The Burdett Series, No. 3.

THE MIDWIVES' POCKET BOOK

BY

HONNOR MORTEN

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"HOW TO TREAT ACCIDENTS AND ILLNESSES,"
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THE MIDWIVES' POCKET-BOOK.

CHAPTER I.

INTRODUCTION.

A MIDWIFE is understood to be a person competent to attend at a natural labour; her training should be sufficiently thorough to secure that she should easily diagnose abnormality at an early stage. In an abnormal labour it is the midwife's duty to send for a physician.

A *normal labour* is usually defined as one in which (*a*) the head presents, (*b*) there are no complications, (*c*) and the third stage is completed within 24 hours of the first pain.* Some physicians include breech presentations amongst normal labours.

In England there is no *legal registration* of midwives, and any person is at liberty to call herself a midwife and to act in that capacity, no matter how ignorant and incapable she may be. There is a Bill before Parliament providing for the registration of mid-

* Average time of first labour, 15 hours; of subsequent labours, 9 hours.

wives, and all women who value the health and happiness of their sex and have any love for children, will rejoice when it passes. In all the continental countries midwives have to be registered before they may practise.

The ordinary time of *training* for a midwife in England is from three to six months. This may be long enough where a woman has had previous hospital experience, and is therefore acquainted with the use of the clinical thermometer, catheter, etc., but it would be well if it could be lengthened to one year in the case of those who are not nurses. Midwives who do excellent work in hospital, when they take a district of their own, or go as monthly nurses to private cases, often get lax, and the results are terrible. They are not trained theoretically in hygiene in the maternity hospitals, and practically the thoroughly hygienic conditions of the wards seem to them unnecessary to reproduce in a private room. It is this training in physiology and hygiene, that might be included in a year's course but could not be crowded into a three months' course, that is so necessary. Hear what Dr. Boxall says on *mortality of childbirth* and its causes:

"It appears that the death-rate from childbirth has not been appreciably diminished so far as England and

Wales are concerned, and that as regards puerperal fever an actual increase has taken place in the provinces. Much has already been done towards the reduction of mortality from accidents of childbirth, especially in London, where immediate attendance is always available and further aid can be readily secured; but such results as have been obtained in lying-in hospitals and maternities by the adoption of antiseptic measures in the elimination of septic processes are not as yet apparent in obstetric practice generally throughout the country. The natural inference is that no approach towards the general adoption of antiseptic measures has yet been made. That this state of things exists is, on consideration, not a matter for surprise. For but a small proportion of obstetric practice is at present in the hands of those who have been educated in the use of antiseptics, and even of those who make a practice of following out aseptic and antiseptic principles but few do so in a really efficient manner. The reduction of puerperal mortality on any considerable scale is as yet a dream of the future, and it must take years before that dream will be fully realised."

Be it understood that puerperal fever is an absolutely preventable disease, and that every death so occurring is a disgrace to civilisation. The partially trained mid-

wife is like Naaman—she cannot appreciate the advantages of washing seven times, and therefore she is too often the carrier of fell disease and vile infection. But can we wonder at her? In 1847, when Semmelweiss declared that by simple disinfection of the hands he had reduced the mortality in maternity cases at Vienna General Hospital from 12 per cent. to 1 per cent., the medical profession received the announcement with jeers, and ridiculed the man whose skill consisted in cleanliness. They also were like Naaman; they wanted something more miraculous—some anti-toxin to cure, not some anti-septic to prevent. Now the theory that cleanliness means life and health to the mothers of England is put into practice in all lying-in institutions; hence their decreased mortality as compared with the private cases.

Let it then be the desire of every midwife to study above all hygienic principles and to carry them out; to read some small handbook on hygiene, and never to forget that ventilation and purity of surroundings are of more consequence than drugs or instruments. Labour should be a natural process; it should seldom call for active interference; the tendency to meddle is the tendency of the untrained. Put your patient under the best possible hygienic conditions, prevent and keep

far from her all impurity, watch carefully to see that the labour is normal, and interfere as little as possible. As regards *rules of conduct*, a midwife has but little guide. It is not uncommon now for a nurse who wishes to take monthly cases to first secure a midwifery diploma; the certificates in monthly nursing have been given in some hospitals for such very short training and to such very inferior candidates, that they have fallen into disrepute, and the best doctors prefer their nurses to be fully qualified midwives. But working under these circumstances, the midwife does merely the nursing work. She secures the attendance of the doctor at the end of the first stage, and merely supplies him with all he needs. When the child is born she ties the cord and takes charge of the child. She stays a month at the case and looks after mother and child day and night, and washes the child for the first week at least. Before she leaves she should, if necessary, have instructed the person who will in future have charge of the child into the mysteries of baby's toilet. The usual fee charged is 6 to 12 guineas for the month. Where such a case falls through, owing to premature birth or other accidents, it is usual to pay the nurse-midwife half the fee.

In private practice much depends on the neighbour-

hood and class of patients. In what may be called a "good neighbourhood" the usual fee is 10s. 6d. a case, but sometimes a guinea or even two guineas is charged. For this fee the midwife attends during labour and visits for three weeks or a month after, visiting daily the first week, and subsequently at such intervals as may be necessary. She ought to do the first washing and dressing of the child, and the second washing should be done in her presence, that she may see that the cord is all right; she should do the douching and adjust the binder for the mother in the first week. It is these helps which make midwives preferable to medical men in middle-class houses. True, some midwives refuse to do anything but take the pulse, etc., considering that the more their work approaches to that of the medical man the better; this is a mistaken policy. In poor neighbourhoods the usual fee is five shillings each case; should the midwife not be in attendance in time, and should some neighbour have delivered the child and placenta and done most of the work, it is usual for the midwife to give a small part of her fee to the neighbour. It is particularly necessary in poor districts that the midwife should do all that is possible for the cleanliness and comfort of the mother and child, and not stand too

much on her dignity. The fee is paid either partly on booking the case and partly after delivery, or partly on delivery and partly at end of the third week.

The midwife should try to keep on good terms with the medical practitioners of the neighbourhood. Where a midwife sets up in a country district, it is well for her to send a polite note to the medical man and inform him of her advent, and her intention to attend normal labours, and state that in abnormal cases she, of course, will at once seek his professional aid. Where a midwife is careless as regards medical etiquette, she may find it difficult to get help in the hour of danger, and in the country, where there is probably only one practitioner within reach, this may mean the death of her patient. A midwife should never circulate her professional card save in a sealed envelope; indeed the wisest plan is only to give the card where it is asked for. Advertising in the public press is also unorthodox. If in doubt on questions of etiquette, write to the secretary of the Midwives' Institute, 12, Buckingham Street, W.C., for advice.

A midwife must be very careful about prescribing *medicines*. In a case occurring in 1897, where a midwife had provided a cough mixture for an infant, the coroner said he regarded the practice as most dangerous

and strongly to be condemned. Often mothers ask the midwife to prescribe for the child, or to recommend some patent medicine. Now, patent cough mixtures and sleeping draughts constantly contain opium, a poison to which children are peculiarly susceptible, and which they should never be given. Danger, therefore, lies even in recommending medicines, and a midwife cannot be too careful.

As regards *dress*, the old-fashioned midwife took no trouble on this score; indeed, she showed a preference for heavy black clothing of the most insanitary kind. The modern midwife usually wears nursing uniform. The advantage of uniform is its simplicity and cleanliness. A plain cotton dress that can be washed, and the sleeves of which unbutton and can be turned up to the elbow, a large white apron, and a long cloak to cover all in the street, is the most convenient dress. Bonnet or hat is immaterial, but a flowing veil is a useless addition to either. Of course, only a small sailor hat or toque is suitable; in the country this may be more convenient than a bonnet. Most midwives work under some charity or dispensary, and then their rules are provided for them, and they have nothing to do but to carry them out with accuracy and skill.

The following is a list of contents for a *midwifery*

bag:—Bath thermometer and clinical thermometer, crystals of permanganate of potash, soloids of perchloride of mercury, carbolic soap and nail brush; Higginson's syringe and a catheter; thread, scissors, safety-pins, needles, cotton, eye rags, cord dressings, tenax, or tow; laudanum (or chloral), ergot and sal volatile (or brandy), in stoppered bottles, medicine glass and minim measure, carbolized vaseline, starch powder, case book, pencil and paper.

The following is an outline of the *Notes of Cases* that should be kept:

Called 5 p.m., August 25th.
Mrs. Smith, 10, High Street.
First pain, 2 p.m.
Membranes ruptured, 6.10 p.m.
Delivered, 6.30 p.m. First vertex.
Female. 7½ lbs. 18½ inches.
Placenta, 6.45 p.m. 13 ozs.
Temperature, 98·8. Pulse, 90. Respirations, 20.

August 26th.—Temperature, 98·4. Pulse, 74. Respirations, 22.

(Mark dates of visits and pulse and temperature on every occasion. Also note when cord falls off, and note any symptoms in mother or child.)

September 16th.—(Last visit.) Mother and child well.

The safest method of calculating *date of confinement* is to reckon 280 days from the first day of the last menstruation, or 273 days from the date of impregnation. Labour occasionally occurs a week earlier in primipara, and of course there may be premature or delayed

labour, so the exact calculation is not always possible. The following table shows periods of 280 days:

Jan.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Oct.	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4	5	6	7	*Nov.*
Feb.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28				
Nov.	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	1	2	3	4	5				*Dec.*
March	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Dec.	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4	5	*Jan.*
April	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
Jan.	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4		*Feb.*
May	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Feb.	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	1	2	3	4	5	6	7	*March*
June	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
March.	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4	5	6		*April*
July	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
April	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	1	2	3	4	5	6	7	*May*
Aug.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
May	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4	5	6	7	*June*
Sept.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
June	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	1	2	3	4	5	6	7		*July*
Oct.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
July	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4	5	6	7	*Aug.*
Nov.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
Aug.	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4	5	6		*Sept.*
Dec.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Sept.	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	1	2	3	4	5	6	7	*Oct.*

Still-birth.—It is usual for undertakers and superintendents of cemeteries to accept the declaration of a midwife that a child was "still-born," and to bury the body for a fee of two shillings. It is utterly illegal for midwives to give certificates for children that have breathed. As regards *registration of births*, strangely enough the midwife's word is here valueless, and the registration must be done by the parents or nearest relatives, even though they may not have been present at the birth. Registration is compulsory within 42 days.

Registration of death must be done by the nearest relative within five days, unless notice has been sent by a medical certificate.

CHAPTER II.

HOSPITALS AND TRAINING SCHOOLS.

London.

BRITISH LYING-IN HOSPITAL, Endell Street, W.C. Fee of 22 guineas for three months' board, lodging and training. Certificate given.

City of London Lying-in Hospital, 102, City Road, E.C. Fee of £21 for three months' board, lodging and training. Certificate given.

Clapham Maternity Hospital, 41, Jeffreys Road, S.W. Fee of 24 guineas for three months' board, lodging and training.

