

AN  
INAUGURAL DISSERTATION  
ON

*Anaesthesia*

SUBMITTED TO THE  
PRESIDENT, BOARD OF TRUSTEES, AND MEDICAL FACULTY  
OF THE

UNIVERSITY OF NASHVILLE,  
FOR THE DEGREE OF

DOCTOR OF MEDICINE.

BY

FELIX GRUNDY M'GAVOCK

OF

Tennessee

1853.

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pass

The  
Inaugural Dissertation  
on  
Anæsthesia  
Submitted to the  
Honorable Board of Medicine and

Anæsthesia  
P. F. Q.

Manuscript of a Dissertation  
on the Nature and  
Effects of Anæsthesia  
By  
P. F. Q.  
1855

An  
Inaugural Dissertation  
on  
Anæsthesia.  
Submitted to the  
President, Board of Trustees, and  
Medical Faculty  
of the  
University of Nashville,  
for the Degree of  
Doctor of Medicine  
By  
Felix Grundy MacGavock  
of  
Tennessee.  
1853.

This Thesis,

is affectionately dedicated,

as a mark of esteem and friendship,  
to my My Preceptor and friend,

Robert L. Fisher, M.D.,

Professor of Anatomy,

in the Medical Department,

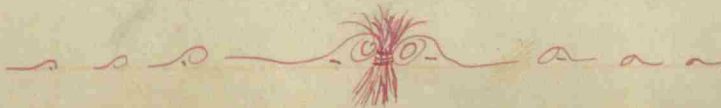
of the University of Nashville,

A. Grundy, M.D. —



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# Anaesthesia.

## Chapter 1.

Proof, that pain will destroy life.

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In the consideration of this subject, it becomes necessary to prove, what to the majority of minds, is a self evident proposition, that is, that "Pain will destroy life."

One that was not conversant with the history of my subject, would deem it useless to prove such a plain fact. but my real object is to make my thesis complete, not to prove what every one ought to know.

Proof, that pain will destroy life.

In looking around among the writings of the distinguished surgeons of the old and new world, I find that some queer and odd ideas, stand out in bold relief from the common herd, as it were challenging the admiration and criticism of the world, and amongst these bold prominent ones, we find some of such magnitude, that to attack them would remind us of scene first between David and Goliath, but when a mans ideas and arguments are made public, they are public property, and if the squib of a "Medical Student," can do nothing more than discolor it, I hold he has the right to wield his feeble power, and if his squibs



Proof, that pain will destroy life.

can do nothing more than blacken this enormous structure, in the course of time. this very blackness will form a cloud, that will envelope it, from the fearing and pitying gaze of the world.

We find that some of them contend that "Pain is absolutely necessary to life." this I admit, but not in the sense which they give it. I know that our Maker has kindly given us nerves of sensation, that we may feel the approach of disease and harm and guard against it, that we may know the extent of an injury and apply the remedy, and that we may know, when it is, our body, that most complicated of all machinery



Proof that pain will destroy life

is out of order. but the manner in which they make the assertion constitutes its absurdity. they say, that in a surgical operation or in a case of parturition, pain is absolutely necessary to life. it really seems that the plain and unmistakable fallacy of this argument is evident. does not every Physician of experience know that the longer a woman lingers in labor the more danger there is of her death because the excessive pain commences at the beginning to undermine the patients strength and the more time it has the oftener it succeeds.

Look at the reports of hospitals and read in plain figures, the evidence for yourself, where they show.

*Proof that pain will destroy life*

that with the increase of time, there is a deadly increase of the sufferers life.

I might go on and give evidence that would fill a volume in proof of my assertion, but deem it unnecessary.

The same arguments that apply to a case of parturition, I hold will do so to any surgical operation.

And it is not necessary that the pain should be strong and continued to destroy life, of this fact we have proof sufficient, look at the following case, which constitutes one, of a vast army and read evidence too plain to be contradicted.

