

To
Professor Simpson.

Anaesthesia in Midwifery.

Robert Whittington, Lowe.
52 Frederick Street
Edinburgh.

March 31st.
1863.

Anaesthesia in Midwifery.

Among all the warm controversies which have arisen in the Medical profession, perhaps none has been taken up more keenly than the subject of the employment of Anaesthetics in Midwifery practice, or been argued by higher authorities on both sides of the question.

To the Edinburgh school of Medicine belongs the honour of first having introduced this most important subject to the notice of the profession, which honour was secured for it through the untiring diligence of Professor J. Y. Simpson, who was the first to administer ether during labour, as also not long afterwards he was the first to use Chloroform for like purposes, of the Anaesthetic properties of which most invaluable substance, he was the discoverer.

Notwithstanding the many obvious advantages to be gained by the judicious exhibition of Chloroform in Obstetric Practice, no
sooner

sooner was the idea advanced, than it was sternly opposed by many members of the profession, some of whom held high influential positions, and arguments were brought forward against its use, which, but for the respected source from whence they proceeded, would perhaps have received no attention, having little or no weight in themselves, and being based, as most of them certainly were, upon grounds which were equally applicable to almost any modern improvement. — So great opposition however, would seem to be the natural consequence of every great discovery, and many things which are with us in daily use, at the time of their introduction, met with opposition in direct proportion to their usefulness, the greater the amount of benefit to be derived by the human race from their employment, the greater the number of enemies. . When for instance, that rival to Chloroform, Vaccination was first proposed, so high did the tide of popular feeling run, that we find the subject taken up by the clergy, and sermons being preached against

against it, the ministers averring that its employ-
 -ment was impious, & that to have such beastly
 diseases inflicted on the human race created
 in the form of their maker, was an insult to
 the Almighty; and public opinion went so far,
 that in the print shops of London, a picture
 was actually exhibited representing the head
 of a boy with horns growing therefrom, said
 to be a consequence of vaccination, and as
 being an incontestable proof of the anger of
 God that such practices were followed by
 men. In matters in no way connected with the
 medical profession we find the same hostile
 resistance offered to great discoveries; thus in
 A.D. 1484 we find the Spanish Government
 opposing the idea of Columbus that a new
 world was to be discovered situate opposite
 this; Aye we even find the use of Spectacles
 and forks denounced from the pulpit; Gas-
 -light was objected to as being an impious imitation
 of the light of the sun; when Post Offices were
 first spoken of, it was argued that the safety
 of the nation would be endangered, by
 their affording so ready a means of
 circulating

circulating treason; this to us certainly appears to be going not only one step, but many steps too far, but let us take care that we do not overstep the mark as far in our own day, when we find Scripture quoted and twisted to suit either side of almost any question, and the so-called religious objections to the use of Chloroform have not been wanting, even at the present day when anything is proposed differing from the established customs, it is first of all met by objections said to be founded on Scripture. Let us now for an instant take a glance at the objections.

Religious, Moral and Medical, which have been advanced against the employment of Anaesthetics in Midwifery.

II Religious Objections.

When it was first proposed to use Anaesthesia in labour, the religious arguments against its employment were neither few nor far between, but came showering down in great abundance, and although we shall pass over the greater

greater part of them as hardly requiring any comment, still there are others which it is proper respectfully to notice, as emanating from some of our most experienced and able practitioners.

At one of the discussions of the London Medic & Chirurgical Society, Dr Lee objected to its use in Midwifery Practice, as doing away with God's first curse on mankind, and in support of this astounding statement the following passage of Scripture was quoted. -

"I will greatly multiply thy sorrow and thy conception; in sorrow shalt thou bring forth children." Genesis III - 16th.

The curse pronounced consists of three parts; the first against the Serpent, the second contained in the above words, is directed against the Woman, the third against the man.

Excess of Zeal seems for a little to have blinded Dr Lee and to have prevented him from thoroughly and dispassionately considering the passage, before advancing it in opposition, and thus he runs into error, accepting the words in what he considers their literal meaning

meaning as far as the portion of the curse against the woman is concerned, but doubtless having very serious objections to so interpreting that portion of the curse directed against the man which says, "cursed is the ground for thy sake;" "in sorrow shalt thou eat of it all the days of" "thy life": seeing that were he to accept this literally he would voluntarily inflict on himself misery during the whole of his earthly career, a state not the most desirable.

