

Original Communications.

I.—On the proper Management of Tedious Labours. By Dr. G. HAMILTON, Falkirk.

IN the year 1853 I inserted a paper on this subject in the pages of this Journal, in which I propounded views which were then somewhat novel, and stated results arrived at in my practice in cases which had been strictly under my own care, which I have no doubt were considered by most practitioners as rather startling, and especially so by those who had studied the subject mostly in hospitals. But if these results were then considered startling, my subsequent experience, as I have given it in different numbers of the 'Ed. Med. Journal,' and in my "Reclamation," inserted in this Journal in January, 1871, is still more so, and I frankly confess has astonished myself as much as it may have done others. My first statement in this Journal was, that I had brought into the world successively 317 children, all of whom had been born alive, with the exception of one, in a breech presentation, and that somewhat more than one eighth of these had been delivered with the forceps; next, that under the same treatment the numbers had increased to 1 in 467, or 416 successively; and, finally, that 731¹ had been born alive successively, the 732nd child having been stillborn. That case occurred in December, 1860, and I now in September, 1871, have to record that from then up to the present time, and under the same management, in all my own practice I have lost only one other child, in a footling case, and in all the forceps cases not a single child. *In other words, that every head presentation in both series has yielded a living child.* Even the 732nd case, where the head presented, would in all probability have done the same had I not been compelled, from convulsions coming on in the mother, to interfere more than I would otherwise have done with the delivery of the child.² What mortality, therefore, I have had among the children has fallen almost entirely on the breech and footling cases. The two referred to were of this description; and another very interesting case of the same kind, of which also I have given the particulars in the 'Ed. Med. Journal' for May, 1855, was only just excluded from the "stillborn" list.

This, as I have elsewhere said, is such an extraordinary departure

¹ See 'Edinburgh Med. Journ.,' May, 1855, and October, 1861.

² See an account of this case in 'Edin. Med. Journ.' for Oct., 1861.

from anything that I am aware of in the history of obstetrics, and presents such a serious view of the possible sacrifice of human life that may have hitherto been going on in this department of our profession, that I am sure my professional brethren will be not unwilling to hear from me, after eighteen years of additional experience from first writing on the subject, even if I should have to repeat some things I have said before, how I think I am able to explain the very opposite results that have been attained by me compared with those of many other professional gentlemen for whom I entertain the very highest respect. And this is the more necessary because, although I know, both from friends privately and from what has met my eye in different journals and treatises, that my practice has been warmly approved of, and very ably supported, in some quarters, I am nevertheless aware that in others this has not been the case. And I still further must say that I cannot but lament to see that in two maternity hospitals of the two chief cities in Scotland (I have not lately seen the returns for any others), the infantile mortality should still agree so little with that of my own practice; for I find, on reference to the Annual Reports of these two institutions for the last three years, that the infantile mortality in the Edinburgh Hospital ranges from about 1 in 5 to 1 in 29, and in the Glasgow Institution from 1 in 11 to 1 in 27.¹ Now surely the discrepancy here shown, compared with the results I have given, must admit of some explanation, if not of amendment; and although I grant the subject is a delicate one, upon which I would speak with all kindness, yet I think both the interest of the public and the character of our profession require that it should be investigated. I shall say something more on this subject presently, and shall endeavour to assign some causes for the differences I have noted. In the meantime I would invite those of the profession who are interested in the question, to discuss it in an inquiring spirit, and in such a mode as that we may know exactly what we are talking about, and so as that we may free it as much as possible from errors that may be involved in general deductions.

For this purpose I propose, as the most simple method of inquiry, that we should limit ourselves, 1st, to the mortality to the children, because I believe that the maternal mortality ought always, *cæteris paribus*, to follow nearly the same ratio.² 2ndly. That we should

¹ Taking up the Reports of this latter Institution quite at random, as given in the 'Glasgow Med. Journ.,' to obtain numbers similar to my own unbroken series, I find the following:—For quarters June and Sept., 1869, and Feb., 1870, living children, 791; stillborn, 91; total, 882. Forceps, 17; version, 12.

