

toms, prevailed among the troops recently arrived from England, in another.

It does not appear that any other of the Ionian islands, save Corfu and Cephalonia, were visited by the pestilence. The immunity of Santa Maura is the more remarkable, as it lies between Cephalonia and that part of the Albanian coast whence the disease was supposed to have been derived.*

Since 1816, the plague has not appeared, as far as I am aware, in any of the British possessions in the Mediterranean, except a few imported isolated cases in the lazaret at Malta. To these I would now invite your attention for a few moments. Fortunately, the records of the quarantine establishment there, since the island came into the possession of Britain at the beginning of the present century, enable us to ascertain the truth. It appears that no vessel having plague on board arrived in Malta harbour, and that no case of the disease occurred in the lazaret, from that period down to 1813. Since the cessation of the pestilence in that year, to 1845, twelve vessels either actually infected or suspected have arrived, and about fifty cases of what has been regarded as plague—although in many of them the characteristic symptoms of the disease were absent, and they would have been recorded as cases of petechial typhus, had they not occurred in individuals from plague countries—have been treated in the lazaret. Now, it is an extremely interesting fact that of all the persons engaged in attending upon these sick, or who had been put on board the infected vessels as health guardians (and the number of these persons must have considerably exceeded a hundred) only four were attacked with any illness, and but one died. Two of the four men had been put on board a foul ship from Alexandria in 1821; they soon recovered. The other two cases occurred in men who had volunteered their services to be confined in the lazaret with a crowd of poor filthy Moors, on their way from Egypt to the Barbary coast.† It was one of these cases which proved fatal. The complete immunity of all the regular officers connected with the lazaret thus seems to show that there is little or nothing to be dreaded from the infection of plague, when patients are kept in clean, airy apartments. How different are the results, when the sick are compelled to remain in confined crowded places, as on board of a foul ship, for example! A vessel arrived at Zante, in June 1819, from Tunis, where the plague existed at the time of her sailing. There was no actual sickness on board when she arrived; but, as there was not a suitable lazaret ashore, she, with her crew of eight persons, was placed in strict quarantine in the harbour, having a health guardian on board to prevent all communication with the land. Within the next nine days, no fewer than seven of the crew, and the health officer, were attacked with a malignant fever, accompanied with bubos and carbuncles; every one of the cases terminated fatally. Only one of the unfortunate crew survived. Great credit was given at the time to the quarantine authorities that the fever did not spread to the shore.

I must not forget to mention that, among the many hundred men who have been employed during the present century in the lazarets of Malta and Marseilles (those of Genoa and other Italian ports may be added) in expurgating, as it is called, the bales of cotton and other articles of

merchandise in vessels from Egypt and Turkey, there is not a single instance of one of them having ever been attacked. This, with a host of other most interesting facts respecting the true history of plague, was first made known in the Parliamentary bluebook on Quarantine, in 1843, and in the admirable Report of the French Academy published in 1845. Before the appearance of these important documents, the utmost ignorance prevailed. The experience of the French and Italian physicians, and of our own countryman, my late lamented friend, Dr. Laidlaw, who witnessed the severe Egyptian epidemics of 1834 and 1837, has effected an entire revolution in medical opinion upon the subject, by proving the utter fallacy of the old idea, that it is chiefly, if not altogether, by direct contact with the sick or with *fomites*, *i.e.*, articles imagined to be infected, that the plague is liable to be communicated, while atmospheric contamination has nothing to do with the matter. Upon this most absurd belief, the machinery of quarantine regulations has been mainly planned. We now know that the plague, in respect of the circumstances which affect or favour its development and spread, is altogether similar to typhus in our own country. The same measures of prevention and repression are therefore required in both instances. Since the appearance of the French Report, the relations of the plague to quarantine have excited much attention in this and in foreign countries. The publication of the first Report of the General Board of Health, in 1849, gave fresh impulse to inquiry. Our distinguished corresponding member, Professor Sigmund of Vienna, has for many years past done excellent service to the cause of enlightenment and truth by his numerous writings. Dr. Sigmund's authority is the more important, from his personal knowledge of the pestilence in the Danubian provinces at different periods from 1828 to 1837, and his thorough acquaintance with the state of almost all the lazarets on the continent. The results of his observations during his mission to Turkey and Egypt, on which he was lately sent by the Austrian government, are contained in his very valuable work on Quarantine Reform published at Vienna in 1850. It is much to be regretted that our own Government has not followed the example set by France, Austria, and Russia—that of sending competent medical men to those countries where the plague is endemic, or which have been most frequently the scene of its visitations, to collect reliable information upon its history, and to ascertain the actual results which have attended the quarantine and other precautionary measures hitherto resorted to in the cause of public health. Foreign countries charge us with saying much and doing little, except for our own immediate benefit and profit; and unhappily there seems to be too much ground for the charge. In a mere commercial view, no country is so deeply interested in the discovery of the truth and the right application of sound conclusions in practice, as our own.

[To be continued.]

Fitzroy Square, London, June 1853.

THE PROPRIETY AND MORALITY OF USING: ANÆSTHETICS IN INSTRUMENTAL AND NATURAL PARTURITION.*

(IN A LETTER TO PROFESSOR MEIGS, OF PHILADELPHIA.)

By J. Y. SIMPSON, M.D., Professor of Midwifery in the University of Edinburgh, President of the Medico-Chirurgical and Obstetric Societies, etc., etc.

(Dated Edinburgh, 1st of August, 1848.)

MY DEAR SIR,—A few days ago, I happened to see your excellent epistle to me on the use of Anæsthesia in Midwifery, extracted, in an abridged form, from the *Philadelphia Medical Examiner* into the *London Medical Gazette*. It reminded me that, amid other avocations and work, I had hitherto indolently omitted to answer the objections

* A recent intelligent writer, who was detained for a week in quarantine at Santa Maura, upon landing from Albania, although that country was in perfect health at the time, describes the lazaret in which he was confined as the most miserable shed imaginable. "In short," says he, "during the whole range of my travels in Asia and Europe, I never met with the equal of this for the utter wretchedness of its accommodation and the insuburability of the situation." The result of the sufferings he experienced during his detention was a severe attack of fever. (Spencer's *Travels in European Turkey*, etc., 1851.)

This is but an instance of what is continually taking place in many of the lazarets in the East. It is surely a disgrace that such an enormity should exist in a British colony at all events, in the present day.

† The experience of the lazaret at Marseilles accords in a striking manner with that of Malta. No infected vessel had arrived there, and no case of plague had been seen in the lazaret from 1796 down to 1819. Between this year and 1846, only two infected vessels arrived; one in 1825, and the other in 1837. The entire number of cases received into and treated in the lazaret, does not appear to have exceeded four or five; and the only instance of sickness among the attendants and employees of the quarantine establishment occurred in a man who had been put on board an infected vessel as health guardian.

