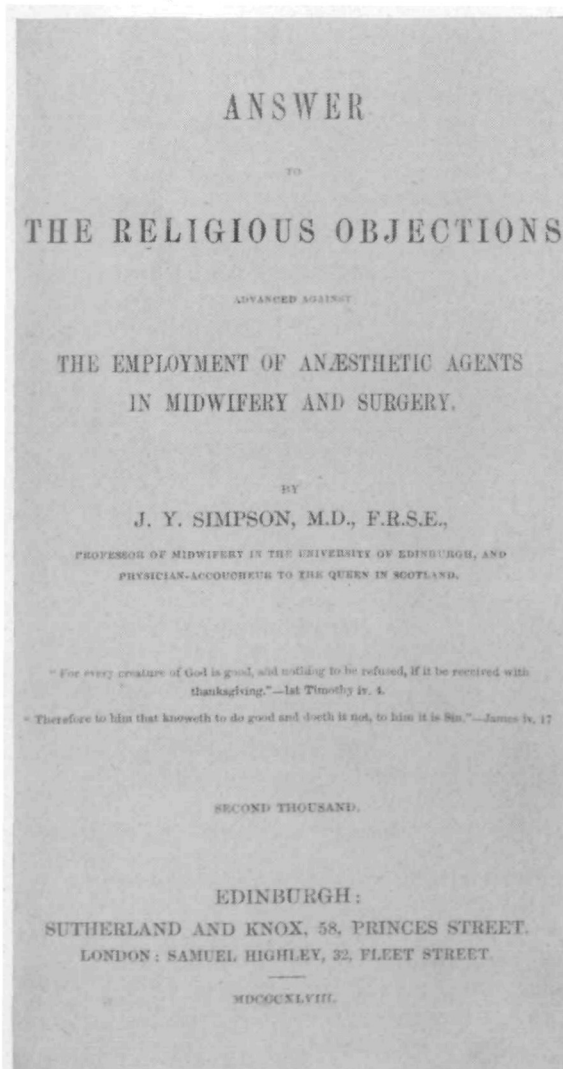


ANSWER TO THE RELIGIOUS OBJECTIONS ADVANCED AGAINST THE
EMPLOYMENT OF ANAESTHETIC AGENTS IN MIDWIFERY
AND SURGERY

BY

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Facsimile of the original title page.

Along with many of my professional brethren in Scotland, and perhaps elsewhere, I have, during the last few months, often heard patients and others strongly object to the superinduction of anæsthesia in labour, by the inhalation of Ether or Chloroform, on the assumed ground, that an immunity from pain during parturition was contrary to religion and the express commands of Scripture. Not a few medical men have, I know, joined in this same objection;* and have refused to relieve their patients from the agonies of childbirth, on the allegation that they believed that their employment of suitable anæsthetic means for such a purpose would be unscriptural and irreligious. And I am informed that, in another medical school, my conduct in introducing and advocating the superinduction of anæsthesia in labour has been publicly denounced *ex cathedra* as an attempt to contravene the arrangements and decrees of Providence, hence reprehensible and heretical in its character, and anxiously to be avoided and eschewed by all properly principled students and practitioners. I have been favoured with various earnest private communications to the same effect. Probably, therefore, I may be excused if I attempt, however imperfectly, to point out what I conscientiously conceive to be the errors and fallacies of those who thus believe that the practice in question ought in any degree to be opposed and rejected on religious grounds.

* "Pain during operations is, in the majority of cases, even desirable; its prevention or annihilation is, for the most part, hazardous to the patient. In the lying-in chamber, nothing is more true than this; pain is the mother's safety, its absence her destruction. Yet, there are those bold enough to administer the vapour of Ether, even at this critical juncture, forgetting it has been *ordered*, that 'in sorrow shall she bring forth.'"—(On the "Injurious (?) Effects of the Inhalation of Ether," in *Edinburgh Medical and Surgical Journal* for July 1847, p. 258.)