This case is reported by Dr Ranking, it is one where a ligature was applied for the cure of an erectile tumor of the breast,

*Proof, that pain will destroy life.*

The Patient. He relates, a healthy female, bore the initiatory steps of the operation without a murmur, without failure of pulse and without change of countenance. The instant the ligature was tightened, she gave a yell of agony, the pulse became imperceptible, the countenance ghastly pale and in a few hours she was a corpse. Upon this proof comment is unnecessary, but still we find men that hold high stations, that are bold enough to advance in the face of this palpable evidence, opinions, not proofs to the contrary. Their motive, or their object, is not a students business to criticise, but still, he has a



## Anaesthesia, its History.

ought to venture a surmise, and mine is, that they do it, for no other purpose, than to be different from the balance of the world, at the same time knowing that where a large fish swims in its wake, some small ones are bound to follow.

## Chapter II.

### Anaesthesia, its History

To find a palliative for 'Pain,' this dread of our race, is our next object. In Anaesthesia we hail this messenger of peace, that bids the afflicted be comforted and the timid be bold, and know that in it, we have one of God's greatest



## Anaesthesia, its History.

blings. The history of anaesthesia can be told in a few words. Agents for producing it, have existed in a more or less perfect degree from time immemorial. To go into minutia and follow its different agents, as they came flourished, died, and gave place to their betters, would be the work of a life time, one would have to dive, into the deepest recesses of literature, and there pour over musty volumes, that sound the praise of this blessing in ages gone by.

Herodotus speaks of it, and says the Scythians used for this purpose, the vapour of hemp seed, long before the Christian era, and it

## Anaesthesia. its History

is thought by many, that the gall and vinegar or myrrh'd wine that was offered to our Saviour before his crucifixion was used at that time, for the purpose of producing this effect. Many of the ancient authors speak of different agents that were used to produce anaesthesia, and you may commence as far back as we have any record, and gradually trace it to the present time. It has had its ups and downs with the balance of the world, at times, it has been described as perfect, in others, the mere shadow of what it had been, and as intelligence rose in the scale of human events, so rose it,

illuminating the haggard countenances of miserable beings, and throwing from the heart of the surgeon, that unpitiful shield which circumstances had forced him to wear.

We can now, date it back, only a few years, to when its blessings commenced being shed upon us.

It had been shrouded in mystery and the work of time was necessary for its resurrection, and when it came forth enveloped in a new halo of glory, like all other good from the time of our Saviour and before, its efficacy was denied, even at this late day, when civilization has, as it were, nearly perfected the world, religious objections,



on account of the weight that any thing from the bible carries, was urged.

### Chapter III.

#### Reputation of objections, to the use of Anæsthesia.

What else could have been expected! but that religious objections would have been urged, against such a great good, have not designing men, from the time that the bible was written, quoted partial texts, to suit their own writings, against every great improvement for the benefit of man.

Look at them how they persecuted Jenner and his followers, denouncing them as being leagued with the evil one, to torment this world, when in fact, he stood, among the first of its benefactors. Look at Paré for another



example, for his simple invention, that relieved man of an incalculable amount of suffering, he was denounc'd and stoned, even by the church, and you need not confine yourself to our own profession, for the proof, that the bible has been the undersigning weapon, to attack all such intenders. Look to all the other great professions of the day, each can show a pregnant catalogue of benefactors, that have experienced this persecution.

It is to be hoped that with the march of civilization that barbaric custom of misconstruing the beacon light of hope for this world, will cease.

Now let us glance at the enormous

religious objections that the enemies of anaesthesia have urged. They do not attack the use of this remedy, in surgery, with the same vehemence as in midwifery, for the simple reason, that against the latter, as they think, they find a command in the bible, which says 'In 'Dorrow,' shall she bring forth, this they take as their text and will preach until silenced by reason.

If they are allowed to call from holy writ their evidence, the defendants must be allowed the same privilege, and will take the text that they have chosen. We can meet them on their own ground, so there can be no charge of foul play.