* The following letter to Dr. Meigs has been sent to us for publication by its author, Dr. Simpson. It was printed some time ago in Philadelphia; but has not yet been published in this country. EDITOR.

contained in your able and kind letter. And I feel that I am the more to blame for this neglect, on one account, namely, that as in your own country, so also in ours, there are few or no living obstetricians whose opinions and name carry, and deservedly carry, more weight with them than yours. Be so good, then, as bear with me now for a few minutes, while I endeavour to state in what respects I am inclined to demur to your arguments against anæsthetic midwifery.

On reperusing, as I have just done, your esteemed letter, it appears to me, that in it you ground your opposition to the adoption of anæsthesia in midwifery upon four or five different arguments, although you do not specialize them. I shall notice each of these arguments separately. You have not given them in any particular order. Let me begin first with the one which you have placed last.

1. *You object to anæsthesia in deliveries requiring "chi-surgical intervention", and especially in FORCEPS OPERATIONS, on the ground that the sensations of the patient afford us our best aid for the introduction of the instrument.*

In order to introduce the forceps with the greatest safety to the mother, you state that (to quote your own words) "the best guide of the accoucheur is the reply of the patient to his interrogatory, 'Does it hurt you?' The patient's reply, 'Yes', or 'No', are" (you observe) "worth a thousand dogmas and precepts. I cannot, therefore", you continue, "deem myself justified in casting away my safest and most trustworthy diagnosis, for the questionable equivalent of ten minutes' exemption from pain, which, even in this case, is a physiological pain."

In answer to this novel objection, you will excuse me when I say (for I say it most conscientiously), that I think every man who ventures to use the forceps, in any midwifery case, ought to know the anatomy of the parts implicated a thousandfold better than you here presuppose. You would have the accoucheur guide his instrument, not so much by his own anatomical knowledge, as by the feelings and sensations of his patient. In this, as in other points relative to any novel question in practice, we can often, it appears to me, best perceive the soundness or unsoundness of our views upon it, by considering and contrasting them with our established views on other analogous questions, regarding which the opinions of the profession have been long ago fixed and determined. Now, what would the surgical world, at this time of day, think of an operator who, in making a ligature of a large artery, such as the humeral, placed his chance of discriminating the attendant nerve from the blood-vessel which he wished to tie, by appealing, not to his own anatomical knowledge, but to the feelings of his patient, as he touched the suspected structures? "Does it hurt you?—Yes, or No?" Would our surgical brethren not denounce and decry the capabilities of any man who, in operating, required to have recourse to such imperfect and incompetent means for his anatomical direction and diagnosis? Would it be right and moral in a surgeon to deny to his patients the advantages of anæsthesia, in order that their sensations and sufferings should make up for his want of anatomical and operative knowledge?

But, in saying this, do not, I pray you, for one moment suppose that I fancy that the argument which you adduce betrays any want whatever of the highest degree of operative skill on your part. Nothing could be further from my thoughts. And, to confess the truth, I do sincerely believe that you yourself, while using the forceps, do not require to have recourse to any such rude rule as you here propound; and that, in fact, the rule itself, and the objection to anæsthesia in operative midwifery which it contains, is an *afterthought* on your part, which has only sprung up since the practice of anæsthesia was proposed. For, in looking over the excellent precepts which you have given relative to the use of the forceps, in the valuable work on midwifery which you published a few years ago, viz., the *Philadelphia Practice of Midwifery*, I find no trace or mention whatever of such a rule as you have

quoted above, in your letter to me. If that rule really formed, as you now state, the "safest and most trustworthy" guide in the operation, you would certainly have at least noticed it, or alluded to it in some way. In the precepts which you laid down in your work, you would assuredly not have forgot that one rule, which, you say, is worth a "thousand other dogmas and precepts". And further, it would, I think, have been only the more incumbent upon you to have mentioned it, seeing that all other authors omit the notice of it.

I feel assured that, when you come to reconsider dispassionately your opinions regarding the non-employment of anæsthesia in operative midwifery, you will alter these opinions; and when you come to employ anæsthesia in actual practice, in cases in which the forceps are used, you will find that, instead of impeding the application of instruments, the anæsthetic state *very greatly facilitates their use*. It enables you to guide the forceps far more safely to their destination, because it enables you, without any pain to the patient, to introduce your fingers for this purpose, far more deeply between the head and maternal structures, than you could do if the patient were awake, and in her usual sensitive state. You yourself state, in your published work on midwifery, that care should be "taken to direct the point (of the forceps) by the two fingers, *as far as they can reach*". (p. 300.) "If", you again observe, "any difficulty occurs in getting the second blade forward enough, the two left fingers that are guiding it will serve to guide it edgeways into the proper position." Now, the state of anæsthesia, I repeat, gives you, as I have oftentimes found, the power of fulfilling these and other most important rules, to an extent that never can be attained without it; and I am sure you will find them worth any "thousand dogmas and precepts" derivable from the mere sensations of the patient.

Besides, these sensations,—or rather the expression of them,—would constantly betray you, if you *did* place any dependence upon them. Under the same amount of pain, scarcely any two women would give you exactly the same expression of suffering. What one woman would loudly complain of, another would declare to be nought.

Before interfering instrumentally with the forceps, the labour has generally been allowed to endure for twenty or thirty long hours. After a poor patient has undergone such a protracted ordeal of pain and suffering, her mind in general is not, I fear, in a very fit state to guide the operator by her sensations or directions.

At page 302 of your published work on midwifery, you state that, when the forceps are used, the patient's mind is naturally wound up to a state of great anxiety. "It is strained", you observe, "to the highest tension, by the mere thought that she is under the operation." Now, putting entirely out of view for the moment the propriety of our saving our patients the increased corporeal suffering attendant upon instrumental delivery, is it not, let me ask, our right and our duty as medical men to save her, as we can do, from this trying state of mental anxiety at the time of operating? In most cases, she will have been suffering and struggling on for many hours previously. Why then thus needlessly and greatly intensify both her mental anxieties and physical sufferings at the time of our instrumental interference, when her strength, alike of mind and body, are perhaps little calculated to bear any increase of suffering; and, above all, when the resources of our art furnish us with simple and certain means of saving her from the unnecessary endurance alike of the one state and of the other?