D^r Ramsbotham also objected to the use of Chloroform upon pretty nearly the same grounds as D^r Lee; we find one divine, with an energy worthy of a better cause, even going so far as to call it "a decoy of Satan, apparently offering itself to bless woman, but in the end" he declared "it will harden society, and rob God of the deep earnest cries which arise in time of trouble for help;" this is certainly most intemperate language for any man to make use of, and one would think, that even a moment's consideration would prove such a state of things to be both theologically and actually impossible; and it appears to me that one of the gravest objections to
be

13
be urged against the use of Chloroform, is its having caused men to make use of such violent and dreadful language. But let us examine the grounds on which Dr. Lee's argument is founded, and if possible sift it to the bottom, that we may be the more able to do so; let us first glance at the passage of Scripture quoted as a stumbling block to the usage of Anaesthesia in Parturition, contained in the third chapter of Genesis at the 14th Verse

14. "And the Lord God said unto the Serpent; "
"Because thou hast done this, thou art cursed "
"above all cattle, and above every beast of the "
"field; upon thy belly shalt thou go, and "
"dust shalt thou eat all the days of thy life: "

15. "And I will put enmity between thee and "
"the woman, and between thy seed and her "
"seed; it shall bruise thy head, and thou "
"shalt bruise his heel. "

16. "Unto the woman he said, I will greatly "
"multiply thy sorrow and thy conception; "
"in sorrow thou shalt bring forth child- "
"ren and thy desire shall be to thy husband "
"and he shall rule over thee."

17. "And unto Adam he said, Because thou hast
 "hearkened unto the voice of thy wife, and
 "hast eaten of the tree, of which I commanded
 "thee, saying, Thou shalt not eat of it:
 "cursed is the ground for thy sake; in
 "sorrow shalt thou eat of it all the days of
 "thy life;"

18. "Thorns also and thistles shall it bring forth"
 "to thee; and thou shalt eat the herb of the field;"

19. "In the sweat of thy face shalt thou eat
 "bread, till thou return unto the ground; for
 "out of it wast thou taken; for dust thou
 "art, and unto dust shalt thou return."

Having read these verses, we must next try to understand them, which it is evident all cannot do, else we should have no two opinions held on the passage, as at present we have, & therefore, as one of these opinions must be entirely wrong, let us endeavour to determine where the fault lies; this we may most readily do by first taking a look at the original Hebrew, and secondly considering whether the passage is to be interpreted literally.

The words "In sorrow thou shalt bring forth
 children"

17.
children" are those considered as the most directly opposed to the employment of Anaesthesia; the whole argument, seems indeed pretty well to hinge upon the word "sorrow".

It is argued that finding these words in Scripture, the Medical man has no right to lessen the degree of pain by administering Chloroform. Now does the word "sorrow" here mean physical pain? Does the word "sorrow" as it occurs again in the 17.th Verse, or in any other portion of Scripture in which we find it, ever signify physical pain?

Here we require to consult the original. In the 16.th Verse in which the curse is pronounced on the woman, the Hebrew word translated "sorrow" is "etyebh", and the word translated "sorrow" in the 17.th Verse, is "itytyabhon, both etyebh and itytyabhon owing their derivation to the verb atyabh, which means literally, "to labour". And now although having gone so short a way into the subject, it would appear we cannot go much further; we do not find that the words, here or in any other portion of Scripture in which they occur, ever mean physical pain

pain, their only signification being toil, labour, effort, work, and as Professor Simpson has shown, the passage might more correctly perhaps have been rendered thus "With great effort thou shalt bring forth".

Having glanced at the true signification of the word "etjebh" in the 16th Verse, and now, so that we may the better take a view of the other side of the question, granting for a little that the word "sorrow" really does mean "pain" and as meaning such should be accepted literally, let us for an instant look at the consequences which would accrue from a similar reading of that portion of the curse which follows, viz. that portion directed against the man. Can we for an instant suppose that "sorrow" could be interpreted "pain" in the 17th Verse in which these words occur, "in sorrow shalt thou eat of it all the days of thy life"; this clause of the verse, I should think those opposed to the use of Chloroform, must find very difficult to reconcile to their common sense, and even more so to reduce to practice, when read "in pain shalt thou eat of it all the days of thy life"; surely if

if statistics were taken we should find, that comparatively few, if any, invariably took their meals, with great physical suffering, and I suspect we should find, that a number of those, who for the sake of their own argument, are so anxious that the word should be translated "pain"; far from eating a good dinner in pain and suffering, do so, with no small degree of relish and enjoyment; the preaching in this case being more easy than the practice.

Again, we should find ourselves deprived of the use of all agricultural appliances, by foolishly reading literally what is in reality only intended as a figure of speech, for are we not told, that the ground shall be tilled "by the sweat of man's brow" not by the aid of Ploughs & reaping machines along with the aid of oxen and horses, now so generally in use; this argument H. R. H. The late Prince Consort employed with one of the highest English bishops, when he came to warn Her Majesty against taking chloroform in labour; the learned bishop considered this as an exaggerated view of the case, but I am not aware of any limit having been

been fixed as to how far we should literally accept the Scriptures in this matter.