² In the 731 cases referred to I have said, in the 'Edin. Med. Journ.' for Oct., 1861, "There were six maternal deaths, but in only three of these were the forceps used. Of the latter cases one died from disease of the heart, and another from asthma;" so that in reality there was only one case in which the forceps could have to do with the death. Since then, my practice as to maternal mortality has been entirely satisfactory; but, from the occasional occurrence of epidemics of

exclude all children that were either not viable, or were clearly dead when the labour commenced. 3rdly. That we should clearly distinguish cases which had been wholly from those which had been only partly under our care. Not to do so is to import a source of error into our calculations of the most grave description; for, by doing this, we not only would make ourselves responsible for, it may be, the bad practice of others, but would bring into our own numbers only their difficult cases. This plan has not been generally followed; but, until it is, I must express my opinion that little progress can be made in a scientific investigation of the question; and whatever objections may be held as applying generally, and in many instances justly, to statistics, I think the enumerations here are so simple, that we can hardly be deceived by them. The question which I wish settled is no more than this—given a number of children, in how many, when they were born, did the heart beat and the child breathe, and how often in these deliveries were the forceps used, and the result?

Looking back on my practice for forty years in this department, one of the most striking of its late characteristics has come to be, it appears to me, its simplicity. A mere enumeration of some of the negations that have occurred in it will show this well. For example, 1st. I never now use bleeding or antimony to relax rigidity of the os uteri. 2nd. I never now, except in special cases, use *secale cornutum* to hasten labour. Only a few times during the last thirty years have I required its assistance. 3rd. I now rarely, if ever, interfere with the first half¹ of labour. 4th. I now never require my patient to have supports for her feet, or a pillow between her knees. I simply ask her to lie on her left side, and keep her knees well drawn up; and I have only occasionally, even in applying the forceps, to ask her to shift her position to the front of the bed. 5th. For thirty years I have not I think once, in my own practice, had occasion to use the catheter. 6th. During this period I have not, in forceps cases, had occasion to ask the assistance of any of my professional brethren. This I mention, not certainly in a spirit of self-sufficiency, but for the purpose of showing how comparatively easy my practice has been. 7th. I never grease the forceps before introducing them, as I think this tends to make them slip. On the

puerperal fever, or from there being a prevailing tendency to the supervention of puerperal peritonitis, this never can be made the basis of safe statistics in such an inquiry as we are engaged in. In one of these epidemics a cluster of upwards of twenty maternal deaths occurred some years since in the hands of one practitioner in this district.

¹ In my former papers I stated that I divided labour into *two* parts, each of which I designated "half." My reason for doing so was that labour was then usually divided into "three stages," and I wished my "half" to be clearly distinguished from "stage," as the term was then employed. As the term stage is perhaps the better one, and as the division into three stages seems to me practically unimportant, while mine into two is really of great moment, I shall in future use the term stage as synonymous with half.

contrary, I strongly recommend that the inner surface of the blades be slightly smeared with India-rubber paste, which soon dries, and enables them to lay firmer hold of the scalp than does the bare metal. 8th. I never now use forceps with a double curve. All my cases, during the period alluded to, have been delivered with Ziegler's straight forceps. 9th. I never now, in my own cases, see the parts of the mother injured more than in an easy natural labour. As for rupture of the perinæum, it never happened to me in all my practice. 10th. Although I do not absolutely refuse the use of chloroform, I use it as seldom as possible, and in certain cases decline to give it as inadmissible. I generally require in tedious labours the full power of the uterus, and I have found that chloroform often deprives me of this. 11th. I never, if I am able, apply the first blade of the forceps otherwise than over an ear.¹ 12th. My forceps have no notches on the handles, for tying them, as I entirely disapprove of the practice.² 13th. And finally, it is pleasant for me to be able to say that, as a result, I almost never have stillborn children.

On several of these points I shall have to speak more fully as I proceed.