It is almost unnecessary to begin with premising, that those who object to the superinduction of anæsthesia in parturition upon religious grounds, found their objections principally on the words of the primeval curse which God pronounced after the temptation and fall of our first parents. Few or none, however, of those who have most zealously urged the existence of this curse as a reason against the employment of anæsthetic means in obstetric practice, have, I believe, made themselves at all intimate with the words and tenor of the curse itself. I shall, therefore, in the first place, quote the words of it in full from the third chapter of Genesis, interpolating in Roman letters the Hebrew originals of those two nouns which are the more immediate subjects of doubt and difference of opinion.

GENESIS, chap. iii. v. 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 (*’itzzahhon*) and thy conception; in sorrow (*’etzebh*) thou shalt bring forth children; 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 (*’itzzábhôn*) 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.”

In the form of a few separate observations, I will now add the remarks and answers which I wish to make. And I would begin by observing, that,—

1. The primeval curse is triple. It contains a judgment, First, upon the serpent (verses 14, 15); Secondly, upon the woman (v. 16); and, Thirdly, upon the ground for the sake of the man (v. 17-19).—With the first of these three curses—that on the serpent—and its apparent permanence (Isaiah lxv. 25), our present inquiry has nothing to do. It is enough for me to remark, that the second and

third curses—on the woman and on the ground—are evidently, from different parts of the Holy Word, not immutable. God himself, on more than one occasion, promises the removal of them, and in general conjunctly, to the Israelites, provided they would keep their covenants and obey his laws. See, for example, Deuteronomy vii. 13, “I will bless the fruit of thy womb, and the fruit of thy land,” &c.; xxviii. 4, “Blessed shall be the fruit of thy body, and the fruit of thy ground,” &c. See also Chap. xxviii. 11, &c. In Isaiah (xxviii. 23-29), man’s culture by the plough, &c., of the ground cursed by God, is said to come from the providence of God himself. “For his God doth instruct him to discretion, and doth teach him,” (v. 26); and, “This also cometh forth from the Lord of hosts, which is wonderful in counsel and excellent in working” (v. 29).

2. Those who, from the terms of the first curse, argue against the superinduction of anæsthesia in labour, aver that we are bound to take and act upon the words of the curse *literally*. “I will greatly multiply thy sorrow and thy conception;” or as Gesenius and other Hebrew authorities state, that, being a case of Hendiadys, it may be *more* correctly rendered, “I will greatly multiply the sorrow of thy conception;” in sorrow thou shalt bring forth children.” If, however, we are bound to take *this* part of the curse literally, and act accordingly, then we are bound to take and act also upon *all* other parts of the curse literally. If it is sinful to try to counteract the effects of this part of it, referring to child-bearing women, it is sinful to try to counteract the other parts of it, regarding the state of the ground, and the judgment upon man. The agriculturist, in pulling up “the thorns and thistles” which the earth was doomed to bear, so far tries to counteract that part of the primary doom; and yet is never looked upon as erring and sinning in doing so. Or grant, as I have heard argued, that he may be entitled to pull up “the thorns and thistles,” because the curse further implies that he was doomed to till the ground,—still he was doomed to till it by “the sweat of his face.” Now if, I repeat, the whole curse is, as is averred, to be understood and acted on literally, then man must be equally err-

* *Augebo tibi Graviditatis molestias.*—Dathe’s Pentateuchus, p. 38.

ing and sinning, when, as now, instead of his own sweat and personal exertions, he employs the horse and the ox—water and steam power—sowing, reaping, thrashing, and grinding machines, &c., to do this work for him, and elaborate the “bread” which he eats. The ever active intellect which God has bestowed upon man, has urged him on to the discovery of these and similar inventions. But if the first curse must be read and acted on literally, it has so far urged him on to these improper acts by which he thus saves himself from the effects of that curse. Nay, more; if some physicians hold that they feel conscientiously constrained not to relieve the agonies of a woman in childbirth, because it was ordained that she should bring forth in sorrow, then they ought to feel conscientiously constrained on the very same grounds not to use their professional skill and art to prevent man from dying; for at the same time it was decreed, by the same authority and with the same force, that man should be subject to death,—“dust thou art, and unto dust shalt thou return.” If, on the other hand, it be allowed that it is justifiable in the physician to try to counteract the effects of one part of the curse, and justifiable in the agriculturist to try to counteract the effects of another part, it is surely equally justifiable in the accoucheur to try to counteract the effects of a third part of it. But if, on the contrary, it is unjustifiable for him to follow out this object of his profession, it is equally unjustifiable for the physician and agriculturist to follow out the corresponding objects of their professions. Are those who maintain the uncanonical character of using human means to contravene the pains of childbirth ready, then, to maintain that we should not use human means to contravene the tendency to death, or to increase the fertility and produce of the ground except by personal labour, and the actual “sweat” of the brow? To be consistent, they must of necessity maintain this strange and irrational view of man, and of the duties and destinies which God has appointed for man. Or, otherwise, they must own that if it is right and meet in us to exert the human intellect so as to ameliorate the condition of man from the results of the fall, it is equally right and meet in us to employ the same means to ameliorate the condition of woman from the results of the same cause.