General Lying-in Hospital, York Road, Lambeth. Fee of £26 5s. for three months' board, lodging and training. Certificate given.

Kensington Infirmary, Marloes Road, W. Fee of £10 for three months' board, lodging and training. Only nurses with general training taken.

Queen Charlotte's Hospital, Marylebone Road, N.W. Fee of £26 5s. for three months' board, lodging and training. Certificate given.

Training can also be had at St. Mary's Nurses' Home, Plaistow, E.; at the Belgrave Midwifery Classes, 36, Lupus Street, S.W.; through the Midwives' Institute, 12, Buckingham Street, Strand, W.C., and from many midwives resident in different parts of London.

Provincial.

Birkenhead Lying-in Hospital, Grange Mount. Training said to be for six months. No rules supplied.

Brighton and Hove Lying-in Institution, 76, West Street. Fee of 10 guineas for three months' board, lodging and training.

Liverpool Lying-in Hospital, Brownlow Hill. Fee of 20 guineas for three months' board, lodging and training. Certificate given.

Manchester Maternity Hospital, 60, Upper Brook Street. Fee of 20 guineas for three months' board, lodging and training. Certificate given.

Sheffield.—Jessop Hospital for Women, Gell Street. Train midwives for their own districts free. Certificate given.

Scotch.

Edinburgh Royal Maternity Hospital, Lauriston. Fee of £11 10s. for three months' training, board and lodging.

Glasgow Maternity Hospital, 37, North Portland Street. Fee of £10 for three months' board, lodging and training. Certificate given.

Ireland.

Belfast Maternity Hospital, Clifton Street. Fee of 15 guineas for six months' board, lodging and training. Certificate given.

Cork Lying-in Hospital, Nile Street. Rules under revision at time of going to press.

Dublin.—Coombe Lying-in Hospital. Fee of 18 guineas for six months' board, lodging and training. Extern pupils pay six guineas. Certificate given.

Dublin.—National Lying-in Hospital, 30, Holles Street. Fee of £21 for six months' board, lodging and training. Certificate given.

Dublin.—Rotunda Hospital. Fee of 25 guineas for six months' board, lodging and training. Certificate given.

CHAPTER III.

THE L. O. S. EXAMINATION

It is a great mistake to "cram" at the last minute before an examination, but is also a great mistake not to go up for your L. O. S. when you are fresh from your training. As the examinations take place four times a year, there is no need to delay long after leaving hospital —indeed, it is often possible to go up whilst still at the hospital, and this is advantageous to those who live out of London, but are getting their training there.

The written examination comes first, and is held in the evening; it is well to be present in plenty of time, so that there need be no flurry or anxiety. Nursing dress is the most suitable wear, and for the *viva* surgically-clean hands with short nails are advisable. The questions are few and the time long; at first reading the questions have a trick of seeming incomprehensible, but after quiet study for a few minutes, there is sure to be one which you will feel equal to answering, so tackle this first. Be sure and state only what you know—don't go in for guess work and don't try and be elaborate. You may see others writing pages in answer to the questions; the probability is

they are trying to cover their ignorance with a mist of words. A brief correct answer, dealing with each point clearly, but never wandering from the question set, is what is wanted. Answer the easiest questions first and tackle the difficult ones last. Never forget the simple directions, and if you are asked what to do under very abnormal circumstances, don't plunge straight into a list of remedies out of the pharmacopœia, but start your reply :—"Send for the doctor, and while the messenger is gone——" and then state what temporary and simple efforts you would make to grapple with the situation described. It is popularly supposed that a readiness to "send for the doctor" in your examination paper is a great aid in passing; certainly the examiners are more likely to note any failure in the simple directions than in elaborate medical or surgical details. The examiners desire you to prove yourselves fit to be midwives—not medical men—and are more likely to resent than appreciate abstract items of abstruse information.

If time admits, it is well to correct the first draft of answers, and to make a fair copy to hand in. The draft can then be kept for reference after the return home. The *viva voce* examination usually takes place a week later; you are called into a room where there

are several examiners, but you have only to attend to one. He has your written paper beside him, and if you have made any mistakes or missed answering any questions, will probably question you on the point. There is also a pelvis and skull to hand, and you are sure to be asked to demonstrate the passage of the head in one or two positions. It is no use to be nervous; go slowly; any mistake may generally be rectified, for the examiner is used to nervousness. Don't try to be too learned, again remember it is the simple things you *must* know. The tale is told of an examiner (he was not a L. O. S.) who asked the student to name the most common disinfectants; pleased with such an easy question, the would-be midwife started gaily on carbolic and Condy.

"Yes, and what else?" said the examiner. Then the student went on to corrosive sublimate and creoline, and what not.

"Yes, and what else?" said the examiner. With stumbling and dread the student searched her memory for all the antiseptics she had ever read about, she plunged wildly into fearful syllables and even began to talk about "diethylsulphondimethylmethan," which is, I believe, the longest word in the medical dictionary. Still the examiner merely said, "Yes, and what else?"

With a gasp the student admitted she could remember no other. "Unless you can mention two common disinfectants you have altogether omitted, I cannot pass you."

It was in vain—the student was silent.

"Heat and fresh air," said the examiner; "you may go down."

The moral of which story is that you mustn't forget the easy things. One great advantage of the L. O. S. examination is that you know at the conclusion of the *viva* whether you have passed or not; a small piece of paper is given you with the magic word "Passed" (we will hope) on it, and you have only to go into the next room and sign your willingness to abide by the rules of the society or forfeit your diploma, and all is over. Some week or two later the certificate will reach you; it reads as follows:

No. LONDON. 18 .

OBSTETRICAL SOCIETY OF LONDON.

We hereby certify that _____ has passed to our satisfaction the examination in midwifery, instituted by the Obstetrical Society of London.

_____ *Chairman of Examiners.*

_____ *Honorary Secretary.*

NOTE.—This certificate confers no legal qualification to practise under the medical acts.

In earlier days the L. O. S. gave a larger certificate, but certain folk complained of its size and said it was too pretentious, and so the L. O. S. obediently cut it down. This will explain any difference you may note between your certificate and one taken before 1895.

The following are the regulations of the Obstetrical Society of London with regard to their examination of midwives :

The Obstetrical Society's Certificate in Midwifery is granted on the following conditions :

Each Candidate must have submitted to the Honorary Secretaries of the Society the following Certificates :

(*a*) A Certificate of good moral character, on the form given on the next leaf, which form must be filled up and signed by the Clergyman of her parish, or by some other person of approved position, who shall state in the Certificate the period during which he has known the Candidate, and also his position and authority for signing.

Note.—The Certificate of character will not be accepted unless signed by a person of approved position who has known the Candidate for a period of at least twelve months.

(*b*) A Certificate of Birth showing that the candidate is not under twenty-one years of age.

(*c*) A certificate to the effect that the Candidate, prior to the date of the certificate, has personally attended and examined not fewer than twenty patients during labour; and has watched the progress of an equal number of cases (not necessarily the same) during the week following labour. This Certificate must be in the form given in the Schedule, and must be filled up and signed by either a registered Medical Practitioner, the Matron of a recognised Hospital, or a Certified Midwife holding an official position satisfactory to the Board of Examiners.

Each Candidate must have passed the Society's Examination, consisting of (1) a written and (2) an oral and practical examination in the following subjects:

(*a*) The elementary anatomy of the female pelvis and generative organs.

(*b*) The symptoms, mechanism, course, and management of natural labour.

(*c*) The signs that a labour is abnormal.

(*d*) Hæmorrhage: its varieties, and the treatment of each.

(*e*) Antiseptics in midwifery, and the way to use them.

(*f*) The management of the puerperal state, including the use of the thermometer and the use of the catheter.

(*g*) The management (feeding included) of new-born children.

(*h*) The duties of the midwife with regard to the seeking of medical advice.

The written examination is usually held on the first Monday of the months of January, April, July, and October, at 8 p.m., at 20, Hanover Square; the oral and practical examination from one to two weeks later.

The fee for the examination is one guinea. In the event of a candidate failing to pass or withdrawing, the fee for any subsequent examination will be 15s.

Further information may be obtained on application at the society's library, 20, Hanover Square, W., between the hours of 1.30 and 6 p.m.; on Saturdays from 9.30 a.m. to 2 p.m.

As one of the best methods of preparing for the examination is to practise the answering of old questions, the following are given as a guide to what to expect:

London Obstetrical Society.

January, 1894:—

1. Describe the mechanism of a face presentation with the chin to the left and posterior.

2. What conditions of the soft parts lead to delay in labour during the second stage? Give the appropriate treatment.

3. Describe the appearance of a white leg (phlegmasia dolens). State the course of such a case from onset to termination and the treatment you would adopt.

4. Name the swellings of the fœtal head observed immediately after birth; and give your opinion as to the necessity of any treatment.

April, 1894:—

1. How would you know when labour has really begun?

2. What are the risks to the child in a breech presentation, and how would you deal with them?

3. A woman delivered by forceps 34 hours ago cannot hold her water. What may be the causes, and how would you ascertain them?

4. Under what circumstances would you advise that a new-born child should be circumcised; and what harm may follow from not having it done in proper cases?

July, 1894:—

1. State fully what are the duties of the midwife from

the time she first enters the room of a woman in labour till she has examined the patient.

2. How does the usual course of a twin labour differ from that of an ordinary labour, and what are the general rules of its management?

3. Describe fully how you would examine the recently-delivered placenta.

4. What are the rashes which may be seen on the skin of a child during the first month of its life, and how would you distinguish them?

October, 1894.

1. How is the bladder affected in pregnancy, the various stages of labour, and lying-in?

2. If called to a case in which the waters had broken several hours, the pains had been active, and the finger could reach no presenting part, what would you do, and what might you find?

3. What is the importance of the seventh month of pregnancy, the third day of lying-in, the ninth day of lying-in?

4. What are the characteristics of the healthy motions of a child (*a*) during the first two days after birth, (*b*) after the third day, as regards colour, consistence, smell, and quantity?

January, 1895 :—

1. How would you examine the abdomen of a pregnant woman at or near term, and what might you learn?

2. What rules would you observe in the management of a breech presentation? (N.B.—Management is asked, and not mechanism.)

3. A woman who has had several children has been in labour some hours, and the waters have long escaped. She presently complains of pain in the womb, and there is slight bleeding with faintness. What might cause the above condition, and what would you do?

4. What may be the causes of fits in the child during the first month of its life?

April, 1895 :—

1. Describe the mechanism of the birth of the child, the head presenting with the occiput behind and to the right.

2. Give the management of the third stage of labour. Mention the various circumstances under which the birth of the placenta may be delayed.

3. What precautions would you adopt in order to

prevent septic poisoning in the midwifery cases you are attending?

4. Write out instructions for the feeding, during the first month of its life, of a child that has to be brought up by hand.