Finally, returning again to the 16th Verse containing the curse on the woman, proving, as I think incontestibly, that to translate the word *ityebh* "pain" is undoubtedly wrong, we have the following most important facts; first, that among the different races of women, & among different women of the same race, even among different women of the same family we have varying degrees of pain during labour. Ay! even in the same woman at different labours, for do we not find this the case in almost every woman, that a first labour causes greater suffering than a second, a second than a third and so on? from this are we to suppose that some races of women are cursed above all others? or that the curse is intended to light more heavily upon one member of a family than on another? or upon the same member in greater intensity at one time than at another? how shall any man support such a doctrine? We find for instance, that in the black races of women, the pains of labour are much less severe than among

among white women, yet all womenkind are equally included in the words of the primeval curse, no exemption being made in favour either of the black or the white, and it would be curious, if a race, enlightened as they are by means of religion, civilization and education, should have incurred a greater amount of the displeasure of The Almighty, than one, either altogether devoid of, or at any rate sharing in a much less degree these important benefits, for in fact we find the difficulty, and consequently the pain, in parturition increasing as civilization advances, depending, as it is found to do, upon the increased size of the heads of the children while the maternal passages do not enlarge in proportion. In some women the pain of labour is so great that we find one lustily crying out, another taking fits, a third fainting, a fourth going actually mad, in a fifth the pain and dilatation so great as to cause rupture of the perineum, a sixth from the tremendous contraction of the uterus suffering death from rupture of that organ, and pain in many various other degrees, while

while in other women we have comparatively little pain, so slight in fact that I myself, have seen a woman bring forth a child without uttering even so much as a single groan, and if pain be the consequence of the curse, how comes it, that a woman should suffer more during a first labour than in any succeeding one?

Surely the curse does not grow less effective as life advances. But if Dr. Lee, Ramsbotham, Mr. Gream &c, think that it is sinful to alleviate pain by the exhibition of chloroform in labour it must, according to their argument, be equally sinful to alleviate pain under the same circumstances by any other means, let them be simple or complex. Yet if we could but see Dr. Lee attending a case of Midwifery, I fear we should find him busily dilating the Os Uteri, supporting the back and perineum, rupturing the membranes &c in order to lessen the amount, and shorten the duration of his patient's suffering. Dr. Churchill in his valuable work on the "Theory and Practice of Midwifery" in taking notice of the objections raised against the use of chloroform in Obstetric practice forcibly remarks at page 223

"The

"The first objection I shall notice is, that as, "in
 "sorrow shalt thou bring forth children" was
 "part of the original curse pronounced upon the
 "sin of man, therefore any attempt to mitigate the
 "suffering is a direct and unwarrantable interference
 "with an ordinance of God. Now it will be re=
 "=membered that labour, ("in the sweat of the
 "brow") pain and death were equally the result
 "of the same sin, and inflicted by the same hand,
 "and yet we never hear of the wickedness of
 "lightening labour, of relieving pain, or of postpon=
 "ing death, each of which must be wrong, if re=
 "lieving the suffering of childbirth be wrong. It is
 "monstrous that one sex should claim the privil=
 "age of relief, and object to its being extended
 "to the other."

I think sufficient has now been said concern=
 "=ing the Religious Objections to the use of ~~the~~
 "~~employment~~ Anaesthesia in Midwifery, and
 although I have by no means entered into
 the whole subject, the foregoing sketch of the
 argument will be enough to show in what
 position the matter at present rests & I shall in
 the next place pass on to consider what have been
 called, the

III Moral Objections.

The moral objections, I am afraid, we shall find not less numerous than the religious; they are supported by such names as those of Ashwell, Meigs, Montgomery, Park, Merriman &c, and on this account alone perhaps are deserving of a little careful consideration.

The first objection to be noticed is, that

"The practice of administering Chloroform in cases of labour is unnatural, and is therefore an unnecessary interference with a physiological process."

This objection to my mind appears to be entirely a matter of opinion, and if Mrs. Ashwell, Meigs, Montgomery &c think it wrong or unnatural, I suppose they are at perfect liberty to take such a view of the case, but if they carried out their idea, so as to include every thing that interfered with the bare provisions of nature, I fear they would make not only themselves but every other one exceedingly uncomfortable;

Supposing for instance that being perfectly satisfied with the bountiful provisions of nature in giving them a skin, they were to insist on its being an unwarrantable interference with a physiological condition

to

to wear any clothes, I doubt, that however plausible their argument might appear to themselves, they would have to conform to the corrupt usages of society; so also they must confess that Cookery, having for its purpose, the rendering of food more easily acted on by the gastric juice, is an unwarrantable interference with the physiological action of digestion. Dr. Simpson's novel and humorous method of treating this part of the argument in his lectures is exceedingly forcible; having in the first place told us how much practitioners were opposed to the use of Anaesthetics in Dublin, he next quoted the following portion of a letter received from Dr. Montgomery: "I do not 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." Dr. Simpson in the next place went on to show, that the argument was equally forcible when applied to carriages and hats, reading the passage thus; "I do not believe that any one in Dublin has as yet used a carriage in locomotion; the feeling is very strong against its use in ordinary progression"

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;" next we have it applied to the use of hats.

