred to one point, on one or other side of the uterine tumour, and it is stated to be similar to that which would be occasioned by cutting or tearing the parts asunder, and sometimes it is likened to the cramp. After its attack, the previous regularity of the labour-pains becomes suspended: uterine action either ceases altogether, or is gradually diminished in energy and effect. By-and-by, the woman complains of faintness, which shortly approaches to syncope, the countenance becomes pallid, and is, at the same time, expressive of great anxiety; the eye rapidly loses

its natural lustre; the pulse gradually gives way, and becomes quick and tremulous; difficulty in respiration is presently perceptible in a greater or less degree; and there is a general restlessness of body, with coldness of the extremities. In cases in which there has been no previous sanguineous discharge, a slight degree of external hæmorrhage usually makes its appearance. In those, in which there has previously been some trifling show, it is suddenly increased in quantity. Vomiting of greenish or dark-coloured fluids, in some instances, almost immediately supervenes to the accident; in others, it comes on but a short time before the death of the patient. There is an occasional return of uterine action, but in a slighter degree, which the woman unavailingly assists by the voluntary efforts of the Diaphragm and abdominal muscles; she is at the same time perfectly aware, that there is a material alteration in the kind of pain, from her inability to bear it down as she has been accustomed to do.

The size of the breach is, in different instances, variable; to which the rapidity of the succeeding symptoms bears some relation. When the breach is small, little alteration is perceptible in the general course of the labour for some time after its occurrence, except that the patient is harassed by an unusual fixed pain, for the relief of which, bleeding perhaps is proposed; as the rent becomes gradually enlarged by uterine action, and by the protrusion of some portion of the child through it, the dangerous symptoms rapidly advance. But when the uterine rent is immediately extensive, symptoms of excessive alarm are soon apparent, and the woman rapidly sinks. If the rent happen to take place on the fore part or side of the Uterus, some of the limbs of the child, which may have escaped out of the Uterus, may be distinctly felt in a thin woman through the abdominal parietes, by a hand pressing on the belly, and will be immediately recognised; the irregularity produced by such an occurrence will be sufficient to distinguish it from the uniform shape of the uterine tumour in its entire state. If the breach occur at

the back part of the Uterus, the escape of the child is not so distinctly perceptible by the hand, unless the rent be so considerable as to permit its ready passage into the abdominal cavity; in this case the uterine tumour diminishes in size anteriorly in proportion to the quantity of the child which had escaped out of the Uterus. If the head be not firmly impacted in the Pelvis, it readily recedes from the situation it had previously been found to occupy, and especially under a large rent. But if the head shall have advanced low in the Pelvis, and be confined within its cavity, this change in its relative situation is not immediately observable. If the presentation of the child be unfavourable to the entrance of the head into the Pelvis, the child, or the child with its Placenta, may be expelled into the abdominal cavity by the action of the Fundus Uteri. In this case, the Uterus contracts itself as perfectly as if it had expelled the child into the world, and the rent, through which the child passed, is diminished in extent by that contraction.

A breach in the peritonæal coat of the Uterus sometimes happens without extending itself into the uterine structure. Under this occurrence, we observe all the symptoms of actual laceration of the uterine structure itself, in a diminished degree, except those connected with the escape of the child.

A laceration in the vaginal surface also occasionally occurs, which seems to be produced by the continued pressure of the head, impelled by powerful uterine action. If the breach be trifling, the accident may not be productive of much inconvenience: if it be extensive, and especially if an opening be made into the abdominal cavity, such a similarity of symptoms follows, as induces a suspicion that the Uterus itself has given way.

A rupture of the Bladder is likewise an accident which may happen, under a state of protracted labour, from inattention to the relief of that viscus when it is distended by urine. It is followed by many of those symptoms before enumerated, which are considered to be indicative of a

rupture of the uterine structure itself, and it is equally fatal in its consequences.

I have never met with this accident in a first lying-in. The occurrence has happened, in those cases which I have seen, in a subsequent labour, and sometimes after several difficult births, though living children had been previously expelled. I am thence led to suspect, either that the Uterus has received some local mechanical injury from the violence of its own efforts, or from the previous effects of artificial assistance, by which its structure, at this particular point, has been weakened; or, that it is thinned at the part where it gives way during the last months of gestation, by continued pressure against some prominent part of the Pelvis.

The breach of structure usually happens somewhere about the Cervix; either anteriorly towards the Symphisis Pubis, or posteriorly towards the prominence of the Sacrum. The rent is either transverse, or is carried laterally upward; the Fundus Uteri rarely gives way; yet its body and sides occasionally do.

This disastrous accident may be produced by the hand of the operator, in an ill-judged or too violent attempt to overcome the resistance offered by permanent contraction of the Uterus, in a case of preternatural presentation of some hours standing; in which the liquor amnii has been for some time discharged, and in which the Uterus is firmly contracted upon the body of the child.*

I have already hinted, that previous to a rupture of the Uterus, no particular symptom meets the eye, by which

* Previous to the publication of the first edition of these observations, every case of rupture of the Uterus which I had then witnessed, had sooner or later proved fatal. In some cases the woman had scarcely survived delivery; while in others the patient had borne up against the subsequent symptoms for several days. I therefore have always thought it my duty to offer a chance of life to the mother by the only practical expedient likely to be successful, viz. by as prompt a delivery after the accident as each case would permit. I never could accede to the doctrine of allowing the woman to die undelivered. But although I had been so unsuccessful, during the course of the following year, I had the gratification of seeing *three* cases of complete recovery from this terrible accident, in two of which I turned the child myself, and thus effected delivery quickly.

the practitioner or the patient is forewarned of its occurrence, so that means of prevention can never be taken. The symptoms of that case must be extreme indeed, which would justify the certain destruction of the child by the perforation of the head, under a protracted labour, in a woman who has passed a living child or children before; or who has passed a dead child without any considerable difficulty; upon the mere presumption of the Uterus being likely to give way, or upon the possibility of its so doing. If such a deterioration of the Pelvis were found to have taken place in the interval, as to preclude the hope of the expulsion of the head entire, or if any diseased enlargement of the head can be ascertained, under either of these occurrences, the case would assume quite a different aspect. Yet if, by any obvious symptom, we could be previously convinced that the accident would happen, it might perhaps be prevented by timely delivery; but whether the continuance of strong uterine action, after the complete dilatation of the Os Uteri, (under unusual obstruction to the descent of the head in a Pelvis possessing barely room for its passage,) may be thought a sufficient justification of artificial delivery, is a question which can only be decided by sound judgment, exercised on a view of the case, and a due consideration thereof.

In all cases of this accident there is a narrowness, if not an absolute deformity of the Pelvis, so that perforation of the head becomes, too commonly, indispensably necessary to the delivery. But if the presenting part of the child shall have retreated from the situation which it had previously occupied, so that a considerable portion of the child has escaped into the abdominal cavity, delivery must be effected by the introduction of the hand, and extraction by the feet.

After the extraction of the child, an immediate discharge of blood follows. This blood has issued from the torn uterine vessels either into the Uterus, or into the abdominal cavity; it has been there pent up, and its previous escape has been prevented by that portion of the child

which occupied the Pelvis. The Placenta is sometimes separated, and passed down into the Vagina by the uterine effort. At other times it remains still adherent to the uterine surface, and requires the assistance of the hand to separate it, and bring it away. I am always anxious to complete the delivery as speedily as possible by the prompt removal of the Placenta; and when I have introduced my hand within the uterine cavity for this purpose, I have occasionally detected the rent in the structure of the viscus by the passage of the fingers through it, and now and then by the feel of their extremities against the inner surface of the abdominal parietes. This is an indubitable test of the accident.

After delivery has been effected, a suitable dose of opiate will be necessary, to allay the effects of that general irritation which the accident has produced, and to induce present quiet; afterwards such medicines are to be administered, as the symptoms of each case may seem to require. But under such extensive internal mischief, the mere palliation of symptoms is generally the utmost which can be expected. If the patient do survive the more immediate effects of the accident, symptoms of abdominal or peritonæal inflammation presently supervene, and are gradually progressive; the belly becomes tender, and swells; the appearance of the countenance indicates great distress; the pulse and the animal powers, after an uncertain time, begin to flag, and then give way; and the patient sooner or later sinks, with, perhaps, a previous convulsive struggle. But if the first inflammatory symptoms should fortunately give way to proper treatment and subside, the daily appearances will become more favourable, and recovery may possibly be the result.

As the number of women who have ultimately recovered from this accident, is at the present so limited, and as the occurrence is in itself so frequently fatal to the mother, it may be a question worthy the consideration of the profession, whether the Cæsarian section, offering a mode of freeing the mother from the child, with a chance of its life

ought not occasionally to be substituted for the perforation of the head. But in determining on this tremendous expedient, which will place the chance of recovery to the mother in a still lower scale, we ought previously to ascertain, if not to a certainty, as far, at least, as probability will allow, that the child is still alive under the breach in the uterine structure. If that should prove to be the case, such a length of time ought not to be allowed to pass away in the interval, as can be supposed to interfere with that life.

CASE CXLVII.

Mrs. S., whom I had previously attended under a case of very difficult labour, in which, after considerable delay, I was compelled to open the head of the child, became again pregnant, and an appeal was made to me to take charge of her in her lying-in a second time. Knowing that this woman had a very badly-formed Pelvis, I proposed bringing on premature labour at the seventh month. When I called upon her for the purpose of taking the necessary steps previous thereto, I found her under considerable pain, and an examination satisfied my mind that the process of labour had already spontaneously commenced. It went on very favourably, and a living child, at apparently the seventh month, was presently naturally expelled. The child did not long survive the birth; but the mother recovered without one unpleasant symptom. Mrs. S. became pregnant a third time, and when she was about seven months advanced, I adopted the usual mode of bringing on labour. On my calling the next day, I was surprised to find that the process of labour had already commenced, that the pains were active, that the vertex had reached the centre of the Pelvis, and that the rest of the head was very likely soon to clear its brim. Under these symptoms of a promise of early delivery, the Uterus suddenly ruptured. The countenance became immediately pale; difficulty of breathing ensued, with a sense of pain very different from the pains

of labour, which had almost disappeared. The head also receded; so that, by the above symptoms, being convinced that the uterine structure had given way, I introduced my hand, and delivered by the feet, without any trouble. But the woman continued to decline, and died within the hour after delivery. On inspection of the body the next day, the Cervix Uteri was found to be lacerated from side to side at its back part, opposite the prominent ridge of the sacrum.

This unfortunate occurrence was completely accidental, and could not have been prevented by human foresight, nor had it the least reference to the mode of inducing premature labour. I suspect that a considerable degree of tenuity had been induced in the Cervix Uteri by continued pressure on the projecting sacrum, which had disabled the Uterus, under strong expulsive effort, from preserving its structure entire.

CASE CXLVIII.

On Tuesday evening, March 10th, 1829, about half after ten, I was requested to visit a poor woman near Ratcliffe Cross, who was represented to be dangerously ill under labour. The labour was stated to have commenced about five o'clock on the Sunday morning, when the midwife was called. Not long afterwards the membranes broke, and the presentation was found natural. The woman went on in labour till two or three o'clock on the Tuesday afternoon, when the pains subsided, and she became faint. A neighbouring surgeon was called in, who not liking the appearance of the case after an examination, did not choose to interfere. The woman became hourly worse and worse, to the time of my arrival at her residence about half after eleven. I now saw every symptom of a lacerated Uterus, with the woman apparently in the last stage of life. I, however, determined to extract the child, if possible; I therefore introduced my hand, turned the child, and got down a foot, but I had great difficulty in extracting the breech, body, and head, so that before I had effected the

delivery, the woman had breathed her last. Upon passing my hand in the first instance, I was immediately convinced that my suspicions as to the real nature of the case were fully verified. The body was examined the next day. A very large rent had taken place in the structure of the Uterus from side to side on its back part opposite the prominence of the sacrum; first extending a little sideways, then proceeding downward into the Vagina, and there was a large coagulum of blood found in the Pelvis. It is not improbable, indeed, that an increased degree of the lacerated surface might have been produced by the forcible delivery of the child; for when the child escapes out of the Uterus, the healthy part of that viscus contracts, so that the original rent is materially diminished in capacity. The Pelvis possessed a space of three inches from the pubes to the prominence of the sacrum, yet the head would not descend through this space. The Uterus might possibly have been thinned at the part opposite the projecting sacrum by a continued degree of pressure made thereon, so as to have been rendered unable to withstand its own contractile efforts.

CASE CXLIX.

At four P. M., Tuesday, August 1, 1826, I was called to the assistance of a lady at Pentonville, in labour of her sixth child. She had been taken with the pains of labour on the evening of Sunday, and continued through that night and the day of Monday, under a slow lingering process; about midnight, between Monday and Tuesday, the membranes gave way, and a large quantity of liquor amnii was discharged. Not long after this occurrence, this lady expressed a sense of feeling as if the child had turned, and requested the immediate attendance of her accoucheur; after experiencing this singular sensation, the labour pains considerably subsided; and after a further lapse of time vomiting ensued. From this time, her medical attendant made no examination as to the progress of the labour; as there appeared to him to be no efficient pains,

he contented himself with merely sitting by the bedside of his patient. About the middle of the afternoon of Tuesday, a gentleman, in the temporary absence of the husband, called at my house, and requested me to visit this lady; remarking at the same time, that something singular must have occurred. On my visit at four P. M., this patient had incessant vomitings of a greenish fluid; constant pain in the belly without regular labour-pains; a small quick pulse, and a bad countenance. On seeing these symptoms, even before I made any vaginal inquiry, I stated it to the medical attendant as my decided opinion, "that the structure of the Uterus had given way." But a vaginal examination made that, which was previously a matter of simple opinion, a matter of positive fact; for no part of the child could even be felt by the finger; nay, so completely had the child escaped into the cavity of the abdomen, that upon passing my hand partially within the Uterus, no part of the child could be detected by it. The medical attendant informed me, that when he made an examination after the rupture of the membranes, the head of the child was then presenting at the brim of the Pelvis, with a fold of the Funis down by its side; but that he had made no farther inquiry into the progress of the labour, presuming, from the absence of labour-pains, that no advance was taking place. Under these circumstances, I felt fully satisfied in my own mind, that the uterine structure had given way the night before, previous to the cessation of the regular labour-pains, and at the time the patient experienced that singular sensation: and that at that moment the child had escaped at first partially, and afterwards completely, into the cavity of the belly. Being convinced that the case was a hopeless one, I left the woman for the present in charge of her medical friend, and returned at seven P. M., along with my son. At this hour, appearances were much worse; the extremities were becoming cold; the pulse was scarcely perceptible; the vomitings were almost incessant; and the respiration difficult. Any attempt to extract the child out of the abdominal cavity, from the degree of contraction in that

portion of the uterine structure which remained entire, must necessarily be foiled; and that degree of contraction was readily to be detected by the hand placed externally on the abdomen, as well as by the introduction of the left hand within the Uterus. Under this state of things, there appeared to me no other resource than in the Cæsarean section; yet even this resource appeared to be forbidden by the exhausted state of the patient. After every possible consideration had been given to this melancholy case, it was determined to leave the woman to her untimely fate. She survived a few hours longer, when she expired completely exhausted by the severity of her sufferings.