But, in instrumental delivery, besides greatly facilitating the application of the forceps, and relieving the patient from enduring the pains of the operation, and that "highest tension" of mind which is present during it, the state of anæsthesia saves her, I believe, also, in a great measure, from the effects of the shock of the operation, and thus gives her a better chance of recovery. If we omit it, we omit, I believe, not only a means of saving her from the sufferings attendant upon the operation, but a means of

saving her from some of the dangers attendant upon it. When first publishing on the subject of anæsthesia in midwifery, in February 1847, I offered one or two observations on this point, which subsequent surgical statistics have amply fulfilled. In allusion to some cases of operative delivery, which I recorded, I observed: "The cases I have detailed sufficiently show its value and safety in cases of operative midwifery. And here, as in surgery, its utility is certainly not confined to the mere suspension and abrogation of conscious pain, great as, by itself, such a boon would doubtlessly be; but, in modifying and obliterating the state of conscious pain, the nervous shock otherwise liable to be produced by such pain—particularly whenever it is extreme, and intensely waited for and endured—is saved to the constitution, and thus an escape gained from many evil consequences that are apt to follow in its train."

The observations which I have hitherto made refer entirely to your opinion of anæsthesia in instrumental delivery. But,—

2. *You object to anæsthesia in NATURAL LABOURS, because you hold that the pain of natural labour should not be annulled, and that it is calculated to promote the safety of the mother.*

You regard, you say, "the pain of a natural labour as a state not by all possible means and always to be eschewed and obviated"—"a labour pain being", you declare, "a most desirable, salutary, and conservative manifestation of life-force".

In the above expressions, you make no distinction between the two separate and distinct elements of which a so-called labour-pain consists, viz., 1, the contractions of the uterus; and 2, the sensations of pain resulting from these contractions. If you apply the language I have quoted to the first of these elements, the uterine contractions (and which contractions are *not* annulled by anæsthetics), I decidedly and entirely agree with you. If you apply it, however, to the sensations of pain produced by the uterine contractions, and which sensations are annulled by anæsthetics, I most decidedly and entirely dissent from your opinion.

In your treatise on midwifery, you make, correctly, the important distinction to which I refer. You state (p. 148), that "the word (labour) is highly expressive of the violent and painful struggles and efforts of the woman". You add, that "the essential element of labour is the contraction of the muscular fibres of the womb". And, at page 303, in speaking of the strength of these uterine contractions, you observe, "Let it be well borne in mind, that the expulsive powers of the womb are enormously great". In more than one place in your work, you allude to the intensity of the sensations of pain (the pangs and agonies of travail, as you term them, p. 155); and, at page 153, you speak of the "painful sensations" of the mother in the last part of labour as so great in degree "as to be absolutely indescribable, and comparable to no other pain". In your still later work on *Female Diseases*, speaking of these pains—the pains of parturition—you observe, "Men cannot suffer the same pains as women. What", you continue, "do you call the pains of parturition? There is no name for them but *Agony*." (*Females and their Diseases*, p. 49.)

The muscular contractions of the uterus form, you say, the first or "essential element" of labour. In that opinion, you and I are at one. And further, I quite agree that this cannot safely be "eschewed and obviated" in natural labour. Nor are they "eschewed and obviated" under the proper use of chloroform.

But the pain, the second element, is a non-essential element in the process. It is non-essential, because, 1, labour—that is, the uterine contractions—are occasionally, though very rarely, in the course of practice, seen to accomplish the full expulsion of the child with little or no pain; 2, in whole tribes of the human race, as in some of the black tribes, comparatively little or no pain seems to be endured, if we may believe various authorities; and 3, thousands of women have now been delivered with perfect safety, but

without any pain, while placed under the influence of anæsthetic agents.

I hold the pain to be *non-essential*, and I utterly protest against the truth of your opinion, that "the pain of a natural labour is a state not by all possible means to be eschewed and obviated". On the contrary, I maintain, that we omit and forego a mighty part of our professional duties whenever we forget the axiom of Bacon, that "it is the office of a physician not only to restore health, but to mitigate pain and dolours". And if, as medical men, we are called upon to mitigate and remove pain of any degree in our fellow-beings, we are surely called upon to mitigate and remove those "pangs and agonies of travail", as you term them, "which in degree are", in your own language, absolutely indescribable, and comparable to no other pain"—"pains for which there is no other name but *Agony*".

In your practice, do you not, let me ask, constantly use measures to mitigate and relieve the pains of headache, of colic, of sciatica, of pleurodynia, of gout, of rheumatism, and all the other innumerable "dolours" that flesh is heir to? Like other physicians, you deem it, I doubt not, your duty to wield the powers of your art in order to free those that submit themselves to your medical care from these and from other similar sufferings. But, if it is right for you to relieve and remove these pains, why is it not right for you also to relieve and remove the pains accompanying the act of parturition? I cannot see on what principle of philosophy, or morality, or humanity, a physician should consider it his duty to alleviate and abolish, when possible, the many minor pains to which his patients are subject, and yet should consider it improper and immoral to alleviate and abolish, when possible, pains of so aggravated a character, that, in your own language, they are "absolutely indescribable, and comparable to no other pains"—pains for which there is "no other name but *Agony*".

3. *You object to anæsthesia in natural labour, because you deem the pain of natural labour "a PHYSIOLOGICAL PAIN".*

"The sensation of pain in labour is", you observe, "a physiological relative of the power or force"; and "to be in natural labour is the culminating point of the female somatic forces".

Now, for the reasons that I have already stated, I entirely doubt if we should look upon the severe sensations of pain endured by our patients as truly "physiological", for, as I have just stated, they are *not* essential to the mechanism and completion of the process in the white races of mankind; and they are absent, to a great degree, in the black. The severity of them could, I think, be easily proved to be the result of civilization, and, as I believe, of that increased size of the infantile head which results from civilization. Parturition is always physiological in its object, but not in some of the phenomena and peculiarities which attend upon it in civilized life.

But, waiving this point, or the discussion of it, let me state, that even if I allowed all the intense pains of parturition to be "physiological pains", I cannot conceive that to be any adequate reason for us not relieving women from the endurance of them. Because nature has fashioned any particular physiological function in any particular manner, that, I opine, is no reason why the science and art of civilized life should not, when possible, alter and amend its workings. If it were improper for us, for instance, to intermeddle with the functions of the hair of the head, or of the skin generally, then all hats and other coverings for the scalp, all clothings and coverings for the body, should be at once abandoned and unconditionally condemned. If it were improper for us to alter and amend the functions of the eye, then all optical glasses, the telescope, the microscope, etc., must be thrown aside. And indeed not later than the seventeenth century it was held and argued so in England. For, in his History of the first beginning of the Royal Society of London, Sprat tells us that it was generally believed that this "new experimental philosophy (namely, the philosophical papers laid before the Society) was subversive of the Christian faith"; and many, he adds, mortally hated the newly in-

vented optical glasses, the telescope and the microscope, as *atheistical inventions*, which perverted our organs of sight, and made everything appear in a new and false light. (Disraeli). You argue as if we should not use means to eschew the pains of parturition *because* that pain is physiological. When Columbus first discovered your mighty American continent, a large portion of the inhabitants were unprovided with any kind of dress or covering. "To most of them", says Robertson, "nature had not even suggested any idea of impropriety in being altogether uncovered." (*History of America*.) And I do think that men living in such a state, could, against the fashion of dressing, use with far greater propriety and consistency than you or me, your own argument against anaesthetics in labour. Chloroform and ether should not be used in labour (you argue), because the pain against which they protect us is natural and physiological. No kinds of clothing or dress should be used (the original Americans might have equally argued), because the cold or heat against which they protect us are "natural" and "physiological".