"I do not believe that any one in Dublin has as yet used a hat to protect his head; the feeling 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".

I think no one can fail to recognise that the letter would have been equally applicable in all the three cases, and as sufficient has been said on the first of these Moral Objections we shall pass now to the second, viz.

"That it causes abrogation of consciousness"

Surely this objection has been put forward without all due consideration, since on the same grounds we must relinquish many of the most important medicines in the whole Materia Medica; take for instance Opium, who for the sake of such an argument, would throw overboard such a valuable remedy?

But

But has not almost every one willingly abrogated their own consciousness by taking one or two hours more sleep than was actually necessary? and abrogation of consciousness being the objection we shall find that the argument here bears with equal weight, but Drs. Park and Ashwell have either entirely overlooked this, or feeling perhaps the force with which the objection might here be applied, have not permitted it to appear as prominently as it should have done.

The third objection we have to notice, is
"That it does not imitate nature."

This objection if urged as it at present stands, does not to my mind appear to be fraught with much danger, but if the meaning of the objection be, that it interferes with, or frustrates nature in any way, then I think it must meet with the most emphatic denial, since if given judiciously it in no way impairs the contractile powers of the uterus, but merely does away with pain, which is neither necessary nor in any way advances or hastens the process of Parturition, and as we shall not at present take up the argument that "pain in Midwifery is salutary" we now pass to notice the fourth Moral Objection
 viz

"That the administration of Chloroform excites Aphrodisia."

Drs Gream and Smith maintain that lustful ideas, language and actions are excited by Anaesthesia; this may be the case, but it argues badly for the medical attendant or other persons in the room of the patient, and for their conversation immediately before inhalation, since we find that the subject which the patient last conversed on or heard talked about by the attendants, is the one which under Chloroform she generally takes up, and for this reason, maybe, we should be a little careful as to choosing the topic of conversation before administering Chloroform, since the patient is not unlikely to expatiate on the same subject during every subsequent inhalation.

Moreover the same objection was raised against tea and coffee when first introduced, by people much behind those of their own day, but the objection made as little difference as to their use, as I believe the objection in the present case will do so far as regards the employment of Chloroform, and if such be the case we may with perfect safety pass to consider the fifth & last of the Moral Objections. viz.

"That it is unnecessary as shown by the birth of past myriads."

Alas! for the argument of Dr Meigs, who is I believe the originator of this objection, if acted on in the various departments of the business of life, in what state should we now be? Supposing for instance that the same objection had been raised against railways, the use of the telegraph, steam vessels, against every modern improvement in Surgery and Medicine, would it not have been equally applicable? Would it be tolerated if applied to the erection of public buildings? to proposed new lines of rails? to the publication of new works &c although in all these cases having equal weight? I think not; and now hoping it has appeared from what has been said, how weak are the Moral and Religious objections to the use of Anaesthesia in Midwifery, we next pass to consider the Medical Objections to its use.

III Medical Objections.

In considering the Medical Objections it is satisfactory to feel, that at last we have something tangible to deal with, and that which has a more direct bearing upon actual practice, I hope that with the aid of statistics &c., I shall be able to make it appear

1st. That it is not injurious in Obstetric, Surgical or General practice, and in the 2nd place, that far from doing harm, it does a vast amount of good in all three departments of practice.

The first objection we take up is,

"That Pain is a state desirable and salutary"

(A) In Surgery.

This argument appears curious as compared with, if not diametrically opposed to what we find from statistical reports of operations; from which in fact it appears, that the greater the operation, the more useful is the employment of Anaesthesia; we find the mortality in amputations, before and after the introduction of ether reduced from 43 in 100, to 27 in 100. diminished nearly one half, and in support of this statement, let us for a minute glance at the following table.

Table of the mortality of Amputation of the thigh.

Name of Reporter.	N ^o of cases.	N ^o of deaths.	Percentage of deaths.
Paris Hospital. Malgaigne.	201.	126.	62 in 100.
Edinburgh D ^o . Peacock.	43.	21.	49 " 100.
General Collection. Phillips.	967.	435.	44 " 100.
Glasgow Hospital. Laurie.	127.	46.	36 " 100.
British Hospitals. Simpson.	284.	107.	38 " 100.
Pro patients in an anaesthetized state	145.	37.	25 " 100.

One would expect that even had Chloroform no other argument in its favour than this, it would be sufficient to recommend it to the use of all practitioners, instead of which however we find it abused and accused of doing precisely the reverse of what appears from statistics.

(B) "Pain in Midwifery said to be salutary"

Granting for the sake of argument that this were really the case, you would naturally expect that its duration would increase the safety of the patient, but is it so? I fear not, but rather the reverse, since we find the mortality increases among mothers, in proportion as the labours are long, and this is clearly shown in the table which follows, of 15,850 cases of delivery.