July, 1895:—

1. Describe the mechanism of the birth of a head in a vertex presentation when the occiput is behind and to the right.

2. Mention the conditions discoverable on vaginal examination before the first stage of labour is completed which would make you decide to send for a doctor.

3. State the conditions under which you would feel yourself justified in rupturing the membranes, and describe the method of doing this.

4. What are the difficulties that may arise in labour from the faulty conditions of the umbilical cord? How would you treat them?

October, 1895:—

1. What information can you gain on making a vaginal examination: (*a*) at the end of pregnancy; (*b*) at the end of the first stage of labour?

2. Describe the management of labour in which the

breech is the presenting part and the sacrum of the child directed forwards and to the left.

3. What circumstances would lead you to advise a patient to remain in bed beyond the usual time after delivery?

4. When and how would you separate the child from the mother, and how would you treat the navel-string afterwards?

January, 1896:—

1. What is the perineum? Under what circumstances is it likely to be injured during labour? In what cases of this injury would you think it necessary to call in a doctor?

2. How would you recognise, and how would you manage a case in which the vertex is the presenting part and the occiput is directed backwards and to the right?

3. What evil consequences may be produced if a portion of the placenta or its membranes be left behind, and what means would you take to prevent such an occurrence?

4. What is the normal weight of a child at full term? What alterations does the weight undergo during the first month of life?

March, 1896 :—

1. What is the caput succedaneum; how is it produced and where does it usually occur? What significance would you attach to it if discovered before the birth of the child?

2. Describe the management of labour in a case of twins, where both children present by the vertex. Under what circumstances would you think it necessary to send for assistance?

3. Why is delay in the birth of the head more dangerous in a case of breech presentation than in a vertex, and what steps would you take to hasten delivery?

4. Describe the means you would adopt to restore an apparently still-born child. In what cases would you consider all attempts at restoration hopeless?

July, 1896 :—

1. Describe the placenta and membranes after their expulsion at term. How would you determine whether everything had come away?

2. In a case of *prolapse* of the umbilical cord, how would you decide whether the child is living, and how would that decision influence the management of the case?

3. In the event of the mother not suckling the child, how would you manage the breasts?

4. What means do you adopt to prevent inflammation of the eyes in the newly-born child?

October, 1896:—

1. If a woman during pregnancy suffer from dropsical swelling of the hands and face, what particular danger or complication might be feared and what special precautions ought to be taken?

2. Give the more usual causes of delay in the first stage of labour. What treatment would you adopt before sending for assistance?

3. Give in detail the method you would adopt in giving a vaginal douche to a lying-in woman, the solutions suitable for this purpose and the special dangers to be avoided.

4. State the level to which the upper border of the womb reaches: (1) after the conclusion of the third stage of labour, and (2) on the tenth day after labour. What conditions of surrounding organs may affect this level?

Queen Victoria Jubilee Institute for Nurses.

Edinburgh, 1894 :—

1. How would you prepare the lying-in room, the bed, and the patient for the onset of labour?

2. How would you recognise pregnancy at the sixth month?

3. What precautions would you take in passing a catheter after labour? Describe how you would pass a catheter without exposing the patient.

4. What is post-partum hæmorrhage? (*a*) How can it be prevented? (*b*) How would you treat it if it occurred?

5. How would you proceed to syringe out the vagina, and what are the precautions necessary?

6. What are the symptoms of retroversion of the gravid uterus?

Edinburgh, 1894 :—

1. A woman who is pregnant, was last unwell on the 26th of June, 1894. When would you expect her to be confined? Name the date.

2. State shortly what signs and symptoms you would

expect to find in a woman who supposed herself to be six months pregnant.

3. What would you do in a case when bleeding continued after the birth of the placenta and membranes?

4. How would you distinguish between *after pains*, and pains due to *inflammation of the peritoneum?*

Dublin, 1894:—

1. Describe the treatment of post-partum hæmorrhage during the third stage of labour.

2. What strength would you use carbolic acid and corrosive sublimate lotions for uterine injections?

3. Describe the treatment of pelvic peritonitis.

4. What are the various methods of feeding an infant one month old?

5. Describe the treatment of cracked nipples.

Dublin, 1894:—

1. How would you try to prevent the occurrence of ophthalmia neonatorum and treat it when it occurred?

2. If a child does not breathe when it is born what course would you adopt?

3 Describe the course you would follow in treating a case of placenta prævia before a doctor arrived?

4. Describe the premonitory symptoms of a case of puerperal eclampsia. What is the treatment?

5. Describe the treatment of a case of pelvic peritonitis.

London, 1893:—

1. Describe the mechanism of labour with the head in the first cranial position.

2. What would you do in sudden hæmorrhage in the seventh month of pregnancy, while waiting for the doctor to arrive?

3. How would you seek to prevent or arrest hæmorrhage after the birth of the child?

4. What do you understand by the words "Puerperal-septicæmia?" How is this condition caused?

5. How would you feed a motherless infant one month old?

6. What symptoms would make you fear that a woman has cancer of the womb?

London:—

1. Describe the mechanism of labour with the head presenting left occipito-anterior.

2. Compare the phenomena of the 1st and 2nd stages of labour.

3. How would you (as a nurse) treat a case of abortion at the third month?

4. What are the early symptoms of cancer of the uterus? How would you treat a patient in the later stages of the disease?

5. What are the causes of eczema of the vulva? What advice would you give to a woman suffering with it?

6. How would you treat post-partum hæmorrhage?

CHAPTER IV.

THE POSITIONS.

ONE of the things it is absolutely necessary to know correctly before going up for the L. O. S. examination, is the positions in the various presentations. The best way to learn them is with the book propped up before you and with a female pelvis supported by your left hand, while with the right hand you pass an infant's skull through the pelvis according to each position, repeating aloud the given directions. In every training school of midwifery, pelvis and skull are provided, and by the end of the second month a pupil should be perfectly familiar with passing the skull in any position demanded. When the time of the oral examination comes, it will only be necessary to pass the skull without repeating the directions, but still the directions should be known by heart in case one of the written questions should refer to this subject.

There are four vertex, four face, four breech, and four transverse presentations.

THE FIRST VERTEX, usually called the left occiput

anterior—or more briefly the L. O. A. ; 95 per cent. are born in this position. The head enters the pelvis with chin well flexed on chest, in the right oblique diameter ; the sinciput to the right sacro-iliac joint, the occiput to the left foramen ovale. It descends and rotates to the floor of the pelvis, with face in the hollow of the sacrum and occiput to pubes. Extension of chin takes place ; the occiput appears under the pubes, the face sweeps over the perineum and the head emerges. Restitution towards the mother's right thigh follows.

Presenting part :—Right parietal.

Movements :—Flexion, rotation, extension, rotation.

SECOND VERTEX. Right occiput anterior, or R. O. A. The head enters the pelvis well flexed in the left oblique diameter ; sinciput to the left sacro-iliac joint, occiput to the right foramen ovale. It descends and rotates to the floor of the pelvis, with face in the hollow of the sacrum and occiput to pubes. Occiput appears under the pubes, sinciput sweeps the perineum and the head emerges. Restitution towards mother's left thigh.

Presenting part :—Left parietal.

THIRD VERTEX.—Right occiput posterior, or

R. O. P.. The head enters the pelvis, well flexed, in the right oblique diameter, occiput to right sacro-iliac joint, sinciput to left foramen ovale. It descends and rotates to the floor of the pelvis, usually making a three-quarter turn, which brings the occiput to pubes and face to sacrum, when the mechanism is the same as in the second vertex. But if not making three-quarter turn, the occiput is to the sacrum and sinciput emerges under pubes while the occiput sweeps the perineum and the head is born. Restitution towards mother's left thigh.

Presenting part :—Left parietal.

FOURTH VERTEX.—Left occiput posterior or L. O. P. The head enters the pelvis, well flexed, in the left oblique diameter, sinciput to right sacro-iliac joint, occiput to left foramen ovale. It descends and rotates to the floor of the pelvis, usually making a three-quarter turn, when the mechanism is the same as in the first vertex position. Failing the turn, when extension takes place the occiput emerges under the pubic arch and sinciput sweeps over the perineum and the head is born. Restitution towards the mother's right thigh.

Presenting part :—Right parietal.

FIRST FACE. Right mento posterior, or R. M. P. The face enters the pelvis with marked extension of the chin, in the right oblique diameter, chin to the right sacro-iliac joint, sinciput to the left foramen ovale. It descends and then rotates with chin to pubes; the chin becomes flexed on the chest and so fixed under the pubes. Sinciput and vertex sweep over the perineum and the head is born. Slight restitution towards mother's right thigh.

Presenting part:—Right malar.

Movements:—Extension, rotation, flexion.

SECOND FACE.—Left mento posterior, or L. M. P. The face enters the pelvis with marked extension in the left oblique diameter, chin to left sacro-iliac joint, sinciput to right foramen ovale; it descends and then rotates with chin to pubes. Flexion takes place, the chin appears at pubes, sinciput and vertex sweep the perineum and the head is born. Slight restitution towards the mother's left thigh.

Presenting part:—Left malar.

THIRD FACE.—Left mento anterior, or L. M. A. The face enters the pelvis with marked extension in the right oblique diameter, sinciput to the right sacro-iliac joint, chin to the left foramen ovale; it descends

and then rotates with chin to pubes. Flexion takes place; the chin appears at pubes, sinciput and vertex sweep the perineum and the head is born. Slight restitution towards the mother's left thigh.

Presenting part:—Left malar.

FOURTH FACE.—Right mento anterior, or R. M. A. The face enters the pelvis with marked extension, in the left oblique diameter; sinciput to the left sacro-iliac joint, chin to the right foramen ovale. It descends and then rotates with chin to pubes. Flexion takes place; the chin appears at pubes, the sinciput and vertex sweep the perineum and the head is born. Slight restitution towards the mother's right thigh.

Presenting part:—right malar.

Note.—In all the four face positions the chin must be to the front to admit of the head being born.

FIRST BREECH.—Left sacro anterior, or L. S. A. The breech enters the pelvis in the left oblique diameter with the right buttock to the left sacro-iliac joint and left buttock to the right foramen ovale. It descends and rotates with right buttock in the hollow of the sacrum and left buttock to pubes. The right buttock sweeps over the perineum and emerges first, the shoulders follow in the same diameter. The head

enters in the opposite diameter, becomes flexed, and rotates with face to sacrum and occiput to pubes. The chin sweeps the perineum and is born first.

Presenting part :—Buttocks—the anus or genitals can generally be felt in all breech cases.

Movements :—Descent, rotation, flexion.

SECOND BREECH.—Right sacro anterior, or R. S. A. The breech enters the pelvis in the right oblique diameter, with the right buttock to the right sacro-iliac joint and left buttock to the left foramen ovale. It descends and rotates with left buttock to sacrum, and right buttock to pubes. The left buttock sweeps over the perineum and emerges first. The shoulders follow in the same diameter. The head enters in the opposite diameter, and rotates with chin to sacrum and occiput to pubes. The chin and face sweep over the perineum, and the head is born.