I have a letter lying before me on the subject of anaesthetics in midwifery, by a very highly and very justly esteemed professor of midwifery in Dublin. It was penned in the end of last year (1847). "I do not", he writes, "believe that any one in Dublin has as yet used ether in midwifery; the feeling is very strong against its use in ordinary cases, and merely to avert the ordinary amount of pain which the Almighty has seen fit,—and most wisely we cannot doubt,—to allot to natural labour; and in this feeling I heartily and entirely concur."

The argument thus used, and so very well expressed by my Irish friend, is one which has been often adduced and repeated. Some minds at first gave immense weight and importance to it. For my own part I must confess that I never could view it as possessing any great force. Look at it as applied to any other practice which happens to be sufficiently old and established; and then we will see it in its true import. Supposing, for example, it referred to the first introduction of carriages into use; it would then read thus: "I do not believe that any one in Dublin has as yet used a carriage in locomotion; the feeling here is very strong against its use in ordinary progression, and merely to avert the ordinary amount of fatigue which the Almighty has seen fit,—and most wisely we cannot doubt,—to allot to natural walking; and in this feeling I heartily and entirely concur."

Nay, this frequently repeated argument against such innovations becomes not only, I think, ridiculous, but really almost irreverent, when we look far backward into the march of civilization, and apply it to any practices that are so very long established as to be very antiquated, and with which, therefore, the human mind has been long and intimately familiarized. Some one (but whom I cannot pretend to say) no doubt first introduced the practice of wearing hats, or bonnets, or a covering for the head. Supposing this practice, however, stoutly resisted, as doubtless it was at first, then the argument of my Dublin correspondent against this innovation would read somewhat as follows: "I do not believe that any one in Dublin has as yet used a hat to protect his head; the feeling here is very strong against its use in ordinary weather, and merely to avert the ordinary amount of wetting and cold which the Almighty has seen fit,—and most wisely we cannot doubt,—to allot to mankind: and in this feeling I heartily and entirely concur."

Someday a canal will, in all probability, be made through the Isthmus of Panama. It has, you are well aware, long been proposed to cut one; and there and thus unite the Atlantic and Pacific Oceans. When it was proposed in the sixteenth century, the clerical historian Acosta brought forward the following reasons against it. "I am", said he, writing in 1588, "of opinion that human power should not be allowed to cut through the strong and impenetrable bounds which God has put between the two oceans, of mountains and iron rocks, which can stand the fury of the raging seas. And, if it were possible, it would appear to me very just, that we should fear the vengeance of Heaven for attempting to improve that which the Creator in his

almighty will and providence has ordained from the creation of the world." The arguments which are here brought forward by the earnest Spanish priest against man meddling with and altering the impediments to navigation caused by the natural mechanism of the Isthmus of Panama, are essentially the same as those brought forward against men meddling with and altering the agonies caused by the natural mechanism of parturition in the civilized woman. We can all, perhaps, at this time of day, see through and smile at the character of the old priest's argument with regard to the supposed impropriety of changing and cancelling, if possible, the natural obstruction to naval commerce produced by a geographical isthmus. Some years after this, perhaps, our descendants will equally see through and smile at, the analogous modern argument in regard to the supposed impropriety of changing and cancelling, when possible, the physical suffering produced by a physiological function.

The truth is, all the tendencies of man in a civilized state of society, are to intermeddle with and change, and, as he conceives, improve the action of almost every function in the body. And each such improvement has at the time of its introduction, been, like the practice of anaesthesia, very duly denounced as improper, immoral, impious, etc., etc. I might refer to numerous such cases. Let me cite only one example. The human fingers are admirably constructed by our Creator for the function of seizing and lifting objects. The late Sir Charles Bell wrote a whole octavo volume—a *Bridgewater Treatise*—on the mechanism of the human hand as beautifully adapted for this and other functions. In the reign of the earlier Stuarts, forks were introduced from the continent to assist our hands in the act or function of seizing and lifting the divided portions of meat, etc., that we wished to eat. But this was a very sad and uncalled for innovation upon the old and established physiological functions of the human fingers; and, at the time, it was as loudly opposed and decried as the modern employment of anaesthetics in aiding the physiological function of human parturition. Disraeli tells us that the use of forks was so much reprobated in some quarters, that some zealous preachers denounced it "as an insult on Providence not to touch our meat with our fingers". Nature, they argued, has herself provided us with fingers of flesh and bone and nerve; and consequently it is unnatural and impious in man to attempt, in his human pride and arrogance, to substitute for these, artificial metallic fingers of silver and steel!

I repeat,—all our tendencies and workings in the present state of civilization, are attempts to intermeddle with and change and improve the action of almost every function in the economy. And assuredly if we use means in regard to the function of parturition with the view of ameliorating and abolishing the unnecessary, but, as you call them, "absolutely indescribable" pains that attend upon it, we would be doing nothing more than what you and I and all of us are every day and every hour doing in relation to most of the other natural or physiological functions of our own bodies.*

* "The principal 'moral' objection, as it has been termed, against the employment of anaesthesia in midwifery, amounts to the often repeated allegation, that it is 'unnatural'. 'Parturition,' it is avowed, is a 'natural function,' the pain attendant upon it is a 'physiological pain' (Dr. Meigs), and it is argued that it is improper 'to intermeddle with a natural function'; and to use anaesthetics is a piece of 'unnecessary interference with the providentially arranged process of healthy labour' (Dr. Ashwell). The above is, perhaps, the most general and approved of all the objections entertained and urged at this moment against the practice of anaesthesia in midwifery. But it certainly is a very untenable objection; for, if it were urged against any of our similar interferences with the other physiological functions of the body (every one of which is as 'providentially arranged' as the function of parturition), then the present state of society would require to be altogether changed and revolutionized. For the fact is, that almost all the habits and practices of civilized life are as 'unnatural', and as direct interferences with our various 'providentially arranged' functions, as the exhibition of anaesthetics during labour. Progression upon our own two lower extremities is a 'providentially arranged' function, a 'natural process'; and yet we 'unnaturally' supplement and assist it by constantly riding on horseback and in carriages, etc. The 'physiological process' of walking is apt to produce pain and injury of the uncovered foot of man, and we 'unnaturally' use boots and shoes to bind the foot, and add to the protecting power of the cutaneous and other structures of the sole. Mastication and digestion are 'natural processes'; but we daily intermeddle with and attempt to aid them by the arts of cookery and dietetics; and so on with regard to other functions." (From *Report on Anaesthetic Midwifery*, by Dr. Simpson, in *Monthly Journal of Medical Science* for October 1843.)