3. But does the word sorrow (“in sorrow thou shalt bring forth children”) really mean physical and bodily *pain*, as is taken for granted by those who maintain the improper and irreligious character of any means used to assuage and annul the sufferings of childbirth? Now, the word “sorrow” occurs three several times in two consecutive verses of the curse; (verses 16 and 17). The corresponding word, or rather words, in the original Hebrew, as I have already shown when citing the terms of the curse, are *'etzebh*, and *'itztabhon*. These nouns are both synonymous in meaning and origin, although longer and shorter in form (like labour, laboriousness—pain, painfulness—in our own language). All philologists agree that they are derived from the same root, viz., the verb *'atzabh*. The true and primitive meaning of a derivative word in the Hebrew, as in other languages, is generally the best attained by considering the signification of the root from which it is derived. The meaning of the verb *'atzabh* (the root of these nouns) is given as follows, by Professor Gesenius, the highest authority, I believe, I could quote on such a point. In his Lexicon he enters “*'atzabh*, 1. To labour, to form, to fashion. The original idea (says he) is perhaps that of cutting, whether wood or stones. 2. To toil with pain, to suffer, to be grieved; used also of the mind” (Tregelles’ Translation of Gesenius’ Hebrew and Chaldee Lexicon, p. DCXLVI). Of the disputed nouns the noun *'etzebh* (“in sorrow—*'etzebh*—thou shalt bring forth children”) is nearest in form, and hence in meaning to the original verb-root *'atzabh*—and, I believe, no scholar would deem it erroneous to affix to it the same simple original signification “labour,” “toil,” without deeming it requisite to believe, that it at all farther necessarily imports that the implied labour and effort must essentially be to such an excess as actually to amount to the supervision of pain and agony. In fact, the Hebrew word for labour (in the sense of work or toil) is exactly like the English word labour, used also to import the act of parturition. Certainly, the greatest characteristic of human parturition as compared with parturition in the lower animals, is the enormous amount of muscular action and effort (labour) provided for, and usually required for its consummation. The erect position (*vultus ad sidera erectus*) of the human

body, renders a series of peculiar mechanical arrangements and obstructions necessary in the human pelvis, &c., for the prevention of abortion and premature labour, and for the well-being of the mother during pregnancy. But these same mechanical adaptations and arrangements (such as the angle at which the pelvis is set to the spine,—the great difference in the axis of the pelvic brim, cavity, and outlet,—the rigidity of the soft structures, &c.) all render also, at last, the ultimate expulsion of the infant in labour, a far more difficult, and more prolonged process than in the quadruped, for instance, with its horizontal body. To overcome these greater mechanical obstacles, the human mother is provided with a uterus immensely more muscular and energetic than that of any of the lower animals. The uterus of woman is many times stronger and more powerful than the uterus, for example, of the cow. In other words, I repeat, the great characteristic of human parturition is the vastly greater amount of muscular effort, toil, or labour required for its accomplishment.* The state of anæsthesia does not withdraw or abolish that muscular effort, toil or labour; for if so, it would then stop, and arrest entirely the act of parturition itself. But it removes the physical pain and agony otherwise attendant on these muscular contractions and efforts. It leaves the labour itself (*'atzebh*) entire. And in relation to the idea, that the Hebrew noun in the text truly signifies muscular *toil* and effort, and not physical *pain* and maternal agony, it is further highly important to remark, that in the very next verse (verse 17), viz. in the first part of the curse on man, the analogous Hebrew noun (*'itztzbahon*), which we translate by "sorrow," assuredly does *not* in any

degree mean or imply mortal suffering or pain, but toil and labour. "In sorrow thou shalt eat of it (the ground) all the days of thy life." Indeed, the very same noun (*'itztzbahon*), when it occurs with the same meaning, and in relation to the same curse two chapters onwards—Genesis v. 29—is, in our own version, rendered by the word "toil," and not "sorrow." "And he called his name Noah (rest or comfort), saying, This same shall comfort us concerning our work or toil (*'itztzbahon*) of our hands, because of the ground which our Lord hath cursed."