Presenting part :—Buttocks.

THIRD BREECH.—Right sacro posterior, or R. S. P. The breech enters the pelvis in the left oblique diameter, the right buttock to the right foramen ovale, and the left buttock to the left sacro-iliac joint. It descends and rotates with the right buttock to pubes and left buttock to sacrum. The

shoulders follow in the same diameter. The head enters in the opposite diameter, with occiput to sacrum and face to pubes. It makes a three-quarter turn, so that the face is to sacrum; the chin sweeps the perineum and the head is born. In a very small child, birth may take place with face to pubes without the three-quarter turn, but this is rare.

Presenting part:—Buttocks.

FOURTH BREECH.—Left sacro posterior, or L. S. P. The breech enters the pelvis in the right oblique diameter with the right buttock to the right sacro-iliac joint and the left buttock to the left foramen ovale. It descends and rotates with the left buttock to pubes and right buttock to sacrum. The shoulders follow in the same diameter. The head enters in the opposite diameter and makes a three-quarter turn, sending face to sacrum and occiput to pubes. The chin sweeps the perineum and the head is born. In case of a very small child, birth can take place without the three-quarter turn.

Presenting part:—Buttocks.

FIRST TRANSVERSE.—Left dorso anterior or L. D. A. Head to the right, back to mother's abdomen; left shoulder presenting.

SECOND TRANSVERSE.—Right dorso anterior, or R. D. A. Head to the left, back to mother's abdomen; head to left; right shoulder presenting.

THIRD TRANSVERSE.—Right dorso posterior or R. D. P. Head to the right; face to mother's abdomen; right shoulder presenting.

FOURTH TRANSVERSE.—Left dorso posterior or L. D. P. Head to the left; face to mother's abdomen; left shoulder presenting.

Transverse presentations almost always need instrumental help; failing that, Nature has four methods of expelling the child.

FIRST.—Spontaneous rectification; the contractions of the uterus raising the shoulder out of the pelvic inlet, and pushing the head down into it, and so turning the presentation into a vertex.

SECOND.—Spontaneous version; the contractions of the uterus turn the child round until the breech enters the pelvic inlet and the presentation becomes a breech.

THIRD.—Spontaneous evolution; the contractions of the uterus while the head is resting on the pubes

force down the trunk until the labour resembles a breech case; but generally one arm is born first.

FOURTH.—Spontaneous expulsion. Only takes place with a dead child, when the softness allows the body to be doubled at the waist and expelled first, the head pressed against the feet follows.

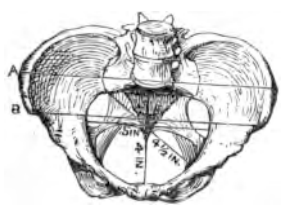
CHAPTER V.

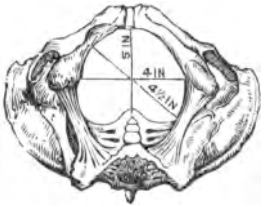
THE ANATOMY OF THE PARTS.

THE PELVIS.—The bony girdle below the waist into which the spine enters behind, and from which the thigh bones spring on either side, is called the pelvis. It is rather like a basin in shape, and holds the uterus, and other internal organs. It is much deeper behind than in front; springing from the backbone at about the level of the waist, but sloping down in front betwen the legs. It consists of three bones; the *sacrum* which is a continuation of the backbone, and which terminates in a little tail-piece called the *coccyx*; from each side of the sacrum springs a spreading *os innominatum* or nameless bone, the two curving round and joining in front to form the *pubic arch* or *symphysis pubis*. The big broad bit of each os innominatum which is popularly called the hip bone, is technically known as the *ilium*, the front part which forms the arch is called the *pubes*, the lower side bit on which we sit is called the *ischium*

Between the pubes and the ischium, is a circular hole known as the *foramen ovale*, or *obturator foramen*.

Where the sacrum and ilium join is the *sacro-iliac synchondrosis*, or *sacro-iliac joint*. It is most important that the midwife should know the ordinary dimensions of the female pelvis, as where it is much contracted the full time child cannot pass. The depth behind is 5½ inches, depth in front, 1½ inches. The upper part of the basin is called the *inlet*, the middle the *cavity*,



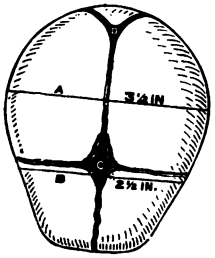


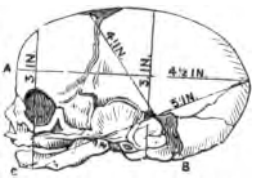
and the lower part the *outlet*. The diameters of the inlet are, from sacrum to symphysis pubes, called the *conjugate*, 4 inches. From side to side, called the *transverse*, 5 inches; from the sacro-iliac joint on one side, to the foramen ovale on the other, called the *oblique*, 4¾ inches. When this last diameter starts from the left sacro-iliac joint, it is called the *left oblique*; when from the right sacro-iliac joint, the *right oblique*. The conjugate diameter of the cavity is 5 inches, the others about the same as the inlet. The diameters of the outlet are, conjugate 5, oblique 4½

transverse 4. The intercristal and interspinous diameters, marked A and B in the diagram, are not of such practical importance as to be worth remembering.

THE FŒTAL HEAD.—Obstetrically this is the only part of the child which needs an anatomical description. It is necessary to know well the form of the head and the position of the different sutures, in order to be able to diagnose the presentation. The bones of the infant skull are not closely joined, so that they are capable of squeezing during their passage through the pelvis. The bone which forms the forehead is called the *frontal bone*, in the fœtus it consists of two parts; the two large side bones, one above each ear, are called the *parietal bones*, the bone down at the back of the head is called the *occipital bone*. Behind and below each ear are the small *temporal bones*, and close to them the small *sphenoid bones*, which are wedge-shaped. The spaces where two bones are not apposed are called sutures; that between the frontal bones the *frontal suture*; that between the frontal and parietal bones the *coronal suture*; that between the two parietals the *sagittal*, or arrow-shaped suture; that between the parietals and occipital the *lambdoidal suture*, from its likeness to the Greek letter L. Where

more than two bones meet the spaces are called fontanelles; that in front at the meeting of the coronal, sagittal and frontal bones is the *anterior fontanelle* or *bregma*; that at the back of the meeting of the occipital with the two parietals is called the *posterior fontanelle;* the first is larger and oval in shape, the second is small and triangular; the difference in the feel of the two should be learnt on the skull, so that,





once known, they may be readily recognized when examining. The diameters of the infant's skull are also of great importance as showing in what positions the head can, and in what it cannot, pass through the pelvis. They vary somewhat; at times a very large head presents, but the average are as follows:—The *occipito frontal* (*a*) from the lower part of the frontal to the top of the occipital, 4½ inches; the *sub-occipito-frontal* (*b*) from the top of the frontal to the bottom of

the occipital, 4 inches; the *occipito mental* (*c*) from the top of the occiput to the chin, 5 inches; the other diameters need not be remembered, but are given in the figure. In the second figure are given the two chief diameters across the top of the skull; the *bi-pareital* (*a*) which measures 3½ inches, and the *bi-temporal* (*b*) which measures 2½ inches, (*c*) is the anterior fontanelle, and (*d*) the posterior.

Much handling of the pelvis and fœtal skull is recommended during training in midwifery, so that the student may become thoroughly conversant with the size and shape and with the names of the different parts.

EXTERNAL GENITAL ORGANS.—The *vulva* is the name which includes all the external organs; it consists of a hairy cushion over the pubes called the mons veneris; two *labia majora* or large outer lips which unite at the back to form the *fourchette*; two *labia minora* or smaller inner lips (also called the nymphae), and within them rather to the fore a triangular space called the *vestibule*. In front of the vestibule is a tiny knob of erectile tissue called the *clitoris*, behind it is the *urethra* or entrance to the canal from the bladder; behind this again is the entrance to the

vagina, round which is a frill of membrane known as the *hymen*. Between the anus and the fourchette is a wedge-shaped tissue called the *perineum*.

THE INTERNAL GENITAL ORGANS.—The *uterus*, or womb, is a pear-shaped organ about 2½ inches long by 1½ inch broad; it is situated in the pelvis between the bladder and the rectum, with the small intestines above it, and the vagina below. In the sixth month of pregnancy the uterus reaches as high as the umbilicus, in the ninth month it reaches to the lower end of the breast bone. The uterus consists of three parts: the *fundus* or top, the *body* or middle, and the *cervix* or neck. The cervix is about an inch in length and projects a little way into the vagina; at the junction of the body and the cervix, is a muscular constriction called the *os internum* or internal mouth; the opening into the vagina at the lower end of the cervix is called the *os externum* or external mouth. The uterus is lined by three membranes, the outer is the *decidua*, and is so fine as to be practically unimportant; the middle is the *chorion*, a soft delicate membrane; and the inner is the *amnion*, which is by far the strongest. The *placenta*, or after-birth, is an oval flesh-like substance which grows in the uterus with the growth of

the child and nourishes the fœtus. It is expelled from the womb after the birth of the child. The ***umbilical cord***, or navel string, connects the child with the placenta and consists of two arteries and a vein held together by a jelly and bound by the amnion. The two ***fallopian tubes*** pass from each side of the fundus of the uterus to the peritoneal cavity; at the upper ends they are connected with the ***ovaries***, two olive-shaped organs a little more than an inch long and half-inch broad; the fallopian tubes form the ducts along which the ova pass into the uterus. The uterus and its appendages are bound by a double fold of peritoneum called the ***broad ligament***. The ***vagina*** is the passage from the uterus to the exterior, and is 5 to 6 inches in length at the back and about 4 inches in front.

CHAPTER VI.

RULES FOR CONDUCTING A CASE.

WHEN sent for go at once.

At visit ascertain :—

1. Is patient pregnant and is she in labour?
2. Is the os dilating, or capable of dilating?
3. State of vagina.
4. Are the membranes present?
5. Position of child.
6. Size of pelvis. (Suspect deformities of pelvis if the patient has bandy legs, a hump back, enlarged joints, or is dwarfed in stature.)

During the first stage (four to six hours as a rule)—

1. Encourage patient.
2. Arrange bed, and see that all necessary articles are at hand.
3. Secure hygienic conditions (*i.e.*, attend to ventilation and cleanliness of room, etc).
4. Secure action of bowels and bladder.

5. Give water to drink.

6. Examine every half-hour if you are not sure of presentation; but remember that every examination is an added danger of sepsis.