Having premised these negatives, it will be found, as I have said, that the management of the two stages of labour is thus considerably simplified. By the first stage I mean from the commencement of the pains till the full dilatation of the os uteri, and the entry of the head into the pelvis; by the second stage, from this till the completion of labour. As I have said, I now rarely attempt to interfere with the progress of the first stage of labour, even when this is protracted for some days. Indeed, when I can, I keep as much as possible out of the way of my patients, recommend them to walk about or lie down as they may incline, to take a little sherry and water to support the strength; and, in fact, I get over it the best way I can, without interference. As is well known, the late Professor Hamilton laid great stress on not allowing his first stage to last more than from twelve to fourteen hours,³ and I can recollect we, his students, were

¹ Dr. Sinclair, who writes in the 'Dublin Quarterly Journal,' in August, 1861, in support of the more frequent use of the forceps, says "they," the forceps, "are very seldom put on antero-posteriorly," and again, "we never required to feel the child's ear." Now by far the most general mode in which I apply them is antero-posteriorly, or nearly so, and I never, if possible, apply them without feeling an ear. Again, he says, "if we found the foetal heart about to fail after ergot, or otherwise, we used the forceps at once." But why then, if possible, use the ergot at all?

² Dr. Ramsbotham also says he disapproves of the practice; but still his forceps, like Smellie's, are represented with the notch; and the notch, as Dr. Barnes notices, is still preserved by instrument makers.

³ My much esteemed teacher used to enforce his views on this question by reference to the case of the late Princess Charlotte, who, he stated, lost her life from want of attention to this his favourite maxim. It is now well known that this most popular princess lost her life, not from want of attention to the professor's rule, but from flooding. Her child, however, no doubt lost its life from "tedious labour." Had the treatment of flooding and tedious labours been

particularly active in following out his directions, never going to a case without a supply of ergot in our pockets, and pestering our patients with our officious endeavours to hurry on the labour. All this I now believe to have been unnecessary and hurtful, and I imagine most of the profession are agreed with me.

Professor Hamilton and Dr. Burns approved of supporting and dilating the uterus, Dr. Ramsbotham did not; and Dr. Murphy, as far as I know, still holds the same opinion. I have in this matter always acted up to the instructions of my old teacher; and from the time I began to use the forceps more frequently than was usual, I saw that the importance of assisting the ascent of the uterus was increased, for until this obstacle has been removed the forceps can never be used with freedom and safety. It may therefore properly be said to be (although most necessary I think independently of this) a preparatory step to their application. I have, in thus dilating, encountered many rigid os uteri, but have rarely failed in accomplishing my object, by first giving plenty of time in the first stage for the parts to become properly prepared; and, in the second place, by using, when necessary, pretty determined force in the second stage. In doing this I have never met with a case where any unpleasant accident occurred to the uterus from tearing or otherwise, and the little extra pain inflicted on the patient I have usually found well borne, where she has been assured that this was necessary to help on the labour. Where the os uteri has been forced back towards the promontory of the sacrum, and has been kept there from the head pressing the uterus on the pubes, which latter in such a case may be found to project more or less inwards, or where, on the contrary, the head and promontory of the sacrum catch the uterus, or where, again, this is done, as sometimes happens, by both pubes and promontory, then I set myself to find out what is the exact cause of the detention, and introducing the hand more or less fully, determinedly push the uterus over the head. When this has been effected, I generally consider the rest of the case comparatively simple. I was called to a labour not long ago where a midwife had worked at the case for twelve hours without getting the uterus over the head. When I saw the patient the os was perfectly expanded, but the uterus was caught by the head on both the pubes and promontory of the sacrum, and I had to work hard for two hours and a half more before I succeeded. As time was precious after such long detention and hard work, I immediately applied the forceps and delivered, mother and child being perfectly well next day. Now let us for an instant reflect what might have been the consequences had the active measures used been neglected, and the labour had been protracted some eight or ten hours longer. The uterus thus caught

as well understood then as they are now, how wonderful might have been the differences at this time among reigning sovereigns,

must infallibly have become swollen and inflamed, and have blocked up the passage; and this in all probability becoming what has been called a "long forceps case," the instrument would have had to be applied under the most disadvantageous and difficult circumstances, the child very likely being lost, and the life of the mother endangered.