Let me illustrate this last remark by one more example; for, as I have already said, it is only in this way that we can properly judge of the soundness or unsoundness of our views of novel points in theory or practice. You are well aware that the act of parturition has been often familiarly compared, as the late Professor Hamilton expressed it, "to the toils of a journey"; and like it divided into stages. "The sufferings of the mothers", says he, "have been in most languages compared to those of travellers." Now let us for a moment continue this natural simile between the function of parturition and the function of progression. You maintain that "labour is the culminating point of the female somatic forces". One of the most illustrious Presidents of your great American Republic—Thomas Jefferson—makes in his memoirs a remark of precisely the same import regarding walking or progression. He describes the act of walking, but not exactly in the same words, as the kind of "culminating point of the human somatic forces". "Walking", says the American President, "is the best possible exercise; habituate yourself to walk very far. The Europeans, he continues, value themselves on having subdued the horse to the uses of man; but I doubt whether we have not lost more than we have gained by the use of this animal. No one has occasioned so much (as the horse) the degeneracy of the human body. Our Indians go on foot nearly as far in a day for a long day as an enfeebled white does on his horse; and he (the Indian) will tire the best horses."—*Jefferson's Memoirs*, vol. i. p. 287.

Few, or none, perhaps, will question the abstract truth of Jefferson's observations on the above point. But, because walking or progression is a "physiological" function, and the practice of it is reputed salutary, would this be, with you, a proper and sufficient reason for never setting aside or superseding in any way this "physiological" state, in the same way as you insist, on the same grounds, that the physiological pain of labour should not be set aside or superseded. Because progression is a natural condition, would this be any adequate reason for your medical advisers adopting your own arguments against anaesthesia in midwifery, and insisting upon this, that, the next time you travelled from your own city of Philadelphia to the cities of Baltimore or New York, or elsewhere, you should walk the distance on foot, instead of travelling it by railway or any other artificial mode of conveyance? What opinion would you form of the judgment of any medical adviser to whom you entrusted your own health, if, on going next time to the New York or Baltimore railway station, he should gravely and solemnly repeat to you as his patient, what you tell your midwifery patients, and, in your own language, advise you to try to accomplish the intended journey on foot as, to quote your own words, "a desirable, salutary, and conservative manifestation of life-force"? And yet this would really be nothing more than making your *argumentum ad fœminam* an *argumentum ad hominem*.

You state, in a passage which I have already quoted, that even the suffering accompanying instrumental delivery by the forceps is a "physiological pain". I do not, I confess, see why the suffering attending the use of the forceps, when the head is impeded by any cause of obstruction, should be regarded as a "physiological pain", any more than the suffering attending the use of the catheter in obstruction from the prostate gland or other morbid conditions of the urethra should be regarded as a "physiological pain". They are both operations intended to remove the natural contents of the respective viscera, when their operative removal becomes necessary.

But let us waive this point and return again to the analogy between the functions of progression and parturition. Suppose you plead with your medical advisers that, instead of insisting on your going on foot, they should allow you *for once* to take advantage of artificial assistance, and proceed on your journey from Philadelphia to Baltimore or New York by railway, *because* you were unable to walk the distance in consequence of being incapacitated by a rheumatic knee, or a sprained ankle, or an inflamed or blistered toe, and they replied to you that you should not care for this,

but still proceed and suffer, because the pain you might thus suffer was, to use again your own language, still only a "physiological pain",—would that argument, let me ask, be any adequate philosophic consolation under the endurance of your suffering? Or, would you not laugh at the logic of your medical adviser, and take your seat in the railway carriage in spite of his doctrine? And I have a strong fancy that betimes, in midwifery, patients *will* learn to adopt exactly the same line of logic and of practice under the analogous circumstances, and think and act too exactly in the same way.

4. You object to anaesthesia in labour, because the mother, in escaping by it from the "pangs and agonies of labour", may, in a few rare cases, be thus made to encounter danger to her own life.

"Should I", you observe, "exhibit the remedy for pain to a thousand patients in labour, merely to prevent the physiological pain, and for no other motive, and if I should, in consequence, destroy only one of them, I should feel disposed to clothe me in sackcloth and cast ashes on my head for the remainder of my days. What sufficient motive have I to risk the life or the death of one in a thousand in a questionable attempt to abrogate one of the general conditions of man?" Let me add that I have seen this argument of yours once or twice republished from your letter, and strongly insisted upon by the opponents of anaesthesia in this country.

And, indeed, in a new practice, such as that of anaesthesia, and with which the mind is yet not at all familiarized, the above forms one of that kind of apparently strong statements, which it is impossible to answer directly, or, indeed, by any other way than by taking, as I have already said, a corresponding illustration and simile from some other matter with which the mind is already familiarized. Let us for a moment longer, then, adhere to the familiar comparison which I have already taken up, under the last head, between the physiological function of human parturition, and the physiological function of human progression. Suppose, then, that you and I were standing at the Philadelphia station on the first day of the opening of the railway to Baltimore or New York. I wish the passengers to Baltimore or New York, or the shorter and intermediate stations, to proceed thither by railway; but you argue with them, like President Jefferson, that "progression is the culminating point of the human somatic forces," and that "walking is a desirable, salutary, and conservative manifestation of life-force," and that progression being a "physiological function," and fatigue a physiological pain, they ought to proceed on foot. I say, "No". Place yourself in a railway carriage, and thus eschew and obviate all the great fatigue and exhausting over-exertion of foot travelling. Then comes that answer and argument of yours which I have quoted, and which would run as follows:—"But should I exhibit, sir, the remedy for fatigue (a railway carriage) to a thousand travellers, merely to prevent the physiological exertion and fatigue of walking, and for no other motive, and if I should, in consequence, destroy only one of them, I should feel disposed to clothe me in sackcloth and cast ashes on my head for the remainder of my days. What sufficient motive have I to risk the death of one in a thousand in a questionable attempt to abrogate one of the general conditions of man, viz., his power of progression upon his own two lower extremities?"