The word "sorrow" is a term at once simple and striking, but, at the same time, very comprehensive in its signification; and used under various specific meanings in our authorized English version of the Bible. In the Old Testament above twenty different terms or nouns in the original Hebrew text, are translated by the single term or noun "sorrow" in the English text.† And perhaps it may not be considered irrelevant, if I remark, that the identical Hebrew noun *'etzebh*, translated "sorrows" in the 16th verse ("in sorrow—*'etzebh*—thou shalt bring forth children"), recurs in six, and I believe only in six, other passages in the Old Testament; and in not one of these does it certainly imply physical pain. In two of these six places it is rendered, in our English version, by the very word "labour," in the signification of toil or work,—viz. in Prov. xiv. 23, "In all labour (*'etzebh*) there is profit;" and Prov. v. 10, "Lest thy labours‡ (*'etzebh*) be in the house of a stranger." In one passage it is translated "anger,"§ Prov. xv. 1, "Grievous words stir up anger (*'etzebh*)." In another passage in which it occurs, in Prov. x. 22, it is rendered sorrow, but still in the sense of toil and work—"The blessing of the Lord, it maketh rich, and he addeth no sorrow (*'etzebh*)|| with it." In Psalms cxvii. 2, it is also, in our English version, translated "sorrows"—"It is in vain for you to rise up early,

* In some of the black tribes of the human race the muscular efforts and exertions of the uterus seem to be accompanied with comparatively little or no physical pain—there is labour *without* suffering. But the black woman was cursed as well as the white; and surely it cannot be irreligious to *reduce* the sufferings of the civilized female to the degree and amount which nature has left them existing in the uncivilized female of our race. There are abundance of "maternal sorrows" connected with children and child-bearing in the civilized woman, quite independently of the actual agonies of parturition. My friend Dr Churchill of Dublin, some years ago, published a large octavo volume on the affections *peculiar* to the pregnant and puerperal states, without at all including those observable *during* labour.

† See a list of these various Hebrew words which the translators of the English Bible have rendered by the word "sorrow" in "The Englishman's Hebrew and Chaldee Concordance of the Old Testament," p. 1639.

‡ "Labours." i.e. "things done with toil."—Gesenius

§ "A word pronounced with anger—a bitter, sharp word."—Gesenius.

|| That is, no "heavy and toilsome labour."—Gesenius.

and sit up late, to eat the bread of sorrows (*'atzabhim*, the plural of *'etzeb*h)." And, lastly, in Jeremiah xxii. 28, the same noun is translated "idol" (a thing made, worked, or fashioned), "Is this man Coriah a despised, broken idol (*'etzeb*h)?"

The context, I repeat, in these six Biblical passages in which the noun *'etzeb*h recurs, shows that in *them* the word is not, in any respect, employed to designate the *sensation* of pain which accompanies the act of parturition in the human female. And it is surely not an unfair or illegitimate deduction, to infer that in the only one remaining, or seventh instance in which the word occurs in the Bible—viz. in Genesis iii. 16—it would be used in the sense in which it is generally elsewhere used—of effort, toil, or labour—and not in a new sense, in which it is nowhere else used—of the *feeling* or perception of excruciating suffering, or bodily anguish.