The more I investigate this point the stronger is my conviction that it is in many cases second in importance only to the use of the forceps. I am quite convinced, from my constant experience, that the excessive dread of many practitioners of injury to, or subsequent inflammation of, the uterus, in doing so with caution, and yet with firmness, is unfounded. At all events, I have not seen even a single case which has made me doubt its safety and propriety; and I can join with those practitioners in its condemnation only when it is used in the *first* stage of labour, which I have no doubt was formerly too much the case. I am inclined to believe that it is now becoming so clear as almost to be axiomatic, that while the safety of the child demands a more frequent application of the forceps than has been customary, the safety of the mother as decidedly demands that these should be applied as seldom as possible *within* the uterus. Convulsions, or some other exceptional occurrence, may imperatively require this; an ordinary labour, if it has been well managed, I should say hardly ever does.

It is very interesting and important for me to state, as having a connection with this subject, that I have never, in all my own practice, had a case of laceration of the neck of the uterus; and I believe the reason of this has been my constant and anxious endeavours to get the uterus over the head. In looking over the former numbers of this Journal, I find in 1851 a notice of Dr. Roberton's "Essays on Practical Midwifery," in which it is stated that he himself had met with ten cases of this kind, in which seven of the females died; and he has collected from different sources seventeen other similar cases. The reviewer says, "The sign of impending danger in these cases which Mr. Roberton thinks the most pronounced is a feeling of crampy pain and tenderness on pressure on some particular part of the lower abdomen; and he explains the cause of the crampy pain by referring to a case in which it occurred as the result of the cervix being held by a 'vice-like grip' between the head and the brim." The practice which Mr. Roberton counsels, if there is space for the head to pass, is "to watch the case attentively, to apply a binder, and, *perhaps*, to raise the caught lip of the uterus," &c. In such cases of catching of the uterus I have had no hesitation as to the practice to be pursued. I *must*, if possible, get the uterus over the head, and, as I have stated, I have very rarely indeed failed in doing so.

It is with the commencement of the second stage of labour, therefore, that our active interference should generally begin, if

we be called on to interfere at all. If the membranes have not been ruptured, and the head is presenting fairly, I then do so at once, and gently but firmly continue to press up the uterus with one or two fingers, or with the whole hand if necessary, until I have got it pushed over the head; and, as previously observed, I like to use the forceps as seldom as possible before this has been effected.¹ As this is especially necessary should ulterior help be needed, I never neglect it, and work assiduously at it till it has been accomplished, if possible. Sometimes I find myself unable to do so in a moderate time, and I then make up my mind to use the forceps, or other means for delivery, under comparatively disadvantageous circumstances. In my first paper in this Journal I gave it as my opinion that it is not safe, for the child especially, to allow this half of labour to continue much more than two hours, and I still adhere to that rule, as being of the very greatest importance. Much, more or less, as to interference, may depend upon the kind of labour we have to treat, but, as an average, I am convinced more than two hours cannot be trusted to; and in special cases, to secure a favourable result, we must shorten this time very materially.²

It is curious to note how Dr. Murphy tries to evade the necessity for interference with the forceps in relation to this point. He says, in this "controversy a new and very important question has been raised by Professor Simpson, which, if true, would decide in favour of interference in all such cases. He has shown from statistics that the mortality is increased in direct proportion to the length of the labour; that a labour of four hours' duration is more fatal than one of two hours, one of eight hours than one of four, and so on. Hence the inference that protracted labours are dangerous because of the *time* they occupy. We have given this important question the reflection it so justly merits, but confess we cannot coincide in the conclusions

¹ In one of the very few maternal deaths I have had, after using the forceps, I had been forced to use them within the uterus.

² In looking back at obstetric literature prior to this period, it seems strange now to see such an acute practitioner as Professor Hamilton stating that he had often supported the perinæum for five or six hours ('Practical Observations,' 1840); Dr. Braithwaite, that he had attended 3000 labours, and had used the forceps in them only six times (Braithwaite's 'Retrospect,' 1843, p. 258); Dr. Murphy, that we must expect the mortality to the children (about one in five) to be much the same whether the forceps are used or not; and Dr. Collins, that in a given number of cases the forceps had been used twenty-four times, and the perforator seventy-four times. See, also, 'Brit. and For. Med. Rev.,' 1853, p. 516.