I shall not stop to inquire whether among our supposed lady passengers or patients (uninjured, as most of them are, either to long pain or long walking) *more than one in a thousand* would not be worn out and destroyed by taking the journey on foot. A less proportion, I believe, would be found to be ultimately destroyed by the perils and dangers of the journey by railway than by the exertion and fatigue of the journey on foot; and the walk would shake and damage, both temporarily and permanently, many more constitutions than the railway carriage. I have a firm conviction that, on the great scale, there would be found a more absolute saving, both of human life and of human

health, by adopting the means invented by art than the means provided by nature. And I most firmly believe also, that a similar difference will yet be found to hold good between the two corresponding practices, of allowing women to pass through labour afflicted with all their usual physiological "pangs and agonies", and carrying them through that process without their being subjected to the endurance of these "pangs and agonies".

But I proceed to remark, that if your supposed theory with regard to the function of parturition were carried out in regard to the other functions of the human body, it would produce a vast and mighty revolution in the practices of civilized life. Follow it out, for instance, with regard to any one of them,—as, for example, with regard to the one we have already spoken of, viz., progression,—and see what would be the results. Ever and anon our newspapers contain paragraphs, telling us of one or more human lives being lost by collisions on railways, explosions of steamboats, upsettings of stage-coaches, etc. Consequently, according to your doctrine, that featherless biped and pedestrian animal, man, should no longer, when travelling, fly in railway cars, ply in steamboats, ride in coaches, etc., for these are evidently all so many questionable attempts to abrogate what you call "one of the general conditions of man", viz., his original pedestrianism.

In the great government and police of nature, disease and death are among the most certain "general conditions of man". If your theory were true, the practice of medicine itself should, I fear, be at once and summarily abandoned, for perhaps, in your own language, it is, at best, a questionable attempt to abrogate one of the general conditions of man—his tendency to disease and death; and I am sure you will agree with me, that in this "questionable attempt", human lives are often lost from the mistakes or the passiveness, or the want of knowledge and skill on the part of the physician. In England and Wales, in 1840, there were, according to the returns of the Registrar-General, above *one hundred persons* publicly and officially reported as having died from the effects of one drug alone, opium. But would this be any reason, or any ground of reason, for abandoning in medicine the use of opium—perhaps, in itself, the most valuable of all the remedies in our Pharmacopoeia? Would this be any adequate argument for refusing to relieve, by a dose of opium, the next appropriate case of pain that you are called to? Or, because chloroform or ether, in a very rare case, now and again produces deleterious or even fatal consequences, should we refuse, in a thousand other persons, to mitigate and annul their agonies by its use?

In your esteemed letter to me, you quote some remarks from the celebrated old work, Raynald's *Birthe of Mankinde*, the first book on midwifery printed in English. Look at the prologue to the work. It is excellent in reference to the very matter we are discussing, viz., whether the rare accidents, from abuse or otherwise, to which any good gift may occasionally subject those who use it, should be a reason for repudiating the general use of that gift. "There is not anything," says Raynald, "so absolute and perfecte, but by the occasion of the abuse thereof at one time or other, may and doth ensue greate damage and danger to mankind." He instances fire and water, "two righte necessary elements to the use of man, without the which he could not live," yet sometimes "by fire hath bin consumed and devoured whole cities and countries; by water swallowed and drowned infinite men, shippes, yea and whole regions. Againe," he continues, "meate and drinke, to the moderate users thereof, doth minister and maintain life; and, contrary, to the unmeasurable and unsatiate gourmands and gluttons, it hath full many times brought surfeit, sickness, and at the last, death. . . . But," he argues, "should men for the avoyding of the aforesaid inconveniences, and for the reasons above said, condemne and banish fire and water, or forsake their meate and drinke? No, it were but madnesse once to thinke it."

Before passing from these, your supposed dangers from and objections to anæsthetics, let me add two remarks:—

First. I do believe that if improperly and incautiously given, and in some rare idiosyncrasies, ether and chloroform may prove injurious or even fatal, just as opium, calomel, antimony, and every other strong remedy and powerful drug will occasionally do. Drinking cold water itself will sometimes produce death. "It is well known," says Dr Taylor, in his excellent work on Medical Jurisprudence, "it is well known that there are *many* cases on record, in which cold water, swallowed in large quantity, and in an excited state of the system, has led to the destruction of life." (p. 8.) Should we, therefore, never allay our thirst with cold water? What would the disciples of Father Matthew say to this?

But secondly. You and others have very unnecessary and aggravated fears about the dangers of ether and chloroform; and in the course of experience you will find these fears to be, in a great measure, perfectly ideal and imaginary. But the same fears have, in the first instance, been conjured up against almost all other innovations in medicine, and even against innovations in the common luxuries of life. Revert again to our old simile regarding travelling. Cavendish, the Secretary to Cardinal Wolsey, tells us, in his life of that prelate, that when the Cardinal was banished from London to York by his master Henry VIII, *many* of the cardinal's servants refused to go such an enormous journey; for they were, says Cavendish, "loath to abandon their native country, their parents, wives, and children." The journey, which can *now* be accomplished in six hours, was considered *then* a perfect banishment. We travel now between London and Edinburgh (some four hundred miles) in twelve or fourteen hours. A century ago, the stage coach took twelve or fourteen days. And in his life of Lord Loughborough, Lord John Campbell tells us that when he (the biographer) first travelled from Edinburgh to London, in the mail-coach, the time was reduced to three nights and two days; but, he adds, this new and swift travelling from the Scotch to the English capital was wonderful; "and I was gravely advised," adds Lord John, "to stop a day at York, as several passengers who had gone through without stopping, had died of apoplexy from the rapidity of the motion." (*Lives of the Lord Chancellors*.)

Be reassured, that many of the cases of apoplexy, etc., alleged to arise from anæsthetics, have as veritable an etiology as this apoplexy from rapid locomotion; and that a few years hence, they will stand in the same light in which we now look back upon the apoplexy averred to be caused by travelling ten miles an hour. And as to the supposed great moral and physical evils and injuries arising from the use of anæsthetics, they will by and by sound, I believe, much in the same way as the supposed great moral and physical evils and injuries arising from using hackney-coaches, were seriously described by Taylor, the water poet, two or three centuries ago, when these coaches were first introduced into London. In his diatribe against hackney-coaches, Taylor warned his fellow creatures to avoid them; otherwise, to quote his own words, "they would find their bodies tossed, tumbled, rumbled, and jumbled, without mercy." "The coach," says he, "is a close hypocrite; for it hath a cover for knavery; they (the passengers) are carried back to back in it like people surprised by pirates; and, moreover, it maketh men imitate sea-crabs in being drawn sideways," and altogether "it is a dangerous carriage for the commonwealth." Then he proceeds to call them "hell-carts", etc., and vents upon them a great deal of other abuse, very much of the same kind and character as that which has been lavished against anæsthetics in our own day.