Mr Simpson, has proved it very

clear to my mind, that the translators made a slight mistake when they said "Sorrow," for the word as in the original means "Labor," and as a stronger proof of the truth of the inaccuracy of the translation, we find nations of the earth, that for the women to bear children, is labor and is not sorrow, or is not pain, which is the meaning they attach to the word sorrow. Look at our own Indians, or at the blacks of Africa and others, that to bear children is not sorrow, in their sense of the word, because there is no pain attending the birth of the child, and even if the bible be translated correctly, and their construction proper, we could prove by the nations above



cited, that the sorrow or pain with them did not result from the bed of labor, but from their anxiety and fears for the safety of their offspring, because that must be the source of their sorrow, if any there be, for there is no pain, therefore if properly translated, their construction, will not in all cases hold as an argument against anaesthesia.

To use an inquiry made by a former writer, I can not see, why it is, that they object to its use, because, before its effects could be fully produced, they the ones, that now object to it, tried to relieve the mother as much as the sufferer from the surgeons knife, but now that they can



accomplish fully what was before their object, they draw back in holy horror and say the bible forbids, let them read the fourth chapter of James where it says, Therefore to him that knoweth to do good and doeth it not, to him it is sin. Now if these object<sup>ors</sup>~~ants~~ are true believers of the bible, I ask? which is it best for them to obey, a command about which there is a doubt, or one that is plain and unmistakable.

And as a final refutation of these religious I would say, that if His decree concerning women had been intended as it is construed, Man with his feeble power could never have changed it—

And proof conclusive, that He intended we should use the remedy. He gave it to us, and we can say, that He not only gave it to us, but set us the example, by anaesthetising Adam, when from his side, He took Mother Eve.

And as a last proof, that our Spaker never intended that sentence, as they have construed it, is, that this power relieves the woman of that awful mental anxiety that precedes Childbed, and then, the only left, is occasioned by the training of her child, which God in his wisdom knew to be enough.

The remaining objection is the

one that I have answered in the first chapter, and the difficulty of a safe agent. The last I will speak of under its proper head.

#### CHAPTER IV.

### Anaesthesia its advantages.

Independent of those I have mentioned, the following, constitute a small division of the remainder.

In operations, it prevents the severe mental shock that in some instances compels the surgeon to defer from the time appointed, probably at the inconvenience of both operator and assistants, and Miller contends that it decidedly lessens the corporal shock. And then, there are operations, that without anaesthesia could not



## Anaesthesia its advantages 19

be safely performed, such as tumors in the region of arteries, where it is absolutely necessary the patient should be quiet, and to be still, without this agent is nearly an impossibility with every man, and then again, there are persons who will violently resist a surgeon, where if you use this agent, the same being is as passive as a lamb. The surgeon need not as formerly, be in an unnecessary hurry, on account of the patients suffering, but perform the task, better to the comfort of his patient and to his own reputation. And again, in a great many operations, the aid to the operator, independent of the stillness, and the want of pain,

*Anaesthesia, its advantages—*

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is invaluable, in hernia for instance, it proves the best of assistants, and equally as much so, in dislocated joints, and strictures, and in sounding for stone, it can be done much more accurately. And again, you will find, that women, who have been in this state, during child-birth, and have had children without its aid, generally give as their evidence, that when under its effects during labor, they did not feel half so much reduced afterwards, as when they were without it, proving Mr Miller's assertion, that it lessened the corporal shock. I could continue these proofs ad infinitum, but space demands, the other

divisions of any subject should have a hearing.

### Chapter IV.

Chloroform the best agent, its history and composition.

The agents for producing anaesthesia at the present day, are numerous, but none of them can compare with "Chloroform", like the evening star although surrounded by numerous others, flashes forth its brilliant rays unequalled.

Other agents had their admirers, and advocates, but I believe they have come over in-mäße I would that I could find an advocate of something else, then I could set forth the advantages of my favourite, by answering his objections. But no one, that is well acquainted with it, could



Chloroform the best agent its history and composition ~

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have an objection, its effects, are so quick so perfect and depart so suddenly when wished, it really seems perfection improved.