In a review of Drs. M'Clintock and Hardy's "Practical Observations in Midwifery," in 'Brit. and For. Med. Chir. Rev.' for 1848, the author says, "We will merely notice that out of 173 cases of tedious labour, delivered without instrumental assistance, thirty had ergot of rye, and only ten of the thirty children were born alive," although the vitality of the children had been ascertained before the drug was administered. And, again, "out of 259 cases of tedious labour, fifty-two were delivered by the perforator and crotchet, eighteen by the forceps, and sixteen by the vectis."

drawn from it. It seems to prove too much, that not only are the longest labours the most dangerous, but that the shortest are the safest; neither of these propositions has the support of our experience. The danger of protracted labour depends upon many causes; and if the constitution be good, *time alone* is the least injurious. Rapid labours are attended with risks from which those of moderate duration are free. We do not think therefore that the shortest labours are the safest, or the longest *in time* the most dangerous. The question must be determined by individual experiences.¹ No doubt Dr. Murphy is correct to a certain extent in this, and Sir James was clearly wrong in holding, from his statistics, that the risk to the child is in the ratio of the length of the labour *as a whole*, as I endeavoured to show in my paper in this Journal in 1853. But, granting this, will Dr. Murphy deny, or is there an experienced accoucheur existing who is not profoundly impressed with the conviction, that the ratio of mortality to both child and mother, but especially to the former, is most intimately connected with the duration of the *second half of labour*? And still further, after something like two hours, that the danger increases with every additional hour, not in a simple but in a very serious compound proportion?²

Holding these views, and the principle I have stated, as vital, I never delay in head presentations the application of the forceps, and I find not the slightest difficulty with my patients in doing so. As I have said, they or the attendants have never to be alarmed by extra assistance being required, and they are never alarmed by the "instruments" being sent for. If the case is at the least distance, I always have the forceps in my pocket; if near, I quietly slip out and provide myself with them, when I see they are likely to be needed. Generally, some time before applying them, I point out to patient and assistants that the pains are not doing good, or I tell them that the position of the head requires a slight rectification, and then, without the slightest fuss, I apply them and deliver. Sometimes this is effected immediately; in other cases longer time is required; and in the more difficult ones I take a good while before I succeed. The forceps will sometimes be applied and a few pains assisted; then they will be taken off and the patient encouraged to

¹ 'Dublin Quarterly Journal,' May, 1863.

² Dr. Ramsbotham, and other accoucheurs, as is well known, held that the child should be at or near the perinæum from six to fifteen hours before the forceps should be applied. Dr. Murphy, following Dr. Collins, held, and I suppose holds still, that no interference is allowable as long as the head makes even the slowest progress, provided the mother does not show dangerous symptoms; and I think there was a danger about 1853 of this becoming the opinion and practice of some of our most eminent British accoucheurs. As far as I know I was the first to propound these two rules as to the two stages of labour, and I am glad to find that the latter, at any rate, has found general acceptance with the profession. See 'Brit. and For. Med. Rev.' for 1870, and my "Reclamation" in same, January, 1871.

take a few pains by herself; then they will be reapplied, perhaps several times, before I get complete power over the head. My plan always is to assist, and not to supersede nature. And here I may mention the superseding of nature as one of my objections to the use of chloroform. One of the chief difficulties I have encountered is in getting a good hold of the head, from its being too high up in the pelvis; in such cases smart pains are of great importance in bringing it within reach, the forceps being already introduced and ready to lay hold of it. But chloroform often dulls the pains, and in this way presents an obstacle to our operations; in general, therefore, I avoid it. For exactly the converse reason, it is in these cases, and in these alone, that I have used the ergot, except at the close of labour to prevent flooding. In using it to effect the purpose I have in view we run a certain risk of killing the child, but when the delivery can afterwards be effected quickly, it is, perhaps, good practice to do so. As I have already said, however, I have required to run this risk very rarely indeed. The danger of using it over and over again in the *first* stage, or indeed in either stage of labour, I think very few will now be inclined to dispute. As to the impolicy of usually indulging in the use of chloroform, I may give the following illustration: A lady whom I attended in a number of confinements had a tedious one, in which I gave her chloroform, and delivered her with the forceps without any difficulty. Subsequently she had another tedious labour, and she was so enamoured with the ease with which she had got through the previous one, that she insisted, positively insisted, that the same means should be again employed. It was of no use that I pointed out to her that this case was a little different from the former, as the pains here had died away, whereas formerly they had continued pretty strong. She still insisted, and became so impatient that I was obliged to yield. The consequence was, that although I easily got hold of the head, I had to do the whole work myself, and that what with me is usually a very simple matter, became a serious and protracted operation, in which the life of the child was endangered. This I told to the lady afterwards, at which, of course, she only laughed; but I protested most earnestly that I would never again be seduced into an error that gave me some uneasiness.¹