In the afternoon of the day following, (Wednesday,) the body was inspected, and my opinion was fully verified. The child had escaped so completely into the cavity of the belly, that no part of it remained either within the Uterus or the Pelvis. The head was placed over the left groin; the breech was under the right ribs; the back occupied a diagonal position from the lower ribs to the left groin, but looking rather upward; the neck was somewhat bent; and the thighs and legs were in the same position they occupy in the Uterus. After withdrawing the child from this situation, the Placenta was seen placed upon the surface of the lower part of the Uterus, completely out of its cavity. The laceration had taken place transversely near the cervix of the Uterus, just above its connexion with the Vagina, and where it is covered by the Peritonæum. The Uterus had contracted to that degree, that the fissure did not appear longer than two or three inches in extent. There was but a small quantity of fluid or coagulated blood in the Uterus or pelvic cavity. All the abdominal viscera appeared healthy, except the intestinal canal, which showed signs of inflammatory action, probably produced by the pressure of an extraneous body upon its tender surface.

It must be obvious to the intelligent reader, that at the time I first saw this case, any efficient assistance was out of the question. The child had then so completely escaped into the abdominal cavity, and the rent through

which it had passed had so much diminished in size through the continued contraction of the Uterus, that its return through that opening was rendered impossible.

CASE CL.

I was summoned by one of the midwives of the charity, to the assistance of a poor woman, in one of the streets behind Shoreditch Church, in labour of her seventh child, aged thirty. This woman, it appeared, had been in slight labour several hours, and the midwife had been called about half after four in the afternoon; she then found the Os Uteri dilated, under a fair presentation, to the size of a crown piece. At that time, the pains were strong but short; about five o'clock, the uterine efforts abated, and the pain was then transferred to her stomach and right side; she also suffered under a violent difficulty in respiration, attended with faintings and cold sweats, and could scarcely fetch her breath. On my arrival at the address, the woman had breathed her last about a quarter of an hour before. I put my hand upon the belly, and could distinctly feel the child in the abdominal cavity. I was desirous of performing the Cæsarean section instantly, for the sake of the child; but the husband and bystanders would not permit this operation; they even scouted the idea. I did not make an examination *per vaginam*, but I was told there had been a slight discharge of blood. After much entreaty, and with great reluctance, the friends of this poor woman submitted to an inspection of the body. It was opened by a neighbouring surgeon in the presence of another professional gentleman and myself, the following evening. On dividing the abominal parietes, the breech of the child presented itself, and on turning it a little to one side, the rest of the child escaped out of the uterine rent, except the head, which had passed partly into the Pelvis, and which completely filled up the brim. Upon withdrawing the head from this situation, it was found to be hydrocephalic: the Pelvis was well formed. On opening the head, about three pints of

watery fluid gushed out. The bones instantly collapsed, so that the parietes might be readily squeezed together by the hand. The fluid was external to the Pia Mater, the vessels of which were enlarged and turgid. On puncturing the anterior fontanel, the fluid readily escaped. The body and limbs of the child were of the usual size, and by no means extenuated.

The laceration in the uterine structure extended from the Cervix almost to the Fundus on the right side, so as to allow the greater part of the child to escape into the abdomen. The extent of the rupture will sufficiently account for the rapidity of the symptoms. A quantity of bloody fluid was contained in the Pelvis.*

CASE CLI.

I was called from the lecture-room of the London Hospital, to Mrs. J., at Islington, who was the mother of several living children, and stated to be under symptoms of great danger during labour. On visiting this patient, I learnt that the pains of labour commenced the preceding evening, and regularly progressed during the night; that she went on apparently well, the Os Uteri dilating, and the head advancing, till nine o'clock the next morning, when she suddenly complained of an unusual spasm-like pain in the belly, which was soon followed by vomiting, difficulty of breathing, depressed countenance, a small quick pulse, and coldness of the hands. After the attack of this new pain, the labour-pains declined, and almost ceased; the head also left the situation it had previously occupied in the Pelvis. I saw this patient before twelve, and from the account I received, and from the external feel of the belly, I had no

* In the Medical and Physical Journal, for October, 1813, the reader will find an account of a dissection in a case of Rupture of the Uterus, detailed by me at some length; the presentation was preternatural, the child escaped into the abdomen, and the woman died undelivered. After death, the Uterus was found contracted, as well, indeed, as if the child had passed into the world. I gave the editors of the same Journal another history of a rupture of the Uterus, which was inserted in September, 1814. To these cases I beg to refer the reader.

doubt that the Uterus had given way. I made an examination *per vaginam*, but no part of the child could be felt by the finger. There was a slight bloody discharge. On a consultation with her attending accoucheurs, (for two were then present,) it seemed doubtful whether delivery could be effected *per vaginam*. I determined upon a more correct examination, by passing the hand, prepared at the time to turn the child, if possible. Introducing my left hand, without meeting any obstructing impediment, I reached the head, and tracing the body, I found the feet, which I brought down; and in this operation, I was perfectly satisfied my hand was in the cavity of the abdomen. The child was extracted without difficulty, and the Placenta speedily followed. During the operation, the woman suffered less inconvenience than could have been previously expected, but she complained afterwards of the continuance of that extraordinary pain. Opiates were prescribed at intervals, and the patient carefully watched.

The next morning she had passed a more comfortable night than the circumstances of the case promised; she indeed appeared languid, but complained little of the belly.

In the evening she had some pain about the navel; the pulse was small and quick, but the countenance continued good.

The next day she was not so well; the belly was becoming very tender and swelled, and the pulse quicker; yet the aspect of the countenance was not altered.

The following day, the fourth after delivery, she was much worse; she vomited frequently; the pulse became quick and small; the belly was more swelled, and she had occasional singultus. Under these symptoms she languished till towards midnight, when she expired. Leave could not be obtained to inspect the body.

CASE CLII.

I was called to the assistance of a poor woman, in Willow

Gardens, Leonard-street, a patient of the charity about forty years of age, in labour of her seventh child. Her former children had all been still-born; some of them had passed naturally, but in the last instance, I was obliged to open the head, after several days severe suffering. Her labour had commenced the day preceding; it proceeded slowly but regularly till about five A. M., when the membranes gave way, and the pains became expulsive. These favourable appearances induced the midwife, who was then ignorant of the former proceedings, to hope that the labour might be naturally terminated; but afterwards learning what had taken place before, and finding her expectations not readily realized, she sent to me about eleven A. M., requesting I would see the woman. I visited her immediately. The pains were then strong and active; yet the dilatation of the Os Uteri did not exceed the size of half-a-crown; it was, besides, firm and rigid, with the head still lying at the brim of the Pelvis. I could also readily detect the same deformity of Pelvis as before. I therefore determined to perforate the head immediately, and to postpone its extraction for a few hours, or till the Os Uteri was more dilated. The husband of the woman was sent to my house for the necessary instruments, and during his absence I remained with the patient. At this time there was no reasonable prospect of any accident: the pains were regular; the pulse was good; the countenance natural; the bowels and bladder had been spontaneously evacuated, and the woman was in high spirits at the thoughts of my presence, and of being presently relieved. On the return of the husband, I perforated the head about twelve, then leaving the patient to the care of the midwife, I proposed seeing her again presently, and extracting the head. Not long after I had left the house, viz. about two P. M., my immediate assistance was again requested. I hastened to her hut, and on my arrival, found her sinking under all the symptoms of laceration of the Uterus, and complaining violently of a singular pain in the belly. This occurrence appeared to have happened about an hour previously. I extracted the child without much diffi-

culty, and the Placenta soon followed; but my patient did not long survive delivery.

The body was inspected the next day. The Uterus was found to be ruptured on its anterior part, above the Os Uteri, and opposite to the Pubes, almost from side to side, the rent extending laterally towards the left broad ligament. The peritonæal covering had not given way, except at one point, through which some blood had escaped into the cavity of the abdomen; so that the greater part of the blood which issued from the torn vessels was confined under the peritonæal coat. On removing the coagula, the extent of the uterine rent became perceptible.

We have an instance, in this case, of an Uterus expelling several children with difficulty, and, in the preceding labour of its continuing its exertions for several days without injury; yet now being ruptured after a few hours' action, and that, to appearance, not very violent. It had most probably been thinned by pressure, or had received some injury in its structure by its previous exertions.

CASE CLIII.

I was summoned early one morning, by a midwife, to see a patient near Rosemary-lane in labour of her second child, to whom the midwife had only been called in about two. The presentation was natural, but the head was entirely above the brim of the Pelvis, which was ill-formed, yet it seemed to me to possess a diameter at the brim equal to about two and a half inches. The pains were regular, but not strong; the liquor amnii was discharged; the Os Uteri was dilating, and the woman's strength and spirits were good. I was told that her former labour had been terminated by lessening the head; notwithstanding, I did not think myself justified at that early stage of the present process in perforating. I therefore desired the midwife to wait with the patient, intending to see her again in a few hours. About one P. M. I received information that the pains were stronger, and the Os Uteri more dilated, but that there was no advance

in the head. I attended this call immediately, with my perforating instruments, and when I entered the room I found the woman sitting up, and complaining most heavily of a *cramp-like pain* in the side of the belly, which had come on suddenly a short time before, viz. between the midwife's message and my arrival. The countenance was already pallid and distressed; the pulse was small and quick; the hands were cold and clammy; and the breathing had become difficult. On an examination, I found that the head had considerably receded from the situation it occupied in the morning. These symptoms sufficiently convinced me of the nature of the accident; and I had no alternative but in immediate delivery, which I effected by passing my hand and bringing down the feet; but I had such difficulty in getting the head through the Pelvis, that I was obliged to lessen it by perforating it behind the occiput, and then extracting it. The Placenta was withdrawn without difficulty, and an opiate was then given.

The next morning the poor woman had passed a most restless night; she had vomited a quantity of black ill-tasted fluids; her pulse was small and tremulous; her extremities cold and clammy; her breathing was difficult, and she complained that she could not fetch her breath below the sternum. Under these symptoms she did not long survive.

The body was inspected the following morning at eight o'clock. It was, externally, much swollen, and on dividing the parietes a quantity of bloody serum, mixed with puriform matter, escaped. The intestinal canal was highly inflated. The Uterus was well contracted, and on drawing it forward, a large rent was discovered on its posterior part opposite to that point of its surface which rested on the prominence of the Sacrum, which had a sharp ridge, almost as sharp, indeed, to the finger, as the edge of a blunt knife. The Pelvis had about two inches and a half in space from Pubis to Sacrum.

CASE CLIV.

Some time ago, I was called to a patient at a short dis-

tance from my house, attended by a respectable accoucheur. On my arrival, I was told that the hand was down in the Vagina, with the shoulder presenting; and that some attempts had been made to turn the child, in which the efforts of my friend had not been successful. The woman had not been long in labour, but she appeared to be very much exhausted. Being prepared to turn the child, I passed my hand with great ease, and pushing up the shoulder, I readily found the feet, which I brought down; but in the operation, I did not meet with that resistance which I expected in a contracted Uterus, and I felt satisfied that the Uterus was ruptured: either under the former unsuccessful attempts, or by its own strong contraction. The Placenta was removed without difficulty, but the woman survived only a few hours.

CASE CLV.

I was requested by a respectable accoucheur to give him a meeting at the house of a patient in the City Road, to visit a lady whom he had attended the preceding evening of her seventh child, after a tedious labour, and whom he represented to be dangerously ill. On attending the appointment, we had the mortification to find that our patient was already dead. From the time of her delivery, she had gradually sunk, and died somewhat suddenly a short time before our arrival. I could not learn that any particular occurrence, to excite alarm, had happened during the labour, or that there was any external flooding; notwithstanding she afterwards appeared much depressed, and gradually declined. Leave was obtained to open the body that evening. The belly was much swelled, and soft. On dividing the abdominal parietes, a considerable quantity of bloody fluid appeared in the cavity of the belly; the intestinal canal was highly inflated, and the omentum was loaded with fat. The viscera generally looked healthy. On bringing forward the Uterus, which was well contracted for the time, a rent of several inches in length was discovered in its peritonæal coat, on its back surface, extending nearly to the insertion

of the left broad ligament, in which the fleshy structure of the Uterus did not seem to be implicated.

CASE CLVI.