The History of Chloroform can be given in a few words, it was first discovered by Oen Guthrie of Sacketts Harbor New York, (in 1830) and nearly at the same time by Souberian (in 1831) and Liebig (in 1832) So it will be seen, that our own country can claim the glory of this discovery.

Its composition was first accurately ascertained, about the same time, by the distinguished French Chemist Dumas and by Peligot (in 1835.)

To Simpson of Edinburgh.

Chloroform the best agent its history and composition —

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belongs the honor of discovering its  
anaesthetic power (in 1847) and he  
well earned the honor, for he toil'd  
night and day sparing neither expense  
time or danger to forward his object,  
by trying the inhalation of a variety  
of volatile fluids, by so doing, run-  
ning no small risk of his own life.

To him, is suffering humanity  
indebted for this great boon, and every  
stroke of the surgeons knife, that's  
made in silence should ascend to  
heaven, as a prayer for his welfare.

Every human, that now undergoes  
an operation, should afterwards in  
gratitude, never think of Simpson's  
name, or of the agent with which it  
is coupled, and with which it will

descend to prostraty, crowned with a double diadem of gratitude, wrought from the overflowing of a world of hearts without giving thanks for his energy and prayers for his happiness.

"Chloroform is a dense, limpid, colorless liquid, readily evaporating, and possessing an agreeable, fragrant, fruit like odor and a saccharine pleasant taste."

The article is now prepared by the action of chloride of lime upon alcohol or pyroxylic spirit.

It consists of one atom of formyle and three of chlorine, hence its chemical formula is  $C_2 H Cl_3$ ; or  $FO Cl_3$ .

Its specific gravity is much



greater than that of water, being as high as 1-480. It boils at  $141^{\circ}$ .

The density of its vapor is 4-2. It is difficult to ignite, but burns with a green flame.

### Chapter VIII.

Chloroform, its impurities and tests of its purity

Since this agent has commenced to be generally used, heartless and we must say in extenuation of their crime, ignorant speculators, have palmed upon the no less ignorant public, articles of the proper name, but any thing else but the proper material, for this reason I deem it proper to give a few tests of its purity and impurities.

Chloroform when pure should have a pleasant ethereal odor and a

warm sweet taste. It should not be blackened by oil of vitriol and when dissolved in alcohol, it should <sup>not</sup> precipitate a solution of nitrate of silver.

Sometimes our Apothecaries sell a redistillation of Chloric Ether, for this article, which is attended with as much excitement, if not more than Dub. Ether.

Soubertian tests the purity of this article, by ascertaining whether it will sink in a mixture of equal parts of concentrated sulphuric acid and water. Kepler says that when it is agitated with the above test liquid it does not diminish in volume, while that which contains alcohol decreases.

Mialhe, says, that the pure article remains transparent when poured into water, while that which contains alcohol becomes opalescent.

According to Gattel, that which contains alcohol is colored green by chromic acid, or by bichromate of potassa and sulphuric acid, while the pure article remains unaffected by the treatment.

The more pure the article, the more bland and speedy its influence. When impure, irritation seems to be produced in the air passages, the patient coughs and shows by actions that he is unwilling to inspire the vapour, when becoming stupid, muscular



## Chloroform: its impurities and tests of its purity.

excitement is apt to be troublesome, and a tendency to talk may be very marked. After recovery there is sickness, probably vomiting, and the nausea is likely to prove of prolonged duration. The symptoms, from the pure article, are exactly the contrary. When the article is not pure "Chlorinated Pyrogenous oil" is found in it. Some has chlorine in it, in such quantities that it cannot be inhaled. The most injurious impurities are the chlorinated pyrogenous oils. It is an oleaginous yellow liquid, lighter than water and having a peculiar nauseous empyreumatic odor. In commercial chloroform it sometimes,

presents to the amount of six per cent. that is the oil obtained from the methylic chloroform, by Sawberian and Uialhe, it is easily set on fire and burns with a smoky flame, chlorine being among the products of its combustion. The oil obtained from normal chloroform, which contains it only in the amount of about one fifth of one per cent, is essentially different from the methylic chloroform oil.