4. But that the preceding deduction is sound and just, admits of additional, and still stronger corroborative evidence. In various passages in the Bible, the proverbial agony and pain of a woman in travail is brought in—and particularly in the inspired language of the Prophets—as a striking and beautiful simile, to mark the greatest possible degree of anguish and suffering. In not one of these passages, in which the pure pain and super-sensitive suffering of the parturient mother are thus referred to, is the word in Genesis iii. 16, viz.—the word *'etzeb*h—employed to designate this feeling of pain and suffering. Two other and totally different Hebrew nouns are used for this purpose in the passages to which I allude. These two nouns are *hhil* and *hhebbhel*. They mark and designate the sensations of agony accompanying parturition, as contradistinguished from the muscular efforts (or labour) (*'etzeb*h) in which the physiological part of the process of the expulsion of the child essentially consists. To illustrate the particular signification thus attached to the words *hhil* and *hhebbhel*, as contradistinguished from *'etzeb*h, I will cite the passages in which the two former nouns are used. In the following instances, the noun *hhil* is translated "pain," "pangs," &c.:—Psalm xlviii. 6, "Fear took hold upon them there, and pain as of a woman in travail." Jere-

miah vi. 24, "Anguish hath taken hold of us, and pain as of a woman in travail." Jeremiah xxii. 23, "When pangs come upon thee, the pain as of a woman in travail." See, also, Jeremiah l. 43. Micah iv. 9, "Now why dost thou cry out aloud? is there no king in thee? is thy counsellor perished? for pangs have taken thee as a woman in travail." In the following instances, the noun *hhebbhel* occurs in the original Hebrew with the same meaning attached to it:—Isaiah xiii. 8, "Pangs and sorrows shall take hold of them; they shall be in pain as a woman that travaileth." Isaiah xxvi. 17, "Like as a woman with child, that draweth near the time of her delivery, is in pain and crieth out in her pangs." See, also, Isaiah lxvi. 7; Jeremiah xiii. 21, and xlix. 23. Hosea xiii. 13, "The sorrows of a travelling woman shall come upon thee."

From what I have stated under the two preceding heads, we are then, I believe, justly entitled to infer that the Hebrew term which, in our English translation of the *primaeval* curse, is rendered "sorrow" (Genesis iii. 16), principally signifies the severe muscular *efforts* and *struggles* of which parturition—and more particularly human parturition—essentially consists; and does not specially signify the *feelings* or *sensations* of pain to which these muscular efforts or contractions give rise.—And, 2. On the other hand, the *feelings* or *sensations* of excruciating pain accompanying the process of parturition, are designated throughout the Bible by two Hebrew words which are entirely and essentially different from that term which is translated "sorrow," in the oft repeated expression—"in sorrow thou shalt bring forth children."

5. But even if—contrary to what, I think, the whole philological consideration of the very terms and words of the Bible shows to be the case—we were to admit that woman was, as the results of the primal curse, adjudged to the miseries of pure physical pain and agony in parturition, still, certainly under the Christian dispensation, the moral necessity of undergoing such anguish has ceased and terminated. Those who believe otherwise, must believe, in contradiction to the whole spirit and whole testimony of revealed truth, that the death and sacrifice of Christ was not, as it is everywhere declared to be, an all-sufficient sacrifice for all the sins and crimes of man. Christ, the

* "Bread obtained by toilsome labours."—*Gesenius*.

"man of sorrows," who "hath given himself up for us an offering and a sacrifice to God," "surely hath borne our griefs and carried our sorrows;" for God "saw the travail of his soul, and was satisfied." And He himself told and impressed on his disciples, that His mission was to introduce "mercy, and not sacrifice."—(See Matthew ix. 13; xii. 7; also Hos. vi 6). At the end of his commentary upon the curse in the third chapter of Genesis, the sound and excellent Matthew Henry, in his own quaint, pithy, and zealous style, justly observes, "How admirably the satisfaction our Lord Jesus Christ made by His death and sufferings, answered the sentence here passed upon our first parents. 1. Did *travailing pains* come in with sin? We read of the 'travail of Christ's soul;' Isa. liii. 11; and the pains of death he was held by, are called *ὀδύνη*, Acts ii. 24,—the 'pains of a woman in travail.' 2. Did *subjection* come in with sin? Christ was 'made under the law;' Gal. iv. 4. 3. Did the *curse* come in with sin? Christ was made 'a curse for us;' died a 'cursed death;' Gal. iii. 13. 4. Did *thorns* come in with sin? He was crowned with 'thorns' for us. 5. Did *sweat* come in with sin? He sweat for us, 'as it had been great drops of blood.' 6. Did *sorrow* come in with sin? He was 'a man of sorrows;' his soul was in his agony 'exceeding sorrowful.' 7. Did *death* come in with sin? He became 'obedient unto death.' Thus is the plaister as wide as the wound. Blessed be God for Jesus Christ."—(*Exposition of the Books of Moses*, p. 19.)