¹ I have two other reasons for avoiding the use of chloroform where *post-partum* flooding is likely to appear. The first is, that as the insensibility mostly continues some time after the delivery, the patient is unable to intimate to us, from her feelings, what is going on until serious danger may have occurred. I mentioned this many years since to Sir J. Simpson, and he at once admitted that under these circumstances we require to be very vigilant. My second objection to it is, that occasionally, after the delivery and when flooding is going on, it has the effect of exciting the patient, so as most materially to interfere with the use of measures necessary to restrain the flooding; and let no one who has not seen such a case think this a small matter, for I have found it one of the most appalling the accoucheur

And this last case has a bearing upon the *too frequent* application of the forceps; for it will be seen that, with all my admiration for this instrument, I grant there may be such a thing. In my own practice, as I have stated, the ratio has kept pretty nearly at rather more than one in eight, but I have seldom, unless in exceptional cases, kept in mind anything else than the safety of the child. When the mere temporary suffering of the mother is allowed to influence us, no doubt a more frequent application of the instrument may be required; but I am inclined to doubt whether the practitioner is justified in taking this very much into account; and whether the Frenchman's exhortation of "Courage, Madame,"¹ is not the best prescription we can give at these times. As a matter of course, when I say that I usually apply the forceps in relation to the life of the child, it is to simplify the matter, and because I believe that saving of the one implies also safety to the other. As the first Napoleon, however, most properly said, if there be the slightest inclination to doubt as to the safety of the mother, assuredly she should have the benefit of it. Still, my experience is, that an application of about once in eight deliveries is amply sufficient, in general practice, for both purposes. At any rate, also, I think I have shown that, in some instances, danger may attend an application of the forceps where we have not the assistance of labour pains; and these are generally the cases where we can afford to wait some time for their return.

The cases I have delivered with the forceps I would divide into four classes; the first being those where the head is well down in the pelvis, an ear easily felt, say near the right acetabulum, with the face to the same side. These, almost invariably, I have found it remarkably easy to manage. Gentle traction is applied, the head comes still further down, and the face passes into the hollow of the sacrum, sweeps along it, and the child is delivered. And yet, simple as they are, my belief is, that in hospital practice, among timid practitioners, and in the hands of midwives, it is in this class that the principal part of the mortality to the children will be found. The case probably is lingering, but "everything is fair," the patient is not exhausted, &c.; valuable time is lost, and the child is stillborn. In these respects, while attending the Edinburgh Maternity Hospital, and in the early part of my own practice, I received some valuable lessons which I have never forgotten. Case after case occurred to me with dead children, where I see now it would have been the easiest thing in the world to have saved them. The very first out-

may have to encounter. Even without chloroform, when flooding is going on, the patient sometimes becomes very restless, or even almost unmanageable, but these I have found much aggravated where chloroform had been used.