In the course of your remarks, you imply, I think, though you nowhere explicitly state, another objection to anæsthetics in midwifery, viz.:—

5. *You object to anæsthesia in labour, because you do not consider that the mother encounters danger to her health or life from the endurance of the pains.*

"I have been accustomed," you observe, "to look upon the sensation of pain in labour as a physiological relative of the power or force; and, notwithstanding I have seen so

many women in the throes of labour, I have always regarded a labour-pain as a most desirable, salutary, and conservative manifestation of life-force."

If you hold, as your language appears to me to imply, that the sensation of pain, even when, as in labour, the degree of the pain is "absolutely indescribable", has no morbid or deleterious influence upon those who endure it, then I most decidedly disagree with you. On the contrary, I sincerely believe that the human constitution is so constituted that it cannot endure pain, particularly when that pain is long in duration, or severe in degree, without being more or less affected and injured by it. I know of many medical and obstetric authors, from the time of Ambrose Paré down to the time of Travers, Gooch, Alison, Burns, etc., who have stated and explained the common and hitherto unchallenged opinion of our profession in all ages, that pain was, *in itself*, deleterious and destructive, causing depression of the heart, syncope, and even, when in excess, sometimes producing speedily and sudden death. But, till the discovery in your own country of the possibility of annulling the pains of surgical operations by the inhalation of ether, I know of no writer in medicine, in surgery, or in midwifery, who held that pain, when "absolutely indescribable" in degree, was a matter of no importance in regard to the life or health of the sufferer, and should not be relieved even when we had the complete power of relieving it.

If the mere pain of the labour were, as you state, a "desirable, salutary, and conservative manifestation of life-force", its long continuance—the very length of it—would insure more certainly the health and safety of the patient, than its shortness. Anything "salutary and conservative" to the constitution, should manifestly be safe in proportion to the length, and dangerous in proportion to the shortness of its duration. But as far as regards the life and health of the mother, the pain of labour is perfectly the reverse of all this. It is safe in proportion to its shortness, and dangerous in proportion to its length. In the Dublin Hospital, (the tables of which afford the only data on this point that I know to refer to) when the women were six or eight hours in labour, thrice as many subsequently died as when their pain did not exceed two hours; of those that were from twelve to twenty-four hours in labour, five times as many subsequently died as of those that were from four to six hours ill: and so on in a regular progression. The longer this supposed "salutary and conservative manifestation of life-force", as you term it, endured, the greater became the mortality; so that, in the long run, the maternal mortality was *fiftyfold* greater among the women that were about thirty-six hours ill, than among those who were only two hours in labour; one in every six of the former dying in childbed, and one only out of every 320 of the latter.

Some time ago, I published a long series of statistics, tending to show, that out of a large collection of cases of the same operation (*viz.*, amputation of the limbs), performed with and without anæsthesia, those who were operated on under anæsthesia (and consequently without the usual suffering), recovered in a much larger proportion, than those who had the same operation performed without anæsthesia, and whose constitutions were subjected to the endurance of the usual pains and agonies of the surgeon's knife.

The same result holds good, I believe, in midwifery as in surgery. Save the maternal constitution, either by natural or artificial anæsthesia, from the endurance of the pains connected with parturition, and you will enhance both the chances of her recovery and the facility of it. Among your red Indian and other uncivilized tribes, the parturient female does not suffer the same amount of pain during labour, as the female of the white race; and in consequence of this escape, they recover far more rapidly from the effects of parturition. Nor are fatalities at all common among them. So easy is the convalescence among uncivilized tribes, that Strabo, Marco Polo, and other historians and travellers, tell us of whole communities in which the husband

immediately went to bed for a number of days, upon the birth of a child, and the wife watched and nursed him. "They that write the history of America," says Guillemeau, "tell of the women in that country, that, as soon as they be delivered, they presently rise up and lay their husbands in their room, who are used and attended like women in child-bed." (*Childbirth: or the Happy Delivery of Women*).

Among the patients who have been delivered in Scotland, under anæsthesia, the rapidity of the stage of convalescence has, as a general rule, been increased in a degree that seems often to have surprised the patient herself, as much as her escape from the labour pains themselves. Many of my obstetric brethren have remarked this circumstance to me. In fact, on awaking after delivery, the patient does not encounter and endure the usual feelings of exhaustion and fatigue. Some have declared to me, that they have felt as if they had awoke from a refreshing sleep. And when we consider the capabilities for the endurance of suffering and exertion, among the class of patients in civilized life upon whom you and I attend, perhaps the propriety for employing anæsthesia during labour may appear still more evident. Unaccustomed by their mode of life to much pain and fatigue, patients in the higher ranks of life are not fitted to endure either of them with the same power or the same impunity as the uncivilized mother, or even as females in the lower and harder grades of civilized society; and hence is there not the greater propriety and necessity in the physician employing all the means of his art, so as to save them, as far as possible, from their sufferings? To illustrate the point, let us revert again to our old comparison between the physiological functions of progression and parturition. Let us compare for a moment our ideas of the effects of fatigue from walking, and of pain from parturition, upon the female constitution: and surely the comparison is not an unfair one for your views, as far as the severity of the effects of the two influences, physical fatigue and physical pain, are concerned; for surely the effects of pain, of "absolutely indescribable pain", should be greater upon the constitution than mere muscular fatigue. Suppose then that our patients, at the end of the ninth month of pregnancy, had to walk on foot a continuous journey of one, two, three, six, or a dozen or more hours' duration, that is, of five, ten, twenty, or thirty miles, or upwards, *instead* of passing through a continuous journey of recurring labour pains of the same duration, the pains gradually becoming stronger, and latterly becoming "absolutely indescribable, and comparable with no other pains"—what would be the result, with, say one hundred ladies of the upper classes of society? Some of them might be little or not at all affected by the journey; others, weak perhaps when they began, would suffer more or less severely from it. Not a few would be inclined sooner or later to stop, and beseech you, if you were the medical attendant upon them, to save them from further exertion and fatigue, by allowing them to be carried or coached the required distance. In answer to their solicitations, would you console them by telling them that, after all, progression was a "conservative manifestation" of life-force, and free from danger; or would you take the other view, and allow them the means of travelling the required distance by carriage or rail? I am sure you would have recourse not to the former but to the latter, for you would fear and dread the effects of fatigue upon the fragile constitutions of your lady patients. And I repeat, that certainly the effects of the endurance of pain are as great, if not greater, upon the constitution, than the effects of the endurance of fatigue. But if you would allow your patients to ride the supposed journey, instead of unnecessarily forcing and compelling them to walk it on foot, equally, I think, should you allow them to escape what you term the "pangs and agonies of travail", by saving them by chloroform, or other anæsthetic agents, during their travail, from all the unnecessary endurance of these pangs and agonies.