About five in the morning of Monday, my assistance was requested by a medical friend in a case of difficulty and danger, near Goswell-street Road. I visited the patient immediately, and found a woman towards thirty, in labour of her second child, under great distress, and with every symptom of rupture of the Uterus. She could with difficulty bear the recumbent posture. Her breathing was laborious, with the frequent exclamation of "Oh! my breath!" and she complained also of a constant sense of sinking. Her belly was swelled, and so tender that the slightest touch caused pain. Her pulse was small, quick, and tremulous; her extremities cold; and her countenance was pallid and depressed. I received the following account of the case.—"That this woman had passed a small child six years ago, after a lingering labour; that her present labour commenced on the Saturday morning; that it went on slowly but progressively through the day, under the care of a professional man; that the membranes gave way towards evening; and that about midnight the Os Uteri had become completely dilated; yet the head still remained at the brim of the Pelvis. That throughout the following day, (Sunday,) the Uterus had continued to act regularly, and that, towards evening, the head seemed to be descending, the woman was in good spirits, so that a happy issue was presently expected. That about two o'clock on the morning of Monday, when, to appearance, she was going on well, she was suddenly seized with an excruciating pain in the left side of her belly, totally different from labour-pain; that her countenance immediately changed, her extremities became cold, her skin was covered with a clammy sweat, and her pulse faltered; that she afterwards vomited, complained of faintness, and of an affection of her breathing; and that, for a time, the Uterus ceased to act." Her attendant, aware that some internal mischief had happened, of which she herself seemed

to be also convinced, called in a medical friend, who, seeing the urgency of the case, perforated the head, but did not succeed in satisfactorily extracting it, so that an appeal was now made for my assistance. I proceeded to extract the head, without loss of time, which was not effected without some difficulty; the body of the child quickly followed. The Uterus contracted well, and threw down the Placenta, which was shortly removed with perfect ease. The woman was now put comfortably into bed, and a large dose of laudanum was given in some brandy and water, which was soon rejected. She was still much distressed by frequent retchings, which caused an increase of pain about the belly; but after some hours they ceased. Towards evening of that day, (Monday) she seemed relieved; the pulse had improved in strength, and diminished in frequency; she had enjoyed some refreshing sleep; but the belly was swelled, yet less tender. The next morning (Tuesday) the retchings returned, and the belly had become more painful. A number of leeches were now applied, from the effects of which she expressed herself much relieved. A dose of calomel was also given, and a purgative enema afterwards injected. Towards evening the symptoms increased in violence; about midnight she became excessively restless; and, her strength declining rapidly, she died about six A. M. on Wednesday, forty-eight hours after delivery.

The body was inspected on Thursday morning. The belly was externally tense and swelled. On dividing the abdominal parietes, a quantity of offensive gas escaped, and a quart or more of bloody serum was observed in the abdominal cavity. The peritonæum, generally, was more or less inflamed; but that portion investing the Uterus, and some parts covering the small intestines, were more turgid with blood than the general surface. The intestinal canal was considerably inflated. The Uterus was well contracted for the time after delivery, and was free from injury. The bladder showed some marks of inflammatory action; and upon drawing forward the Uterus, an extensive laceration of the posterior part of the Vagina, extending towards the

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left side, was discovered a little below the Os Uteri, which communicated with the abdominal cavity, but which did not implicate in its ravages any part of the Uterus. The breach of structure of the vaginal coat was extensive, whilst that of the peritonæal coat did not exceed an inch in length. The Pelvis measured three inches from Pubis to Sacrum, and five from side to side; it was also rather deformed.

CASE CLVII.

On the morning of Tuesday, I was requested to visit a lady, in the neighbourhood of Hackney, who was in labour of her third child, and whose previous labours had been very favourable. Her attending accoucheur was called about one o'clock in the morning of Monday, at the commencement of pain; but the process going on slowly, after waiting in the house till about nine, and finding his presence not necessary, he left the patient, and saw her repeatedly during the day. Towards evening, uterine contraction became more active; presently the membranes gave way, and expulsive efforts succeeded; the head gradually descended, so that, by midnight, the vertex almost reached the perinæum; in short, the labour seemed to be going on naturally, but slowly, and there was every reasonable expectation that it would soon be favourably terminated. By-and-by, however, the uterine efforts began to diminish in power and effect, and, after the lapse of a few more hours, the patient's strength appeared to give way, and she complained of a fixed pain in the left side of the belly, just within the Ilium, which prevented her lying on that side with any degree of comfort. The labour appearing for some time stationary, and the patient to be in a state of uncertainty, my attendance was requested. I saw her about nine in the morning of Tuesday, and on entering the room, I found her kneeling on the floor by the side of the bed, and supporting herself on her elbows. She had chosen this posture, because it was more easy to her than a lying position; and stated, that she could not lie down on her left side, without much increase of suffering. Her coun-

tenance was pale, anxious, and dejected; her pulse quick and languid; respiration was quickened, but not laboured; and her belly was tender to the touch, especially about the part above-mentioned, on pressing which, she complained heavily. The head of the child was occupying the Pelvis, with the vertex low down and the face to the Pubis, and the external parts much swollen and painful. There was almost an absence of uterine contraction, with a slight bloody discharge. This lady possessed a strong mind, and bore her sufferings with more than usual fortitude. The symptoms appearing to me, and to my medical friend, to be indicative of serious mischief, we determined upon immediate delivery; and under the swelled state of the external parts, the absence of pain, the situation of the head, and the probability of a breach of structure about the Os Uteri, or in the Vagina, the perforation of the head offered the most easy and the most ready mode of relief. We had the satisfaction of being convinced, on perforation, that the child had lost its life previously. The child was extracted without much difficulty, the Uterus contracted, and a quantity of blood followed the exit of the child. The uterine tumour was now firm, and pretty well lessened. After waiting a reasonable time for the natural separation of the Placenta, and some discharge coming on, it was deemed prudent to remove the Placenta by the hand. On the introduction of my left hand into the Uterus, the knuckles passed over a soft flabby space, which gave little resistance, and at the moment impressed me with the idea, that the Vagina had given way. The Placenta was readily removed, and the Uterus contracted properly; and after relieving the bladder by the catheter, an opiate was given. It would be tedious to enumerate each day's report and the treatment: suffice it to say, that the symptoms, for the first few days, were very alarming, particularly pain and tension of the belly; but they so far subsided, as to afford some hope of recovery; the bladder was occasionally relieved by the catheter, and the bowels by aperients. On the 21st, a quantity of offensive gas, with some bloody fluid, escaped *per vaginam*, on pressing the

belly. The discharge *per vaginam*, was, upon the whole, more copious than usual. On the 24th, the alarming symptoms had nearly disappeared; the lady had got some sleep in the night, and could now turn herself in bed with ease; she was in good spirits, and stated herself to be considerably better. Towards evening, she became sensibly worse, and expired in the course of the night. Leave could not be obtained to inspect the body; yet little doubt remained on my mind of the nature of the case.

CASE CLVIII.

I was sent for to a poor woman in Bacon-street, Spital-fields, under symptoms of great distress in her first labour, but being from home at the time, a medical friend visited her for me; who, finding her in a most dangerous state, with a pulse scarcely perceptible, with cold extremities, and a bad countenance, considered immediate delivery necessary, and then he proceeded to effect that object by lessening the head, and early extraction. After delivery, recourse was had to stimulants, and to the application of bottles of hot water to the feet. For about an hour she appeared to revive, but after that time, she continued to sink, and died within two hours after delivery. The body was inspected the following day, in the presence of an eminent accoucheur and myself; upon which the bladder was found to be extensively lacerated, and its contents to be effused into the abdominal cavity, in considerable quantity. This poor woman had been in lingering labour for several days under the care of a midwife, who had absented herself occasionally from the house, and who had entirely neglected the state of the bladder; and at the time the disastrous accident occurred, the labour was well advanced, and promised a speedy termination.

CASE CLIX.

About ten at night, on Wednesday, June 16, I was called

into one of the streets, near Goswell-street, to visit a woman, aged thirty-six, in labour of her first child. The process had commenced on the morning of Monday, it went on slowly but progressively till the early part of this day, (Wednesday,) when the pains began to be more violent and forcing. About four P. M. this woman had been seized with an uncommon pain in the right side, near the navel, with the sensation of something having given way within her, and afterwards the labour-pains began to decline, so that they had, at my visit, almost disappeared. The breathing had become short; she felt low and faint, but there was no external discharge of blood. The pulse was small and quick; the tongue was dry; and the countenance looked ill. The head of the child was occupying the Pelvis, and the vertex had descended almost to the perinæum, but it was placed diagonally, with the forehead towards the right groin, and with the right ear under the Pubes. Upon inquiry into the state of the bladder, I was told by Mr. R., who had been in attendance since Monday evening, that she had not, voluntarily, passed any urine, but that it had dribbled away all the labour. Upon examining the belly, no vesical tumour was perceptible, but an irregularity was observable under the uterine tumour, like a bent elbow or knee, which led me to suspect the Uterus to be ruptured. Some blood had been taken from the arm on the commencement of this pain, so different from labour-pain. Immediate delivery appeared to me to be the only rational resource; and applying the forceps, I extracted the head with some difficulty. After the head was extracted, there was an appearance of blood, which seemed to strengthen my previous suspicions. The Placenta required the introduction of the hand for its removal. After delivery, the Uterus contracted, but the same irregularity was still perceptible upon it. The next day, (Thursday,) the belly was found painful and swelled; there was a small quick pulse; the bowels had been relieved; and a very small quantity of urine had been passed. The day following, (Friday,) the belly was more tumid and painful; the pulse was sinking,

and the extremities were becoming cold. This evening the woman expired. Leave was obtained, with some difficulty, to inspect the body. Upon dividing the abdominal parietes, a large quantity of bloody fluid was seen in the cavity, some part of which escaped; the intestinal canal was inflated, and was inflamed on its peritonæal coat; the Uterus was well contracted and entire, having, on the fore and upper part of its substance, a fleshy tubercle larger than a hen's egg. The bladder was empty, and its fundus was blackish for about the size of half-a-crown, and on raising it up, we discovered a hole sufficiently large to admit the finger freely. Under the distension of the bladder, this hole would have been opposite to the tubercle on the Uterus. This case needs no comment: it is too plain, that the distension of the bladder had been entirely overlooked.

I insert these cases, as an additional stimulus to my junior brethren to watch the bladder attentively under lingering labour.*

ON RETROVERSION OF THE UTERUS.

This term is fully expressive of the nature of the case. The fundus of the Uterus is turned downward and backward into the hollow of the sacrum; while its cervix is pushed upward and forward against, or above the symphisis pubis.

The structure or function of the organ is not materially implicated under this change of situation; at least not for some time after its occurrence. The symptoms subsequent thereto are merely connected with a change in its relative

* There is this essential difference between rupture of the Uterus and rupture of the bladder, although the symptoms in each are nearly similar. The former takes place suddenly, without any previous notice, and consequently cannot be prevented; the latter may always be prevented by common attention to the state of the organ; if the bladder be distended, the mere application of the hand to the vesical region will detect the fact.

position, as regards the pelvic viscera, and those parts with which it is more immediately in contact; and this change is only met with under a state of enlargement from pregnancy or disease; generally under the former, rarely under the latter.

The occurrence usually happens suddenly; and frequently without any apparent cause. It produces no immediate sensation to attract the attention; it therefore escapes the cognizance of the woman herself at the moment, who remains ignorant of being the subject of any inconvenience, until an inability to void the contents of the bladder warns her thereof. She has a natural call for that purpose, but is unable to answer that call; and after making straining efforts to evacuate the bladder, she finds herself utterly unable to accomplish the act. The fact is, that viscus is prevented from relieving itself, at the influence of the will, by a cause to be afterwards assigned. By the regular continuance of the renal secretion, the bladder becomes more and more distended, until the most painful sensations are experienced from that source; and if the state of vesical distention be not artificially relieved, the ureters will by-and-by partake more or less of the same affection.

Another symptom induced by this complaint is, a sense of weight and pressure upon the rectum, whereby the free expulsion of its contents is also impeded. Although there may be a strong inclination to relieve the bowels, the attempt thereat is either entirely fruitless, or terminates in the exclusion of mere fluid fæces or of flatus. Should the case in the first stage be neglected, be overlooked, or be mistaken, a state of distress ensues, which is more easily to be conceived than described; all the appearances become highly aggravated, and extreme irritation with general excitement is presently induced, as a consequence of the vesical distention.

Besides the two preceding prominent and definite features of this affection, on the application of the hand to the lower part of the abdomen, a circumscribed painful tumour, situated just above the pubes, will be there detected, ex-

tending over the lower part of the belly in proportion to the degree of vesical distention. Let it be here kept in mind, that the fundus of the bladder is excluded from the cavity of the Pelvis, in consequence of that cavity being already occupied by the enlarged Uterus, and that the vesical tumour will be prominent and readily traced, extending itself from ilium to ilium in a greater degree than upward.* After a time an involuntary oozing of urine, drop by drop, escapes through the urinary passage, which gives no sensible relief to the more urgent symptoms, but which keeps the parts and the linen uncomfortably wet, and which occasionally induces a mistaken notion that the urine is voluntarily passed.

Retroversion is only produced about that period of time when the enlarging Uterus nearly fills up the cavity of the Pelvis, and before it emerges therefrom into that of the abdomen. Under pregnancy, therefore, it occurs most ... between the third and fourth months of gestation. [illegible]

[illegible]

weight and volume of the organ, turns the whole mass upside down; so that its relative connexion with the neighbouring parts is entirely deranged, and its natural situation is nearly reversed. Now, instead of the Fundus Uteri being directed upward, as before the accident, it occupies the hollow of the Sacrum, with a considerable portion of the pelvic cavity; and instead of the Os Uteri being placed in the centre of the Vagina, it is turned upward, and is fixed at, or near the brim of the Pelvis. Here, then, is a complete transposition of the impregnated viscus, producing corresponding inconvenience upon some of the neighbouring parts, especially upon the neck of the bladder and the urinary passage; so that the egress of urine is entirely intercepted. Although the vesical distention might have been the principal cause of the original mischief, that painful symptom is still continued through the subsequent agency of the pressure of the misplaced Uterus.

The above symptom, occurring at the period already alluded to, will generally be sufficient to excite a suspicion, that a retroversion may have taken place; but the fact will be still more satisfactorily detected, and the case more completely cleared up, by a vaginal examination. Upon passing the finger within the Vagina, a round solid tumour, the Fundus Uteri, will be met with, filling up the pelvic cavity; but the Os Uteri will be with difficulty reached, since it is lying against or above the Symphisis Pubis. Let it however be recollected, that in this examination, the finger does not impinge immediately against the Fundus Uteri, but against the vaginal membrane surrounding it. For the Fundus Uteri is turned back into the folds of cellular structure between the vaginal membrane and the rectum. If an examination be also made *per rectum*, the same tumour will be detected pressing upon that gut.