It is heavier than water and has an acid, penetrating odor, unlike that of the other oil.

When the vapor of the oil is inhaled or even smelt, it causes according to Dr Gregory, disteeping

sickness and headache. These oils are detected by the action of pure and strong sulphuric acid. Pure chloroform when mixed with an equal volume of the acid, does not color it, but when contaminated with these oils, gives the acid a reddish brown or yellow color, according to the amount of impurities present.

Dr Gregory says that a better test is to pour the article upon the hand, and if there by any oil present it will be recognized, by its offensive odor, after the chloroform has evaporated.

Dr C. F. Jackson, the Apayer to the State of Mass. and to the city of Boston, says that the cause



of so many deaths lately by Chloroform, is, that, a great deal of the commercial article, is manufactured with the common whiskey, the Fusel oil of which it contains, when inhaled, may produce fatal results.

Dr Cartwright denies that there is any such probability, on account of the insignificant amount that would be inhaled.

There is a pretty strong reason to believe, that there must be some truth in Dr Jackson's statement, for this reason, in the city of Edinburgh, where it is manufactured with pure rectified alcohol, there has never occurred a single fatal

Chloroform, its mode of administration,  
 case, and where in this country and  
 in England, it is manufactured  
 often with the common whiskey,  
 we have deaths, I know not wheth-  
 er this be owing to the fusel oil,  
 of our chloroform, or not, but the  
 fact is certainly worthy of in-  
 vestigation. These tests are suf-  
 ficient, to give any, the means of  
 detecting an impure article.

They are all to be relied upon,  
 as they are selected from the best  
 and ablest ~~the~~ authors.

*Chapter VII.*

Chloroform, its mode of administration

The rules for the administration  
 of chloroform, are so easy and  
 simple, that it is only necessary

Chloroform, its mode of administration,  
to read them once attentively, to  
be perfect.

The article should be adminis-  
tered in the horizontal position,  
as there is less muscular excite-  
ment. The proper way to inhale  
the chloroform, is upon a pocket  
square handkerchief made into a nest  
like form. This must be held a  
few lines from the mouth, for two  
reasons, one that it may not blis-  
ter the lips, and a second and more  
important, that it may not destroy  
life, by excluding atmospheric air,  
as the chloroform contains no oxy-  
gen, and that is absolutely essential  
to life. Do not measure the a-  
mount of liquid used, any more



Chloroform, its mode of administration.

than you would the amount of blood taken, give until the patient is entirely under its effects before commencing the operation.

This article should be given by a person, who understands what he is about, for when administered by an ignorant man it is dangerous.

After you have commenced giving the chloroform, continue carefully, not minding any movement the patient may make, for just as he is coming under its influence, muscular excitement to a greater or less extent, develops itself. I have seen timid operators, desist and wait until the patient recovered, and then commence again

Chloroform, its mode of administration and finally give it up, by saying that he was not a proper subject for its administration, when in reality he was not a proper person to administer it. It should not be administered upon a full stomach, as it is then more prone to produce vomiting, if the patient vomits the head should be raised and turned to one side, so as to allow the free egress of the contents of the stomach; if this is not done, the glottis may become impacted and asphyxia must inevitably result.

Mr Gibson says, that it is very important to be able to tell easily when the stage of safety (sopor) is about to merge into that

Chloroform, its mode of administration, of danger (Coma). The action of the pupils is the key to this knowledge

Inhalation should not be continued one instant after the pupils previously contracted, have begun to dilate. If unconsciousness can be secured by sopor, the inhalation should not be carried on to produce coma. If complete muscular relaxation be sought for, as in hernia, to facilitate taxis; in dislocation, to make reduction easy; and in tetanus, then it will be needful, in general, to urge the patient from sopor into coma; but as soon as the muscular relaxation is secured, the inhalation should cease.