Send for the doctor if—

1. The presentation is abnormal.

2. Hæmorrhage (bleeding) occurs. (See page 80.)

3. The parts get hot and dry, and the discharge offensive.

4. The pains are strong, but there is no advance of fœtus (rupture of uterus to dread).

5. The os doesn't dilate, or, being dilated, the head doesn't descend.

6. The pulse is over 100 between the pains. (Hæmorrhage to dread.)

During the second stage (one to two hours, as a rule)—

1. Protect the perineum; if a first labour, soften it by bathing with warm water or by rubbing with vaseline.

2. With the left hand on the uterus follow down the birth of the child.

3. Ascertain if the cord is round the neck.

4. Clear out child's mouth and wipe eyes.

5. Make the child cry. (For suspended animation see page 91.)

6. Tie the cord and cut it.

During the third stage (15 to 30 minutes as a rule)—

1. Stroke and rub the uterus to make it come forward.

2. Grasp it at fundus, and by pressure expel the placenta.

3. Examine placenta to see that the membranes are complete.

4. Give douche (if necessary), and make patient dry and comfortable; put on binder.

5. Give ergot (if necessary); give patient a drink of hot milk.

6. Note pulse and temperature, and any signs of hæmorrhage.

Care of child:—

1. Weigh the infant.

2. Wash it in two waters before a warm fire.

3. Dry thoroughly and powder creases with starch.

4. Dress cord with starch.

5. Dress child.

6. Put it to the breast.

Subsequent care :—

1. Visit within twelve hours of delivery, and note pulse, etc.

2. Visit every day for the first week, and wash pudendum ; note pulse and temperature, etc. (Douche if necessary.)

3. On the third day wash and dress child, and note state of cord, etc.

4. On the fourth day give mother a dose of castor oil or Hunyadi Janos if necessary.

5. Visit every second day in the second week.

6. Visit finally at end of third week if all has gone well.

The following details explain how to carry out these brief rules :—

; The signs of pregnancy are—(1) suppression of menses ; (2) morning sickness ; (3) softness of the parts ; (4) pigmentation round nipples, etc. ; (5) enlargement of abdomen ; (6) movements of fœtus (quickening) and sound of fœtal heart. The first five are ascertained by questioning the patient. If there is any doubt, the one absolute sign is the beating of the fœtal heart, which can be heard by placing the ear

against the mother's abdomen a little to right or left of the umbilicus. The noise is like the ticking of a watch, and is very quick; according to the position of the child, the noise is best heard to right or left, or a little higher or lower. Spurious or false pregnancy is usually only seen in hysterical women, who can delude themselves.

The signs of labour are :—

The swelling of abdomen having lately descended somewhat, so that the patient has been able to breathe more easily. The presence of recurring pains in the abdomen, back and loins, increasing in frequency and in intensity; they need to be distinguished from false pains, which are irregular, and are not felt in the back. The dilating of the os uteri. The presence of the bag of membranes. The discharge of bloody mucus, usually called a "show."

If the patient is pregnant and in labour, the next thing is to ascertain the presentation. Let the patient lie on the bed on her left side, with knees drawn up. Cleanse her external genitals with a piece of tow dipped in disinfectant. Turn up your sleeves and thoroughly wash your hands and forearms with carbolic soap, and scrub your nails. Dry your hands and then

hold them in a 1 in 1,000 solution of corrosive sublimate for five (or, if in a hurry, three) minutes. Withdraw hands, and without drying them lubricate the first finger of the right hand with a little vaseline, and insert it gently into the vagina, feeling backwards and upwards until the os is reached. If it is sufficiently dilated the bag of membranes will be felt bulging during the pains and withdrawing between whiles, and when the membranes are flaccid, the presenting part can be felt through them. Feel the part carefully; if it is vertex, feel for the sutures and the fontanelle. If you make a careful examination, a second one should not be necessary. The trick of frequent examinations is fraught with danger, and is unjustifiable, except in abnormal cases. During your examination you will also note state of parts and any hint of contracted pelvis. If the os is no bigger than a shilling the patient can be allowed to walk about between the pains, and the midwife can turn her attention to the room. The bed must be made with a macintosh and draw sheet. Well-to-do patients usually provide absorbent sheets and towels that can subsequently be burned. In poor districts an old bit of oil-cloth off the floor, or even folded brown paper, may be used instead of macintosh. But some precaution must be

taken against a soiled bed, which is always a disgrace to the midwife. The following things should be to hand if they can be had :—

Basin of 1 in 1,000 corrosive sublimate ; rags soaking in boracic for the baby's eyes ; three bundles of whitey-brown thread (six strands in each), about six inches long and knotted at each end (for tying the cord).

Douche can or syringe, and plenty of hot and cold water.

Bed bath or slipper ; slop pail.

Night-dress, draw sheet, binder and safety pins.

Bowl or basin to receive placenta.

Basin for washing patient.

Plenty of dry warm towels.

A foot-warmer or hot-water bottle.

Flannel square and cushion near fire for the child.

Clothing for the child.

Washing materials, cord dressing and starch.

Get the history of her previous confinements from the mother.

Pull the bed into a convenient position not touching the wall ; see that the room is not full of dirty clothes, and there is no rubbish under the bed ; make up the fire, fill the kettle, open the window at the top.

Wash your patient and plait her hair in two plaits; give her a soap and water enema if the bowels have not acted within the last two or three hours, and let her pass water. Dress her in a clean night-dress pinned up under the arms, and put an old flannel petticoat on round the waist. Let her have a drink of water or cup of tea if she wishes.

At the end of the first stage there may be cramp, sickness, or shivering; the woman may want to sit up, thinking the bowels are going to act; do not allow this, or the child may be born in the chamber.

During the second stage your patient must lie on the bed on her left side with knees drawn up and separated by a pillow. Poor people have all sorts of fancies about lying across the bed or at the foot; the point to insist on is a position that is convenient to the midwife, and will prevent the soiling of the bed. It is a relief to the patient to press against the small of her back during the pains. To prevent rupture of the perineum, which is frequent in primipera, but is always a disgrace to the midwife, it is well to bathe the perineum with warm water, or to rub it with vaseline if it is a first child. But be sure your manipulations do not disturb the patient in those brief merciful dozes that give strength and relief between the pains in

many cases. In some hospitals five to nine drops of laudanum in half a wineglass of water are given to every primipara at the beginning of the second stage. This induces dozing and lulls pain, so that it is not so often necessary to give chloroform. You do not want a first child to be born too quickly before the perineum is thoroughly stretched, so that it is usual to tell the patient to cry out, if she holds her breath and bears down the birth may be too rapid. As the head appears with the right hand guide it forward and keep the pressure off the perineum as much as possible. Feel if the cord is round the neck, and if so loosen it so that the shoulders can slip through it. In some rare cases of short cord it is impossible to get enough either for the shoulders to slip through or to pull over the head; then it becomes necessary to cut the cord and hold the end nearest the child between the fingers tightly; the danger is that if there are twins, the other may bleed to death. This is an emergency not likely to arise. Wipe the child's eyes with rag dipped in boracic. With the left hand on the uterus follow down the birth of the child; the shoulders are almost as likely to tear the perineum as the head, and must be guided; once the shoulders are born the rest of the body may shoot out quickly, so it is well to put the

thumb and first finger round the neck, and so hold the child gently during birth, that it may not be shot out on the floor. Lay the child on the bed and make it cry; a slight slap or sprinkling of cold water should be sufficient to secure this. If in any doubt about the eyes wipe them again, now with some disinfectant; also wipe out the mouth. Wait a minute or so for the cord to cease pulsating strongly, and then, about two inches from the child, tie it tightly round with your strand of thread; then tie it again about an inch further on; with blunted pointed scissors directed towards your hand which holds the cord, and away from the child, cut the cord in two; wrap the child well up in the square of flannel, and put it down near the fire. Be sure you do not let the child get chilled; in hospitals where incubators are kept the midwife is so used to merely putting in the child and leaving it, that on first going to private practice she is likely to forget that the undressed babe must be kept in a warm place. Now turn the mother on to her back; about 10 or 15 minutes after birth the uterus ought to be felt contracting under the hand; rub it gently, and when it comes forward grasp it and press downwards and backwards; if unsuccessful the first time wait a few minutes till you feel another contraction, and then try again. As

a rule the placenta is easily expelled, but if not, patience is the best treatment for the first half hour; on no account must the midwife ever pull on the cord. When the placenta appears from the vagina, catch it in both hands and turn it round once or twice and ease it out gently; put it in a basin with a little disinfectant, and just pull out the two membranes and see that they are complete, and that nothing has been left in the womb. If you are doubtful whether a tiny bit of membrane may have been left, give a 1 in 2,000 sublimate douche. Some midwives always give a hot douche after labour; some also give as part of the routine a drachm of ergot in two ounces of hot water. If there is sign of hæmorrhage or excessive loss the ergot should be given, but it is in ordinary cases not a necessity. Rub the uterus gently still, and feel if it is nice and hard; get the soiled things off the bed, and if the patient has shivers put the hot bottle to her feet and put a warm blanket over her. Wash the parts and the legs well, and put on plenty of warm, dry towels; if the uterus feels flabby keep on rubbing it till it hardens and feels like a cricket ball under the hand; then you may safely put on the binder or belt. Now unpin the rolled-up night-gown and pull it down; note pulse and temperature,

give your patient a drink of hot milk, and let her go to sleep.

Now weigh the baby; have two basins full of water at 100° Fahr., and have all the baby's clothes, etc., handy. Then sit down on a low chair before the fire and take up the child. First put a second tie to the cord nearer its end, as a precaution against hæmorrhage; look the child carefully over, and see that it is in no way defective (no inperforate anus, no swelling about the umbilicus, denoting rupture, and so on); rub the child all over with vaseline in order to facilitate the removal of the greasy matter (vernix caseosa) covering it. With your left thumb and first finger round the baby's neck, and the other fingers spread out down its back, let the child lie with its head over the basin, its face, of course, looking upwards. With your right hand wash the face and dry it; wash all over the head and dry it. Then with your right hand catch hold of both the baby's ankles, and, still supporting the head and back with the left hand, lift the child into the basin; wash it well with the right hand, still supporting the back with the left hand. The water will become very greasy with vaseline, etc., so now lift the child into the second basin and wash it with best primrose soap; lift it out on to

a nice soft towel on your knee, and dry it thoroughly with dabbing rather than rubbing motions. Dust some powdered starch into the folds of the skin, rub a little vaseline about the anus and inside of thighs, as otherwise the meconium or first motions of the child are apt to stick to the tender skin. Have a piece of antiseptic gauze five inches square and with a small hole in the middle for the cord; draw the cord through the hole, dust it well with starch powder and curl it round on the abdomen and fold the gauze over it. Sew on the child's binder, seeing that it is fairly tight over the umbilicus, but quite loose at the top over the ribs; dress it with as little movement as possible; the ideal nurse never turns the child but once in dressing it, and as a rule the nurse looks down on a midwife who is not careful in details. When you have finished the child let the mother put it to the breast, as its attempts to suck help the uterine contractions. See that the mother is not losing too much, and then if half an hour has passed since the delivery you can leave your patient. Where there is an efficient nurse the midwife need not dress the child, but she must not leave the house till at least the half hour is up for fear of hæmorrhage.