The first and most obvious indication is, to empty the bladder by the introduction of the catheter. Vesical distention, being at the present moment the most distressing symptom of the complaint, should be immediately relieved; if it be not timely attended to, it becomes replete with the

utmost danger. The catheter is generally introduced with little difficulty; yet every now and then, that object will call for some tact and management. I have known the instrument to have been passed through the back part of the Meatus Urinarius, without at all entering the bladder.*

As soon as the bladder is completely or even partially emptied, immediate relief is obtained, at least for the present; and a state of acute suffering is changed to one of comparative ease. Yet this relief from present suffering will probably not be permanent. If the retroversion should continue, the bladder will again become distended, and this distention will demand the re-introduction of the catheter; which may be repeated once or twice in the twenty-four hours, as the urgency of the case may require. It may be here proper to remark, however, that the bladder ought not to be allowed to be fully distended at a future time; it ought to be relieved by the catheter before the sense of pain becomes urgently distressing.

After the urine has been thus drawn off, the contents of the intestinal canal should be in the next place evacuated. This object may be effected either by means of a purgative medicine, or of a clyster; the latter mode is perhaps, in the first instance, preferable. But its exhibition will require some caution, since the parietes of the rectum are compressed by the displaced Uterus, and its natural diameter proportionally diminished.

After the relief of the bladder and the free evacuation of the bowels, the Uterus will frequently resume its proper

* Some years ago I was called by a medical friend to his assistance in a case of retention of urine. He had attempted to introduce the catheter under a retroverted Uterus, and had passed the instrument, as he thought, into the bladder, but no urine escaped. I found the woman's bladder extremely distended, and from this cause she was suffering a great degree of pain. Upon attempting to introduce the catheter, the instrument passed readily enough, but no urine followed. I therefore was satisfied that the instrument had made itself a new passage. After some trouble, varying the direction of its point in different ways, I was fortunate enough to regain the urethra, and to reach the bladder, upon which the urine flowed plentifully. When I called the next day, the woman had voluntarily discharged her urine, so that most probably the Uterus had assumed its proper situation, after the evacuation of the vesical contents.

position; in that case all the symptoms will presently disappear. The process of pregnancy will then proceed onward, as if such a misfortune had not happened, and the woman will suffer no future inconvenience. But at other times, the patient does not prove so fortunate; the derangement will continue for some time, notwithstanding the most correct treatment, and may even demand mechanical assistance for its removal. Yet this is a rare occurrence. By attention to the state of the bladder, and to that of the intestinal canal even for a few days, the complaint is generally relieved, and its symptoms entirely subside.

But if this should not turn out to be the case; if after some days continuance the symptoms do not disappear; it may become a matter of prudent policy to attempt the reversion of the displaced Uterus by the hand. For, although that viscus occupies an unnatural situation, the process of pregnancy seldom becomes immediately interrupted; it proceeds onward for a time, so that the enlarging womb is daily increasing in size notwithstanding its retroversion. If the organ be allowed to remain long retroverted, it will extend itself in an irregular direction, and by adapting itself to the shape of the pelvic cavity, it will become more and more impacted therein; so that at length its replacement will either become impossible, or it will require the exertion of such a degree of force to effect it, as is incompatible with the welfare of the uterine contents.

If therefore, under the regular relief of the bladder for a few days by the catheter, the Uterus should not be naturally re-instated, an artificial attempt to replace it should be made. With that view, let the woman be placed upon her elbows and knees, her body thereby forming an inclined plane; let two or more fingers of the left hand be introduced within the Rectum, for the purpose of pushing up the Fundus Uteri; at the same time let one or more fingers of the right hand be passed within the Vagina with the object of drawing down the Cervix Uteri; by the assistance of each hand at the same moment in the general intention,

the Uterus will occasionally be restored to its natural position.

Yet if this operation should be attempted, let it ever be kept in mind, that the contents of the Uterus are, in all probability, still possessed of vitality; and that no degree of force, inconsistent with that vitality, should be applied to effect the object intended. If the life of the ovum should be destroyed under the operation, abortion must subsequently ensue.

That the Uterus has resumed its original situation is known by the disappearance of the distressing symptoms; by the voluntary evacuation of the bladder and rectum; and, on a vaginal examination, by the absence of the round tumour in the Pelvis, and by feeling the Os Uteri in its usual place, near the centre of the cavity.

If the bladder should be allowed to remain distended for an unusual length of time, a very serious derangement of its internal surface may ensue, as a consequence of extreme extension. Its mucous surface then assumes a state of disease, under which a large quantity of thick viscid mucus, sometimes mixed with blood, exudes from the vesical lining. Its muscular structure also loses somewhat of its natural tone, whereby it is disabled from exerting its usual contractile effort. Yet after a lapse of some time, under proper management, this viscus may regain its healthy state and powers.

Under the continuance of distressing and dangerous symptoms, it may even become an imperative part of professional duty to terminate the process of pregnancy by the induction of abortion. Yet as this proceeding involves in its consequences the certain destruction of the future prospects of the woman, as far as the production of a living child is concerned, as well as a high degree of professional responsibility, I think, that it ought not to be proposed, except upon grounds of the greatest and most urgent necessity; and not even then, perhaps, without the sanction of a second opinion. This argument, however, may be adduced in its favour; that, under a continued state of retroverted

Uterus, the fœtus would not in all probability arrive at perfection, and be expelled alive. Miscarriage or premature labour would sooner or later be the ultimate result.

Even if the induction of abortion be determined upon, a considerable share of professional tact will be requisite in effecting that object without injury to the parts. For the Os Uteri, in these protracted cases, is situated so high, as to be with difficulty reached by the finger; and even if it can be reached, its awkward situation does not readily admit the introduction of any instrument into the uterine cavity. In the only instance in which I have been obliged to perform this operation, I succeeded in my object by the introduction of an elastic bougie.

In several instances in which retroversion has taken place, I have found the brim of the Pelvis not well formed; there has been an unusual projection of the prominence of the sacrum, which has mechanically prevented the free ascent of the Fundus Uteri.

CASE CLX.

In the beginning of October, I was requested to visit a poor woman in Church-street, Mile-End New Town, who was suffering under retention of urine. I was told that she had not passed her urine voluntarily for three weeks; yet, that an involuntary dribbling had occasionally taken place without giving her any relief. The vesical tumour was large and painful. I immediately passed the catheter, and drew off a large quantity of fetid offensive urine, by which the previous sufferings of the woman were instantly relieved. Suspecting the Uterus to be retroverted, I passed my finger into the Vagina, and detected the fact. On further inquiry, she supposed herself to be nearly four months advanced in pregnancy. Some aperient medicine was ordered, and the catheter was daily introduced. In the beginning of the following week, I made a powerful effort to revert the Uterus, but without success. The attempt was repeated a few days after, with an equally unsuccessful issue. The woman was

now consigned to the care of one of my pupils at the hospital, who regularly relieved the bladder twice a day. Towards the end of November, the symptoms continuing, with costiveness, nausea, occasional vomiting, and a considerable degree of emaciation, I made another more forcible effort to replace the Uterus, but I still did not attain my intended object.

About a fortnight afterwards, the gentleman in charge of the poor woman, wrote to me to inform me, "that the membranes had broken, and that the liquor amnii was discharged, with the commencement of labour-pains." I went immediately to the poor woman's assistance, and on examination, I found the Pelvis completely filled up by the enlarged Uterus, with the Os Uteri open above the brim of the Pelvis; pressing against the abdominal parietes, through the emaciated structure of which, the opening uterine mouth could be distinctly detected. Under this state of things, I hardly knew what step to take; but thinking it absolutely impossible that the child could pass into the world with the mouth of the Uterus pressing against the parietes of the belly, I determined on making another, and a very active effort to produce a change in the uterine situation, if possible. Kneeling down by the side of the bed, I gradually introduced the whole of my left hand into the rectum; then passing my right hand between the woman's thighs upon her belly, I pushed up the Fundus Uteri with the palm of my left hand, at the same time drawing down the Cervix Uteri, and parts adjoining, with my right hand. After the continuance of such exertions, attended with considerable pain to the woman, for a short time, I felt the Uterus give way upward, and the tumour in the Pelvis to disappear. Upon a vaginal examination, I was now pleased to find the Os Uteri in its proper situation, somewhat open, and the presenting part of the child to be felt through it. I then left the woman under the care of an experienced midwife, by whom she was safely delivered of a *living* child in about two hours after my departure. The child did not appear to have quite attained the seventh month, and only

survived a few hours. The woman during her confinement presently began to rally, and ultimately recovered her previous state of health.

It is probable that, if this case had been properly attended to in its early stage, if the bladder had been merely relieved daily by the catheter, all the future sufferings of the woman might have been prevented. Notwithstanding the Uterus was retroverted for months, the vitality of the child was not destroyed. Yet the Uterus must have been strongly compressed within the pelvic cavity, to which it had adapted its shape; but some part of the enlarging viscus had extended itself above the Pelvis irregularly. I think that the ultimate success in replacing the Uterus depended upon the sudden diminution of its bulk by the discharge of the liquor amnii; a fact that may lead to future improvement in practice in such cases of danger.

CASE CLXI.

One Saturday, I visited Mrs. H. in Southwark, who had been suffering for many days under retention of urine. Upon entering her room, the lady was in a half-sitting, half-standing posture at the foot of the bed, with a chamber-utensil under her dress, into which was dripping every now and then, a drop of urine. Her medical attendant was sitting in the room, to whom I addressed myself, and inquired the nature of the case? He replied, "that he did not exactly know, but he thought it was *ovarian*." I requested the lady to permit me to put my hand upon her *stomach*; upon which I immediately detected a highly-distended bladder, reaching much above the Umbilicus, and extremely tender under the hand. Desiring her to recline upon the bed, I passed a catheter into the bladder, and drew off a large wash-hand basin full of most offensive urine. The lady immediately exclaimed, "Oh! I am in heaven." Upon inquiring into the commencement and duration of her sufferings, I learnt "that about fourteen days preceding, Mrs. H. went to bed perfectly well, being

then about three months advanced in her second pregnancy; but that on attempting to relieve her bladder the following morning, she found herself unable to do so. After repeated unsuccessful efforts to accomplish that object, she called in the medical man then present, who began to ply her plentifully with medicines, and who had visited her regularly from day to day, without procuring her any relief." Thus had this respectable woman been suffering under the extreme agonies of a distended bladder for fourteen days and nights, without any effective attempt having been made to relieve her!! The bladder was all this time merely prevented from bursting, by the droppings mechanically forced out of the urinary passage by the degree of distention.

After relieving the bladder, I passed a finger into the Vagina; I then found that the Uterus was retroverted, its fundus was filling up the Pelvis, and its cervix was close upon the pubes. I contented myself for a day or two with merely passing the catheter daily, and with the exhibition of an occasional opiate; but on Monday, I made an attempt to replace the Uterus, which proved unsuccessful. The day following I made a second, and a more powerful effort with the same intention, but with no better success. On Wednesday, a quantity of viscid mucus fell to the bottom of the vessel in which the urine was received. It now became necessary to empty the bladder twice a day. On Thursday evening a quantity of fluid blood followed the escape of the urine. On Friday and Saturday, little more than fluid blood passed through the catheter upon its introduction. At this time the lady's strength seemed to be giving way rapidly; she appeared extremely ill; her countenance was pallid and dejected; and the Uterus continued retroverted. It was now evident that a state of great derangement had taken place in the bladder in consequence of its previous distention. I this day stated to Mrs. H.'s friends, that if some means of permanent relief could not be devised, the case would probably prove fatal; at the same time I suggested the propriety of inducing miscariage. As this, however, was a practice somewhat novel, and its success

in this case was evidently uncertain, I requested a consultation, and with that object in view, the next day, Sunday, an accoucheur of acknowledged professional attainments met me. After he had made his own examination and inquiries, he entirely acquiesced in the propriety of the practice I had proposed, viz. that of inducing miscarriage, as the most likely means of obviating the symptoms; but the difficulty seemed to both of us to be, in the power of effecting that desirable proposition. Not being at the moment provided with any proper instrument for rupturing the membranes, I deferred the operation till the evening; when I attended the patient furnished with such means as seemed likely to enable me to accomplish my intended object. After drawing off the urine, which was still mixed with a quantity of fluid blood, I passed two fingers of my left hand by the Pubes upon the Os Uteri, over which I introduced a bending bougie, and was fortunate enough to insinuate its point within the Os Uteri, by which the membranes were ruptured. A proof of this fact was immediately evident in the escape of the watery fluid. The next day, Monday, passed over, as several previous days had done; the bladder was twice emptied by the catheter; and my patient appeared extremely ill. About five o'clock on Tuesday morning, an urgent message was sent to me, to request my immediate attendance, "as Mrs. H. was supposed to be dying." I went instantly, and on my arrival at the bedside, I had the gratification to find that the fœtus was already expelled; and that the small Placenta was loose in the Vagina, which I withdrew; the Uterus had now resumed its proper situation, and was contracted. The case was so far quite satisfactory; yet the lady appeared to be in a very dangerous state; she had, however, lost very little blood under the process of miscarriage. Through this day, and that of Wednesday, she continued very ill; the urine began now to pass *involuntarily*. On Thursday morning, having obtained some comfortable sleep during the night, she appeared somewhat improved; this day she voided her urine *voluntarily*, mixed with a large

quantity of thick viscid mucus, which fell to the bottom of the vessel. On Friday and Saturday she was evidently getting better; she passed urine frequently at will; and at each call more than one half appeared to be viscid mucus, sometimes tinged with blood. Henceforward, the quantity of mucus daily diminished, and the lady gradually recovered; but after some days, the sediment in the urine assumed a more puriform appearance. This gradually became less in quantity, and by-and-by ceased altogether. In the space of six or eight weeks she regained her usual health; the bladder acquired its natural functions; and the urine became free from deposit.

The medical treatment of this case was such as the respective symptoms called for; consisting chiefly in the exhibition of opiates, aperients, and salines.

About Christmas following, Mrs. H. became again pregnant, and when she had reached the third month of gestation, the Uterus became retroverted a second time; attended by its regular concomitant, retention of urine. After the bladder had been relieved a few times by the catheter, the Uterus spontaneously righted itself, without the necessity of other assistance. She afterwards went on to her full time, and was delivered of a living child the latter end of September, under my care.

CASE CLXII.