6. It may not be out of place to remind those who oppose the employment of anæsthetic means in labour on supposed religious grounds, that on the very same grounds many discoveries in science and art—even in the medical art—have been opposed upon their first proposition; and yet, *now* that their first introduction is over, and the opinions and practices they inculcate are established, no one would be deemed exactly rational who would turn against the present or future *continuance* of their employment any such improper weapon. I might adduce many instances, but one may suffice for all. When small-pox inoculation was introduced towards the commencement of the last century, the Rev. Mr Delafaye and Mr Massey published sermons against the practice as indefensible, on religious as well as medical grounds.*

Inoculation was declared a "diabolical operation," and a discovery sent into the world by the Powers of Evil. And, again, when Dr Jenner introduced vaccination instead of small-pox inoculation, towards the commencement of the present century, theological reasons again were not wanting for calling in question the orthodoxy of this other new practice. "Small-pox (argued Dr Rowley) is a visitation from God, and originates in man, but the cow-pox is produced by presumptuous, impious man. The former, heaven ordained; the latter is perhaps a daring and profane violation of our holy religion." And he subsequently proposed, "whether vaccination be agreeable to the will and ordinances of God, as a question worthy of the consideration of the contemplative and learned ministers of the gospel of Jesus Christ; and whether it be impious and profane, thus to wrest out of the hands of the Almighty the divine dispensation of Providence!"† "The projects of these vaccinators seem (it was affirmed) to bid bold defiance to heaven itself, even to the will of God."‡ "Providence (reasoned another author) never intended that the vaccine disease should affect the human race, else *why* had it not, before this time, visited the inhabitants of the globe. The law of God (he continues) prohibits the practice; the law of man and the law of nature loudly exclaim against it."§

Such historical facts and efforts, and the results in which they have invariably terminated, are surely sufficient to make men cautious and hesita-

* See Delafaye's Sermon on "Inoculation; an Indefensible Practice." Massey's "Sermon against the Dangerous and Sinful Practice of Inoculation." In his admirable "Account of the Inoculation of Small-pox in Scotland (1765)." Dr Monro (*primus*) states "The first and most general prejudice against inoculation is its being deemed a tempting of God's providence, and therefore a heinous crime."—P. 5. "Clergymen (observes Dr Baron, in his Life of Jenner, vol. i. p. 231) preached from their pulpits in this style of argument, if so it might be called. Some went so far as to pronounce inoculation an invention of Satan himself, and its abettors were charged with sorcery and atheism. These things (he adds) would scarcely obtain credence were it not that similar arguments and assertions have been employed against Vaccination itself."

† Blair's Vaccine Contest, p. 84.

‡ Rowley on "Cow-pox Inoculation; with the Modes of treating the Beastly new Diseases produced by it." p. 9.

§ Dr. Squirrell's Preface to the Second edition of his "Observations on Cow-pox, and the dreadful consequences of this new Disease." p. iv.

ting against always recklessly calling up again the same religious, or supposed religious, arguments under the same circumstances.* Views and arguments of this description against every new practice intended to increase the well-being and happiness of mankind, certainly are greatly more calculated to inflict damage than benefit upon the interests of true religion.

Probably I may here be excused adding, that my friend Professor Miller informs me, that when reluctantly consenting to write the elaborate article on Etherization, which he afterwards penned for the North British Review (No. for May 1847), he stated to the late Dr Chalmers, who solicited him to undertake the task, that if he "wrote the medical Dr Chalmers should himself write the theological part." Dr Chalmers at once professed that he did not see any theological