Visit the case within 12 hours, and see that there is

no sign of hæmorrhage, and take pulse and temperature. If necessary, pass the catheter. Also see that there is no hæmorrhage from the child's cord; if there is, tie it again. During the first week pay daily visits to the mother, and note the temperature very carefully; it is apt to rise on the third day with the inflow of milk to the breasts, but should not be more than 100°. Sometimes a sudden rise and feverishness can be effectually stopped by a soap-and-water enema if the bowels need relieving. There is generally constipation after labour, and it must not be allowed to go beyond the fourth day at latest. A dose of castor oil can be given, but not patent pills, as they are often bad for piles. In poor districts the mother is usually up and about at the end of the third week (never let her walk about before if you can help it), and the midwife can pay her farewell visit; but women who can afford it do not get about till the end of the fourth week, and they expect the midwife to visit them till then.

In all cases of difficulty or emergency, turn to Chapter VII., where these things are treated alphabetically.

CHAPTER VII.

PRACTICAL ALPHABETICAL GUIDE.

AGALACTIA.—Suppression of milk. Give mother plenty of milk and eggs and fluid in her diet, and put the child to the breast.

AFTER-PAINS.—Caused by the contractions of the uterus in the first few days after delivery. As their tendency is to expel clots, etc., from the womb, they should not be checked unless so severe as to be retarding recovery. Then a few drops (5-10) of laudanum in half a wineglass of water may be given at night to secure sleep to the mother. In hospital it is usual to give a mixture consisting of 10 drops of laudanum and 20 drops of tincture of cardamoms in 2 oz. of chloroform water in severe cases.

AMNION DROPSY may cause great increase of size in the latter months, and lead to the expectation of twins. Where you believe this to be the case, have a medical opinion.

ARTIFICIAL RESPIRATION.—Where a child is born in a state of suspended animation lay the child flat on

its back, stand behind the head, and take hold of both elbows. Slowly raise the arms above the head, and then lower them and press them against the sides. Continue this 20 times a minute, stopping directly the child gasps or begins to breathe naturally.

BINDER for mother after labour should be of stout linen or cotton, about half a yard broad and one and a half yard long. An ordinary round towel answers admirably. It should be put on firmly and without creases. If necessary one knee can be pressed against the bed in order to get purchase to pull the binder tight. It is best to fasten it with plenty of safety pins. The binder is chiefly to give comfort to the patient, and can therefore be relaxed or left off after the first few days if the patient desires it. The infant's binder should be of fine flannel, 4 inches broad, and three-quarters of a yard long. It should not be put on tightly.

BREASTS.—When the child is still-born or dies, or is too feeble to suck, the milk may cause painful fulness of the breasts. This can be relieved by (1) drawing off the milk now and again by a breast pump, (2) by a belladonna plaster, (3) by saline aperients, (4) by breast bandages, (5) by ice poultices, (6) or, if the midwife is

a trained masseuse, by gentle massage of the breasts. A *breast bandage* usually consists of a broad piece of calico going across the back and in front split in two, one piece going over and the other under the breasts, and so exercising pressure. If the breasts are large and pendulous, the woman must not sit up while she is suckling, for fear of inflammation.

Breech Presentations.—In these cases do not rupture the membranes or hurry the first stage, as it is necessary to get the soft parts well dilated. When the breech is born, with the first finger of the right hand hook down first one foot, then the other. Feel where the cord is, and put it to one side, where it will not press against a bone during the birth of the head. If the arms are folded across the breast, hook your finger into the elbow of first one and then the other, and bring them down. Take hold of the child's feet with your right hand and raise them towards the mother's abdomen; with the index finger of the right hand guide the birth of the head, remembering how the chin and face should sweep the perineum. If there is anyone present to follow down the birth of the child with one hand on the uterus, it is well. Note if the cord is pulsating strongly and regularly; if not, hurry the

birth. The great danger in breech cases is from compression of the cord by the head. If the arms are above the head, pass one hand up beside the head and sweep the arm down over the face and then hook it out; do the same with the other arm. The head cannot be born till after the arms. The danger here is of breaking the arms unless the midwife is skilful and gentle.

CAPUT SUCCEDANEUM.—Swelling on child's head, due to pressure during birth. On no account treat it in any way, and satisfy the mother that if left alone the head will resume its natural shape. A purple swelling called *cephalhæmatoma*, and caused by pressure and bleeding under the skin, is also sometimes seen on the child's head. It requires no treatment, and disappears in a few weeks.

CARBOLIC ACID is not much used in labour cases. Ordinary strengths are: for hands, 1 in 20—(one ounce in a pint of water); for douche, 1 in 80; for instruments, 1 in 10. The symptoms of poisoning by carbolic acid, which point to its being discontinued as a disinfectant are—the urine on standing becomes deep green or dusky, and the patient complains of internal pains.

CATHETER.—A midwife should always carry a No. 8 india-rubber catheter, which, before and after using, should be washed through with a stream of warm water and then disinfected. Before using it should be lubricated with carbolic vaseline. It is always difficult to pass the catheter just before or after labour, owing to the swelling of the parts; therefore it must not be attempted without seeing; no force must be used. Separate the labiate with the left hand, and, having found the urethra, slip in the catheter about 1½ inches. Have a bowl on the bed to catch the urine. When a catheter is not in use it should be kept soaking in 1 in 20 carbolic.

CAUL.—The unruptured membranes covering the face and head of the child. Of no importance; superstitious mothers regard it as a lucky sign.

COLLAPSE.—Seen in cases of hæmorrhage, etc.: face, gums and tongue pale, pupils dilated, skin damp, body cold, partial or complete unconsciousness. Make patient lie flat and quite still. Hot bottles to extremities, warm blankets about patient; frequent sips of hot milk and beef tea; if nearly unconscious give a few drops of salvolatile. Rub over the heart with brandy. When the doctor comes he may give a

stimulant (ether) by subcutaneous injection. In cases of arterial hæmorrhage brandy should not be given.

CONDY'S FLUID.—Safe disinfectant for district use. Keep it well corked; it stains linen. For douche two tablespoonfuls to a quart of water. The usual way of carrying this disinfectant is in the form of crystals of permanganate of potash, when care must be taken that the crystals are well dissolved. Two or three tiny crystals will make the water the deep pink which denotes the proper strength. Crockery stained by Condy can be cleaned with salt and turpentine.

CONSTIPATION in infant is best met by giving a piece of manna the size of a hazel nut, or a teaspoonful of olive oil. In the mother give half an ounce of castor oil.

CONVULSIONS IN MOTHER.—Prevent patient from hurting herself. Loosen all tight clothing. See if flooding is going on. If the bowels need relieving, give a strong soap-and-water enema. Convulsions may arise from many causes: *epileptic* fits sometimes come on during labour, so ask friends if the patient has ever had a fit before; an *apoplectic* fit may come on and be marked with paralysis on one side; send for the doctor. *Hysterical* fits are generally marked by flickering of the eyelids and by the patient catching

hold of nurse or friend and hanging on, and by other evidences that the patient is not completely unconscious. *Eclampsia*, however, is the most serious convulsive complication of labour, and is generally due to kidney trouble; the presence of albumen in the urine, a puffiness of the feet and ankles, are signs of kidney disease. To test for albumen, half fill a test tube with urine and hold it over the gas or a spirit lamp, when an opacity may appear resembling white of egg, and this, if albumen, will not clear when a few drops of nitric acid are added. In cases of eclampsia, send immediately for the doctor; if the fits follow one another quickly and get stronger each time, and you are, perhaps, in the country, where hours may elapse before medical aid can be obtained, sprinkle a few drops of chloroform on a handkerchief and hold it for a few seconds at a time to the patient's nose; or try, between the convulsions, to get the patient to swallow 5 to 10 drops of chloral in a little water.* The con-

* Both chloroform and chloral are scheduled as poisons, and therefore Dr. Robert Boxall objects to the above paragraph. But Dr. Savage, in lecturing on *eclampsia* to the Midwives' Institute on April 13th, 1894, said:—"If no doctor is to be got, and you have any chloroform at hand, you are justified in giving this, for there is no doubt that with the judicious use of some anæsthetic most cases may be saved."

vulsions usually come on soon after labour; should they appear before delivery, hasten the birth of the child as much as possible. You can seldom be wrong in relieving the bowels in cases of convulsions. Keep the child away from the mother till you have had medical advice. In epileptic cases the mother is particularly liable to injure the child, even between the fits. Where there is a history of epilepsy, give aperients freely after labour.

CONVULSIONS IN CHILD.—Put the child in a warm bath; keep the extremities warm and the head cool. Relieve the bowels; a teaspoonful of dill water is the safest aperient if the infant is very young; a little magnesia may be put in the dill water for an older baby. As a rule, fits in a child are due to improper feeding, so attend to the child's diet; but the fits may be due to epilepsy (ask if any of the family have fits), or in older children to teething or the irritation of worms in the intestines.

CORD, HÆMORRHAGE OF.—Always watch for hæmorrhage of cord during first few hours, and, if necessary, re-tie more tightly.

CORD, INFLAMMATION OF.—Keep clean and foment; if matter forms, apply a bread poultice.

CORD, PRESENTATION OR DESCENT OF.—The cord may come down at the beginning of labour, or when the membranes rupture, or may come down beside the presenting part. On feeling the cord, fear is sometimes entertained that it is a piece of intestine; try and pass your finger round it; the intestine is joined by a thin membrane, but the finger will go right round the cord. Keep the membranes unruptured as long as possible, and put the patient on her knees and elbows for 15 minutes. If, when she lies on her side, the cord comes down again, send for the doctor, for pressure on the cord will almost certainly kill the child. Also there is generally some deformity of pelvis when the cord presents. When the head comes first the case is worst; with a soft part presenting, the pressure on the cord is not so great. Very often the case is transverse if the cord presents.

CORROSIVE SUBLIMATE.—Perchloride of mercury, a powerful disinfectant and poison. For use in labour cases it is sold in the form of soloids which are easily portable, and can be quickly dissolved in a little warm water. It is the safest disinfectant in which to soak the hands (1 in 1,000) before examination; it is also (in proportion of 1 in 2,000) the most efficient

douche after labour. But it is dangerous unless close watch is kept on the patient; for if all the fluid injected into the vagina is not squeezed out there may be absorption and poisoning. The symptoms of poisoning are diarrhœa, coppery taste in the mouth, and a purple line along the gums. Directly any of these signs appear the use of corrosive sublimate must be discontinued.

CRAMP.—At the end of the first stage of labour cramp in the legs is common; rub both hands energetically up and down the legs.