Jane C., a married woman, æt. thirty-one, became pregnant in December, 1828, and some time about the middle of March following, on endeavouring to reach something from a shelf above her head, she had a sensation of a *giving way* within her, which was followed by an inability to pass urine; yet a little escaped now and then *involuntarily*. She was a severe sufferer for some weeks, and on Wednesday, April 22nd, 1829, she applied to a public charity for relief. At this time the belly was extremely tender under the hand, and as large as that of a woman seven months advanced in pregnancy. Her pulse was small, quick, and

irregular; her tongue was white and dry; her countenance was pallid, and showed marks of great anxiety. The catheter was introduced by the professional attendant of the charity, and nearly three quarts of urine were drawn off, but at several times; but it was found, that the apertures of the catheter became so plugged up with mucus, that the instrument was obliged to be withdrawn, and re-introduced. The urine was highly offensive, of a reddish-brown colour, and on cooling presented the appearance of a mixture of mucus and serum. The day following, she appeared to be somewhat relieved; the catheter was twice introduced, and about two pints of urine were withdrawn. On the Friday morning she had passed a restless night; her tongue was brown and coated, and several unsuccessful attempts were made to relieve the bladder. I was requested to see her this day about noon. She had now become extremely averse to receiving any assistance, and obstinately refused to permit the introduction of the catheter. I passed a finger within the Vagina, and found the Uterus to be retroverted; but no persuasion could induce the woman either to permit the introduction of a catheter, or that of a bougie into the Uterus for the purpose of rupturing the membranes, and thereby of inducing miscarriage. She lingered in a state of extreme suffering to the time of her death, which took place on Thursday, May 7th.

Inspection of the body was with some difficulty obtained. On dividing the abdominal parietes, some fluid escaped, which seemed to be a mixture of serum and pus. Adhesions had formed between the transverse colon and the abdominal parietes, as well as between the colon and the fundus of the bladder. The bladder was large and flaccid; its peritonæal covering exhibited marks of inflammation; its mucous lining was in a state of great derangement, coated with a substance of a semi-fluid consistence, which might be drawn out in shreds of a lymph-like kind; when this was removed, its lining was rough, flocculent, and the whole vesical contents were extremely offensive. At the point of adhesion between the bladder and colon, the

ulcerative process had taken place, so that there was a free communication between the two cavities. Both Ureters were much distended, especially that on the left side. The Uterus was completely retroverted, with the Os Uteri at the pubes; the body and fundus were filling up the Pelvis, with its lateral part rising upwards toward the abdomen, just above the brim. It contained a male child of somewhat more than four months developement, with a large quantity of liquor amnii, and appeared quite healthy in its structure.

This is an instructive case, and offers a good specimen of the resources of Nature in such instances. It shows the difficulty of replacing the Uterus, when it has been some time retroverted; and that, notwithstanding the degree of pressure which that viscus suffered, the life of the fœtus was not thereby destroyed till most probably after the death of the mother. The womb seemed to be so tenacious of the important process going on within it, that no means, except the rupture of the membranes could check its progress.

CASE CLXIII.

On the evening of Friday, March 31st, 1820, I was requested to meet a respectable physician and an apothecary in consultation on the case of a woman, who was suffering under very uncommon symptoms. This woman had been married several years, but had never become pregnant. She had complained of an enlargement in the belly for some time, and for the previous three weeks she had experienced obstinate costiveness, with a very scanty evacuation of urine. Various kinds of active purgatives had produced no effect upon the bowels. At the time of my visit, she had a tumid belly; she had passed no urine voluntarily for some time; yet some was almost constantly dribbling away; and the bowels could not be moved by the common remedies. Suspecting the bladder to be distended, I introduced the catheter, and drew off, in the presence of the medical gentlemen, a wash-hand basin full of urine. This produced immediate

relief. I then passed my finger into the Vagina, and found a large firm tumour entirely filling up the Pelvis, and pressing upon the Rectum; I attempted gently to push up this tumour, but it would not give way. The bladder was afterwards relieved daily. On the Wednesday following, a celebrated accoucheur saw the woman; who, considering the case to be a retroverted Uterus, endeavoured to push up the tumour with a considerable degree of force; this attempt gave the woman great pain, but it proved unsuccessful; he also endeavoured to pass a catheter within the Os Uteri, which could scarcely be felt, with the intention of rupturing the membranes; this proceeding was also of no avail.

Another professional accoucheur saw this patient with me on Friday, April 7th; he also entertained a similar opinion respecting pregnancy, and advised the rupture of the membranes; but that object could not be effected. The belly was now much swelled; the bladder was regularly emptied; but no effect could be produced upon the intestinal canal, either by internal medicine or by clysters. This being the case, on the evening of this day, I passed a hollow elastic gum pipe up the Rectum beyond the obstructed part, and withdrew through it from the intestinal canal several quarts of fluid contents. This proceeding procured immediate ease, and the woman had several hours refreshing sleep. The same operation was repeated on the evening following, with a similar effect, but not with equal relief. When I called on Sunday morning, April 9th, I was told that the woman had expired in the night.

Leave was with much difficulty obtained to inspect the body, and that only under the condition, that the husband should be present; the inspection took place the next day.

On dividing the abdominal parietes, a large cyst presented itself to view; which occupied the anterior part of the abdominal cavity, and was partly covered by the omentum to which it was adherent; it was also attached to the peritonæal lining of the abdomen, and to the fundus of the bladder. It was extremely vascular, contained fluid,

and had pushed up some of the small and large intestines, which were much distended. The peritonæal covering of the intestinal canal, and the lining of the abdominal parietes, were also very replete with red vessels. The bladder was empty, and appeared healthy in its structure; its fundus was adherent, as above-mentioned. A puncture was made into the cyst, and some quarts of serous fluid were drawn off by a catheter; the sac was then turned over the pubes. The Uterus now was seen healthy, unimpregnated, and lying upon a smaller cyst filling up the whole cavity of the Pelvis, which might contain two or three pints of fluid. This smaller cyst was adherent to the whole of the parts within the cavity of the Pelvis, especially to the Rectum; upon attempting to separate these adhesions, the fluid escaped along with some puriform matter. The upper and larger cyst proved to be the left Ovarium in a dropsical state; the under cyst was the right Ovarium in a similar state; the Uterus was situated horizontally between the two, with its orifice above the pubes. The Fallopian tubes had lost their usual appearance. This examination was necessarily shorter and more imperfect than it otherwise would have been, in consequence of the husband's presence, who soon became very impatient to have it concluded; but it was sufficient to satisfy all present, that the dropsical state of the right Ovary, by its firm adhesions within the Pelvis, and its consequent pressure upon the Bladder and Rectum, had produced all the singular symptoms observed during life.

Note.—It is a singular fact, that retroversion of the Uterus, although marked by such obvious and distressing symptoms, and so formidable in its consequences under neglect, should have remained unnoticed and undescribed, till nearly the middle of the last century. About that time, it attracted the attention of Dr. William Hunter, by whom its nature, symptoms, and danger were ably demonstrated in a paper published in the fourth volume of the Medical Observations and Inquiries. The professional merits of Dr. Hunter, as

well as those of his ingenious brother, Mr. John Hunter, have been too well appreciated by the medical world, to require any eulogy from my pen.

ON POLYPUS OF THE UTERUS.

The word polypus is applied to a diseased excrescence attached to some part of the cavity, of the neck, or of the lips of the Uterus, by a pedicle, or stalk.

The origin of the complaint is involved in so much obscurity, that I dare not offer an opinion upon the mode of its commencement. When, however, a state of acquired morbid growth is once so far established, as to lay the foundation of the disease, it regularly increases in proportion to the diameters of the vessels supplying its substance. The size of a polypous tumour, therefore, may vary in different instances from the magnitude of a pea, of a filbert, of an egg, of a large orange, to that of the infantile head; it may even ultimately proceed to that extent as entirely to impede the functions of the rectum and bladder.* As the increase and enlargement of its body are developed, so is its pedicle also proportionally thickened.

The external covering of the tumour is an expansion of the uterine membrane, deprived of much of its natural character and sensibility, by extension and exposure. The blood-vessels, which supply its means of growth, originate in the

* Some years ago, I was present at the opening of the body of a woman in a public dissecting room, which had been promiscuously brought there. Upon opening the abdomen, the Uterus was seen thickened, increased in size, and rising out of the Pelvis. Upon inspecting the pelvic viscera a very large polypus was found attached to the Os Uteri, which filled up the cavity of the Pelvis, and prevented the free exit of fæces and urine. The coats of the Vagina were considerably thickened, as were those of the Uterus.

uterine structure; at least they may be considered as branching off from the uterine vessels. The internal appearance of a polypus upon division (especially when it has undergone no alteration from the putrefactive process) is commonly firm and laminated; impressing the mind with the idea, that its increase of size is produced by condensed layers of a secreted deposit.

A polypus may exist in the Uterus, in a silent inactive state, yet progressively increasing, for months, without exciting any suspicion in the mind of the patient that she is the subject of such a disease. At length, however, it enlarges to that extent, as to induce symptoms of irritation, hæmorrhage, and other inconveniences. Its presence generally produces an increased quantity of (what is considered) menstrual discharge at the monthly periods; as well as occasional attacks of hæmorrhage, in greater or less quantity, in the intermediate time. If the woman happen to be young these appearances are readily attributed to an excess of the menstrual discharge; if she be more advanced in life, they are usually considered to be harbingers of the final disappearance of the catamenia; or as that occurrence is commonly termed by women, *the change of life*. From that natural delicacy peculiar to the sex, these discharges are frequently allowed to proceed on to the injury of the health, without any proper inquiry being directed to the detection of their cause. Besides these irregular discharges of blood, there is usually a serous, a mucous, or a puriform draining from the Vagina, which is almost constantly flowing, and which draining obliges the woman to wear a *defence* for its reception. It will now and then happen that the woman has occasional, or more permanent pains in the back, with a sense of pressure or dragging downward, sometimes accompanied by an expulsive effort; but more commonly such sensations are absent; at least they are not so regularly met with as to be considered constant concomitants; nor do they so frequently occur under the presence of a polypus, as under some of the more malignant affections of the Uterus.

The reiterated and irregular attacks of hæmorrhage will

naturally lead an experienced practitioner to the suspicion that the woman is the subject of some uterine mischief; but its true character can only be ascertained by a vaginal inquiry. Whatever suspicions may have previously existed as to the nature of the case, by that inquiry alone can they be verified or negatived. It is sometimes with great difficulty, that a woman, through timidity or a false delicacy, can be persuaded to submit to this unpleasant, though necessary operation. But if the necessity of the case be candidly explained, she seldom fails to sacrifice her delicacy at the shrine of duty.

Under the presence of a polypus, a tumour, variable in size in different cases, is detected by the finger within the Vagina, around which it can be readily carried. This tumour is pyriform or oblong, smooth, and not very sensible; it also, in most instances, impresses the finger with a considerable degree of firmness and solidity; yet occasionally, it is softer to the touch. If the tumour be small, or of a moderate size, the finger may be readily insinuated between its upper portion and the mouth of the Uterus, and even a little way within the cavity; yet its place of attachment to the uterine surface can seldom be reached, especially when it originates about the fundus or body of the Uterus. Should it, however, happen to adhere to the neck or mouth of the Uterus, the point of adhesion is without difficulty detected. If the tumour be large, occupying the greater part of the Pelvis, even the Os Uteri may be out of the reach of the finger. That part of the tumour which is protruded into the Vagina is rounded, and smooth; but higher up, it becomes narrower, and terminates in the pedicle; at the extremity of which is its attachment, with the means of supply and growth. As long as the polypus is retained within the uterine cavity, it assumes the shape of that cavity, and is restrained in its growth; but when it begins to emerge through the Os Uteri, it is expanded in a rounded or pyriform shape, and its increase becomes afterwards more rapid.

The formation of a polypus *in utero* is by no means a

rare occurrence. I am persuaded that it is frequently overlooked, and that it may exist for a length of time without detection. Of the various cases which I have witnessed, by far the greater number has not even been suspected, until a vaginal examination has cleared up the case. Its presence produces little derangement in the uterine structure itself; yet some enlargement of the uterine parietes is generally observed; and if the tumour be allowed to acquire a considerable size, it displaces the Uterus from its natural situation upward; so that in a very thin woman, its enlarged fundus may be felt under the hand, just emerging out of the Pelvis; and impressing the hand with a sensation, not unlike that of early pregnancy.

Another derangement, which is occasionally met with in the Uterus, and which produces many of the symptoms of polypus, is a tuberculated state of its internal surface. This disease is not so readily detected by the finger as the polypus; for, being confined to the cavity, and not protruding externally, it easily eludes observation. Yet, if the Os Uteri be somewhat open, so as readily to admit the finger, a number of small tuberculated eminences may sometimes be discovered within the cavity. These eminences do not possess a narrow neck and base like the polypus; they are as broad at their base as at any other part of their composition. They appear rather to be local extensions of the uterine substance into its cavity, than positive derangement of structure: at least they do not take on that rapid increase in size, which is observable in the polypus. But, like the polypus, they are covered by the mucous internal membrane; the extension of which produces various disturbances in the uterine functions.

Similar enlargements frequently form on the outer surface of the Uterus; I mean on that surface covered by the peritonæum. These tumours are generally called the fleshy or white tubercles of the Uterus, and will occasionally grow to a very large size. As long as they continue small, they are productive of little inconvenience, and may be present for years without detection; for in the examination of female

bodies after death, the Uterus will sometimes be found studded with these tubercles in various degrees of growth, without the presence of any symptom during life, which could lead to a suspicion of such excrescences. Yet I have in some instances been induced to suspect, from a constant pain at the lowest part of the back, that it has been produced by the local pressure of one or more of these irregular tumours upon some of the nerves of the Pelvis.