<u>Duration of labour.</u>	<u>Proportion of Mothers lost.</u>
Within 1 hour.	1 in 322 died.
From 2 to 3 hours.	1 in 231 died.
From 4 to 6 hours.	1 in 134 died.
From 7 to 12 hours.	1 in 80 died.
From 13 to 24 hours.	1 in 26 died.
From 25 to 36 hours.	1 in 17 died.
Above 36 hours.	1 in 6 died.

From this incontestible proof, it would appear, that the prolongation of pain is far from being salutary, or a means of increasing the safety of women, and the duty of the medical man being, to allay & prevent suffering, and if possible, to avert death, there can be no doubt, I should say, that in cases of parturition they are equally expected to fulfil that duty, and surely it is little else than a piece of prejudice, when we find the same practitioner, who has so many scruples about relieving agony in parturition, endeavouring to allay the pain of lumbago by the administration of Dover's Powder, or that of gout by colchicum or tobacco, suddenly making a stand and saying "No! pain being a salutary thing, I shall not seek to relieve it, at least not with this remedy." To such a length is this silly.

silly prejudice against Anaesthesia carried, that in one part of Wiltshire, all the women who live on one side of the river, when in labour take Chloroform if they can possibly obtain it, while those living on the other side of the water continue to suffer and groan for the sake of pandering to the prejudices of their Medical Attendants. In support of the statement, that pain is salutary in Midwifery, it has been asserted, that the pain which the patient suffers is of great assistance to an accoucheur, directing him during any operation as to whether he be inflicting injury or not. This manner of taking up the argument is certainly any thing but a graceful compliment to accoucheurs in general, hinting, as it does, that the accoucheur is in himself inadequate to conduct a case of Operative Midwifery, also perhaps suggesting that even in natural labour he is deprived of the groans and directions of the patient to acquaint him as to the advance of the case. Dr. Churchill in noticing this objection at page 224 of his work, has the following passage, "It has been stated that, in operations the loss of sensibility deprives the operator of a valuable indication as to whether he is inflicting injury or not. I do not see

much

"much force in this objection, I confess. If the operator
 "be skilful, and habituated to the use of instruments, he
 "will not do mischief because the patient does not cry
 "out; and if he be not skilful, her crying out will
 "not prevent him. I am sure that the patient being
 "spared the shocking pain of most operations, and
 "the operator the distress of witnessing it is a blessing
 "beyond price, and more than anything calculated
 "to secure a safe and skilful performance, and in
 "all probability a favourable convalescence."

The second Medical Objection put forward is

"That Anaesthesia causes serious symptoms."

This objection was raised by Dr. Montgomery, but on what grounds he himself knows best; no one will argue but that in over doses Chloroform will do harm as will almost any other remedy in the pharmacopœia, and will ultimately cause death if continued beyond proper limits, but if administered rationally, it is my intention afterwards to show, that not even "symptoms" of a serious nature are the consequence, and any one will be warned very speedily that an over dose is being administered by the stertorous breathing of the patient, but of this more anon.

The third objection we shall pass to consider is

"That."

"That it may produce serious complications."

The principal supporters of this objection are Drs Grainger and Gream, and in order to make out their argument they affirm, that in surgical cases, where death has occurred very soon after an operation performed while the patient was under the influence of Chloroform, on the body being examined, Pneumonia was very generally found to exist, — and to this statement we must bow, acknowledging Drs Grainger and Gream to be perfectly correct and that the facts were as stated, Dr Simpson cannot deny the truth of the assertion, but must own that it corresponds with his own investigations, we repeat therefore that Drs Grainger and Gream are perfectly correct regarding the facts, — but the "inferences" they draw are errors from beginning to end, reasoning as they do, that Pneumonia being present after the administration of Chloroform, it is proved beyond a doubt, that the Chloroform caused the Pneumonia; what a pity it is that they were not sufficiently pleased with the facts to stick to them, without seeking to draw inferences; and in order to show that these inferences are erroneous, I think some hard facts, again appearing in the form of statistics, will be amply sufficient, we shall here therefore
 append

append a table of the results of 153 surgical cases
"before the discovery of chloroform"

A. Surgical - Tetanus - Sloughing - Haemorrhage in 19.	
B. Medical - Infl ⁿ of secreting surfaces or internal organs	134
	<u>153.</u>
In these 134 cases the causes of death were	
Inflammation of the lung, pleura or larynx	in 86 cases.
" " " Brain or membranes	" 36 "
Pericarditis	" 14 "
Peritonitis	" 52 "
Inflammation in various other seats	28 "

Now the first thing we prove by the above table is, the correctness of the assertion of Drs Grainger and Gream; but the second point that appears is this, that although the proportion of patients dying by Pneumonia is very large, the mortality is not a consequence of the use of chloroform, and in all the 86 cases out of the 134 mentioned above, not one of these patients died from Pneumonia caused by the inhalation of chloroform, since it could not have been employed in any one of them; And moreover it might be interesting for Drs Grainger and Gream to learn that since the introduction of chloroform, let the cause be what it may, the fatality from Pneumonia has wonderfully decreased, that -

that the proportion is diminished, can be proved by once again referring to statistics.

