these abnormal presentations have a great deal to do with the production of difficult labour.

There can be no doubt that tedious and difficult labour is a process more dangerous to the child than to the mother. In an ordinary labour, the fetal head undergoes a certain amount of pressure, which causes a certain amount of alteration of shape or "moulding", as it is called, with impunity; but, if this process be carried beyond a certain point, either as to intensity or duration, it is fraught with the greatest risk to the child.

The important question to be considered is whether the timely use of the forceps saves the child from this dangerous amount of pressure. I do not think that it does; for I believe that it diminishes the duration only by increasing the intensity of the pressure. I stated before that, out of the twenty-three still-born children which I delivered with the forceps, seventeen, or nearly three-quarters, were consultation cases, and, therefore, peculiarly difficult. In most, the head was much elongated from compression in a narrow pelvis, and had lost so much of its usual rotundity that the forceps was peculiarly liable to slip, and, therefore, it was necessary to prevent this by obtaining a firmer grip of the head. It was in this way that most of the injuries to the child's head, which I have described above, were occasioned, and these injuries were, in most instances, a measure of the amount of obstacle which had to be overcome.

In order, if possible, to fairly test the effects of more frequent forceps delivery upon the safety of both mother and child, I have compared the last hundred labours of primiparæ attended by myself before the beginning of the present year with the last hundred similar labours attended before 1868, more than ten years ago. I have taken those cases only in which I was originally engaged to attend the patient from the commencement, and attended her throughout the labour; and I have carefully excluded other practitioners' cases to which I was called in consultation. I have taken only head-presentations, and have excluded all others, because they are attended with special dangers to the child quite independent of the use of the forceps or the duration of labour. For the same reason, I have omitted labours attended with complications, such as hæmorrhage, convulsions, prolapse of the cord, etc. I have also left out premature births. I find that, in the one hundred cases, reckoning back from 1878, I used the forceps thirty times, with the following result. No mother died, but three infants were lost; two of these after using the forceps, and one after a protracted labour without instruments. In the one hundred cases, reckoning back from 1868, I find that I had twelve forceps cases and one of craniotomy. In this last case, which was one of the earliest of the first hundred, I should undoubtedly, at the present time, have used the long forceps with every probability of success; for, at a subsequent labour, the same woman gave birth to a small living child at full term. One mother died from puerperal pneumonia following a most severe and protracted labour, which, in the present day, would have been shortened by the use of the forceps. Four children were lost; viz., one from craniotomy, one after forceps delivery, and two after protracted labour without instruments. If we leave out of the question the craniotomy case, there are in one list two deaths of infants after forceps delivery and one after natural labour, against two after natural labour and one after forceps delivery in the other list. This gives no very decided proof that more frequent use of the forceps adds materially to the safety of the infant.

My own experience, therefore, leads me to coincide with the conclusion of Dr. Galabin, that "it has not been shown that the majority, or any considerable proportion, of the still-births which now occur in Britain would be preventable by a more timely use of the forceps".

In the first thousand labours which I attended, before the forceps was so much used as it is now, I have only recorded four deaths of children from hard labour; whilst there was a mortality of thirty from premature birth, fourteen from malpresentations, such as breech, feet, knees, or arm, three from hydrocephalus, and eight born putrid, being a total of fifty-five cases in which the child's life could not have been saved by a timely recourse to the forceps. I do not speak of those that died from other complications, such as accidental and unavoidable hæmorrhage, convulsions, and prolapse of the cord, because it may possibly be said that some of these might have been saved by the forceps.