CREDE'S METHOD.—For ending the third stage at the will of the midwife. It consists in rubbing or stroking the uterus to make it ascend and come forward, and then grasping it, and by pressure backwards and downwards expelling the placenta from the vagina. As a rule this can be done from 10 to 20 minutes after the delivery of the child, and you are thus enabled to get the patient clean and comfortable without the usual half-hour's wait on a damp bed, which frequently results in a chill.

CREOLINE.—A dark brown antiseptic fluid useful for douches. It turns the water with which it is mixed a milky colour. It can be used with soap.

CYANOSIS.—Non-closure of the foramen ovale causes

impure blood to circulate through the arteries, and the child has a blue appearance; it is also always cold and breathes with difficulty. A serious illness; send for the doctor; wrap the infant up in cotton wool, and on no account let it lie on its left side.

DELAY IN LABOUR may arise from extra size of child or extra smallness of pelvis; from premature rupture of the membranes or from uterine inertia (which see). Try and find out cause. In all cases of obstruction send for the doctor. Sometimes putting on a tight binder will assist labour, especially if the woman is big and fat.

DIARRHŒA.—Dangerous in infants; bowels shouldn't act more than three times a day. Attend to diet; see that bottles, etc., are clean, and no dirty napkins are left in room. If you cannot check it by hygienic measures, call in a doctor at once.

DIET.—The old-fashioned idea of feeding the mother on slops has gone out. Directly after delivery a drink of hot milk is excellent. After the first sleep tea and a little bread and butter may be given, and subsequently milk puddings, gruel, and beef-tea. On the third or fourth day a little bit of fish or chicken may be tried, and at the end of a week a mutton chop.

By the end of the fortnight the mother should be taking her ordinary food.

DOUCHE.—A douche usually consists of two pints of disinfecting fluid injected into the vagina by means of an india-rubber syringe. Where possible let the patient provide her own syringe, and wash it well after use, and leave the nozzle soaking in disinfecting fluid. Or where a midwife is attending many patients a glass nozzle should be kept for each patient. In giving a douche, first see that your syringe is in working order and thoroughly clean; prepare the fluid in a basin and fill the syringe; put the patient on a bed bath or slipper, wash the external parts with a small piece of wool dipped in disinfectant, and then burn the wool. Lubricate the nozzle of the syringe with a little thymol vaseline, and then insert it gently into the vagina. By squeezing the ball of the syringe slowly inject a steady gentle flow into the vagina. Be sure that the end of the syringe is kept well under the fluid, so that air in not injected. Press the hand gently over the uterus to squeeze out any remaining fluid; remove the slipper, dry the external parts with a piece of antiseptic wool and burn. The usual strengths for a vaginal douche are—Corrosive sublimate, 1 in 2,000; Condy's

fluid, 2 tablespoonfuls to a quart of water; creoline, sufficient to make the water milky; carbolic acid, 1 in 80; iodine, 1 in 4, or enough of the tincture to turn a quart of water the colour of pale sherry. Temperature of douche, 100° Fahr. Douching is of doubtful value unless the most minute cleanliness and care is observed. At the Rotunda a vaginal douche is never given in cases of uncomplicated labour.

ECLAMPSIA (see Convulsions).—The woman has fancies, the temperature rises; there are first tonic contractions of the face and neck, then general clonic convulsions, then coma and stertorous breathing. Don't give laudanum.

ECZEMA.—A bright red rash, forming scabs when it dries, and sometimes seen about the umbilicus when cleanliness has not been observed; sometimes seen all over the child. Often due to starchy food or constipation; see to the hygienic surroundings and remove cause. Sponge the parts with a mild solution of bi-carbonate of soda, dry them gently, and put on a little zinc ointment.

ENEMATA.—Injections per rectum; commonly by means of a Higginson's syringe, which consists of a bulb from which issue two tubes at the opposite ends.

For purposes of emptying the bowels a soap-and-water enema can be given, consisting of a pint of warm water (100° Fahr.) in which some yellow soap has been rubbed down; or for very rapid action 1 oz. turpentine and 1 oz. of olive oil in half-pint of warm gruel. Never give a turpentine enema to anyone with kidney disease; in those cases castor oil can be given with the gruel instead of turpentine. Nutrient enemata are best given with a glass syringe, and consist of about 6 oz. of peptonised beef tea, sometimes with a beaten egg or a little cream added. They are injected warm. In cases of diarrhæa a tepid enema of 2 oz. of starch with 10 drops of laudanum is sometimes given. Be sure of absolute cleanliness in giving any enema, and anoint the nozzle with carbolised vaseline: insert it gently—never using force—and inject the fluid slowly and steadily. Be very careful not to inject any air.

EPILEPSY.—See Convulsions.

FACE POSITIONS.—On examination the nose and mouth are felt; for absolute certainty insert finger in mouth and feel gums and tongue. Be very careful in examining not to injure the eyes. Remember that the chin must be to pubes for birth to take place, and if it is a first or second face position there must be rotation.

Leave membranes unruptured as long as possible, for the flat face forms a bad dilator of the soft parts; for this cause labour is sometimes delayed till the mother is exhausted, and it is necessary to send for a doctor to help with the forceps. Sometimes in the first and second positions turning can be helped by pressure on the abdomen, but this should not be attempted unless medical help is not attainable. The child's face is often bruised and disfigured in these cases; it will come all right in a few days, but it is well to keep it as much from the mother's sight as possible.

FALSE PAINS.—Also called spurious pains, and mistaken for labour pains. They are chiefly abdominal, whereas true pains are felt most in the back. They are also irregular, and the uterus remains flabby while they are going on, and does not contract and feel hard. Find out their cause—generally either over exertion during the last month of pregnancy or else constipation or indigestion. In the first case rest is the proper treatment, and in the other cases attention to diet.

FEEDING OF INFANTS.—Sometimes the mother has not enough milk to feed the child, sometimes the milk is of such poor character the child does not thrive on it; and where the mother is consumptive, scrofulous or

syphilitic, she should not be allowed to suckle the child. In these cases the child must be reared by hand. The most suitable bottle is the boat-shaped which has no long tubes to keep clean; there should always be two bottles, and one should be kept soaking in cold water. Absolute cleanliness of the bottles is necessary for the well-being of the child. The best food for the child is cow's milk, properly diluted. During the first week the child should have every two hours by day and every four hours by night 1 tablespoonful of cow's milk mixed with 2 tablespoonfuls of barley water and 1 tablespoonful of lime water. A saltspoonful of sugar should be dissolved in this, and the food should be given at a temperature of 98·4° Fahr. It is well to prepare it at 99°, as it gets cooled in the process of taking. If your patient can afford it, it is well to add a teaspoonful of cream to each bottle. The food must be prepared fresh each time, and the milk be kept in a cool place. In London and other big cities "humanised milk" properly mixed and peptonised can be bought from such dairies as Welford's, but it is, of course, expensive. Sometimes a child thrives better on boiled milk, but sometimes the boiled milk seems to cause constipation. Of course, it is easier to keep boiled milk perfectly fresh, and if

it is boiled for 10 minutes any germs of fever or tuberculosis that may be in it are killed. In the country, where humanised milk cannot be had, and the child does not thrive on the above feeding, the milk can be pre-digested by the use of Peptogenic Milk Powder, prepared by Burroughs, Wellcome and Co. The second week the child needs rather larger and stronger meals, say an extra tablespoonful of milk to each bottle. The third week the meals can be again slightly increased, and the child should only be fed every three hours. Condensed milk is not advisable if it can possibly be avoided. If a child thrives well on the food it is taking it will (1) increase in weight, (2) sleep well, and (3) the motions will be of the colour and consistency of custard.

FLAT PELVIS.—Many cases of abnormal labour and delayed labour are due to slight deformity of the pelvis, the most common being the flat pelvis, caused by rickets. This deformity is sometimes surmised by noting the big joints and bowed legs or the pigeon-breast of the mother; but more often it is the delay of the head to descend into the pelvis that makes the midwife suspect a flat pelvis. To verify the suspicion, after disinfecting and anointing the first and second

fingers of the left hand, put them into the vagina, and feel upwards and backwards for the sacral promontory. When the tip of the second finger just touches the extreme point of the promontory, then with the extreme tip of the first finger of the right hand mark on the left hand where it is touched by the symphysis pubes, withdraw the left hand, and get someone to accurately measure the distance between the tip of the second finger of the left hand and the spot touched by the first finger of the right hand. This ought to measure 4½ or 5 inches; if it is under 4½, and the child is full time, instruments will be needed.

FOOTLINGS.—The foot most often presents in premature cases; the diagnosis is easy by feeling along the toes. The management is exactly the same as in breech cases.

HÆMORRHAGE.—Send for the nearest doctor; keep the patient quite still and keep calm yourself. Don't give brandy. *Accidental hæmorrhage* occurs before delivery, and is due to accidental separation of a normally placed placenta. If the loss is great, and the patient faint, don't wait for assistance, but rupture the membranes, and put on a binder. This will cause contractions of the uterus, and the pressure may

stop the bleeding. *Concealed accidental hæmorrhage* means internal bleeding into the uterus, and can only be diagnosed by the pallor of the patient and the swelling and pain in the uterus. *Unavoidable hæmorrhage* is due to *placenta prævia*, or the growth of the placenta over the os uteri. On examination you can feel the lumpy fleshy placenta, and you know that the hæmorrhage is unavoidable, because the placenta must be detached before the child can pass. Having sent for the doctor, put on a tight binder, and if you can feel the child advancing with each pain, rupture the membranes. This can only be done in *partial* or *marginal* cases; in complete cases the placenta entirely covers the opening into the womb. In a *complete* case plug the vagina firmly with towels or tampons dipped in 1 in 2,000 corrosive sublimate, and wait for the physician. He will probably force his hand through the placenta or try to push it to one side, and get hold of the child's foot and pull it down, and so hurry on labour. Remain with the patient for three hours after delivery, as post-partum hæmorrhage is probable.

Post partum hæmorrhage, or steady bleeding after labour. Give a drachm of ergot in a wine-glass of hot water; rub and knead uterus, and try to get it to contract; give a hot douche (120° Fahr.). If none

of these are successful, plug uterus. Remain some time with patient, as *secondary hæmorrhage*, or bleeding more than one hour after labour, may come on. A patient who has suffered from hæmorrhage must not be allowed to sit up in bed till the end of the third week.

HERNIA.—Protrusion of the bowel through the tissue, and appearing generally as a swelling about the umbilicus or in the groin of the child; bind a pad of linen over the place, and get advice.

HOUR-GLASS CONTRACTION.—Sometimes caused by the malpractice of pulling on the cord. The uterus is contracted in the middle, and the placenta cannot pass, and there is therefore bleeding. Send for physician, who will probably give chloroform, and then slowly, with fingers gathered together in cone shape, dilate the contracted portion; with the other hand the uterus is pressed downwards within easier reach. The small hand of a woman is especially advantageous in these cases, and the midwife, when there is immediate danger, has sometimes to act for herself; but the process is painful to the patient, and, therefore, the advisability whenever the hand has to be introduced into the womb of having a few whiffs of chloroform

administered, which necessitates the attendance of a doctor.