These external enlargements do not interfere with the natural functions of the Uterus; for both menstruation and pregnancy will go on under their presence. They do not proceed to suppuration or to ulceration, except under circumstances of local pressure upon the Rectum; in that case, the degree of pressure closes the passage through the gut, and at length produces ulceration upon its surface, which extends into the tubercle. They are covered by the peritonæum, which is perhaps altered in its structure and functions by extension; so that a material difference exists in the structure of the covering membrane of the polypus, and in that of the fleshy tubercle. The one has a secreting surface of a mucous description; the other of a serous one.*

I know of no disease which is likely to be mistaken for a polypus of the Uterus, except that organ under inversion of long standing. In such a case, many of the symptoms attending a polypus are present; yet, there are not such large and irregular discharges of blood as under the latter affec-

* I some time ago attended a middle-aged married lady, who for some years had been suffering under pain at the lower part of the back, without its inducing, for a length of time, any material deterioration of the general health. Her menstrual discharges had continued regular, but she had experienced some difficulty in evacuating the contents of the Rectum, which seemed to be gradually increasing. Suspecting disease within the Rectum, I obtained permission to examine that gut. In this inquiry, I detected a tumour of the size of a large orange compressing its coats almost close together. A finger in the Vagina assailed the same tumour at the back part of the Uterus. After suffering some months under very distressing symptoms, it became obvious that ulceration of the Rectum had taken place, which extended into the substance of the tumour. This occurrence produced no alleviation of distress, but rather increased it. A gradual emaciation ensued, which at length terminated the woman's sufferings.

tion. Under uterine inversion the finger meets with a solid smooth tumour in the Vagina, about the size of a small egg, becoming narrower towards its base; but if it be carried carefully around its base, no opening like that of the Os Uteri can be detected; the attachment of the tumour appearing to lose itself in the vaginal membrane. Should this derangement be mistaken for a polypus, and an attempt to remove it be made, the most serious symptoms would most probably follow the experiment.

Diseased excrescences of various kinds may be formed upon the Os Uteri; but they are so irregular in their structure, and they give so different a sensation to the inquiring finger, that they can rarely be confounded with polypus.

When a polypus is detected and declared, a degree of anxiety is always expressed respecting the result. On this point a very satisfactory prognostic may generally be made; for the case usually admits of ready relief by a complete removal of the tumour without much suffering; all the symptoms afterwards disappear, and the woman regains her pristine health; even if her system shall have been previously reduced to a low ebb. This object is effected by the application of a ligature around the pedicle of the polypus by a suitable instrument. The same principle guides this internal operation, as is obvious to the eye in the extermination of a wart, or other similar excrescence, by surrounding its base tightly with a ligature. In each, the circulation through the tumour is intercepted, the mass is deprived of vitality, and at length falls off.

The instrument which I prefer, for the above purpose, is the "double-canula" ligator; consisting of two straight silver tubes, each not unlike a round female catheter, but open at both ends, about eight inches in length, connected by a simple contrivance, firmly fixing them together.* It is to be prepared by passing a sufficient quantity of fine cord, of catgut or of strong twisted silk, up one of the tubes and down the other. A bow of the ligature is thus formed upon

* A plate of this instrument is given in the late Dr. Gooch's "Account of some of the Diseases of Women," page 271.

separating the tubes. For noosing the polypus, two fingers of the left hand are to be introduced as high upon its stem as convenient, to which the extremities of the two tubes, armed as above, are to be carried; keeping one of them in a fixed situation by the fingers of the left hand, the other is conveyed around the stem of the polypus by the right hand, until it arrives at the opposite side of its fellow, from that whence it set out. If this part of the operation be successful, the ligature is made to surround the narrow part of the polypus. Each side of the ligature protruding through its proper tube, with that also, is now to be passed through that portion of the instrument which binds the two limbs together, and when properly fixed, the ligature is to be tied round the projections on the instrument formed for the purpose. The polypus becomes then completely noosed in the ligature, and the instrument is left in the Vagina in that perfect state, in which it was seen, before its separation into its several parts, at the commencement of the operation. The ligature must be tightened daily until the polypus drops off; but the time required for its separation will depend upon the thickness of the stem. In a day or two, marks of the putrefactive process are observed in the smell of the vaginal discharges, which will naturally induce the use of a syringe occasionally for their removal. The unpleasantness of the smell daily increases, and the texture of the polypus becomes more flabby; the general feel of the tumour gives the idea that it is wasting away. These appearances continue, until the ligature has made its way through the stem of the polypus. Should the ligature unfortunately break under any attempt to tighten it, before it has divided through the stem, a fresh one must be applied in the line of the former The woman will be obliged to keep her bed during the sloughing process; and she ought to be cautioned, upon attending to her natural calls, to beware of any accidental occurrence which might push the point of the instrument against the internal surface of the Uterus.

In the act of noosing a polypus, little pain or little bleeding is generally produced; indeed, if there shall have been much

hæmorrhage up to the time the ligature is applied, as soon as it is sufficiently tightened, the discharge of blood usually diminishes and ceases. Nor is it necessary for the perfect eradication of this excrescence, that the ligature should be applied at its root, or close to its connexion with the uterine surface. If the noose of the ligature be applied around any part of its stem or neck, it will be quite sufficient for its destruction; for, after its body has sloughed off, the remaining portion of the stem which has been left behind wastes away and disappears. By endeavouring to carry the ligature very high within the Uterus, there will be great risk of including some portion of the uterine structure within its noose; especially if, at the point of attachment, there should be any tendency to slight inversion. Such an occurrence would be productive of great pain, and might even induce fatal consequences. If, therefore, upon tightening the ligature in the first instance, the woman should complain of acute pain, it should be loosened, and applied nearer the body of the tumour. The operation is necessarily performed in the dark; the finger therefore must be the principal guide to the point at which the noose is fixed, as well as to the other essential parts of the operation.

The French surgeons have been in the habit of removing a polypus uteri by means of a curved knife. That mode is, in my humble opinion, more objectionable than its removal by ligature. The difficulty of restraining any hæmorrhage thence arising, would deter me from having recourse to such practice.

I am not aware that a polypus is ever renewed from the same stem; yet, I have removed more than one at different times from the same woman. These respective tumours, I presume, had their several pedicles; and might possibly be existing in the Uterus at the same time, without detection.

CASE CLXIV.

In the beginning of April, a medical friend wished me to visit a patient in the Mile-End Road, aged 40, who

had been suffering for a length of time under repeated attacks of uterine hæmorrhage, in the intervals of which she was liable to an unpleasant sanious discharge. Suspecting some uterine disease, I proposed a vaginal examination, and upon the introduction of the finger, I immediately detected a large polypus nearly filling up the Vagina, attached within the Uterus by a very thick stem. On Sunday, April 19th, I noosed the stem with some twisted silk carried through the double canula, and tightened the ligature daily. On Sunday, the 26th, while I was thus employed, the string broke; so that I was obliged to renew it. I fortunately insinuated the new ligature within the groove made by the former one; after again tightening it daily, the stem was divided; and, on Wednesday the 29th, the instrument came away with the polypus attached to it, as large as a good-sized orange, although its general substance had materially diminished. During the application of the ligature, or afterwards, there was no hæmorrhage or unpleasant occurrence; but for some weeks after the separation of the polypus, this woman's health seemed to be declining without the appearance of any symptom connected with her previous state; her countenance became sallow; her general powers were languid; and she complained of pain in the belly; yet her pulse was not quickened; upon the whole she seemed to be suffering under some visceral derangement. By the use of alterative and aperient remedies in the first instance, and afterwards of tonics for some time, her health was restored; and in due time her catamenia returned in a regular manner.

CASE CLXV.

In the beginning of May, 1824, I was consulted by a young unmarried lady from the country, respecting some irregularity in her menstrual appearances. She had been suffering for some time not only under a very great increase at the regular periods, but also under occasional uncertain returns in the intervals; yet her general health was unimpaired, and the other functions appeared healthy. Sus-

pecting that she was becoming the subject of incipient uterine disease, I expressed an opinion to that effect; and proposed a vaginal examination, to which, after the lapse of a few days, she reluctantly assented. Upon the introduction of the finger into the Vagina, I presently detected a smooth firm tumour, emerging through the Os Uteri, as large as a pigeon's egg, attached within the Uterus by a narrow pedicle. The nature of the case, with its proper mode of management, being thus satisfactorily declared, after some further persuasion, I was allowed to pass a ligature around the stem of the polypus, just within the Os Uteri, on Sunday, May 16th; but I was somewhat foiled in that act, by the narrowness of the Vagina impeding the action of my finger and the free passage of the instrument. The polypus sloughed off in two days, in a soft shrivelled state, and from that time all coloured discharge ceased. In an examination about ten days afterwards, the Os Uteri was flaccid and slightly open. The lady returned to the country free from complaint, and afterwards became perfectly regular in her menstrual periods.

CASE CLXVI.

At two A. M. on Sunday, April 1st, 1821, an apothecary in Shadwell called upon me at the house of a patient in Wapping, with whom I was then confined in a case of labour, to request me to visit a woman in his neighbourhood, whom he had put to bed on the Friday morning preceding, apparently safely; and who, on the Saturday about noon, had a fleshy tumour, of the size of a large-sized pear, protruded suddenly through the external parts, where it then remained. Being presently released, I went to the address at six A. M. The woman was in no great distress; she had a good pulse and countenance; there had been no hæmorrhage; and, with the exception of this tumour hanging out of the parts, she might be said to be doing well. On carefully examining the extruded substance, it bore every external mark of an inverted Uterus; and so, at the moment, I did not hesitate to consider it. The tumour appeared to

me to be uterine; I could suppose it to be nothing else; and as there was no appearance of Os Uteri indicative of a prolapsus, I pronounced the case to be inversion of the Uterus; yet the sequel will show that in that opinion I was mistaken. Under the mistaken idea, that this tumour was formed by a false conception, some forcible attempts had been made before my arrival to withdraw this mass, which had put the woman to great and very unnecessary pain; I therefore contented myself, for the present, with merely returning the tumour within the Vagina, and recommending a state of perfect quietude. The following day, the woman had no bad symptom, and the tumour had not again descended. I visited her a few times afterwards, and always saw her improving; she had plenty of milk, and suckled her child. I met with this woman again accidentally in December following; she was then suckling her child, and appeared in good health. After the lapse of some months, I had another interview with her; she then told me, that she was menstruating regularly. After a further space of time, she called at my house, to inform me that she was again pregnant, and to request my assistance in the hour of labour. This account staggered me, because I suspected her Uterus to be inverted; and I could scarcely credit her statement, when she told me that she was positively pregnant. However, the fact was as she had stated; for she was delivered of a living child, January 9th, 1824. On the evening of that day, I was called to her assistance. Being absent from home at the moment, my son supplied my place. On making an examination, he met with a considerable substance in the Vagina, above which was the head of the child presenting. The pains soon became strong and expulsive, and presently the tumour was extruded externally by, and before the head of the child. Upon my return home, I went to her address; but the child was already expelled, the Placenta was withdrawn, and the tumour was lying at and through the external parts nearly as large as a small-sized child's head. On a closer examination, it seemed to me to be attached to the anterior part of the Os

Uteri by a broad and vascular base. The mystery attendant upon her preceding confinement was thus cleared up; for it now appeared that the woman had a polypus attached to the anterior part of the Os Uteri, which became more vascular and larger under pregnancy, and which decreased by contraction, as the Uterus resumed its natural size. Apprehensive of considerable mischief, if the polypus should be noosed under the increased size of the womb and its vessels so soon after delivery, I merely for the present, as in the former instance, returned the mass carefully within the Vagina, where I left it. The woman recovered from her confinement without any unusual symptom, during which I made several vaginal examinations, and uniformly found that, as the bulk of the Uterus became contracted, the polypous tumour proportionally decreased, and became more firm to the feel. She again nursed her child, and had plenty of milk. Towards the end of April, when the Uterus had undergone all its necessary changes after parturition, and the tumour had become firm and contracted, I proceeded to its removal in the usual manner. A ligature was applied around its stem by the common ligator, and in five days, it dropped off in a flaccid, broken-down state. In due time the woman entirely recovered her health, and continued to be an excellent nurse.

This case affords some practical information. It shows, in the first place, that a polypous tumour, external to the Uterus, does not interfere with the proper functions of that organ; and in the next place, that such a tumour increases in growth during the uterine enlargement of pregnancy, but after parturition diminishes. Under such a situation also, one of the common symptoms indicative of the presence of a polypus is absent; the frequent and irregular recurrence of hæmorrhage. I readily confess that, in the first instance, I did consider the external tumour to be the Uterus inverted, to which it bore the nearest resemblance; but I was unable to satisfy myself of that fact, or to prove the contrary, by the obstinacy of the woman at that time, who positively refused to allow a vaginal examination after

her former labour, although she so readily acquiesced after the second.

CASE CLXVII.

On Tuesday evening, September 16th, 1817, my early assistance was requested in the case of a lady in the neighhourhood of Mile End, who had been delivered on Sunday evening, the 14th, after a common natural labour, of a living child, and whose Uterus had suddenly prolapsed externally a short time before my visit. The unfortunate occurrence had taken place while the lady was upon the night-table, in the act of evacuating the intestinal canal, as a consequence of some active aperient given in the morning. Her accoucheur was immediately called upon the first alarm, who made an unsuccessful attempt to replace the prolapsed womb; upon his failure, a messenger was despatched to obtain my attendance. I found the enlarged Uterus completely external to the woman's pudendum, hanging thereout to the size of a small-sized child's head; the Os Uteri was considerably open, and had a blackish granulated appearance around its surface; the general mass of the tumour was of a dark flesh-like colour, and the lower part of the belly was completely flat under the hand. Seeing that there was no possibility of the Uterus being replaced by any inherent powers of its own, or by those which the system at large possessed, I made a determinate effort to return it within the Vagina, by applying the flat surface of my left hand to the general mass of the protruded parts, (as the woman reclined on her left side) and pushing it upward and somewhat backward: proceeding thus onward, I presently found the tumour to recede within the Vagina. I now applied a doubled napkin to the pudendum, and retained it there by the T bandage; strictly enjoining a recumbent posture, with abstinence from all motion. The next day the Uterus was low in the Pelvis, but there had been no return of the prolapsus. By a due attention to this mode of management for some weeks, this lady got

entirely well, without even the least disposition to a bearing down afterwards. I have attended her several times in labour since the above date, in one case under twins, without evincing the least tendency to a return of the inconvenience.

There is a most material difference in the appearance of a Procidentia Uteri soon after delivery, and that of a polypus Uteri, or of an inverted Uterus. In the former, the unclosed Os Uteri is visible to the eye; in the two latter, it is not to be met with; in other respects the aspects of the several tumours are very similar. Under procidentia and inversion, the lower part of the belly is completely flat, from the absence of the uterine tumour under the hand.

CASE CLXVIII.