When chloroform is employed in



Chloroform, its mode of administration  
 Apnoea, delirium tremens or other  
 affections, it should never be urged  
 beyond sopor. In neuralgia it is  
 not usually needful to produce  
 unconsciousness. Whenever the pain  
 disappears the inhalation ought  
 to cease."

According to Dr Snow, a neces-  
 sary precaution for watching the  
 effects of chloroform is, that it pos-  
 sesses an accumulative property;  
 its influence sometimes increasing  
 (This statement, I think is incor-  
 rect) for twenty seconds after the  
 inhalation is discontinued.

"It is seldom necessary to carry  
 the process further than the pro-  
 duction of sopor; in this dreamy

Chloroform, its mode of administration.  
state insensibility to pain is perfect, and in some persons much earlier."

"The Physician in using this vapor should bear in mind that he is administering an agent of great power, of which he must carefully observe the effect; for the life of the patient is in his hands.

In some constitutions six or seven inspirations of chloroform have produced complete insensibility, and we should always be on our guard lest alarming symptoms suddenly supervene. These are marked by suspended respiration; livid skin; widely dilated pupils; the eyes fixed, and the iris immovable. The patient

Chloroform, its mode of administration, should be immediately laid upon the floor, cold water dashed upon the face, and the vapor of ammonia applied to the nostrils. These will generally restore animation; if, however, respiration has entirely ceased, it will be necessary to bring it about by artificial means. The abstraction of a few ounces of blood from the arm, or from the jugular vein, will also assist the renewal of the hearts action, by relieving distension."

Dr Cartwright, says, that chloroform should never be administered upon a sponge, for this reason, when it has been previously wet with water, the gluten of the sponge is dissolved and chloroform



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Chloroform, its mode of administration alone will not act upon it. Hence, when poured on wet sponge, a sufficient portion of the glutinous matter may be carried by the vapor into the smaller ramifications of the air conduits, to close the door upon the air cells, and to prevent the extrication of carbonic acid after the inhalation is suspended.

If these directions are followed, all patients will come under its influence, and as a rule, if pure chloroform, be used, no harm result.

It may be well to state here that it has lately been discovered by Mr T. Furneley, of Leeds, that local anaesthesia may be caused by chloroform; and that the brain

Refutation of the argument, that Chloroform is an unsafe agent —  
 and other parts of the body not  
 subjected to its influence remain  
 unaffected. "After an extensive se-  
 ries of experiments on different an-  
 imals, he finds that by immersion  
 in a small quantity of the fluid,  
 or by applying the vapor locally for  
 a limited period, a limb may  
 be rendered perfectly motionless and  
 senseless, and, what may be an ad-  
 ditional advantage, fixed in any  
 desired position. The benefits  
 likely to be derived from this new  
 and valuable discovery promise to  
 be very great."

Chapter VIII.

Refutation of the argument that Chloroform is an unsafe agent —  
 Before entering upon this chapter

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Refutation of the argument, that Chloroform is an unsafe agent -

I think it is best to state, that all authors, agree, that it is hazardous to use any anaesthetic agent in certain conditions, for instance, any disease of the heart, or a tendency to engorgement of <sup>the</sup> lungs, &c.

Dr. Morton says, that the existence of extreme debility is not always a contra-indication; for, acting as a stimulant, the inhaled vapor seems to possess a sustaining power, and has been successfully used in a state of great collapse, as well as for its sedative influence in low cases of typhus fever.