HYDROCEPHALUS.—Water on the brain; a child with a very large head making labour difficult. Get help. As a rule, the physician performs craniotomy; as the child will probably, if he lives, be an idiot, the mother's life is, of course, considered first.

INERTIA.—Weakness of the uterus; may be due to too rapid delivery, too prolonged delivery, the over-distension of twins, hæmorrhage, or disease of the womb. All these causes make the contractions feeble. The treatment during first and second stages is patience and a tight binder. Let the patient sleep if she will—the strength so gained will increase the pains when she wakes. In the third stage the inertia causes hæmorrhage, and needs the vigorous treatment described under that heading.

INVERSION OF UTERUS.—(1) Incomplete, comes down into the vagina but does not protrude. (2) Complete, protrudes outside vulva; send for assistance. If far from help make an indentation near fallopian tubes and try and push the uterus back. Use post-partum precautions against hæmorrhage. Very rare cases.

JAUNDICE.—Infants often become yellow all over about the third day, but it is of little consequence. See that the child does not get cold, and is not taken out of doors while in that condition. Attend to diet and clothing.

LACERATION OF CERVIX.—Rare; causes bleeding that goes on even when the uterus is well contracted. Try and find the bleeding part, and press firmly on it and send for help.

LOCHIA.—First three or four days is profuse, red in colour, inoffensive. It gets less and paler, and has a slight smell at the end of the first week. It should cease at the end of the second week. Sudden cessation in the first week is a bad symptom. Pads of absorbent wool that can be burnt are the most sanitary use.

MILK FEVER.—Also called weid. On the third day with the inflow of the milk the mother often has a rise of temperature, possibly a slight rigor, and often excessive perspiration. The last is a good sign, and shows that all is well.

NIPPLES.—Advise a mother during the last month of pregnancy to bathe the nipples night and morning with a mixture of equal parts of spirit and glycerine.

Eau-de-Cologne is the pleasantest spirit. Always see that the nipples are washed when the child has finished sucking, and then touched with glycerine. If they crack a nipple shield should be procured, and Friar's Balsam applied.

OPHTHALMIA.—Inflammation of the child's eyes—a disgrace to the midwife unless the mother was suffering from purulent discharge. Bathe the eyes every two hours (if the child is awake) with warm water, gently part the lids and drop in a drop of 2 per cent. silver nitrate solution. Grease the edges of the lids with a little vaseline to prevent their sticking. Burn the rags used to bathe, and dry the eyes and disinfect your hands. Blindness may result from lack of prompt and proper treatment. In hospital it is usual to syringe the eyes with 1 in 1,000 perchloride. This needs two people—one to hold the child's head—and must be done very gently.

OVERLAYING.—Warn mothers against going to sleep with the infant in the bed with them. About 10 children are thus killed weekly in London. It takes little to suffocate a child—even a head shawl allowed to lie across the mouth has been sufficient.

PALPITATION.—By putting both hands on the

abdomen of the mother the midwife may often by outward examination tell the position of the child, and tell also if the head has descended into the pelvis. The round hard head is easily felt through the abdominal walls, so is the space where knees and arms join. The general feel as of a kidney shape, the curve of the back being well-defined.

PERINEUM, RUPTURE OF.—If very slight leave it alone; but otherwise send at once for a doctor to sew it up. Let the bowels go till the fourth or fifth day if possible, when the perineum has been sewn, and then give an injection of half-pint of warm olive oil, and follow by a dose of castor oil per mouth six hours after. This will prevent re-tearing in the acting of the bowels.

PERITONITIS.—Inflammation of the peritoneum—abdominal pains, sickness; patient lies with knees drawn up and complains of thirst. Send for medical help. A nurse will be needed.

PILES.—Often protrude at bowel after labour. Keep bowels open with Hunyadi Janos, and don't let patient strain. Anoint piles with vaseline, and gently push them back.

PLEGMASIA DOLENS.—Commonly called "white leg." About the fourth day patient complains of chilli-

ness (perhaps has rigor) and dragging pain in abdomen and down thigh. The leg becomes swollen and the skin white and pearly. Call in doctor. Hot fomentations sprinkled with laudanum; wrap limb up in cotton wool; keep it slightly raised. Do not allow anyone to rub limb, or allow patient to move suddenly. In about 20 days the swelling begins to decrease, and the leg may be bandaged from the toes right up the thigh, with a spiral bandage carefully put on to secure equal pressure everywhere.

PUERPERAL FEVER.—Rise of temperature; cessation of lochia; headache; shivering fits; milk dries up; diarrhœa; profuse perspiration. Onset at end of first week generally, and due to infection, retention of membrane, or other form of poisoning (septicæmia). Hand over the case to a doctor, disinfect thoroughly, and go into quarantine for 14 days. The fever is usually acute, and only liquid diet is given; intra-uterine douche and quinine are part of medical treatment. Crisis about the fourth day, if the fever declines suddenly there may be collapse. The midwife's duty is to *prevent* puerperal fever, but too often she has been the means of carrying it. The following rules of prevention were given in *The Hospital* for April 30th, 1895:—

"In the application of the antiseptic method to midwifery in general practice there are three main points to be considered: (1) The cleansing of the hands and instruments; (2) the cleansing of the vulva; (3) the application of antiseptic douches to the inner parts. The first two are absolutely essential in every case, but the third is not the practice at all institutions, nor does its necessity appear to be equal in every case. Instruments should be boiled. There is no other method by which the same degree of asepsis can be produced; but in default of boiling they should be thoroughly soaked and scrubbed in a solution of carbolic acid (1 in 20). The hands and forearms of the doctor and the nurse should be cleaned first by turpentine, then by warm soap and water, after which the hands should be soaked for a minute and the forearms bathed in solution of corrosive sublimate (1 to 1,000), and every time the genitals of the patient have to be touched, either by doctor or nurse, the hands should be soaked in this solution and go to their work unwiped. A basin of 1 in 1,000 solution of corrosive must stand always ready for this purpose, not only during labour but during the puerperium. The process of cleansing the vulva is carried out in practically the same manner at most of the hospitals, and consists of washing with

warm soap and water, followed by thorough swabbing with cotton wool soaked in solution of corrosive sublimate (1 in 2,000). This should always be done as soon as labour pains commence, and during the course of labour the vulva and surrounding parts should be frequently wiped with cotton wool wetted with the antiseptic. During the puerperium also the vulva and external parts should be wiped with cotton wool wetted with the antiseptic lotion when the diapers are changed, and it should be recognised that, either during labour or afterwards, the first step in making an examination, using an instrument, or passing a catheter, should be the antiseptic cleansing of the vulva. The use of the internal douche is a matter regarding which there is some difference of opinion."

During 1893 there were 960 deaths from puerperal fever in those towns alone which have adopted the Notification of Diseases Act. Everyone of these deaths might have been prevented

PUERPERAL MANIA.—Rise of temperature and pulse; pains in head; sleeplessness. Onset at end of first week as a rule. Patient wanders in her talk, is suspicious, turns against her relatives. Remove the child from the mother at once, and do not leave the

mother alone until you have secured the attendance of a doctor. She is liable to hurt either herself or the child if left alone. There is often a history of mental or nervous disease. As a rule these cases recover in time, but they may have to be sent to an asylum for a few months.

QUARANTINE.—After being in contact with *any* fever case a midwife must attend no case for a fortnight. She must wash, hair and all, in a carbolic bath, put on complete change of clothing, and go away into the country for fourteen days.

RETENTION OF URINE.—Put some hot water in the slipper-pan—the steam coming up about the parts may help. Put a sponge wrung out in hot water over the bladder for a few seconds. Pass the catheter.

RIGIDITY OF CERVIX.—Sometimes causes delay in the first stage. A hot douche is sometimes helpful, also 5 drops of laudanum in water.

RUPTURE OF UTERUS.—After strong pains there is sudden cessation—the patient is pale and collapsed, the presenting part recedes and there may be sickness. Death usually follows quickly. Send for assistance—but in these cases prevention ought to be the work of a trained midwife. She ought to have noticed that the

contractions were becoming tonic (or continuous), and to have sent for help before.

SEPTICÆMIA. — Blood-poisoning. See Puerperal Fever.

SPINA-BIFIDA.—Swelling at the base of the spine—a congenital disease of the infant. Cover the place with cotton wool, do not let the child lie on its back, and send for the doctor.

SUSPENDED ANIMATION OR STILLBIRTH.—Sprinkle sharply with cold water. Dip first in cold, then in warm water. Try artificial respiration (which see). Try insufflation (during which put hand on child's abdomen). Blow down a catheter. Galvanic battery. Stillborn children present either a blue or a white appearance; the blue state is the more hopeful.

TEETH.—The first dentition begins at the sixth or seventh month and is completed by about the second year.

Central incisors: (1) lower, 6th month; (2) upper, 7th month.

Lateral incisors: (upper), 9th month; (2) lower, 10th month.

First molars: 12th month.

Canines: 18th month.

Second molars: 2nd year.

The permanent teeth begin to appear in the 6th year.

THRUSH.—White rash in the mouth of the infant due to dirty bottles or sour milk. Attend to the hygienic surroundings—boil the bottles and teats, and mop out the child's mouth with boracic after each feeding.

TWINS.—The presence of twins can be guessed by the extra-large size of the uterus; palpation usually decides the diagnosis, both heads being plainly felt. In these cases there is danger of hæmorrhage from the extension of the uterus. After birth of a child, if the uterus is still large, suspect twins, and make a careful examination. As a rule both children are small, and the first presents normally. When it is born wait half-an-hour to see if the placenta is expelled. Sometimes each child has a placenta to itself; sometimes they are combined. If the first placenta does not appear, and the second child is presenting either head or breech, rupture the membranes of the second child, and after it is born the two placentas will probably appear together. If the second child is a transverse,

send for the doctor. If the first child and its placenta are born normally, do not hurry the second child, which possibly may not appear for some hours. Cases have been known where the second child has not been born till days after the first. The third stage should be carried through with vigour—the placenta rapidly expressed if possible, and the uterus well rubbed. Be on your guard against hæmorrhage. Be careful to keep the children apart that the eldest may be known.

UMBILICAL CORD.—Carelessness with regard to cleanliness, dryness, and pressure on the navel may lead to soreness, erysipelas, hernia, or even lockjaw. Hence the duty of the midwife to see to the dressing herself.

WEIGHT OF INFANT.

	lbs.		lbs.
Weight at birth	6·8	Weight at seven months ..	13·4
,, one month	7·4	,, eight ,, ..	14·4
,, two months	8·4	,, nine ,, ..	15·8
,, three ,, ...	9·6	,, ten ,, ..	16·8
,, four ,, ...	10·8	,, eleven ,, ..	17·8
,, five ,, ...	11·8	,, twelve ,, ..	18·8
,, six ,, ...	12·4		