Morbid Appearances in 27 fatal cases of Amputation under Anaesthesia

Morbid Appearances.	N ^o of cases.	Proportion.
Infl ⁿ of Pulmonary organs.	5.	18 in 100.
" " Intestinal "	1.	4 in 100.
Purulent Phlebitis.	9.	37 in 100.

Morbid Appearances in 130 fatal cases of Amputation without Anaesthesia.

Laurie, Reid, Peacock, Erichson, Orr, May &c.

Morbid Appearances.	N ^o of cases.	Proportion.
Infl ⁿ of Pulmonary organs.	30.	23 in 100.
" " Intestinal "	7.	5 in 100.
Purulent Phlebitis.	38.	29 in 100.

This diminution in the proportion of deaths from Pneumonia since the introduction of chloroform, led some to suppose, that it might be worth while trying as an experiment the effect of inhaling chloroform in treating cases of Pneumonia, and it has been found a most useful remedy in such cases; its action does not require to be carried

carried to such an extent as to produce insensibility, its vapour should only be slightly inhaled every 10 or 15 minutes. - The fourth Medical Objection to be noticed, is

"That the administration of Chloroform in Midwifery"
"may leave Mental or Bodily disease."

Dr. Gream affirms that Chloroform, when given to a woman in labour, doubles the rapidity of the fetal heart, and on this account is apt to occasion idiocy in the child. It is difficult to understand how an objection so utterly false, ever could have been put forward, since any one may convince himself to the contrary if he chooses to use his Stethoscope in which case he will discover, that not the slightest perceptible change takes place in the rapidity of the foetal circulation; far from doing this, it may be proved, that Chloroform never passes into the Placenta or affects the foetus in any way, while ether on the other hand passes through the placenta, and on the birth of the child, its odour may be detected in the breath and exhaling from the skin of the child; regarding the accusation of its causing idiocy in children we shall save ourselves some time and trouble, if before taking up the argument, we only wait
 until

until some well authenticated case of its having done so occurs.

It has been said that Chloroform "causes Puerperal Mania" and this says Dr. Simpson, "I myself was afraid of, but experience has shown that, while in some cases the exhibition of the Anaesthetic has prevented the occurrence of the disease, I am not aware indeed, that we have the record of a single unchallengable instance where Chloroform produced Puerperal Mania; Not that the Anaesthetic will keep the disease from supervening in every case, but there we should recollect that patients had Puerperal Mania before the introduction of Chloroform and that women have mania and convulsions in many cases where Chloroform is not used."

The fifth Medical Objection is,
"That it may cause death". —

This assertion I think no one will seek to deny; but under what circumstances does Chloroform produce death? When improperly administered, generally from its being too long inhaled, either through ignorance or carelessness. But let us ask what there is in the world that may not produce death? what remedy in the pharmacopoeia that will not do so, when given in sufficient

sufficient quantity? Taylor in his work on poisons states that in 1837 and 1838 there were One hundred and ninety six fatal cases in England and Wales from the use of Opium and its preparations; but Opium is not to be given up for this reason, but a greater degree of care must be taken in prescribing and dispensing the drug, and by these means, we shall if they be attended to, gain our point and at the same time retain the valuable remedy.

The deaths from Chloroform given during labour ~~the~~ which are well authenticated, do not amount to more than two or three, and when we come to consider the immense quantity of Chloroform used even in our own little city, we must be amazed that the fatality is not multiplied many times, and until it be so I doubt not but its use will go on increasing and extending every day. During 1862 no fewer than 2,200,000 doses of Chloroform were manufactured by one firm in Edin^o.

The last Medical Objection we shall notice, and which finds supporters in Drs Green, Marshall, Hall &c is "That it interferes with the Mechanism of Labour."

The force of this argument, like the last, wholly depends upon the manner in which Chloroform is administered,
if

Oxygen, and only one contains Sulphur; but look at the composition of Anaesthetics as we may we shall find it very difficult in the first place to account for their action, and in the second for their action being so rapid, the most acceptable explanation which has been brought forward, is that which refers it to the cause of their being exhibited in the form of vapour, and we know that it is the speediest method of obtaining the action of any remedy, to present it if possible in the form of vapour, since when inhaled, it comes into immediate contact with a mucous surface "fifty times greater" says Dr. John Reid, "than that of the whole cutaneous surface."

In using Chloroform, it is sometimes necessary to make sure of the absence of Muriatic Acid, since in some inferior kinds, this deleterious ingredient exists as an adulteration in almost poisonous quantity.