In the beginning, I admit, that when handled by an incompetent person, the article is dangerous, but



Refutation of the argument that Chloroform is an unsafe agent—

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when administered by one that understands his business, it is safer by far than many of the Materia Medica. Look at the ten thousand cases in which it was administered in St Bartholomews Hospital, look at the innumerable number of cases in which it has been administered in Edinburgh, since their renowned townsman discovered its anaesthetic powers, not one death, look at its general and abused use in the United States, and you will find but few, nearly all of which, I believe can have a satisfactory cause assigned. It is not at all astonishing, that ten or a dozen, or more have been killed in this

Reputation of the argument, that Chloroform is an unsafe agent —

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country, it is only so, that there has not been hundreds, for we find — Dentists that hardly know the composition of the article, that administer it freely, and we have learned Physicians that from their mode of administering it, I should judge knew little more, and then we have others, that have never tried it, who condemn, simply because, one man in fifty thousand, by an indiscriminate use of the agent was destroyed.

To prove that in a majority of cases, where it has proved fatal, that it was abused, is an easy matter, for you will admit, if it, was not, administered by a proper person, it was abused, and I can prove, if a

Refutation of the argument that Chloroform is an unsafe agent -  
man does understand his business, no matter if the effects of the chloroform, does border on hazardous syncope, he can easily resuscitate his patient, by following the directions laid down by Dr Ricord and Dr Escallier, who say, to arrest the fatal effects of chloroform, force inspiration and expiration, either by blowing into the mouth, or by thrusting two fingers deep into the throat, even to the entrance of the larynx and oesophagus, sudden expiration ensues and recovery follows.

I have noticed one case, that was reported in a journal, where the fellow says, when he fainted



Refutation of the argument that Chloroform is an unsafe agent -

46.

I attempted to resuscitate him, by giving brandy and the other usual remedies. Giving him brandy - the ignoramus ought to have been arraigned for mal practice.

Brandy, nor any other internal restorative, should be used, because, the patient, has no power to swallow, and the fluid is as apt to go into the lungs as the gullet, and as there is no expectorating powers, death must be the inevitable consequence.

Some contend, that in a small quantity, the article is safe, and in a large one otherwise, I have found no author except Mr Spitchell, who gives

Refutation of the argument that Chloroform is an unsafe agent—

the quantities, he says that if a drachm or two be inhaled, fatal results may occur, as to that, fatal results ('Glay') occur from any and everything, and on the contrary, Mr Miller says, In evidence of the great extent to which the inhalation of Chloroform may be carried, with safety to life, I may mention that a patient afflicted with intense neuralgia, and accustomed to use chloroform as an anaesthetic during the paroxysms, lately consumed thirty-two ounces, within twenty four hours; and the only evil of this over dose (for an excess it certainly must be considered) was a degree

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Reputation of the argument, that Chloroform, is an unsafe agent—  
of nausea, which the patient did  
not shake off for some days.

Another patient, an elderly  
female, had undergone spon-  
taneous amputation of the leg, by  
chronic gangrene. The stump proved  
a very bad one; and she suf-  
fered greatly from neuralgia. Her  
life became a burden to her; and  
she almost literally lived on  
chloroform. Reluctantly, she  
submitted to a second ampu-  
tation; and the result proved  
most successful. She is now  
free both from the pain, and  
from the slavish hold which  
the drug had obtained over her.  
The weaning from the latter,



Refutation of the argument that chloroform is an unsafe agent -  
 however, required to be gradual, as  
 can readily be understood. During  
 its use, she consumed five  
 hundred and forty seven (547)  
 fluid ounces; and yet, this day,  
 she is a hale hearty woman of  
 her years.

I myself, have seen, not a  
 few cases, where two and three oun-  
 ces, were used without any bad  
 effects, and as to its proving fa-  
 tal, all conjectures about chlo-  
 roform are unnecessary, for in  
 spite of all arguments, it is bound  
 to stand, as one of the first and  
 best articles of the Materia Medica,  
 for compare it, with some of the  
 best remedies we have, opium, for

Refutation of the argument that Chloroform is an unusual agent -  
 instance, and see if its death-  
 calendar, does not prove clear, by  
 the side of the very remedy, that  
 these opponents of Chloroform,  
 hug to their hearts, as one of the  
 Physicians best friends.

Chloroform, like all other  
 remedies, can be  
 used and abused.

By  
 Felix Gundy  
 of Sarock.