* Perhaps, in the history of misplaced religious arguments against all novel opinions and practices, none in the retrospect may appear stranger than one that has been repeatedly mentioned to me during the few past months. Formerly, among my countrymen, most agricultural operations were performed, as commanded in the primeval curse, by personal exertion, and the "sweat of the face." Corn, in this way, was winnowed from the chaff by tossing it repeatedly up into the air, upon broad shovels, in order that any accidental currents which were present might carry off the lighter part. At last, however, about a century ago, "fanners," or machinery made for the production of artificial currents to effect the same purpose, were invented and introduced into different parts of the country. Some of the more rigid sects of Dissenters loudly declaimed against the employment of any such machinery. "Winds (they argued) were raised by God alone, and it was irreligious in man to attempt to raise wind for the aforesaid purpose for himself, and by efforts of his own." Mr. Gilfillan, the well-known Scottish poet, has furnished me with evidence of one clergyman debaring from the communion of the Lord's Supper those members of his flock who thus irreverently used the "Devil's wind" (as it was termed). And such sentences, I believe, were not uncommon almost within the memory of some aged members of the present generation. Sir Walter Scott, in his *Old Mortality*, introduces honest Mause Headrigg as charging the Lady Margaret Bellenden and the authorities at Tillietudlem with abetting this reprehensible practice. "And since your leddyship is pleased to speak o' parting wi' us, I am free to tell you a piece o' my mind in another article. Your leddyship and the steward hae been pleased to propose that my son Cuddie suld work in the barn wi' a new-fangled machine for dighting the corn frae the chaff, thus impiously thwarting the will of the Divine Providence, by raising wind for your leddyship's ain particular use by human art, instead of soliciting it by prayer, or waiting patiently for whatever dispensation of wind Providence was pleased to send upon the sheeling hill." (*Chap. vii.*)

part pertaining to it. Mr Miller then explained to him, that some had been urging objections against the use of ether in midwifery on the ground of its so far improperly enabling woman to avoid one part of the primeval curse. At last when Mr Miller was enabled to convince him that he was in earnest in saying that such ground *had* been taken, Dr Chalmers thought quietly for a minute or two, and then added, that if some "small theologians" really took such an improper view of the subject, he would certainly advise Mr Miller not to "heed them" in his article. Dr Chalmers' mind was not one that could take up or harbour the extraordinary idea, that, under the Christian dispensation, the God of Mercy should wish for, and delight in, the sacrifice of women's screams and sufferings in childbirth. Perhaps he thought also, as I have heard other clergymen state, that if God has beneficently vouchsafed to us a means of mitigating the agonies of childbirth, it is His evident intention that we should employ these means. The very fact that we have the power by human measures to relieve the maternal sufferings, is in itself a sufficient criterion that God would rather that these sufferings be relieved and removed. If He had willed and desired them not to be averted, it would not be possible for man to avert them. For while it is our duty to avoid all misery and suffering that is avoidable, it would certainly be impossible for us to eschew any that God had permanently and irreversibly decreed should not be eschewed.

7. I have heard objections urged against the state of anæsthesia as a counteraction to pain in surgery and midwifery, on other and different grounds from any which I have yet noticed, viz., that in superinducing a temporary absence of *corporeal* sensibility, we also superinduce, at the same time, a temporary absence of *mental* consciousness. And it is argued that, as medical men, we are not entitled to put the activity and consciousness of the mind of any patient in abeyance, for the mere purpose of saving that patient from any bodily pain or agony. Some medical men even, have gravely pressed this argument. But if there were any propriety in it, why, then, these same medical men could never have been justified in doing what they have, one and all of them, done perhaps hundreds of times; viz. exhibit, by

the mouth, opium and other narcotics and hypnotics to their patients, to mitigate pain and superinduce anaesthesia and sleep. There is no greater impropriety or sin in producing sleep and freedom from pain by exhibiting a medicine by the mouth, than by exhibiting it by the lungs. There is *less* impropriety in the latter practice than in the former, even according to the very doctrine of these opponents. For narcotic or anaesthetic agents which are swallowed, are far more prolonged in their "insensibilizing" action upon both the mind and body than those that are inhaled. The questionable character of the practice (supposing it for a moment to be questionable), must be much less when the effect is short and evanescent, as with ether and chloroform when respired; than when it is long and protracted, as with opium, morphia, henbane, &c., when swallowed. The proper anaesthetic state is one physiologically and psychically analogous to natural deep sleep. It is an artificial deep sleep. Those who object and urge that we should never follow ourselves, or induce others to follow, the practice of voluntarily surrendering up our mental consciousness for a time, in order to avoid any corporeal torture or agony that we would otherwise endure during that time, forget how often and how long they and others are in the habit of voluntarily surrendering up their mental consciousness in common sleep, far, far beyond the time required merely for the refreshment and renovation of the system. Many thus *daily* surrender their minds and reason up for unnecessary hours to the state of unconsciousness existing in common or natural sleep, without any object except the reprehensible indulgence of sloth and indolence: and then they turn round, and declaim against others having induced upon them, at some *rare* and extraordinary time, the unconsciousness of artificial sleep, when there is a great and laudable object in view,—viz. the avoidance of excruciating corporeal suffering, and the saving of human life, by saving the human system from the shock and dangers accompanying that suffering.* Besides those that urge, on a kind of religious