In considering the advantages to be gained by the employment of Anaesthesia in Midwifery, we shall first look at the advantages gained by the mother, second its effects on the uterus, and third, the effects of Chloroform on the child.

if given to such an extent as to produce a state of coma, surely we could expect nothing else than that the uterus should, along with all the rest of the body, become affected, and cease to contract; but is this a disadvantage, viz that by means of Chloroform we have control over the uterine contractions? we shall afterwards see that is far from being so; if the mechanism of labour be injuriously interfered with, it is no fault of the Chloroform but of the attendant, whose unskilfulness is alone to blame. — Now I think I have considered the principal objections to the employment of Anaesthesia in Midwifery, Religious, Moral, and Medical; I might have gone at much greater length into the subject, in fact might have written a thesis, on almost any single objection but as I am anxious to overtake the whole subject of "Anaesthesia in Midwifery" and to do so in as condensed a form as possible, I shall after inserting a table of the constitution of various Anaesthetics, pass to consider "The advantages of Anaesthesia in Midwifery" and then notice "The Rules for the exhibition of Chloroform in Parturition."

Chemical Composition of Anaesthetics

<u>Name</u>	<u>Nitrogen.</u>	<u>Oxygen.</u>	<u>Carbon.</u>	<u>Hydrogen.</u>	<u>Chlorine.</u>	<u>Sulphur.</u>
Nitrous Oxide.	1.	1.	"	"	"	"
Sulphuric Ether.	"	1.	4.	5	"	"
Chloroform.	"	"	2.	1.	3.	"
Alcohol.	"	2.	4.	6.	"	"
Benjoin.	"	"	12.	6.	"	"
Nitric Ether.	1.	6.	4.	5.	"	"
Aldehyde.	"	2.	4.	4.	"	"
Dutch liquid.	"	"	4.	4.	2.	"
Bisulphuret of C.	"	"	1.	"	"	2.
Amylene.	"	"	10.	10.	"	"
Hydride of Amyl.	"	"	10.	12.	"	"
Chloride of Amyl.	"	"	10.	11.	1.	"
Propyl.	"	"	6.	7.	"	"
Nitrous Ether.	1.	4.	4.	5.	"	"
Nerosoline.	"	"	?	?	"	"

The above mentioned are the most important, if not all the substances which have been used as Anaesthetics, and from the table it will be seen that almost all of them are rich in Carbon and Hydrogen, that three contain 1 atom of Nitrogen, none of the rest having any, other three possess Chlorine, six contain Oxygen

1st. The advantages gained by the mother.

- a. The pain is diminished or entirely done away with in natural and instrumental labour.
- b. Diagnosis is rendered more easy in many difficult cases, since, as we do not cause the patient any pain we can manipulate much more freely and thus arrive at a more certain conclusion.
- c. Relaxes the maternal passages when they retard the labour from being excessively rigid.
- d. Chloroform is valuable in arresting puerperal convulsions.
- e. Its administration is exceedingly useful in treating that very painful affection of the breasts, called "Milk Abscess."
- f. That in cases where miscarriage is to be feared, uterine action may, by large doses, be suspended.
- g. That in difficult cases of turning, the contractions may be suspended for a time, thus rendering the operation much more expeditious, easy & safe.

2nd. The advantage of chloroform to the Uterus.

- a. When uterine action is so strong and constant as to be likely to do harm, either from rupture of the organ itself, or by reducing the strength of the patient more than she may be able to bear, we can, by

by the exhibition of Chloroform, regulate the intensity of the contractions, by giving large doses.

b. That when Chloroform requires to be carried so far, another advantage is gained by the relaxation of the passages.

c. The vapour of Chloroform may be applied locally to the passages and Os, by being propelled through a Higginson's syringe.

3rd. The advantages to the Child.

a. In cases where the cord prolapses, or in any other case requiring immediate delivery, the passages of the mother being relaxed by means of the exhibition of Chloroform, the extraction of the child is rendered more easy and expeditious and may in this way save the life of the Child.

All the advantages that I have now mentioned as being gained by 1st. The mother, 2nd. The Uterus, and 3rd. by the Child, are those the truth of which have been ascertained by actual experiment; it would lead me into too long a discussion were I to take up the theoretical advantages, which it has been argued would ensue from the employment of Chloroform, and I think those already mentioned are sufficiently numerous and important to

demonstrate

demonstrate the usefulness of the drug; now let us proceed to consider some interesting points regarding the administration of chloroform, and we shall enquire, in the first place

Are all individuals susceptible?

Judging from experiment, the most satisfactory of all methods, we have no hesitation in saying that every one can be anaesthetized by chloroform, or to put it in another way, chloroform, when it has been properly administered, has in no case failed to produce insensibility and total loss of sensation, but following upon this an important question arises. Should all be subjected to its influence?

This question must be answered in the negative, since there are one or two conditions, perhaps only one, viz, where there is contraction of the right auriculo ventricular opening, in which its employment is contraindicated, the most important of which, besides that already noticed, are perhaps those cases where there is organic disease of the heart, such as mitral valve disease &c, where the exhibition of chloroform might be followed by the most disastrous consequences.