On Thursday, August 25th, 1825, I was requested to meet a very respectable friend in consultation upon a patient on the Surrey side of the river, aged 35, and who had borne eight children. This woman had suffered under a considerable loss of blood from the Vagina, attended with uterine pains similar to those of a common miscarriage, for some days, and on the preceding day, Wednesday, about noon, a *something* of considerable bulk had protruded through the external parts, where it still remained. Upon a closer examination of this excrescence, I detected it to be a polypous tumour, of the size of the largest pear, and of a similar shape, attached to, or near the Os Uteri, which its weight had drawn down nearly to the external parts. The woman's countenance was pallid, and her general health appeared to be much deteriorated; so that the aspect of the case was by no means promising. After some consideration, we determined to remove the tumour by a ligature; accordingly, without much difficulty, I applied a noose around its narrow part, within the Vagina, by means of the double canula. The tumour dropped off during the night of Friday: so that when I called on Saturday, that part of the excrescence

exterior to the ligature, had sloughed off; yet on an examination by the finger, it was evident that a considerable portion still remained attached within the Uterus, above which the finger could be readily introduced. Our patient on this day complained of a good deal of pain about the belly, and otherwise she seemed extremely unwell. On the Sunday some puriform discharge was observed to issue from the external parts in considerable quantity; the general symptoms still were unfavourable. For several days afterwards, similar symptoms continued; the tongue became furred; the countenance was depressed; the puriform discharge exuded in considerable quantity; yet the pulse never exceeded ninety-six in a minute. Symptoms of this description harassed the woman for some weeks, and she was even occasionally threatened with hectic fever; but after a time, she began to improve, the vaginal discharge gradually ceased, and she ultimately recovered a tolerable state of health. On Wednesday, September 7th, I made a vaginal examination; that portion of the polypus left behind was wasted away, for no part of it could be detected by the finger; the uterus seemed well contracted, and to have undergone the necessary changes after the separation of the tumour.

In the beginning of November, 1830, five years after the preceding occurrence, I was again consulted respecting some irregular discharges of blood from the Uterus, with which this woman had been troubled for a length of time, and which had again much impaired her health. On a vaginal examination, I instantly detected a polypus protruding through the Os Uteri, of the size and shape of a small pear. I noosed this tumour within the Os Uteri by means of the double canula, without much difficulty, on Tuesday, November 9th, and on Thursday following it sloughed off. The usual discharge followed; the woman suffered no further inconvenience; and her general health improved. Before, however, I took a final leave of my patient, I was desirous of once more ascertaining the state of the Uterus. On making an examination I detected another tumour of a similar description,

and nearly of the same size. This tumour was also encircled, as the former one, on Sunday, November 28th, and it sloughed off on the Wednesday following; after which the woman regained a tolerable state of health. I saw her about the middle of November in the following year; at this time, she had then got plump and stout; she menstruated regularly, and in proper quantity; and seemed to enjoy a perfect state of health.

The Uterus in this instance seemed to have a singular propensity to the formation of polypus. I presume that these several tumours were unconnected with each other, and originated from separate pedicles, which wasted away after the removal of the principal part of the polypus. The two latter were probably co-existent within the uterine cavity at the same time; but both could not be detected at once. That which was first noosed had taken the priority of escape; and after its separation, the other was protruded. The tendency to the formation of these tumours (that cause by which each was produced) might possibly be existing in the Uterus long before the first even made its appearance; yet of such a fact we can only obtain presumptive evidence.

CASE CLXIX.

Towards the end of the year 1829, I was consulted by a married woman, 43 years of age, who had been suffering for a length of time under frequent hæmorrhages from the Uterus; the baneful effects of which were sufficiently obvious in her countenance, and upon her general constitution. These repeated attacks were attributed to that change in the uterine system, which every woman must sooner or later undergo. Suspecting some uterine disease, I at once proposed a vaginal examination, to which she positively objected. She called upon me occasionally a few times afterwards, and each time she had the same complaints to make. I saw nothing more of this patient until the month of April following: at this time her countenance had become more pallid,

and her general health much more deteriorated. I now again pressed the necessity of a vaginal inquiry, to which she still continued unwilling to submit. After a further lapse of some weeks, at the persuasion of her friends, she consented to an examination. I at once detected a large tumour, firm and round, in the Vagina, nearly filling up the entire cavity of the pelvis; but I could not carry my finger entirely around it, or reach the Os Uteri; so that I was unable to decide whether the mass had its origin within the uterine cavity or not. The tumour had all the characters of a polypus uteri; and was so considered by another medical gentleman, who also saw the case. On carefully examining the lower part of the belly, several other enlargements were to be felt within the abdominal cavity, which seemed to be tubercles upon the external surface of the Uterus. But whether the large tumour in the Vagina was one of these external tubercles, which by gradual growth had extended itself downward into the pelvis, or was a polypus emanating from the uterine cavity, could not be determined by the finger. All the symptoms, however, seemed to indicate it to be of the latter description. The woman was reduced to a very emaciated state, and was daily losing more or less blood; so that it was obvious, unless that loss could be checked, the continued drain would soon terminate her life. Although the general circumstances of the case were not of a favourable kind, it was proposed to pass a ligature around the tumour, as the most likely expedient to afford relief; to this proposal, the woman after some further delay assented. On Wednesday, the 2nd day of June, the tumour was satisfactorily noosed by the common polypus instrument, without any particular sensation of pain, and from this time the loss of blood ceased. But on the Friday following, my patient began to complain of violent pain in the belly, accompanied with a considerable degree of tension; these symptoms were somewhat relieved by leeching and purging. They were not, however, so far removed on the following day, as to convince my mind, that they were not connected with the ligature upon the tumour; I therefore,

on the Saturday withdrew it. Retention of urine afterwards took place, which called for the daily use of the catheter for a fortnight. During this interval, a process of sloughing had taken place in the tumour, and a large portion of it hung out of the external parts in a black discoloured state. In about three weeks from the application of the ligature, that portion of the tumour exterior to the part at which it had been noosed, sloughed off entirely. During this process the vital powers were gradually giving way; and, notwithstanding the free use of opiates, stimulants, and the most nourishing articles of diet, her strength daily declined, and she expired on the 1st of July. She was twice seen by an eminent surgeon during the sloughing process, who was unwilling to interfere with its regular course. A *post mortem* examination of the body was not permitted, so that the disease was never satisfactorily ascertained.

I think it very probable, that if the nature of this case had been satisfactorily determined at an early period, it would have admitted of relief. Under every month's delay, the size of the tumour was regularly increasing, while the strength of the woman was undergoing proportionate exhaustion.

In my observations on "Rupture of the Uterus," published in 1821, I asserted, that "every case of that kind, which I had *then* seen, had sooner or later proved fatal." It however happened, singular enough, that within little more than twelve months after its publication, I witnessed three cases of perfect recovery; in two of the cases I turned the child myself. I therefore shall take the liberty of inserting them, along with an anomalous case of sudden death in the last fortnight of gestation, as concluding cases.

* Another case of recovery in the year 1822, is recorded in the Medico-Chirurgical Transactions, vol. xii. part 2, page 537. Three others in vol. xiii. part 2, page 373.

CASE CLXX.

About four A. M. Sunday, April 8th, 1821, a note was brought to me from one of the midwives of the charity, requesting my immediate assistance to a woman in Pearl Street, Spitalfields, and containing this laconic expression, "Pray come directly, for *the after-birth is come*, and *the child is gone*." On my arrival at the address, I found the Placenta lying on the bed without any flooding, and hanging out of the parts by the Funis; on passing the finger, no part of the child could be felt therewith. The head of the child, which but a few minutes before seemed to be kindly descending, and the expulsion of which was almost momentarily expected by the midwife, had retreated quite out of reach. It therefore was sufficiently obvious, that the uterine structure had given way, and that the child had escaped into the abdominal cavity; in which it could be detected through the parietes by the hand, from the general irregularity of its surface. The woman complained of violent pain about the navel, which was much increased by pressure; and on pressure, a dark-coloured discharge issued from the Vagina. Her breathing was difficult; yet her countenance and pulse continued good. Without loss of time, I divided the Funis, and proceeded to introduce my hand; following the child into the cavity of the belly, and laying hold of the feet, I extracted the child without much difficulty from its new situation. After its extraction, a considerable quantity of bloody discharge escaped. A drachm of laudanum was now given, and ordered to be repeated in an hour. When I left the house, the poor woman was much more comfortable than before delivery; yet she complained heavily of the pain about her navel. Her labour had been natural, and not of many hours' duration; but the pains had been very strong and forcing; and almost immediately before the Placenta made its appearance externally, the woman had mentioned a most acute pain at her navel, very different

from common labour-pain. This was her sixteenth lying-in; her former labours had always been lingering or difficult; yet, although her Pelvis was somewhat confined, she had passed several living children; and I was told, that about four years before, I had delivered her myself under a shoulder-presentation.

I paid the woman another visit about noon; at this time her pulse was not much quickened; the belly was indeed painful on pressure; but, under all the circumstances of the case, I considered her as well as I could possibly have expected to have found her. I saw her again in the evening, when she continued much in the same state.

At eleven A. M. Monday, this patient had dozed during the night; her breathing was now quickened, yet her pulse was good, not more than one hundred in the minute, and her countenance was natural; she still complained of much pain in the belly (especially on pressure), which was accompanied by some tension. A number of leeches were therefore applied to the belly; she was ordered to be purged, and to have a warm clyster frequented injected.

At eleven A. M. Tuesday, the pain and tension of the belly had been somewhat relieved by the leeching of Monday; yet the pulse was quicker, and the breathing more frequent. As there had been hitherto no relief of the bowels, a mixture of infusion of senna and jalap was ordered in divided doses, until free evacuations were obtained.

On Wednesday morning, the bowels had been satisfactorily evacuated; the pain and tension of the belly had much diminished; the woman had got some comfortable sleep in the night; her countenance continued good; and the pulse did not exceed 100.

On Thursday morning, the general appearances were less promising; the belly had become more painful, and the countenance showed more distress, with a languid eye; the pulse was raised to 120; the tongue was dry and red in the middle, with whitish edges; and the urine was discharged

involuntarily. I this day passed a catheter into the bladder, but could detect no injury done to that viscus; yet it contained no urine. Repeat the purgative.

On Friday the woman had had several free evacuations; had procured refreshing sleep in the night; the pain in the belly had been very much relieved, yet the urine had been still passed involuntarily; pulse 100, firm and good; upon the whole she seemed much improved.

On Saturday, she confessed that she was much better; at my visit she was sitting up in bed, taking some refreshment; the urine still ran off involuntarily; pulse 100.

On Sunday the 15th, the woman had passed the fore part of the night in a very restless manner, but after two free evacuations procured by the purgative, she became composed, and got some refreshing sleep; pulse 100; the belly more free from pain. From this time she daily continued to improve; at my visit on Wednesday the 18th, she was sitting up in a chair, complaining little of her belly, yet very much of the inconvenience she suffered from the irritation of parts, produced by the involuntary flow of urine.

On Friday the 20th, she continued to go on well; since my last visit, has been discharging some thin fleshy substances, which appeared to me to be vesical sloughs.

When I visited this patient on Monday, April 30th, I was told that, during the preceding week, several pieces of thin fleshy substances had come away, which I could only consider to be vesical. The urine was still discharged involuntarily; she had a good appetite, and slept well.

On Friday, May 18th, at my call, she was sitting up eating her dinner; her general health was much improved; her appetite was good, and her sleep refreshing; but still she was complaining of the inconvenience she suffered from the involuntary discharge of urine. A lump or tumour, which she had remarked at the lower part of the belly for some time past, was subsiding, and she was free from pain.

July 23rd, this woman called at my house, and was then under menstruation.

February 12th, 1822, she had now menstruated five times, and was at that time under its influence.

I attribute the successful issue of this case, in a great measure, to the promptness with which the woman was delivered after the accident had occurred; not more than fifteen or twenty minutes elapsed after my call, before I was at her bedside; and in much less time after my arrival, the delivery was complete.

This woman became afterwards pregnant again, and on Friday the 9th of August, 1822, her husband called upon me to request that I would make her a gratuitous visit; I found her walking about the room, with a slight appearance of colour, between the sixth and seventh months of pregnancy. I recommended him to procure a ticket for the assistance of the charity again; but having obtained one, the woman did not choose to avail herself of its advantages. She had imbibed the idea, that her midwife had not done her duty in the former instance; and therefore she had engaged a neighbouring apothecary to attend her in her expected lying-in, who was entirely ignorant of the facts of the preceding case. About noon on Thursday, August 22nd, the husband again begged my attendance: he then merely stated, "that his wife was very bad." I promised to call upon her in a short time, and did so between two and and three P. M., when to my great surprise, I was told that she was dead!! From the manner of the husband when he asked my assistance at noon, I did not suspect that his wife was in the least danger. It appeared, that the poor woman had been seized with a flooding between three and four in the morning, and that the person engaged to attend upon her was called about seven; who, finding no labour-pains, contented himself with merely ordering cold applications and some astringent medicine; allowing the woman to go on flooding to death, without either taking any decided step himself, or procuring some one to act for him.

Anxious to inspect the Uterus, and to see what steps Nature had taken to repair the former injury, as well as to

discover the cause of death, I obtained leave to examine the body under a promise that nothing should be taken away. It was opened the next morning by an excellent anatomist in the presence of the late Mr. Headington and myself. Nothing particular presented itself to our view in the abdominal cavity. There were indeed several bands or strings of membranous structure just above the pubes; but there were no such marks of adhesion of the peritoneal lining of the cavity to the Uterus, as I expected to meet with. On dividing into the uterine cavity, the Placenta was seen partially separated from its attachment not far from the anterior part of the cervix uteri, to the size of nearly the palm of the hand. The child was now taken out, and the Uterus, with the Bladder, were carefully examined by a minute inspection. The Vagina was considerably contracted, and had an extra opening into the Uterus, and another into the Bladder. The membrane of the Vagina was not carried over the Os Uteri in the usual manner, but terminated in a valve-like structure; within which was seen the Os Uteri beautifully studded with its peculiar dark-coloured glands, and altogether closed. On dissecting away the cellular membrane and adipose substance from the outside of the fore-part of the Cervix Uteri, a line or scar was distinctly perceptible; around this part the uterine structure was thickened and considerably contracted. The Placenta had been attached internally not far from this thickening; and it appeared to me, that the rigidity or want of extensile power in the uterine structure around this part, had caused that separation of the placental mass, which had induced the fatal hæmorrhage. The ovaria and Fallopian tubes were perfectly healthy.