ground, that an artificial or anaesthetic state of unconsciousness should not be induced merely to save frail humanity from the miseries and tortures of bodily pain, forget that we have the greatest of all examples set before us for following out this very principle of practice. I allude to that most singular description of the preliminaries and details of the first surgical operation ever performed on man, which is contained in Genesis ii. 21:—"And the Lord God caused a deep sleep to fall upon Adam; and he slept; and he took one of his ribs, and closed up the flesh instead thereof." In this remarkable verse the whole process of a surgical operation is briefly detailed. But the passage is principally striking, as affording evidence of our Creator himself using means to save poor human nature from the unnecessary endurance of physical pain. "It ought to be noted (observes Calvin in his commentary on this verse), that Adam was sunk into a profound sleep, in order that he might feel no pain."† In his collected commentaries on the same verse, Pool quotes different authorities for the same opinion, that this deep sleep was induced upon Adam in order that "he might not feel pain from the removal of the rib."‡ And the *profundity* of the sleep, as expressed in the Hebrew, is also worthy of note. For the noun "*tardemah*," translated in our version "deep sleep,"§ signifies, according to all the best Hebrew scholars, the deepest form of induced slumber. In the early and very literal Greek translation which Aquila made of the Bible, he renders, in this passage, the Hebrew word *tardemah* by the expressive Greek term *καταφορα*, a term which Hippocrates, Galen, Aëtius, and

† "Notandum, Adam profundo sopore fuisse demersum, ut nihil doloris sentiret."—*Johannis Calvini in Librum Geneseos Commentarius* (Hengstenberg's Edit. p. 36).

‡ "Ne ablationis costæ dolorem sentiret."—*Poli Synopsis Criticorum aliorumque Scripturæ Interpretum*. Vol. I. p. 29.—See also the same opinion expressed in Rosenmüller's *Scholia Vetus in Testamentum*, vol. I. p. 106, "Adamo, somno sopito, ne dolorem sentiret;" and in the English Commentaries of Bishop Patrick, p. 14, "Whereby he was made less sensible of the pain, which otherwise he would have felt in the opening his side;" and of Drs D'Oyly and Mant, "Adam was thus less sensible of bodily pain;" &c. &c.

§ In Luther's German Bible, an exactly corresponding expression "*tiefen schlaf*" is used. In Dathe's valued Latin version of the Pentateuch, a similar translation is given, "*Deus gravem Adamo soporem immisit*," p. 27.

* See evidence of its saving human life, as well as saving human suffering, under surgical operations, in a table which I have given of the results of amputations with and without etherization, at p. 11 of "Remarks on the Superinduction of Anaesthesia in Natural and Morbid Parturition" [p. 594 of Journal].

other Greek physicians, used as implying that state of deep insensibility and total unconsciousness which in modern medical language we express by "coma" and "lethargy."* Gesenius renders *tardemah* by the Latin word "sopor," the Hebrew term for common sleep being *shenah*. In

* "Cataphora (from καταφέρω to sink or fall down,) a term used by some authors to designate a state of coma, and by others an unusually profound sleep."—*Hooper's Medical Dictionary*.

the Vulgate it is translated "sopor" (*immisit Deus soporem in Adam*). In the quotation which I have given from Calvin, that great authority renders the term *tardemah* by the expression, profound "sopor" (*profundo sopore*); and Pool quotes different authorities to show that the Hebrew word does signify "sopor" of a profound kind, "*notat profundum soporem*."†

† See his *Synopsis Criticorum et Scripturæ Interpretum*, p. 29.