Next regarding the depth to which (to which) the
 Anaesthetic

Anaesthetic effect should be carried, and the guides by which it may be regulated.

Anaesthesia seldom requires to be carried so far as to cause the patient to snore; immediately the breathing becomes noisy, the chloroform must be for a time removed, so soon as the patients pulse becomes lower than natural, she is sufficiently Anaesthetized.

The measures to be taken for the revival of patients from the state of Anaesthesia are not in general active. The patient as a rule ought to be allowed to sleep off the effects of the drug, and when she awakes, if she be fanned and take a few deep inspirations in most cases the effects at once disappear, whereas if she be aroused by shaking &c, she wakes in a dreamy condition, when to any question you may put, you get unsatisfactory answers and the probability is, your patient will have a distressing sense of nausea; but in cases where the sleep is unnaturally long you may resort to such measures as sparkling water on the face, and applying strong smelling salts to the nostrils; in cases where the respiration is becoming weak, you ought to imitate respiration by compressing the chest &c; in still worse cases

cases, what ought you to do? let me first mention what ought never to be done; never administer fluids by the mouth with a view to stimulate the patient, since they are more likely to pass into the air passages, than into the stomach, thus very seriously complicating the case, if not rendering it altogether hopeless; the best thing to do in such cases, is perhaps, to slap the face of the patient with a wet towel; electricity was proposed for treating such cases, but has not proved so useful as was at first anticipated; the inhalation of Oxygen was likewise tried but was ineffectual; Marshall Hall proposed using the same means as those employed for restoring animation after immersion, but the application of this method in cases suffering from the effects of Anaesthesia is not satisfactory.

Formerly various complicated Apparatuses were used for administering Anaesthetics, which now a days, unfortunately for the manufacturers are thrown upon their hands as dead stock, since in no case are they used; some of these were so large, and the ingenuity displayed in their construction rendered their employment so difficult from the complicated

complicated arrangement of screws and valves, as to constitute a serious objection to the use of Anaesthetics, one country practitioner informed Professor Simpson that he had no ~~employment~~ ^{objection} to the use of Anaesthesia, but that the apparatus for administering it was so bulky, as to be too large for the gig. The most common method in surgical practice, is to pour the Chloroform on a folded towel, which is held over the patient's face, but at the same time admitting a sufficiency of air, this is perhaps the best method also to give it in cases of operative Midwifery, where the Anaesthesia requires to be very deep, but in ordinary cases it is better merely to throw a handkerchief over the patient's face, and drop the Chloroform on the part over the nose and mouth, drop by drop, and in order to avoid blistering the face, the part ought previously to be smeared with oil. The vapour of Chloroform being four times heavier than that of Atmospheric air, even when the patient is tossing about, by holding the handkerchief a little above the face of the patient, the vapour falls down into the hollow of the pillow, and enables you to obtain your object without the necessity of holding the patient, a thing

thing at all times to be avoided.

I shall now put down the strict rules to be observed in administering Chloroform in Midwifery as laid down by Professor Simpson.

Rules for the exhibition of Chloroform in labour.

1. Begin it when patient begins to complain of much pain, generally towards the end of the first stage.
2. Always inculcate perfect quietness around patient, particularly when first giving Chloroform.
3. Only give it during the pain and always withdraw it during the interval.
4. When given during the first stage the Anaesthesia need not be deep, except the suffering be great, or the symptoms of Anaesthesia disagreeable.
5. As the second stage progresses make the Anaesthesia so complete as to destroy all sensibility.
6. Do not allow the urinary bladder to be over distended. Use catheter rather than wake patient.
7. Do not restrain patient to one position.
8. Be sure to remove the Chloroform as soon as the child is born.
9. Do not wake the patient artificially.

The third rule is especially important, and if not strictly attended to, the exhibition of Chloroform may totally fail to be of any advantage, but like every rule has its exceptions and they are these.

- (a) In cases where the pains are so severe as to cause suffering during the intervals, it may be proper just slightly to continue the Anaesthesia;
- (b) In cases where when given during a pain it exerts an influence on the action of the heart and uterus, the dose must either be diminished, or given only every second or third pain.

Such then is a short account of the objections against, the advantages to be gained by, and the rules for the employment of Anaesthesia in Midwifery; let me hope, that although short, still sufficient has been said to present the subject in a fair, and I trust favourable light; my paper lays no claim to originality of idea, for indeed, what time has a medical student, to make original observations and work them out during his curriculum? and any other subject I might have chosen, I should most likely have found to be equally, if not to a greater extent

extent, exhausted by previous and more able papers;
 conscious of its many imperfections and although in no
 way original, I ask for my maiden paper, only such
 a degree of approbation as it may merit by look-
 -ing at it with the most lenient eye, and such
 an amount of encouragement as may be a
 stimulus to further exertion.