You state "I have not yielded to several solicitations as to the exhibition (of anæsthetics) addressed to me by my patients in labour." If, when driving out into the country, you perchance meet one of your fair patients, a few miles

from Philadelphia, walking homeward, but so tired and way-worn that every five or ten minutes she stopped and groaned for fatigue, "absolutely indescribable and comparable to no other fatigue", I am sure you would consider yourself bound, on the principles of mere common humanity alone, not to withstand her "solicitations" to be driven home in your carriage, and thus relieved of her present anxieties and suffering (not to speak of the future morbid effects of these). And I cannot see why, if you do this (and who would not do it?) to relieve a patient from the mere effects of fatigue, you could refuse to relieve the same lady when in "the pangs and agonies of travail", from the endurance of pains which are, in your own words, absolutely "indescribable and comparable to no other pains".

"Perhaps," you observe, "I am cruel in taking so dispassionate a view of the subject." Of course it would ill become me to pass any such judgment upon you. But I feel this, that you and I, and other teachers of midwifery, are placed, in reference to this question, in a position far more fearfully responsible than ordinary medical practitioners. The ordinary obstetric practitioner has little or no power, except over the relief or the perpetuation (according as he may choose it) of the sufferings of his own immediate patients. But you and I, as obstetrical teachers, may, through our pupils, have the power of relieving or of continuing the sufferings of whole communities. If, perchance, you persist for some years longer in your present opinion, it will have the effect of inflicting a large amount of what I conscientiously believe and know to be altogether unnecessary agony and suffering upon thousands of our fellow-beings. If you review and alter your opinions, which I earnestly hope you will do, and make yourself sufficiently acquainted with the peculiarities in the mode of action and mode of exhibition of chloroform during labour, a vast proportion of human suffering may, even within the next few years, be saved by your happy instrumentality and influence.

Feeling as I do deeply the great responsibility in this respect of your situation and of mine, I trust you will kindly pardon and excuse me, if anywhere in the preceding remarks I may have appeared to defend my views with too much earnestness. If I had to rewrite or revise the observations, I would perhaps have stated them more accurately; but I must send them as they are; and along with them I beg to send also the most sincere esteem and reiterated respects of,

My dear Sir, yours very faithfully,
J. Y. SIMPSON.

To Dr. MEIGS,
Professor of Midwifery, Philadelphia.

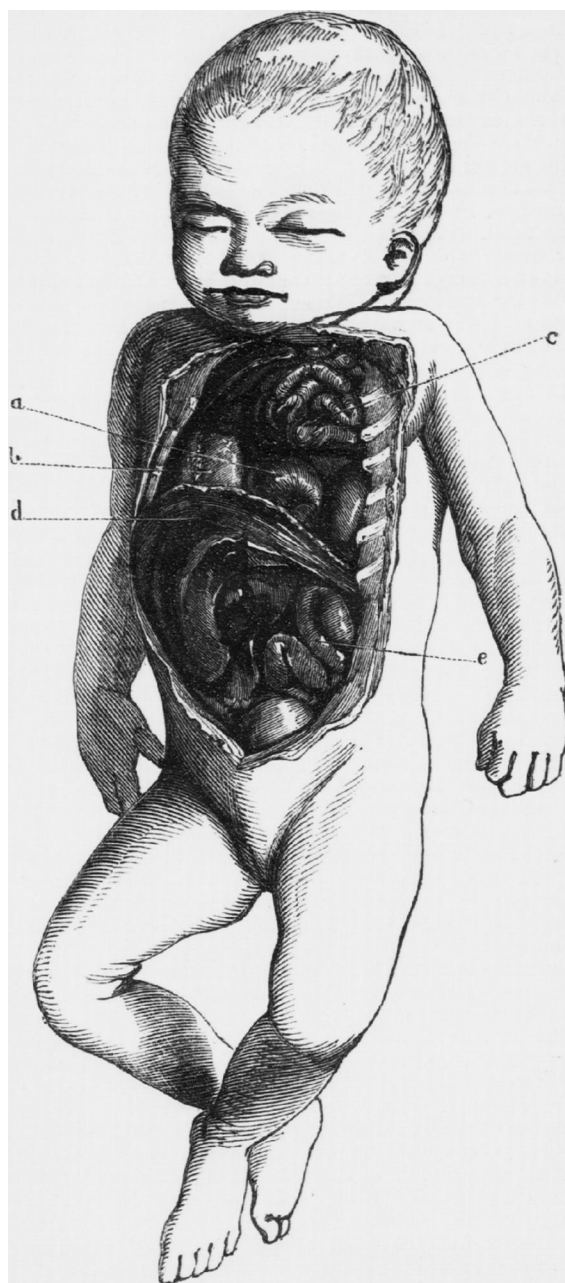
CASE OF CONGENITAL DIAPHRAGMATIC HERNIA.

By JAMES CRANG, Esq.

ON February 5th, I was hastily summoned to attend Mrs. K., in her confinement. On my arrival, I was informed that she had been in labour seven hours. On an examination, I found the membranes ruptured, and the head of the fetus presenting. The labour progressed favourably, and she was delivered of a well formed female infant; which showed very faint symptoms of life. The pulsation of the funis having ceased; I instantly divided it, and used every possible effort to save the child. No action of the heart could be discovered on the left side; but on grasping the chest, I felt, as I then believed, a slight pulsation in my thumb. I then placed two fingers on the same spot, and felt two distinct beats of the heart on the right side; after which it ceased. I felt great anxiety to open the body, and earnestly requested the parents to allow this to be done. They readily consented.

EXAMINATION OF THE BODY. On February 7th, my son accompanied me; and on separating the sternum from the ribs, and turning it back, we discovered the heart and both lobes of the lungs folded together on the right side,

and resting on a portion of the ileum, the other portion of which, with the stomach, large intestines, etc., filled the thorax. The diaphragm was perfect, with the exception of a small round aperture, which admitted a straight part of the colon to descend to the rectum. The liver, covering the kidneys, filled the abdominal cavity. The contents of the pelvis were perfect and well defined.



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|---|---|
| a. Stomach. | d. Left lobe of liver turned up |
| b. Heart. | The rough edge of the diaphragm is seen above it. |
| c. Intestines within cavity of thorax, pushing the lungs upwards and to the right side. | e. Portion of intestine within abdomen. The bladder is conspicuously seen in its usual situation. |

Dr. J. G. Swayne, of Clifton, has kindly furnished me with a drawing of this case; and I intend exhibiting it at our anniversary Meeting at Swansea. The preparation is deposited in the Museum of the Bristol Medical School.

Timsbury, Somerset, July 1853.