¹ See an incident related in the 'Life of Dr. Combe' on this subject; see also paper by Dr. Hardie, 'Ed. Med. Journ.' for Dec., 1866.

door case I had at the Maternity was lost in this way. The woman was a primipara, and had lingered on for some two days without making much progress, till, on the second day, I asked the "annual pupil" to give me his advice and assistance. He, about as ignorant as myself, encouraged the woman to persevere—she would be better by and by. He was not able to use, or did not feel himself justified in applying the forceps; indeed, I am doubtful if they were ever spoken of, and the child, I now see, almost as a matter of course, was stillborn, which we, I am afraid, at that time, considered as a matter of not the slightest consequence. How far this system still obtains in Maternities I am unable to say positively, although, from inquiries I have made, there seems to be no great difference; but this I feel certain of, that wherever the attendant is incompetent or unwilling to deliver the child when in the position I have mentioned, and where any considerable time is lost in sending for assistance, death to the child in a large proportion of cases will be the consequence. In Maternities I would say that this above all things must be reformed, if it still exist, or the real seat of the evil will not be reached; and their mortalities will still sometimes, alas! in their annual reports inevitably run up to 1 in 5, or 1 in 11. Let well-trained competent practitioners reside constantly in the hospitals, whose duty it should be to be always at hand, and ready at once to give assistance in these simple cases, and let "consulting practice" be reserved for the rarer and more serious operations; and let out-door pupils be warned of this great danger, and have the means of getting assistance promptly. In this way practice in these institutions would be somewhat assimilated to that of private practitioners, and I should then be surprised indeed if the mortality were not very greatly lessened. I have had to impress these instructions with great warmth on the minds of midwives who have been in the habit of asking my assistance in difficult cases, and the result has been that, whereas I formerly lost about 1 in 7 of the children in these cases, I now lose a much smaller proportion.¹

¹ As testimony confirmatory of my own on this point, I may be allowed to quote an extract from a paper by Dr. Curran, of Dublin, from the 'Medical Press and Circular' of November, 1869:—"When studying midwifery," he says, "some years ago, at the Rotunda Lying-in Hospital, Dublin, I painfully noticed—and the observation has made no little impression upon me—that the students and the embryonic midwives were compelled to allow poor women to continue in labour hour after hour until nearly exhausted, because the rules of the Institution forbade their interference, unless an over-fed and morose female superintendent was awaked and consulted. The educated student, revolting at such consultations, allowed the case to linger in preference. As I now reflect, I have not a particle of hesitation in saying that many of those confinements might have been safely and expeditiously concluded hours previously, had the best informed been allowed to prescribe a dose of ergot." For these cases Dr. Curran would have prescribed ergot, and I would not, but would, probably, in preference, have used the forceps; but still the bearing of the facts is the same. The above statement was, as mentioned, made by Dr. Curran in 1869, but I do not know to what period his

As an example of protracted first stage of labour, and of second cut short, from the really great importance attaching to the subject, I may give the following as among the latest that has occurred to me, though I confess that I feel the risk I run of being thought guilty of iteration:—Mrs. R—, æt. 20, primipara, had been in labour, under the care of a midwife, since the morning of April 9th. I was requested on the afternoon of the 10th to see her, and found the os uteri the size of a shilling, and the pains languid, but everything otherwise apparently going on favourably. I encouraged her to persevere, saying all was right as yet. On the morning of the 12th a messenger was again sent to me, saying that she was still undelivered, and that her strength was becoming exhausted. I found the woman weak, but there was nothing particularly wrong as yet. As the os uteri was now well dilated I ruptured the membranes, and in about an hour got the uterus over the head. I waited about another half hour, and then, as the pains were not sharp, and the advance of the head was slow, I applied the forceps, and delivered with the greatest ease in ten or twelve minutes. There was no caput succedaneum, nor was the head in the least misshapen; and yet, from what I have seen in other similar cases, I feel certain that a very moderate amount of further delay would most decidedly have put this child's life in jeopardy. I may remark, also, that this case shows the futility of Professor Hamilton's rule, and also of the inference drawn by Sir James Simpson from his statistics. Further, had the relative duration of the two stages been much different here, the result might have been very different also.

Once more, in concluding this part of the subject for the present, let me give the following extract from my note-book, dated May 2, 1871:

"Was called this morning at 8.30 a.m. to Mrs. B—, multipara. The membranes had ruptured last night, and a midwife had been with her since 3 a.m., who stated that the labour had been moderate,

experience at the Rotunda refers. I will say, however, and in this I think every dispassionate practitioner will agree with me, that if the same state of things now obtain there, or in any such institution in the kingdom, it may be said to amount almost to a public scandal. I beg to give it as my humble but very earnest opinion, that the directors and accoucheurs connected with these institutions may find here a fit subject for inquiry, if not reform.