In opposition to such a view, however, very frequent reference has been made lately to statistics from various sources; but perhaps none have excited so much attention as those of Dr. Hamilton of Falkirk, who is reported to have had two consecutive series of eight hundred and seven hundred cases without a single still-birth, using the forceps in about one case in five. To have attended one thousand five hundred cases without losing a mother is an amount of success which is extraordinary; but to have attended that number without losing a

child is an amount of success which is still more extraordinary and startling. It requires a rare combination of skill and good fortune to have used the forceps once in every five cases, or three hundred times in one thousand five hundred cases without losing a child, or to have attended that number of cases without being obliged to perform craniotomy once, or (unless such cases are excluded) having any deaths of infants from premature birth, from breech, footling, or arm-presentations, or dangerous complications, such as hæmorrhage, convulsions, hydrocephalus, or, last but not least, prolapse of the cord. Having, in one hundred and fifty-three forceps cases, lost twenty-three children, or nearly one in seven, I can never myself hope to attain to such extraordinary success, although my infant mortality after such operations is better than that which Dr. Churchill, in 1855, gave as the average mortality of British and foreign forceps cases; viz., one in four and one-third. I have pointed out also that, besides the bad consequences which, in some of my cases, arose from compression of the head by the forceps, and which some may be inclined to attribute to the mode of applying the instrument, there is also, in some exceptional cases, a source of danger to the child which it is impossible to foresee: I mean the risk that the umbilical cord may be round the child's neck, and may be compressed by the forceps. The risk to the child from this cause is so small that it need not be considered, if there be any question about the safety of the mother. It ought, however, to deter us from using the forceps simply because a labour has lasted beyond the average time; but it ought not to prevent us from doing so, if the head have actually ceased to advance, or if any unfavourable symptom have set in, in consequence of the length of the labour.

ON THE TREATMENT OF SEVERE VOMITING IN PREGNANCY.*

By EDWARD COPEMAN, M.D., F.R.C.P.,

Senior Physician to the Norfolk and Norwich Hospital, Norwich.

YOU are most of you, probably, aware that I have published cases of severe sickness in pregnancy, and advocated a mode of treatment which up to that time had been invariably successful. My subsequent experience has been attended with the same unflinching result; and I have it now in my power to adduce, in favour of it, the concurrent testimony of others who have kindly and voluntarily reported to me the effects produced by the treatment of dilating carefully the os uteri with the finger for the relief of obstinate vomiting during pregnancy. I will now proceed to inform you of additional cases of my own and of others, and am gratified to find that up to the present time no case of failure that I know of has occurred.

CASE I.—On March 2nd, 1876, I was sent for, about 5 A.M., to see Mrs. M. in consultation. The history was that she married in November, and conceived almost immediately, having never menstruated since her marriage. She was about eleven weeks gone; breasts full, large, and tender, with the usual appearances of pregnancy. She suffered very much during nearly the whole time with morning sickness, which for the last week had been more continuous and severe, so as to prevent her from taking food, and accompanied with considerable abdominal or ovarian pain, giving rise to the possibility of commencing peritonitis; but the pulse and temperature were nearly normal. She had suffered much from constipation, and there had been difficulty in getting the bowels to act. She had had enemata and turpentine fomentations with some relief. I found a good deal of uterine tenderness; and there was dulness over the cæcum. She vomited after everything she took; and just before I arrived she had thrown up about three pints of frothy fluid, which relieved her pain. I examined the uterus, and found the os closed, but I thought the fundus of the uterus too much inclined forwards, and endeavoured to rectify it. She took a colocynth and henbane pill, and had warm applications to the abdomen. On seeing her again about noon, I found that the bowels had been well relieved, the pain had abated, and she had had three or four hours' comfortable sleep. The pulse was quiet, but she was unable to take anything without nausea or sickness. We ordered an oxalate of cerium pill, which she had had several times before with partial relief to the vomiting. About 9 P.M., I saw her again, and found she had not been able to take anything without sickness, and had vomited many times since my visit in the middle of the day; but there was much less pain in the body, and not the same forcing feeling as before. She had taken a little lemon-juice and champagne, which she thought had relieved her, but she complained of great exhaustion from the frequent vomiting

* Read before the Norfolk and Norwich Medico-Chirurgical Society.

and was in very low spirits about it. I examined the uterus again, and endeavoured gently to dilate the os, which I accomplished to the extent of being able to introduce nearly the first joint of my forefinger, which I kept there several minutes; and when I withdrew it, her own expression was that I must have done her good, as all feeling of nausea seemed suddenly to disappear. She was ordered to take ice and milk.