CASE CLXXI.

The following case of the rupture of the Uterus occurred in May, 1821, at Hoxton; I saw the woman during her lying-in, when she was recovering from the accident. Desirous of obtaining all the important facts of the case, I

requested both the midwife, who was engaged to attend the woman, and the professional gentleman who delivered her, to transmit to me an account in writing of the occurrence, which I shall take the liberty of transcribing.

"About half after two P. M. Saturday, May 20th, 1821, I (meaning the midwife) was called to Mrs. R., Hammond-square, Hoxton, and found her in strong labour. She had been poorly all night; but about an hour before my arrival, the pains had come on more briskly, with a great discharge of water, and a *shew*. On examination, I found the Uterus fully dilated; the head of the child was low in the Pelvis, and as the pains increased, it began to bear down on the perinæum. At five minutes before four the pains suddenly left; she immediately cried out, 'I am sick; I am sure something has bursted in my belly; something has slipped;' and gave a loud scream. She begged me to put a pillow under her belly, for she could not bear the weight of the child. In a few minutes, the countenance was changed to a dark livid colour; the eyes started, and the retching continued with a violent expelling of wind from the stomach, and hiccup. On examining again, I found the head absented; I had every reason to suppose the Uterus was ruptured. I applied to Mr. Parkinson, who attended and delivered the patient."

"I (alluding to Mr. Parkinson) was desired to attend Mrs. R. about six P. M. She was free from labour-pain, but her countenance was expressive of great anxiety; her respiration was hurried; her pulse was small and irregular; and, just before my arrival, she had vomited a dark brown coloured fluid. Upon making a vaginal examination, I could not discover any part of the child, though I passed my hand sufficiently high to ascertain that the capacity of the superior aperture of the Pelvis was diminished by a projection of the Sacrum. Strengthened in the opinion which I had formed that the Uterus was ruptured, I immediately introduced my hand, and without the usual resistance from the Uterus, passed the head of the child, which was lying just above the brim of the Pelvis. I readily got hold of both

feet, and in a short time effected delivery. The hæmorrhage, which before delivery was trifling, now became considerable, and the poor woman appeared to be sinking fast. I again introduced my hand for the purpose of bringing away the Placenta, which I found detached, and lying in contact with the intestines, the convolutions of which I distinctly felt. Having brought the Placenta low down in the Vagina, I passed my hand beyond it, with the view of keeping back the intestines, whilst I brought the Placenta away with the other hand by means of the Funis. I was not sensible, either in passing my hand to get hold of the feet, or to bring away the Placenta, of its passing through any rent in the Uterus; but it seemed at once to pass into the cavity of the abdomen. Although I considered the case as hopeless, I was pleased to find that, after the Placenta was withdrawn, the hæmorrhage considerably diminished; and that by frequently supplying the poor woman with small quantities of weak brandy-and-water, she was so much revived about an hour after delivery as to tell me, though with a feeble voice, that she felt better; her respiration too had become more tranquil, but her pulse was very fluttering, and there were frequent efforts to vomit. I gave her sixty drops of tincture of opium, and ordered thirty to be repeated every three hours. I saw her again at twelve o'clock, four hours after delivery, and found, that the first dose of tincture of opium had been retained, but that the second had been rejected; which had likewise been the case with small quantities of gruel which had been given; and that, in addition to the vomiting, she had frequent hiccup. She was evidently under the influence of the opiate; yet I thought the countenance improved; the pulse was certainly more determined, and regular in its beats. I directed thirty drops of tinct. opii. to be given occasionally through the night, if sleep was not procured.

"I saw this woman early the next morning, and learned, that she had not got much sleep, but that she had been very quiet, except when disturbed by vomiting, or hiccup. As the usual symptoms of reaction had now taken place,

and as she complained of a good deal of tenderness in the region of the Uterus, especially on the left side when pressed by the hand, I took fourteen ounces of blood from the arm, and ordered a dose of saline mixture every four hours with a drachm of syrup of poppies in each dose.

"At my visit the next day, (Monday,) although the vomiting and hiccup continued, I considered her in other respects better; her pulse had become quite regular and was not very frequent; and she complained of less tenderness on pressure. As the bowels had not been moved, I directed a drachm of sulphate of magnesia to be added to each dose of her former medicine; which, with the assistance of an injection, produced the desired effect the next day. From this time she gradually recovered, the vomiting and hiccup by degrees ceasing, so that at the end of a fortnight she was free from any complaint except debility."

About twelve months afterwards, this gentleman called upon the poor woman for the purpose of learning whether she had menstruated regularly since the preceding occurrence or not; when he was surprised to find, that she was again pregnant, and was then between the third and fourth months of gestation. She told him, that for three months after her last confinement, she had a very offensive thick discharge, which then ceased, and afterwards her usual *courses* came on, and that she continued regular until she became pregnant.

My own opinion was afterwards requested by him upon this question. "Taking into consideration the nature of the injury which the Uterus in the preceding instance must have suffered, together with the diminished capacity of the superior aperture of the Pelvis, would it not be prudent to bring on premature labour at the expiration of the seventh month?" To this question, I decidedly answered in the affirmative.

August 25th, 1822, my friend wrote to me thus: "In consequence of the opinion you gave respecting the subject of the preceding case, I had determined to bring on labour between the seventh and eighth months of pregnancy; but

just before that time arrived, labour came on spontaneously. It proved to be an arm presentation, but no difficulty occurred on turning the child, and the woman recovered without any untoward circumstance."

CASE CLXXII.

At five A. M. Saturday, January 12th, 1822, I was called to the assistance of a woman near Limehouse, who had been in labour since the preceding evening of her third child, under the care of an intimate friend. She was apparently a healthy young woman, but her symptoms were such, as to induce me to suspect at first sight, that the Uterus had given way. She had been suddenly seized about one A. M., when the labour to all external appearance was going on safely and well, with an unusual and violent pain about the navel, followed by considerable difficulty in breathing. On this attack, my friend immediately took away from the arm about a pound of blood. Soon afterwards the common labour-pains ceased, the new pain continued, and the head of the child, which had before been low down in the Pelvis, retreated upward. The woman becoming hourly worse, and being considered to be in great danger, between three and four, the husband was despatched to procure my assistance. I found the belly extremely tender to the touch and irregular in shape; the aspect of the countenance was anxious and depressed; and she frequently ejected from the stomach quantities of offensive dark-coloured fluids, not unlike the grounds of coffee. Under this hazardous state, I had no hesitation in recommending immediate delivery; and feeling the head within reach, I was anxious to perforate it; but that attempt was defeated by the recession of the head on the application of the instrument. I therefore introduced my hand, and turned the child. In that act, I became quite satisfied of the truth of my original impression, "that the uterine parietes were lacerated." The delivery was finished without difficulty, and I left the woman to the care of my friend, (premising large and frequent doses of

opiates,) in great pain, and apparently without the slightest hope of recovery.

I saw the woman again about noon of this day (Saturday) in company with my friend; she had then rallied considerably from the state in which I had left her in the morning; but she complained heavily of the pain in her belly; in the interval, she had taken about two drachms of tincture of opium, in divided doses, each dose of which she had rejected, as well as the little nourishment she had been able to swallow; her pulse was about 120 in the minute; smaller doses of opiate were ordered for the present, and a full dose at bed-time.

On the following morning (Sunday) a report was made to me by my friend, that his patient appeared in as favourable a state as could possibly be expected; she had procured refreshing sleep in the night; her pulse was stated to be from 116 to 120; in fact, that she was promising to do well. Having suffered under considerable pain in the belly towards morning, agreeably to my suggestion in such case, leeches had been applied to the abdomen.

About noon on Monday, I visited this woman again; the pulse at that time did not exceed 104; there was no heat upon the skin; little tension, with diminished pain, in the belly; and the only troublesome symptom was an occasional vomiting. A pill with ten grains of submuriate of mercury, and one grain of solid opium, was ordered to be given directly. A favourable report was made to me the next morning, (Tuesday,) that the pill had operated kindly, and had produced much relief.

About noon on Thursday the 17th, I saw this patient again; the pulse was then 104; the aspect of the countenance was good, and the tongue moist; the pain in the belly was much diminished, but pressure thereon produced nausea with a disposition to vomit.

On Wednesday the 23rd, the pulse was 100; there was no pain in the belly except on strong pressure. On a close examination, I could detect a solid tumour just above the pubes, which appeared to me to be caused by the consolida-

tion of the injured parts. She this day told me, that she felt satisfied in her own mind, that during her labour something had given way within the belly; and that her child had risen upward, which prevented her taking her breath in the usual manner.

On Sunday the 27th, the husband called to say that his wife was daily getting better. From this time she gradually recovered, and I heard no more of her, until I was told, that she had again become pregnant, and that I should be called when labour came on.

At ten A. M. Saturday, October 4th, 1823, I had a note from the same friend, informing me, "that the subject of the preceding case was again in labour; that it had commenced at four A. M., that the pains were regular, with the membranes entire, and begging my opinion as to the measures to be then taken." I recommended him to allow the labour to proceed in its natural course for some hours without any interference; and waiting the result, to take the chance of consequences. I had hinted some months before, upon receiving intimation that the woman was again pregnant, that it might be prudent to bring on premature labour at the seventh month; that period had, however been allowed to pass over, without advantage being taken of my suggestion; and she had arrived at her full time. At eight P. M. a second note was sent by my friend, which stated, "that after the bag of membranes had freely dilated the Os Uteri and Vagina, it gave way, when the pains became strong and expulsive, yet no descent of the head followed; that he thought for some hours Nature would have completed the business, but that at that hour, he had changed his opinion on that point." I visited the woman about half-after eight P. M.; the head was then still lying at the brim of the Pelvis, which in its conjugate diameter did not possess a space of three inches. The head seemed to be partially impacted in the brim, so that it could not descend into contact with the Os Uteri, which was freely dilated and flaccid; and there was an obvious indentation in that part of the head, in contact with the projection of the Sacrum.

She complained bitterly of an unusual pain on every uterine contraction upon the right side; probably at that part at which the Uterus had given way in the former instance. Looking at the moment with considerable anxiety at all the circumstances of the case; finding that the strength of the pains had hitherto produced little descent of the head; and suspecting, that even if natural expulsion did take place, the degree of pressure upon the head, sufficient to enable it to pass through the diminished brim, would almost necessarily destroy the life of the child, with the danger of the recurrence of a former accident, both parties judged it the most prudent plan to lessen the head at once, and to extract it by means of the crotchet; I therefore had immediate recourse to the operation, and presently delivered the woman.

Monday, 6th, I found this patient without any particular inconvenience; she had the usual appearances after labour, and from this time she gradually recovered.

In the forenoon of Monday, December 13th, 1824, I was again called by the same friend, to this woman in labour at the full period of pregnancy. The process had commenced the night before, and my friend had been called at two in the morning; the Os Uteri was then opening, and the head was lying above the brim of the Pelvis. During some part of the night, the pains had been strong and forcing; but towards morning, they had decreased in power and frequency. By a vaginal examination, I detected the Os Uteri to be well dilated, and the head of the child, as in the former instance, unable to enter the Pelvis for want of room. I now thought the brim of the Pelvis to be still more deteriorated, since the woman's preceding labours; it did not appear to me to possess a space of more than two inches and a half, or two and three quarters, from pubis to sacrum. The woman, in this instance also, complained much of the pain above her right groin; the original seat of it in the last labour. Under such a peculiar state, and with the knowledge of her former situation, I had recourse to a more early perforation of the head; but in its extraction, I met with far greater difficulty than in the last instance.

Thursday, December 16th, the woman has no bad symptom. I saw no more of her, but I learnt aftewards, that in due time she recovered from this confinement also.

CASE CLXXIII.

I was engaged to attend a young married lady in West-Smithfield, who expected to be confined of her first child, the first or second week in January. She went into the immediate neighbourhood of her own house, to join a party of friends on the evening of New-Year's-Day, being at that time apparently in perfect health; and after she had been among them a few hours, in full enjoyment of the hilarity of the evening, she suddenly complained of being very ill. With great difficulty she was got up stairs, and was seated in an easy nursing chair; but presently she fell lifeless on the floor!! The people about her supposed her to be in a fainting-fit; a neighbouring medical man was called, who, in the first instance, thought the lady in a state of syncope; but he presently pronounced her to be dead!! Some time was lost in the confusion which prevailed in the house; but by-and-by a messenger was dispatched for my attendance. I arrived at the house a little after midnight; at that time, the lady had been lifeless at least an hour. Notwithstanding, I would gladly have removed the child by the cæsarean section, but her friends would not consent to that operation.

Leave was obtained to inspect the body the next day, yet only on condition, that a near professional relative should be present. On dividing the abdominal parietes, the Gravid Uterus presented itself to view, but very different in its aspect from that which is generally met with. The whole of the fore-part of the Fundus, and some portion of the back part of the Uterus was completely black; not unlike that appearance upon the skin of a delicate woman, after the infliction of a severe blow. The Fallopian tubes were turgid and black; the ovaries were of a natural size, but they had a striated or speckled appearance, somewhat like mottled soap. Upon making an incision into the peritoneal coat of

the Uterus at its back part, where the black or suffused appearance was the most obvious, fluid blood freely followed the knife. The Placenta was attached at the fore-part of the body of the Uterus throughout its entire extent, and the child was presenting naturally; the internal uterine surface seemed healthy. The stomach, the intestinal canal, and the other abdominal viscera had the usual healthy appearance. The heart and the large blood-vessels were healthy and sound; within the pericardium was contained a small quantity of serous fluid; the right lung was a little diseased with trifling adhesions to the pleura costalis; the left lung was healthy. The head was not allowed to be examined.

The above appearances led me to suspect that some large vessel had given way within the uterine structure, the contents of which had been effused into the cellular tissue under the peritonæal coat: producing a state in the Gravid Uterus similar to that of the brain under sanguineous effusion beneath its meninges.

INDEX TO THE CASES.

THE END.

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