In most of these institutions, as far as I can learn, the matron (mostly an opinionative midwife, a friend suggests) seems to be the person who exercises chief control, in the first instance. Then the "clerk" is sent for, and he possibly loses valuable time, and then at last the accoucheur is sent for. In the same way in out-door practice it seems to be, 1st, student; 2nd, out-door assistant; 3rd, accoucheur. Rule 4 of the Glasgow Maternity is, "Under no circumstances is a student to permit labour to be protracted for more than twenty-four hours without reporting the case to the out-door assistant in the first instance, and afterwards, if necessary, to the district accoucheur."

With such a latitude as to time I should have great fears that my rule of two hours for the second half of labour will have very little attention paid to it.

but was now making little progress. I found the head well down towards the perinæum, an ear easily felt, and a small caput succedaneum. The patient had become uneasy and restless. I applied the forceps, and delivered, with the assistance of three pains, the cord being found round the neck, and short." On the above notes I make the remark, that I should have liked some of those practitioners who used, not long ago, to apply the forceps once in 500 or 600 times, to have been present and seen the ease with which this really trifling operation was gone through, and the safety and smiling comfort it at once brought into a household. They would, indeed, in such a case, in my opinion, have been "obstetrical reprobates" (the phrase is not mine, but Dr. Murphy's, which, he tells us,¹ he quotes from Dr. Blundell, *with approbation*, which I certainly do not) if they had failed to see and admit the vast benefits which the more frequent use of the forceps has conferred, and is likely in the future to confer, upon humanity. By no other operation that I know of, except, perhaps, vaccination, can such a saving of human life be effected, and in the great majority of instances I have found the performance of the one operation almost as simple as the other. If we take the annual births in the United Kingdom to be about 1,000,000, a lessening of the infantile mortality in these by only one per cent. would give us a saving of infant life in each decennial period of no less than 100,000.

(To be concluded in our next.)

NOTE.—The following are papers on this subject by Dr. H., relating both to mother and child, which have appeared in the journals:—"On Uterine Hæmorrhage," 'Ed. Med. Journ.,' Oct., 1850. "On the Mortality arising from the Use of the Forceps in Tedious Labours," 'Brit. and For. Med. Rev.,' April, 1853. "On Asphyxia Neonatorum and Infantile Mortality at Birth," 'Ed. Med. Journ.,' May, 1855. "Practical Observations and Suggestions in Obstetrics," 'Ed. Med. Journ.,' Oct., 1861. In "Proceedings of Edinburgh Obstetrical Society"—"On the Use of the Forceps in Tedious Labours;" "Uterine Hæmorrhage and Transfusion." "Reclamation," in 'Brit. and For. Med. Rev.' for Jan., 1871, in which the reader will please delete *s* in "dangers," at top of page 222.

Since the foregoing was placed in the hands of the printer I have been favoured, through the kindness of my old friend Dr. Longstaff, with the 114th 'Annual Report of the London Royal Maternity Charity,' dated February, 1871, and also with statistics of the deliveries at this Charity for the four preceding years. From these it appears that in the last five years the deliveries have been 17,265, and that the infantile mortality has ranged from about 1 in 30½ to nearly 1 in 35; though it is not stated whether this excludes children evidently dead previous to the commencement of the labours. This, it will be observed, is a considerably lower mortality than has been attained in the two Maternities referred to in Edinburgh and Glasgow; and it is just, I think, what might be expected from the different modes of management adopted. In the London Maternity neither students nor house-surgeons without proper powers are engaged; the deliveries being managed by a staff of qualified midwives, who can at once call in the assistance of appointed surgeons in cases of difficulty. There is thus much less loss of time in tedious labours where the midwives are employed—probably something like what occurs where a midwife in the country calls in the assistance of a surgeon—and, obviously as a consequence, a smaller loss of infantile life.

¹ See 'Dublin Quarterly Journal,' May, 1863.