March 3rd, 11 A.M.—When I called this morning, I had the great satisfaction of finding that she had not vomited since my manipulation of the previous night, had slept four hours, and then, after taking some ice and milk, three hours more. "Oh, you did me so much good last night, and I cannot be too thankful to you for it", was her parting expression.

March 4th.—She passed another good night, but had a "curious feeling of fluttering in the body, accompanied with a sensation of faintness as if she were going to die", but this soon ceased after taking nourishment. There was no return of sickness. Did she quicken in the night? She thought so herself.

March 5th.—She slept well during the night, and had no sickness. Her appetite was returning, and she had taken meat, jelly, and champagne, without inconvenience, also an egg in coffee.

She went on well without any more vomiting; paid a visit to her friends in one of the Midland counties; and, after her return home, was confined at full time.

CASE II.—In March 1876, a surgeon near Cardiff, after having written to me about the extreme anxiety he felt with respect to his wife, then suffering from serious vomiting during pregnancy, wrote in answer to my reply, as follows.

"Dear sir,—I must thank you for so kindly giving me the directions for treatment of sickness during pregnancy, and I am thankful to say my wife is much better. I adopted your mode of treatment, and I think with great benefit; although it is but right that I should tell you that my wife had improved considerably, so far as her sickness went, about two days before I adopted your treatment; since then, she has improved daily. She is in her fourth month of pregnancy, and the sickness was most distressing, not even a teaspoonful of any nourishment being retained altogether and she became much emaciated."

CASE III.—On October 5th, 1876, Mr. D., a medical practitioner in Yorkshire, wrote me the following letter.

"Dear sir,—My wife is suffering most severely from vomiting in consequence of being pregnant. I have read your suggestion in the JOURNAL, but if you will kindly take the trouble to write to me on the subject, I shall take it as an immense favour."

Again, on November 10th, he wrote as follows:

"After receiving your instructions, I sent for my friend Mr. J. W. Teale of Scarborough, and he very kindly performed the operation for me, and I am truly thankful to say, that up to the present time, with the happiest results possible. Accept my heartfelt thanks", etc.

On December 5th, Mr. Teale wrote to me:

"Dear sir,—You will probably have heard that I was called in by Dr. — of — to see his wife, who was suffering from excessive pregnancy sickness. He showed me a letter from you dated October 9th. I had no hesitation in adopting your mode of treatment, as there was no alternative except producing abortion, all methods of treatment having failed. The first operation was only partially successful, for which I am sure I was to blame; the second was thoroughly successful (a week after), and Mrs. — is now doing as well as possible."

On February 23rd, 1877, Mr. Teale writes: "I went over to Leeds a fortnight ago, to the meeting of the West Riding Medico-Chirurgical Society, intending to give a history of the case. My paper was called on first, and was very well received; a brisk discussion followed, in which Mr. Samuel Hey, Mr. Wheelhouse, and others, took part, and credit was fully given you for your mode of treatment."

CASE IV.—Mr. Priestley, a neighbouring practitioner, wrote me word that a patient of his at Horsford was confined on August 9th, 1876. The labour was natural, but she had suffered much during the early part of her pregnancy from sickness. He says: "In the beginning of July, she sent for me in great haste, and I found her in an exceedingly exhausted condition brought on by continued retching and vomiting during the previous five weeks. As there was an appearance of labour-pains at short intervals, I made an examination to ascertain what was going on. I found the os but slightly dilated, but to a small extent dilatable; and when I visited her the next day, the sickness had entirely subsided, all appearance of labour was gone, and I saw no more of her until summoned to attend her at the time of her delivery. I am of opinion that tension was the cause of the incessant vomiting, which so entirely subsided after my examination and probable dilatation of the os uteri. I think the case fully confirms the view you have formed as to the treatment in similar cases."

CASE V.—Mr. Gooch of Eton sends me the following case.

"Mrs. —, the wife of a professional man formerly residing in this neighbourhood, was a patient of mine. I attended twice in her confinements, which were perfectly natural. During the time she was pregnant, however, with the second child, she suffered a good deal from cramp and vomiting, but to no alarming extent. About twelve months since, I received a telegram asking me to go at once to Mrs. —, who was dying and wished to see me. Upon my arrival, I found her in the eighth month of pregnancy, almost pulseless, and so emaciated that I should not have recognised her. I learned that for two months she had suffered from intense sickness and inability to sleep, and that, if she attempted to lie down in bed, the vomiting increased. Having read an account of your interesting cases in the BRITISH MEDICAL JOURNAL, I determined, with the consent of the medical man attending, to make a vaginal examination. I found the os uteri hot and painful to the touch; the anterior lip was tolerably healthy, but the posterior was puckered; and then I passed my finger well through the os, which was slightly dilated, and moved it about freely, hoping to break down any adhesions that might exist. There was a good deal of very offensive discharge about the neck of the womb. After waiting some time at the patient's house, I returned home, but found no apparent relief to the symptoms before leaving. Two days afterwards, however, I received a letter from her medical man, stating that, during the night after the examination, the patient had slept soundly for two hours, that she had been able to keep down some iced milk and beef-tea, and that she was evidently improving rapidly. Ten days afterwards, I heard that all sickness had ceased, the discharge had disappeared, and that she was quite convalescent. Labour came on at the proper time, and was quite natural. There can be no doubt that the condition of the os uteri was the cause of all the discomfort, as in the cases mentioned by you, and I am sure you can very safely add this case to your list as giving strong evidence as to the correctness of your theory."

I think I had better not tire you with a long paper, but reserve anything more I have to say for a future opportunity. I have more corroborative testimony, both from at home and from abroad, as to the rapid—and may I not say certain?—effect of the mode of treatment I have advocated; and I have no doubt many of you have seen, in the BRITISH MEDICAL JOURNAL for February 23rd, 1878, a very remarkable and satisfactory case in proof. It is a relief to the toil and trouble of a very long professional life to find that any suggestion of importance one has made may prove beneficial to the profession, and through them to the public; and, with reference to this particular subject, I cannot say that I am under the apprehension of any material disappointment.

ON THE HEALTH-CONDITIONS OF LINCOLN-SHIRE, AND ON SOME CURRENT MEDICAL TOPICS.

Being Extracts from the Address delivered at the Annual Meeting of the Midland Branch.

By A. MERCER ADAM, M.D., Boston,
President of the Branch.

I HAVE to give you all a hearty welcome to this venerable cathedral city (Lincoln). Among all the old towns of England, I know of none that is richer in its traditional glories or historical associations, or none that surpasses Lincoln for lordliness of situation or wealth of its architectural and archaeological remains. This year, it possesses one new feature of special interest to us all: I allude to the new County Hospital in course of erection, which we have an opportunity of inspecting to-day. Of its merits it is not for me to speak, as you will hear all about them from my friend Mr. Symson, who will read a paper on Hospital Insalubrity, in which he will describe to you the defects of the old institution, and the reasons which led to its disuse.

I am sorry to say that our county has unfortunately a bad name, and that it has an evil reputation for unhealthiness, which is entirely undeserved. Many persons, otherwise well informed, but who have never been in this district, imagine Lincolnshire to be still a region of dreary fens and ague-breeding swamps, with no touch of beauty to relieve "the level flat, the rounding grey". They suppose the climate to be damp and depressing, charged with malaria, and dangerous to health. Such opinions might be simply amusing to us who live in the county, and who know their utter fallacy, were it not that unfortunately we often suffer positive harm from the widespread influence of these ideas. We find that physicians in London and elsewhere often forbid patients to settle in Lincolnshire, on account of the supposed unhealthiness of